# JOURNEY TO WAYLAND WITH KDE PLASMA

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KDE SIG member

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# WHO AM I?

- Open Source Advocate

- Contributor and package maintainer in Fedora, openSUSE, Mageia, and OpenMandriva

- Member of Fedora Engineering Steering Committee (FESCo)

- Member of openSUSE Board

- Senior DevOps Engineer at Datto, Inc.

- Developer and maintainer of package build and release pipeline using OBS

- Packager and Backporter

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# FEDORA KDE

## Fedora KDE SIG

Packages and maintains the Qt stack and KDE software ecosystem for Fedora (and RHEL, starting with RHEL 8)

## KDE Plasma Edition

The main deliverable of the KDE SIG, which offers a curated experience to showcase KDE technologies on the Fedora Linux platform.

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# SO... WAYLAND?

# WAYLAND THE PROTOCOL

## Not *quite* the X replacement

Wayland restructures the graphics stack to simplify the pipeline "from program to pixel". It prioritizes minimizing latency and context switches for rendering graphics, and provides a framework to easily layer more capabilities as protocol extensions.
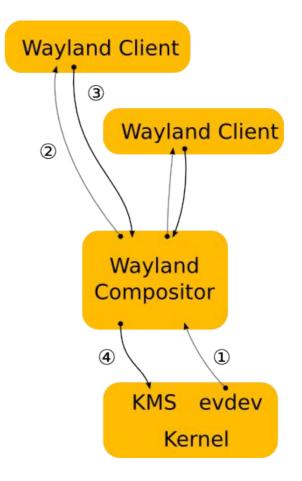


*Wayland logo from Wayland.FreeDesktop.org.*

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# WAYLAND THE SERVER?

## Not *exactly* a thing!

Unlike with X11, Wayland does not separate the desktop window management service (window manager) from desktop rendering service (X server). These are merged into one, called the "compositor", which directly interfaces with the hardware through the direct rendering manager (DRM) in the kernel. Compositors are part of the desktop platform instead of separately developed.
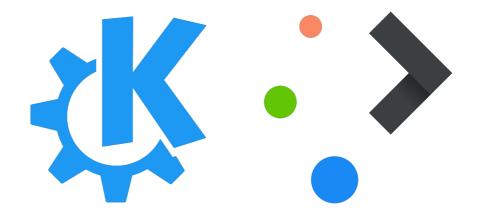
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# WAYLAND ON KDE PLASMA

## Winning with Wayland now!

For KDE Plasma, the Wayland-based desktop session is implemented in KWin (the KDE Window Manager), which is the compositor used for KDE Plasma.

There is also a fork of KWin called KWinFT, which is now based on the wlroots library for building Wayland compositors.
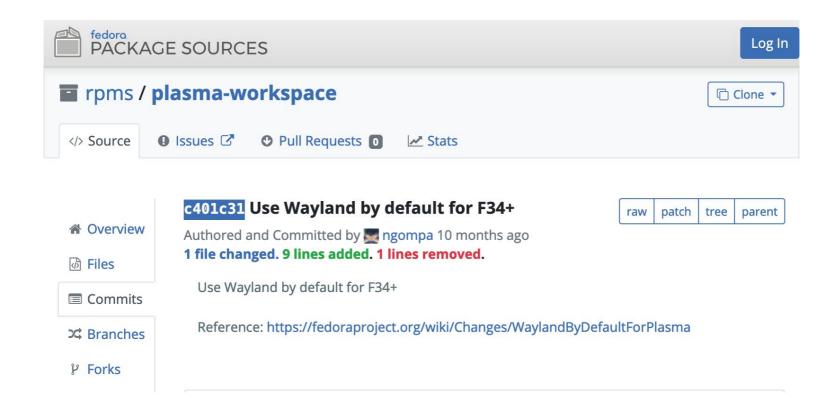
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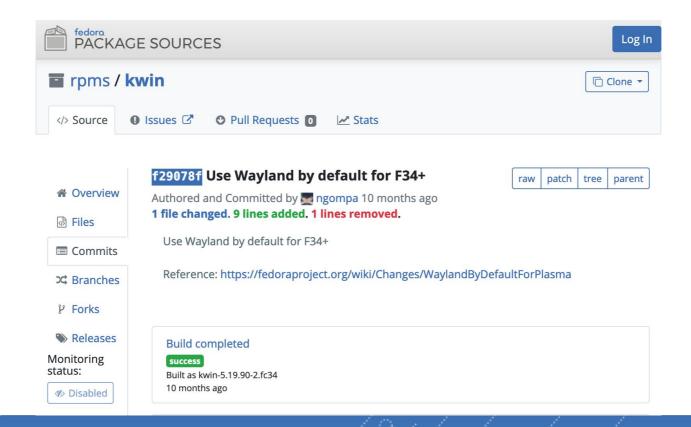✉ ngompa@fedoraproject.org

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# ONTO WAYLAND, THEN?

# ONWARD AND UPWARD

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# ONWARD AND UPWARD

# WE'RE DONE NOW, RIGHT?

# UPWARD UPSTREAM



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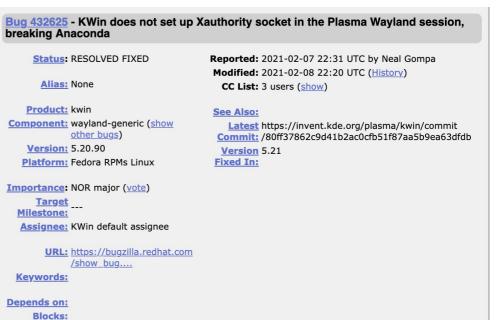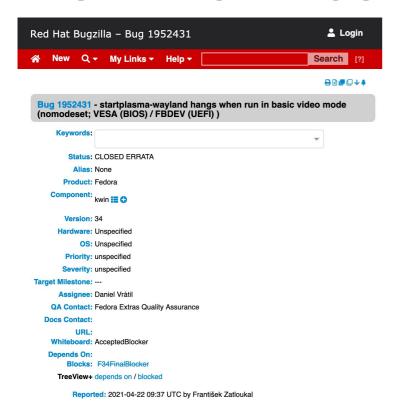
# UPWARD UPSTREAM

# UPWARD UPSTREAM
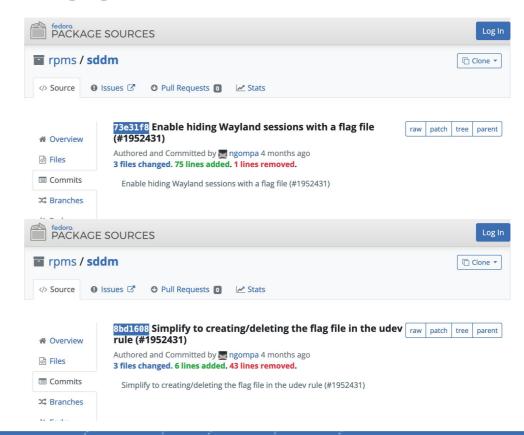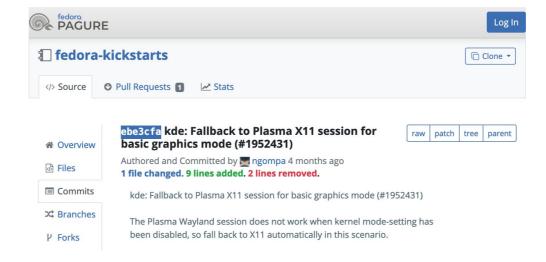
# HOW ABOUT NOW?
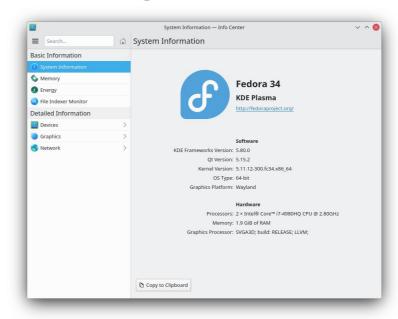
# LAST MINUTE BUG OF DOOM

# LAST MINUTE BUG OF DOOM

# WAYLAND BY DEFAULT ON FEDORA

## Leaping into the future!

KDE Plasma now runs with Plasma Wayland by default, rather than the legacy X11 session (with caveats). This gives us all the benefits: smoother graphics, greater performance, and lower resource usage.

Fedora is the first distribution to make the switch for KDE Plasma.



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# SO WHAT'S COMING IN THE FUTURE?

# WHAT'S COMING SOON

## On the bucket list...

- SDL1 replacement (Fedora 35)

- SDL2 preferring Wayland (Fedora 35-36?)

- SDDM using Wayland (Fedora 36+)

- Further improvements in the Wayland experience in collaboration with KDE

## Join Us

- Project issue tracker: pagure.io/fedora-kde/SIG

- Mailing list: kde@lists.fedoraproject.org

- Matrix: #fedora-kde:matrix.org

- IRC: #fedora-kde on Libera.Chat

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# QUESTIONS?