



# JOURNEY TO WAYLAND WITH KDE PLASMA

**NEAL GOMPA**

KDE SIG member

✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)  
✉ [Conan\\_Kudo@fosstodon.org](mailto:Conan_Kudo@fosstodon.org)  
[m] [@conan\\_kudo:matrix.org](https://matrix.to/#/@conan_kudo:matrix.org)

# 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

**NEAL GOMPA**

✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)



# 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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✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)



**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.

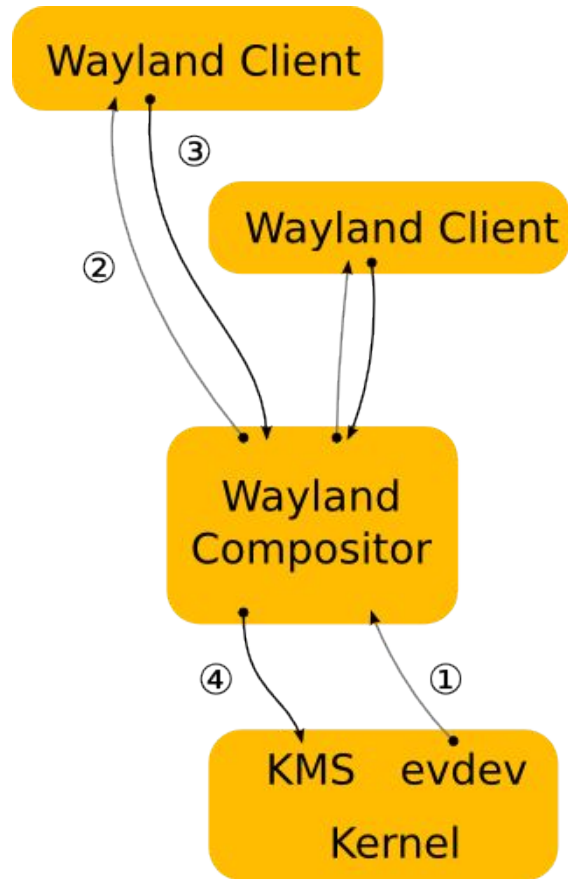


*Wayland logo from [Wayland.FreeDesktop.org](http://Wayland.FreeDesktop.org).*

# 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.

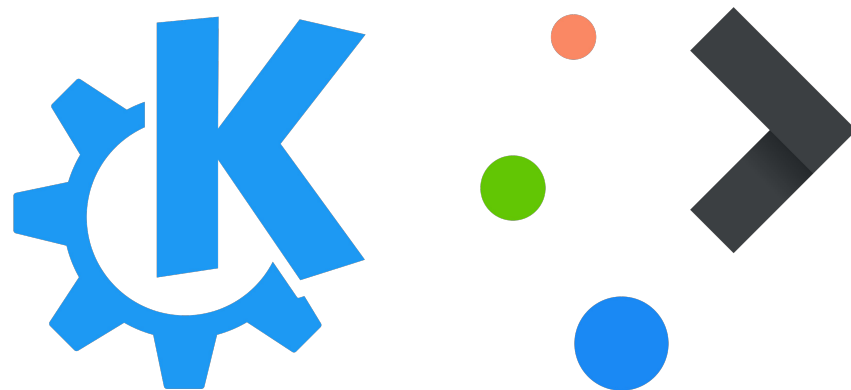


# WAYLAND ON KDE PLASMA

## 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.




*KDE, the K Desktop Environment logo, and the KDE Plasma logo are registered trademarks of KDE, e.V.*

**ONTO WAYLAND, THEN?**






# ONWARD AND UPWARD


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PACKAGE SOURCES

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 rpms / **plasma-workspace**


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Issues 


Pull Requests **0**


Stats 

 Overview

 Files


 Commits

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 Forks

**c401c31** Use Wayland by default for F34+

raw patch tree parent

Authored and Committed by  ngompa 10 months ago

**1 file changed. 9 lines added. 1 lines removed.**

Use Wayland by default for F34+


Reference: <https://fedoraproject.org/wiki/Changes/WaylandByDefaultForPlasma>

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✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)



# ONWARD AND UPWARD

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Issues

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Releases

Monitoring status:

Disabled

**f29078f** Use Wayland by default for F34+

raw patch tree parent

Authored and Committed by  ngompa 10 months ago

1 file changed. 9 lines added. 1 lines removed.

Use Wayland by default for F34+

Reference: <https://fedoraproject.org/wiki/Changes/WaylandByDefaultForPlasma>

Build completed

success

Built as kwin-5.19.90-2.fc34

10 months ago

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✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)





**WE'RE DONE NOW, RIGHT?**




# UPWARD UPSTREAM

 **sddm** / **sddm**

 Notifications


 Star

1.1k


 Fork

259


<> Code


 Issues

361

 Pull requests

15

 Actions

 Projects


2

...


## Prefer Wayland sessions over X11 ones #1305

Merged


plfiorini merged 1 commit into [sddm:devel](#) from [Conan-Kudo:prefer-wayland-session](#) on Nov 3, 2020

 Conversation


5

 Commits


1


 Checks

0

 Files changed

3

+10 -10 



**Conan-Kudo** commented on Oct 18, 2020 • edited

Contributor


...


As a general goal and preference, we want to make the change to Wayland as the default and X11 as the fallback.

This change codifies that preference.

Reference: <https://fedoraproject.org/wiki/Changes/WaylandByDefaultForPlasma>

**Reviewers**

 **plfiorini** ✓

 **davidedmundson** ✓

**Assignees**

No one assigned

**Labels**


None yet


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# UPWARD UPSTREAM

 [sddm](#) / [sddm](#)


 Notifications


 Star

1.1k


 Fork

259


 Code


 Issues

361

 Pull requests

15

 Actions

 Projects


2

...


## wayland-session: Ensure \$SHELL remains correctly set #1360

New issue


Merged

davidemundson merged 1 commit into [sddm:develop](#) from [Conan-Kudo:ensure-shell-remains-set-wayland](#) 


on Jan 27

 Conversation


8

 Commits


1


 Checks

6

 Files changed

1

+7 -0 



Conan-Kudo commented on Jan 17


Contributor

...

In some circumstances, the effort of setting the environment correctly can wind up clobbering the user-specified shell. To work around this issue, capture the shell setting in a variable and set it back at the end of environment and profile setup.

Fixes [#1351](#)

Reviewers

 davidemundson ✓

Assignees

No one assigned

Labels

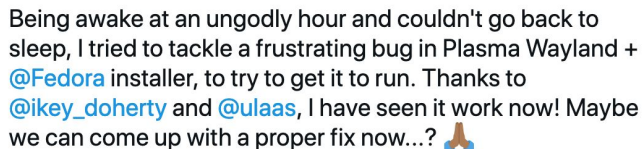
..

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# NEAL GOMPA



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**HOW ABOUT NOW?**



# LAST MINUTE BUG OF DOOM

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**Bug 1952431 - startplasma-wayland hangs when run in basic video mode (nomodeset; VESA (BIOS) / FBDEV (UEFI) )**

Keywords:

Status: CLOSED ERRATA

Alias: None

Product: Fedora

Component: kwin

Version: 34

Hardware: Unspecified

OS: Unspecified

Priority: unspecified

Severity: unspecified

Target Milestone: ---

Assignee: Daniel Vrátil

QA Contact: Fedora Extras Quality Assurance

Docs Contact:

URL:

Whiteboard: AcceptedBlocker

Depends On:

Blocks: [F34FinalBlocker](#)

TreeView+ [depends on](#) / [blocked](#)

Reported: 2021-04-22 09:37 UTC by František Zatloukal

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Branches

**73e31f8** Enable hiding Wayland sessions with a flag file (#1952431) [raw](#) [patch](#) [tree](#) [parent](#)

Authored and Committed by ngompa 4 months ago

3 files changed. 75 lines added. 1 lines removed.

Enable hiding Wayland sessions with a flag file (#1952431)

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**8bd1608** Simplify to creating/deleting the flag file in the udev rule (#1952431) [raw](#) [patch](#) [tree](#) [parent](#)

Authored and Committed by ngompa 4 months ago

3 files changed. 6 lines added. 43 lines removed.

Simplify to creating/deleting the flag file in the udev rule (#1952431)


NEAL GOMPA

[ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)






# LAST MINUTE BUG OF DOOM


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**ebe3cfa** **kde: Fallback to Plasma X11 session for basic graphics mode (#1952431)**

raw   patch   tree   parent

Authored and Committed by  **ngompa** 4 months ago

**1 file changed. 9 lines added. 2 lines removed.**

kde: Fallback to Plasma X11 session for basic graphics mode (#1952431)

The Plasma Wayland session does not work when kernel mode-setting has been disabled, so fall back to X11 automatically in this scenario.

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✉ [ngompa@fedoraproject.org](mailto:ngompa@fedoraproject.org)

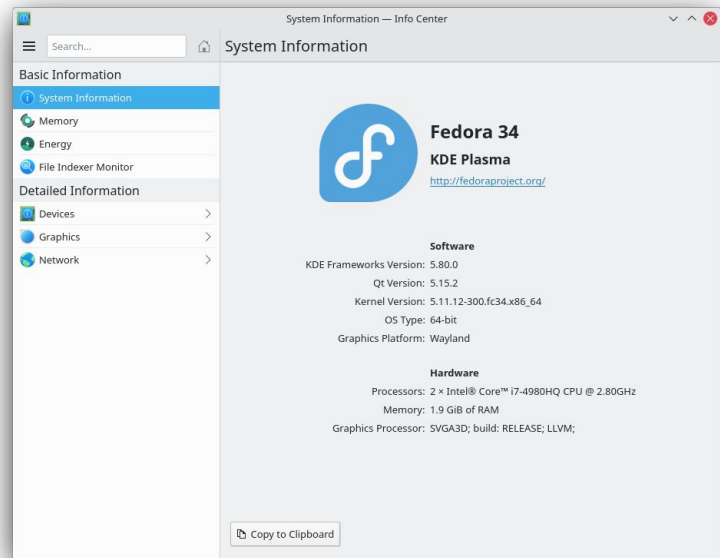


# WAYLAND BY DEFAULT ON FEDORA

## 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.



*Fedora logo trademarked by Red Hat, Inc. in the United States and other countries.*

**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](https://pagure.io/fedora-kde/SIG)
- Mailing list: [kde@lists.fedoraproject.org](mailto:kde@lists.fedoraproject.org)
- Matrix: [#fedora-kde:matrix.org](https://matrix.org/join/fedora-kde)
- IRC: [#fedora-kde on Libera.Chat](https://libera.chat/fedora-kde)

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**QUESTIONS?**

