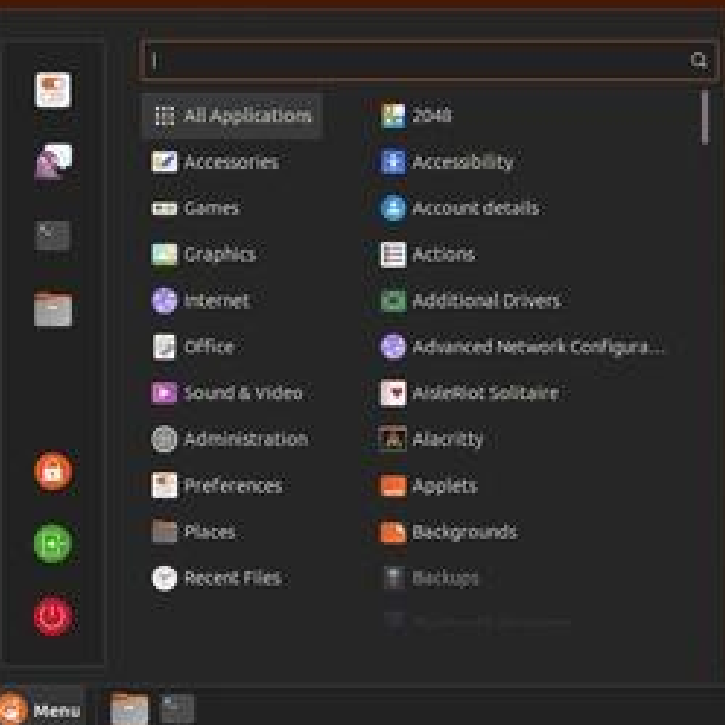




Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

ISSUE #213 - January 2025

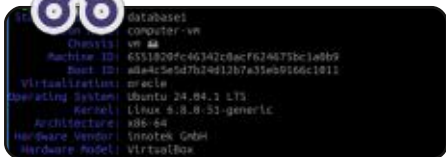


EN Wednesday November 6, 11

UBUNTU 24.10 CINNAMON AND MATE REVIEWS

Full Circle Magazine is neither affiliated with, nor endorsed by, Canonical Ltd.

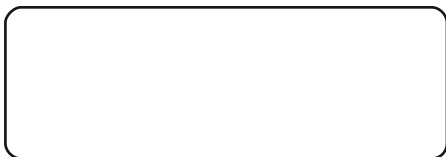
HowTo



Learn About p.21



Trading Up p.23



Latex p.26



... p.XX



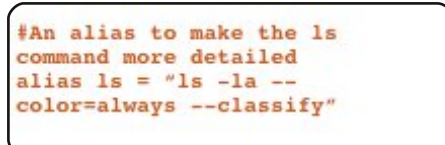
Inkscape p.30

Graphics



Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY



Command & Conquer p.19



... p.XX



Linux News p.04



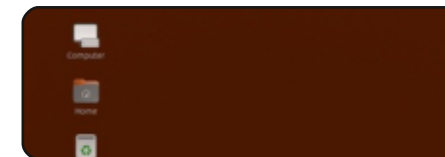
... p.XX



Ubuntu Devices p.36



The Daily Waddle p.34



Review p.46



My Opinion p.39



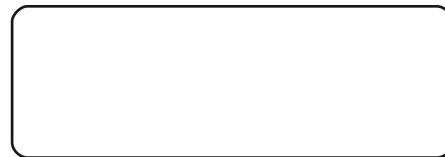
Letters p.XX



Review p.42



Q&A p.51



... p.XX



Ubuntu Games p.54



The articles contained in this magazine are released under the Creative Commons Attribution-Share Alike 3.0 Unported license. This means you can adapt, copy, distribute and transmit the articles but only under the following conditions: you must attribute the work to the original author in some way (at least a name, email or URL) and to this magazine by name ('Full Circle Magazine') and the URL www.fullcirclemagazine.org (but not attribute the article(s) in any way that suggests that they endorse you or your use of the work). If you alter, transform, or build upon this work, you must distribute the resulting work under the same, similar or a compatible license.

Full Circle magazine is entirely independent of Canonical, the sponsor of the Ubuntu projects, and the views and opinions in the magazine should in no way be assumed to have Canonical endorsement.



WELCOME TO THE LATEST ISSUE OF FULL CIRCLE

We bring in 2025 with Latex, the start of two new series' and Inkscape. Articles are still sparse around here, so if you have **any** articles you can spare, now is your chance: ronnie@fullcirclemagazine.org.

Adam is reviewing Ubuntu 24.10. Again? Sort of. This time he's looking at it with different desktops; cinnamon and MATE.

In more important (good!) news: Erik has returned. Yes... the man, the legend and now the breakfast cereal has (somewhat) settled down enough to start writing again.

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 for 2025!

Ronnie

ronnie@fullcirclemagazine.org



This magazine was created using :



Find Full Circle on:



facebook.com/fullcirclemagazine



twitter.com/#!/fullcirclemag



<https://mastodon.social/@fullcirclemagazine>

Weekly News:



<https://fullcirclemagazine.org/podcasts/index.xml>



<https://open.spotify.com/show/6JhPBfSm6cLEhGSbYsGarP>



<https://www.youtube.com/playlist?list=PLnv0U8wOzXu487qi5I2Isf-rQjEyKPAif>

FCM PATREON: <https://www.patreon.com/fullcirclemagazine>



NEWS

Submitted by ErikTheUnready

BUDGIE 10.10 WILL ONLY RETAIN WAYLAND SUPPORT:

07/01/2025

The annual report on the development of the Budgie desktop environment has been published, in which, in addition to the achievements for 2024, plans for 2025 are mentioned. Work in 2024 was focused on the development of a session using the Wayland protocol, the development of the Magpie composite manager, the creation of the Budgie Daemon v2 control process and its porting to Qt6. In the next release of Budgie 10.10, which is intended to be published during the first quarter of 2025, it was decided to completely abandon support for X11 and leave only the ability to work in environments

based on the Wayland protocol. In the Budgie git repository, the complete transition to Wayland was completed in July 2024.

The tasks that need to be completed before the release of Budgie 10.10 include achieving parity in the functionality of applets with the old X11-based environment, finalizing MenuManager, and stabilizing the new interface for configuring screen settings. Packages with Budgie 10.10 are planned to be included in the fall releases of Fedora 43 and Ubuntu 25.10. After the release of Budgie 10.10, the 10.x branch will be transferred to maintenance mode, in which only bug fixes are allowed. In the future, all resources will be thrown into the development of the Budgie 11

branch, notable for separating the desktop functionality from the layer that provides visualization and output of information.

<https://buddiesofbudgie.org/blog/state-of-the-budgie-2024>

RELEASE OF FHEROES2 1.1.5:

08/01/2025

Still going strong with lots of development is the fheroes2 1.1.5, which recreates the Heroes of Might and Magic II game engine from scratch. The project code is written in C++ and is distributed under the GPLv2 license. To run the game, you need files with game resources, which can be obtained from the original Heroes of Might

and Magic II. The project includes a script for automatically downloading and extracting resources from the demo version of the game, which are enough for full operation.

<https://github.com/iithub/fheroes2/releases/tag/1.1.5>

ALMALINUX KITTEN 10 UPDATE:

08/01/2025

The AlmaLinux project has released an update Kitten 10, based on CentOS Stream 10, which is used as the basis for the upcoming release of Red Hat Enterprise Linux 10. Kitten 10 is presented as a test distribution that allows you to get acquainted with the capabilities being developed for RHEL 10, and complements CentOS Stream with its own changes. The installation builds of the distribution are formed for x86_64, x86_64_v2, aarch64, ppc64le and s390x architectures.



DistroWatch.com

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

The Kitten repository uses a rolling release model, with installation builds updated every three months. The Kitten repositories act as an upstream for the AlmaLinux 10 branch - fixes and new features are first tested in the Kitten repositories and then pushed to AlmaLinux. The Kitten repositories also act as a platform for integration and collaboration with upstream projects such as CentOS Stream and Fedora. The new build marks the move to the Linux 6.12 kernel and the addition of packages with Qt 6.8, allowing the use of KDE from the EPEL repository.

<https://almalinux.org/blog/2025-01-07-almalinux-os-kitten-10-updates/>

SEAMONKEY 2.5 SUITE 3.20 RELEASED:

08/01/2025

The SeaMonkey 2.53.20 suite of Internet applications has been released. It combines a web browser, mail client, NNTP conference client, news feed aggregation system (RSS/Atom) and WYSIWYG HTML page editor

Composer in one product. The ChatZilla IRC client, DOM Inspector set of web developer tools and Lightning calendar-scheduler are offered as pre-installed add-ons. The new release includes fixes and changes from the current Firefox code base (SeaMonkey 2.53 is based on the Firefox 60.8 browser engine with porting of security-related fixes and some improvements from the current Firefox branches).

Version 2.53.20 introduces a new implementation of the bookmark manager based on the Firefox Library interface. The configurator now includes an interface for setting the colour scheme, changing the `browser.display.prefers_color_scheme` parameter. The installer now registers MIME types processed by SeaMonkey in the system.

A major cleanup of the ChatZilla IRC client codebase was performed and the identified shortcomings were fixed. For example, instead of the `arrayContains`, `arrayIndexOf`, `arrayRemoveAt` and `arrayInsertA` handlers, ChatZilla uses the standard `Array` object, instead of the `stringTrim` handler - the `Trim` method from the JavaScript String

object, instead of the `fopen` handler - the `LocalFile` API. Problems with using the IRC protocol over TLS were resolved.

<https://blog.seamonkey-project.org/2025/01/07/seamonkey-2-53-20-is-out/>

ORANGEPI NEO GAMING CONSOLE COMES WITH MANJARO LINUX:

08/01/2025

The OrangePi Neo gaming console, jointly developed by Orange Pi and the Manjaro Linux distribution developer community, is scheduled to go on sale in Q1 2025. The device is equipped with a 7-inch screen (1920 x 1200, 120Hz), AMD Ryzen 7 7840U or 8840U CPU, 16GB or 32GB of RAM, 512GB to 2TB NVMe SSD, two USB 4.0 ports, a 3.5mm sound port, a TF card slot, a touchpad, Wi-Fi 6E, Bluetooth 5.3, 2-watt speakers, a Hall Rocker joystick, and RGB backlighting. Dimensions are 259mm x 107mm x 19.9mm.

The device will run an atomically updated Manjaro Gaming Edition distribution as its operating system.

The Gamescope composite server based on the Wayland protocol is used for rendering. The interface for managing the device and launching games is built on the OpenGamepadUI shell, which runs on top of the Godot game engine. Interaction with input devices is built on the InputPlumber background process.

To launch games from the Steam catalog, the Steam Client is included in the package. Compatibility with games compiled for Windows is achieved using Proton. In addition to a specialized shell, the ability to use a full-fledged KDE Plasma 6.2 desktop environment will be provided.

The console with an AMD Ryzen 7 7840U processor, 16 GB of RAM and 512 GB of SDD will cost \$499, while the version with an AMD Ryzen 7 8840U processor will cost \$100 more.

<https://neo.manjaro.org/>

SCRIBUS 1.6.3 UPDATE:

09/01/2025

The free document layout package Scribus 1.6.3 has been released. The package provides tools for professional layout of printed materials, includes tools for generating PDF's and supports working with separate colour profiles, CMYK, spot colours and ICC. The program is written using the Qt toolkit and is licensed under the GPLv2+ license. Ready-made binary assemblies are prepared for Linux (ApplImage), macOS and Windows.

The new version improves import of images with the CMYK colour model. New functions for converting units of measurement and text styling are offered for automation scripts. Image export quality settings have been improved. GUI bugs have been fixed and problems with opening and generating PDF, shortcuts, external storage detection, image update function, and rollback of changes have been corrected. They added support for building with new versions of the poppler library .

In parallel, the experimental

branch Scribus 1.7 is being developed, which includes porting to Qt 6, converting icons to SVG format, adding a new palette implementation, and offering a new system of dockable panels.

<https://www.scribus.net/scribus-1-6-3-released/>

TAILS 6.11 RELEASE WITH FIXES FOR ISSUES IDENTIFIED BY SECURITY AUDIT:

09/01/2025

The release of the specialized distribution Tails 6.11 (The Amnesic Incognito Live System), developed as part of the Tor project, is presented. The distribution is based on Debian 12, comes with the GNOME 43 desktop and is designed for anonymous network access using the Tor toolkit. All connections, except for traffic through the Tor network, are blocked by default by the packet filter. Encryption is used to store user data in the mode of saving user data between launches. An iso image capable of working in Live mode, 1 GB in size, has been prepared for downloading.

The new version fixes vulnerabilities identified during an external security audit. To exploit these vulnerabilities, an attacker must gain access to the local environment, for example, by exploiting an unpatched vulnerability in one of the applications.

<https://tails.net/news/version-6.11/index.en.html>

JANUARY RELEASE OF OPENSUSE SLOWROLL:

09/01/2025

The openSUSE project developers have released the January update of the experimental openSUSE Slowroll distribution, which develops a modified version of the continuously updated openSUSE Tumbleweed distribution, that is additionally stabilized for users who do not want to wait for the conservative openSUSE Leap release, but are concerned about stability issues due to insufficient testing of new versions of programs.

openSUSE Slowroll can be

considered as an intermediate option between openSUSE Tumbleweed and openSUSE Leap, allowing access to fresh versions of programs after passing an additional stabilization stage. Compared to Tumbleweed, packages get to the Slowroll repository with a 5-10 day delay for stabilization. Unlike openSUSE Leap, system components are formed not on the basis of conservative releases of SUSE Enterprise Linux, but using a fresh package base.

Changes in the January release of openSUSE Slowroll include the inclusion of advanced features to ensure repeatable package builds. Bug fixes related to improved dependency handling, parallel builds, and race conditions in large packages such as Python and Qt have been backported. Package versions have been updated to: Linux kernel 6.12.6, Xfce 4.20, KDE Gears 24.12, KDE Frameworks 6.9.0, QEMU 9.2.0, SQLite 3.47.2, Flatpak 1.15.12, systemd 256.10, LLVM 19.1.6, GStreamer 1.24.10, vim 9.1.0908, and AppStream 1.0.4. GPG has been updated to version 2.5.2 with the ability to generate ECC+Kyber keys and improved smartcard support.

<https://news.opensuse.org/2025/01/09/ny-starts-with-slowroll-vb/>

FIFTH ALPHA RELEASE OF THE COSMIC DESKTOP

ENVIRONMENT:

10/01/2025

System76, the developer of the Linux distribution Pop!_OS, has released the fifth alpha version of the COSMIC desktop environment, written in Rust (not to be confused with the old COSMIC, which was based on GNOME Shell). ISO images with the latest version of COSMIC, built on top of alpha builds of the future Pop!_OS 24.04 distribution for systems with NVIDIA (2.9 GB) and Intel/AMD (2.5 GB) GPUs, are available for testing. Ready-made packages for Fedora, NixOS, Arch Linux, openSUSE, Serpent OS, Redox and CachyOS are also being created.

COSMIC is being developed as a universal project, not tied to a specific distribution and corresponding to the Freedesktop specifications. To build the

interface, COSMIC uses the Iced library, which uses safe types, a modular architecture and a reactive programming model, and also offers an architecture familiar to developers familiar with the Elm declarative interface language. Several rendering engines are provided, supporting Vulkan, Metal, DX12, OpenGL 2.1+ and OpenGL ES 2.0+. Developers are offered a ready-made set of widgets, the ability to create asynchronous handlers and use adaptive layout of interface elements depending on the window and screen size.

In addition to using the Rust language, COSMIC features include hybrid window tiling and stacked window pinning (window grouping similar to browser tabs), which can be enabled in conjunction with virtual desktops. The project is also developing a Wayland-based cosmic-comp composite server. The first stable release of COSMIC is scheduled for Q1 2025.

<https://blog.system76.com/post/cosmic-alpha-5-released>

DEBIAN 12.9 RELEASED:

11/01/2025

The ninth corrective update of the Debian 12 distribution has been generated, which includes accumulated package updates and fixes to the installer. The release includes 72 updates with fixes for stability issues and 38 updates with fixes for vulnerabilities.

Among the changes in Debian 12.9, we can note the update to the latest stable versions of the ansible, intel-microcode, nvidia-graphics-drivers, qemu, systemd, tzdata packages. The criu packages (problems with assembly on the arm64 architecture) and tk-html3 (main project maintenance has ceased) have been removed.

For downloading and installing "from scratch" installation builds of Debian 12.9 are prepared. Systems installed earlier and maintained in the current state receive updates present in Debian 12.9 through the standard update installation system. Security fixes included in new Debian releases are available to users as updates are released through the security.debian.org service.

<https://www.debian.org/News/2025/20250111>

RELEASE OF ENLIGHTENMENT 0.27 AND EFL 1.28 LIBRARIES:

12/01/2025

After a year of development, the Enlightenment 0.27 user environment was released, which is based on the EFL (Enlightenment Foundation Library) set of libraries and Elementary widgets. The release is available in source code without publishing ready builds. The list of changes for the 0.27 release is not formed, only the list of commits are available, which mainly lists bug fixes and minor improvements in widgets.

The desktop in Enlightenment is formed by components such as a file manager, a set of widgets, an application launcher, and graphical configurators. Graphic configurators provide both high-level customization tools (changing the design, setting up virtual desktops, managing fonts, screen resolution, keyboard layout,

localization, etc.) and low-level tuning capabilities (for example, you can configure caching parameters, graphic acceleration, power consumption, change the logic of the window manager).

To expand functionality, they suggest that one use modules (gadgets), and to redesign the appearance - design themes. Modules are available for displaying a calendar-planner, weather forecast, monitoring data, volume control, and a widget for assessing the battery charge on the desktop. The components of Enlightenment are not strictly tied to each other and can be used in other projects or to create specialized environments, such as shells for mobile devices.

The required dependencies include EFL, libexif, and libpam (Linux only). The recommended dependencies for full functionality include: connman for network configuration; bluez5 for working with Bluetooth; bc for the built-in calculator; pulseaudio for managing sound devices; acpid for handling various hardware events; packagekit for tracking system updates; udisks2 for mounting external drives; ddcutil for managing the screen backlight; gdb

for tracing crashes.

<https://www.enlightenment.org/news/2025-01-11-enlightenment-0.27.0>

LINUS TORVALDS TO GIVE AWAY A GUITAR PEDAL OF HIS OWN DESIGN AMONG KERNEL DEVELOPERS:

13/01/2025

Linus Torvalds announced the seventh release candidate of the Linux kernel 6.13 and in the afterword offered to send a guitar pedal he had personally built to one of the kernel developers. Linus noted that he has a hobby - soldering small electronic devices, not too complicated, but not very simple either.

Pedals for applying effects while playing an electric guitar are ideal for this hobby, but Linus does not play guitar, and there is no point in keeping the assembled devices for himself. He has already given away the previously assembled pedals to his friends and now decided to send his product as a gift to one of the kernel developers. The recipient of

the pedal will be chosen randomly.

To enter the giveaway, send Linus an email with the message "I want a guitar pedal" and choose a commercially available pedal assembly kit. Linus will purchase the chosen kit at his own expense, assemble it, and mail it to you. Applications are only accepted from kernel developers whose email addresses are mentioned in commits accepted into the kernel in 2024.

<https://lkml.org/lkml/2025/1/12/429>

MX LINUX 23.5 RELEASED:

14/01/2025

The lightweight MX Linux 23.5 distribution has been released. It was created as a result of the collaboration between the communities formed around the antiX and MEPIS projects. The release is based on Debiana with improvements from the antiX project and packages from its own repository. The distribution uses the sysVinit initialization system and its own tools for configuring and deploying the system. 32- and

64-bit builds with the XFCE desktop (2.4 GB), as well as 64-bit builds with the KDE desktop (2.7 GB) and builds with the Fluxbox (1.8 GB) window manager are available for download.

<https://mxlinux.org/blog/mx-23-5-now-available/>

OPENZFS 2.3.0 RELEASE:

14/01/2025

After more than a year of development, the OpenZFS 2.3.0 project has been released. The project develops the ZFS file system implementation for Linux and FreeBSD. The project became known as "ZFS on Linux" and was previously limited to developing a module for the Linux kernel, but after merging with the code from FreeBSD, it was recognized as the main implementation of OpenZFS and renamed.

OpenZFS has been tested with Linux kernels from 4.18 to 6.12 and all FreeBSD branches starting with 13.3. The code is distributed under the free CDDL license. OpenZFS is already used in FreeBSD and is included in Debian, Ubuntu,

Gentoo, NixOS and ALT Linux distributions. Packages with this new version will soon be prepared for the main Linux distributions, including Debian, Ubuntu, Fedora, RHEL/CentOS.

OpenZFS provides an implementation of ZFS components related to both the file system and the volume manager. The implemented components are: SPA (Storage Pool Allocator), DMU (Data Management Unit), ZVOL (ZFS Emulated Volume) and ZPL (ZFS POSIX Layer). The project also allows using ZFS as a backend for the Lustre cluster file system. OpenZFS developments are based on the original ZFS code imported from the OpenSolaris project and extended with improvements and fixes from the Illumos community. The project is being developed with the participation of Lawrence Livermore National Laboratory employees under a contract with the US Department of Energy.

The code is distributed under the free CDDL license, which is incompatible with GPLv2, which prevents OpenZFS from being integrated into the main Linux kernel branch, since mixing code under GPLv2 and CDDL licenses not

compatible. To circumvent the license incompatibility, it was decided to distribute the product for Linux entirely under the CDDL license as a separately loadable module, delivered separately from the kernel. The stability of the OpenZFS code base is estimated to be comparable to other file systems for Linux.

<https://github.com/openzfs/zfs/releases/tag/zfs-2.3.0>

LINUX 6.13 KERNEL HAS A BUG CAUSED BY CODE FROM A MICROSOFT EMPLOYEE:

15/01/2025

Linus Torvalds had intended to publish the Linux kernel 6.13 release this Sunday, but the 6.13 branch testing will likely be extended by a week due to stability issues with changes prepared by a Microsoft employee and accepted into the 6.13 branch in November. It is also noted that the patch that caused the crash was submitted in a non-standard way - but was accepted despite not receiving a single acknowledgement (ACK) from the x86 maintainers, which is a violation of generally accepted

practices.

The patch added the ability to use large memory pages in ROX (Read Only Execute) mode when allocating memory intended for executable code. ROX allows using memory with executable code in read-only mode, which complicates the exploitation of some vulnerabilities. In the 6.13 kernel, the use of a cache of large executable memory pages, reflected as ROX, was enabled by default for executable code of modules on x86_64 systems. The change solved the problem with mapping in ROX mode of pages for executable code that was not yet fully formed and made it possible to do without temporary remapping of ROX pages to write mode until the kernel modules were ready for operation.

During the final testing of the 6.13 kernel, an engineer from Intel found a bug that prevented the kernel from correctly waking up from sleep mode on some laptops with Intel processors (for example, CPUs based on the Alderlake microarchitecture). The bug occurred when building the kernel with the Clang compiler with the CFI (Control Flow Integrity)

protection mode enabled, which blocks violations of the normal execution order (control flow) as a result of using exploits that modify function pointers stored in memory. As a temporary solution, the maintainers from Intel and AMD, responsible for the x86 architecture, proposed disabling the use of EXECMEM_ROX in the 6.13 kernel until a full patch is prepared and tested that solves the problem (the first version of the fix did not solve the problem).

<https://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux.git/commit/?id=3D2e45474ab14f0f17c1091c503a13ff2fe2a84486>

DECIBELS MUSIC PLAYER ACCEPTED INTO MAINSTREAM GNOME:

15/01/2025

The GNOME project developers have accepted the minimalist music player Decibels into the core GNOME desktop environment. Decibels will be shipped in the spring release of GNOME 48 under the name "Audio Player". Last year, the player was already accepted

into the basic distribution of Endless OS and was also included by default in the GNOME editions of the postmarketOS smartphone distribution. Decibels is written in TypeScript using JavaScript bindings over GStreamer, Libadwaita, Gio, GObject and GTK4, and is distributed under the AGPLv3 license. Ready-made packages are available in Flatpak format.

The program has a very simple interface optimized for playing individual audio files when trying to open them in other applications, such as a file manager or email client. The window visualizes the sound waveform, has a slider for quickly changing the position, a playback speed switch, a volume control, and buttons for fast forwarding and rewinding by 5 and 10 seconds. Dark and light modes are supported. The interface is universal and adapts to both large PC and laptop screens and narrow touch screens of smartphones

https://gitlab.gnome.org/GNOME/gnome-build-meta/-/merge_requests/3354

CUDATEXT CODE EDITOR UPDATE 1.220.6:

15/01/2025

The release of the cross-platform free code editor CudaText 1.220.6, written using Free Pascal and Lazarus, has been published. The editor supports Python extensions and has a number of advantages over say, Sublime Text. There are some features of the integrated development environment, implemented as plugins. More than 300 syntax lexers have been prepared for programmers. The code is distributed under the MPL 2.0 license. Builds are available for Linux, Windows, macOS, FreeBSD, OpenBSD, NetBSD, DragonflyBSD, Solaris and Haiku platforms

<https://cudatext.github.io/download.html>

RELEASE OF LINUX MINT 22.1:

16/01/2025

The release of Linux Mint 22.1 has been presented, continuing the development of the branch on the

Ubuntu 24.04 LTS base. The distribution is fully compatible with Ubuntu, but differs significantly in its approach to organizing the user interface and the selection of default applications. The Linux Mint developers provide a desktop environment that corresponds to the classic canons of organizing the desktop, which is more familiar to users who do not accept the new methods of building the GNOME 3 interface. DVD builds based on the MATE (3 GB), Cinnamon (3 GB) and Xfce (3 GB) are available for download. The Linux Mint 22 branch is classified as a long-term support (LTS) release, meaning updates will be generated until 2029.

<https://blog.linuxmint.com/?p%3D4793>

COZYSTACK 0.22 RELEASED:

17/01/2025

The release of the free PaaS platform Cozystack 0.22.0, built on Kubernetes, is available. The project aims to provide a ready-made platform for hosting providers and a framework for building private and public clouds.

The platform is installed directly on servers and covers all aspects of preparing the infrastructure for providing managed services. Cozystack allows you to launch and provide Kubernetes clusters, databases, and virtual machines. The platform code is available on GitHub and is distributed under the Apache-2.0 license.

Talos Linux and Flux CD are used as the base technology stack. Images with the system, kernel and necessary modules are generated in advance and updated atomically, which allows one to do without such components as dkms and a package manager, and guarantee stable operation. A simple installation method is provided in an empty data center using PXE and a debian-like installer talos-bootstrap.

The platform includes a free implementation of the network infrastructure (fabric) based on Kube-OVN, and uses Cilium for the service network and MetalLB to announce services to the outside. The storage is implemented on LINSTOR, which suggests using ZFS as a base layer for storage and DRBD for replication. There is a pre-configured monitoring stack based

on VictoriaMetrics and Grafana. To launch virtual machines, KubeVirt technology is used, which allows you to launch classic virtual machines directly in Kubernetes containers and already has all the necessary integrations with the Cluster API to launch managed Kubernetes clusters inside a "hardware" Kubernetes cluster.

The new version adds cozystack-controller and new entities: Workload and WorkloadMonitor — which allow you to monitor the state of pods managed by operators and evaluate the service level according to predefined rules. Applications in Cozystack are managed by different operators, so it was decided to create a single format for displaying the status of each service.

How it works: When deploying an application, WorkloadMonitor is also installed, which monitors the state of pods by selector. As soon as one of the pods falls under the selector, a new Workload entity is created for it, which displays the role for each pod and its state. In the WorkloadMonitor status, you can see the number of existing replicas and the minimum number of replicas required to service the

service. As soon as the workload becomes less than the minReplicas value for WorkloadMonitor, the service is marked as non-operational.

For applications that cannot specify an exact minReplicas value (for example, Kubernetes workers can scale automatically), it is now possible to not specify this value in WorkloadMonitor at all. In this case, WorkloadMonitor will simply count the total number of running instances. This mechanism allows you to use any operators and pod management mechanisms in Kubernetes and easily extend the platform by providing a single interface for displaying the current state of the service.

WorkloadMonitor, for collecting information about replicas and their health, has been added to Kubernetes, Postgres, Monitoring, VirtualMachine, VMInstance, Redis, etcd, and SeaweedFS applications. Cozystack Dashboard now displays the number of application replicas and the service level for each Workload group.

<https://github.com/aenix-io/cozystack/releases/tag/v0.22.0>

HAIKU TO RESTRICT UK ACCESS OVER ONLINE SAFETY ACT CONCERNS:

18/01/2025

Alexander von Gluck, a board member of Haiku Inc, a non-profit company that oversees the development of the Haiku operating system, announced plans to block UK users from accessing the project's forum and other platforms where community interaction occurs until March 16. The decision is explained by the legal and financial risks arising from the Online Safety Act, which comes into force in the UK on March 16.

It is noted that the project does not have the resources for legal analysis and bringing the infrastructure into compliance with the requirements of the law. Compliance with the requirements is complicated by the need to carry out a large volume of bureaucratic procedures associated with the preparation of documentation describing the processes and assessing the existing risks (the list of risks takes up 84 pages with confusing and ambiguous wording).

Haiku Inc is registered in the US, and the Online Safety Act was adopted in the UK, but is extraterritorial, i.e. it applies to websites operating outside the UK if they are considered "UK-related", i.e. used by UK residents. It is assumed that without the involvement of lawyers, it is difficult to correctly fill out all the documents and comply with the requirements of the law. Ignoring the law creates significant risks, for example, the fine for violating the law reaches 22 million dollars.

In order to remove Haiku from the scope of the Online Safety Act, it has been decided to completely block access from the UK to the community interaction platforms, at least until another solution is found. In addition to the forum, the block will probably extend to the Gerrit and Haiku Depot services, where comments are allowed. The Haiku website and the project repositories will not be blocked.

The requirements of the Online Safety Act are related to moderating user-submitted content, removing content that violates UK laws, and restricting

children's access to adult content. Sites with more than 700,000 users are required to monitor, filter, and scan user-submitted content (links, text, images) at the publishing stage. The requirements for others are limited to responding to complaints, but may also require conducting a risk analysis, appointing responsible parties, and creating a complaint handling policy.

The law applies to sites that have a significant number of UK users (what is considered significant is not specified) or that provide services to UK citizens where there is a risk of harm to such citizens. An exception is provided for services that allow the publication of comments on author's articles and their own content, but it does not specify whether sites that allow the publication of responses to other comments fall under the exception.

<https://russ.garrett.co.uk/2024/12/17/online-safety-act-guide/>

RELEASE OF UTILS 0.0.29, A VARIANT OF GNU COREUTILS IN RUST:

19/01/2025

The release of the utils coreutils 0.0.29 project has been published. The project develops an analogue of the GNU Coreutils package written in the Rust language. Coreutils includes more than a hundred utilities, including sort, cat, chmod, chown, chroot, cp, date, dd, echo, hostname, id, ln and ls, etc. The goal of the project is to create a cross-platform alternative implementation of Coreutils, capable of working on Windows, Redox and Fuchsia platforms. Unlike GNU Coreutils, the Rust implementation is distributed under the permissive MIT license, instead of the copyleft GPL license. In addition, the same team of developers is developing analogues of the util-linux, diffutils, findutils and bsduutils utility sets written in Rust.

<https://github.com/uutils/coreutils/releases/tag/0.0.29>

DILLO 3.2.0 RELEASED:

19/01/2025

The Dillo 3.2.0 web browser has been released. The browser provides a tabbed graphical interface and supports HTML 4.01, CSS, and HTTPS (no JavaScript support). Dillo's functionality can be extended through plugins, for example, there are plugins for the IPFS and Gemini protocols. When opening the start page, Dillo uses 12 MB of RAM, and the installation deb package takes up about 600 KB. The graphical interface is built using the FLTK library. The project code is distributed under the GPLv3 license.

<https://dillo-browser.github.io/release/3.2.0/>

LINUX KERNEL 6.13

RELEASED:

20/01/2025

After two months of development, Linus Torvalds released the Linux kernel 6.13. Among the most notable changes are: lazy preemption mode in the task scheduler, support for atomic writes in XFS and Ext4, the

"multigrain timestamps" mechanism, adaptive mode for enabling polling in the network subsystem, the ability to build with AutoFDO optimizations, support for the ARM65 Guarded Control Stack protection mechanism, isolation of virtual machines using the ARM CCA extension, separate stacks in BPF, removal of ReiserFS, the virtual-cpufreq driver, netlink API net-shaper, case-sensitive tmpfs mount mode, support for POSIX extensions in SMB3, the AMD Cache Optimizer driver.

The new version includes 14172 fixes from 2086 developers, the patch size is 46 MB (the changes affected 15375 files, 598707 lines of code were added, 406294 lines were deleted). The previous release had 14607 fixes from 2167 developers, the patch size was 37 MB. About 52% of all changes presented in 6.13 are related to device drivers, about 13% of changes are related to updating code specific to hardware architectures, 11% are related to the network stack, 4% - to file systems and 3% to internal kernel subsystems.

<https://lkml.org/lkml/2025/1/19/281>

MESA ADOPTS AMDGPU_VIRTIO:

20/01/2025

The code base used to form the Mesa 25.0 release includes the amdgpu_virtio layer, which allows the guest system to use the OpenGL and Vulkan drivers radeonsi, radeonsi_drv_video and radv provided by the host environment. Access is provided via VirtIO, which provides high performance 3D acceleration in a virtual machine. At the moment, the driver can only be used in the QEMU+KVM bundle.

The performance of amdgpu_virtio is claimed to be better than the virgl and venus drivers previously developed for accessing Vulkan and OpenGL from guests. When running the Unigine Heaven and Superposition tests, guest performance was approximately 99% of the performance when running the tests on the host side. Another advantage of the new method is its ease of maintenance, since the guest system uses the same drivers as when working without

virtualization, except that instead of directly accessing libdrm (amdgpu), an additional layer based on VirtIO is used.

https://gitlab.freedesktop.org/mesa/mesa/-/merge_requests/21658

LINUX LIBRE KERNEL 6.13:

21/01/2025

The Latin American Free Software Foundation has published a completely free version of the Linux 6.13 kernel - Linux-libre 6.13-gnu, cleared of firmware and driver elements containing non-free components or code sections whose scope of application is limited by the manufacturer. Linux-libre also disables kernel functions for loading external non-free components that are not included in the kernel distribution, and references to the use of non-free components have been removed from the documentation.

To clean the kernel from non-free parts, the Linux-libre project has created a universal shell script that contains thousands of patterns for detecting binary inserts and

eliminating false positives. Ready-made patches created using the above-mentioned script are also available for download. The Linux-libre kernel is recommended for use in distributions that meet the Free Software Foundation's criteria for building completely free GNU/Linux distributions. For example, Linux-libre is used in distributions such as GNU Guix, Dragora, Trisquel, Dyne:Bolic, gNewSense, Parabola, Musix and Kongoni.

Linux-libre 6.13-gnu adds code to clean blobs in new rtw8812a, rtw8821a, bmi270, aw88081, ntp8835, ntp8918 drivers. Cleaned blob names in dts files (devicetree) for Aarch64 architecture. Updated code for removing blobs in wilc1000, rt1320, sh4-siu, ivpu, btnxpuart, adreno and r8169 drivers, as well as in code related to touchscreen support on x86 systems. They stopped cleaning rtl8192e, rtl8712, vt6656 and ti-st drivers, which were removed from the kernel.

<https://www.fsfla.org/pipermail/linux-libre/2025-January/003569.html>

RELEASE OF TOYBOX 0.8.12:

21/01/2025

The release of the Toybox 0.8.12 system utilities set, optimized for minimal consumption of system resources, has been published. Comparable to BusyBox, all utilities of the set are available through a single executable file. The project is being developed by the former BusyBox maintainer, written in C and distributed under the 0BSD license. The purpose of Toybox is to provide manufacturers with the ability to use a minimalistic set of standard utilities without opening the source code of modified components. In terms of capabilities, Toybox is still behind BusyBox, but 316 basic commands (235 completely and 81 partially) out of 392 planned have already been implemented. Since 2015, Toybox has been offered as part of the main Android platform.

<https://landley.net/toybox/news.html>

9FRONT RELEASE 10931:

21/01/2025

Release of the 9front operating system 10931, published under the code name "THIS TIME DEFINITELY", has taken place. The 9front project has been developing a fork of the Plan 9 distributed operating system independent of Bell Labs since 2011. Ready-to-use installation builds are generated for the i386, x86_64 architectures and Raspberry Pi 1-4 boards. The code is distributed under the MIT license. A musical composition dedicated to the release is also available.

The main idea of Plan 9 is to erase the distinction between local and remote resources. The system is a distributed environment based on three basic principles: all resources can be viewed as a hierarchical set of files; there is no distinction in access to local and external resources; each process has its own mutable namespace. The 9P protocol is used to create a single distributed hierarchy of resource files.

The 9front fork is notable for its implementation of additional protection mechanisms, expanded

hardware support, improved wireless networking, addition of new file systems, implementation of a sound subsystem and audio format encoders/decoders, USB support, creation of the Mothra web browser, replacement of the bootloader and initialization system, use of disk data encryption, Unicode support, presence of a real address mode emulator, support for AMD64 architecture and 64-bit address space.

<http://9front.org/releases/2025/01/19/0/>

WINE 10.0 STABLE RELEASE:

21/01/2025

After a year of development and 29 experimental versions, a stable release of the open implementation of Win32 API - Wine 10.0 - has been released, which has absorbed more than 6,000 changes. Key achievements in the new version include full support for the ARM64EC architecture, scaling on high-density pixel screens, enabling the Wayland driver by default, implementing panels for customizing the screen

and joystick, an alternative multimedia backend based on FFmpeg, a Bluetooth driver, support for Vulkan 1.4, and the ability to emulate switching video modes.

Wine has confirmed full functionality of 5372 Windows programs (5336 a year ago, 5266 two years ago, 5156 three years ago), other 4435 programs (4397 a year ago, 4370 two years ago, 4312 three years ago) work fine with additional settings and external DLLs. 4020 programs (3943 a year ago, 3888 two years ago, 3813 three years ago) have minor problems in their operation, which do not interfere with the use of the main functions of the applications.

<https://www.winehq.org/news/2025012101>

RELEASE OF VERACRYPT 1.26.18:

22/01/2025

VeraCrypt 1.26.18 has been released. It is a fork of the defunct TrueCrypt disk partition encryption system. VeraCrypt is notable for replacing the RIPEMD-

160 algorithm used in TrueCrypt with SHA-512 and SHA-256, increasing the number of hashing iterations, simplifying the build process for Linux and macOS, and eliminating issues identified during the audit of TrueCrypt source code. The code developed by the VeraCrypt project is distributed under the Apache 2.0 license, while borrowings from TrueCrypt continue to be distributed under the TrueCrypt License 3.0. Ready-made builds are generated for Linux, FreeBSD, Windows, and macOS.

<https://www.veracrypt.fr/en/Release%2520Notes.html>

SDL 3 RELEASED:

22/01/2025

The release of SDL 3.2.0 (Simple DirectMedia Layer) library is presented, which is marked as the first official stable release of the SDL 3 branch. The library is aimed at simplifying the writing of games and multimedia applications, and provides features such as hardware-accelerated output of 2D and 3D graphics, input processing, audio playback, and 3D output via

OpenGL, OpenGL ES, Metal, Direct3D or Vulkan. The code is written in C and distributed under the Zlib license. Bindings are provided for using SDL in projects in various programming languages.

<https://discourse.libsdl.org/t/announcing-the-sdl-3-official-release/57149>

RELEASE OF VENTOY 1.1.0: 22/01/2025

The release of the Ventoy 1.1.0 toolkit has been published. It is designed to create bootable USB drives that include several operating systems. The program allows you to boot an OS from an unchanged ISO, WIM, IMG, VHD and EFI images, without requiring image unpacking or media reformatting. Simply copy the desired set of ISO images to a USB Flash drive with the Ventoy bootloader, and it will boot the operating systems located inside the images. At any time, you can replace or add new ISO images by simply copying new files, which is convenient for testing and preliminary familiarization with various distributions and operating systems. The project code is written

in C and is distributed under the GPLv3 license.

Ventoy supports booting on systems with BIOS, IA32 UEFI, x86_64 UEFI, ARM64 UEFI, UEFI Secure Boot and MIPS64EL UEFI with MBR or GPT partition tables. It supports booting various versions of Windows, WinPE, Linux, BSD, ChromeOS, as well as images of VMware and Xen virtual machines. The developers have tested the functioning of more than 1200 iso images with Ventoy, including various versions of Windows and Windows Server, several hundred Linux distributions, more than a dozen BSD systems (FreeBSD, DragonFly BSD, pfSense, FreeNAS, etc.).

In addition to USB drives, the Ventoy bootloader can be installed on a local drive, SSD, NVMe, SD cards and other types of storage devices that use the FAT32, exFAT, NTFS, UDF, XFS or Ext2/3/4 file systems. There is a mode for automated installation of the operating system in one file on a portable medium with the ability to add your own files to the created environment (for example, to create images with Windows or Linux distributions that do not

support Live mode).

The new version supports more than 1200 ISO images. They added support for ISO images of the eweOS distribution (uses dinit, musl, busybox, clang, pacman and wayland). Fixed issues with loading SystemRescue 11.02+, updated the Shim boot layer (solved the problem with checking SBAT data).

https://www.ventoy.net/en/doc_news.html

DEBIAN 13 PACKAGES FREEZE PLAN: 23/01/2025

Debian developers have published a plan to freeze the package base of Debian 13 "Trixie". Debian 13 is expected to be released in the second half of 2025. On March 15, 2025, the first stage of the package freeze will begin, during which "transitions" (package updates that require dependency adjustments in other packages, which results in temporary removal of packages from Testing) will be stopped, and updates of build-essential packages will be stopped. On April 15, 2025, a soft freeze of

the package database will occur, during which the acceptance of new source packages will be stopped and the possibility of re-enabling previously removed packages will be closed. On May 15, 2025, a hard freeze will be applied before the release, where the process of moving key packages and packages without autopkgtests from the unstable branch to testing will be completely stopped and a phase of intensive testing and fixing of release-blocking issues will begin.

Some time after the hard freeze, a full freeze will be carried out, covering all packages. The date of the full freeze has not yet been determined.

<https://lists.debian.org/debian-devel-announce/2025/01/msg00004.html>

MYSQL 9.2.0 RELEASED: 23/01/2025

Oracle has formed a new branch of the MySQL 9.2.0 DBMS. MySQL Community Server 9.2.0 builds are available for all major Linux, FreeBSD, macOS, and

Windows distributions. As part of the new release model introduced in 2023, MySQL 9.2 is assigned to the "Innovation" branches, which will also include the next major release of MySQL 9.3. Innovation branches are recommended for those who want to get access to new functionality earlier, are published every 3 months and are supported only until the next major release is published (for example, after the appearance of branch 9.2, support for branch 9.1 was discontinued). In the summer, they plan to form an LTS release, recommended for implementations that require predictability and long-term preservation of unchanged behavior. Following the LTS branch, a new Innovation branch will be formed - MySQL 10.0.

<https://dev.mysql.com/downloads/mysql/>

RELEASE OF MIDNIGHT COMMANDER 4.8.33:

23/01/2025

After five months of development, the Midnight Commander 4.8.33 console file manager has been released. It has

been developed since 1994 and provides a two-panel interface in the style of Norton Commander. Midnight Commander has features such as mouse support, a built-in file viewer and text editor with syntax highlighting, the use of virtual FS for navigation inside archives, packages and network storage (SFTP, SSH), connection of handlers of various file types, a mode for quickly switching to terminal mode for running commands, the use of bookmarks for switching to frequently used places in the FS and flexible search tools. The project code is written in C and is distributed under the GPLv3+ license.

<https://github.com/MidnightCommander/mc/releases/tag/4.8.33>

FACEBOOK SCAMMING EVERYONE AGAIN:

24/01/2025

The Free Software Foundation has published the results of its analysis of the Llama 3.1 license, under which Meta's machine learning models are distributed.

The FOSS Foundation has found the Llama 3.1 license to be non-free and has recommended against using products distributed under it. It is noted that Meta misleads users by presenting the Llama 3.1 license as providing certain freedoms. In fact, the Llama 3.1 license deprives users of freedom, transfers additional powers to licensors, and imposes an acceptable use policy.

In particular, the Llama 3.1 license limits the scope of use to certain applications, such as prohibiting military use, creating products that may cause harm, or being used to generate illegal or objectionable content such as spam, and requiring compliance with any applicable trade laws and regulations, even if the user's country of jurisdiction does not apply those laws and regulations.

<https://www.fsf.org/blogs/licensing/llama-3-1-community-license-is-not-a-free-software-license>

DOVECOT 2.4.0 AVAILABLE:

24/01/2025

Seven years after the formation of version 2.3.0, a new branch of the multi-platform IMAP server Dovecot 2.4.0 was presented, supporting POP3 and IMAP4rev1 protocols with popular extensions such as SORT, THREAD, MULTIAPPEND, QUOTA, ACL, COMPRESS, NOTIFY, METADATA and IDLE, and authentication and encryption mechanisms (SASL, TLS, SCRAM, XOAUTH2). Dovecot maintains full compatibility with classic mbox and Maildir, using external indexes to improve performance. To expand the functionality, plugins can be used, features such as quotas, ACL, Push notifications, full-text search and virtual mailboxes are implemented. The project code is distributed under the LGPL and MIT licenses.

<https://dovecot.org/mailman3/archives/list/dovecot-news@dovecot.org/thread/UYNR6GBP25XEGFCS633SWPR4HXV3NSS3/>

OPENSUSE ALTERNATIVE INSTALLER FOR AGAMA 11:

25/01/2025

The openSUSE project developers have introduced the Agama 11 installer, which is being developed to replace the classic SUSE and openSUSE installation interface, and is notable for separating the user interface from the internal YaST components. Agama supports the use of various frontends, such as a frontend for managing the installation via a web interface. The code of the installer components is distributed under the GPLv2 license and is written in Ruby, Rust, and JavaScript/TypeScript.

The new installer can be tested in the openSUSE 16 alpha release and the upcoming SUSE Linux Enterprise Server 16 beta release. In addition, live builds for x86_64, ppc64le, s390x, and ARM64 architectures have been created for testing the new installer, supporting the installation of the openSUSE Leap 16 alpha release, the continuously updated openSUSE Tumbleweed and openSUSE Slowroll builds and

container-based MicroOS editions.

The goals of Agama development are to: eliminate the existing limitations of the graphical interface; expand the possibilities for using YaST functionality in other applications; move away from being tied to a single programming language; and encourage the creation of alternative settings by community members.

The installer provides functions such as selecting the initial set of applications, setting up the network connection, language, keyboard, time zone and localization settings, preparing the storage device and dividing partitions, adding users to the system.

For installing packages, checking hardware, partitioning disks and other functions required during installation, Agama continues to use YaST libraries, on top of which layer services are implemented, abstracting access to libraries via a unified communication protocol based on HTTP. The installer uses a multi-process architecture, where the user interface is not blocked during other work.

The basic interface for managing the installation is built using web technologies. The web interface is written in JavaScript using the React framework and PatternFly components. The messaging service, as well as the built-in http server, is written in Ruby.

<https://agama-project.github.io/blog/2025/01/21/Agama-11>

SHOTCUT VIDEO EDITOR RELEASED:

25/01/2025

The release of the Shotcut 25.01 video editor, developed by the author of the MLT project and using this framework for editing video, has been published. Support for video and audio formats is implemented via FFmpeg. You can use plugins with the implementation of video and audio effects compatible with Frei0r and LADSPA. Shotcut features include: the ability to multi-track editing with the composition of video from fragments in various source formats, without the need for their preliminary import or re-coding. There are built-in tools for creating screencasts, processing images

from a web camera and receiving streaming video. The code is written in C++ using the Qt framework and is distributed under the GPLv3 license. Ready-made builds are available for Linux (AppImage , flatpak and snap), macOS and Windows.

<https://shotcut.org/blog/new-release-250125/>

SOLUS 4.7 RELEASED:

26/01/2025

The release of the independent Linux distribution Solus 4.7 was published. It is not based on packages of other distributions and develops its own installer, package manager and configurator. Previously, the Budgie desktop was developed as part of the distribution , but now it has been separated into an independent project. It was decided to develop the next branch of Solus 5 using the technologies of the SerpentOS distribution. The code of the project is distributed under the GPLv2 license, the C and Vala languages are used for development. Builds with the Budgie, GNOME, KDE Plasma and

Xfce desktops are provided. The size of the iso images is 2.6-2.9 GB (x86_64).

The eopkg package manager (a fork of PiSi from Pardus Linux) is used to manage packages, providing the usual tools for installing/removing packages, searching the repository, and managing repositories. Packages can be allocated to thematic components, which in turn form categories and subcategories. For example, Firefox is assigned to the network.web.browser component, which is included in the network applications category and the Web applications subcategory. Only about 2,000 packages are offered for installation from the repository.

The distribution follows a hybrid development model, whereby major releases are released periodically, introducing new technologies and significant improvements, and in between major releases the distribution evolves using a rolling package update model.

The Budgie environment is based on GNOME technologies and its own implementation of the GNOME Shell (in the next branch of

Budgie 11, they plan to separate the desktop functionality from the layer that provides visualization and output of information). The Budgie Window Manager (BWM) is used to manage windows, which is an extended modification of the basic Mutter plugin. The basis of Budgie is a panel, close in its layout to the classic desktop panels. All elements of the panel are applets, which allows you to flexibly customize the composition, change the placement and replace the implementations of the main elements of the panel to your taste.

Among the available applets are the classic application menu, task switching system, area with the list of open windows, viewing virtual desktops, power management indicator, volume control applet, system status indicator and clock. For music playback in the editions with the Budgie and GNOME desktops, the Rhythmbox player is offered with the Alternate Toolbar extension, offering an interface with a compact panel implemented using client-side window decoration (CSD). For video playback in the Budgie and GNOME editions, Celluloid is used. In the KDE edition, Elisa is available for music playback and Haruna is available for video. In

the Xfce edition, the Parole player is used for playing multimedia files.

<https://getsol.us/2025/01/26/solus-4-7-released/>



COMMAND & CONQUER

Written by Erik

This month I'd like to talk about something basic that a lot of people forget about. I was standing behind someone, shoulder surfing, as he showed me something. He was one of those super fast typers (100+ wpm) that could retype any mistake very quickly, but some of it was not mistakes and he would hit CTRL+c and retype. All I could think about was that it could have been done in one go or continued without issue. You see I'm lazy, I don't like a lot of typing, (also I only type at 45wpm) so any "savings" earns bonus points in my book.

You all know about chaining update and upgrade, I mean you probably made an alias or tiny program to do it for you. You know, "sudo apt update && sudo apt upgrade -y". Thing is, that I want to highlight that "&&" and expand a bit. The "&&" will run the second command, regardless if the first command had an error. To illustrate, disconnect your network, or turn off your WiFi and run that command. Let's move on. The examples I will use will not be "real world" examples, but they will be

examples that you can easily follow. Let's start simple, with the background operator. Open your terminal and type:

```
ping -c 3 www.google.co.uk &
```

and hit <enter>. What you will get back, is a process ID. (ping prints to the screen, so it won't go quietly, but that is why I chose it) So if we were to add more than one command, they would happen at the same time, meaning instead of my typing out, say pwd, id and who, I could chain them, like so: pwd & id & who -and I should get three PID's back and a "done" message when completed. (that 'done' part is important) However, sometimes we need the first command to complete before the second one runs, and we are all familiar with the first example above, but I'll use another to illustrate my point. If I were to make a folder and then cd into that folder and make a file, you would agree, that I would get an error, if the folder was not created yet and I tried to cd into that folder, correct?

Good, you are all smart cookies, so I'm sure we are all on the same page. If I were to type:

```
mkdir fcm; cd fcm; touch fcm
```

I'd end up in a folder with a file named fcm. It would be as if I typed those commands in, in order, one-by-one. It would do the first command, once completed, it would do the second command and so forth.

Now I want you to make a mistake. Type:

```
mkdir fcm; cd fcn; touch fcm
```

and see what happens. Do you understand the difference between using "&&" and ";" then? (If not, replace the ";" with "&&" and run it again.)

So we know about the "and" operator "&&", now for the "or" operator "||", for instance, we could look for a file, if it exists, do nothing, if it does not, create it. Example: ls fcm23 || touch fcm23 or

the opposite, if it exists, remove it, ls fcm23 || rm fcm23 -if you are a newbie, please do this in your terminal to remember it. You know, the muscle memory thing...

You can chain more of these commands together, like we saw in the Python tutorials in the magazine, lets say: ls fcm && echo "present" || "missing" & -and we bring it all together at once. Though it may look cryptic, you know what it does and if you followed along in the terminal and I now encourage you to try your own command chaining with commands that *you know. (everything I'm thinking of requires something installed that you may not have) If you are having trouble visualising any of it, use parenthesis. For example; (ls fcm23 && echo "searching...") || (echo "not found") This helps to break up long commands to help you get the logic right in your own mind, before committing to a shell script as these sorts of things can get very long and span multiple lines on the terminal. Which reminds me...

Just touching on another thing quickly – if you have bear paws like me and you have typed “\” with “enter” as the two keys are above each other, you will be frustrated, but also aware of the power of the “\”. (or not?)

Please leave your terminal in the default 80x25 and type:

```
echo " This is a very long
line of text that I'd rather
\have across multiple lines
of console to ease
readability."
```

and hit <enter>

This means that if you typed say, touch fcm\ -and hit <enter> and

end up with a “>” on a new line, as a newbie, you should not panic and press CTRL+c like I saw this chappie do. Sticking with the above example, you can simply type: .txt -on the next line and hit enter. (I’ll add a screen-shot, as a picture may explain it a bit better.)

Hitting backslash before Enter, simply says “continue on a new line”, meaning you should go ahead like nothing happened.

So, when you are using all of the above in your daily terminal sessions, you know that you have arrived.

If you have any issue with what

was said:

misc@fullcirclemagazine.org

```
edd@gift: ~
edd@gift:~$ touch fcm2\
> .txt
edd@gift:~$ ls *.txt
fcm2.txt
edd@gift:~$
```



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 Erik

I recently read a book called Linux Unveiled, that unveiled only that the author, 'Half-job Hussain', had no idea how to show newbies around. I did like some of the book somewhat (very little), so I'll be stealing some of that to do a proper job for our FCM newbies (no, I will not be using anything from that horrible book). I'll try to take a more hands-on approach, so I would ask you to keep your terminal emulators open and follow along, just to get the muscle-memory going. Now obviously I

cannot cover a whole book's worth of stuff on here, but I'm thinking CPU, memory, and disk here. This can then tie into some of the LPI stuff we are covering elsewhere. That means there will be homework, but I'll keep it short.

Say you logged on to a friend's computer and the prompt did not display the name of the computer, you could use the hostname command to get that information, right? But how would you get more information, like the "about" page

on Gnome, but from the command line? Yep, the smarties among you got it immediately, hostnamectl. The nice thing about hostnamectl, is that you can immediately see if you are in a virtual machine or not (Chassis).

You could see "desktop" or "laptop" on your machine instead, and if yours did say either, you would not see "Virtualization". We can see the operating system name, in my case Ubuntu 24.04, even though it is Lubuntu and my kernel

version. If I wanted more information on the kernel, I would use: `uname -a` and I'd get a bit more, but not too much more. If I really wanted more information about my CPU, I'd use `cat /proc/cpuinfo | less` and I'd get a decent info dump. Go ahead, try it quickly, I'll wait...

Now, if I needed more information on my OS, I could try `cat /etc/*-release` and see the codename of my OS (sorry about the mistake, a girl with long, long

```
ed@database1:~$ hostnamectl
Static hostname: database1
Icon name: computer-vm
Chassis: vm
Machine ID: 6551020fc46342c0acf624675bc1a0b9
Boot ID: a8a4c5e5d7b24d12b7a35eb9166c1011
Virtualization: oracle
Operating System: Ubuntu 24.04.1 LTS
Kernel: Linux 6.8.0-51-generic
Architecture: x86-64
Hardware Vendor: innotek GmbH
Hardware Model: VirtualBox
Firmware Version: VirtualBox
Firmware Date: Fri 2006-12-01
Firmware Age: 18y 1month
ed@database1:~$
```

```
ed@database1:~$ cat /proc/cpuinfo | less
ed@database1:~$ cat /proc/*-release
cat: '/proc/*-release': No such file or directory
ed@database1:~$ cat /etc/*-release
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=24.04
DISTRIB_CODENAME=noble
DISTRIB_DESCRIPTION="Ubuntu 24.04.1 LTS"
PRETTY_NAME="Ubuntu 24.04.1 LTS"
NAME="Ubuntu"
VERSION_ID="24.04"
VERSION="24.04.1 LTS (Noble Numbat)"
VERSION_CODENAME=noble
ID=ubuntu
ID_LIKE=debian
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"
BUG_REPORT_URL="https://bugs.launchpad.net/ubuntu/"
PRIVACY_POLICY_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
UBUNTU_CODENAME=noble
LOGO=ubuntu-logo
ed@database1:~$
```

HOWTO - LEARN ABOUT

legs and short shorts was mobile zombie-ing around in the coffee shop, but I'll leave it there so you can see everyone makes mistakes.) Then there are the ls-commands, like lshw, or if we are talking CPU, lscpu, or even lsusb or lspci and so forth. My point is that there are lots of ways for you to find out more about a foreign (or your own!) computer.

Most of you know: `df -h` - to see information on how full - or empty - your drive is and: `free -h` - to see the same about your memory. A favourite of the LPI exams is: `uptime`, though in my whole career, I have never needed to type that command once in the real world(!),

we just have so many better tools, for instance, I can see the uptime in: `htop` - and usually I have some form of monitoring software installed to get a better view of load over time. I love that there are many ways to skin a cat in Linux! Hehe, yes, I suppose lolcat would be "skinning" your terminal output... but you know what I mean.

Before I move on, let's quickly look at what we covered in that short piece:

- `hostname`, `hostnamectl`, `uname`, `lscpu`, `lshw`, `lspci`, `lsusb`, `df`, `free`, `uptime`, `htop`, `lolcat`
- 12 commands in 5 minutes; you are on a roll my friend!

```
ed@database1:~$ sudo tail /var/log/boot.log
Starting mariadb.service - MariaDB 10.11.8 database server...
Starting openvpn.service - OpenVPN service...
Starting systemd-user-sessions.service - Permit User Sessions...
[ OK ] Started unattended-upgrades.service - Unattended Upgrades Shutdown.
[ OK ] Finished openvpn.service - OpenVPN service.
[ OK ] Finished systemd-user-sessions.service - Permit User Sessions.
Starting plymouth-quit.service - Terminate Plymouth Boot Screen...
Starting setvtrgb.service - Set console scheme...
[ OK ] Finished setvtrgb.service - Set console scheme.
[ OK ] Created slice system-getty.slice - Slice /system/getty.
ed@database1:~$ systemctl status mariadb
● mariadb.service - MariaDB 10.11.8 database server
   Loaded: loaded (/usr/lib/systemd/system/mariadb.service; enabled; preset:
   Active: active (running) since Tue 2024-12-31 16:46:30 SAST; 1h 24min ago
     Docs: man:mariadb(8)
           https://mariadb.com/kb/en/library/systemd/
   Process: 820 ExecStartPre=/usr/bin/install -m 755 -o mysql -g root -d /var
   Process: 832 ExecStartPre=/bin/sh -c systemctl unset-environment _WSREP_ST
   Process: 836 ExecStartPre=/bin/sh -c [ ! -e /usr/bin/galera_recovery ] &&
   Process: 944 ExecStartPost=/bin/sh -c systemctl unset-environment _WSREP_S
   Process: 947 ExecStartPost=/etc/mysql/debian-start (code=exited, status=0/
   Main PID: 906 (mariabdb)
   Status: "Taking your SQL requests now..."
```

One way of finding out what you are dealing with, when troubleshooting, is the log file, or should I say logs, as there are quite a few. The main one I'd like you to look at is: `tail /var/log/syslog` (I trust that you are familiar with `head` and `tail`?) or you could peruse the whole thing: `cat /var/log/syslog | less` (I will also assume you know more and less, as they are some of the first commands that one learns when using a terminal). Most of you should also be familiar with: `dmesg` - or if you did not use earlier versions of Ubuntu, it would be: `sudo dmesg` - (it did not need `sudo` elevation before 20.04? not 100% on that, don't quote me, but if you have old Ubuntu in a VM, say, Hardy Heron or whatever, you can just type `dmesg`.)

You should know that `dmesg` is not the only way to see what is/happened during your boot. You could also look at the boot log: `tail /var/log/boot.log`

Your homework, erm, mission - should you choose to accept it - is:

1. To look inside the `/var/log/` directory and poke around in some of those log files. In particular, I want you to check the logged-on users with the command: `w` - and

then check `auth.log` to see those users. On some servers though, the logs may be sent off to a log server, so I would suggest doing this on your own desktop/laptop/VM.

2. To type `sudo dmesg` and type the password wrong three times. I then want you to go and look at `/var/log/auth.log` - we will talk about this in the next issue.

Now that you have wet your footsies in logfiles, remember to actually go here (`/var/log`) and have a look here, next time you get an error on the command line.

We covered the 'where' "where am I", and the 'how' "how do I check for errors". 'When' you are is not important, but if you really have to know, type: `date` ;)

As always, should you find an error, or think I helped you in a wrong direction, please let us know on: 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.



Note: This is the first of a series of articles intended solely for individuals who, while having no experience in using Linux, are interested in the operating system and, more particularly, are looking to Linux as an alternative when Windows 10 reaches end of life in 2025.

Windows 10 will reach end of life (EOL) on October 14, 2025. Many existing users of Windows 10 will know that there is no upgrade path to Windows 11 for their specific computer due to some stringent hardware requirements that are being imposed by Microsoft. For example, some reputable sources suggest that machines must be less than four years old in order to be upgraded! For most machines, an Intel 8th-generation Core, an AMD Ryzen 2000 series, or better chip, is required as the central processing unit (CPU). Additionally, a Trusted Platform Module (TPM) must be installed and enabled. If you are not sure if your computer can run

Windows 11, use Microsoft's PC Health Check (<https://support.microsoft.com/en-us/windows/how-to-use-the-pc-health-check-app-9c8abd9b-03ba-4e67-81ef-36f37caa7844>) software to determine your machine's current status.

So, now you should know if your specific computer can or cannot run Windows 11. At the time of writing, there is no indication that Microsoft is going to relax the hardware requirements noted above. So, if your computer will not run Windows 11, the question becomes what are you going to do as of October 14th next year?

Firstly, do not panic. You have almost a whole year to get ready for the end-of-life of Windows 10. You can continue to use Windows 10 for the remaining months as you have in the past. Your computer will run as normal. System patches will continue to be supplied and installed through Windows Update over the entire time.

However, what you do need to

Trading Up To Linux Pt.1

do is think ahead. When Windows 10 reaches EOL, there will be no further security patches and machines still running this operating system may be vulnerable to attack, particularly if they remain connected to the Internet.

So, what are the options? Clearly, continuing to run Windows 10, with no further security patches, is highly undesirable since most of us rely heavily on having stable and secure Internet access on a daily basis. A second option may be to purchase extended support for Windows 10 from Microsoft. It's believed that the cost for this is going to be \$30.00 for a single computer but this will be for only a one year period. This option is therefore of limited value as the purchaser will be back to an EOL situation in October, 2026. A more expensive, but more permanent solution, would be to purchase a new computer that will have Windows 11 installed. However, the most attractive option may well be to switch to using Linux as the main operating system, perhaps

retaining the use of Windows in off-line mode in order to run specific applications that either won't run under Linux or for which there is no satisfactory native Linux equivalent.

The latter option might well be attractive to many users who are (a) reluctant to abandon perfectly good hardware, or (b) unwilling or unable to bear the expense or purchasing a new computer. However, many users are hesitant to consider this option because they have heard that Linux is "hard" or "only for geeks". Nothing could be further from the truth, and the good news is that, if you are willing to at least give the option a try, you have an entire year to check things out. So, this is the premise of this first article in a planned series that will act as a simple guide to the use of the Linux operating system.

Specifically, we will initially download the Cinnamon edition of Linux Mint Version 22 (Wilma) and create a bootable USB drive that will enable us to run Linux without affecting Windows on our computer in any way. We'll find that

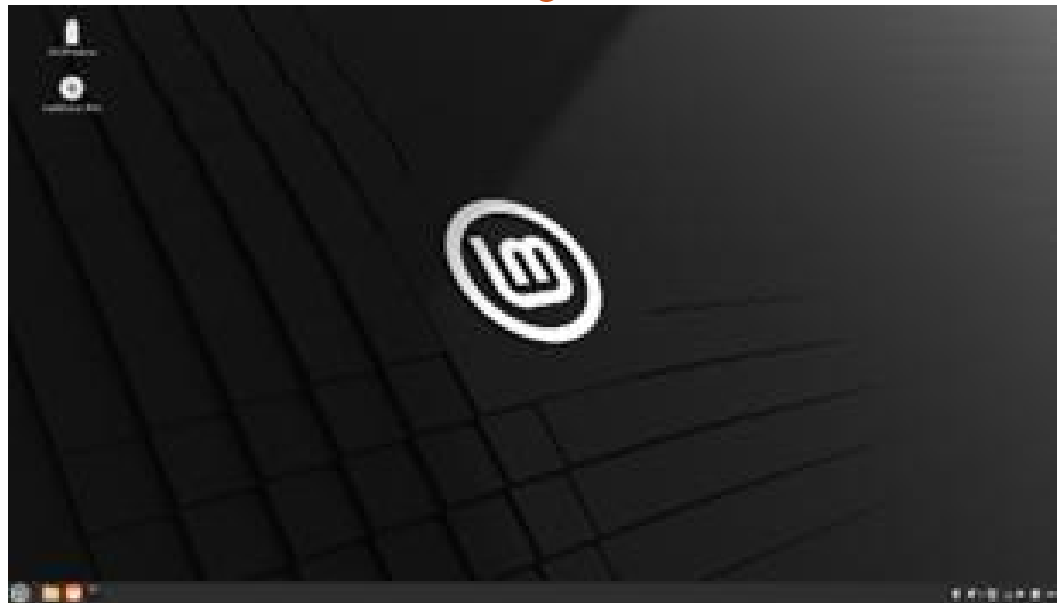
HOWTO - TRADING UP

the Cinnamon desktop is very similar to that used by Windows 10, and that many useful applications are bundled with the Linux software.

This will give us the confidence to eventually install Linux side-by-side with Windows 10, giving us dual-boot capability where we can decide to use either Linux or Windows, with each operating system working completely independently of the other. There, we will have the best of both worlds. We can try out all the features and possibilities of Linux while retaining the option to return to Windows by simply rebooting if and when necessary.

We will go through the process of thoroughly trying out Linux in manageable steps. After all, we have a whole year to see if Linux can be a viable replacement, or at least a useful partner, for our Windows 10 system. So, let's get started.

Firstly, we need a USB drive, with a capacity of 4 GB or more, which we can use to create a bootable disk. The disk should be empty, or at least not contain any files that are needed, since the



process of creating the boot drive will overwrite any existing files. Now, go to the Linux Mint 22 "Wilma" page (<https://linuxmint.com/download.php>). Click on the Download button for the Cinnamon Edition and select the link to the Manitoba Unix User Group. This will download the file `linuxmint-22-cinnamon-64bit.iso` (2.91 GB) which we will use to create the bootable USB drive.

We can use Balena Etcher as a really simple way to create the bootable disk (see Etching a Bootable USB Drive: <https://opcug.ca/Reviews/BalenaEtcher.pdf>). Download the Windows version of Balena Etcher

from <https://etcher.balena.io> by scrolling down the page and clicking the Download link for ETCHER FOR WINDOWS (X86|X64) (INSTALLER).

The downloaded file, `balenaEtcher-1.19.21.Setup.exe`, is a portable version of the software, so simply double-clicking on this exe file runs the program. Click on the Flash from file button in the main program window and select `linuxmint-22-cinnamon-64bit.iso` as the source file. Now, plug in the 4 GB (or bigger) USB drive and choose this drive using the Select target button. Finally, press the Flash button and wait for Etcher to complete the writing process.

We can now reboot the computer from the just-created bootable USB drive. The process required varies by computer. If you don't already know how to boot your specific machine from a USB drive, enter a query in Google or check the manufacturer's web site. For my Dell laptop, I simply have to press F12 as the machine is rebooting and a one-time boot menu pops up that allows me to select the USB drive.

A boot menu (GNU GRUB version 2.12) will be displayed. The first menu item, '*Start Linux Mint 22 Cinnamon 64-bit (compatibility mode)' is set as the default selection – as indicated by the asterisk. Press the Enter key to boot into Linux Mint.

Be patient as the boot process may take a little time. Note that we are booting directly from the USB drive which is relatively slow. The process will involve black screens and the occasional green-and-white Linux Mint (lm) logo, but the Linux desktop will eventually load - in all its splendour! (as shown in Figure 1)

A notification window popped

HOWTO - TRADING UP

up briefly as the desktop loaded. If you missed it, the text indicated that “Wi-Fi networks are available”. As a first step in making use of our Linux desktop, we can make the Wi-Fi connection and try out the Firefox web browser that is bundled with Linux Mint.

The lower portion of the Linux desktop is called the panel, and is equivalent to the Windows’ taskbar. At the right end of the panel there is a group of icons of which the fourth icon from the right (Figure 2) is for networking. Left-click on this icon to bring up a list of available network connections. Select the name of your home Wi-Fi network.



In the subsequent pop-up dialogue box, enter the password for your Wi-Fi system and press Connect. Now click on the orange Firefox icon in the group of icons at the left end of the panel (Figure 3). When Firefox loads, type `opcug.ca` in the address bar. You are now browsing the Internet using Linux!



Feel free to try any of the other applications that are available on your Linux desktop. (Hint – the Start menu is the `lm` icon in the lower-left corner of the desktop.) However, we will be exploring Linux in detail in upcoming articles in this series so you can also stay tuned for much more information on how to configure and use Linux.

BOTTOM LINE

- Linux Mint (Open source)
- Version 22 (Wilma)
- Clément Lefèbvre
- <https://linuxmint.com>



Alan is a computer enthusiast based in the Great White North where he is an active member of the Ottawa PC Users’ Group (<https://opcug.ca>) and maintains the LinuxNorth blog at <https://linuxnorth.wordpress.com>



HOW-TO

Written by Robert Boardman

Latex - Babel

This time, I will introduce you to the babel package, the modern way to use a language other than English in Latex documents. It is also the modern way to use more than one language in a document. It works with UTF-8 encoding for fonts, essential for many languages. In addition to loading the babel package, you will also need to load a font package that is appropriate for your language of choice. The babel documentation outlines the basics:

- Tell babel what language or languages are required.
- Select a suitable font or fonts if necessary.
- In multilingual documents, switch the language in the text.

For example

```
\documentclass[french]{article}
```

```
\usepackage{babel}
```

```
\begin{document}
```

```
Plus \c{c}a change, plus c'est la m\^{e}me chose.
```

```
\end{document}
```

The [french] option in the

document class informs Latex this document uses the French language and it is monolingual. To make a bilingual (or multilingual) document include two (or more) languages as options in the documentclass instruction. The last one will be the default language. To use French as the primary language and German as an occasional language, the option would be [german,french]. German comes in four variations: german, ngerman, austrian, naustrian. I do not know what the differences are, I assume the differences have to do with letter shapes and/or hyphenation and/or how dates are written and/or other factors important in localizing documents. There are four variations for English as well: English, USenglish, UKenglish, australian.

Localization requires a lot more than simply spelling words correctly and using the correct letters. There is a 45-page chapter in volume 2 of The Latex Companion dedicated to this topic. There are more than sixty languages which can be produced with Latex. This includes many

languages that use an alphabet and others which do not. Of course in order for a document to be produced, not only must a suitable font be used but the user must also know how to type that particular language. For example, unless you are familiar with typing French, would you have guessed what Latex command to use to generate ç or ê?

If you work in two languages, how to switch from one language to another and back in one document? Babel uses the command \selectlanguage for large blocks of text like paragraphs and \foreignlanguage for small bits inside paragraphs. Here is the example used on p. 303 of vol. 2 of The Latex Companion . Because of some limitations in my system I had to use the csquotes package as well in order to generate the appropriate quotation marks..

Typesetting a document in a foreign language is not as simple as changing the words. Many languages require accents. Most languages in the world do not use what is often called the Latin

alphabet. So relevant fonts have to be developed and then the font package used in the preamble in the Latex document. Different languages may require different shapes than English for numbers.

A very important part of typesetting a document is hyphenation. I do not use hyphenation when I write for FCM. I prefer ragged right margins to fully justified text so I do not need to be concerned about hyphenation. However many magazines, newspapers and journals use columns of text (like FCM) and set fully justified text to indicate the edges of columns. Without hyphenation, full justified text will make rivers of white in the text. Each language has its own rules for hyphenation and those rules are incorporated into the babel package as much as possible. Languages without alphabets like Chinese and Japanese also have rules which can dictate where breaks occur between characters.

Punctuation marks differ between languages. The example in

the graphic shows three different types of quotation marks. There are other ways quotations are indicated in other languages. Even the simple period is not always used between sentences. In Chinese an open circle is often (although not exclusively) used. Sometimes it appears in the centre of the line of text , other times it is on the baseline . In English North America, the period is also used as the decimal point in currency for example. In Europe and French North America, the comma is often used as a decimal indicator. Instead of a comma to separate powers of ten in many cultures spaces are used to indicate thousands, millions, etc.

Babel provides translations for document element names Latex uses in its document classes. (This feature is not working on my machine.) Terms like chapter name, figure name, table name are called language dependent strings in babel and will be translated using commands like `\figurename`.

Dates are formatted differently in different languages, some languages have more than one way to format dates. In Canada, we cannot decide which method to use. Many organizations use the

international standard of largest to smallest: yyyy mm dd. Others reverse this international standard:: dd mm yyyy. Still others use the American standard: mm dd yyyy. Despite the complications which occurred before the year rolled to 2000, many continue to use a two-digit year. Of course there is no problem understanding dates so long as the name of the month is in letters. If in numbers, there can be confusion: is 9/12/2024 the ninth of December or the twelfth of September.

Many languages have a standard format for dates. Perhaps the month name is always in letters. In Bulgarian, the month is indicated by upper case Roman numerals. In Greek, numbers can be written with letters (two different systems) or with numbers. Dates in Greek can be written with any of the three possible ways to represent numbers or by spelling the name of the month.

Generally, numerical values are shown with the same Arabic numbers we all know. As mentioned in Bulgarian and Greek, numbers can be represented with letters. That is also true in a few other languages, although this

usage seems to be slowly disappearing. According to The Latex Companion (vol 2, p. 319), Icelandic documents require special formatting for numbers and need the command `\tala`. In French, there are shorthand commands to generate the first four ordinal numbers `\primo`, `\secundo`, `\tertia`, `\quattro`.

If you typeset documents using either the Greek or one of the Cyrillic alphabets, you should read the documentation available in The Latex Companion and any other helpful documentation. The authors recommend using either XeTeX or LuaTeX instead of pdfTeX for Greek.

Typing in Chinese or Korean or Japanese requires additional support. It is necessary to be able to input the appropriate code for each character in these languages. In Chinese, the most common method to “spell” a Chinese character is pinyin. The input method accepts the keyboard input and presents a series of choices which match the pinyin which has been typed (something like a spell checker). The writer then picks the correct form and it displays on the screen. That is how I typed these

four characters: . Unlike Chinese and Japanese, Korean is written using an alphabet. However the letter forms change depending on which vowel is combined with which consonant and in what order. Each syllable is represented by one character, the same as Chinese and Japanese.

To write in any of these three languages requires access to character sets which match the input method. The first and best set of packages to give access to the appropriate character sets is CJK. A recent approach is to make some versions of Tex compatible with the Unicode character sets. Unicode gives access to character sets so that almost all existing languages (many ancient ones and some imaginary ones) are available to the user. This is a much better solution than the one offered by CJK and similar packages.

```
\documentclass[12pt]{article}
```

```
\usepackage{CJKutf8} %Load UTF8 version of CJK
```

```
\usepackage{noto-serif} %Load a font for this document.
```

```
\begin{document}
```

While it is possible to write Chinese in columns starting in the top-right corner of the writing space, normally Chinese is written left-to-right top-down in rows the same as English.

I can type pinyin to generate Chinese characters. In order to generate Chinese characters (or Japanese or Korean), I need to add a package to Latex. Either CJK or CTEX are recommended. See image below.

As you may know Hebrew and Arabic are written right-to-left. The Hebrew and Arabic alphabets contain only consonants. Arabic consonants change shape depending on their position in a word: beginning, middle, end. The letters in a Mongolian word are written top-down. Words in a Mongolian sentence are written right-to-left. (Humans have used many variations in order to communicate using writing.) The problem of writing in other than

left-to-right order requires at least one other package: bidi (for bidirectional). The difficulties caused by Mongolian text are overcome with Unicode.

This excursion into the world of typesetting for more than one language points out a feature of Tex that is hidden from users who install a variant of Tex in one language. Some variants of Tex are fully compatible with Unicode, others are not. This is similar to issues between some variations of Linux. For example, to install krecipes on Linux that is not based in Ubuntu requires the addition of many packages because krecipes uses features of Ubuntu that are not normally installed with other variants of Linux. If you never want to use krecipes you never have to think about this situation.

I did find some workaround code that makes my plain vanilla Latex work with and produce characters I do not often use. The other choice

```
\begin{CJK*}{UTF8}{gbsn} %Set up a Chinese language environment
\paragraph{}我很系换吃中国反。 我学中文。
\end{CJK*}
\end{document}
```

would have been to install at least one other version of Tex, probably pdfTex or LuaTex. I chose not to add more files to my machine. This is in keeping with Knuth's original design idea. Do not make the user install any more bits of software than they need. Unlike some other versions of Latex, mine does not automatically install any required packages. Instead, it generates an error which indicates it cannot find a particular package the user requires.

One of the operations I will examine in the near future is the installation of new packages. Depending on when I get to that topic I may also look at updating Latex to a new version.

This is the end for this time. Keep exploring Tex / Latex. Ask me any questions you have about it.

KILOBYTE MAGAZINE

Kilobyte Magazine is a fanzine for 8bit enthusiasts. It covers consoles, computers, handhelds and more, as well as new games for old systems. If you grew up with Commodore, Atari, Sinclair or Amstrad, this magazine is for you.

<https://retro.wtf/kilobytemagazine/>



HOW-TO

Written by Mark Crutch

Inkscape - Part 153

Last month, I covered some of the smaller, less well publicized, changes and additions in Inkscape 1.4. Let's have more of the same this month...

SPRAY TOOL

To be honest, the Spray Tool (Shift-F3 or 'A') is one that I very rarely use. I covered it in depth more than a decade ago, back in part 26 of this series (FCM #86), and the base functionality has changed little since then. It has acquired a few extra controls over the years, and the developers have even sneaked in some extra toolbar buttons with version 1.4 which aren't mentioned in any of the release documentation I've seen. Some further experimentation will be required so that I can dedicate a future article to all the capabilities this tool now has.

For the time being, however, I'm only going to look at a couple of seemingly small changes in 1.4 which, in my opinion, greatly extend the utility of this tool. With these tweaks, the spray tool not

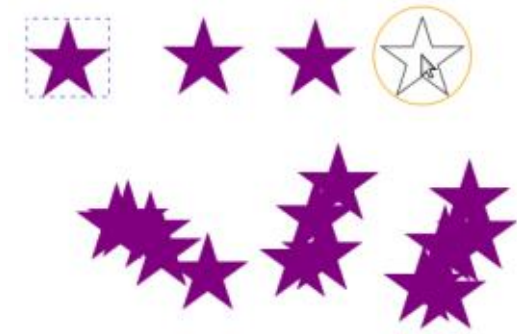
only serves its main purpose of... well... spraying, but it also becomes a useful multi-stamping tool.

"Stamping" in Inkscape refers to a way of pasting multiple copies of an object, one-by-one. You simply drag the object in question around the canvas, and each time you press the spacebar, a copy is pasted at that location. If you need to quickly create a few copies of an object, it's more efficient than repeatedly reaching for Ctrl-V then having to place the item in the required location. With snapping enabled, it makes for an extremely fast way to precisely place copies on your drawing. Version 1.3 introduced a variation on this theme whereby pressing the 'C' key, rather than the spacebar, will 'stamp' a clone rather than a copy.

The Spray Tool now offers a similar feature: select an object, but rather than 'spraying' it by clicking and holding the mouse button as you move the mouse around, a single click-and-release of the button will paste one copy of the object (or a clone, depending on

the tool's settings). Creating just a single copy or clone with a click isn't new in itself, but there have been two changes in 1.4 that make this feature more useful: items created in this way are now placed at the center of the spray area, and the cursor shows a preview outline of the object before it's created. These changes mean that you know exactly where your new object will be created, and the use of an outline may make this even better than the spacebar method in situations where the object might otherwise obscure the thing you're trying to align it with.

This image shows a small purple star selected at the top-right. Next to it are two copies that have been created with single clicks, plus the cursor – complete with outline version of the star – positioned ready to create a third. Below, on the other hand, is the result of click-dragging on the canvas, without changing any parameters. Stamping and spraying with the same tool, depending on when you release the mouse button.



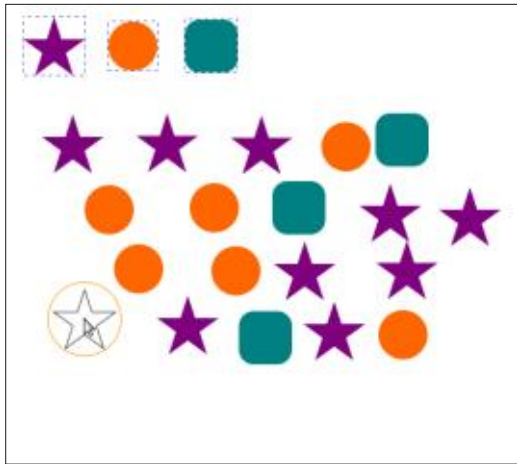
But I said it had become a multi-spray tool, so where's the "multi" part? That kicks in when you have more than one item selected. This time I have three different objects selected, and you can see the cacophonous result of spraying those items below.



Stamping with single clicks brings more order to the chaos, but

HOWTO - INKSCAPE

the choice of which objects gets stamped is still somewhat random for each click.



There is now, however, a way to cheat the system and stamp only the specific object you want at each location. By holding the right mouse button down while moving the mouse just a little bit, the spray tool will switch between your selected objects – indicated by the outline preview changing. It does sometimes take a couple of tries before it switches to the object you want, but with a little patience you can tame the randomness of the selection in order to create just the objects you want at each location, as you can see in this image, created in this way.

Whether this is actually any more efficient than stamping each

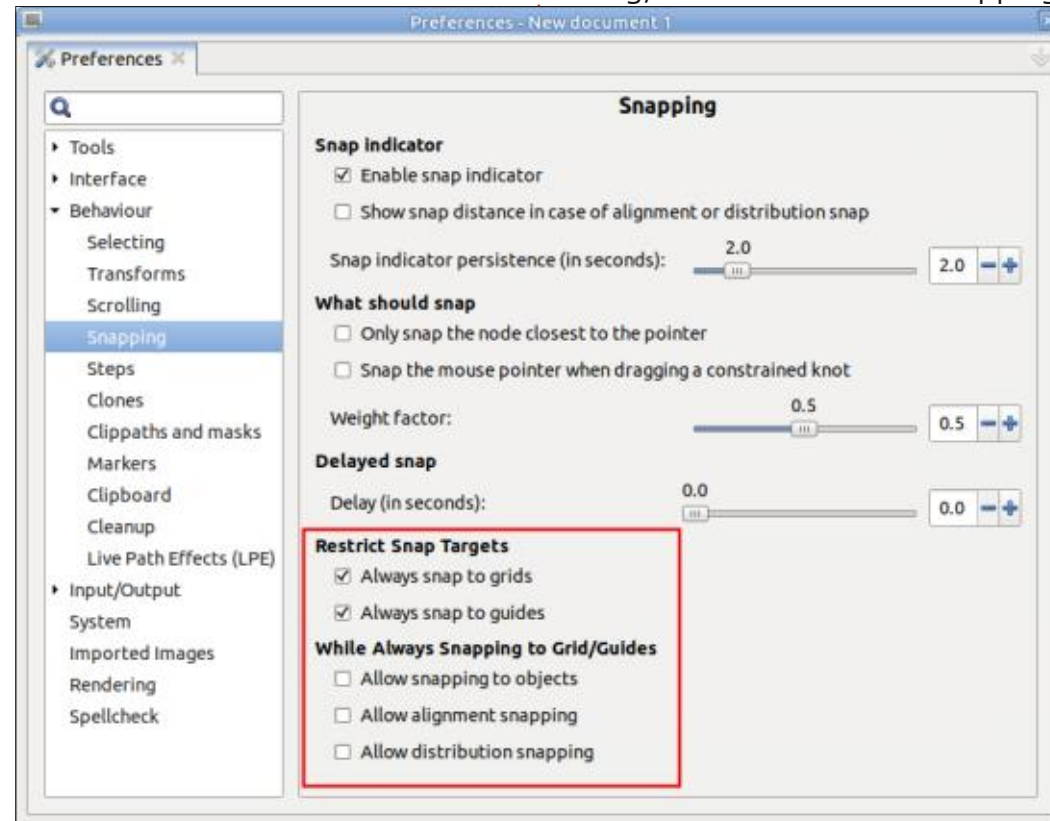


of the shapes separately with the spacebar will depend on your specific drawing and requirements,

but it's always good to have more options available.

SNAPPING PREFERENCES

While you're busy stamping new copies or clones with the Spray Tool, it's likely that you'll want to enable snapping to make sure they land where you want. In that case (or in any other where you use snapping), you might be interested in the new options that have been added to the Edit > Preferences dialog, in the Behaviour > Snapping



pane.

Have you ever been trying to snap to a grid or guide, only to find the cursor wants to snap to a nearby object instead? If so, these new controls are just what you need. If that's something that's never bothered you, however, you can leave them all unchecked to stick with the normal behaviour of snapping to any valid nearby target.

Enabling the first two options causes Inkscape to snap only to grids or guides (or both), if they are visible. The last part of that sentence makes these options much more powerful than they first appear. If you've toggled the grid off (with the '#' key), then "Always snap to grids" has no effect. Similarly, toggling off the guides (using Shift-| – that's the "pipe" key) will render the "Always snap to guides" option inert.

Let's have a more practical example using just a grid (though the same principle applies to guides). With a grid enabled in older versions of Inkscape, the cursor would snap to the grid intersections and to the object nodes, bounding boxes, and so-on – depending on what snapping options you have

HOWTO - INKSCAPE

enabled. With “Always snap to grids” enabled, Inkscape will snap only to the grid intersections, regardless of whether any other snap targets are nearby. Hide the grid (#) and the other snap targets kick in again, making it easy to constrain most of your work to the grid, but flip back to object snapping when needed.

The second set of checkboxes act as an override to the previous description. Suppose you want to always allow object snapping, even when you’ve otherwise constrained everything to snap to the grid? Enable the “Allow snapping to objects” checkbox in the preferences and object snap points will be considered as well as the grid.

(In case you’re wondering, “alignment snapping” and “distribution snapping” refers to the lines that appear to help you automatically align objects to existing things in your drawing, or space them evenly apart)

This whole snapping hierarchy is a little tricky to explain, so I’ll give you some rough rules-of-thumb to work by:

1/ If you’re happy with the way snapping works currently, don’t change anything. This should probably be the case for most users.

2/ If you get frustrated when Inkscape snaps to objects rather than your grid or guides, enable the relevant checkbox(es) in the first section and see if it improves matters. Toggle the visibility of the grid or guides when you need to snap to something else.

3/ If you generally like the behaviour with the first checkbox(es) enabled, but still want to snap to objects, or to have the align or distribute lines show up, enable the relevant checkbox(es) in the second section and see if it improves things for you. Once again, toggling the visibility of the grid or guides will switch back to using the “normal” snapping targets.

I don’t really think this is the best way to handle the hierarchy of which snap targets should take precedence, as it’s very difficult to conceptualise (and explain!) exactly how this works. But as someone who has occasionally tried to wrestle with a grid-based design

Name	Default shortcut
Quick Pan Canvas	Space
Quick Preview	F
Quick Zoom	Q
Pen Segment to Line	Shift-L
Pen Segment to Curve	Shift-U
Pen Segments to Guides	No default – see last month’s column for more details

while swearing at misplaced snapping points, I appreciate the attempt to try to do something to improve the situation.

KEYBOARD SHORTCUTS

A few more keyboard shortcuts are now customizable via Edit > Preferences, in the Interface > Keyboard pane. If you wish to change any of these, the easiest thing to do is to search for part of their name. To that end, here’s a table of the newly available

Name	Default shortcut
Object Clip Set	Ctrl-M
Object Clip Release	Alt-M
Object Clip Set Inverse	Ctrl-Alt-M (see note below)
Swap fill and stroke	Shift-X

shortcuts, together with their default values (see table above)

In addition to these, a few existing features that previously did not have a keyboard shortcut by default now do. Note that this applies only to new installations of Inkscape, and you’ll need to set them yourself on an existing installation. For these purposes, running the Applmage version acts as a new installation. The same may also apply to other “containerized” package formats that come from third-party sources (such as your

HOWTO - INKSCAPE

distribution's repositories).

Note that in my ApplImage copy of 1.4, all of these were set except the Inverse Clip shortcut. I'm not sure if the release notes are wrong or the ApplImage config is incorrect, but if you use this feature a lot, it might be worth checking – and setting this shortcut if necessary.

ALIGN & DISTRIBUTE DIALOG

There's been an attempt at a small, but welcome, quality-of-life improvement to the Align & Distribute dialog – except that it doesn't work terribly well for me. This dialog can be used to align objects to each other, but also to align objects to the page or the drawing – the latter being the bounding box of all the objects on the canvas, whether they're inside the page or not. When only a single object is selected, only the Page and Drawing options make sense... so Inkscape now limits the "Relative to" popup menu to show only those items (defaulting to Page). Select multiple items and the full list becomes available again.

This will work well for users who keep the dialog open all the time in

a sidebar. For people like me, who prefer to open and close floating dialog windows as necessary, it doesn't work so well. When the dialog is open, selecting a single object changes the popup as expected. But if a single object is selected first, and then the dialog is opened afterwards, it still shows the full list. It probably requires only a small fix to check the selected count when opening the dialog, but it's a shame that it slipped through the cracks. I guess it confirms my suspicion that I'm in the minority as an old-school user who prefers dialogs in windows rather than permanently docked to the side of the window.

Next time I'll cover a final selection of smaller changes that may have passed you by, before digging into some of the larger changes to 1.4 over the coming months. And if I manage to get through all those before the next major release, I guess I've now got the Spray Tool to revisit in more depth!



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

NOBODY LAUGHS AT MY TEAMS JOKES
WHILE WORKING FROM HOME, THEY SAY
I'M NOT REMOTELY FUNNY...





Linux on Your iPad

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





UBPORTS DEVICES

Written by UBports Team

UBUNTU TOUCH 24.04 NOBLE RELEASE

This highly featured alpha version of 24.04 is available now using the UBports Installer. Simply enable hidden channels under the installer settings option.

All the details and discussion so far can be found at: <https://forums.ubports.com/topic/10688/this-week-in-development-week-52-2024>

Please give it a try and help with testing if you have a spare device handy. Mobile data is not currently working (calls and WiFi are) but that will be resolved in the next few updates.



The Daily Waddle

THE DEFINITION OF INSANITY IS TO DO THINGS OVER AND OVER EXPECTING A DIFFERENT RESULT... WELL TELL THAT TO PEOPLE REBOOTING WINDOWS...

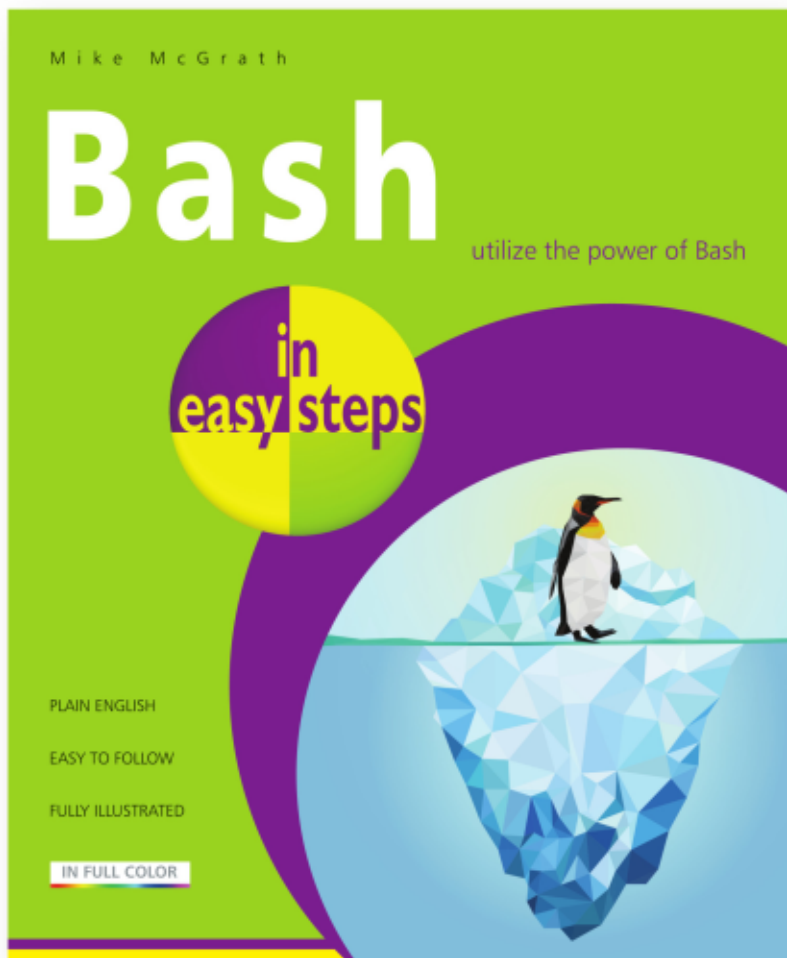




Clear and concise guides to help you learn with minimal time and effort!

Order direct from ineasysteps.com and get **25% discount!**

Enter **FC25** in the Coupon Code box at the checkout.



Bash in easy steps is ideal for anyone – from Bash novices and students to programmers – who wants to expand their coding skills to use this powerful command-line interface to control Unix-based systems: Linux, macOS and Raspberry Pi devices.

This handy guide begins with Bash commands for system navigation and file manipulation, so you'll quickly get familiar with the Bash interface. It then moves on to more advanced features such as:

- Command-line editing, recalling command history, and environment customization.
- Controlling Bash shell behavior, flow control, command switches, and creating useful scripts.
- Debugging – allowing you to check and correct common errors easily.

Complete examples illustrate each aspect with colored code, and full-color screenshots depict the actual output, enabling you to easily create your own executable programs.

Use the downloadable source code to get started straightaway!

£11.99 / \$15.99 paperback (ebook version also available)

ISBN: 9781840788099 / 192 pages / By: Mike McGrath



MY STORY

Written by Olivier D.

During the first COVID confinement, my son was in high school. Like everybody else, the students and teachers had to start “teleworking” however they could! The school had gotten the loan of some computers for the students in our county, but, unfortunately, not enough for everybody who needed one. At that point, I suddenly thought... From my experience as the IT manager in a research institute, I know that there are sleeping treasures in businesses: computers that still work but have been scrapped for spare parts and/or to be destroyed.

Using a search engine, I looked up the 50 biggest companies in my county, after which I looked up (or deduced, for some of them) the name and email address of the director. Next, I composed a message that would ask the companies to give me their old laptops that still worked so they'd have another life.

Oh-oh, I've forgotten to explain the whys and wherefores of my procedure... The idea was to gather

functional computers so we could give them to students who had none at home and, in the process, give them some idea of healthy digital practices.

To put it simply, only one company replied favorably to my request, the STMicroelectronics Foundation, which donated about twenty machines. I had to join a parent-teacher association to make the gift possible. Once I had the machines, I needed to organize the project. Some of the teachers (Mrs Ott, Mrs Verdier and Mr Sahuc) became invested in the project. They identified the students who had no equipment at home, called the parents to explain the project to them, etc.... Once the students had been identified, thanks to the co-working space of the city of Montlouis (the RubixCo), I held an IT morning during which, session after session, I met with one of those students accompanied by one of his or her parents.

During that morning, I managed to :

- create an awareness of the

impact of electronic waste on the environment (the resources necessary to make a 2 kg laptop, the trailer of the film « Welcome to Sodom » about the DEEE dump in Ghana,...),

- create an awareness of free software (origins, principles, security, as opposed to proprietary software),
- and the final practical bit: the installation of a free system (Ubuntu). That practical part was also conducive to speaking of digital health (the strength of a password, how to set up Firefox to navigate the Internet, DNS on https to filter out the pornographic sites,...). Next, I showed them how to keep the system in shape (updates, adding or suppressing software), setting up Firefox (adding extensions, adjusting parameters, DOH,...), and the handling of their own data on the machine (the creation and manipulation of folders and files).

After one year of existence, all I can say is that I was very naive to think that the firms would agree to give us any machines, even those

Fix The Future

that were to be destroyed. Going further after the gifts from the STMicroelectronics Foundation, I answered project calls to find the money necessary to buy refurbished machines from specialized companies... It's crazy or paradoxical to be forced to purchase refurbished machines while there are thousands of sleeping computers in the firms.

Beginning a year and a half ago, we have succeeded in giving equipment to 30 students. With this article, I'm also sending out a call to the readers: if there are eligible laptops in your firms, I would be happy to have them (ideally and at a minimum: 13 or 14 -inch screens, a 6th generation Intel core i5, and 4 or 8 GB of RAM. A hard drive isn't necessary since I replace mechanical disks with SSDs).

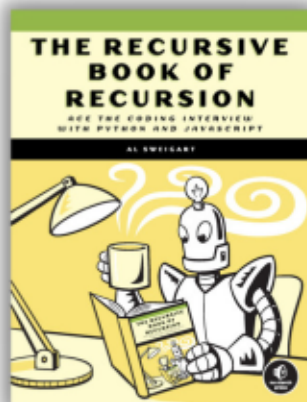
Thank you for reading. With freedom.



Tech Books Made Better



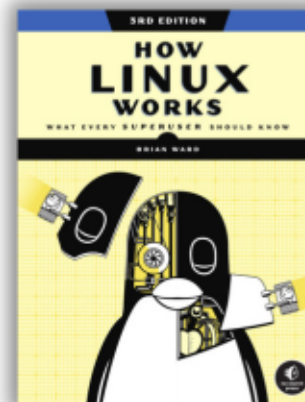
Python Crash Course, 3rd Edition
9781718502703
\$44.99 PB | 552 pages



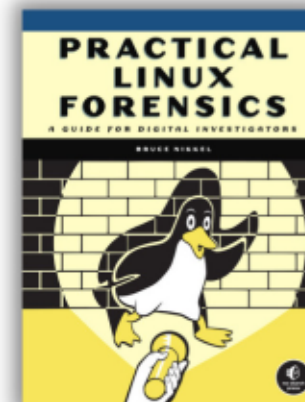
The Recursive Book of Recursion
9781718502024
\$33.99 PB | 328 pages



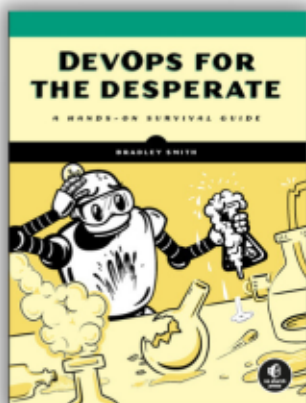
Dead Simple Python
9781718500921
\$59.99 PB | 752 pages



How Linux Works, 3rd Edition
9781718500402
\$49.99 PB | 464 pages



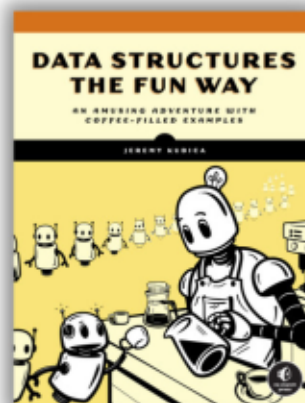
Practical Linux Forensics
9781718501966
\$59.99 PB | 400 pages



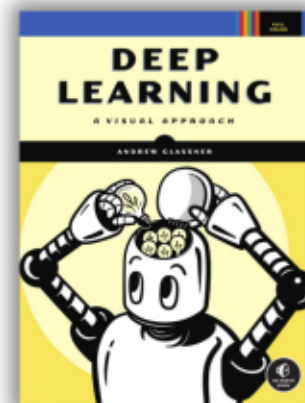
DevOps for the Desperate
9781718502482
\$29.99 PB | 176 pages



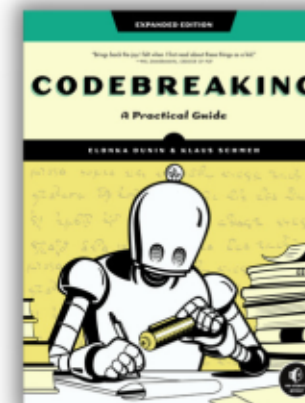
The Rust Programming Language, 2nd Edition
9781718503106
\$49.99 PB | 560 pages



Data Structures the Fun Way
9781718502604
\$39.99 PB | 304 pages



Deep Learning
9781718500723
\$99.99 PB | 776 pages



Codebreaking
9781718502727
\$29.99 PB | 488 pages

Get 25% off your order at nostarch.com with code **FULLCIRCLE25**



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.



REVIEW

Written by Adam Hunt

Ubuntu Cinnamon 24.10

On 10 October, 2024, Ubuntu Cinnamon 24.10 is the interim release that starts the ball rolling on a new development cycle of three interim releases leading to the next long term support (LTS) version, which is due in April, 2026.

Ubuntu Cinnamon 24.10 is the 11th release for this distribution and its fourth as an official Ubuntu flavor. As an interim release it comes with nine months of support, running until July, 2025.

In many ways, Ubuntu Cinnamon 24.10 is a bold statement because it introduces almost nothing new of note. This tends to indicate that this whole developmental cycle will also not introduce much that is new. The message this sends is that Ubuntu Cinnamon is pretty much what it's developers and users want these days and that the most important thing is not breaking it by making big changes.

INSTALLATION

I downloaded the Ubuntu Cinnamon 24.10 ISO file from the

official source using BitTorrent. Once I had the file, I did a command line SHA256 sum check on it, to make sure the file was good.

The Ubuntu Cinnamon 24.10 ISO file was 5.0 GB to download which makes it 200 MB, or 4% smaller than the last ISO for Ubuntu Cinnamon 24.04 LTS. After checking things over, I think I know where at least some of those space savings occurred.

I booted the ISO up for testing from a USB stick equipped with Ventoy 1.0.99. Ventoy makes

testing out Linux distributions very easy. Just drop the files onto the stick and Ventoy does all the hard work of unpacking and getting it running.

SYSTEM REQUIREMENTS

Ubuntu Cinnamon does not seem to list any minimum system requirements but it is probably safe to assume that it is the same as Ubuntu and therefore that any relatively modern 64-bit system with at least a 2 GHz dual core processor and 4 GB of RAM will suffice. More RAM would be better,

of course.

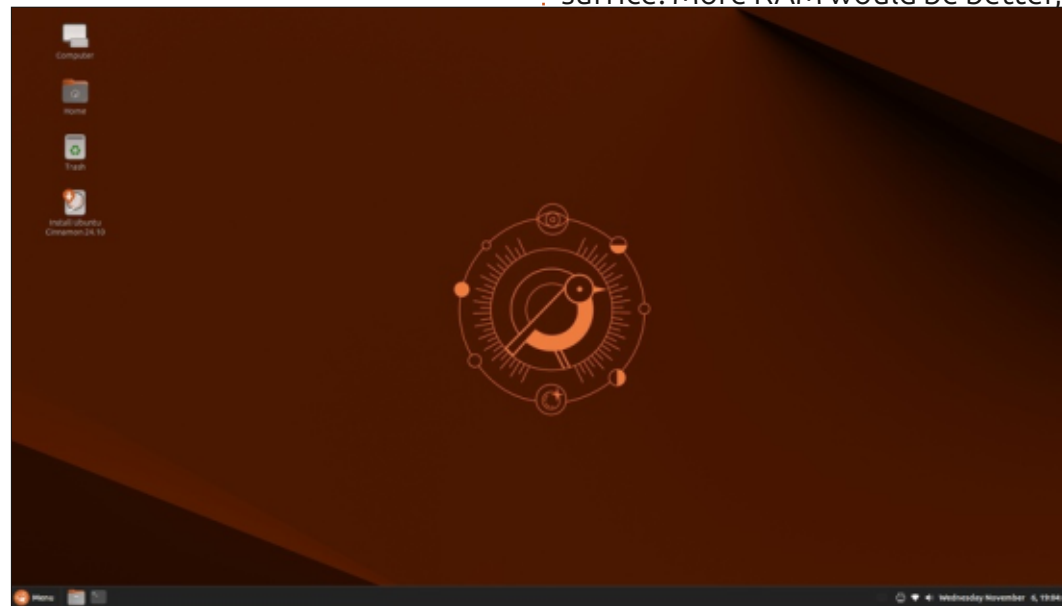
NEW

This release has very few improvements and most of those are from "upstream" projects rather than from Ubuntu Cinnamon itself.

The only really upgraded Cinnamon component is CJS 6.2.0 which consists of some Mozilla-based javascript bindings for the Cinnamon platform, which now uses mozjs115. Only getting new bumped version numbers, but no changes, are the Cinnamon Screensaver 6.2.0 and the Cinnamon Settings Daemon 6.2.0.

New from upstream projects are Linux kernel 6.11 and the systemd 256.4 initialization system, plus new versions of some of the existing applications. The new Linux kernel includes support for newer hardware.

Overall these changes are very minimal for this new release and that probably points to a



REVIEW

developmental cycle where we can expect "not a lot new" to be introduced.

Specifically listed in the release notes as "not new" are the same versions of the Cinnamon 6.0.4 desktop, Cinnamon Control Center 6.2.0 and the Nemo 6.0.2 file manager that were employed in Ubuntu Cinnamon 24.04 LTS. The default theme supplied remains, appropriately enough, Yaru-Cinnamon.

Another thing that is "not new" in this release and yet still quite unwelcome is that the live session of Ubuntu Cinnamon 24.10 will not mount any drives, including USB drives. This was also present in the

last release. This prevents using it as a rescue disk and also makes doing screenshots for reviews more complicated. For this review, this problem required uploading the screenshots to a cloud service as a .zip file, rather than simply taking them off on a USB stick. Is there any reason to lock out all drives in a live session? Not that I can think of.

SETTINGS

Ubuntu Cinnamon 24.10 has the same user customization options that 24.04 LTS did. These consist of four different mouse pointer themes, 35 window color themes (including many dark themes), 33 icon themes and 28 desktop

themes (which set the panel colors).

Since this release is code named "Oracular Oriole", there is naturally a nice new oriole-themed default wallpaper. Otherwise, the number of wallpapers provided has been cut from 43 in the last release to 15 in this one including removing all the previously supplied Debian ones. All of the 24 wallpaper categories are still there but many are now empty. I suspect that this is at least part of the reason for the smaller ISO size for this release.

The Cinnamon desktop's bottom panel still can be adjusted in size over quite a large range, allowing it to be made much narrower or wider with the icons on the panel resizing

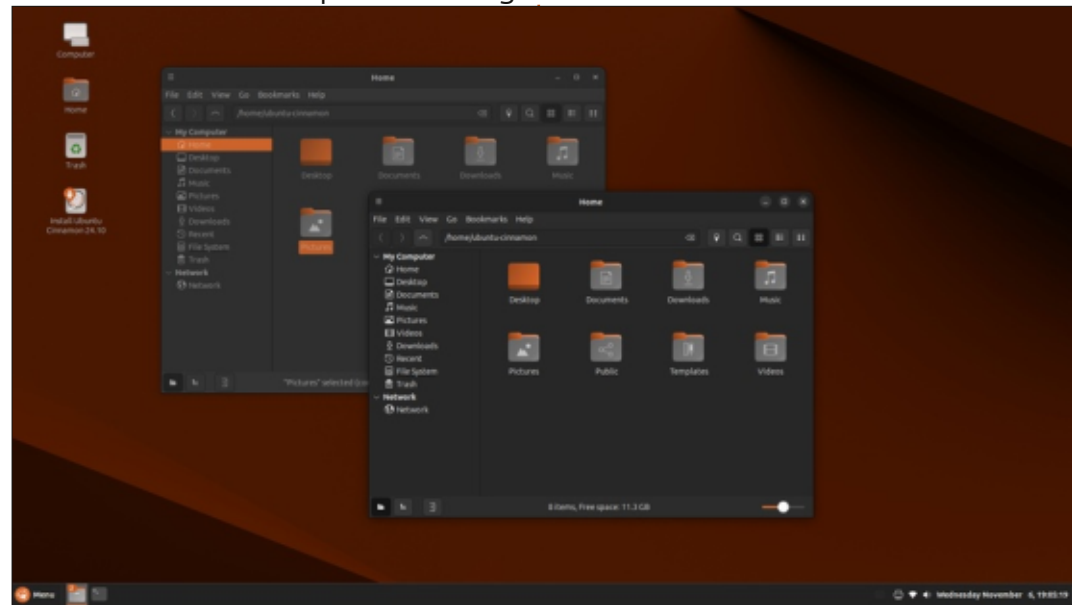
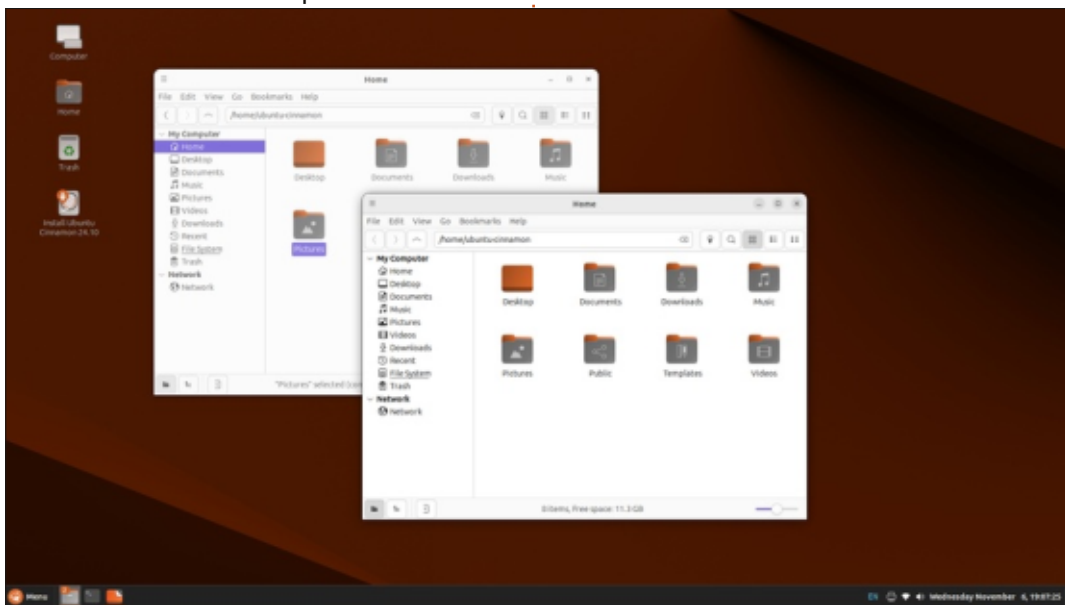
automatically to fit. The control for this is found under "preferences - panel" and it has a default size of 40 pixels. The menu continues to be adjustable in size as well, which is a nice option.

The range of user customization available in Ubuntu Cinnamon is quite extensive and gives a lot of control as to how the resulting desktop looks.

APPLICATIONS

Some of the applications included with Ubuntu Cinnamon 24.10 are:

Alacritty 0.14.0 terminal emulator



REVIEW

Archive Manager (File Roller) 44.3 archiver
Blueman 2.4.3 Bluetooth controller
Brasero 3.12.3 CD/DVD burner*
Cheese 44.1 webcam*
Cinnamon 6.0.4 desktop environment*
CUPS 2.4.10 printing system
Document Scanner (Simple Scan) 46.0 optical scanner*
Document Viewer 46.3 (Evince) PDF viewer
Firefox 131.0 web browser**
Deja Dup 45.2 back-ups*
GDebi 0.9.5.7 package installer*
GIMP 2.10.38 image editor
GNOME Calendar 47.0 desktop calendar
GNOME Disks 46.1 disk manager
GNOME Software 47.0 package management system

GNOME System Monitor 47.0 system resource monitor
GNOME Terminal 3.54.0 terminal emulator
GNOME Videos 43.0 (totem) video player*
GNote 46.1 note taking application
Gparted 1.5.0 partition editor* ***
gThumb 3.12.6 image viewer*
Hexchat 2.16.2 IRC client*
Image Magick 6.9.13.12 command line image editor
Image Viewer 47.0 (Eye of Gnome) image viewer
LibreOffice 24.8.2 office suite
Muffin 6.0.1 window manager*
Nemo 6.0.2 file manager*
Pidgin 2.14.13 IRC client*
Pipewire 1.2.4 audio controller
Remmina 1.4.35 remote desktop client*

Rhythmbox 3.4.7 music player*
Shotwell 0.32.6 photo organizer*
Sound Juicer 3.40.0 CD ripper*
Synaptic 0.91.3 package manager*
Systemd 256.5 init system
Text Editor (gedit) 46.2 text editor*
Thunderbird 128.3.1 ESR email client**
Transmission 4.0.6 BitTorrent client

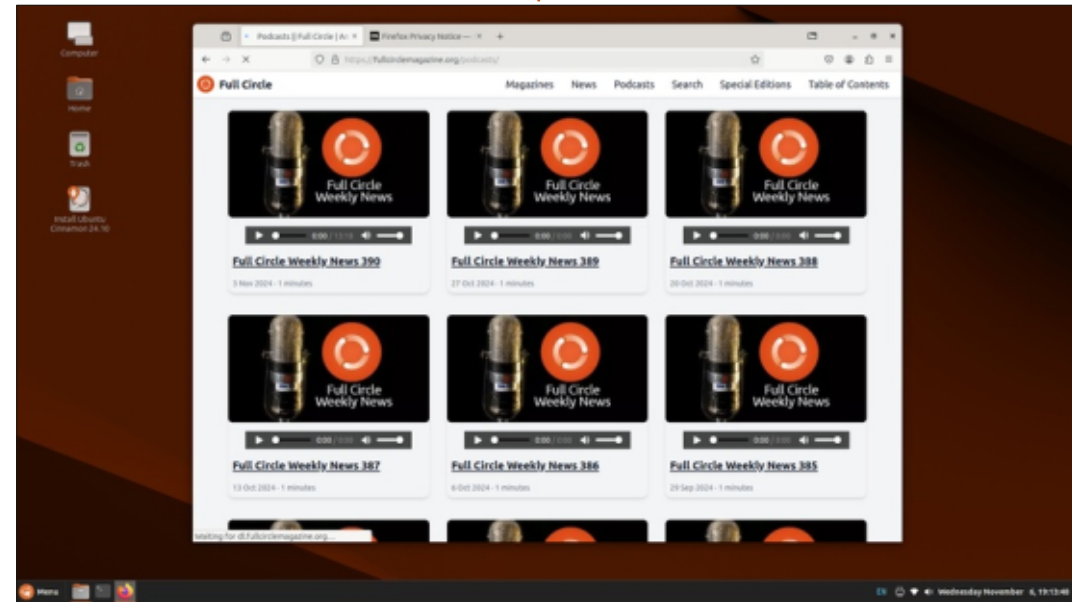
* indicates same application version as used in Ubuntu Cinnamon 24.04 LTS
** supplied as a Snap, so version depends on the upstream package manager
*** only present in the live session version, not in the normal installation

the default application mix provided in this release. Many of the applications are still the same versions as last time, too, hence the large number of asterisks. The bulk of the applications are from GNOME 46 and 47.

Ubuntu Cinnamon uses the Cinnamon desktop's own Nemo file manager, originally a fork of GNOME Files (Nautilus). Since it is not configured for bulk file renaming, installing a standalone bulk file renamer, such as GPRename, is a good idea.

Ubuntu Cinnamon 24.10 includes the LibreOffice 24.8.2 office suite which is complete, except for LibreOffice Base, the

There have been no changes in



REVIEW

database program. It is probably the least-used part of LibreOffice but it can always be installed if needed.

As in past releases, the list of default applications in Ubuntu Cinnamon 24.10 is very long and has just about anything a desktop user could want, except perhaps a video editor. There are, however, still a lot of duplicate applications, like two terminal emulators, two

image viewers, two image editors and two software package managers, plus there are also 19 games. That all adds up to a lot of menu clutter. As I have noted in the past, a true "minimal installation" option, like Ubuntu and Xubuntu have, would be a welcome installation option.

CONCLUSIONS

Ubuntu Cinnamon 24.10 is a


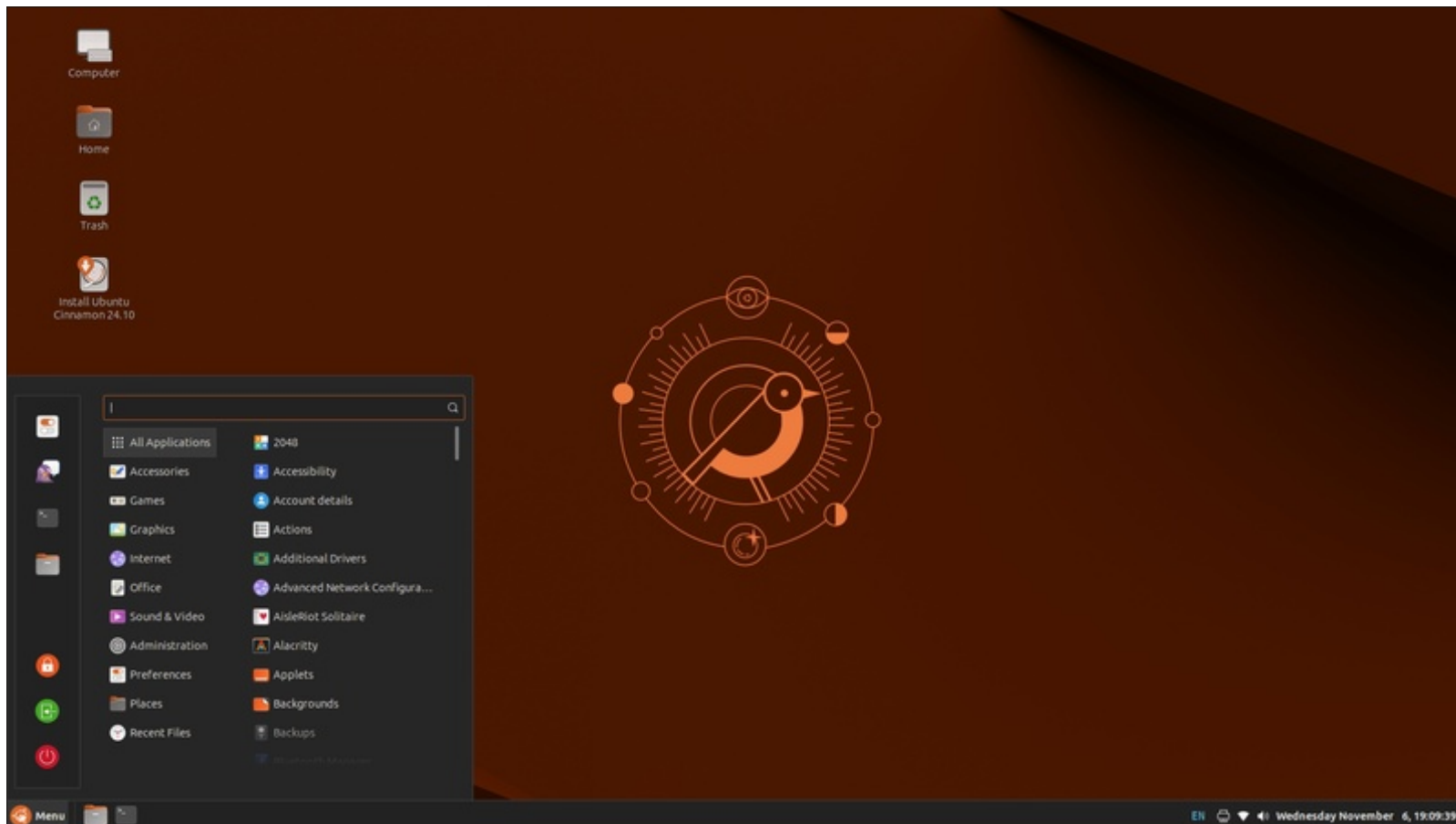
nice, solid release, even if it offers little new to entice Ubuntu Cinnamon users away from the last LTS version, other than an updated Linux kernel.

Based on the minimal changes introduced in this first new interim release, I expect that there will be very little new over this cycle, resulting in the next LTS just having a few updates and not much more. Since most Ubuntu Cinnamon users

seem to like how it works right now and don't see a need to change things, this is actually a good plan. I use Ubuntu Cinnamon as my main daily operating system and, I have to say, I love how well it works.

EXTERNAL LINKS

Official website:
<https://ubuntucinnamon.org/>



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.



REVIEW

Written by Adam Hunt

Ubuntu MATE 24.10

These days Ubuntu and most of its flavors are pretty stable. None are in the throes of large, wholesale changes, like switching desktop environments, such as back in 2011 when Ubuntu moved from GNOME 2 to Unity or 2017 when it moved to GNOME 3. Instead, most flavors just bring in a few, small incremental improvements with each release.

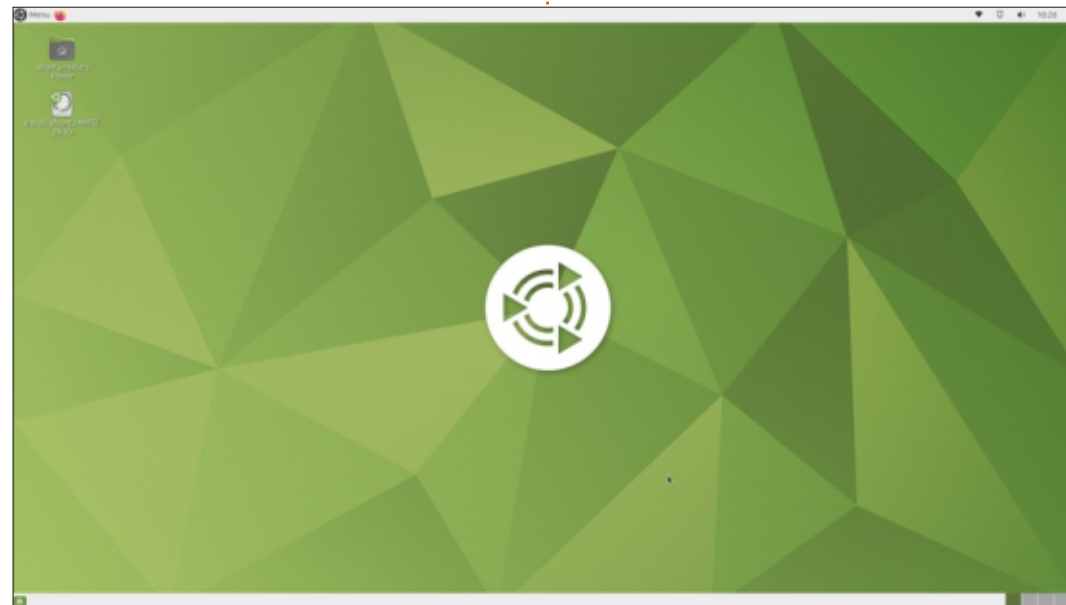
Ubuntu MATE is really in a different category, though, as it actively avoids changes. One of its stated objectives is to "recreate the halcyon days of Ubuntu for users who prefer a traditional desktop metaphor." That essentially means that it is dedicated to continuing the GNOME 2 desktop, just as it is. To be fair, though, they did introduce the Brisk menu to replace the old GNOME 2 triple menus, but otherwise Ubuntu MATE has really not changed over time, beyond a few bug fixes. Ubuntu MATE works quite well as it is and that is it!

This 22nd release of Ubuntu MATE, version 22.10, came out on 10 October, 2024. As an interim

release it kicks off the new development cycle of three interim releases leading to the next long term support (LTS) version, which will be Ubuntu MATE 26.04 LTS, expected in April, 2026. Because Ubuntu MATE 24.10 is an interim release, it only comes with nine months of support, running until July, 2025.

So what is new in this release? Not much, but that really is the point!

INSTALLATION



I downloaded the Ubuntu MATE 24.10 ISO file from the official source, using BitTorrent. This ISO is actually 17% smaller than the last release, weighing in at only 3.5 GB compared to 4.2 GB for Ubuntu MATE 24.04 LTS. The release notes state, "this is thanks to some fixes in the installer that no longer require as many packages in the live-seed." So that is helpful.

I did a command line SHA256 sum check on the file to ensure it was not corrupted and then dropped it onto a USB stick equipped with Ventoy 1.0.99 to

boot it up to a live session. Ubuntu MATE is officially listed as supported by Ventoy so it worked perfectly.

SYSTEM REQUIREMENTS

The listed minimum hardware has not changed for this release and remains:

- Dual core processor
- 64-bit
- 1 GB of RAM
- 8 GB of disk space
- Display 1024 X 768 px

The recommended hardware is:

- Core i3 processor
- 64-bit
- 4 GB of RAM
- 16 GB of disk space
- Display 1440 X 900 px, with graphics card

As well, Raspberry Pi B models are supported including Raspberry Pi 2, 3, 3+ and 4 (all memory sizes).

So, as expected, the changes in this release are a short list. In fact, the only substantial change was the replacement of the Arctica Greeter with the previously employed Slick Greeter. This switch back was due to a race-condition induced in the boot process which resulted in the display manager failing to initialize. Ubuntu MATE users had been requesting the return to the Slick Greeter anyway, as it includes a graphical configuration screen allowing customization of the greeter.

As with all the Ubuntu 24.10 family of releases, with Ubuntu

MATE 24.10 you get Linux kernel 6.11 and systemd 256.5 as the initialization system. Ubuntu MATE has now been using systemd for ten years and 20 releases with no problems encountered.

One thing that has not changed in this release is the MATE 1.26.2 desktop which is the same version that was used in 24.04 LTS. The next version 1.28 desktop has been released, but it has some bugs that need addressing prior to shipping. It is expected to be introduced later on in this development cycle, hopefully in time for inclusion in the next LTS.

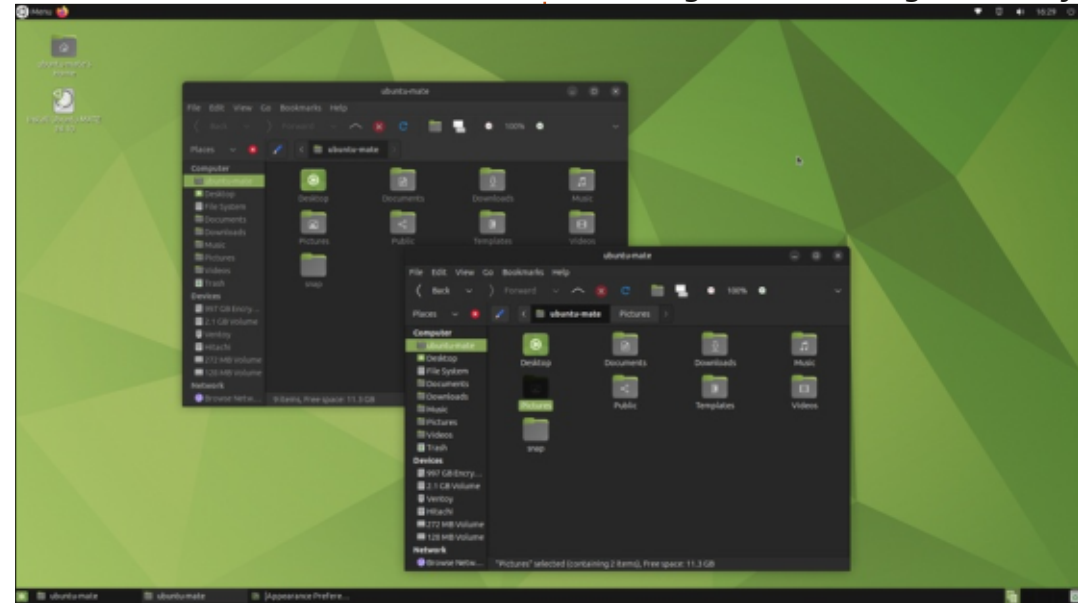
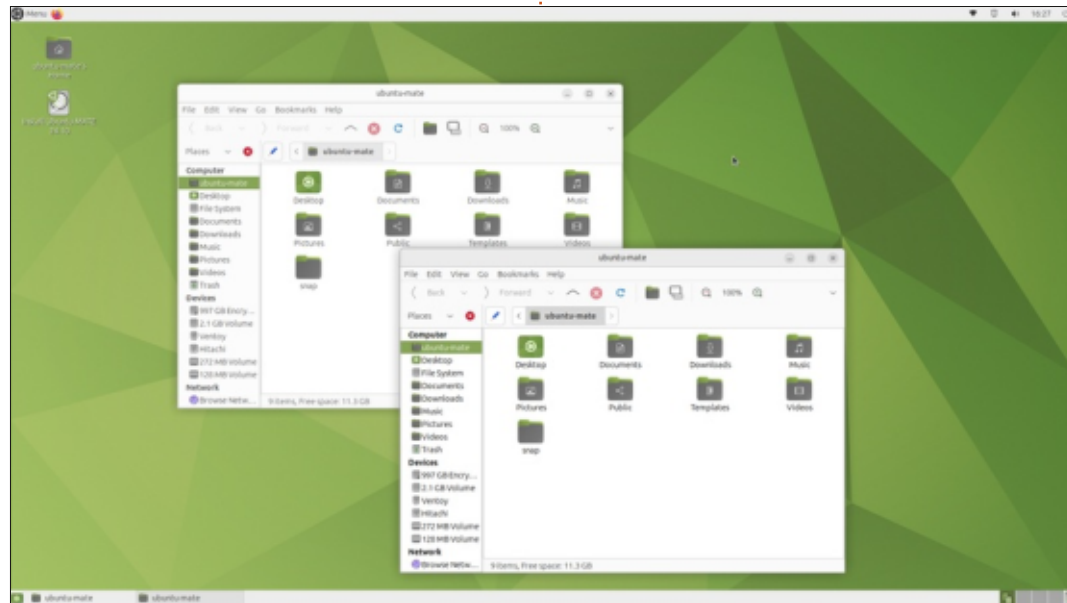
SETTINGS

As I have noted, sameness is a virtue in Ubuntu MATE and so 24.10 retains the default green-colored theme, including the same default wallpaper it always sports. It still has 23 window color themes and 28 wallpapers provided, although this time around four of the wallpapers feature orioles in various colors, as this release is code named Oracular Oriole. I am not a fan of the default green wallpaper, but there are some nice alternative ones provided that dress up the desktop quite nicely.

The default menu provided on Ubuntu MATE is still the singular Brisk menu. Brisk works well and

includes a menu search feature, as all modern menus do, to save clicking through looking for an application. The panel options do include several other menus including the original classic GNOME 2 triple menu, which is nostalgic, but lacks menu searching. By installing the original menu, though, you can have Ubuntu looking exactly like it did in the early days, from Ubuntu 4.10 to 11.04.

As in the past, if you want a launcher, the Plank desktop dock comes already installed and can easily be turned on by opening it from the menu. It is also easy to turn off, just right click "quit" on it and it is gone. As docks go it is fairly



REVIEW

unobtrusive and hides when a window touches it. I think its greatest virtue is that it is optional.

Ubuntu MATE still comes with the old GNOME 2 desktop's dual panel set-up, one at the top and one at the bottom of the screen. It is quite easy to change it to a single panel, just add the top panel icons to the bottom one including the menu button and then delete the top panel entirely. If you don't like the result, it is just as easy to reset them all back to the default two panel configuration with just one click.

As in the last release, the MATE desktop does not include a "large text" feature, desktop zoom or

scaling control. This has been identified as an issue if you have a laptop with a small, high resolution screen as most are these days.

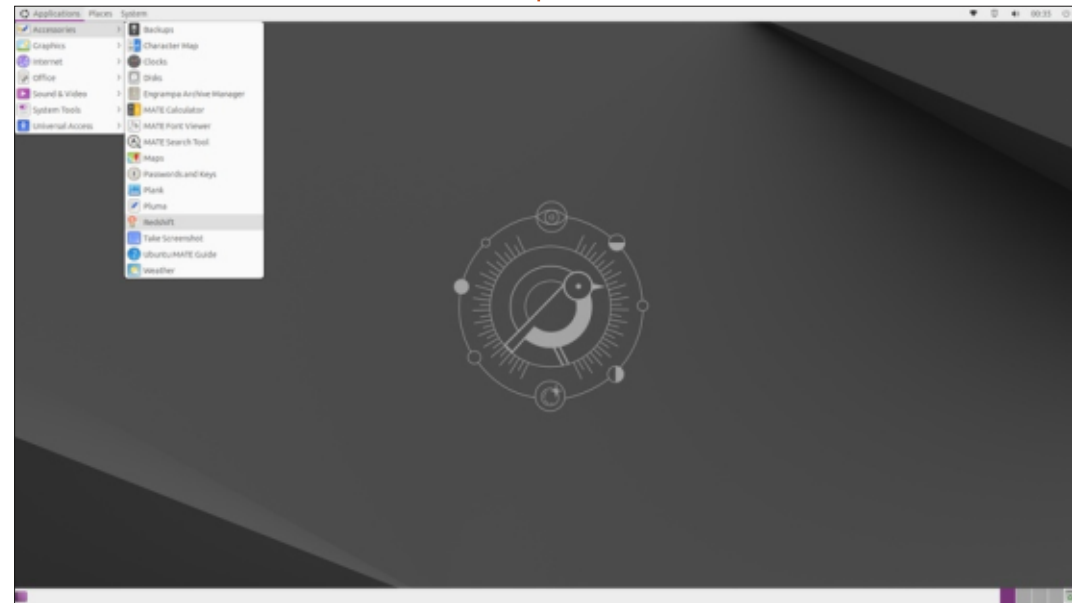
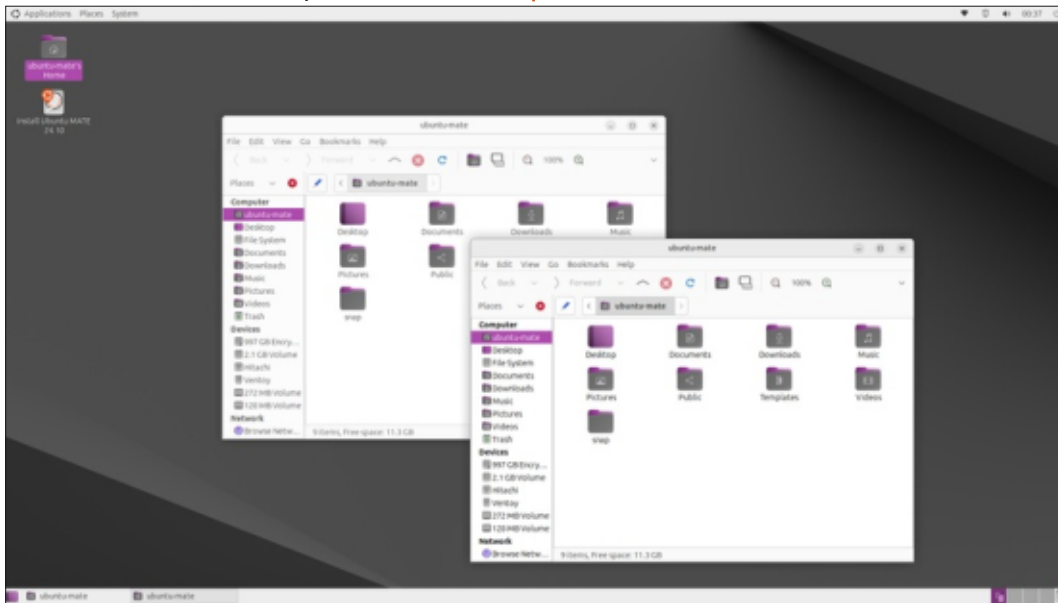
MATE does however have the ability to adjust system fonts at Control Center - Appearance - Fonts and this actually solves the problem reasonably well. You will need to increase all the font sizes from the 11 point defaults to 14 or 16 and then also set the default zoom in Firefox to 133%, LibreOffice Writer to 160%, plus increase the font for the Pluma text editor to 16 pt or so and it all works fine. It just takes a bit of time to set up.

APPLICATIONS

Some of the applications included with Ubuntu MATE 24.10 are:

- Atril 1.26.2 PDF viewer*
- Caja 1.26.3 file manager*
- Celluloid 0.27 video player
- CUPS 2.4.10 printing system
- Document Scanner (Simple Scan) 46.0 optical scanner*
- Engrampa 1.26.2 file archiver*
- Evolution 3.54.0 email client
- Eye of MATE 1.26.1 image viewer*
- Firefox 131.0 web browser**
- GDebi 0.9.5.7 package installer*
- GNOME Disks 46.1 disk manager
- GNOME Maps 47.0 maps
- GNOME Weather 47.0 weather
- Gparted 1.5.0 partition editor*
- GUFW 24.04.0 firewall controller*
- MATE Calculator 1.26.0 calculator*

- MATE Control Center 1.26.1 settings manager*
- MATE Disk Usage Analyzer 1.26.1 (baobab) disk display*
- MATE System Monitor 1.26.3 system resource monitor
- MATE Terminal 1.26.1 terminal emulator*
- LibreOffice 24.8.2 office suite
- Pipewire 1.2.4 audio controller
- Plank 0.11.89 desktop dock*
- Pluma 1.26.1 text editor*
- Redshift 1.12 screen colour temperature adjuster*
- Rhythmbox 3.4.7 music player*
- Shotwell 0.32.7 photo manager
- Systemd 256.5 init system
- Transmission 4.0.6 BitTorrent client
- Ubuntu App Center 1.0.0 package management system**
- Webcamoid 9.1.1 webcam*



* indicates same application version as used in Ubuntu MATE 24.04 LTS
** supplied as a snap, so version depends on the upstream package manager

There is not much new here in the way of applications, either. There has been no change to the list of included default applications and only a few of them have new versions.

The file browser is still the MATE desktop's native Caja file manager. Caja is an earlier fork of Nautilus with some of its removed features reinstated like the "up one level" button. It also includes some useful features like a fairly good bulk file renaming capability.

Ubuntu MATE 24.10 includes the LibreOffice 24.8.2 office suite, as usual complete, except for LibreOffice Base, the database program. This is probably the least-used part of LibreOffice but it can be installed if needed. Leaving it out saves some space.

The default suite of applications provided includes everything to get an average desktop user started. Basically Ubuntu MATE is ready to

get to work right from its installation.

CONCLUSIONS

With a motto of "For a retrospective future", Ubuntu MATE's goal is basically to continue the GNOME 2 desktop, so we don't expect much in the way of changes from release to release as it would detract from that aim. Even in kicking off a new developmental cycle, Ubuntu MATE 24.10 is no exception, including just a few minor changes to fix some bugs, plus a new Linux kernel to support newer hardware.

It is easy to dismiss Ubuntu

MATE as just appealing to people afraid of change, but GNOME 2 was actually once the most popular Linux desktop and for reasons that are still valid today: it is light, simple and fast to use. There is not much flash or bling here but it does let you get down to work. No Linux desktop since has matched the market share that GNOME 2 had and that includes GNOME 3.

By design, Ubuntu MATE is going to stay pretty much the same over time. This does have some real advantages, including no learning curve for new releases. Plus, if you like it today, you will like it next year. Sometimes constancy is a virtue.



EXTERNAL LINKS

Official website:
<https://ubuntu-mate.org/>



Adam Hunt started using Ubuntu in 2007 and has used Lubuntu 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.

Join us on:



[facebook.com/
fullcirclemagazine](https://facebook.com/fullcirclemagazine)



twitter.com/#!/fullcirclemag



[linkedin.com/company/full-
circle-magazine](https://linkedin.com/company/full-circle-magazine)



[ubuntuforums.org/
forumdisplay.php?f=270](https://ubuntuforums.org/forumdisplay.php?f=270)

FULL CIRCLE NEEDS YOU!



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.

So I'm busy wrapping some coal in a box for the kids this Christmas, it's not that they really deserve it, but they have not been well behaved this year, plus we did not get that bonus 13th cheque we worked so hard for; rather a pink slip and told to hit the road. What can I say, maybe they will be better behaved next year? It may be back to porridge for breakfast, lunch and supper, but it is better than nothing and a barbie doll? The problem is

that I had to give up our internet connection as well, as it is not affordable if you do not have an income, so the help may be a bit slower and less, overall, until I get employment again. It is not intentional, but an outcome of circumstance. If you reached out to me via email or Telegram, know I will get to you, but only once I have bummed the internet from somewhere. I don't really want to hack my neighbours (it's rude). In the meantime, I will go over the weird questions that I have skipped in the past, due to communications failure, and see if I can make heads or tails out of them.

Q: Hey. I upgraded to Ubuntu 24.04 via clean install. I followed this – <https://www.youtube.com/watch?v=icdzgpq3j1E>. The short version is that it does not work. My error is -- Package steam is not available, but is referred to by another package.

This may mean that the package is missing, has been obsoleted, or is available only from another source.

However the following packages replace it: steam-installer steam-devices E: Package 'steam' has no installation candidate

What has changed since 20.04?

A: Hi there, if you don't mind Snap packages, install it from your App Center. Otherwise, read on.

Q: I have recently installed Ubuntu 24.04.1 when my machine kept asking me to update. All was good until I decided to do a fresh install, as Virtualbox stopped working. Again all was good, and I installed steam to play some games. I use R2modman to mod Lethal Company. When I run it, it tells me that it can't find Steam? I found this, but it does not help at all. <https://github.com/ebkr/r2modmanPlus/issues/1446>

A: Steam in a container, is walled off from the rest of the system, be it Snap or Flatpak or Appimage. I would suggest that you install the debian package version to skip all

the issues.

Q: I was all excited to upgrade to Ubuntu 24.04, as 22.04 was buttery smooth on my last install. Instead of a full install, I chose the minimal one with just a browser. My idea was to go lean. I then installed just Libreoffice writer from the app center. Thing is that it looks worse than Abiword. You know, like windows 3.1 in high res. <removed> How do I fix this?

A: So this was a bit of a mission. Don't install the Writer from the App Centre, it lacks things like gnome-integration. You will want to install the .deb-files downloaded from Libreoffice website. You need to start with the -ure deb, then the -core, then the fonts, then the pictures, then the language, then the writer base, then gnome integration, then finally the writer, then the debian-menus. I suggest you use gdebi to install, it will show you what you are missing (if I missed anything in this list).

Q: My guy, I installed steam on Ubuntu, the normal snap version. When I install games, it says by default it installs to /usr/... ! BUT! I can't find the games there. I need to add textures to a game, but the game does not exist, yet it plays?

A: Mmm... from what you say, it is a Snap package that you have installed, all the data for snap packages are under ~/snap iirc. My suggestion is to scratch around in that folder for a "common" folder to find your games.

Q: I have been gaming on LXLE on my old computer. This year I got a new computer and decided to go from 18.04 LXLE to Ubuntu Gnome 24.04. I tried to install steam via the terminal and after a few tutorials, it installed, but I messed up and installed again, but now I don't see it. I can't remember what PPA I used that may have had steam and I don't really want to add too many PPA's. Please give me the proper way to install steam?

A: Steam is installed via the Snap store. However, if you plan on using mod managers like the user above, you would need to do it

another way. I am still on Linux Lite 6, so I have no experience with 24.04. I have installed it in a VM to check for you. My suggestion is this:

Install gdebi:
`sudo apt install gdebi`

Go to: <https://store.steampowered.com/about/> - and click the install steam button.

Open the .deb-file that just downloaded with gdebi and install.

Run Steam and let it update all the packages.

Sign in, when it asks. Install one (1) game and let it finish. (DON'T PLAY IT).

Exit and reboot.

Profit?

Q: I have installed Steam and it wants me to install 386 drivers. <removed> So that happened. What now? I am following the instructions to the letter here, but I still feel stupid. Do I need to install all the "suggested" packages? It's quite the list: <removed> <removed>

A: You need only the main version number "550", not the whole thing. For example: `sudo apt install libnvidia-gl-535:i386` - see my above way of installing Steam, I feel the Snap or Flatpak you are using is not mature enough. The only issue is: once you install the Snap or Flatpak, it installs a few things that interfere with other installs of Steam, so you would have to reinstall the OS and start clean.

Q: My laptop is getting on in years and I was wondering if I could go from Ubuntu to Debian, to game? I was thinking of moving to MX Linux, but I see it is not lightweight, but medium weight. Vanilla Debian is too much work. Please give me some suggestions?

A: "Lightweight" and "gaming" are moving further apart as people use huge engines like Unity or Unreal. Go ahead and try MX Linux (I think they even have a fluxbox edition) if that is too heavy, maybe look at PikaOS? (I think they have a hyperland edition). I have used Linux Lite for my aging laptop and games work fine (Steam and GOG), as far as I am concerned. It all depends on how old the laptop is.

Bhodi Linux may also be a valid choice if you are fond of all the Ubuntu apps.

Q: I want to move away from Windows 11, it just keeps installing **** I don't want. I have been dual-booting for a while now. The reason I can't drop Windows is that Ubuntu can't "just work". I run steam that is up-to-date and get this "Error: Steam now requires user namespaces to be enabled." Like what does that even mean? Is this something new to Ubuntu 24.04? I didn't have issues with 20.04LTS before that.

A: It probably means you are running Steam via some launcher? Did you install LXD? I found this on the interwebs: <https://discuss.linuxcontainers.org/t/steam-in-incus-steam-now-requires-user-namespaces-to-be-enabled/21654>. Have you tried any of the following, maybe you could find something simpler? <https://www.zdnet.com/article/5-best-linux-distributions-for-gamers-in-2024/>. From my discussions with friends who game a lot on Linux, it seems you may have multiple versions (Snap/Flatpak/AppImage/Debian Package) installed. Please

Q&A

see my reply to Pinky and the rain above ^^

Q: I am having issues starting Multipass. It seems that if I disable my firewalls, UFW and OpenSnitch, it works. I'm not 100% why this is.

A: I have found something on Google that suggests there was a bug in earlier versions, can you update to the latest everything and see what happens? See: <https://github.com/canonical/multipass/issues/2721>

Q: I have been having odd issues with Ubuntu Gnome 24.10 and Steam. Not major bugs, but pain-in-the-***-type bugs. I recently switched to Plasma 6 and a lot of the problems just went poof! Could this be the reason that Voyager Linux did not release a gaming edition this year? Where would I see the least amount of issues? <removed> <removed>

A: Probably 24.04 LTS? Maybe XFCE? Maybe non-Wayland? Maybe a different proprietary/Open source driver version? I can't say. You would need to check

yourself as your hardware varies a lot from mine. So there are a couple of suggestions in this QnA you could try.

Q: Something is off in Ubuntu 24.04. My cousin and I play games together, he is on Ubuntu 22.04. When our game zooms in, then I get a top-left to bottom-right tear across my screen, and he does not. I have tried with Vsync on and off and it makes no difference. I have a newer CPU and GFX than him. My Nvidia driver is the latest and my Kernel is the latest. The only other difference is that I use Gnome and he uses XFCE.

A: In XFCE you can usually set your composting and I wonder if that is not the difference. That said, what happens when you log out and choose "Ubuntu", if you were on Wayland or vice-versa? (It sounds more like a Wayland quirk than anything else.) You could roll back to a previous kernel if it worked before an update, or even a previous graphics driver version.

EDIT: The above issue disappeared after Choosing "Ubuntu" as per our Telegram discussion.

Q: I have a question regarding Steam like Proton and whatnot. If I run my game in 1280x720 full-screen on my 4K display, and I change it to 1920x1080 or higher, there is no difference to be seen. It is as if the screen is in 4K no matter what I choose when I go full-screen. My reasoning behind this is that my graphics card in my laptop will run cooler and I will get more performance if I don't draw 4K worth of pixels on the screen. I am using Ubuntu 24.04 in my i9-12900HK and Nvidia 3050Ti.

A: Sorry my friend, that has nothing to do with Ubuntu or Steam or Proton. It is most likely the game engine or default settings in said engine. You would need to test this on another game that does not use the same engine. Let's say Unity and Unreal. Then you need to check it against another game on the same engine, to be sure.

Q: Reddit is no help. "https://www.reddit.com/r/Ubuntu/comments/1f7id8k/how_do_i_enable_user_namespace_in_steam/". I literally play 2 games on Steam, and both are giving me this; Steam now requires user

namespaces to be enabled.

This requirement is the same as for Flatpak, which has more detailed information available: <https://github.com/flatpak/flatpak/wiki/User-namespace-requirements>

A: You can try changing the bubblewrap permissions. Code:

```
sudo chmod u+s /usr/bin/bwrap
```

Otherwise check any of the above solutions.



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.



Steam: £12

Store page: https://store.steampowered.com/app/2142790/Fields_of_Mistria/

You might have heard of this little game called 'Stardew Valley'? Well, Fields of Mistria is, in the best way possible, a clone of Stardew Valley.

STORYLINE

The game starts with some cut



scenes of anime style characters discussing how their town is in a state of disrepair due to an earthquake. You know, things like broken bridges and whatnot. If only they had someone to help them. You know the rest...

STARTING

You turn up and are given a dilapidated farm. Exactly the same idea as Stardew Valley, you need to clear the weeds, sticks, trees and rocks. While also planting a basic farm. First order of the day is to meet all the villagers and be given

your basic tools of the trade. The only thing that makes this different from Stardew Valley is that you have a choice of responses to questions. Does that make a difference to the story arc? I've no idea.

CONTROLS

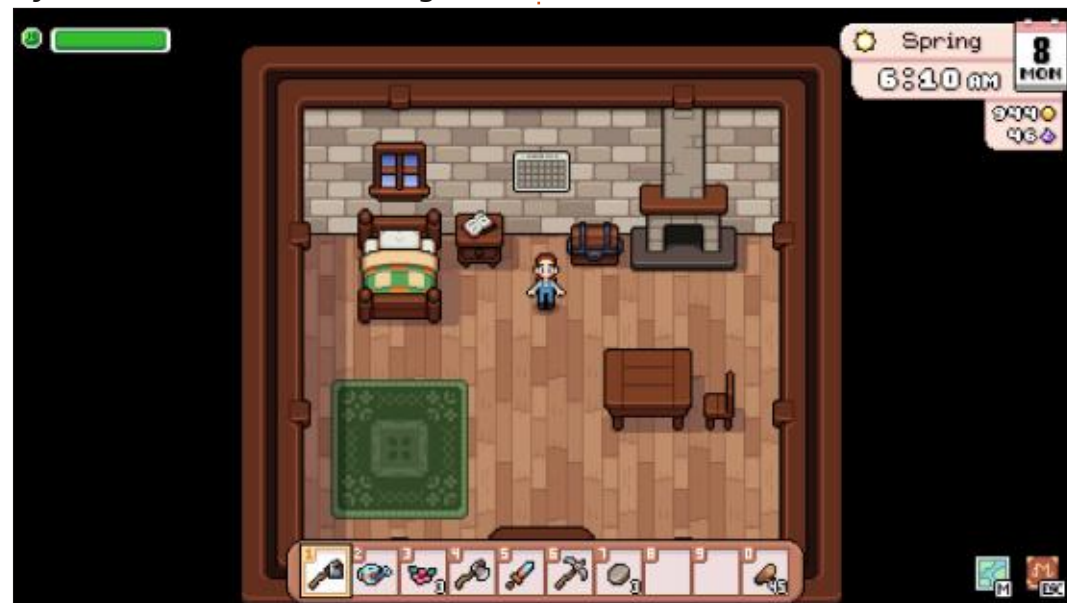
You move using traditional WASD with E (or right mouse button) to use or inspect something. M will bring up the map of the town. It's a pretty big map. You have to repair the bridge and try to convince the ex-miner gaffer

Fields of Mistria

to get the mines reopened.

The diary in your house is where you save the game, and it's back to this house you go after 2am or when you tire yourself out. The only penalty is that the next day you'll have about 4 hours less as you'll have 'slept in'.

Your inventory is like a book with tabs. Or maybe a clipboard is a better analogy. Down the right side are tabs for your backpack (inventory of items), clothing, messages, relationships, animals, map, settings, and more. Along the



UBUNTU GAMES

top are tabs for pages within that right hand side tab. The one down side of the map is that it doesn't identify the villagers. So you need to try and get used to their tiny mini portrait to see where they are. It'd be better if they were named when you hover over them.

FEATURES

Everything you expect from Stardew Valley (and Animal Crossing) is in here; crafting, farming, quests, relationships, museum, fishing, bugs, festivals, etc etc.

There's certainly no end of quests and fetch-this and make-this

jobs to keep you running about the map and getting lost.

CONCLUSION

I've only played a couple of hours in Fields of Mistria, but I really like it. If you like Stardew Valley then you'll like this as it's pretty much Stardew with different graphics. I don't mean that in a bad way, as it's very well done. Having said that, it doesn't really bring anything new to the table.

I'm giving it 4 out of 5 since it's taking all its inspiration from Stardew. If it had new things to bring then I'd give it a full 5.





PATRONS

MONTHLY PATRONS

Alex Crabtree
 Alex Popescu
 Andy Garay
 Bill Berninghausen
 Bob C
 Brian Bogdan
 Carl Andersen
 CBinMV
 Darren
 Dennis Mack
 Devin McPherson
 Doug Bruce
 Elizabeth K. Joseph
 Eric Meddleton
 Francis Gernet
 Gary Campbell
 George Smith
 Henry D Mills
 Hugo Sutherland
 Jack
 Jack Hamm
 Jason D. Moss
 Joao Cantinho Lopes
 John Andrews
 John Malon
 John Prigge
 Jonathan Pienaar
 Joseph Gulizia
 JT
 Katrina

Kevin O'Brien
 Lee Allen
 Lee Layland
 Leo Paesen
 Linda P
 Mark Shuttleworth
 Moss Bliss
 Norman Phillips
 Oscar Rivera
 Paul Anderson
 Paul Readovin
 Rino Ragucci
 Rob Fitzgerald
 Robin Woodburn
 Roy Milner
 Scott Mack
 Sony Varghese
 Taylor Conroy
 Tom Bell
 Tony
 Tony Hughes
 Vincent Jobard
 Volker Bradley
 William von Hagen

SINGLE DONATIONS

2024:
 Louis W. Adams, Jr.
 Sergio Arroyos
 Brian Kelly
 Linda Prinsen

Christophe CARON
 Borso Zsolt
 Ennio Quattrini
 Kimberly James Kulak
 Yvo Geens
 David Cohen
 Ronald Eike
 Jose D Santos

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

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

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

A big thank you to all those who've used Patreon and the PayPal button. It's a HUGE help.



<https://donorbox.org/recurring-monthly-donation>



HOW TO CONTRIBUTE

FULL CIRCLE NEEDS YOU!

A magazine isn't a magazine without articles and Full Circle is no exception. We need your opinions, desktops, stories, how-to's, reviews, and anything else you want to tell your fellow *buntu users. Send your articles to: articles@fullcirclemagazine.org

We are always looking for new articles to include in Full Circle. For help and advice please see the **Official Full Circle Style Guide**: <http://bit.ly/fcmwriting>

Send your **comments** or Linux experiences to: letters@fullcirclemagazine.org
Hardware/software **reviews** should be sent to: reviews@fullcirclemagazine.org
Questions for Q&A should go to: questions@fullcirclemagazine.org
Desktop screens should be emailed to: misc@fullcirclemagazine.org
... or you can visit our **site** via: fullcirclemagazine.org



FCM#214

Deadline:

Sunday 09th Feb. 2025

Release:

Friday 28th Feb. 2025



Full Circle Team



Editor - Ronnie Tucker

ronnie@fullcirclemagazine.org

Webmaster -

admin@fullcirclemagazine.org

Editing & Proofreading

Mike Kennedy, Gord Campbell, Robert Orsino, Josh Hertel, Bert Jerred, Jim Dyer and Emily Gonyer

Our thanks go to Canonical, the many translation teams around the world and **Thorsten Wilms** for the FCM logo.

Getting Full Circle Magazine:

For the Full Circle Weekly News:



You can keep up to date with the Weekly News using the RSS feed: <https://fullcirclemagazine.org/podcasts/index.xml>



back on Spotify:

<https://open.spotify.com/show/6JhPBFsm6cLEhGSbYsGarP>



and now on YouTube:

<https://www.youtube.com/playlist?list=PLnv0U8wOzXu487qi5I2Isf-rQjEyKPAif>



EPUB Format - Most editions have a link to the epub file on that issue's download page. If you have any problems with the epub file, email: mobile@fullcirclemagazine.org

FCM PATREON : <https://www.patreon.com/fullcirclemagazine>