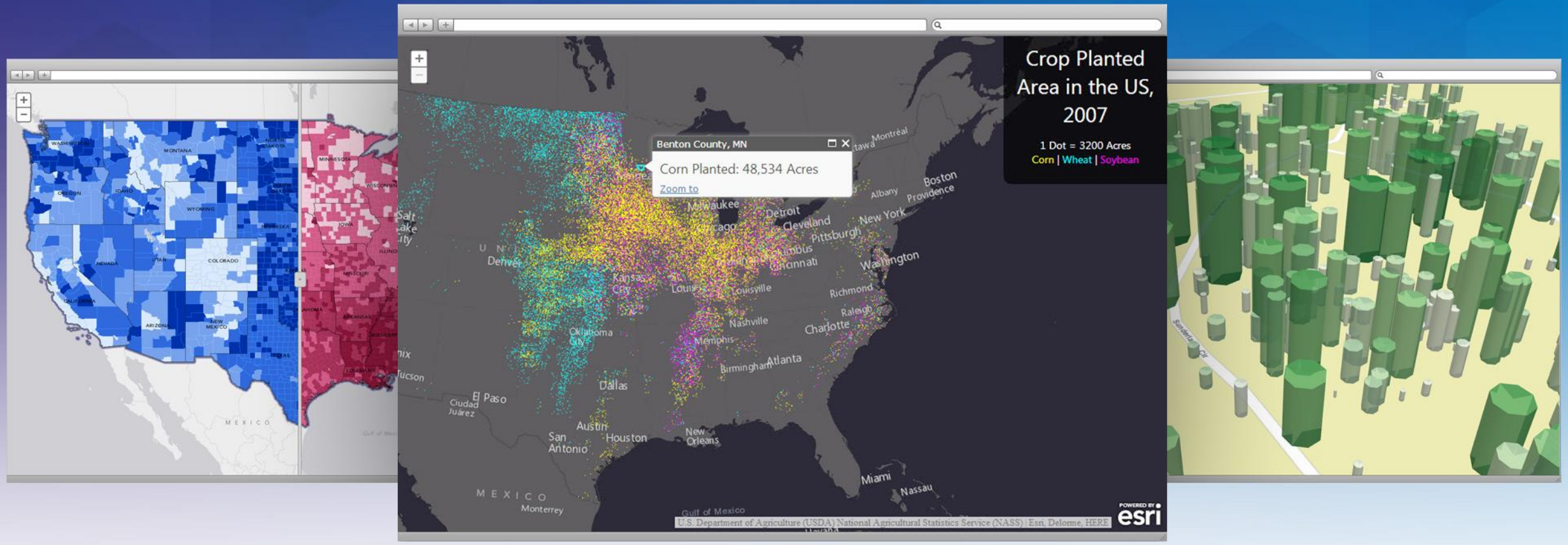
Building Web Applications with ArcGIS

Julie Powell | European User Conference | October 2014

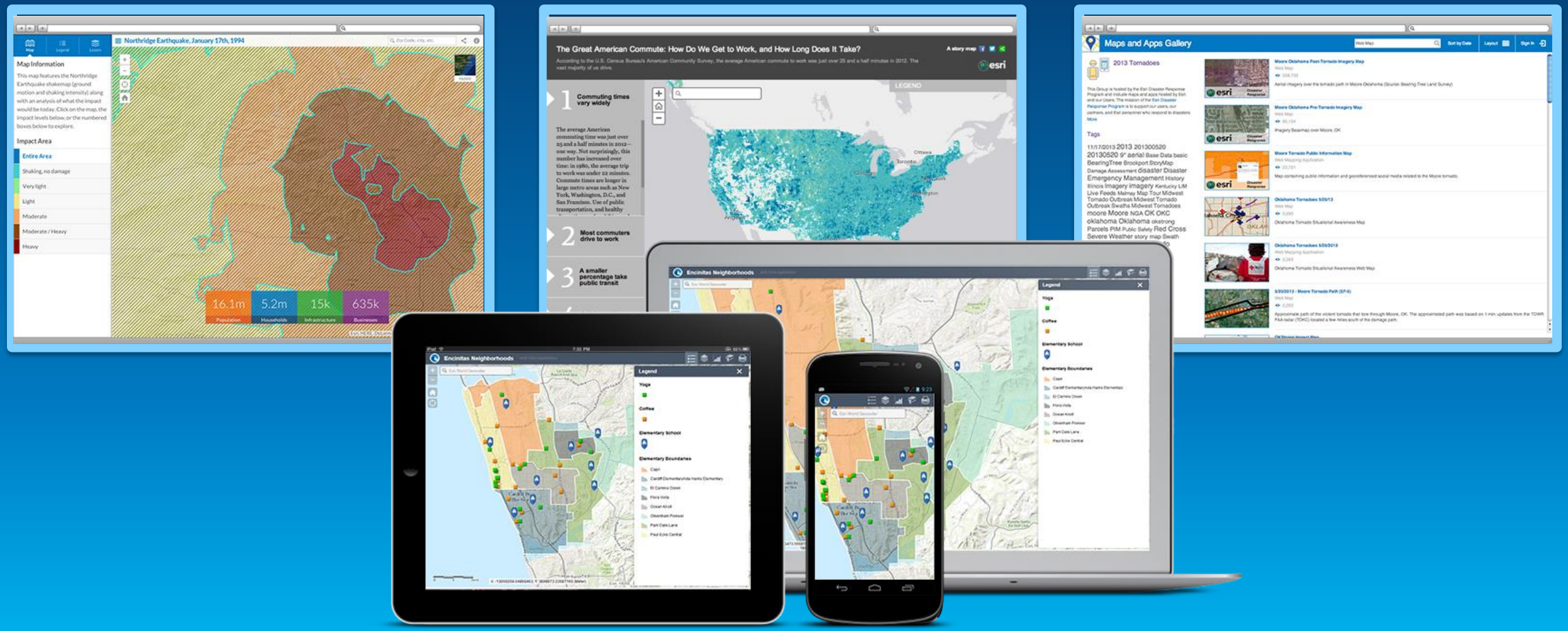
ArcGIS API

FOR JAVASCRIPT



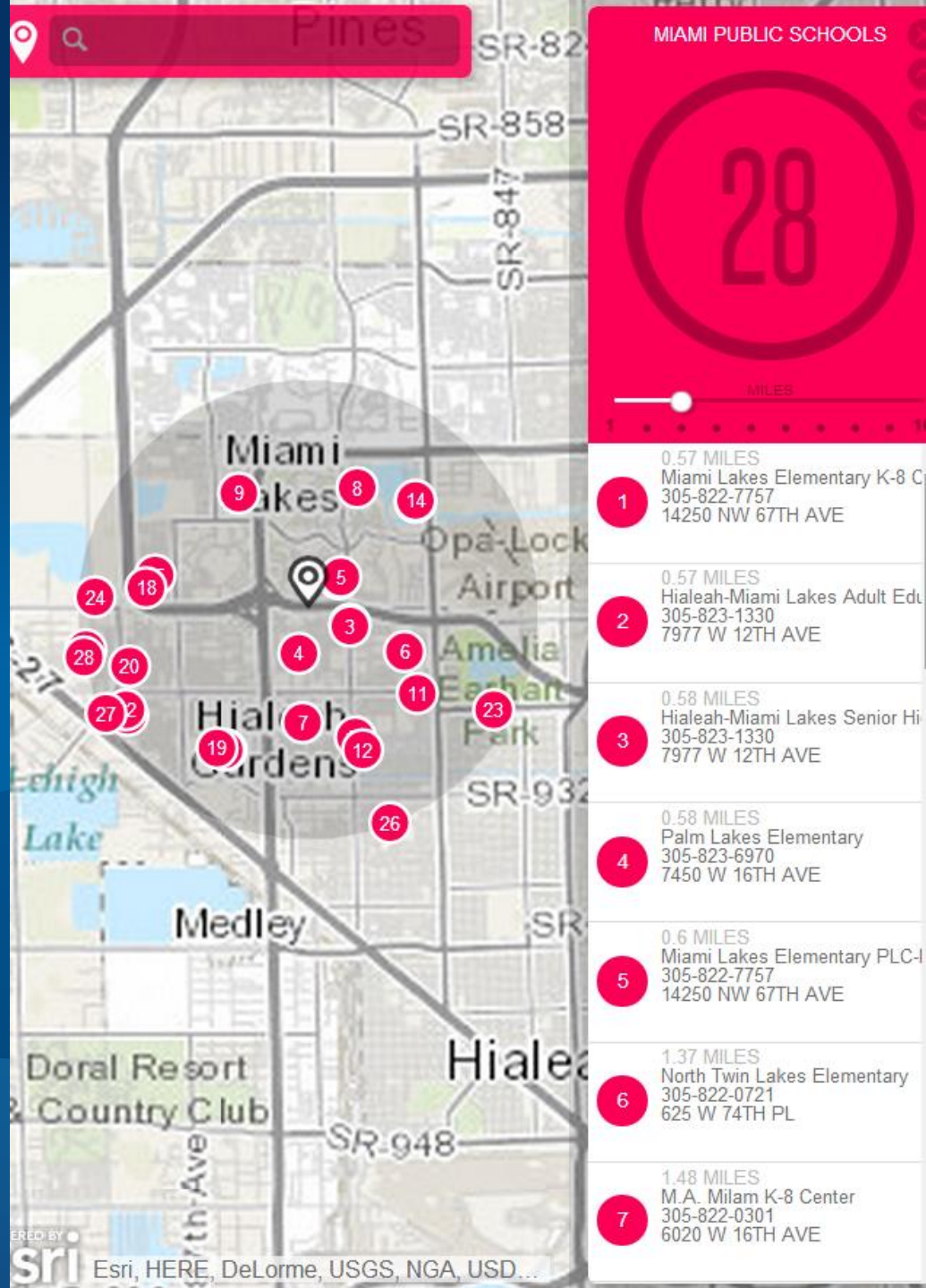
Configuring Web Apps with ArcGIS

Web App Templates | Web AppBuilder



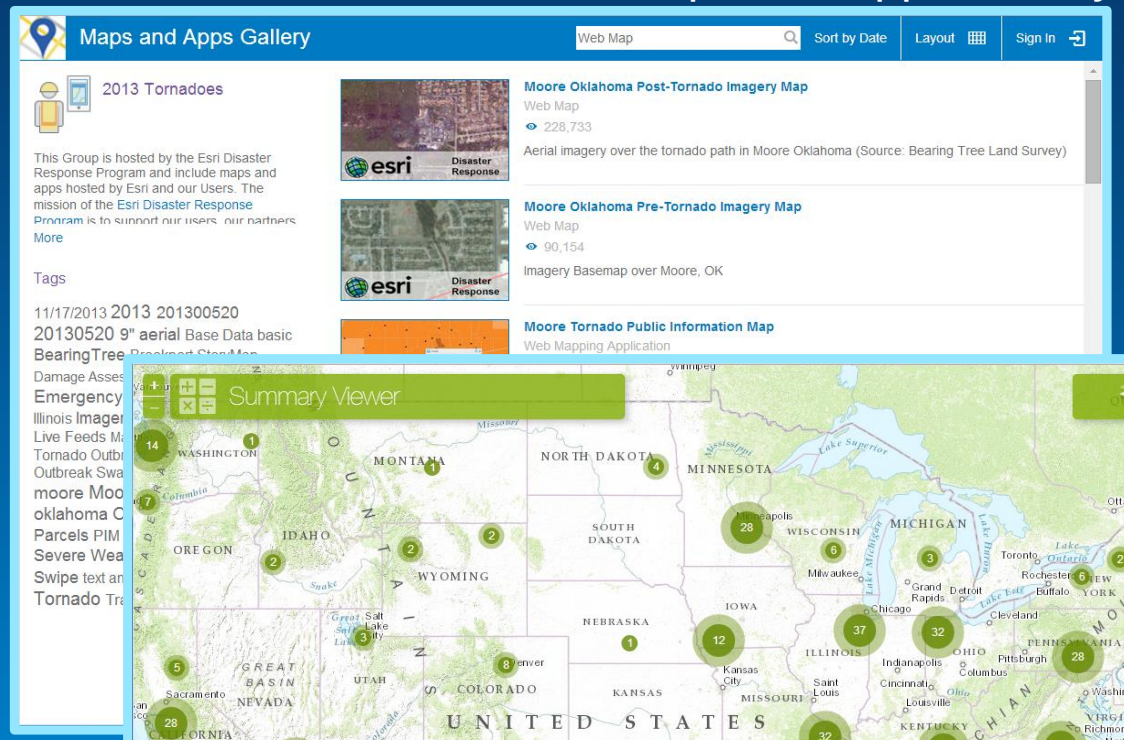
Configurable Apps

Web App Templates

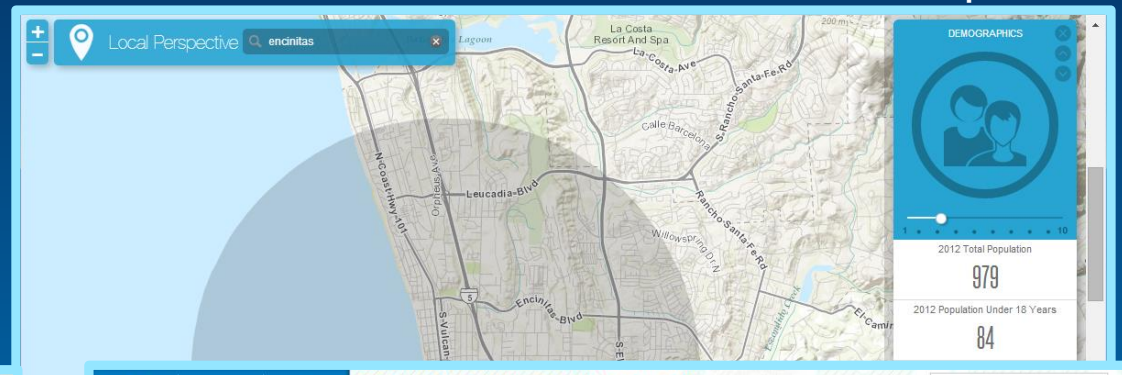


Web Application Templates

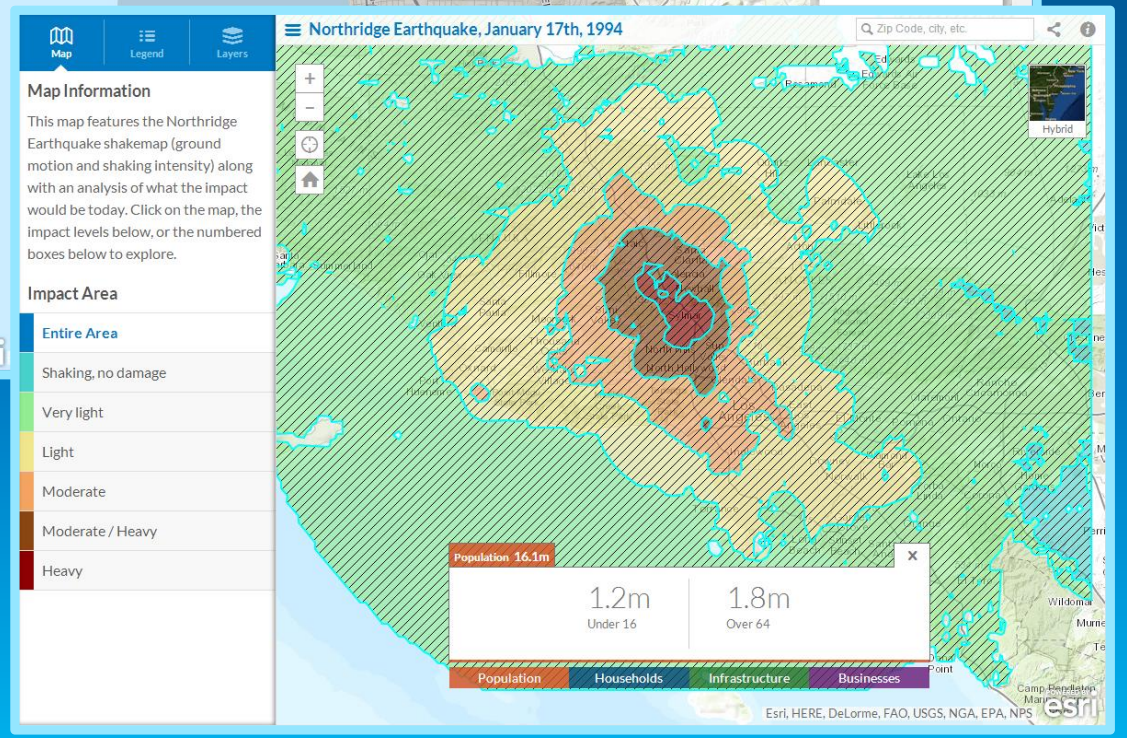
Maps and Apps Gallery



Local Perspective



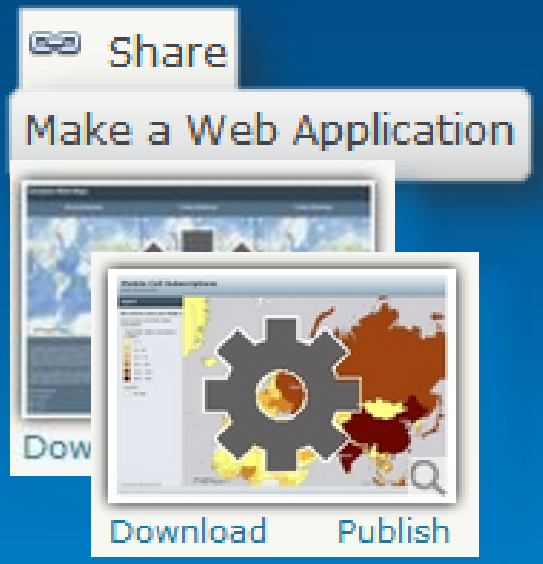
Summary Viewer

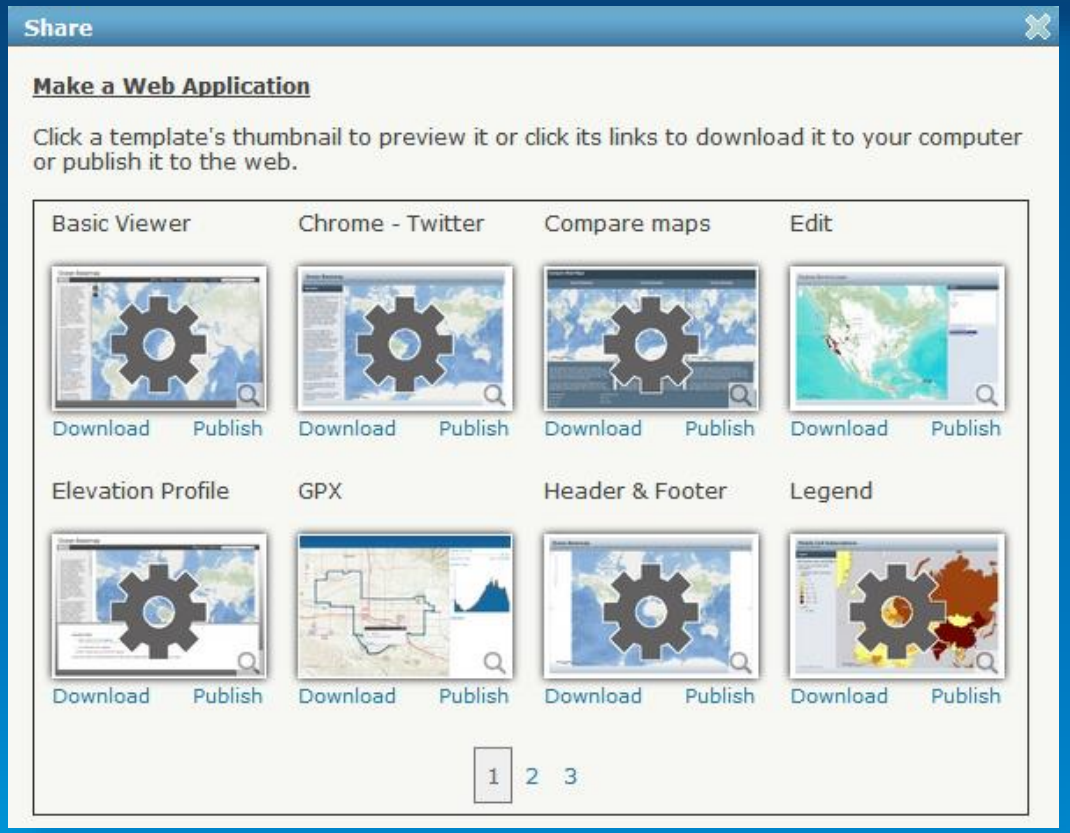


Impact Summary

Application templates

Choose from template gallery

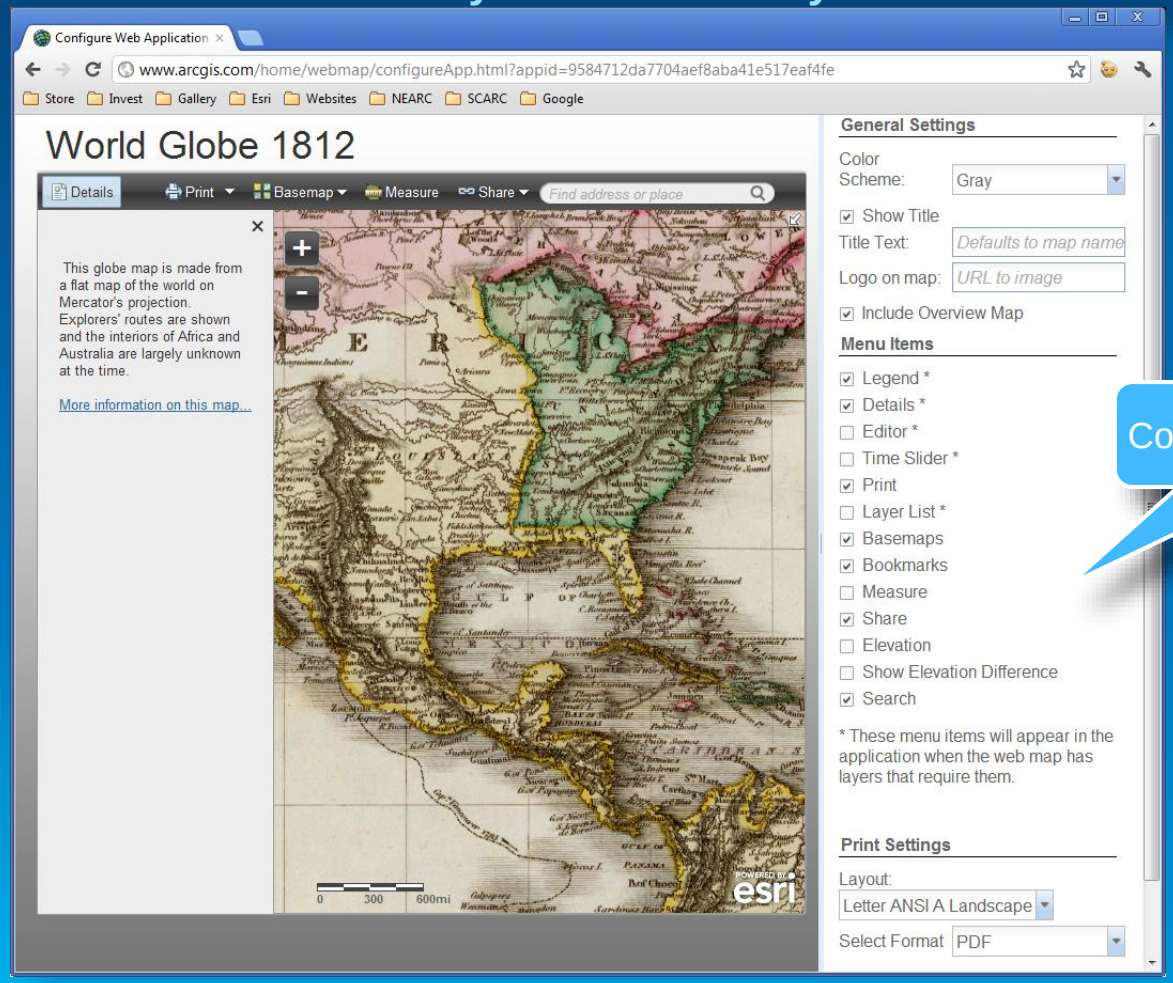




More templates can be found by searching ArcGIS Online

Configure and publish from your account

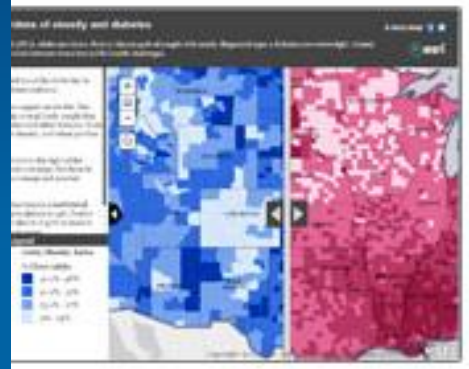
Save and share like any other item in My Contents



Web App Templates: Download and Tweak

ytelling Text and
end

Storytelling Basic



ytelling Swipe

Legend

r

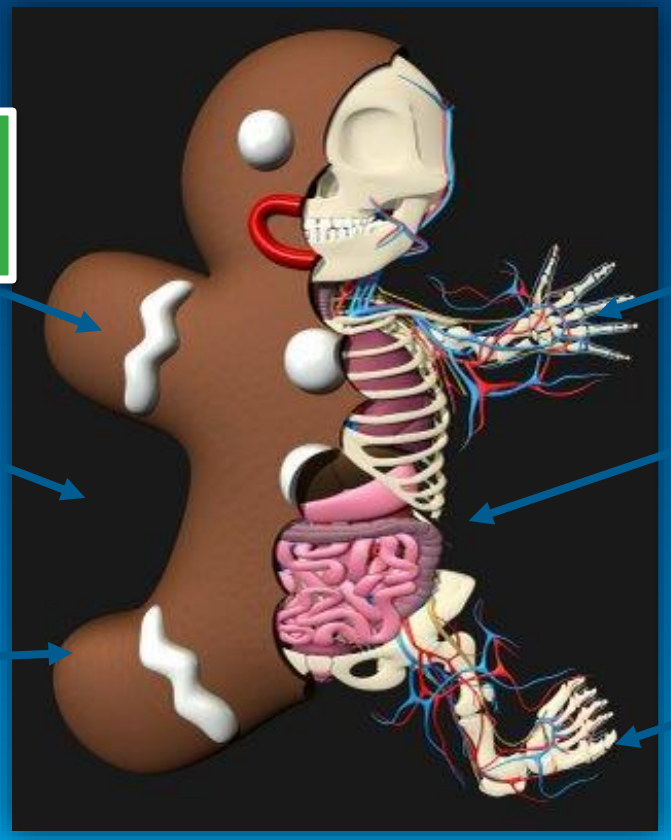
Map Tour

Template Anatomy 101

Default.js (or inside index.html):
Default config values

Template.js OR **app.js** template "plumbing"

***.css** : style sheets
for the template

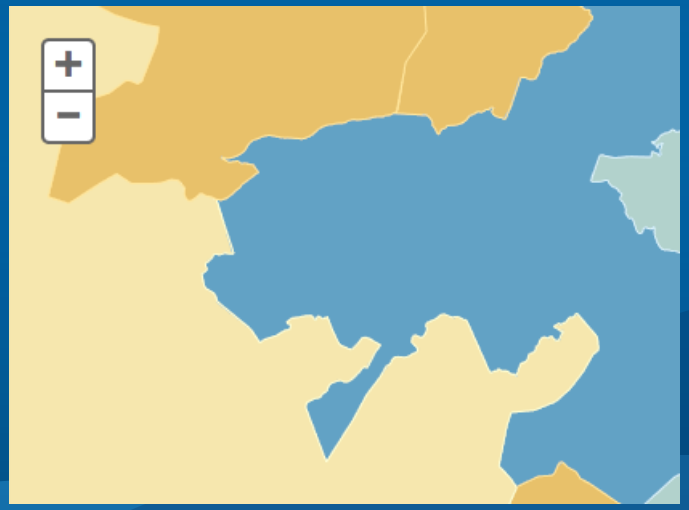


configurationPanel.js
JSON specifying config params –
COPY INTO AGOL ITEM

Index.html Main HTML file for the app

Layout.js OR **main.js**
"meat" of your application logic!

Application Boilerplate JS

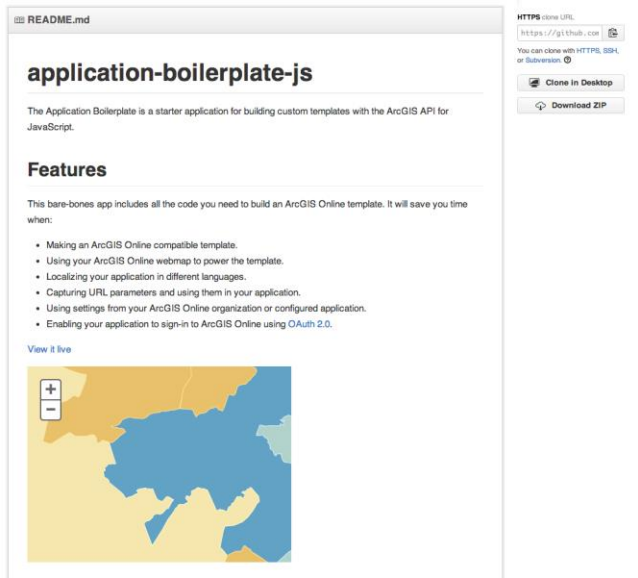


```
<script type="text/javascript" src="//js.arcgis.c
<script type="text/javascript">
    require([
        "dojo/on",
        "application/main",
        "application/template",
        "dojo/domReady!"
    ], function(
        on,
        Main,
        Template
    ){
        //create the template. This will take car
        //If you need localization set the suppor
        //from the javascript/nls/resource files.
        //Note that we've included a placeholder
        //to show how to setup the strings file.

        var supportsLocalization = true; //defaul

        var myTemplate = new Template(supportsLoc

        on(myTemplate, "ready", function(config)
            //The config object contains the foll
            //i18n, appid, webmap and any custom
            //In this example we have one called
            Main(config);
        });
    });
</script>
body>
tml>
```

What is it?

- Starter Application
- Template & app logic
- Working with ArcGIS Online
  - Webmaps
  - Services
  - i18n
  - Authentication
  - Configurable

Show me the way



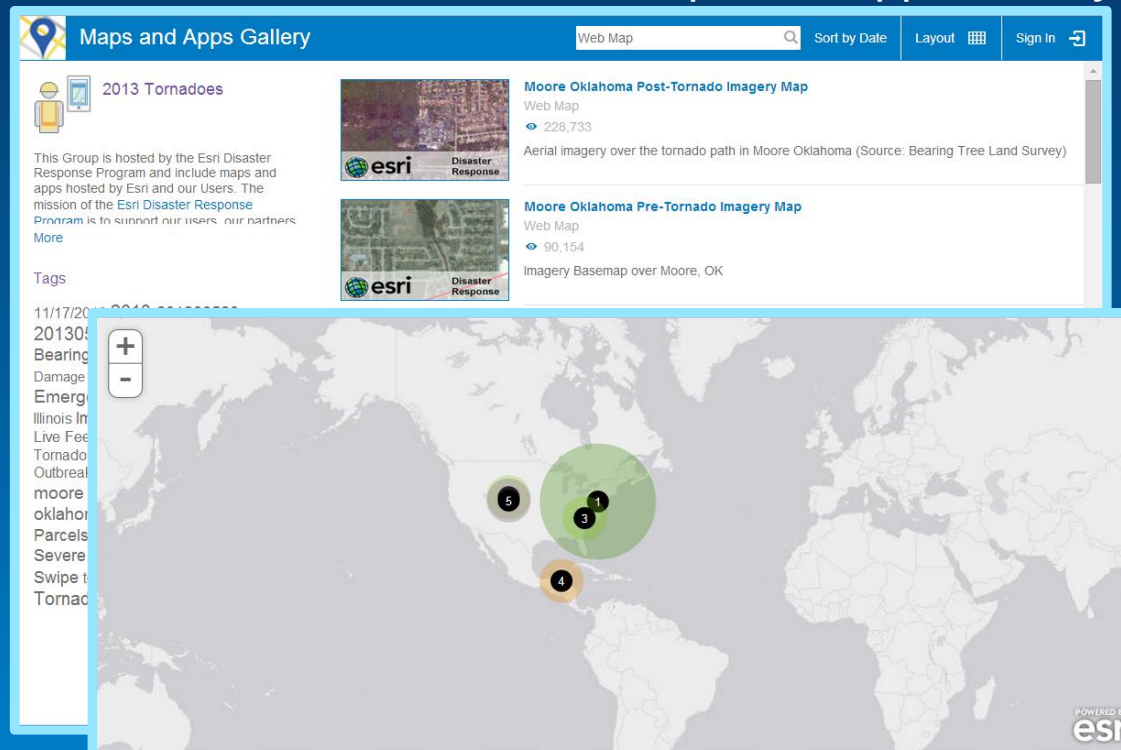
GitHub

esriurl.com/boilerplate

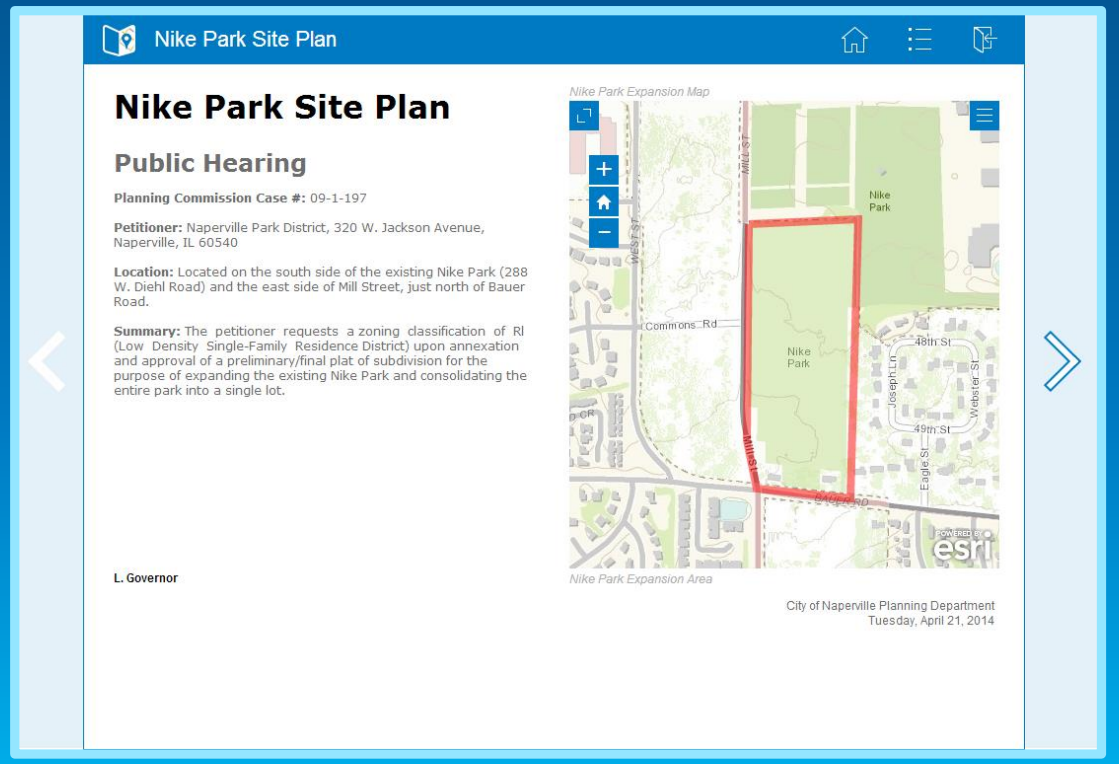
Web Application Templates

- Grow industry-focused templates
- Search & categorizing
- Design work
- User interaction
- Optimization

Maps and Apps Gallery



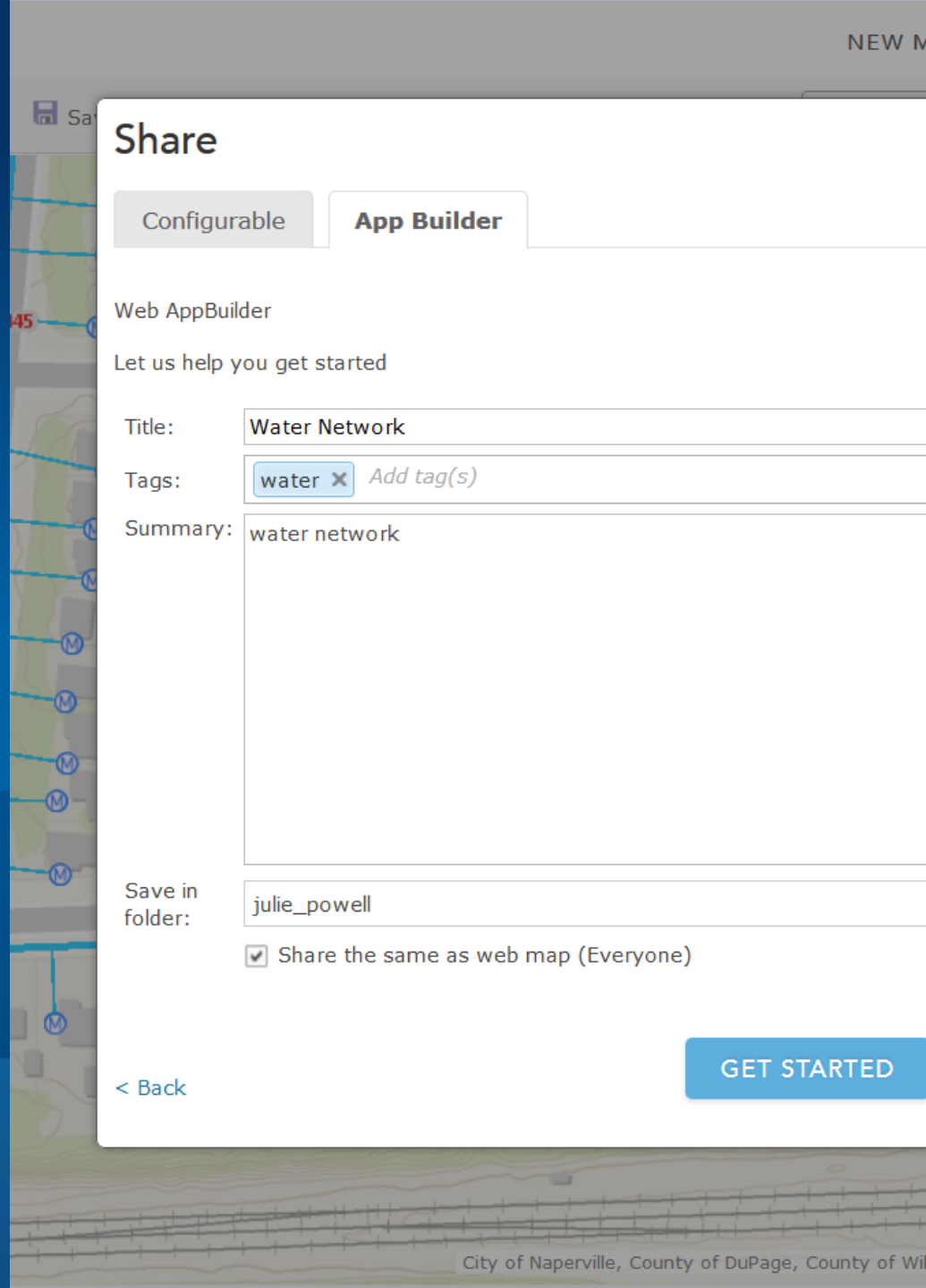
Time-based Events



Briefing Book

Configurable Apps

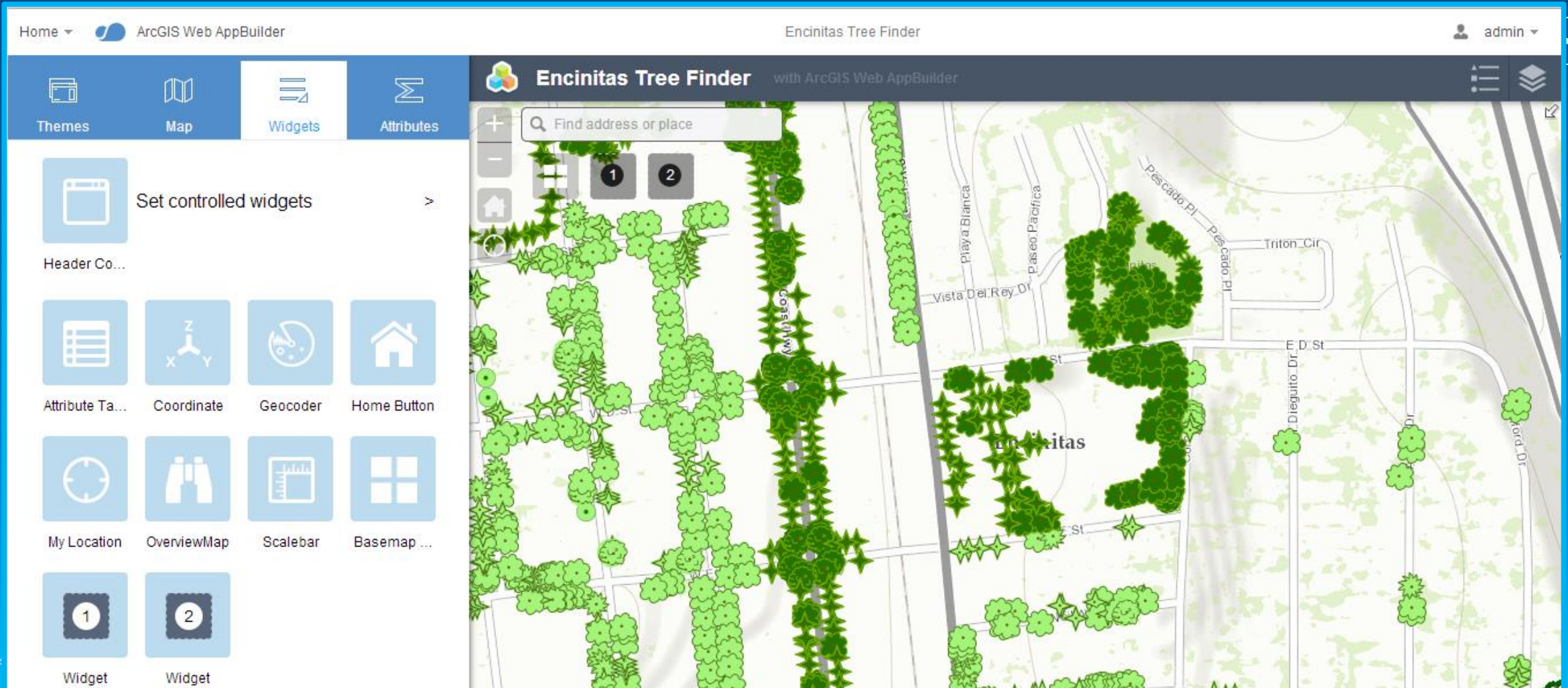
Web AppBuilder for ArcGIS



Configuring Web Apps with ArcGIS

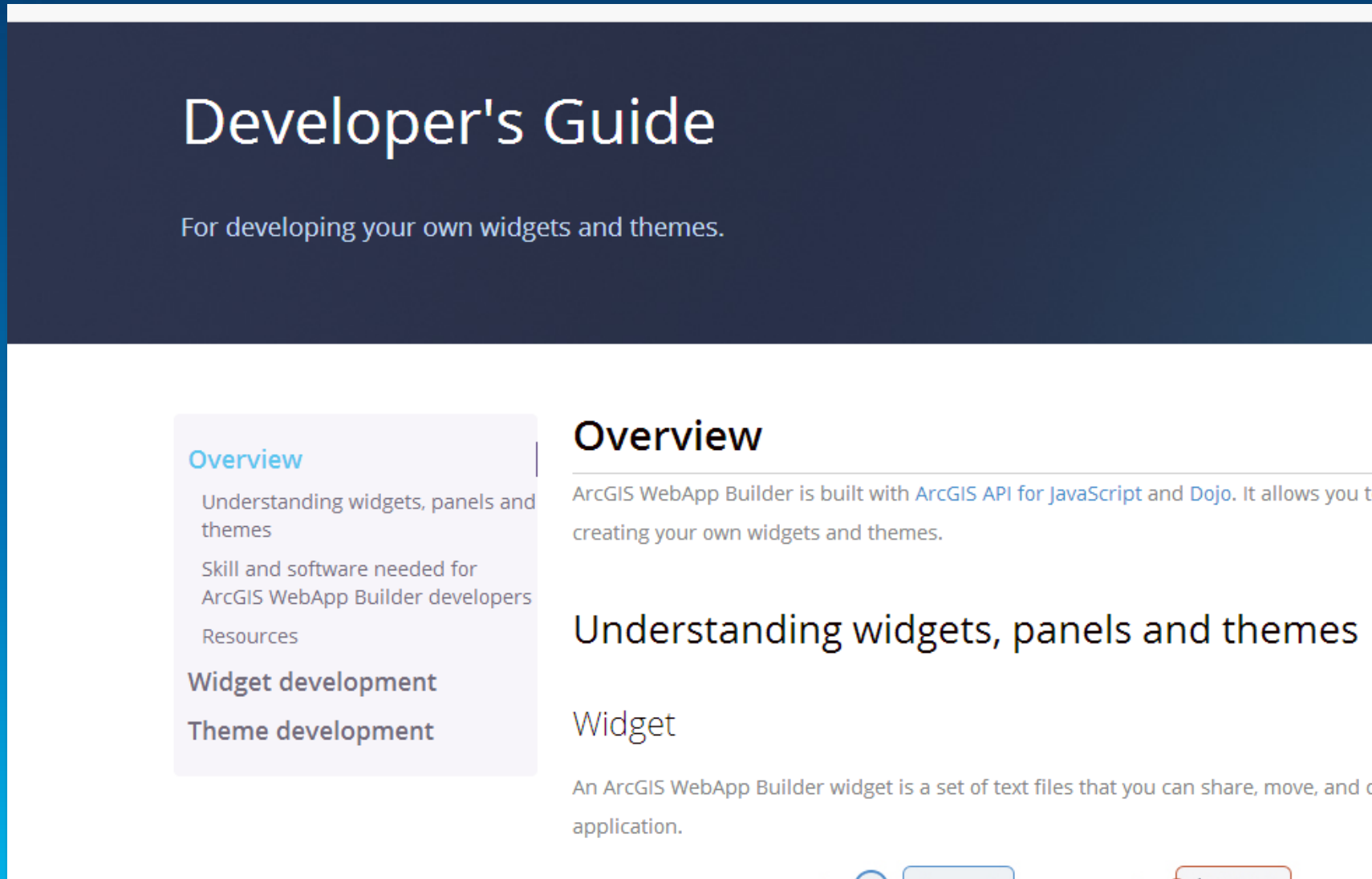
Many options for using apps to make your map come alive

WEB APPBUILDER FOR

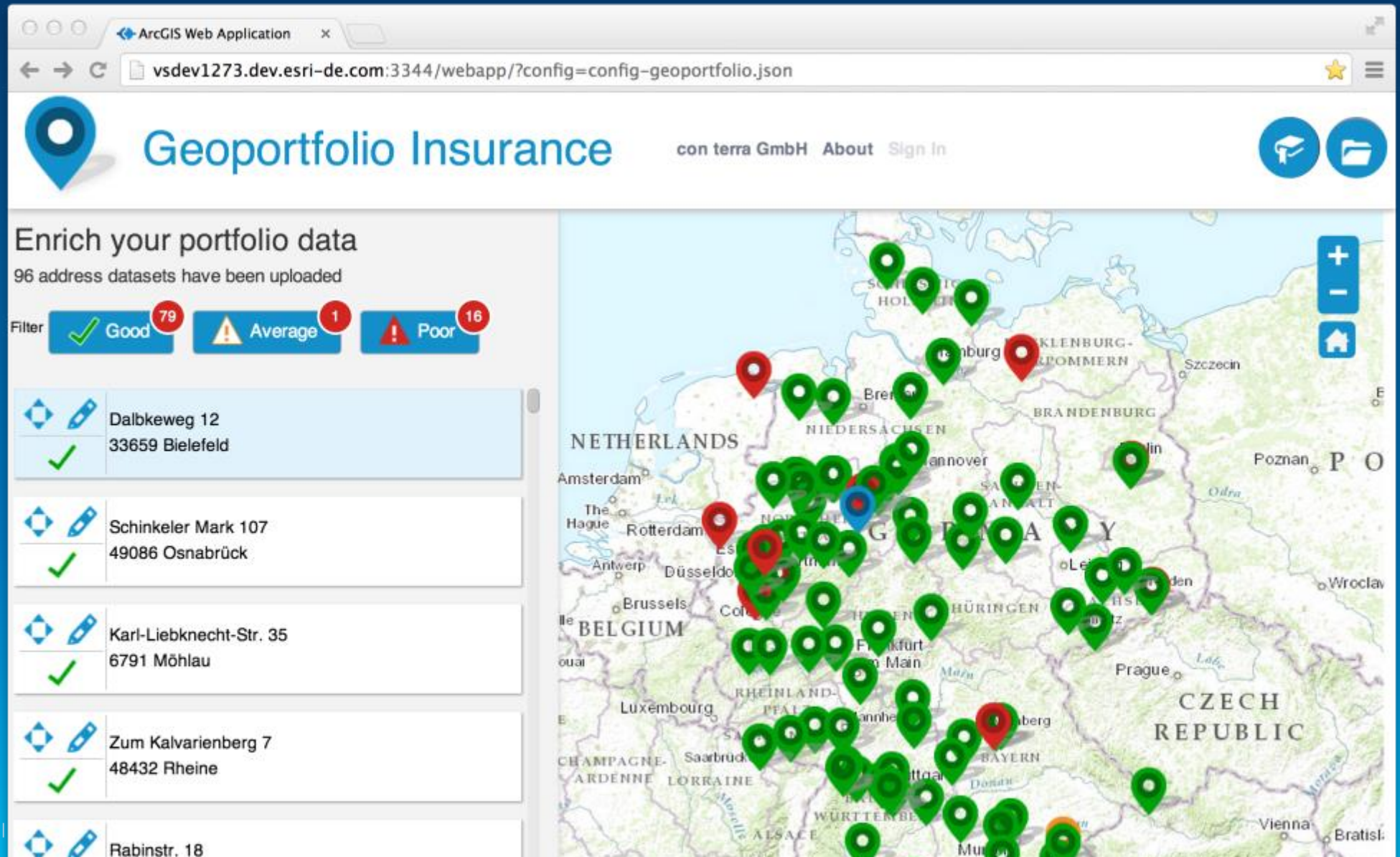


Extensible: Opportunities for developers and partners

- **Extend functionality with custom widgets**
- **Personalize look & feel with custom themes**



Create new themes to tailor the look and feel

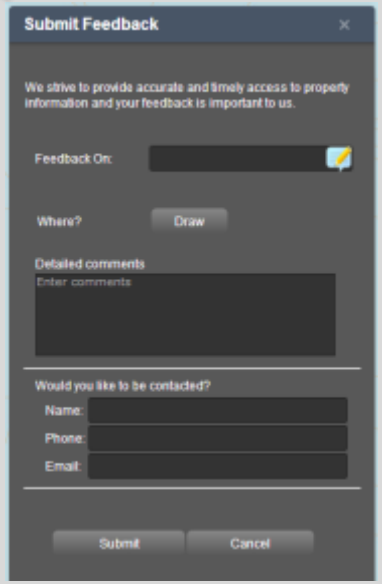


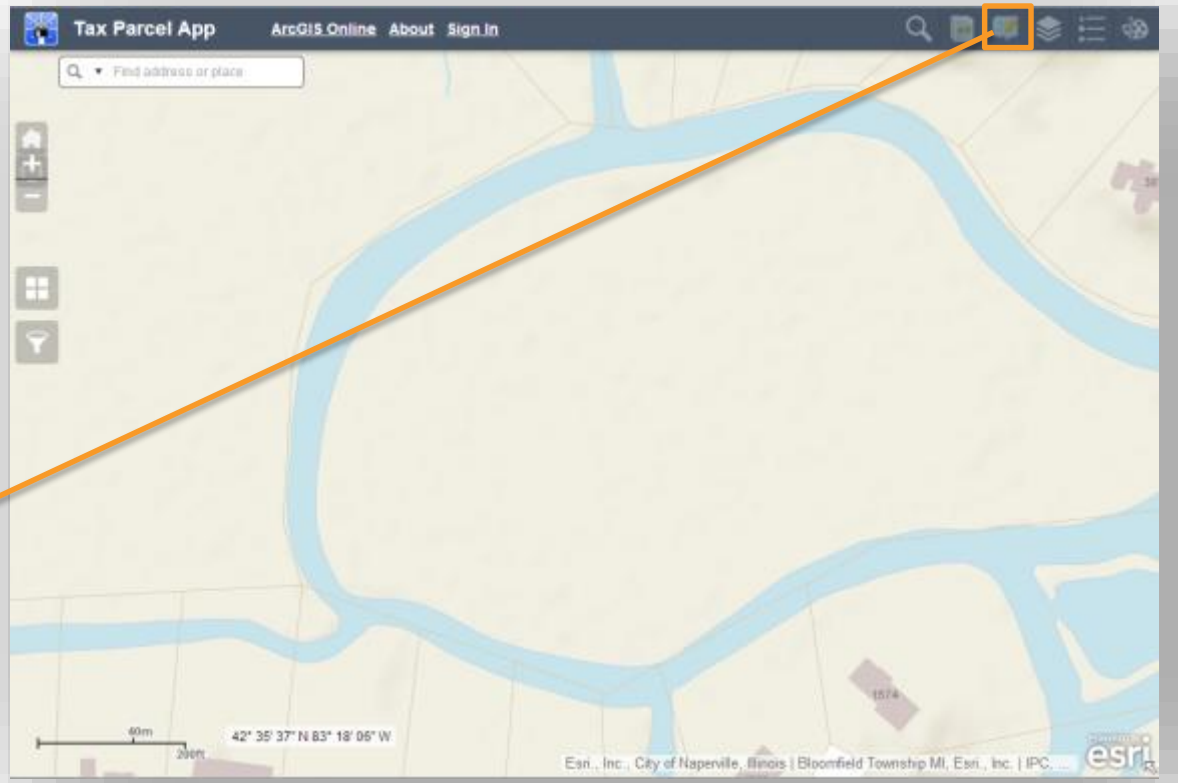
Create new widgets to extend functionality

Custom Widgets

Widget dev model

Your code





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

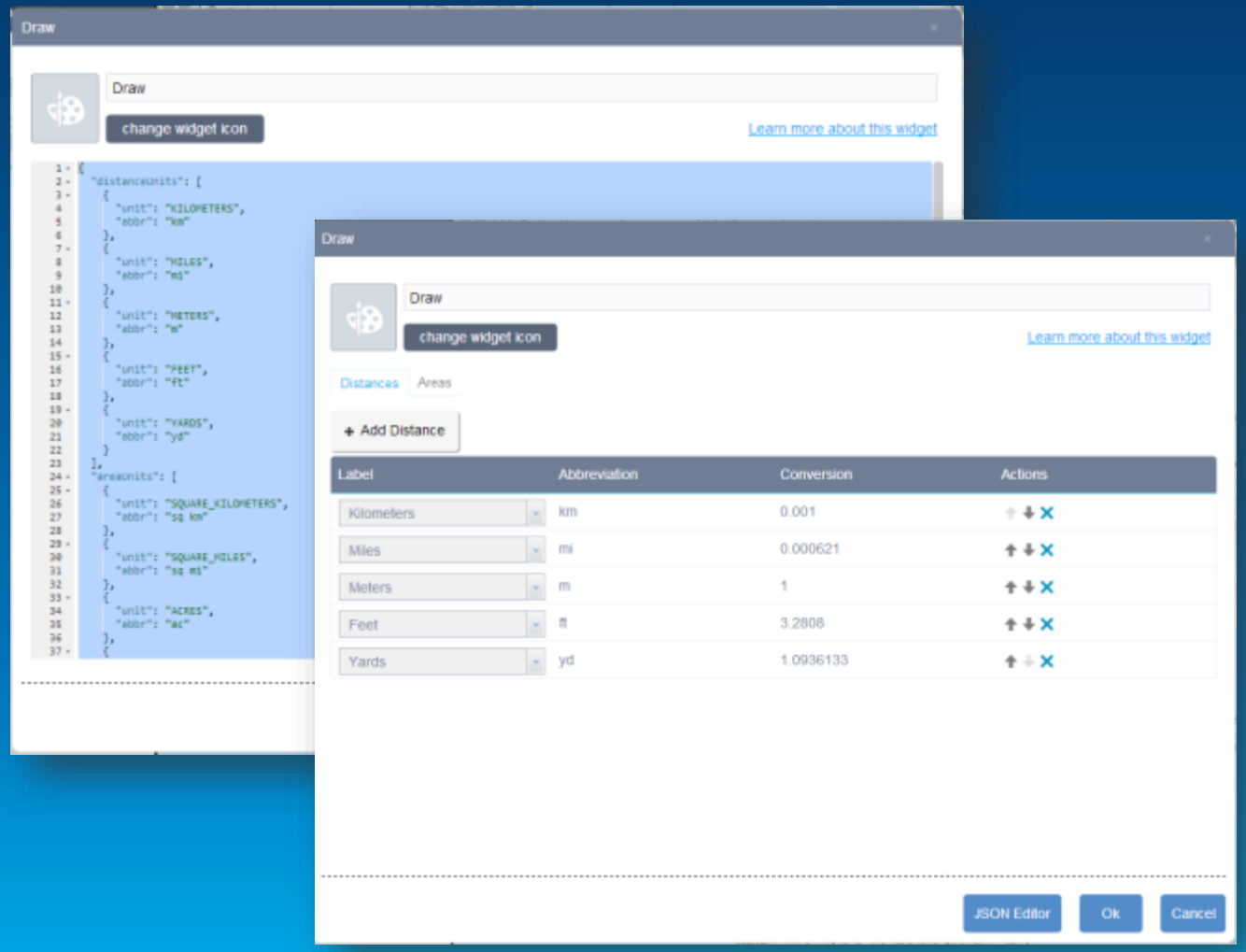
What do you get from BaseWidget?

- 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

Configure your custom widget config UI for the builder



Build a UI for configuration

- **UI for user to configure settings**
- **Localizable**
- **Can perform extra validation**
- **Style with css**

Web AppBuilder for ArcGIS (Developer Edition)

Building Apps with Custom Widgets/Themes

- Download Web AppBuilder Developer Edition and host on-premise
  - build apps with custom widgets/themes
- Create Web Apps from your own computer.
- Apps created with the developer edition *are not* automatically upgraded when you upgrade your portal.

Releases

Beta
March 2014

Beta 2
July 2014

Online (beta)
Oct 2014

Beta 3
Oct 2014

Portal pre-release
Nov 2014

Final
with Portal for ArcGIS 10.3,
ArcGIS Online Q4 2014