ArcGIS Experience Builder for Developers

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Slides: https://esriurl.com/exb-presummit-2023

Workshop Agenda

Day 2

- Morning
  - Introduction to custom widgets in ArcGIS Experience Builder
  - Localization
  - Break – 10 minutes
  - TypeScript
  - Build a basic widget
- Lunch – 60 minutes
- Afternoon
  - Data Sources
  - Themes and widget styling
  - Break – 10 minutes
  - Extending out-of-the-box widgets
  - Deployment
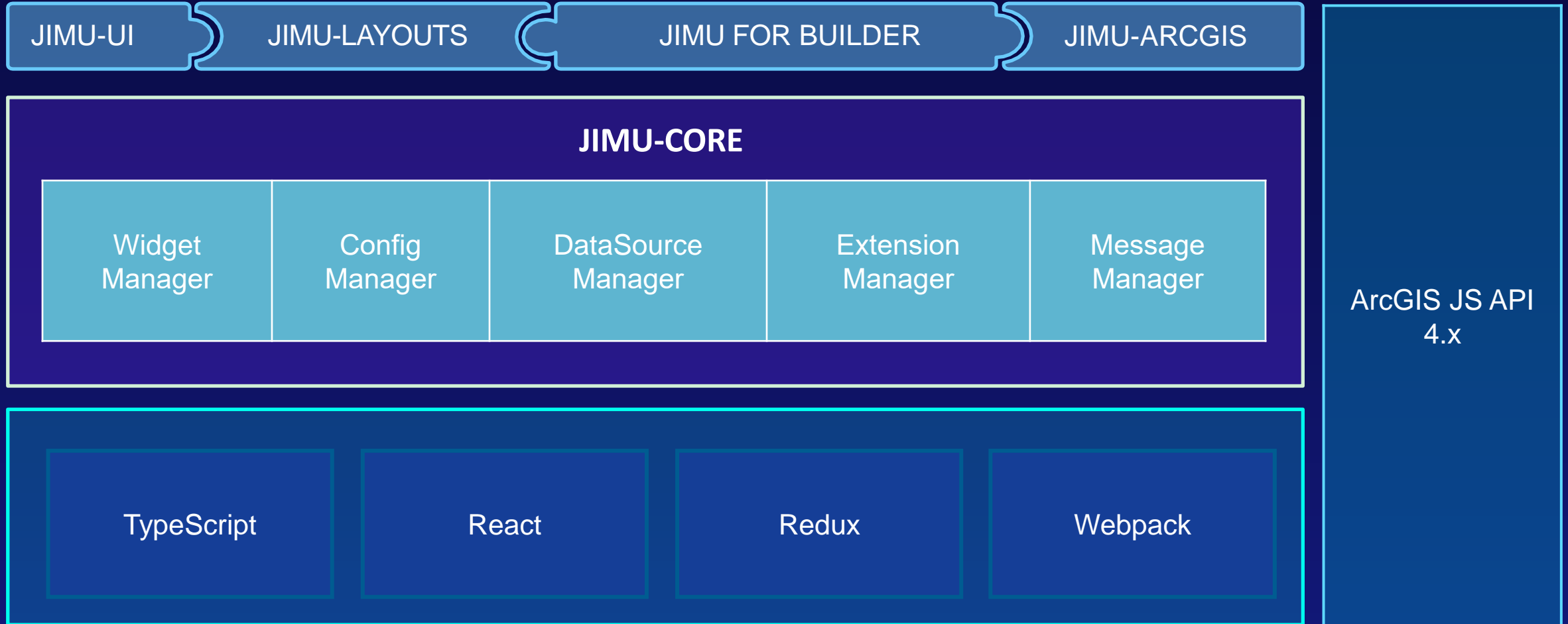 - Q&A and Wrap-up

Intro to Custom Widgets

Agenda

- Custom widget development background
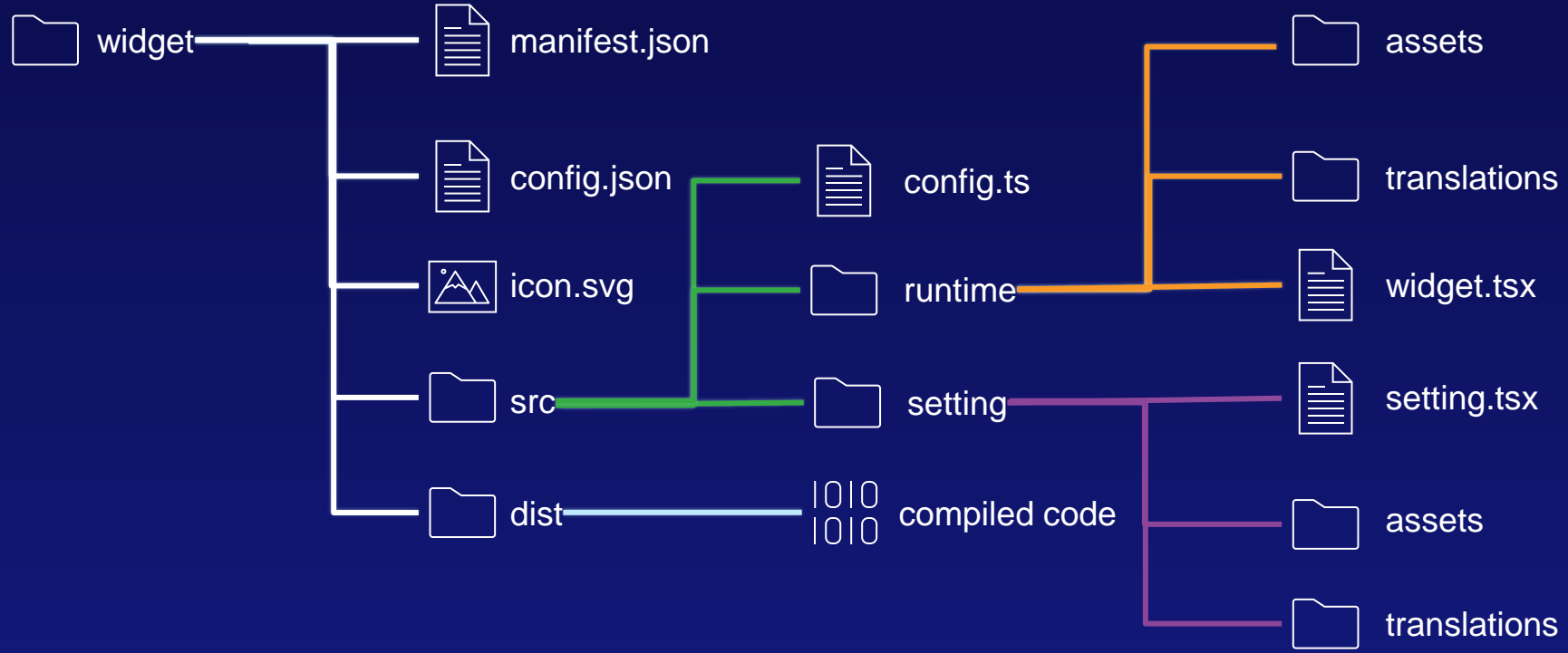- Set up development environment
- Create your first custom widget

Technologies

- HTML, CSS, JavaScript
- React/JSX
- TypeScript
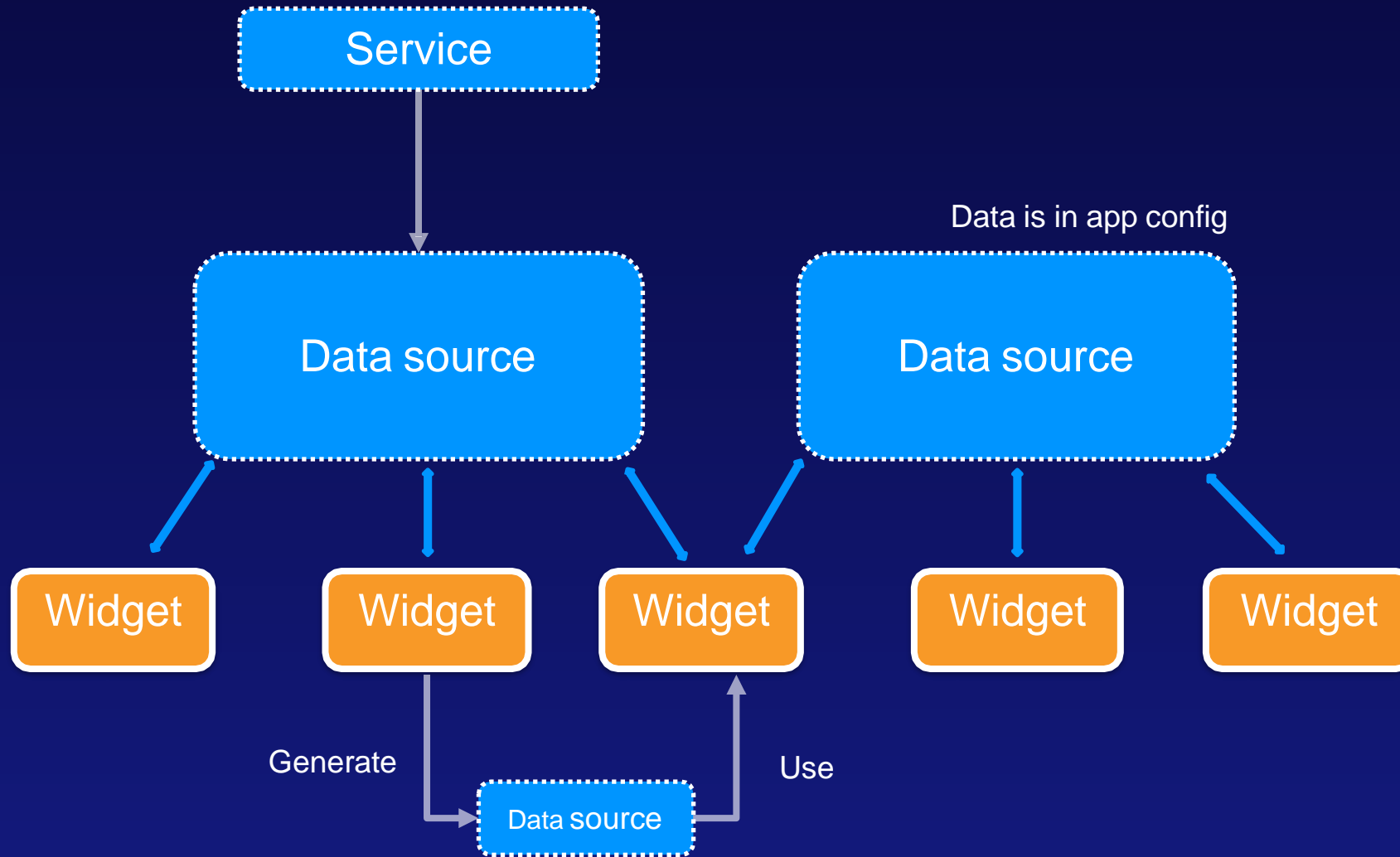- ArcGIS API for JavaScript
- Jimu library

Technology stack

JIMU-UI · **JIMU-LAYOUTS** · **JIMU FOR BUILDER** · **JIMU-ARCGIS**

JIMU-CORE

Widget Manager	Config Manager	DataSource Manager	Extension Manager	Message Manager

TypeScript	React	Redux	Webpack

ArcGIS JS API 4.x

Widget Structure

Data sources

Development Environment

Get it set up

Goals

- ☑ Development Environment
- ☑ Use a sample widget to get started fresh
- ☑ Modify that widget

Steps to set up your development environment

1. Install Prerequisites (NodeJS)

2. Download Experience Builder Developer Edition

3. Unzip the files

4. Command line in `/server` directory:

    1. `npm ci`

    2. `npm start`

5. Copy sample widget ✳

6. Command line in `/client` directory:

    1. `npm ci`

    2. `npm start`

Code Editor

- **FREE** Download: code.visualstudio.com
- Open the `/client` folder as a project (drag-drop)

Add widget to development application

- Open Experience Builder

- Add your widget

- Save and Publish

Activity

45 Minutes

- Review the "Getting Started" documentation: https://developers.arcgis.com/experience-builder/guide/getting-started-widget/

- Set up your text editor (VS Code or similar)

- Duplicate the Simple widget and add it to an Experience

- Open the "client/" folder in your IDE, make a small code change to make sure your dev environment is working

- Bonus:
  - Update the "defaultSize" property of the manifest.json and see how that affects your widget
  - Update the icon of your widget.

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