

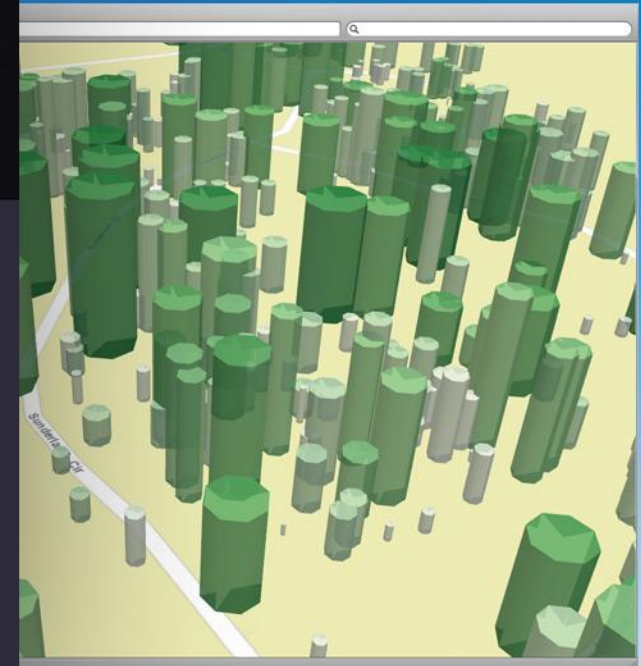
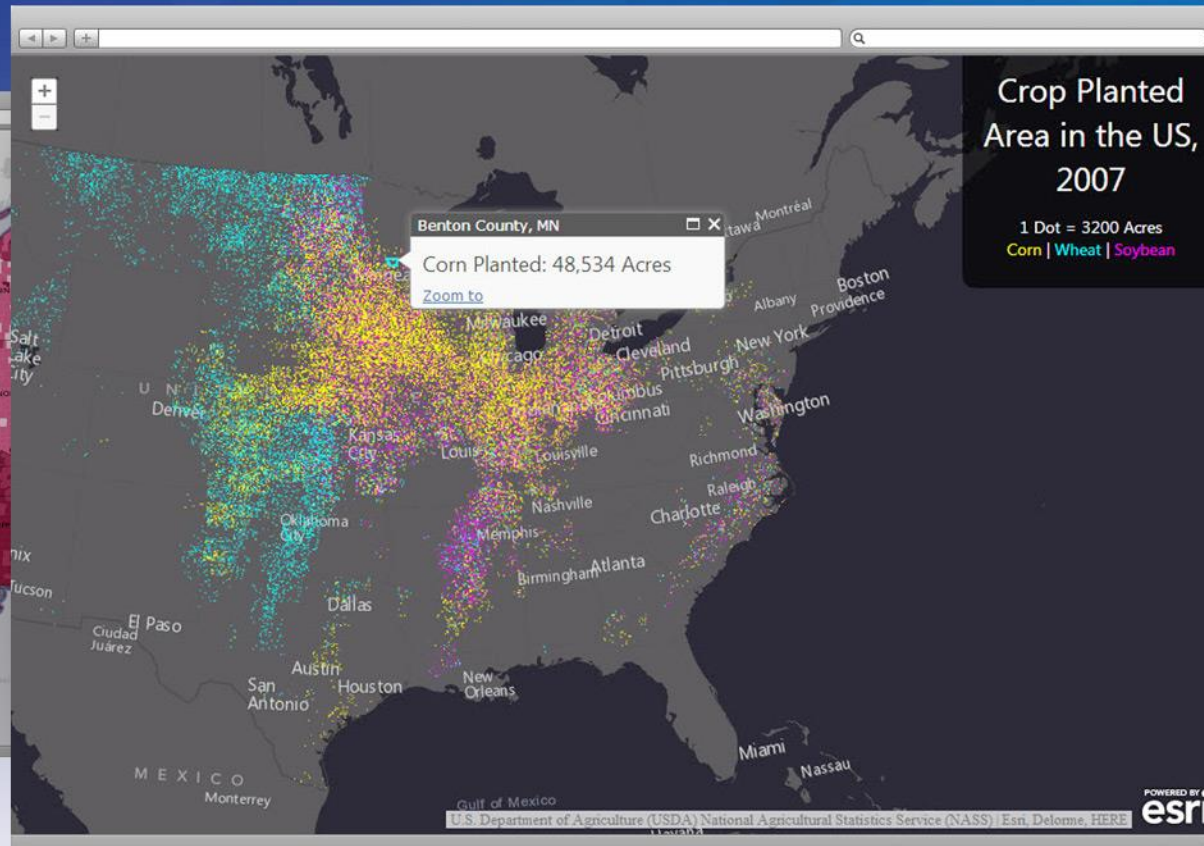
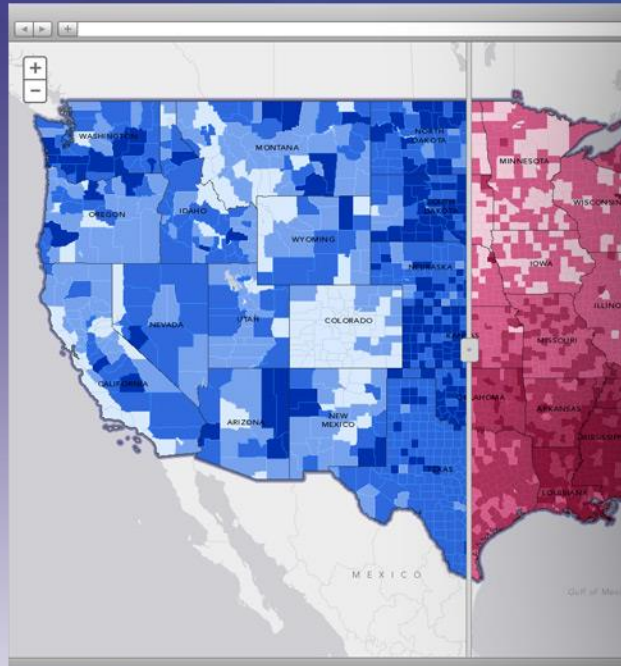
Building Web Applications with ArcGIS

Julie Powell | European User Conference | October 2014



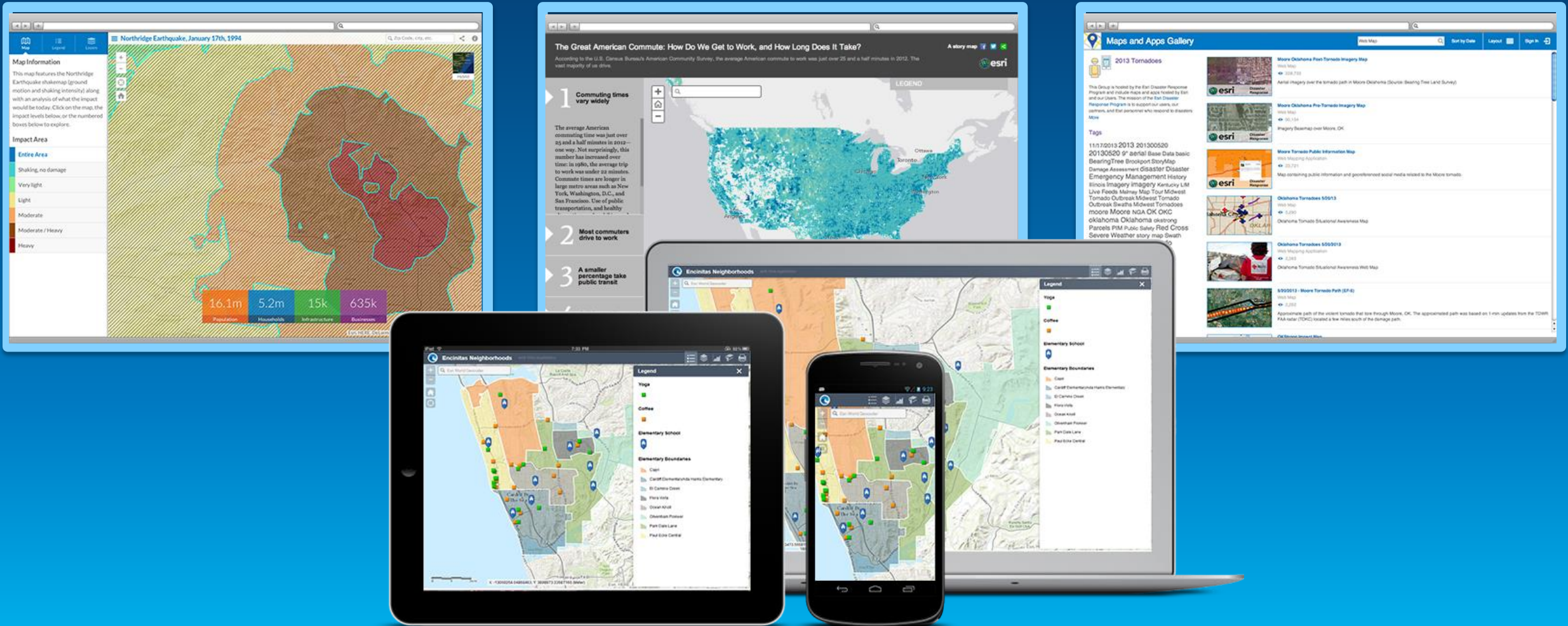
ArcGIS API

FOR JAVASCRIPT



Configuring Web Apps with ArcGIS

Web App Templates | Web AppBuilder



Configurable Apps

Web App Templates

The screenshot displays a mobile web application interface. At the top, a search bar contains the text "Pines" and "SR-82". Below the search bar is a map showing a grid of streets and several red circular markers numbered 1 through 28. A semi-transparent grey circle is overlaid on the map, centered on a location. To the right of the map is a red sidebar containing a large white circle with the number "28" inside, a "MILES" label, and a horizontal slider. Below the sidebar is a list of seven school entries, each with a red circular icon containing a number (1-7) and text detailing the school name, phone number, and address.

Icon	Distance	School Name	Phone Number	Address
1	0.57 MILES	Miami Lakes Elementary K-8 C	305-822-7757	14250 NW 67TH AVE
2	0.57 MILES	Hialeah-Miami Lakes Adult Edu	305-823-1330	7977 W 12TH AVE
3	0.58 MILES	Hialeah-Miami Lakes Senior Hi	305-823-1330	7977 W 12TH AVE
4	0.58 MILES	Palm Lakes Elementary	305-823-6970	7450 W 16TH AVE
5	0.6 MILES	Miami Lakes Elementary PLC-I	305-822-7757	14250 NW 67TH AVE
6	1.37 MILES	North Twin Lakes Elementary	305-822-0721	625 W 74TH PL
7	1.48 MILES	M.A. Milam K-8 Center	305-822-0301	6020 W 16TH AVE

Web Application Templates

Maps and Apps Gallery

Maps and Apps Gallery

Web Map | Sort by Date | Layout | Sign In

2013 Tornadoes

This Group is hosted by the Esri Disaster Response Program and include maps and apps hosted by Esri and our Users. The mission of the Esri Disaster Response Program is to support our users, our partners, More

Tags

11/17/2013 2013 201300520

20130520 9" aerial Base Data basic BearingTree Product Step Map Damage Assessment Emergency Illinois Imagery Live Feeds Moore Oklahoma C Parcels PIM Severe Weather Swipe text and Tornado Tr

Moore Oklahoma Post-Tornado Imagery Map
Web Map
228,733
Aerial imagery over the tornado path in Moore Oklahoma (Source: Bearing Tree Land Survey)

Moore Oklahoma Pre-Tornado Imagery Map
Web Map
90,154
Imagery Basemap over Moore, OK

Moore Tornado Public Information Map
Web Mapping Application



Summary Viewer

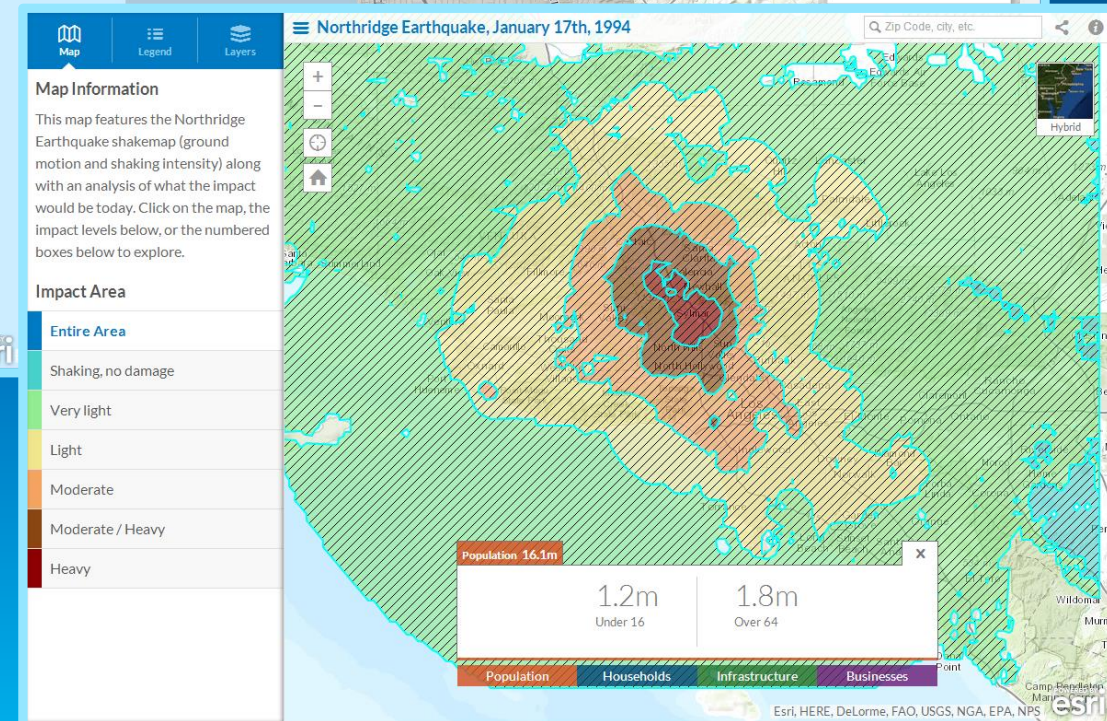
Local Perspective

Local Perspective | encinitas

DEMOGRAPHICS

2012 Total Population: 979

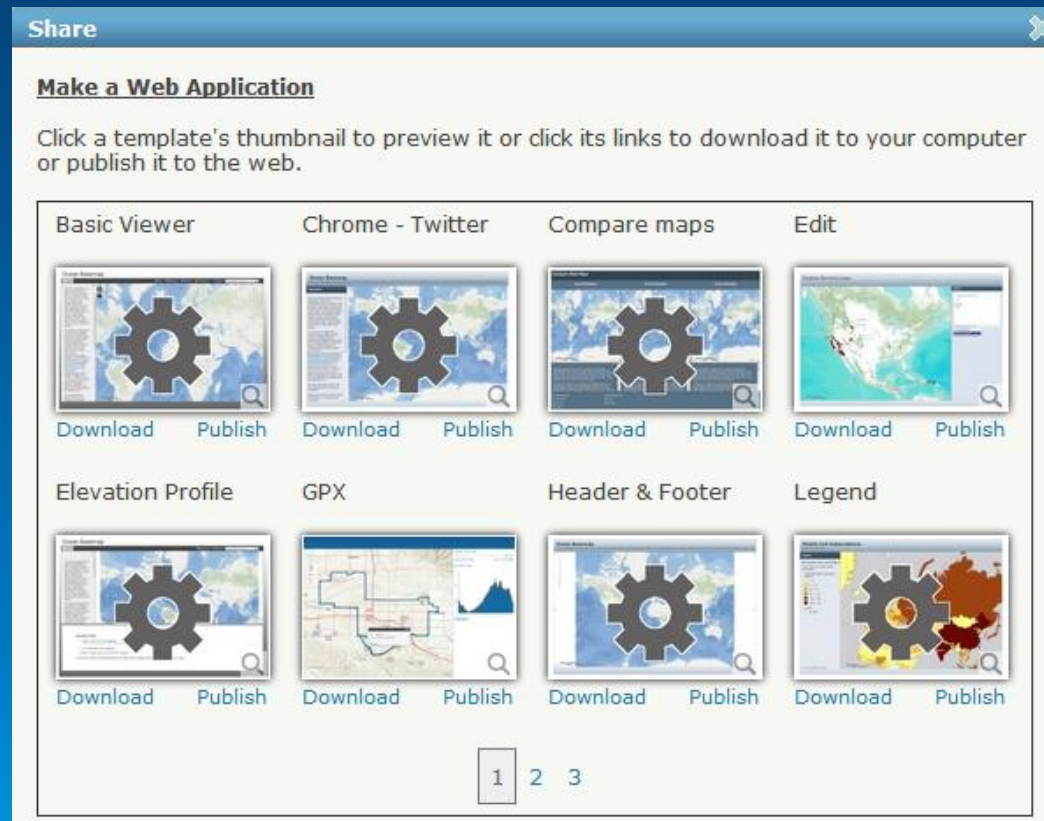
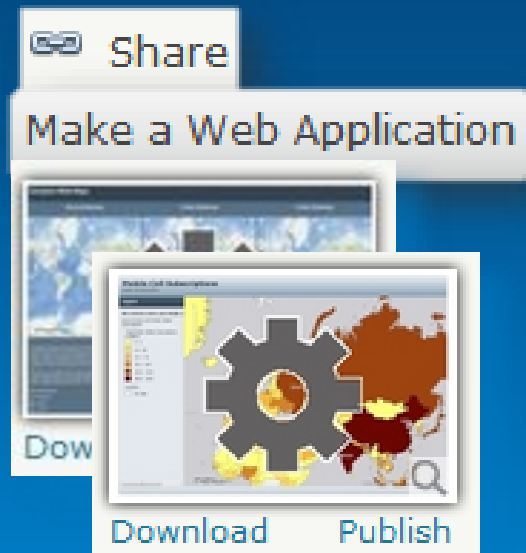
2012 Population Under 18 Years: 84



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

The screenshot shows the ArcGIS web application configuration interface for a map titled "World Globe 1812". The browser address bar shows the URL: `www.arcgis.com/home/webmap/configureApp.html?appid=9584712da7704aef8aba41e517eaf4fe`. The interface includes a search bar, a map viewer, and a configuration panel on the right.

General Settings

- Color Scheme: Gray
- Show Title
- Title Text: Defaults to map name
- Logo on map: URL to image
- Include Overview Map

Menu Items

- Legend *
- Details *
- Editor *
- Time Slider *
- Print
- Layer List *
- Basemaps
- Bookmarks
- Measure
- Share
- Elevation
- Show Elevation Difference
- Search

* These menu items will appear in the application when the web map has layers that require them.

Print Settings

- Layout: Letter ANSI A Landscape
- Select Format: PDF

A blue speech bubble points to the configuration panel with the text "Configuration Settings".

Configuration Settings

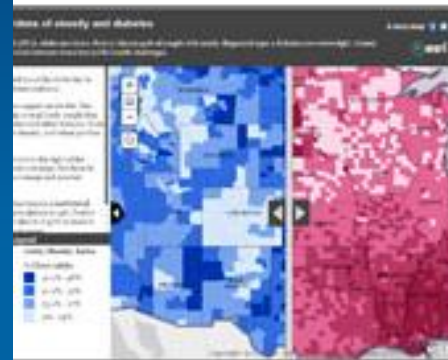
Web App Templates: Download and Tweak



Storytelling Text and
end



Storytelling Basic



Storytelling Swipe

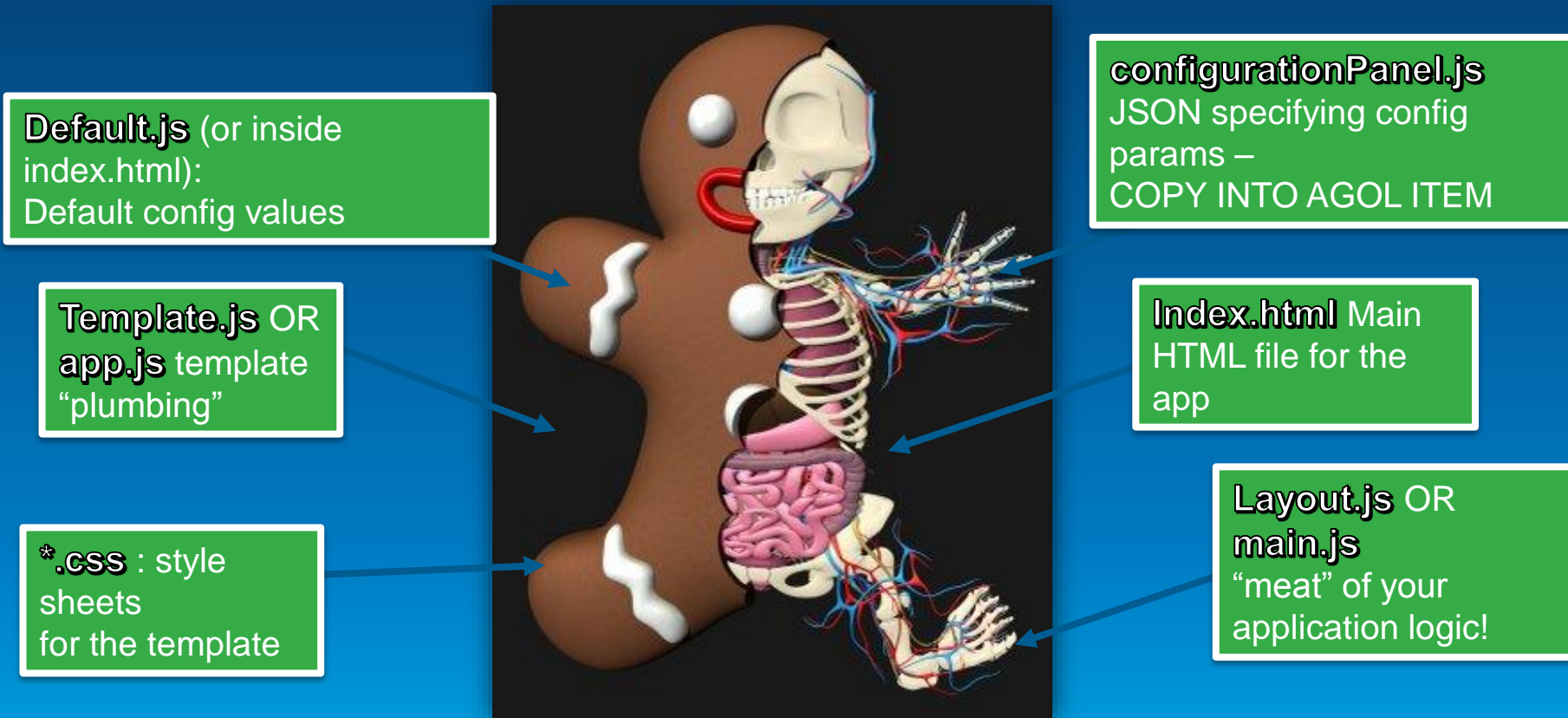


Legend

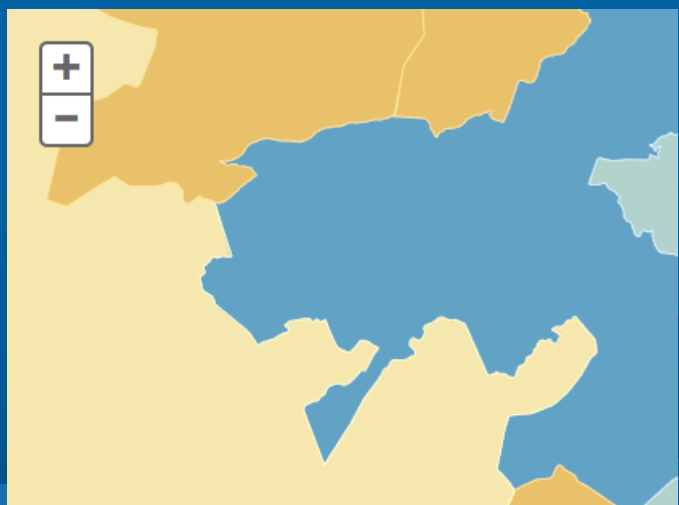


Map Tour

Template Anatomy 101



Application Boilerplate JS



```
<script type="text/javascript" src="//js.arcgis.com/3.11"></script>
<script type="text/javascript">
    require([
        "dojo/on",
        "application/main",
        "application/template",
        "dojo/domReady!"
    ], function(
        on,
        Main,
        Template
    ){
        //create the template. This will take care of the map
        //If you need localization set the supportsLocalization
        //from the javascript/nls/resource files.
        //Note that we've included a placeholder
        //to show how to setup the strings file.

        var supportsLocalization = true; //default

        var myTemplate = new Template(supportsLocalization);

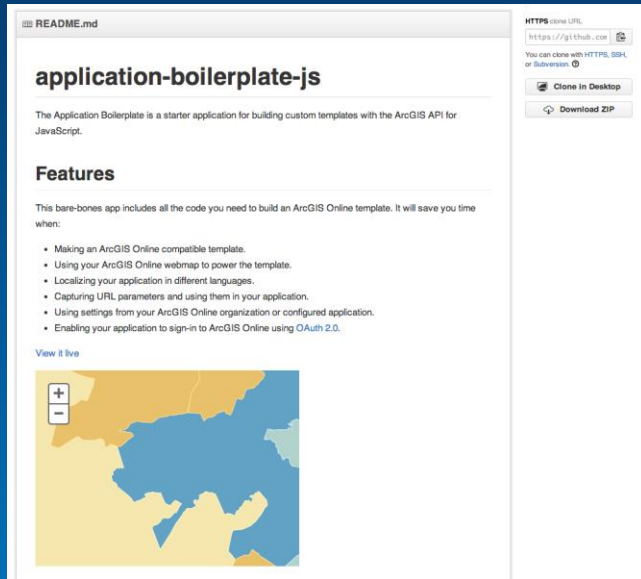
        on(myTemplate, "ready", function(config) {
            //The config object contains the following properties:
            //i18n, appid, webmap and any custom properties
            //In this example we have one called 'main'
            Main(config);
        });
    });
</script>
</body>
</html>
```

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

Maps and Apps Gallery

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

Maps and Apps Gallery

Web Map | Sort by Date | Layout | Sign In

2013 Tornadoes

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Web Map | 228,733 views
Aerial imagery over the tornado path in Moore Oklahoma (Source: Bearing Tree Land Survey)

Moore Oklahoma Pre-Tornado Imagery Map
Web Map | 90,154 views
Imagery Basemap over Moore, OK

Time-based Events

JAN 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1 UPS ORION (Timonium, MD) closed \$6.59M ELA

2 Telvent: Platform Vision

3 Successful meetings with Loves to promote Esri Solutions for Business and AGOL

4 Beta Esri User Conference - ArcGIS Presentations and Technical workshops

5 Presented on the WGAV

Nike Park Site Plan

Public Hearing

Planning Commission Case #: 09-1-197

Petitioner: Naperville Park District, 320 W. Jackson Avenue, Naperville, IL 60540

Location: Located on the south side of the existing Nike Park (288 W. Diehl Road) and the east side of Mill Street, just north of Bauer Road.

Summary: The petitioner requests a zoning classification of RI (Low Density Single-Family Residence District) upon annexation and approval of a preliminary/final plat of subdivision for the purpose of expanding the existing Nike Park and consolidating the entire park into a single lot.

L. Governor

Nike Park Expansion Map

City of Naperville Planning Department
Tuesday, April 21, 2014

Time-based Events

Briefing Book

Web AppBuilder for ArcGIS

NEW M

Share

Configurable **App Builder**

Web AppBuilder

Let us help you get started

Title:

Tags: [Add tag\(s\)](#)

Summary:

Save in folder:

Share the same as web map (Everyone)

[< Back](#) [GET STARTED](#)

Configuring Web Apps with ArcGIS

Many options for using apps to make your map come alive

WEB APPBUILDER FOR

The screenshot displays the ArcGIS Web AppBuilder interface for a web application titled "Encinitas Tree Finder". The interface is divided into several sections:

- Top Bar:** Includes a "Home" dropdown, the "ArcGIS Web AppBuilder" logo, the application title "Encinitas Tree Finder", and a user profile for "admin".
- Navigation Menu:** Features four main categories: "Themes", "Map", "Widgets", and "Attributes".
- Widget Catalog:** A sidebar on the left lists various widgets for configuration, including:
 - Header Co...
 - Attribute Ta...
 - My Location
 - Widget 1
 - Coordinate
 - OverviewMap
 - Widget 2
 - Geocoder
 - Scalebar
- Main Map Area:** Shows a map of Encinitas, California, with a search bar at the top that says "Find address or place". The map displays green tree icons overlaid on a street grid. Two numbered markers (1 and 2) are visible on the map.

Extensible: Opportunities for developers and partners

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

Developer's Guide

For developing your own widgets and themes.

Overview

Understanding widgets, panels and themes

Skill and software needed for ArcGIS WebApp Builder developers

Resources

Widget development

Theme development

Overview

ArcGIS WebApp Builder is built with [ArcGIS API for JavaScript](#) and [Dojo](#). It allows you to create your own widgets and themes.

Understanding widgets, panels and themes

Widget

An ArcGIS WebApp Builder widget is a set of text files that you can share, move, and use in your application.

Create new themes to tailor the look and feel

ArcGIS Web Application

vsdev1273.dev.esri-de.com:3344/webapp/?config=config-geoportfolio.json

Geoportfolio Insurance

con terra GmbH About Sign in

Enrich your portfolio data

96 address datasets have been uploaded

Filter ✓ Good 79 ⚠ Average 1 ⚠ Poor 16


		Dalbkeweg 12 33659 Bielefeld	
		Schinkeler Mark 107 49086 Osnabrück	
		Karl-Liebknecht-Str. 35 6791 Möhlau	
		Zum Kalvarienberg 7 48432 Rheine	
		Rabinstr. 18	

Map showing location pins across Central Europe (Germany, Poland, Czech Republic, etc.).

Create new widgets to extend functionality


Custom Widgets

Widget dev model

 **Your code**

Submit Feedback [X]

We strive to provide accurate and timely access to property information and your feedback is important to us.

Feedback On: 

Where?

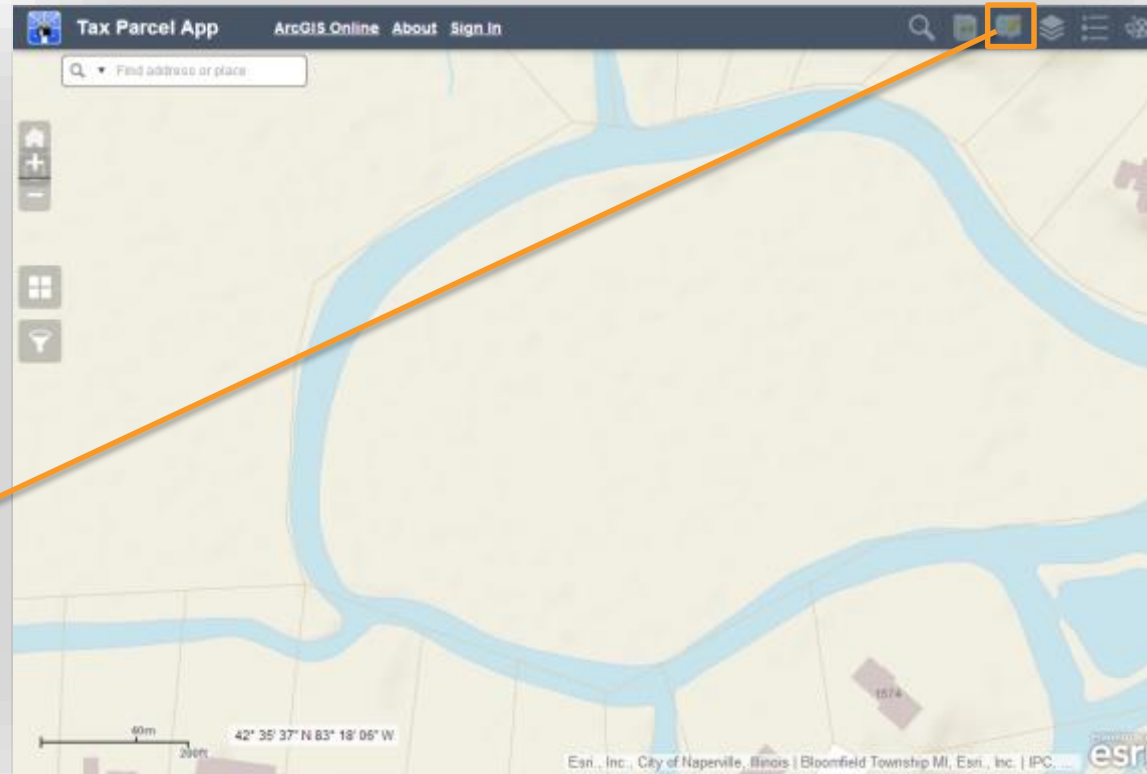
Detailed comments
Enter comments

Would you like to be contacted?

Name:

Phone:

Email:



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

The image shows two overlapping windows from the Esri widget builder. The background window displays a JSON configuration for a 'Draw' widget, listing units for distances (Kilometers, Miles, Meters, Feet, Yards) and areas (Square Kilometers, Square Miles, Acres). The foreground window shows the configuration UI for the same widget, featuring a 'Draw' header, a 'change widget icon' button, and a 'Learn more about this widget' link. Below this, there are tabs for 'Distances' and 'Areas', and an '+ Add Distance' button. A table lists the configured distance units with their labels, abbreviations, conversion factors, and actions (up/down arrows and a delete 'X' button).

Label	Abbreviation	Conversion	Actions
Kilometers	km	0.001	↑ ↓ ✕
Miles	mi	0.000621	↑ ↓ ✕
Meters	m	1	↑ ↓ ✕
Feet	ft	3.2808	↑ ↓ ✕
Yards	yd	1.0936133	↑ ↓ ✕

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