Wayland Full-Screen Shell

Jason Ekstrand

Intel Corporation
Open-Source 3D Driver Team

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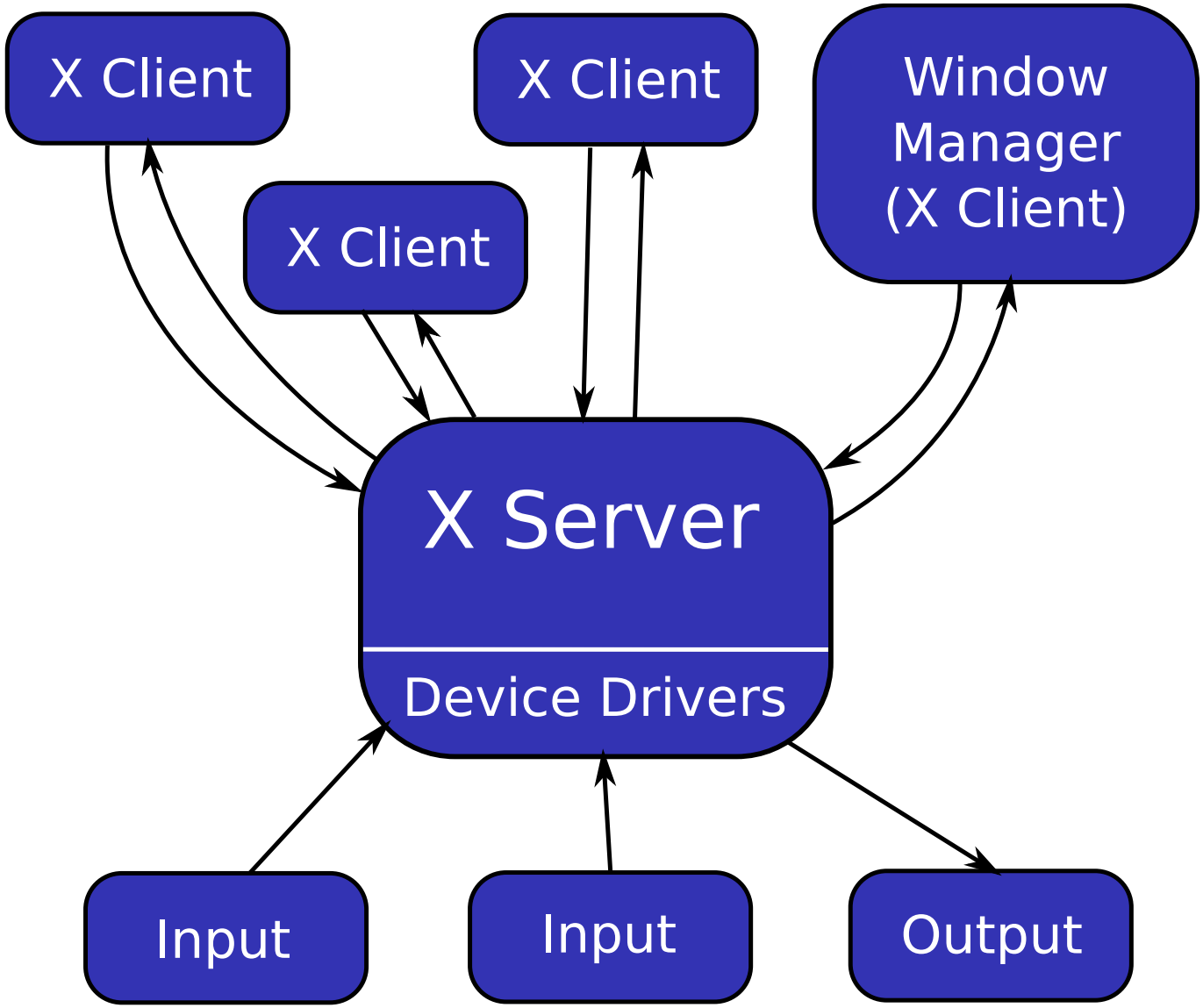
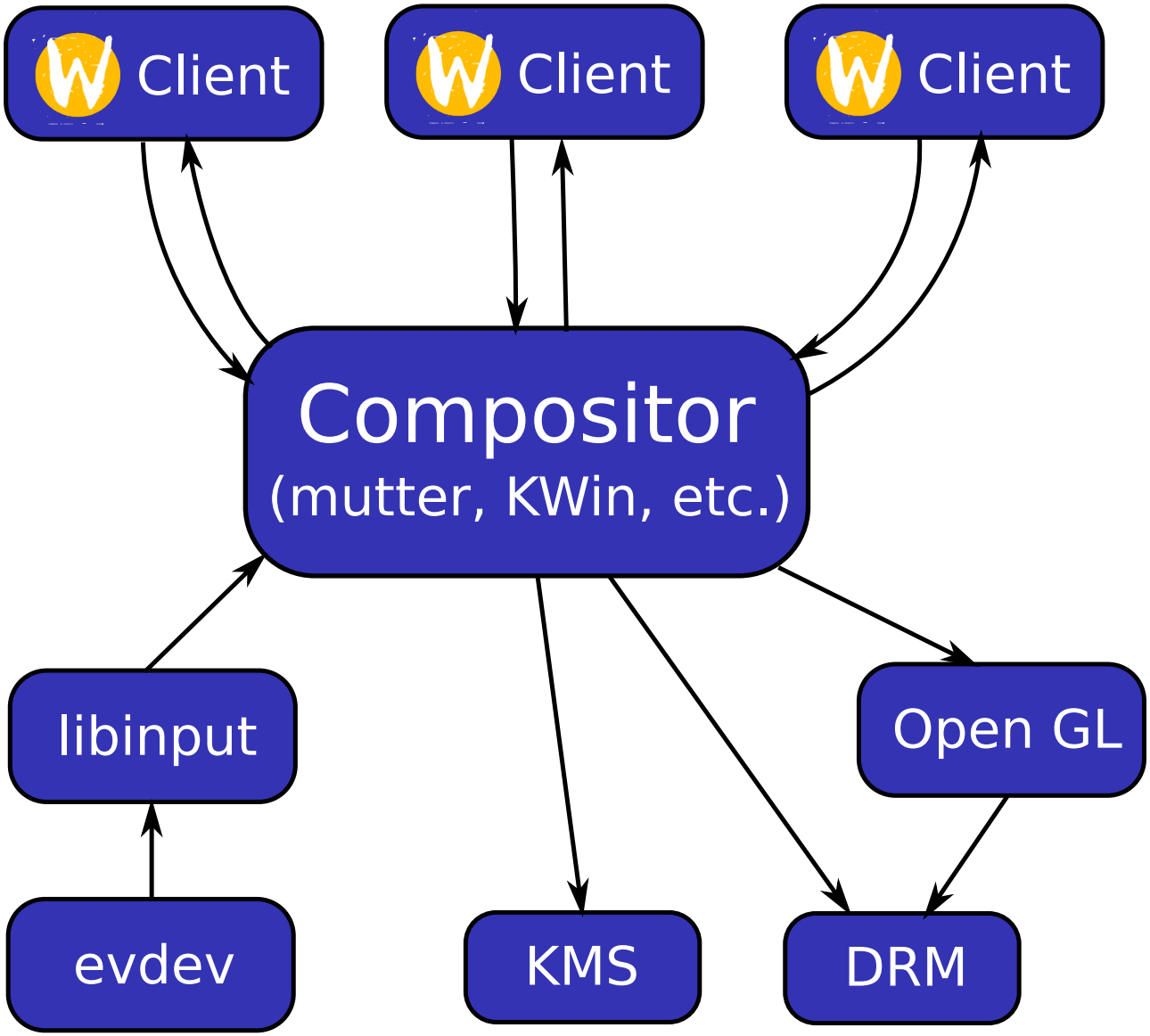
About Me

- Ph.D. student in mathematics at Iowa State University
- Involved in Wayland since early 2013
- Working for Intel on the i965 driver since June


X Client
X Client
X Client
Window Manager (X Client)
X Server
Device Drivers
Input
Input
Output


Client
Client
Client
Compositor
(mutter, KWin, etc.)
libinput
Open GL
evdev
KMS
DRM

What about code re-use?

We push the common functionality into external libraries:

- KMS for modesetting
- DRM for buffer graphics buffer management
- OpenGL [ES] for GPU-accelerated compositing
- pixman for CPU-accelerated compositing
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- Any client can get the contents of any window
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- The compositor is at the center and each client has its own namespace
- Clients get input directly from the compositor
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- Implement either a full X server or a DDX for X.org
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- Screen capturing is done by the compositor
- The result may be processed by the compositor directly or handed to a special trusted client

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- Screen recording via a trusted weston-screenshooter client
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- Allow a client to capture the screen and provide input
- Compositors implement one protocol
- Many people can write sharing/recording clients
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- Compositors launch the subsidiary compositor and connect as a Wayland client
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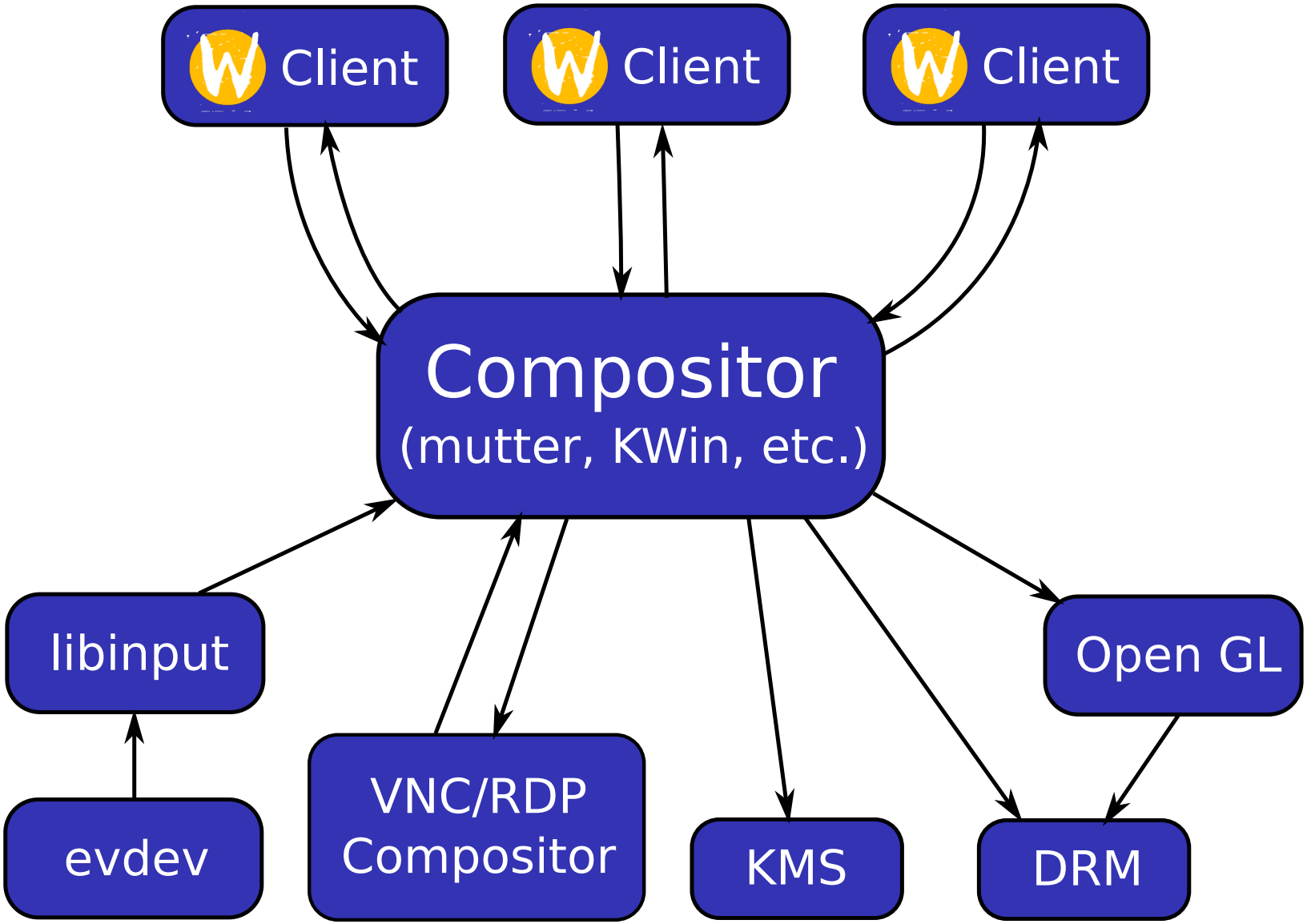
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  Presents a surface a single surface on an output with a possible scaling mode.
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Demo!

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- Easier to write compositors:
  - Write as a Wayland client and let Weston handle input/output
- Userspace Miracast
- Modesetting when kernel modules aren't an option

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