# **CHANGELOG**

Penguin's eggs are generated and new birds are ready to fly...





It took years of work to create the penguins-eggs, and I also incurred expenses for renting the site and subscribing to Google Gemini, for the artificial intelligence that is now indispensable.



# **CHANGELOG**

The version is based on the year, month, day, and release number. They are listed in reverse order, with the first being the most recent.

### v25.10.24

Review and check on --fullcrypt and --homecrypt, addition of the --hidden flag, and construction of a generic theme used when --hidden is passed.

### v25.10.23

The --fullcrypt option in eggs is now fully functional. It creates a fully encrypted image in the /live/root.img file, which is a LUKS-formatted volume that is opened at startup ONLY after the passphrase has been entered.

Once the passphrase has been entered and accepted, the ISO starts normally. Please note that the entire system image is allocated in RAM. Once the system has started, the boot device is no longer read.

The idea is that if you lose your USB stick or device, there is no way to trace the contents of the protected system inside it.

Please note that this option is only active for the Debian family (Debian, Devuan, Ubuntu, and derivatives) and - at the moment - successfully tested on Debian trixie, should be used with caution.

### v25.10.22

Although the --fullcrypt option is not yet ready, it has been hard work that I hope will eventually be resolved—perhaps with some advice.

The current situation is this: after discarding the option of a filesystem.squashfs acting as a bootstrap for the encrypted system, I moved on to modifying the initramfs by injecting the necessary modules and scripts. Unfortunately - paradoxical but true — I got as far as starting plymouth, but then the system stopped.

At this point, I will make another attempt to finally get the encrypted system to boot, but without using live-boot. This will obviously require removing and modifying what has already been done, but it seems to be the only way forward.

### v25.10.19

The possibility of having encrypted ISOs has been introduced, in two versions:

- eggs produce --homecrypt or eggs love --homecrypt produces an ISO in which all the contents of /home/ and user accounts are stored in a LUKS volume within the ISO image /live/home.img. If the LUKS passphrase is entered, the volume is mounted and users and data are available on the live system; otherwise, it functions as a standard live system without any user data.
- eggs produce --fullcrypt or eggs love --fullcrypt works in the same way, completely removing the filesystem.squashfs, which is placed in a LUKS volume of the ISO image called /live/root.img. This method ensures that ALL the contents of the system are encrypted. Unfortunately, at the moment, the --fullcrypt method is not usable, as I have not yet managed to fix the live boot issues (See acqua).

Both homecrypt and rootcrypt have been tested exclusively on Debian Trixie.

#### v25.10.9

- variation: eggs tools ppa becomes eggs tools repo and has also been added for Manjaro. In the future, we will also include it for Fedora, EL9, and Opensuse;
- Debian/Devuan/Ubuntu: penguins-eggs-ppa is now deprecated in favor of penguins-eggsrepo, the command eggs repo --add/remove installs/remove penguins-eggs repo and not more penguins-eggs-ppa;
- Arch: with the introduction of the penguins-eggs repo repository for Arch, the command eggs repo --add/remove installs/remove this one and no longer chaoticAUR;
- Manjaro: although penguins-eggs is present in the Extra repository of the Manjaro distribution, the command eggs repo --add/remove enables or removes the penguins-

eggs repo for Manjaro.

### v25.10.6

- same little adaptment for CachyOS;
- successfull tested on CachyOS, Linuxmint zara cinnamon and EndeavourOS.

#### v25.10.4

- Ubuntu noble: calamares install on ext4, btrfs and LUKS;
- Fedora: calamares install on ext4, btrfs installation work but resulting system is not bootable (grub);
- Opensuse: install with krill. When compiling Calamares, partition and bootloader medules are not created, so Calamares remain unusable, is, however, present in our repository penguins-eggs-repo.
- Debian trixie: calamares install on ext4, btrfs on Debian trixie;
- Manjaro/Biglinux: calamares install on ext4 and on btrfs;
- Arch: calamares install on ext4, btrfs installation fail to bootloader installation, we will solve soon;
- Almalinux, Rocky 9: calamares is not available yet;
- Debian bookworm/Debian bullseye; calamares install on ex4. btrfs not available;

### v25.10.3

- Ubuntu noble: calamares install on ext4, btrfs and LUKS;
- · Fedora: fail to install on bootloader;
- Opensuse: calamares is not configurated yet, but it's available in our repo;
- Debian trixie: calamares install on ext4, btrfs on Debian trixie;
- Manjaro/Biglinux: calamares install on ext4 and on btrfs;
- Arch: calamares install on ext4, btrfs installation fail to bootloader installation, we will solve soon:
- Almalinux, Rocky 9: calamares is not available yet;
- Debian bookworm/Debian bullseye; calamares install on ex4. btrfs not available;

I did tons of tests, but I'm just me and a machine (seven years old)... so, I think it's time to release trying to explicit problems.

### v25.9.27

- krill: added --replace to replace a partition with the new installation, usefull for peoples wit many installation on a disk. Eg: sudo eggs install -R /dev/sda3 -u
- krill: revised the way LUKS encryption is created, now more standard. Eg: ubuntu\_root, mappend on /dev/mapper/ubuntu\_root for Ubuntu.
- calamares: bugfix on modules for arch. After the upgrade will be necessary to remove and recreate /etc/penguins-eggs.d;
- probably problems on on Manjaro/Biglinux will persist, use v25.9.17 for now.

### v25.9.25

 fixed a bug regarding kernel name determination, which occurred in Arch Linux on installations using systemd-boot. issue: 629, thanks to 2kpr;

 the command eggs tools ppa on Arch Linux now adds or removes the new repository https://github.com/pieroproietti/penguins-eggs-repo.

### v25.9.24

calamares: complete rewrite of the calamares/krill configuration for Ubuntu and Debian. It is now possible to perform encrypted installation correctly on both Ubuntu noble and Debian bookworm. On Debian trixe, however, we must wait for the next fixes.

### v25.9.18

Numerous corrections and improvements to the Calamares configuration for Ubuntu Noble and derivatives.

Unfortunately, so far, I have not been able to resolve the issue of installing with Calamares on encrypted file systems; the problem persists: the installed system is unable to boot up.

Note: using sudo eggs install, it is possible to install on encrypted systems and boot up correctly

### v25.9.17

I am mainly consolidating the move to the new repositories specific to each supported distribution: Debian/Devuan/Ubuntu, Fedora, Enterprise Linux, OpenSUSE.

On Manjaro, we are already on the **community repository** and hope to progress to the next stage. Alpine and Arch will be moved to the new repositories later, as will Openmamba.

For a while I will continue to release on penguins-eggs-ppa for Debian/Devuan/Ubuntu and on Chaotic-AUR for Arch and finally on fresh-eggs for all.

### v25.9.14

Thanks to JT Burchett, I think we definitely solved the error:

Error: ENOENT: no such file or directory, stat '/filesystem.squashfs'

Code: ENOENT

I never understood why this error occurred, even though users reported it to me several times. I generally thought it was a configuration error in the reporting system, but finally JT Burchett, whom I thank, suggested the reason to me.

I normally always use eggs love for my tests, often with the option eggs love -n, creating an ISO is more a way for me to test eggs than to actually create the ISO. but eggs love includes eggs kill, so I always started from a clean slate.

The error occurs, however, when giving multiple consecutive sudo eggs produce commands.

### Changelog: Build & Distribution Infrastructure

This update overhauls the packaging process, moving from manual builds to a fully automated, secure, multi-distro CI/CD pipeline using GitHub Actions.

#### ☐ Key Features & Improvements

1. Full Automation Automated Builds: Dedicated workflows automatically build packages for RPM (Fedora, openSUSE, EL9), DEB (Debian/Ubuntu), and Arch Linux families.

Automated Publishing: Built packages are published to signed repositories hosted on GitHub Pages.

Safe Concurrent Deployments: Implemented a concurrency lock to prevent race conditions when deploying to the gh-pages branch.

2. Dynamic & Centralized Versioning Single Source of Truth: package.json is now the sole source for the software version.

Dynamic Package Updates: Build files (.spec, PKGBUILD) are updated on-the-fly during the CI process, ensuring version consistency and reducing manual errors.

3. Signed Repositories for Enhanced Security GPG Signing: All packages and repository metadata are now digitally signed, ensuring authenticity and integrity for end-users.

Secure CI Integration: The pipeline uses GitHub Secrets to handle GPG keys and passphrases securely in a non-interactive environment.

4. Structured Multi-Distro Support RPM Repository: A full-featured, signed RPM repository is available, with packages organized by distribution and version (e.g., /rpm/fedora/42/).

DEB Repository: A standard, signed APT repository is available, following Debian conventions for maximum client compatibility.

Try the new repos for Debian/Devuan/Ubuntu, Fedora, Enterprise linux and OpenSUSE.

#### [!NOTE]

- Alpine, Arch, and Manjaro are not immediately transitioning to the new repositories.
- changes and adjustments are expected in the coming days, but distribution via penguins-eggs-ppa, get-eggs, and aur will still be ensured.

### v25.9.8

- eggs export pkg fixed on Almalinux/Rocky;
- eggs update revision.
- removed old critery search initramfs;

#### v25.9.7

- bugfix: Manjaro and derivatives initramfs find:
- import/export packages for all the distros (this is only for developers);

• bugfix: installing penguins-eggs v25.9.6, on Devuan/Debian/Ubuntu results on this error:

```
Configurazione di penguins-eggs (25.9.6-1)...
> ModuleLoadError: [MODULE_NOT_FOUND] import() failed to load
> /usr/lib/penguins-eggs/dist/commands/config.js: Cannot find module
> '/usr/lib/penguins-eggs/dist/commands/config.js' imported from
> /usr/lib/penguins-
eggs/node_modules/.pnpm/@oclif+core@4.5.2/node_modules/@
> oclif/core/lib/module-loader.js
> Code: MODULE_NOT_FOUND
dpkg: errore nell'elaborare il pacchetto penguins-eggs (--configure):
```

### v25.9.6 (deprecated)

• **Multi-distribution initramfs detection:** The logic for searching for the initramfs file has been made more robust and compatible. In addition to dynamic searching based on the kernel version, the static fallback system has been enhanced to recognize distribution-specific file naming conventions such as Arch and Alpine Linux.

### v25.9.5

• BUGFIX on krill: a typo om v25.9.4-1 - from yesterda - was instroduced. I realized that just this morning. krill was able to install on UEFI but became unable to install on BIOS. This version fix krill.

### v25.9.3-2 (amd64)

I introduced the new deb822 format for the penguins-eggs Personal Package Archive (penguins-eggs-ppa).

The deb822 format is the new standard for defining software repositories in Debian, Ubuntu, and derivative systems. It abandons the old single-line format in favor of a much more readable, structured, and error-prone "key-value" system.

Support for using the deb822 format for repository files (.sources) was added to APT in version 1.1, released in 2015. For almost a decade, the feature remained present but was never the default, used only by experienced users or for complex configurations.

#### Adoption as Standard (2023-2025)

Driven by the need to improve readability and security (particularly with the Signed-By option), the Ubuntu and Debian teams decided to make it the default format:

Ubuntu 23.04 began the transition, using it for PPAs.

Ubuntu 24.04 LTS and Debian 13 "Trixie" have adopted it as the standard for new installations, also introducing the apt modernize-sources command to facilitate migration.

#### v25.9.3

krill: this is a significant development; we can finally use krill: sudo eggs install to
install on UEFI computers and VMs, not just BIOS ones. Tested on: Arch, Debian, Fedora,
Manjaro, Openmamba, Opensuse, Rocky and Ubuntu, remastered Alpine not work on UEFI,
Almalinux to be tested;

• bionic: I had problem to release on Ubuntu bionic, same node modules updated breack compatibility with nodejs 16:

### v25.9.2

- krill: fixed user creation for openmamba:
- standardized display of:
  - copying the kernel to (ISO)/live;
  - creating initramfs on (ISO)/live;
  - creating grub.cfg seeker USB on (efi.img)/boot/grub;
  - creating grub.cfg bridge on main. (ISO)/boot/grub/{arch}-efi;
  - creation of grub.cfg seeker ISO/DVD on (ISO)/EFI/{distro} (\*);
  - copy (efi.img) to (ISO)/boot/grub;
  - creation of grub.cfg main on (ISO)/boot/grub.

(\*) with the exception of Ubuntu and its derivatives, we use Debian bootloaders to boot live from ISO and via PXE, so it is correct to have (ISO)/EFI/debian on different distributions.

### v25.8.31 welcome back Openmamba!

openmamba is an Italian Linux distribution, which originated from QiLinux, discontinued in 2007.

The author and maintainer: Silvan Calarco, performs the vast majority of updates. It can be installed on i386, x86\_64, and arm64 computers or SBCs.

In short, there is an incredible amount of work behind it and a lot of history behind it and... ahead of it. Yes, because it is still constantly updated, not for nothing is it a rolling release and supports version 6 of KDE and LXQT.

 krill: in the generation of the command: grub-install in krill, I introduced the value -target=<PLATFORM>, previously omitted;

### penguins-eggs 25.8.28

Another round on the merry-go-round: the ISO boot mechanism has been modified again.

- boot and install with Secure Boot enabled on Debian (trixie, bookworm, bullseye), Devuan and Ubuntu and derivatives;
- You must disable Secure Boot for Almalinux, Alpine, Arch, Fedora, Manjaro, OpenSuse;

### penguins-eggs\_25.8.23

Finally, remastering Debian trixie, resulting ISO will boot on UEFI and will be correctly installed using calamares, but you need to DISABLE Secure Boot.

We need to discover more, about this annoying problem. I'm releasing again, becouse need feedback.

### penguins-eggs\_25.8.22

- changed the way the image ISO is generated, priority now is xorriso. Only if xorriso is not installed will try genisoimage;
- · added Debian 14 forky;
- · updated modules;
- · work in progress...

[!NOTE] This version on Debian trixie will boot on UEFI, but will not correctly installed using calamares on Debian trixie.

### penguins-eggs\_25.8.10 (San Lorenzo edition)

I have recreated the packages for i386, amd64, and arm64 for Devuan/Debian/Ubuntu distributions and derivatives.

We will continue to use Debian bootloaders to boot the other supported distributions: Alpine, Arch, Fedora, Manjaro, OpenSUSE, Rocky, and Ubuntu. The bootloaders will be collected in a /bootloaders folder under penguins-eggs, and will be created from the specific bootloaders.tag.gz associated with the current release.

The good news is that I did a complete overhaul of the make-efi.ts and xorriso-command.ts code, including restoring support for arm64 and i386.

The arm64 package need to be tested - I have no way actually - so please test it and send me feedback.

- .disk/info reflect now volid, to support Debian live-boot scripts, which rely on finding the correct Volume ID for device verification;
- introduced a .disk/README.md for general informations about the ISO and the tool used.

## penguins-eggs\_25.8.6

I spent most of my time compiling a list of supported distributions, which was a huge task, and I'm only halfway through the 100 distributions I need to test. On the other hand, this experience forced me to review the derivatives.yaml file and make some additions.

I am also considering restoring the package for arm84 and, perhaps, i386, which I had to remove due to the decision to simplify bootloader management, but this step requires time and thought, so we will postpone it until September.

# penguins-eggs\_25.7.30

During this time I did a great work on fresh-eggs completely rewritten and adding an usefull SUPPORTED-DISTROS list. In addiction, same fixes and improvment on penguins-eggs:

ovarium:

 reintroduced the bindvfs and ubindvfs scripts used to mount and unmount virtual file systems;

- fixed path to isohdpfx.bin on the ovarium script mkiso;
- fixed paths on the commands export and update to reflect actual versioning and folders structure on penguins-eggs.net and sourceforge page.

### penguins-eggs 25.7.22

This is a settlement version. During version 25.7.14 rpm packages for fedora, opensuse and rhel9 were created for the first time. Of course, this gradually required code changes. This version picks them up and includes all them, but has no substantial new features compared to the previous version.

### penguins-eggs 25.7.14

- produce --script: copied directories: /etc and /boot are not overwritten a second time when the bind script is run and are not deleted by ubind. This led to a malfunction of the produce --script command and the deletion of the live user in the generated ISO.
- produce --script: added patch to the script mksquashfs to emulate lived structure of archiso/miso. Now option: sudo produce --script can be successully used on every distro.
- Alpine/Fedora: finally calamares is configured and installing. Remain to solve for OpenSUSE.

# penguins-eggs\_25.7.12 (Back to future!)

A few months ago - around March - I tried to introduce building complete systems from containers. This required a global review of the methods for getting the kernel name and version. Neither uname -r nor /proc/cmdline parsing can be used in containers.

Having received several reports from users who have the system with several kernels installed, I decided to return to the traditional method for common installed systems.

I also retraced my steps for the classes utils.tsx and distro.ts, which had been restructured with the help of AI.

The problem here was the fact that it was impossible for me to maintain them. All has a broader knowledge of language and methodologies than myself, but also excessively tortuous from a logical point of view. However, I count-in the future-to partially recover the good parts of this work by rewriting it from scratch.

# penguins-eggs\_25.7.10

I have greatly simplified boot management expecially on UEFI machines: previously for each distribution I used the grub of the distribution itself, which was very fine but time-consuming in terms of code maintenance. Now I use for booting from live CD the Debian grub and I do the same for booting via PXE and, this, has allowed me to simplify the code considerably.

All bootloaders: grub, ipxe and syslinux, are now collected in the bootloaders folders and contained in the package itself.

### penguins-eggs\_25.7.7

These days I have been doing a lot of work on remote installation via PXE, on some long neglected distributions: alpine, opensuse, etc.

This is the actual situation:

- alpine: remaster OK, installation CLI OK, calamares KO, PXE boot OK, install from PXE OK
- arch: remaster OK, installation CLI OKk, calamares OK, PXE boot OK, install from PXE OK
- debian: remaster OK, installation CLI OK, calamares OK, PXE boot OK, install from PXE OK
- fedora: remaster OK, installation CLI OK, calamares KO, PXE boot OK, install CLI from PXE
   KO
- opensuse: remaster OK, installation CLI OK, calamares KO, PXE boot OK, install CLI from PXE KO

### Summary of Penguins-Eggs Changelog 10.1.x

This summary categorizes the updates into major features, expanded distribution support, installer improvements, and other key refinements to provide a clear overview of the project's progress.

### Major Features & Enhancements

- **AI-Powered Refactoring**: In version **10.1.1**, the developer began using AI for intensive code refactoring, significantly speeding up development and improving code quality.
- New pods Command: Version 10.1.0-2 introduced the experimental eggs pods
  command, which allows users to create minimal live ISO images directly from podman
  containers.
- **Container-Based Builds**: A major "underground" change in version **10.1.0-1** enabled building live images of one distribution on a host system running a different one (e.g., creating an Arch Linux image on a Debian system).
- **New GUI eggsmaker**: A new, usable graphical user interface called **eggsmaker** was introduced in version **10.0.61**, making the tool more accessible to users who prefer a GUI.
- Installation Modes: The installation options were simplified in version 10.0.60. The LVM2 mode was removed, leaving three primary modes: Erase disk, Erase disk/Encrypted, and Replace partition.
- **Secure Boot Support**: Work was done in version **10.0.59** to enable ISOs to boot with Secure Boot enabled on UEFI systems, with success on Debian Bookworm and a manual workaround for Ubuntu.

### **Expanded Distribution Support**

The project has significantly broadened its compatibility across different Linux families.

 RPM-Based Distros: A major breakthrough in version 10.0.54 enabled the creation of bootable UEFI ISO images for Fedora, AlmaLinux, RockyLinux, and openSUSE. Fedora support was a major focus in version 10.0.36.

- Alpine Linux: Support for Alpine Linux was reintroduced and improved across several
  versions, including the creation of Calamares packages, fixes for the krill installer, and a
  more streamlined live boot process (10.1.1-26, 10.0.34, 10.0.25).
- **Arch Linux**: Btrfs support was improved, and a new Calamares package was aligned with the latest release (**10.1.1-26**, **10.0.46**).
- Newer Releases: Support was added for recent distribution releases, including LMDE 7
  (Gigi), Linux Mint 22.2 (Zara), Ubuntu Noble, and Devuan Excalibur (10.1.1-26,
  10.0.42, 10.0.14).
- Other Distros: Efforts were made to add support for openmamba, VoidLinux, and ALDOS (10.0.51).

#### Installer Improvements (Krill & Calamares)

Both the command-line installer (krill) and the graphical installer (calamares) received significant updates.

#### • Krill (TUI Installer):

- Added support for encrypted installations and LVM2 (10.0.59).
- The user interface was completely revised with a new spinner and a more intuitive layout (10.0.38).
- Added a chroot option, allowing users to make final package changes before rebooting the newly installed system (10.0.3).
- User creation is now standardized, taking default groups from the Calamares configuration to ensure consistency (10.1.1-26).

#### • Calamares (GUI Installer):

- Configuration was updated to automatically select the parent system's original filesystem as the default (10.0.46).
- Branding parameters (like support URLs) are now pulled from /etc/os-release for better integration (10.0.4).
- Fixed issues to get Calamares working successfully on newer releases like **Ubuntu** Noble and Linux Mint 22 (10.0.22).

### Other Key Changes & Refinements

- **Development & Packaging**: The project's build system was modernized to support both CommonJS and ECMAScript modules. The official package name was changed from eggs to penguins-eggs to reflect this major update (**10.0.0**, **9.8.0**).
- Dependency Management: Unnecessary dependencies like lsb\_release, pxelinux, and isolinux were removed to streamline the tool (10.0.57, 10.0.45, 10.0.42).
- **ISO Creation**: The logic for creating ISOs was refined. The --udf flag was removed in favor of automatically detecting genisoimage vs. xorriso to handle large ISOs compatible with Windows tools like Rufus (**10.0.18**, **10.0.15**).

• **Code Cleanup**: A significant amount of old, unused code was removed, particularly code related to the initial plan of distributing eggs via npm packages (**9.8.2**).

# CHANGELOG.d

You can find old changelogs under CHANGELOG.d.

# Help

Don't esitate to ask me for suggestions and help. I hope to receive feedback.

# That's all Folks!

No need other configurations, penguins-eggs are battery included or better, as in the real, live is inside!

# More informations

There is a Penguins' eggs official guide and same other documentation - mostly for developers - on the repository penguins-eggs under DOCUMENTATION. I want to point out hens, differents species a brief how to use eggs in Debian. Arch and Manjaro, and the post Arch-naked on the blog which describes how to create an Arch naked live, install it, then dress the resulting system with a graphics development station.

You can contact me by mail or follow me on blog, facebook, mastodom, github, jtsi, reddit, telegram, twitter.

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