OpenJDK Project Wakefield - Wayland desktop support for JDK on Linux

Welcome to the Wakefield Project!

The goal of this Project is to implement support in JDK for the Wayland display server.

Background and Motivation:

The Linux community has been working on a complete replacement for the 1980's era X11 desktop display server protocol with new protocols and libraries that support client-side rendering and a compositing desktop windowing system.

This is now the default desktop server technology on several Linux distros, including RHEL 8, OL 8, and Ubuntu 21.04, and some day may be the only display server, with X11 applications supported only via a compatibility mode, in which certain critical Java SE desktop APIs as implemented for X11 will not function completely and therefore will not be TCK compliant.

The Wakefield Project will pursue two goals:

- a short to medium term solution for JDK running on Wayland in X11 compatibility mode
- a medium to long term solution for JDK running as a native Wayland client. Pure Wayland toolkit plan proposal.

The latter is the main goal but is significantly more work and will take years to fully complete and deliver, hence the need for the short term goal too.

In due course, one or more JEPs will be submitted based on work from this Project.

Oct 20th 2022 : JavaOne Wakefield BOF slides have been posted here : wakefield_bof.pdf

Known problems and solutions

Meeting Notes

Pure Wayland toolkit prototype

Work breakdown

Resources

- Wakefield Project page on openjdk.java.net
- Repository
- Mailing list: wakefield-dev (archives)
- OpenJDK census : https://openjdk.java.net/census#wakefield
- Call for Votes : https://mail.openjdk.java.net/pipermail/announce/2021-August/000305.html

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Philip Race
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