



The Operating System

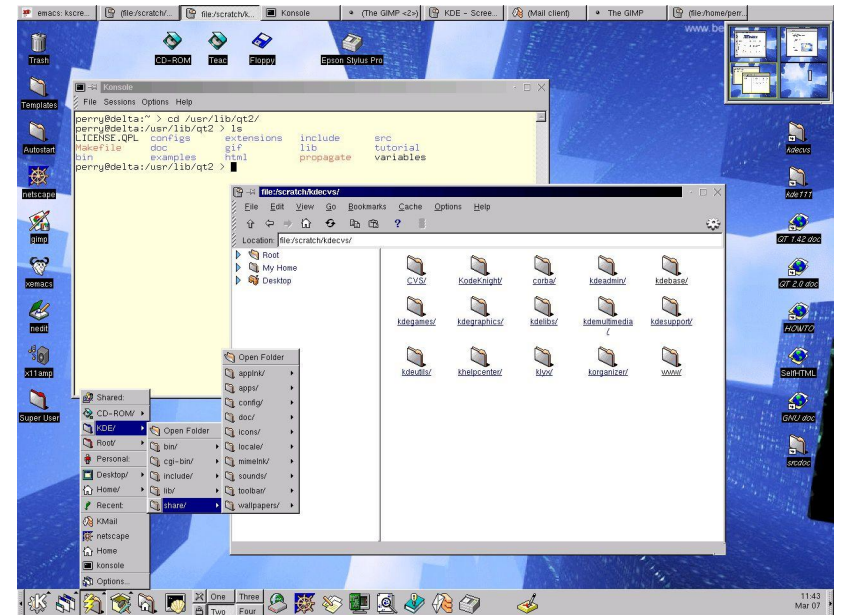
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History



1990's KDE Distribution (Linux)

- KDE provides sources
- Distributions make installables
- Users get installables from Distributions
- Users complain to KDE



Evolution





KDE - Community of Creators

- KDE Frameworks
- KDE Plasma (Desktop, Mobile, Bigscreen)
- KDE Gear (Libraries, Plugins, Apps)
- KDE Apps (e.g. Krita)
- KDE neon
- KDE Infrastructure
- KDE Hardware Initiatives

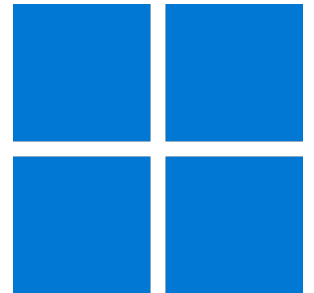


Changes Abound



2020's Apps Distribution (Windows, Android)

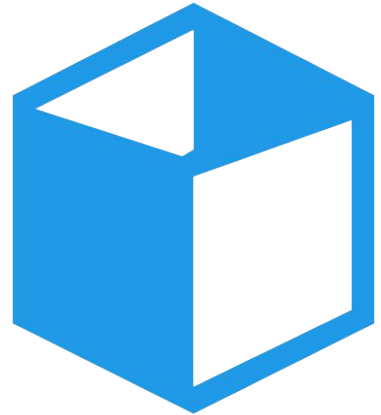
- KDE provides sources
- KDE takes own sources and turns them into installables
- KDE pushes installables onto platform stores
- Users get installables from the platform store
- Users complain to KDE





2020's Apps Distribution (Linux - Flatpak, Snap)

- KDE provides sources
- KDE takes own sources and turns them into installables
- KDE pushes installables onto platform stores
- Users get installables from the platform store
- Users complain to KDE



2020's Apps Distribution (Linux)

- KDE provides sources
- Distributions make installables (and possibly patch things)
- Users get installables from Distributions
- Users complain to KDE



2020's Plasma Distribution (Linux)

- KDE provides sources
- Distributions make installables (and possibly patch things)
- Users get installables from Distributions
- Users complain to KDE



Distributions make installables

Users complain to KDE



KDE neon

- Rock solid base
- Bleeding edge KDE software
- Something we can give to hardware partners

“KDE neon provides an easy and elegant way for people to test the latest from KDE, or use the latest releases of KDE Software.”

2020's KDE neon Distribution Story

- KDE provides sources
- KDE (neon) makes installables as soon as possible
- **Users get installables from KDE (neon)**
- Users complain to KDE





KDE neon Founding Plan

“Increasingly the Ubuntu archives do not have the necessary version of a piece of software needed by KDE software, in which case we will add it to the Neon archives.”

“Neon won't get special treatment from the rest of KDE by virtue of being a KDE project and it certainly won't be *the* KDE distribution.”



KDE neon Ailments

- Ubuntu LTS
- Latest == Usable
- Packaging
- Packages
- QA
- KDE community involvement

Distribution Evolution



Kinoite
MicroOS
NixOS
Ubuntu Core



Hardware is Hard



KDE Hardware Initiatives

- Happen by chance
 - Need compelling operating system offer to be taken serious
 - Hard to get into for the community
-
- Step 1: having an operating system

Introducing: Codename 🍌





KDE Linux



Goals

- The KDE operating system
- Quality experience
- Keeping security in mind
- No packaging knowledge
- Focus on modern technologies
- Useful to our users
- Useful to would-be hardware partners
- Useful to developers



Quality Editions

- Latest isn't always greatest
- Different form factors
- Special editions for adventurous users to help with QA
- Shouldn't break
- ... easy to repair when it does

Community

- Involvement Needed
- Backing Needed
- Recipe for Success





Prototype



Prototype

<https://invent.kde.org/sitter/kde-linux>



Prototype

- Image-based operating system (no packages)
- btrfs-only, x86-64-only, UEFI-only, raw disk image only (no .iso)
- Image built using mkosi



Prototype

- A/B update system powered by systemd-sysupdate
 - Read-only /usr
 - Writable /etc, /home, /snap, /var
 - Developer overlay for /usr using systemd-sysext
- systemd-boot boot manager (+ boot health tracking)
- systemd-homed on my system ;)



Prototype

- Flatpak and confined* snapd OOTB for all application needs
- Plasma stack entirely built using kde-builder



Stay tuned for blog posts!



Ideas



Ideas

- Automatic QA (openqa? Selenium? quicktest?)
- Human QA tracking (test case management of some sort)
- Health reporting into Sentry to identify bad releases
- Support sending non-KDE crashes to Sentry
- Better kde-builder dependency definitions
- kde-builder to build release tags
- Explore systemd-homed
- Secure Boot
- ARM/RISC-V images?

Let's Build it Together!

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