



What is this “Wayland” anyway?

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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

Group ID: 1158

Wayland and Weston development

Subgroups and projects

Shared projects

Archived projects

Search by name

Name ▾

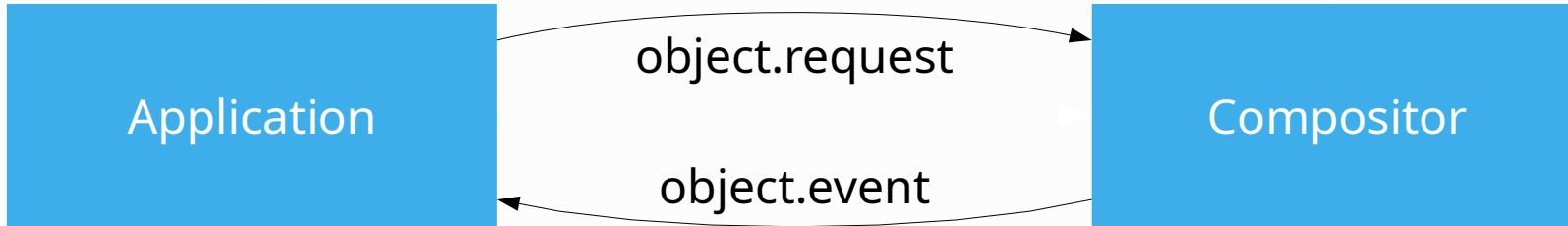
	ci-templates	★ 2	2 years ago
Gitlab CI templates			
	wayland	★ 121	13 hours ago
Core Wayland window system code and protocol			
	wayland.freedesktop.org	★ 2	1 week ago
Wayland website			
	wayland-protocols	★ 40	1 hour ago
	wayland-utils	★ 6	1 week ago
	weston	★ 78	1 hour ago
A lightweight and functional Wayland compositor			

- #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-proctols
 - xdg-shell
 - xdg-activation
 - tablet
 - linux-dmabuf
 - ...
- Custom protocols (e.g. plasma-wayland-protcols)
 - Can be upstreamed (layer-shell, idle-notify)

11:14:35

Thursday, 29 September 2022



David

Password



Sleep



Restart



Shut Down



Other...

Plasma (Wayland)

Plasma (X11)

Wayland

Virtual Keyboard

21%



Wayland is what the user experiences

- User doesn't know why something behaves unexpected
- It doesn't matter which component, "Wayland" doesn't work
- Our task 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



Comments revisited

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!