



ArcGIS API for JavaScript

An Introduction

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Why

- Interactive maps
- Widgets
- Analysis
- Lots of samples

Learn about the API

ArcGIS for Developers ▾ FEATURES PLANS DOCUMENTATION COMMUNITY SEARCH

ArcGIS API for JavaScript

Home Guide API Reference Sample Code

Use the API

Reference the ArcGIS JavaScript API from our CDN and you are ready to get started:

```
<link rel="stylesheet" href="http://jsdev.arcgis.com/3.14/esri/css/esri.css">
<script src="http://jsdev.arcgis.com/3.14/"></script>
```

Your first map



```
require(["esri/map", "dojo/domReady!"], function(Map) {
  var map = new Map("map", {
```

ArcGIS Integration

Use ArcGIS.com or your own on-premises ArcGIS Server. The API provides tools to make working with both simple.

Any Screen, Any Browser

Whether it's mobile devices or desktops, the API is designed to work in a wide variety of situations.

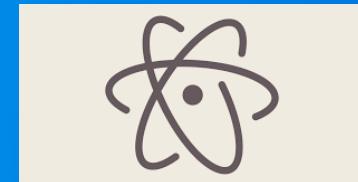
HTML5 and CSS3

Leverage the latest HTML 5 and CSS 3 standards to increase the flexibility and performance of your mapping applications.

JS SDK OVERVIEW

Developer Setup

- IDE (s)
- Code Assist
- Plugins





Build sample app

Widgets, Events, Graphics, Selection



Get the API

- Hosted

```
<head>
  <link href="http://js.arcgis.com/3.14/esri/css/esri.css">
  <script src="http://js.arcgis.com/3.14/"></script>
</head>
```

- Download

<http://developers.arcgis.com/en/downloads>



Scrambled Tiles



Make a map

Class: Map

[AMD Module Require | Legacy Module Require] Constructors | CSS | Data Attributes | Properties | Methods | Events

```
require(["esri/map"], function(Map) { /* code goes here */ });
```

Description

(Added at v1.0)

The Map class creates a container and required DOM structure for adding [layers](#), [graphics](#), an [info window](#), and other navigation controls.

Typically, a map is added to a page using a DIV. The map's width and height are initialized to those of the DIV container.

The [load](#) event is fired after the first layer has been added to the map. At this point, the map is fully functional. A `Map.on("load")` handler function should be used to add content and change map behaviors.

For an introduction on using the Map class, see [Adding a map](#).

Samples

Search for [samples](#) that use this class.

Constructors

Name	Summary
new Map(divId, options?)	Creates a new map inside of the given HTML container, which is often a DIV

Loading Modules

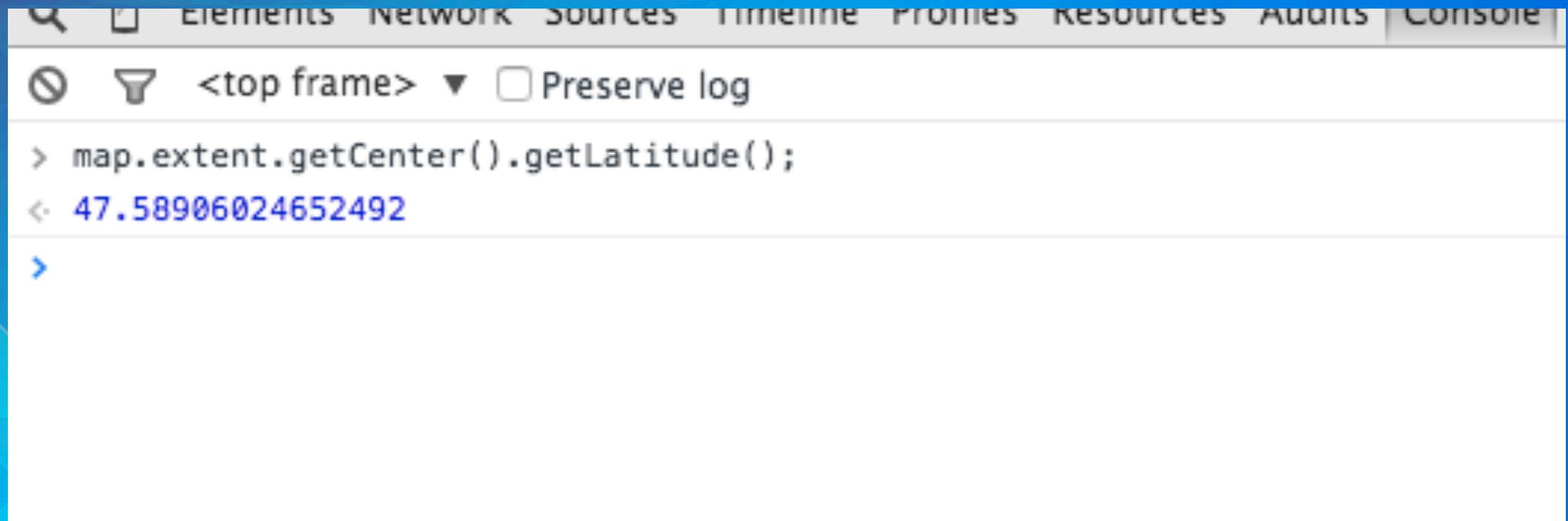
- Preferred arg alias
- **Gotcha: Placeholder slide for gotcha with misordered module loading.**

```
require(["esri/map", "dojo/domReady!"], function(Map) {  
    map = new Map("mapDiv", {  
        center: [-122.27, 47.58],  
        zoom: 14,  
        basemap: "streets"  
    });  
});
```

Basemaps



Developer Console

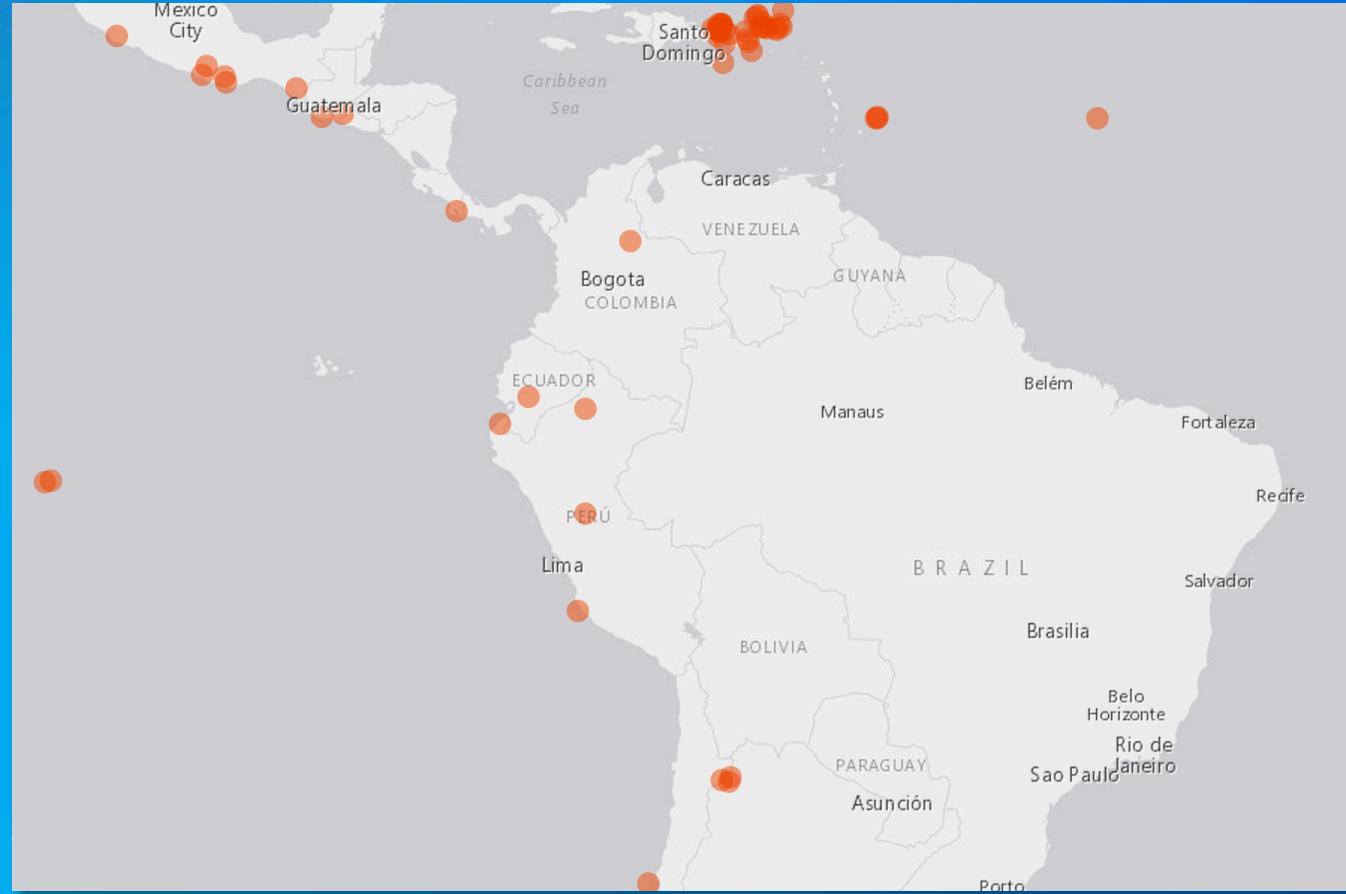


The screenshot shows a browser's developer tools open to the 'Console' tab. The console interface includes a toolbar with icons for search, copy, and various developer features, followed by tabs for Elements, Network, Sources, Timeline, Profiles, Resources, Audits, and Console. The main area displays a log entry:

```
<top frame> <input checked="" type="checkbox"/> Preserve log  
map.extent.getCenter().getLatitude();  
47.58906024652492  
>
```

Add Layers

- Lots of types
 - Tiled
 - Dynamic
 - Graphics
 - Feature layers
 - KML
 - WMS/WMTS
 - Custom layers

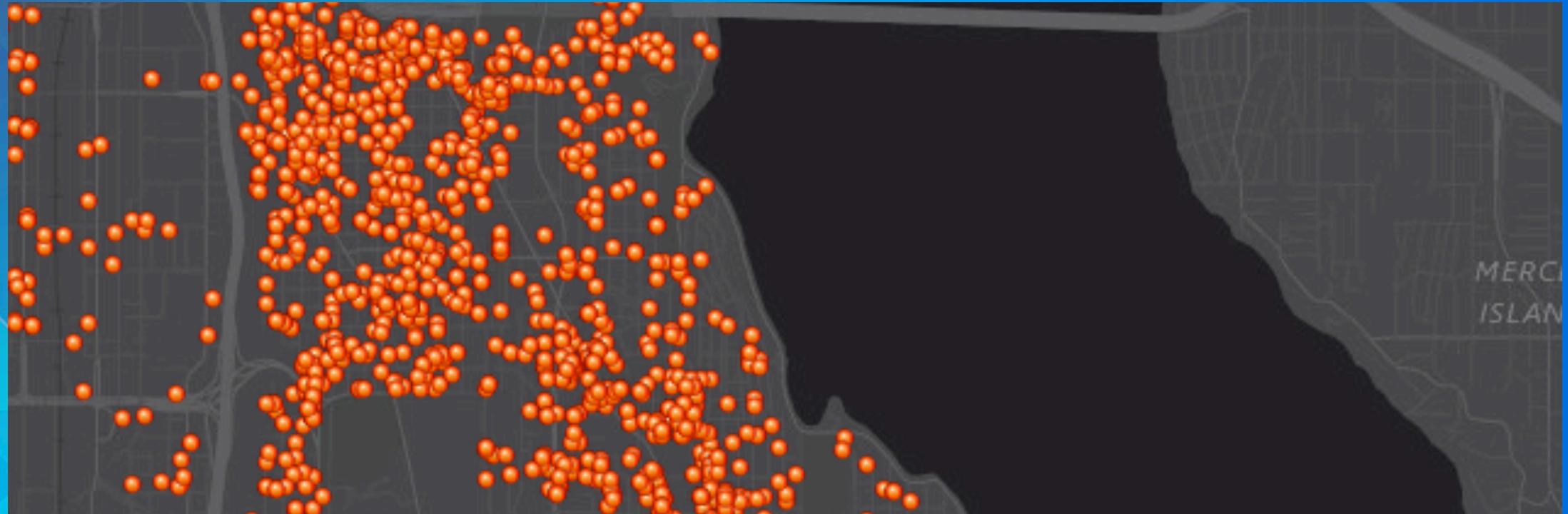


Layer coding pattern

1. Load module
2. Create layer
3. Specify properties
4. Add layer to map

```
var csv = new CSVLayer(csvURL, {  
    copyright: "USGS.gov",  
    latitudeFieldName: "loclat",  
    longitudeFieldName: "loclon"  
});  
map.addLayer(csv);
```

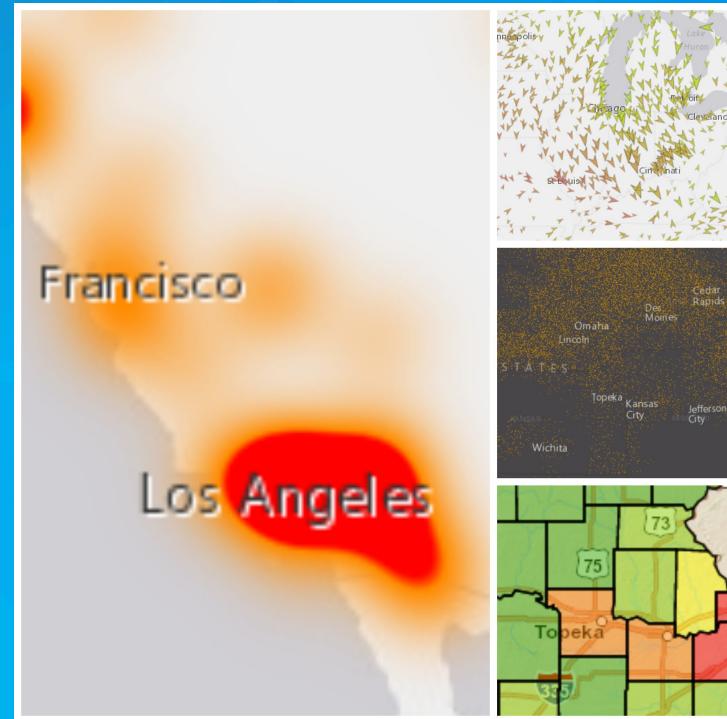
Demo: Add feature layer to application



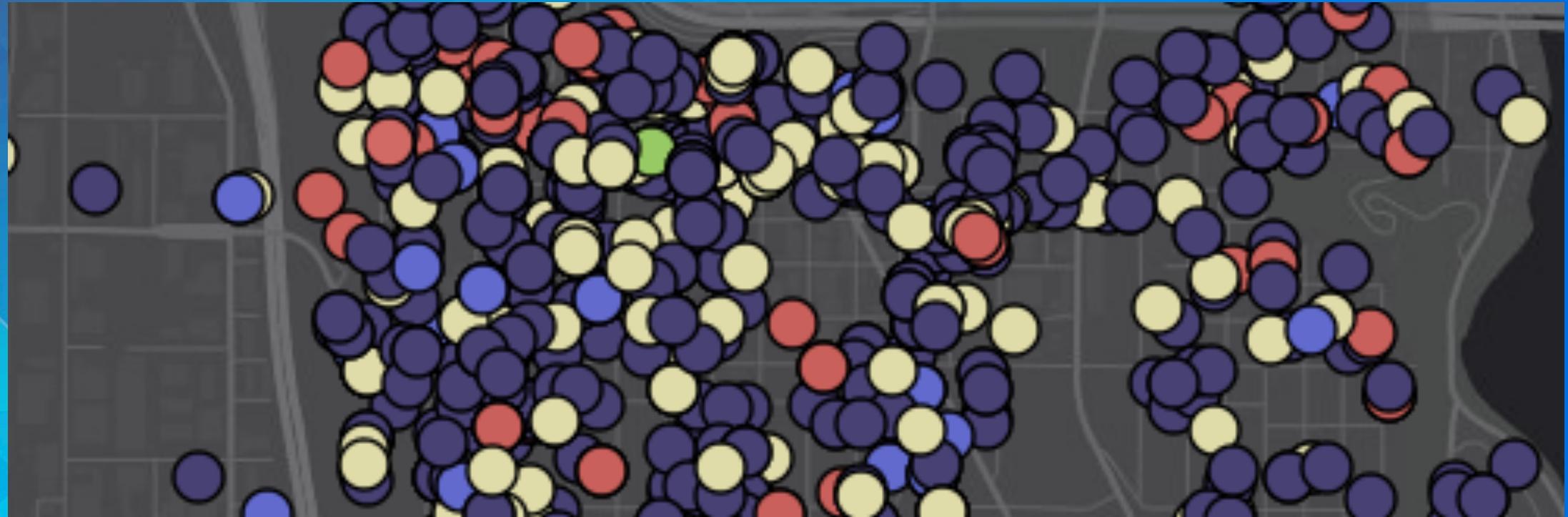
Deep Dive: Feature Layers

- Selection ...
- Query
- Edit
- Renderer

Renderers



Demo: Apply renderer

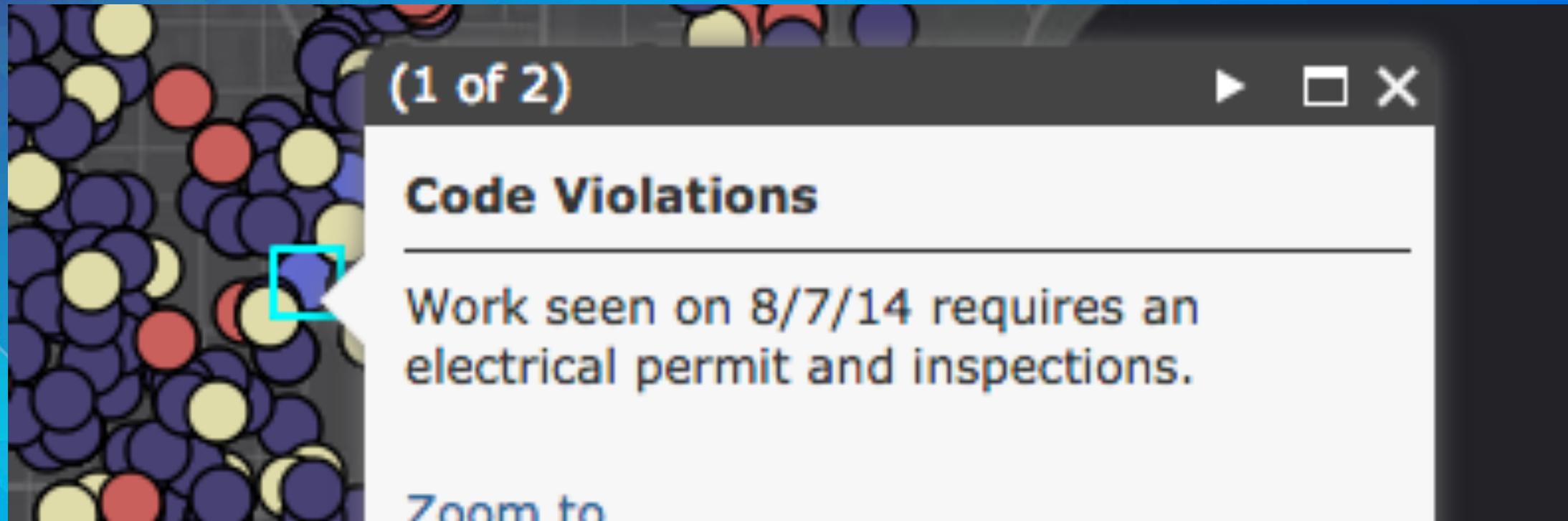


Popups

- Add interactivity
- Information about ..
 - A location
 - A feature
 - The results of a search
- Customizable

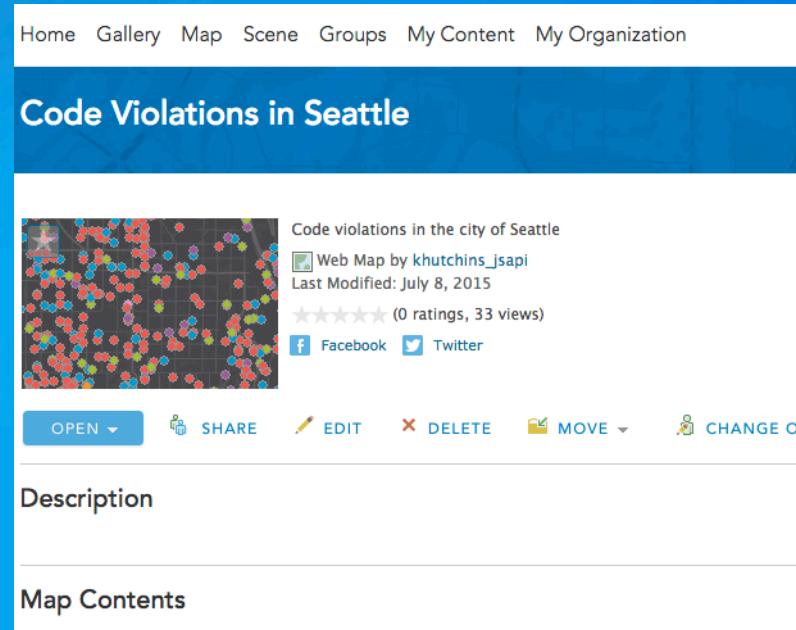


Demo: Make map interactive



Tip: Reduce code by using a web map

- **esri/arcgis/utils**
 - **createMap**



Widgets

- Legend,
- Directions
- Search
- Print
- Basemap Toggle
-

Secondary Schools

Nairobi Kajiado

Kenya Primary Highlights1

KE Schools All

Kenya Towns

US Counties

Detailed Counties

- 99 - 219570
- 219571 - 754115
- 754116 - 2100707
- 2100708 - 5407427
- 5407428 - 10110975

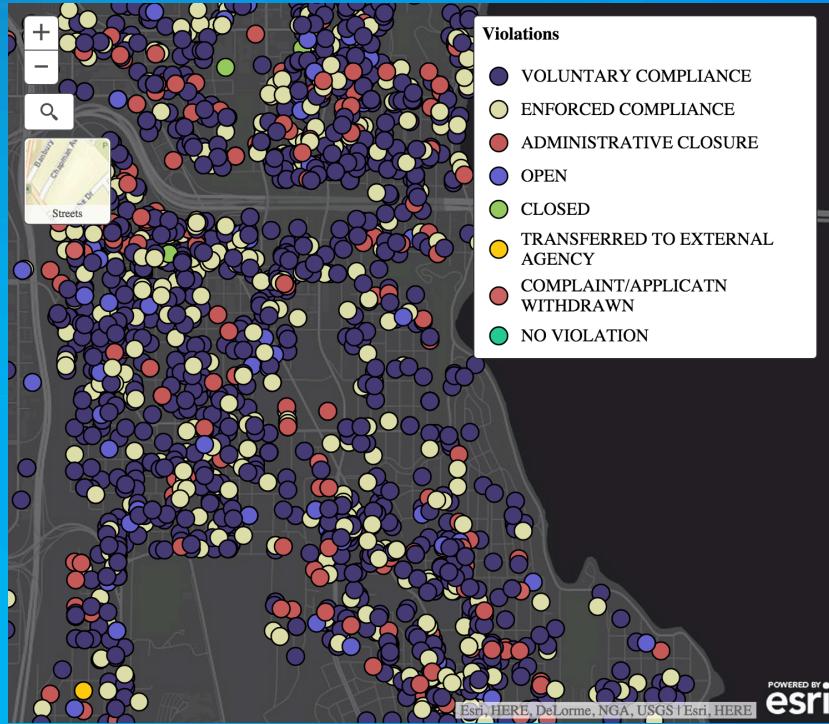


Widget coding pattern

- Create widget
- Set widget properties
- Call startup

```
var basemapToggle = new BasemapToggle({  
    map: map,  
    basemap: "streets"  
, "basemapDiv");  
basemapToggle.startup();
```

Demo: Add search widget



Demo: More Widgets

Tip: Working with secure resources

- Identity Manager
- OAuth Support

Request for Permission  kelly_wma ▾

JavaScript OAuth Sample wants to access your ArcGIS Online account information

APPROVE **NO THANKS**

JavaScript OAuth Sample developed by:

 ESRI JSAPI

Team organization for the ArcGIS API for JavaScript. Apps generated by the Esri JSAPI team are examples of what you can do with the api.

Demo: Customize widget appearance



Events

- Event handlers
 - Load page, click map, execute task, add layer
- dojo/on

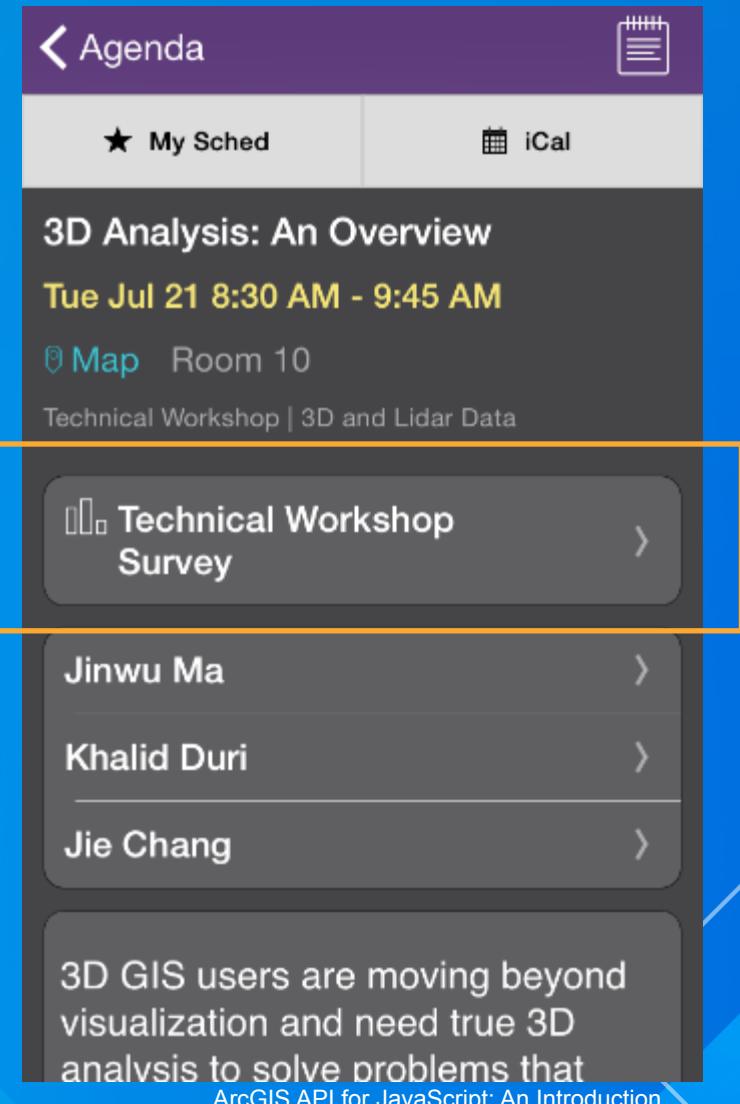
```
map.on("click", buffer);  
  
// or  
//on(map, "click", buffer);
```

Want to learn more?

- Documentation
 - <https://developers.arcgis.com/javascript/>
 - Dojo documentation
- Related Esri Training and Tutorials
 - Esri class: Building Applications with the ArcGIS API for JavaScript
 - Esri webinar: Data visualization and time saving tips
- Additional Resources
 - JavaScript online training classes: free and fee-based

Thank you...

- Please fill out the session survey in your mobile app
- Select [enter session title here] in the Mobile App
 - Use the Search Feature to quickly find this title
- Click “Technical Workshop Survey”
- Answer a few short questions and enter any comments





Understanding our world.