Enlightenment as Standalone Wayland Compositor

Christopher Michael & Stefan Schmidt
Samsung Open Source Group

Identify components E relies on from X

- Rendering
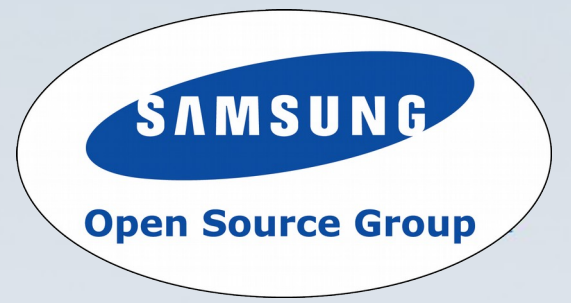- DRM and VT handling
- Input handling
- (Session recovery)

- Wayland engines available in Evas
  - SHM with double and triple buffering
  - EGL engine
  - DRM software and hardware accelerated
- Switched all Xwindow usage to evas canvas to allow X11 as well as wayland surfaces
- Many other abstractions from X already existed in ecore for framebuffer and other display systems

- Ecore Drm Library

  – Systemd for session control

  – Udev for device discovery/hotplugging

  – Libdrm for hardware access

  – Dbus for input device opening/closing

  – VT switching from ioctls

Input Handling

- Originally designed to use libinput from Wayland

    - Removed libinput due to issues with libinput event processing

    - Moving back to libinput now as final solution

    - Keyboard, mouse, and touch screen input supported

    - Libinput missing joystick support

Shell Support

- XDG shell support implemented

- wl_shell also supported

- IVI shell supported

Discussion Topics

- XDG: Better support for missing desktop related parts, like systray replacement, border icon advertising, uniconify

  – What alternatives are others using here?

- What should we use to replace xrandr?

  – Udev hotplug to support output reconfiguring?

- Session-recovery: E catches segfaults and allows session recovery with all applications restored, X helps here.

  – Protocol extension for this?

Thank you.