



Esri International Developer Summit
Palm Springs, CA

Customizing and Extending ArcGIS WebApp Builder

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Topics

Introduce WebApp Builder

- Quick introduction of ArcGIS WebApp Builder
- Configure a ready to use web application

WebApp Builder Architecture

- Design principles
- WebApp Builder components
- Key concepts

Create Your First Widget

- Create a simple widget
- Configure the widget
- Package the widget

Create a Theme

- Define WebApp Builder theme
- Create a theme
- Package the theme

Road Ahead

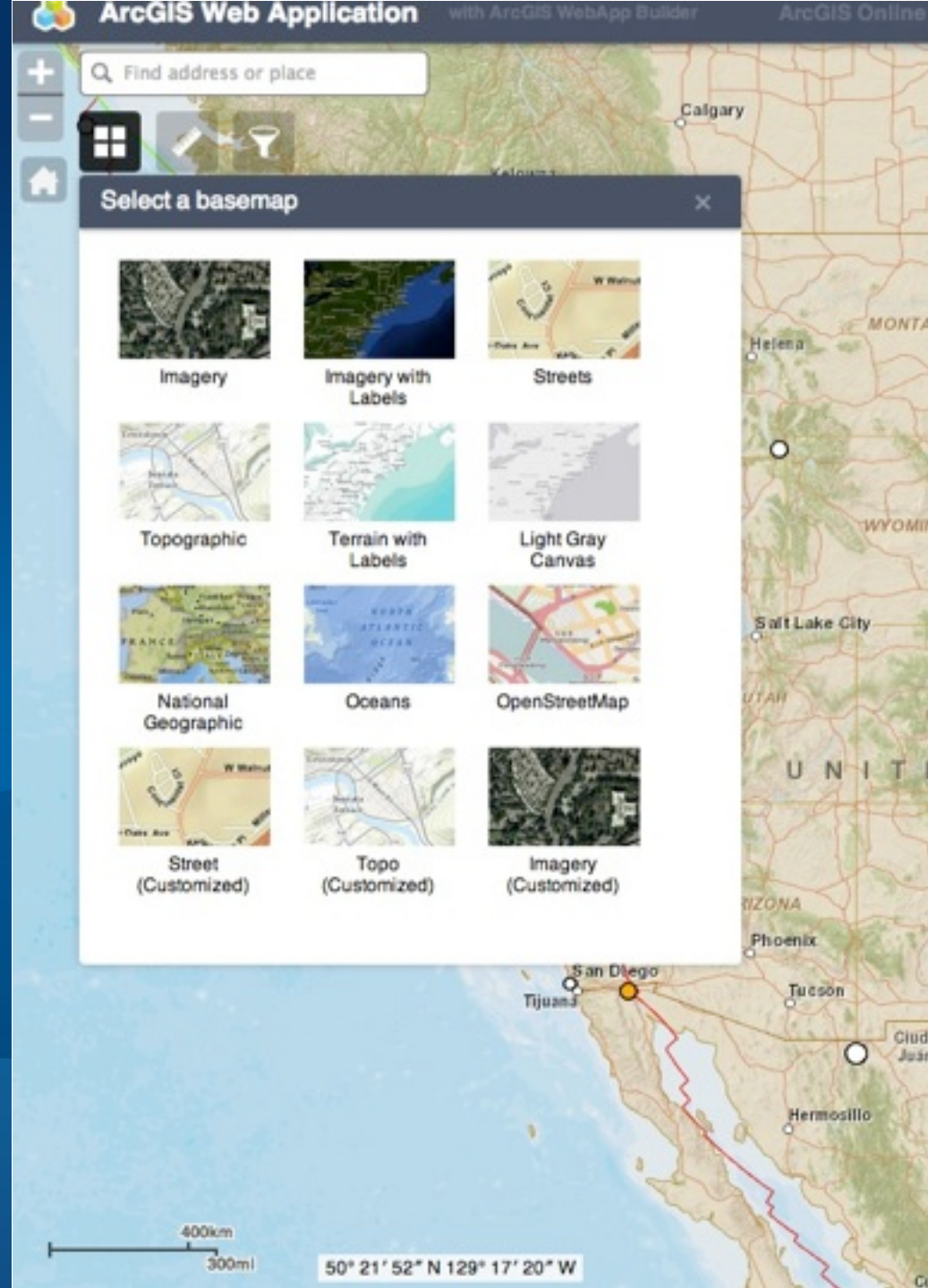
- The release plan
- What's coming

Questions and Answers

- Q&A from the team
- Your questions

ArcGIS WebApp Builder

Introduction



A Response

to the requests by many customers

HTML5/no plugin

Configurable apps

Mobile web apps

Less programming

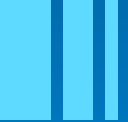


Take Advantage of modern HTML/JavaScript technologies

Pure HTML/JavaScript

Responsive UI for Devices

Supports both 2D and 3D



For Developers

GUI Builder

Out of Box Widgets

Create Custom Widget

Create Custom Theme



ArcGIS Platform Integration

3D Web Scenes Support

OAuth2 Support

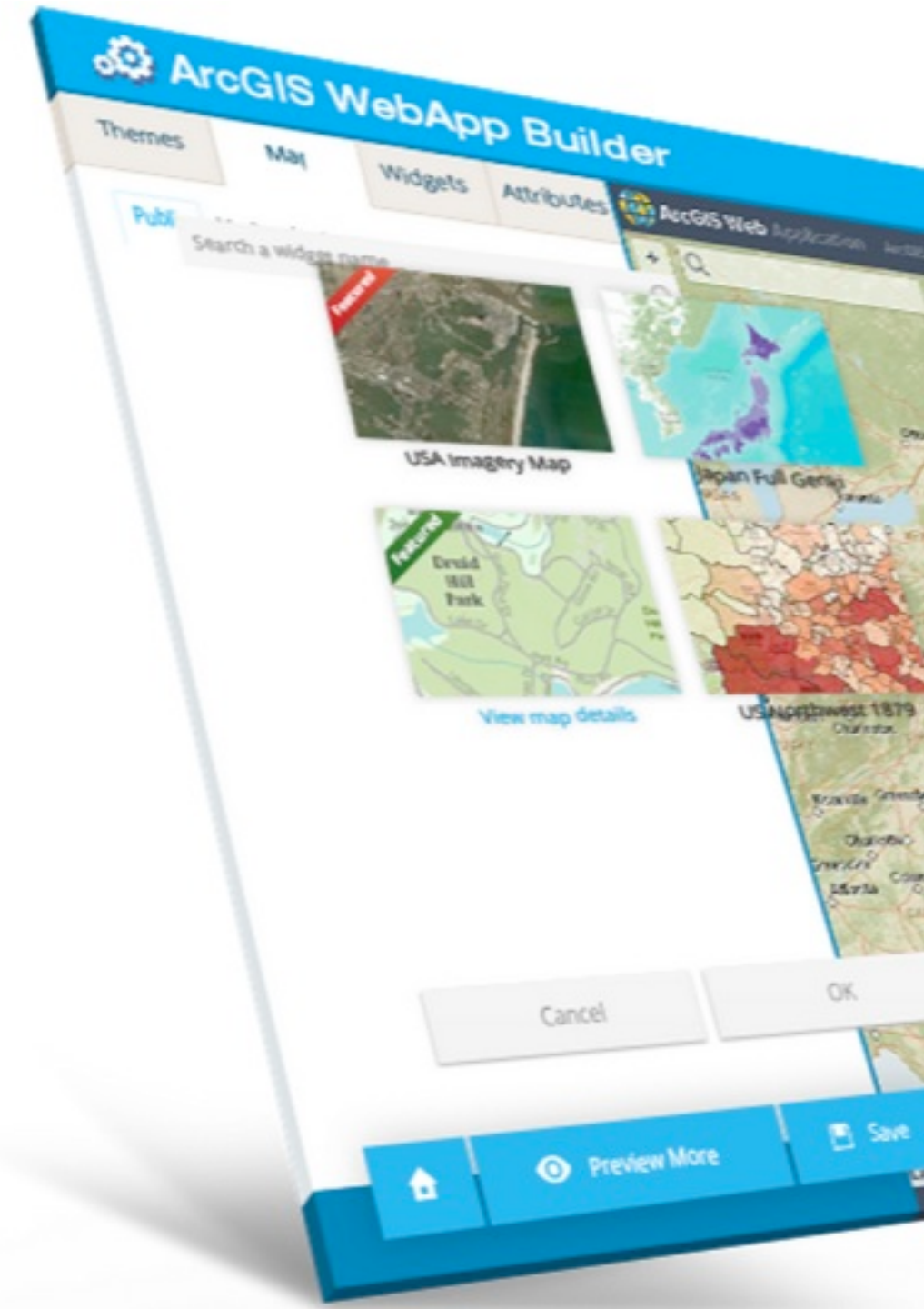
Create Web App Templates

Builder inside Portal

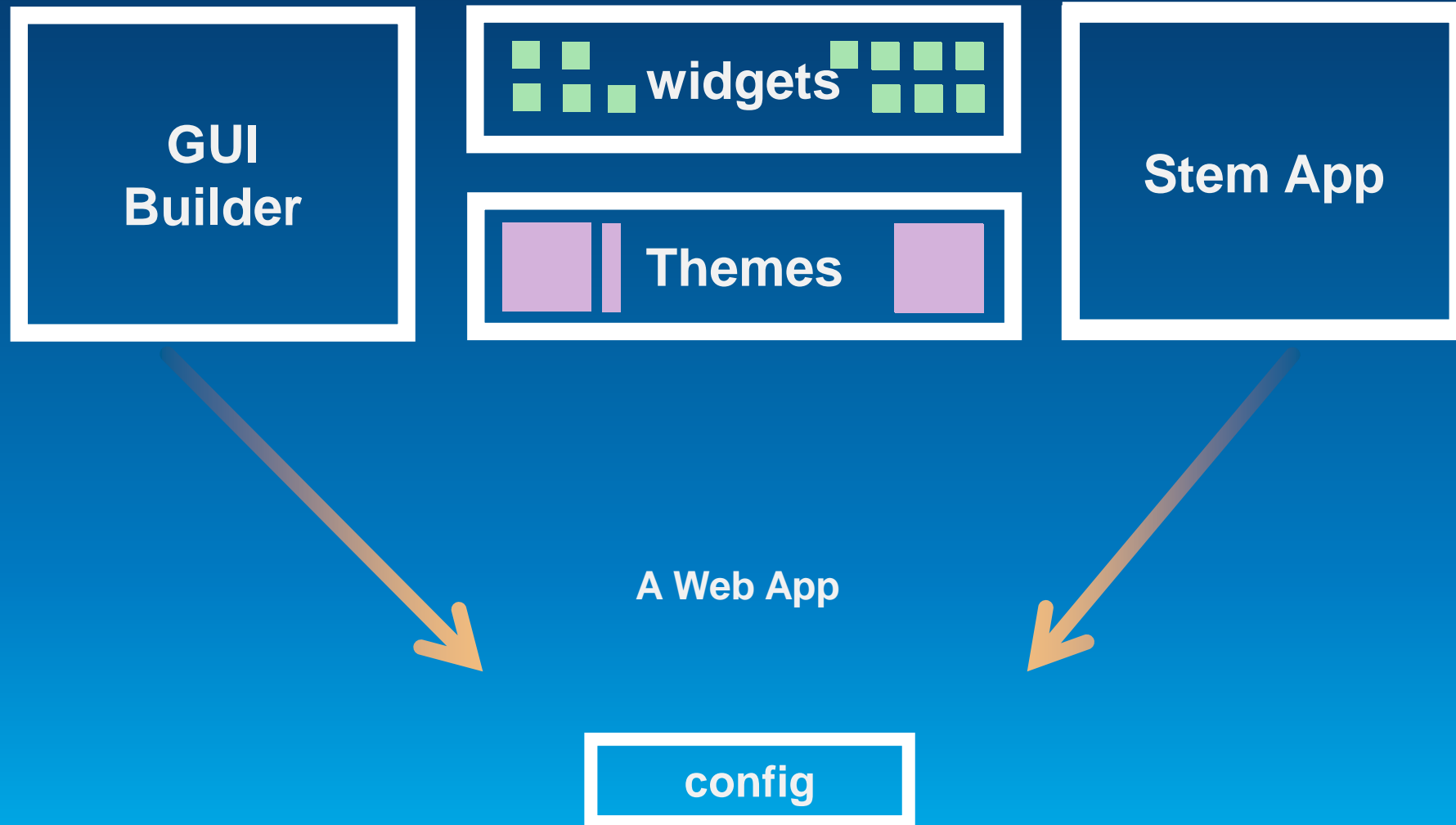


ArcGIS WebApp Builder Architecture

Concepts and Components

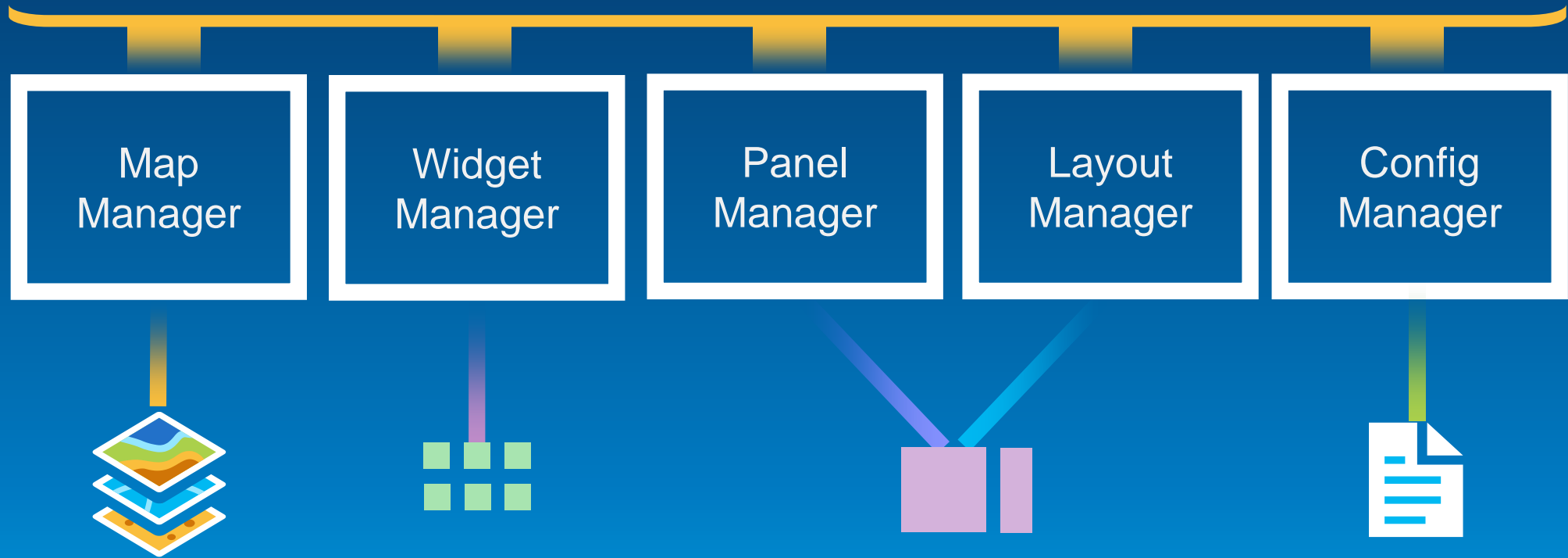


ArcGIS WebApp Builder Components



Inside Stem App

Messaging (publish/subscribe)



Widget

- HTML/JavaScript/CSS
- Specific task
- Configuration in JSON
- NLS support
- Builder config UI

Theme

- HTML/JavaScript/CSS
- Layout
- Branding
- Widget panel and behavior
- Style (Color, etc.)
- Default widgets

ArcGIS WebApp Builder Design Goal

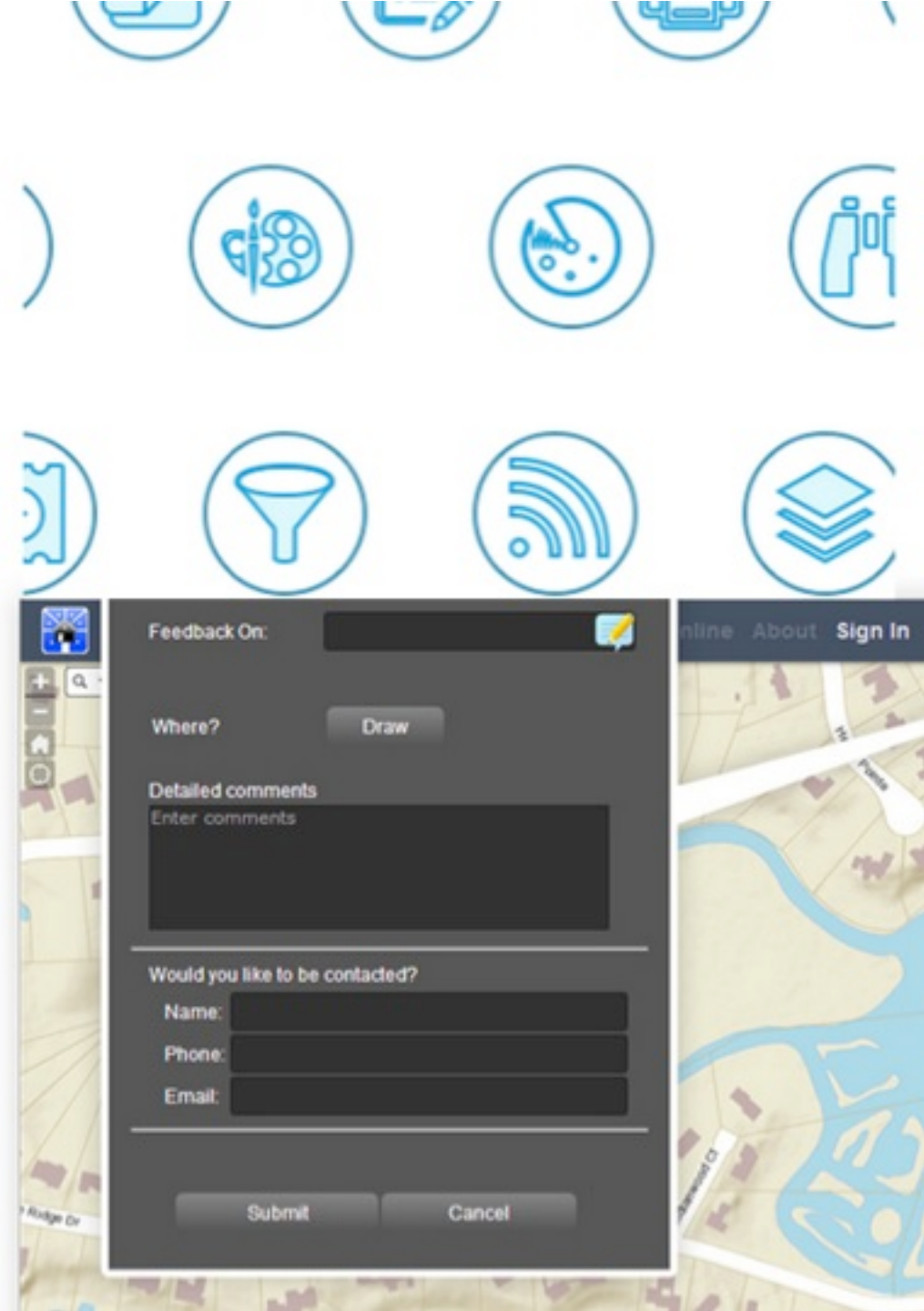
Simplicity

- Design / Develop by convention
- Defaulting everything
- Object messaging
- No third party lib besides dojo



ArcGIS WebApp Builder Widget

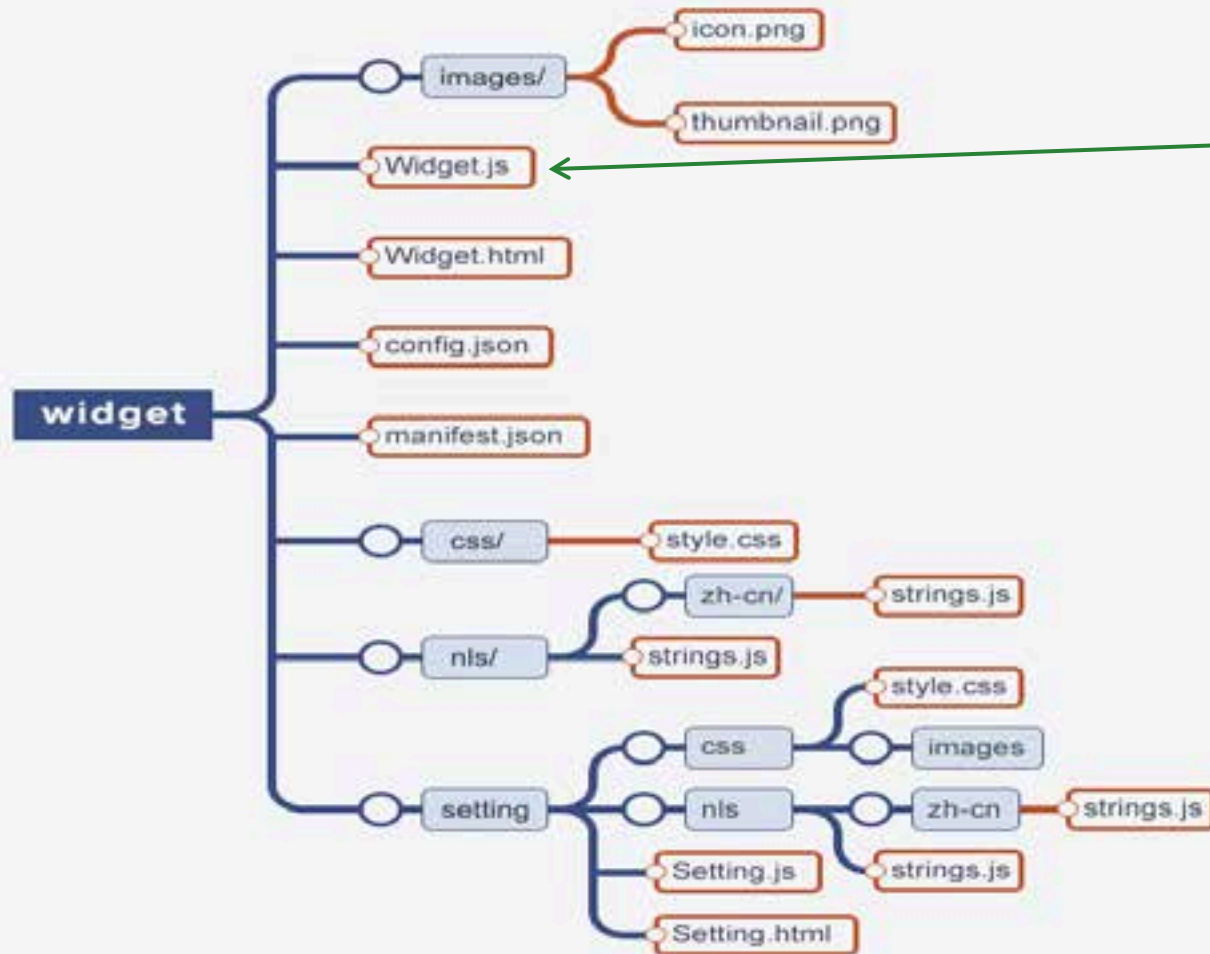
Create your first one



The screenshot shows a feedback form overlaid on a map. The form has the following sections:

- Feedback On:** A text input field with a small icon to its right.
- Where?:** A text input field with a **Draw** button to its right.
- Detailed comments:** A section with the heading "Detailed comments" and a sub-label "Enter comments" above a large text area.
- Would you like to be contacted?:** A section with three input fields labeled **Name:**, **Phone:**, and **Email:**.
- Submit** and **Cancel** buttons at the bottom.

Convention and Defaults



A widget could be just one file.

A widget full set of files to provide Everything from UI, nls to WebAbb Builer setting UI.

A minimum Widget – Widget.js

```
define(['dojo/_base/declare', 'jimu/BaseWidget'],  
function(declare, BaseWidget){  
    var clazz = declare([BaseWidget], {  
    });  
    return clazz;  
});
```

All widget derived from the BaseWidget class

BaseWidget

What do you get from BaseWidget?

- App config properties (label, icon, location, etc)
- App config data
- Widget's config data
- Map object
- Widget state (open, closed, active...)
- Events like open/signin
- Sharing data (widget communication)

Your job?

- HTML Template
- Widget config file
- Widget name (for css)
- The “guts” (i.e. business logic)
- Localization



Events

- Dijit **lifecycle** events such as
 - postCreate
 - startup
 - ...



- **Widget** events such as
 - onOpen, onSignIn
 - publishData
 - ...

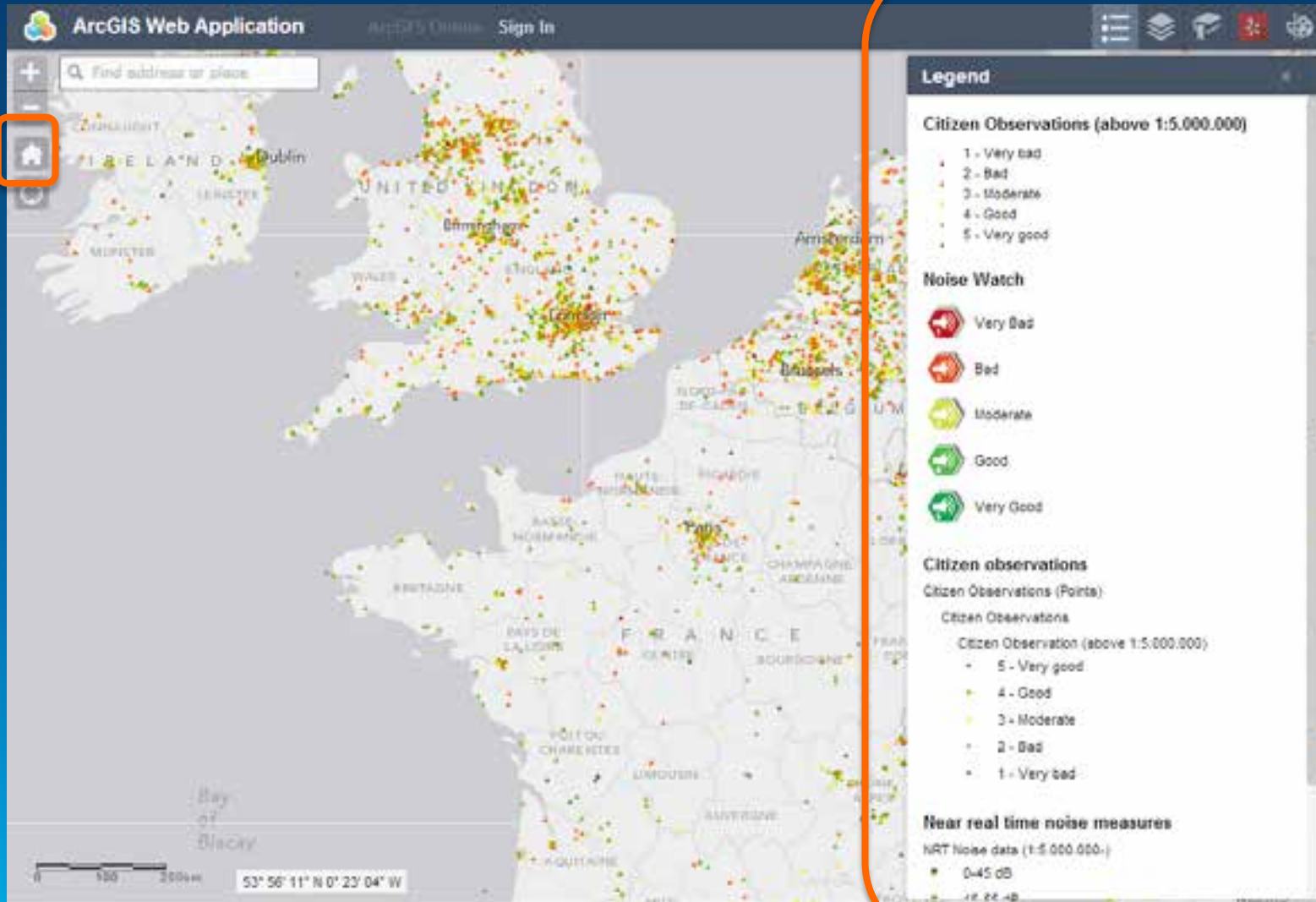


Demo

Create your first widget

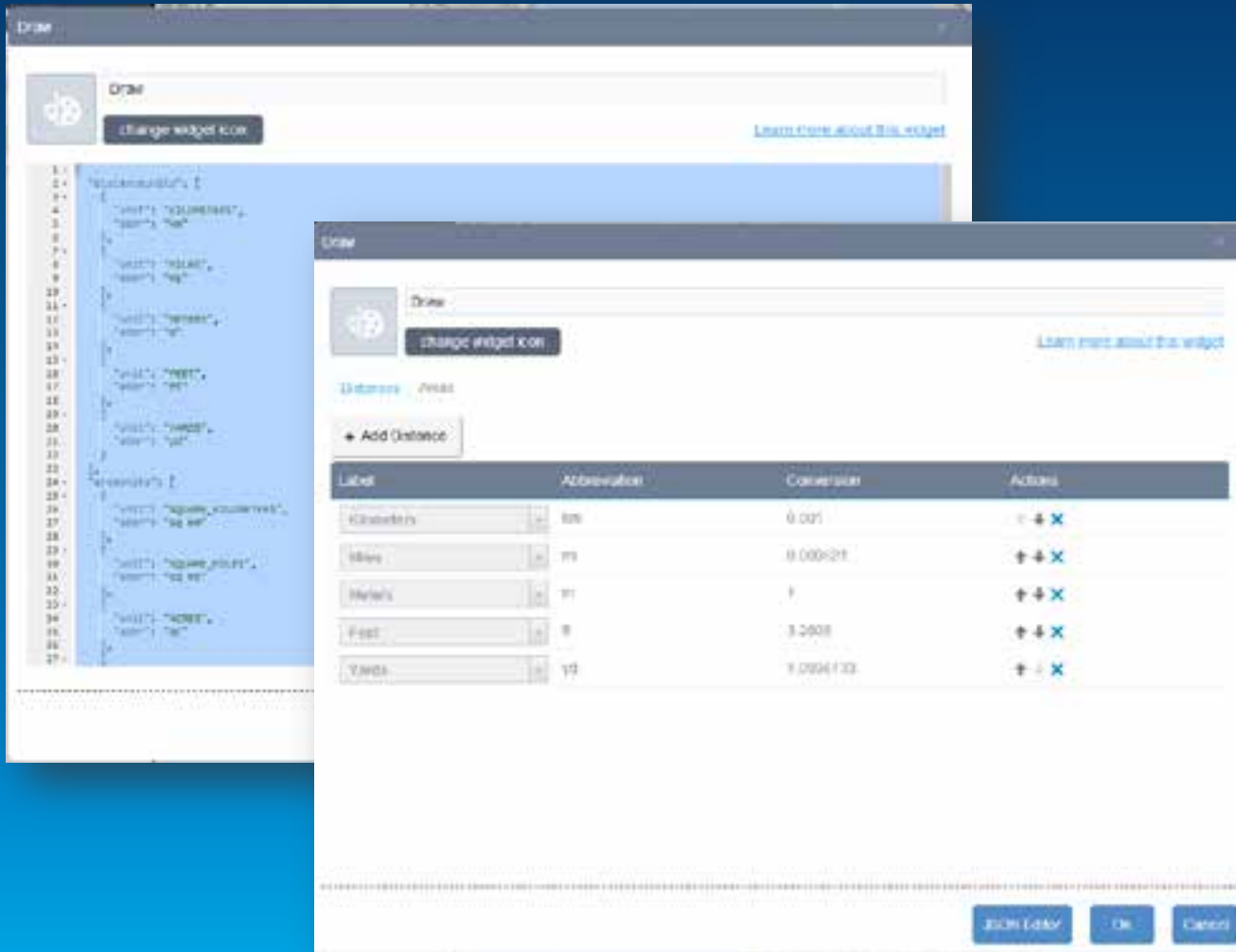
Widgets: Preloaded or in the Panel

"inPanel": false



"inPanel": true
(default)

Configure your custom widget inside the builder



Building a UI for the user

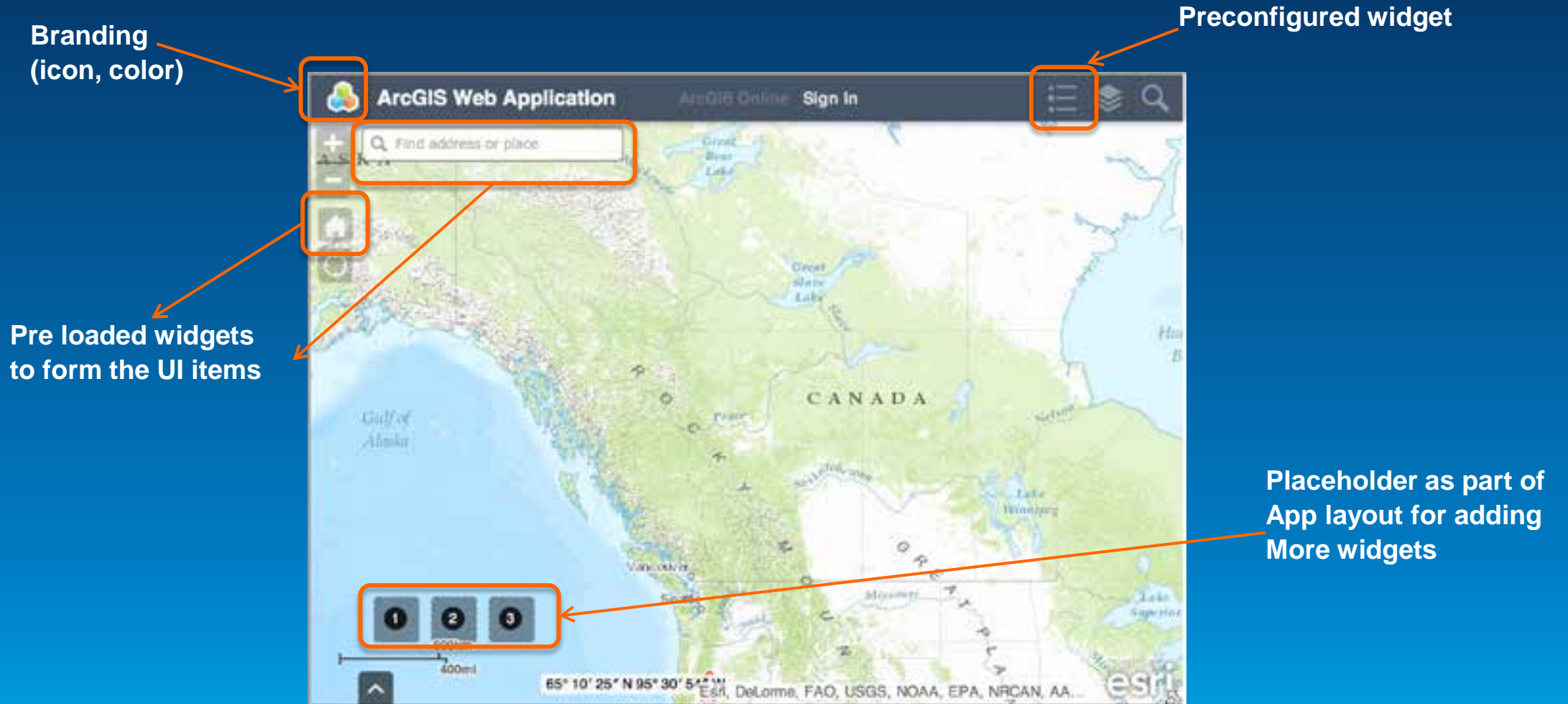
- **Setting.js**
 - Config info
 - getConfig, setConfig
- **Setting.html**
- **Usual localization pattern**
- **CSS**

ArcGIS WebApp Builder Theme

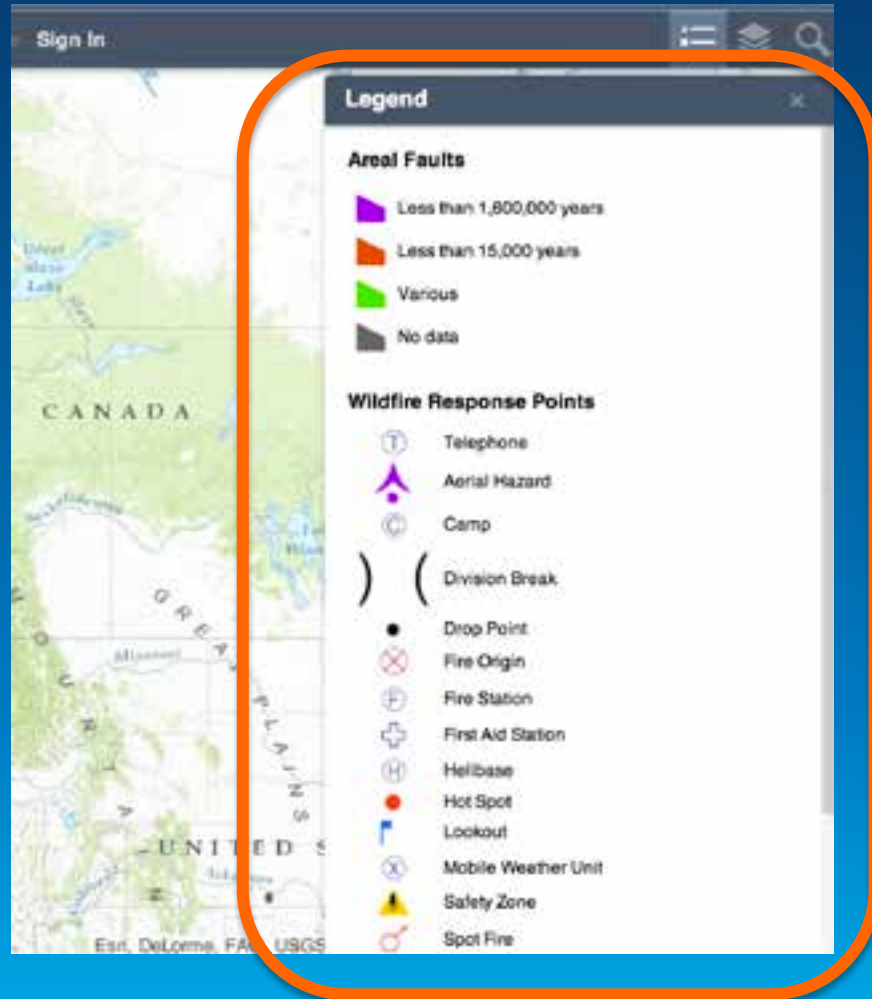
Create your first one



Define ArcGIS WebApp Builder Theme

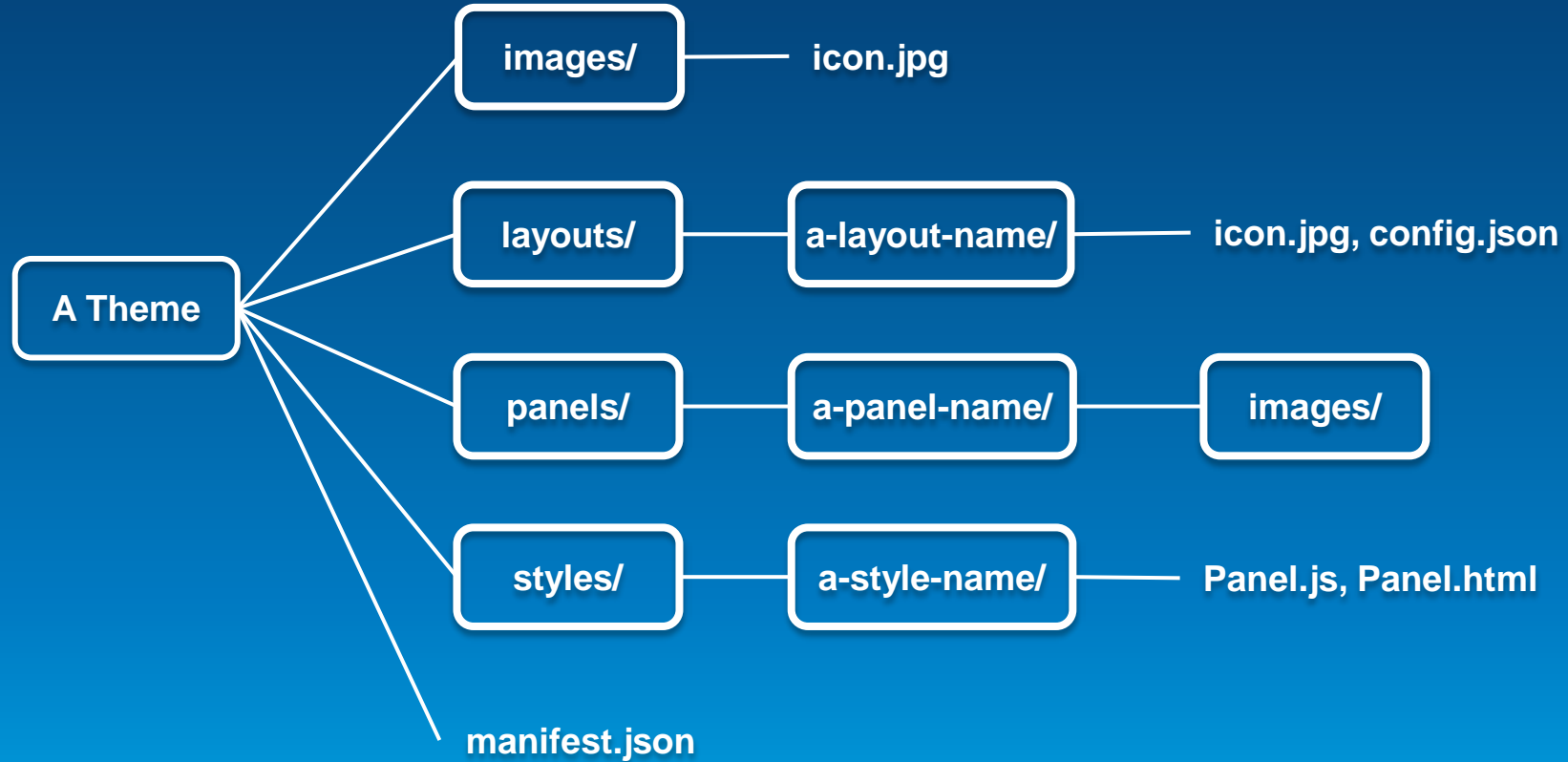


Define ArcGIS WebApp Builder Panel

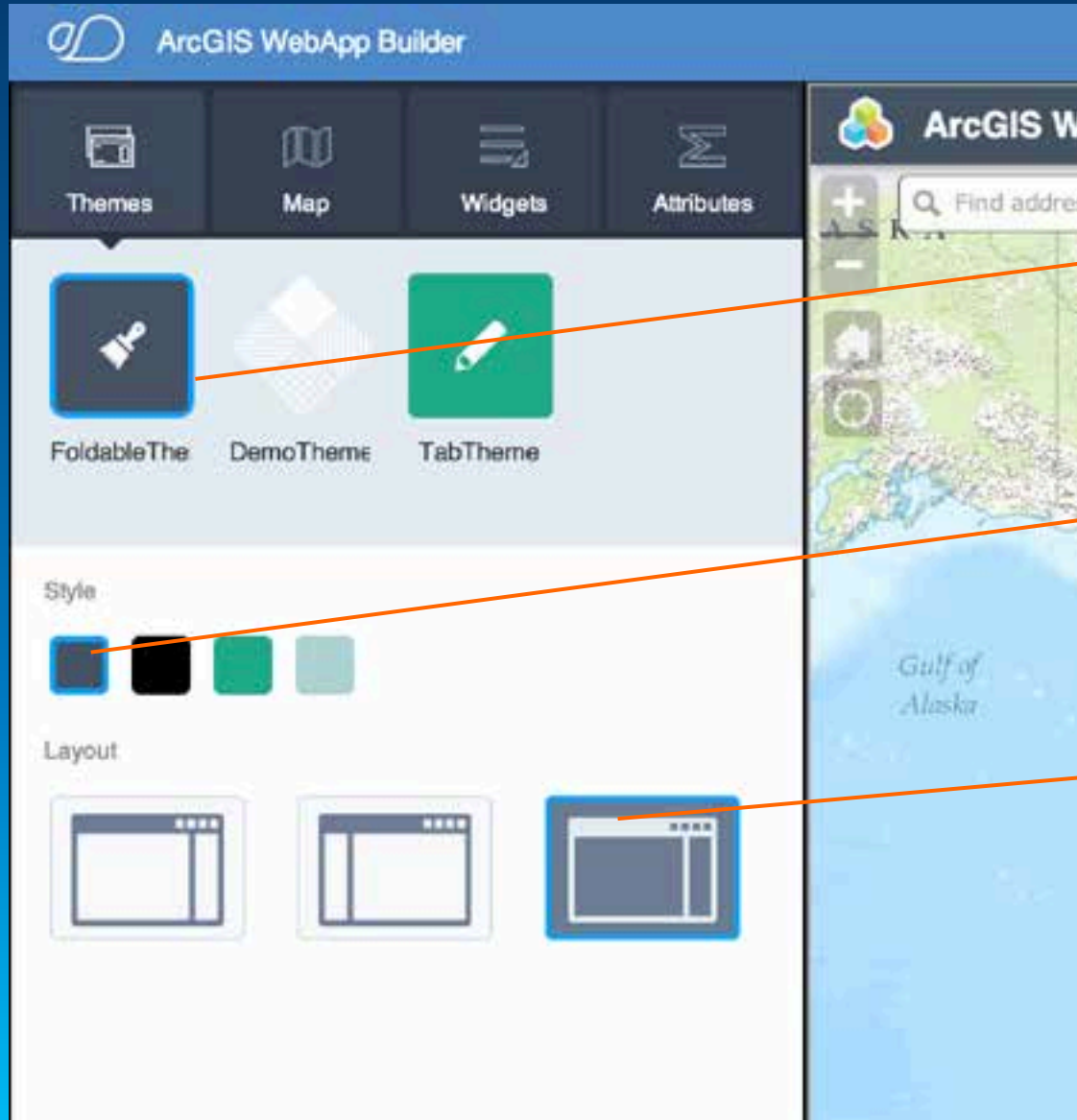


Panel contains widget's content.
It determines how widget is shown.

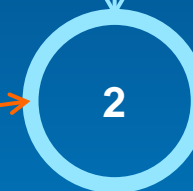
Theme Convention and Defaulting



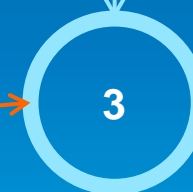
Theme Configuration inside the Builder



Pick a theme



Pick a style of the theme



Pick a layout of the theme

Demo

Create your first theme

Releases

Beta
March 28, 2014

Public Release

Release with 10.3

2014 TBD

2D Web Apps

3D Web Apps



Product FAQ

Julie Powell



Width

1024

Height

768

✓ Ok



The New iPad



iPad & iPad2



iPad Mini



iPhone5/5S



iPhone4/4S



iPhone & iPod Touch



MEIZU MX2



HTC One



Samsung Note II



Samsung Note III



Sony Xperia Z

- **Supported platforms?**

IE 9+, Firefox, Chrome, and Safari 3+

- **Is AWAB a supported product?**

Yes

- **Does AWAB work with Portal?**

AWAB can rely 100% on Portal for ArcGIS, independent of ArcGIS Online.

- **Can I use my ArcGIS Services in AWAB if I don't have Portal for ArcGIS?**

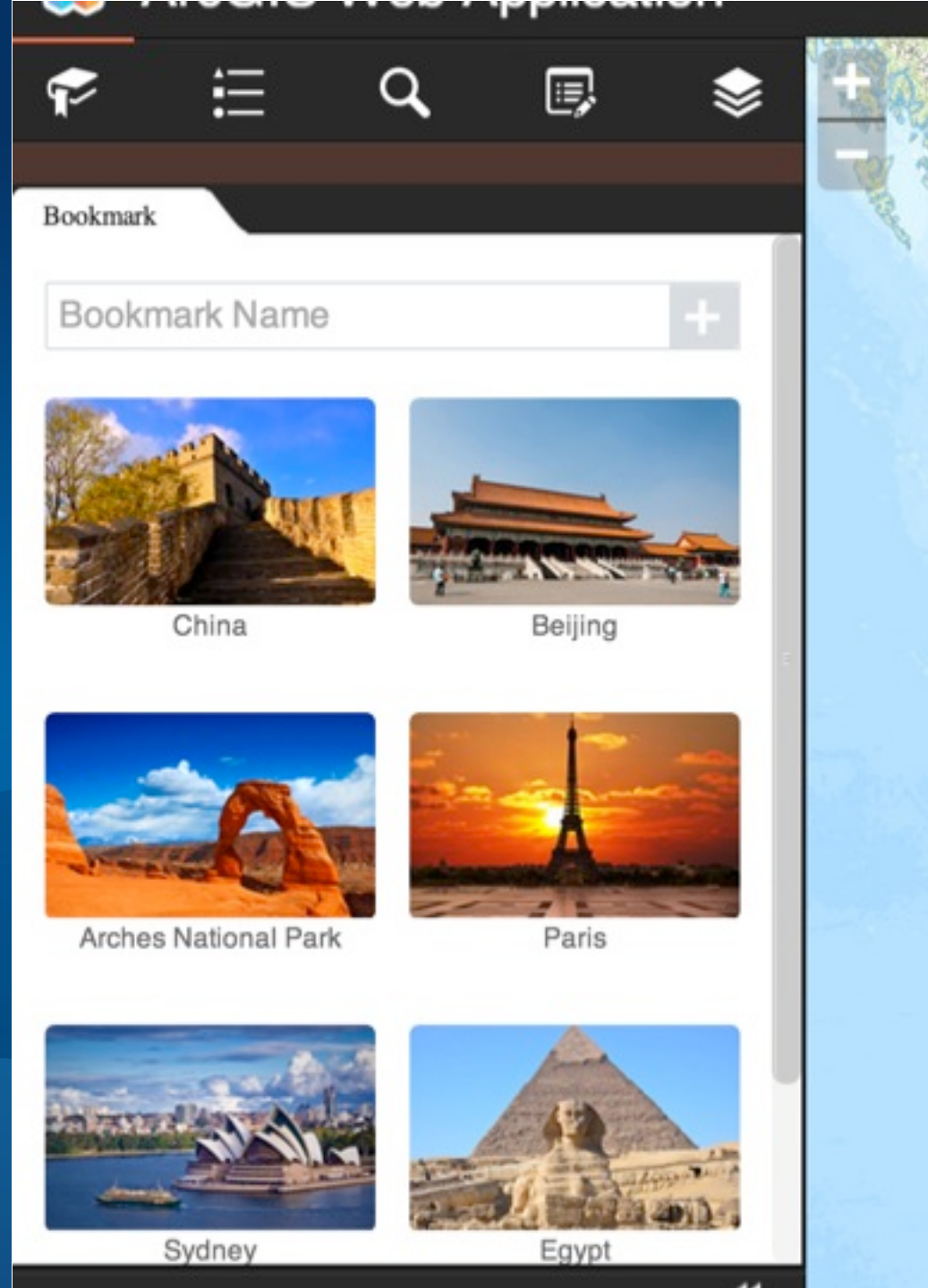


Product Release

- **Beta Release (March 28th)**
 - Go to <http://bit.ly/WebAppBuilder>
- **Production Release (with 10.3)**



Q&A





Understanding our world.

Make Ready to Use Apps or App Templates

Builder



Ready to use app



App template



ArcGIS Portal/Online

