Kannolo

a pure-KDE Fedora Remix (without GTK+)

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Self-Introduction

- Kevin Kofler
- `mailto:kevin.kofler@chello.at`
- `Kevin_Kofler` on IRC
- Fedora packager since 2007
  - KDE SIG (Special Interest Group) (2007-2015)
  - still (co)maintainer of 47 packages
- PhD in Mathematics (University of Vienna, Austria)
- employer: DAGOPT Optimization Technologies GmbH

What is Kannolo?

- Fedora Remix
- remixed from the Fedora KDE Spin
  - KDE Plasma Desktop workspace, Calligra, Kontact, ...
- goal: pure KDE experience (no GTK+ by default)
- KDE software packaging taken from Fedora
  - coming from the Fedora KDE SIG
    - Rex Dieter et al.
  - unmodified Fedora packages
  - only `kde-print-manager` rebuilt (renamed to `kde-print-manager-no-scp`) to
    - remove `system-config-printer` dependency
    - patch out runtime complaints about it being missing
  - small add-on repository (Copr) with a handful packages
- installable: Calamares installer

Kannolo vs. Fedora KDE Spin

- only KDE/Qt software
- **no** GTK+ on the (graphical, installable) image
  - upstream Fedora repositories enabled by default
  - GTK+ and GTK+ applications available from there
- GTK+ applications replaced with KDE/Qt applications
  - see section *Package Choices*
- built with **livecd-creator** (from livecd-tools)
  - "old" Fedora live image creation tool
  - ported to Python 3 and DNF by Neal Gompa and me
  - chosen over "new" livemedia-creator for practical reasons
- naming:
  - *torta fedora*: Sicilian cake
  - *cannolo*: similar Sicilian sweet with different shape
  - *K*: for "KDE"

Kannolo Features

- installable live image
- 64-bit native (x86_64)
- includes latest updates as of image compose time
  - current: Kannolo 26 and 27 with updates up to February
  - plan: frequent respins
- netinstall of optional packages
  - powered by Calamares `netinstall` module
  - hybrid live+netinstall (live install + extra packages)
  - offline installation without netinstall possible
- significantly smaller than upstream distro (Fedora KDE)
  - no GTK+, no Anaconda stack, etc.
  - less software on the image thanks to the netinstall

Browser: Falkon by default, no Firefox

- Firefox requires GTK+
  - also system integration, freedom and privacy concerns
- **Falkon** (ex **QupZilla**): modern browser for end users
- based (since QupZilla 2.0) on QtWebEngine
  - based on Google Chromium (Blink)
  - up to date with current web standards
  - security updates backported to the stable branch
- optimal desktop integration
  - native: icons, file dialogs, notifications, etc.
  - support for KWallet through optional plugin
- (still called QupZilla in the current February 2018 images)

Installer: Calamares instead of Anaconda

- Anaconda requires GTK+
- **Calamares**: distribution-independent installer framework
- upstream project instead of Not Invented Here
  - Blue Systems, several distributions
- C++, Qt 5, Python 3, Boost::Python
- advanced partitioning module using KPMcore
  - = the core of KDE Partition Manager
- unique features
  - netinstall module: allows hybrid live+netinstall

Firewall: UFW instead of firewalld

- firewall-config requires GTK+
- no KDE/Qt configuration frontend
- **UFW** (Uncomplicated FireWall)
  - alternative to firewalld
  - developed by Canonical for Ubuntu
  - also written in Python
- has **UFW-KDE** frontend
  - currently based on kdelibs4
  - integration into Plasma 5 System Settings not possible
  - standalone menu entry (using `kcmshell4`)
- KF5 port wanted!
  - 2 experimental and abandoned ports on GitHub
  - Nomad Firewall: missing crucial features, dropping UFW
  - promised firewalld-config Qt port never happened

Crash handler: DrKonqi only, no ABRT

- ABRT-GUI requires GTK+
- no KDE/Qt user interface
- crashes in KDE applications already caught by KCrash
  - spawns the **DrKonqi** user interface automatically
- DrKonqi reports crashes upstream, not downstream
  - directly to the right people

SELinux disabled by default

- SETroubleShoot requires GTK+
- no KDE/Qt user interface
  - i.e., no denial feedback whatsoever without GTK+
  - unacceptable default user experience
- SELinux not necessary or useful on Kannolo
  - targeted policy protects mainly servers
  - main protected desktop application: browser (Firefox)
  - SELinux has no policy for Falkon
  - **Falkon is already protected** by Chromium sandbox
    - provides protection comparable to the SELinux sandbox for Firefox with **no** SELinux/external dependency
- SELinux disabled, some packages omitted to save space

Links

- https://kannolo.sourceforge.io/
- https://kde.fedoraproject.org/
- https://www.falkon.org/
- https://calamares.io/
- https://wiki.ubuntu.com/UncomplicatedFirewall
- https://launchpad.net/ufw-kde
- https://www.spinics.net/lists/fedora-devel/msg227128.html