

# **XDG-Shell Support for IVI-Shell**

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- **Introduction**
- **What's new?**
- **Current and New Setup**
- **How is it done?**
- **Id Agent**
- **Benefits**

- **Michael Teyfel**
- **Electrical Engineer (M.Sc.)**
- **Working for ADIT since 2016 as Graphics Engineer**
  - ◆ Weston
  - ◆ Wayland-IVI-Extension
  - ◆ Performance Analysis
- **ADIT is a Joint Venture between BOSCH and DENSO for Platform Development of Their IVI-Systems**
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- **Shell for weston (wayland compositor)**
- **Focus on ivi-systems**
  - ◆ Numerical id to handle surfaces by a HMI
  - ◆ Modular window manager

## ■ Xdg-shell support added

- ◆ wl-shell protocol added
- ◆ xdg protocol added
- ◆ ivi-application protocol still supported

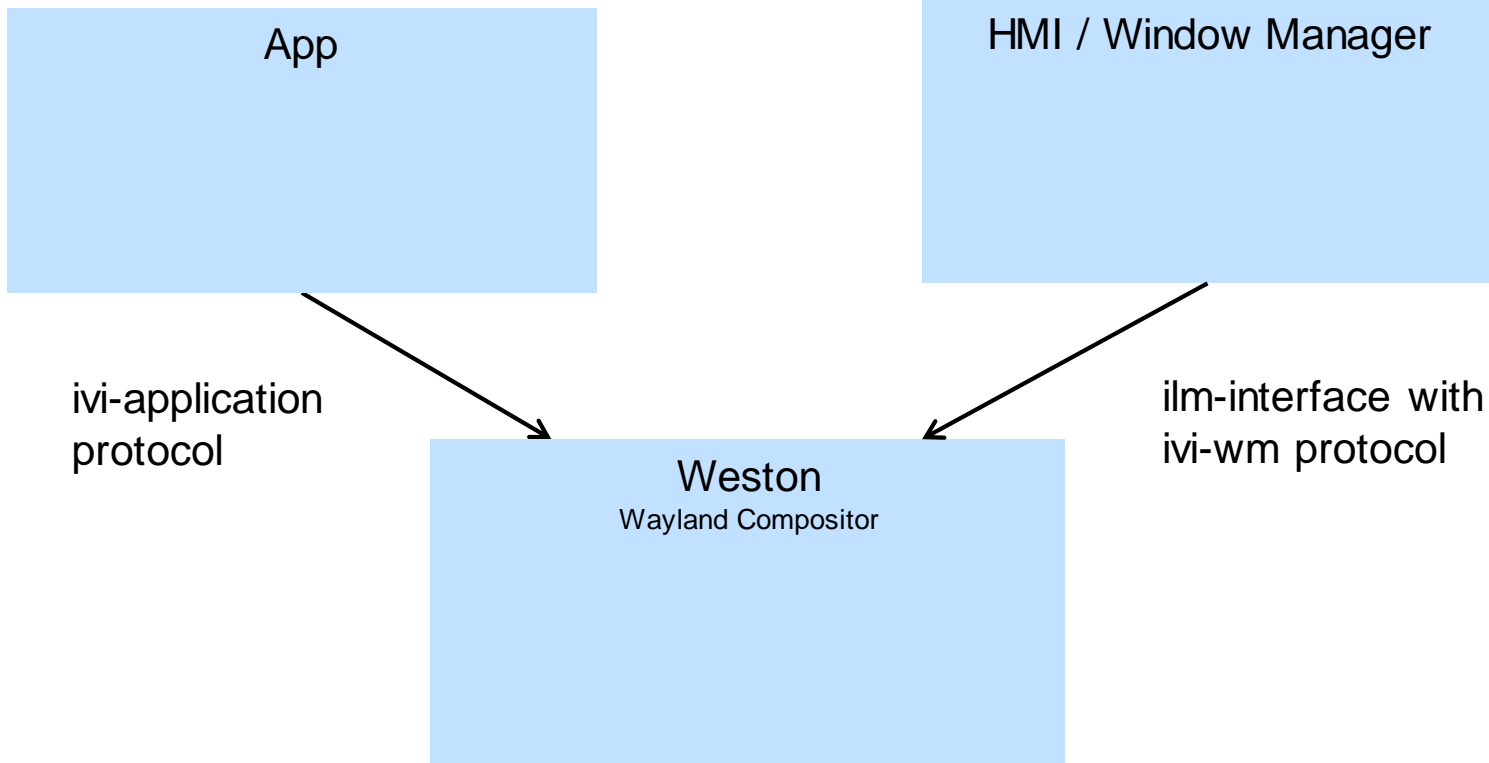
## ■ Custom id agent plugin for weston (wayland compositor)

- ◆ generate ids for applications
- ◆ configuration file

Id is generated in app

Notify compositor about id:  
custom protocol required

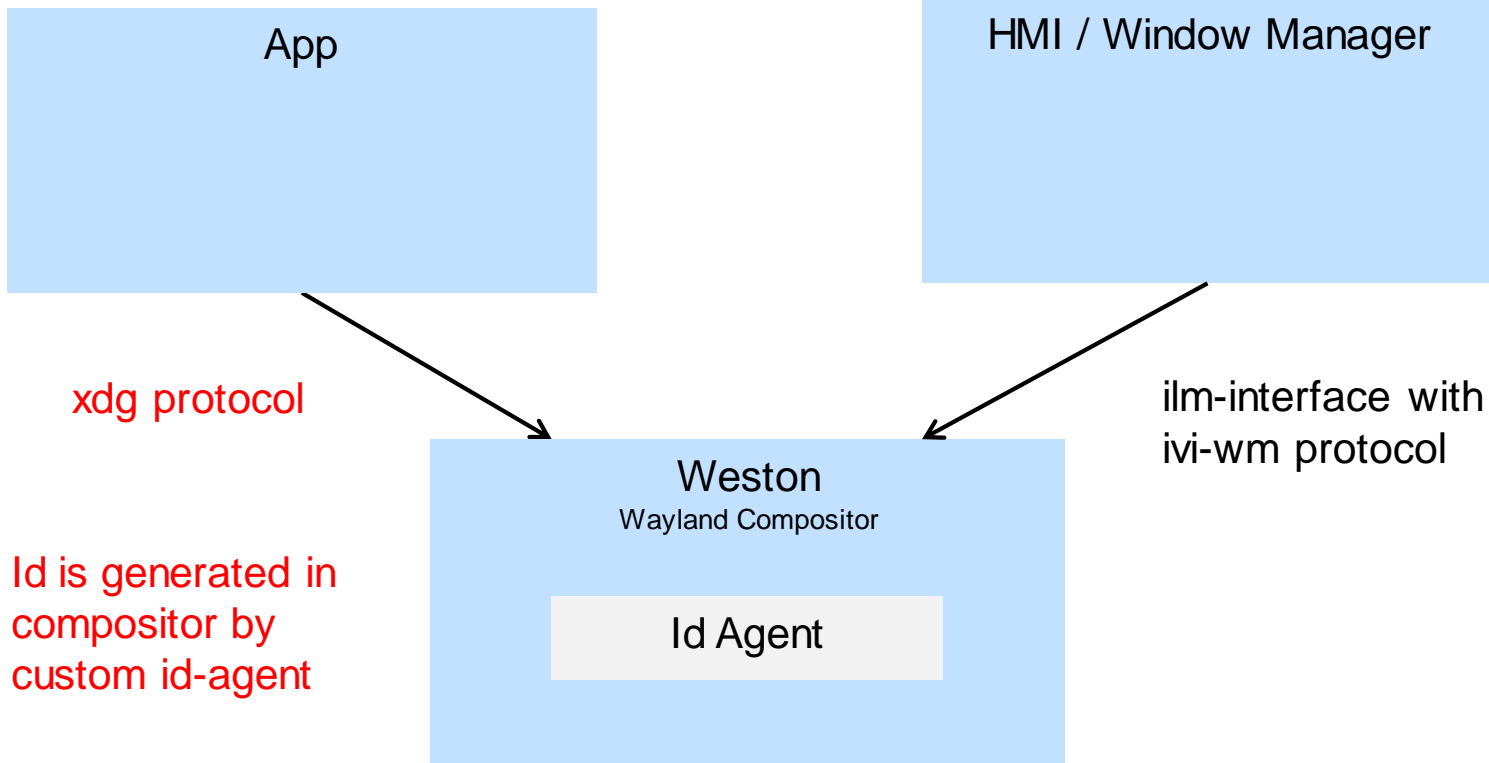
Modular Window Manager: easy  
to exchange and develop

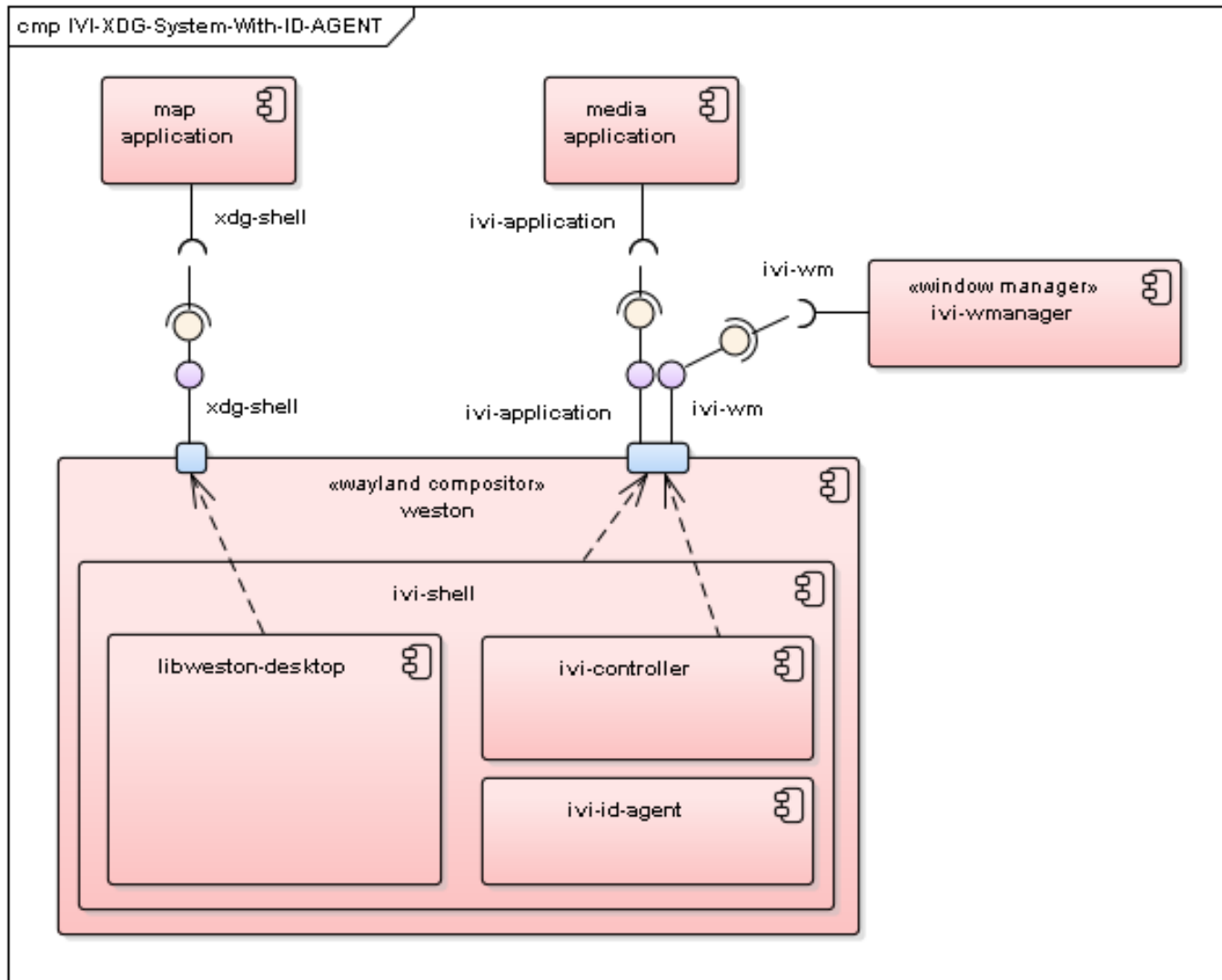


Id is **NOT** generated in app

Common protocol can be used:  
xdg protocol

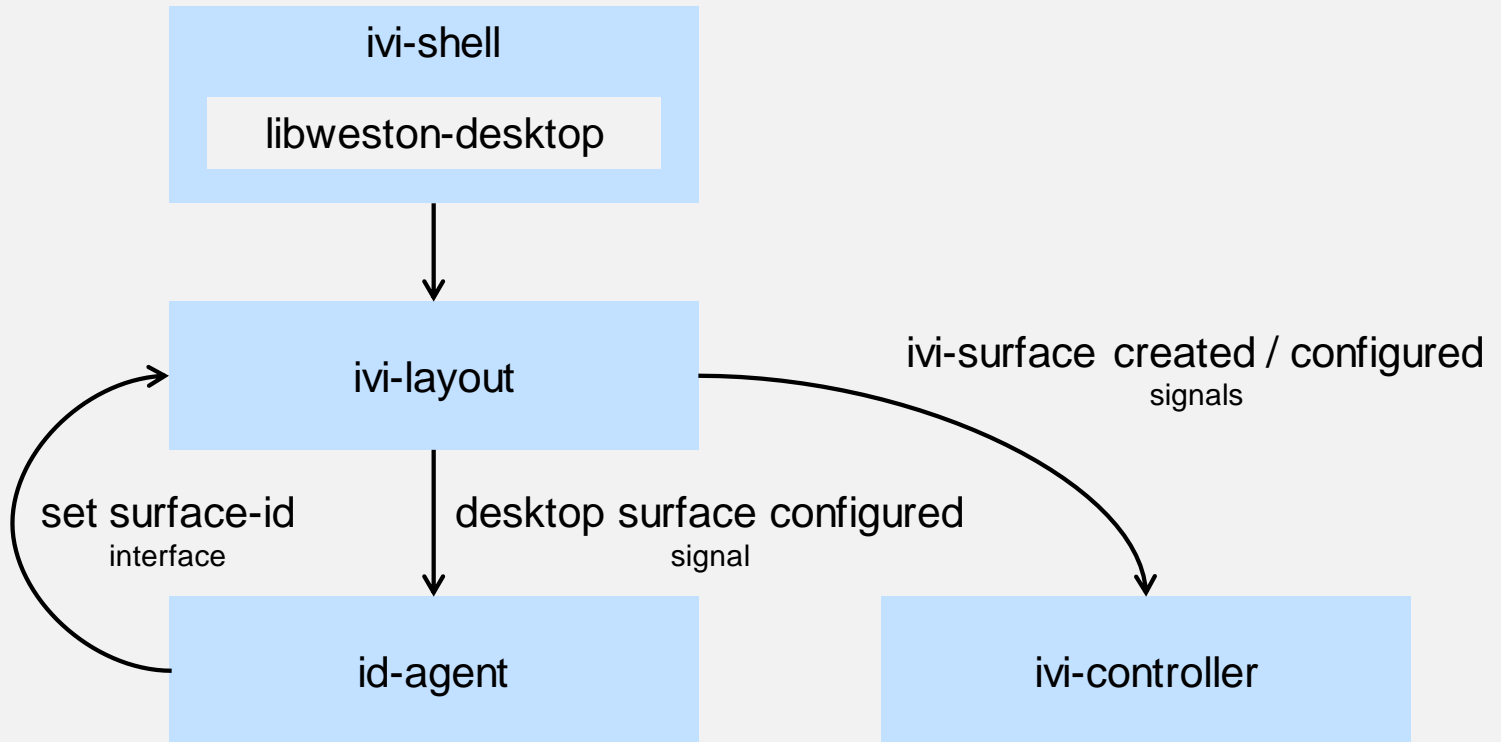
Modular Window Manager: easy  
to exchange and develop







### Weston (Wayland Compositor)



- **Reference implementation: wayland-ivi-extension repository (soon)**
- **Parameters for application configuration:**
  - ◆ surface-id (numeric, mandatory)
  - ◆ app-id (part of xdg protocol, optional)
  - ◆ app-title (part of xdg protocol, optional)
- **Optional: Default behavior for unconfigured applications**
  - ◆ default-layer-id (numeric, mandatory)
  - ◆ default-surface-id (numeric, mandatory)
  - ◆ default-surface-id-max (numeric, mandatory)
- **Feasibility check of configuration at initialization**

- **ivi-application protocol is still supported within ivi-shell**
- **xdg-shell support is added to ivi-shell which enables to use desktop applications with automotive window management**
- **Application development does not require extra knowledge about ivi-systems → easier and faster application development**
- **Many desktop applications can be run natively**
- **Open source frameworks (for Wayland) can be supported out of the box**



# Thanks for your attention!

Are there any questions?