What is this “Wayland” anway?

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Who am I?

- KDE developer
- Day job at Blue Systems
- Gradually started doing Wayland things
- Angry reader of comments under articles and in social media
Example comments

- Wayland doesn’t implement X/Y/Z
- Wayland is a Display Server
- Applications will need to support 2/3/N different implementations of the same thing
Wayland is a project & community

- #wayland
- wayland-devel
- other projects
Wayland is an IPC protocol

- Applications talking to each other in a defined way
Wayland is a protocol

Core protocol for
- showing things on screen
  - [1432650.481] -> wl_surface@32.frame(new id wl_callback@40)
  - [1432650.521] -> wl_surface@32.attach(wl_buffer@39, 0, 0)
  - [1432650.536] -> wl_surface@32.damage_buffer(0, 0, 1027, 420)
  - [1432650.562] -> wl_surface@32.commit()

- input handling
  - [1417368.269] wl_pointer@22.motion(149064, 1444.00000000, 34.00000000)
  - [1950967.231] wl_keyboard@3.key(1725, 682663, 30, 0)

- Clipboard & drag and drop
  - [1949635.258] wl_data_device@10.data_offer(new id wl_data_offer@4278190081)
  - [2081010.600] -> wl_data_device@10.set_selection(wl_data_source@72, 2467)
  - [2159819.166] -> wl_data_device@10.start_drag(wl_data_source@82, wl_surface@29, wl_surface@86, 3035)
Wayland is a library

- libwayland-server and libwayland-client
  - core protocol
  - wire format (de)marshalling
  - utils
- libwayland-cursor
Wayland is a set of protocols

• Core protocol
• wayland-protocols
  – xdg-shell
  – xdg-activation
  – tablet
  – linux-dmabuf
  – ...
• Custom protocols (e.g. plasma-wayland-protocols)
  – Can be upstreamed (layer-shell, idle-notify)
Wayland is what the user experiences

- User doesn’t know why something behaves unexpectedly
- It doesn’t matter which component, “Wayland” doesn’t work
- Our task is to make it work
Comments revisited

- Applications need to support three different implementations
  - Protocols are standardized
    - Implementations try to follow standardized
    - Ambiguities and divergences are clarified
  - Useful custom protocols are standardized
  - Portals
  - Toolkit abstractions or libraries
Wayland doesn’t support X/Y/Z

➔ Understand the use case
➔ Create custom/standardized protocol
➔ Implement it
➔ Happy people all around \o/
Aleix, your turn!