ArcGIS API for JavaScript
An Introduction

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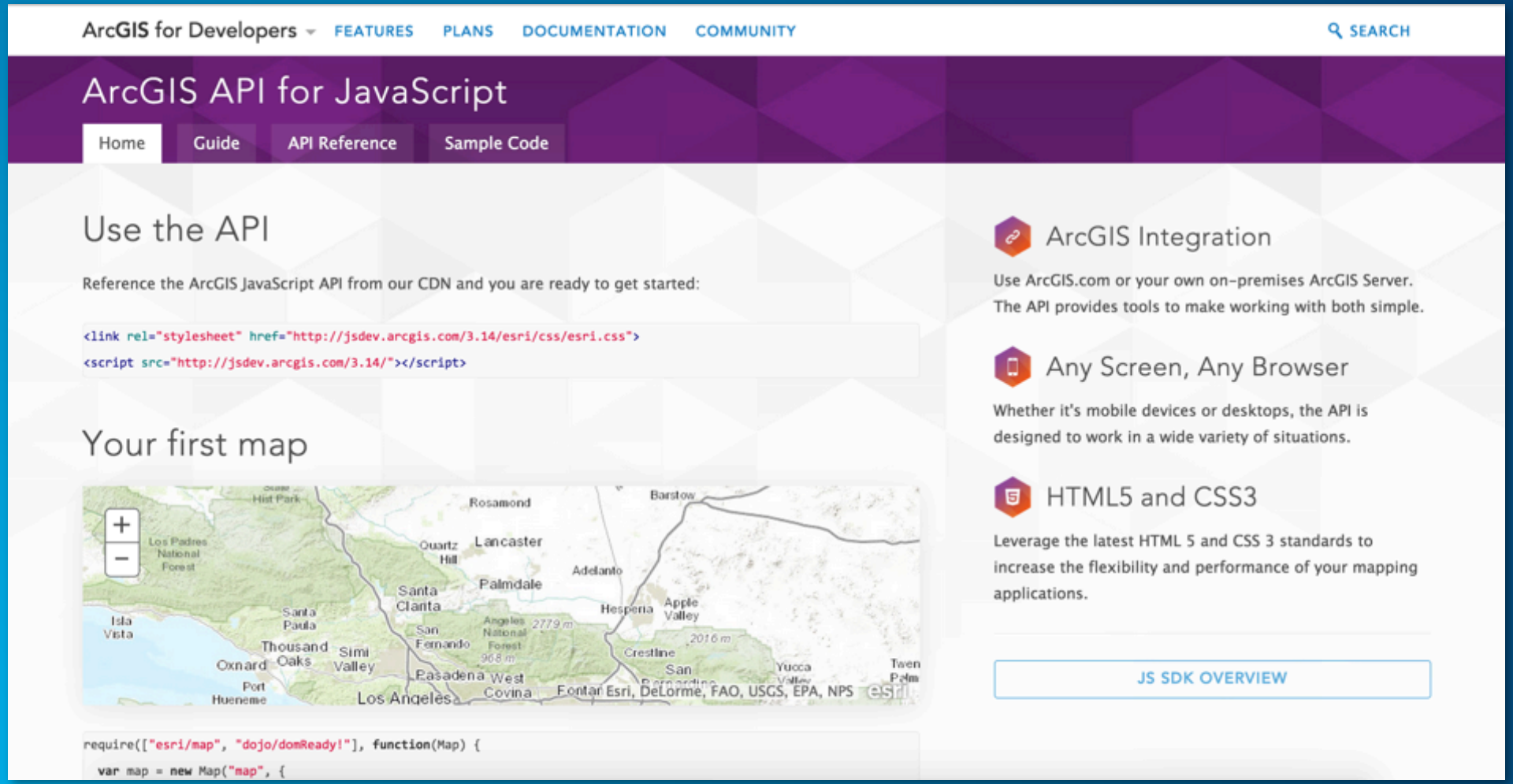
Why

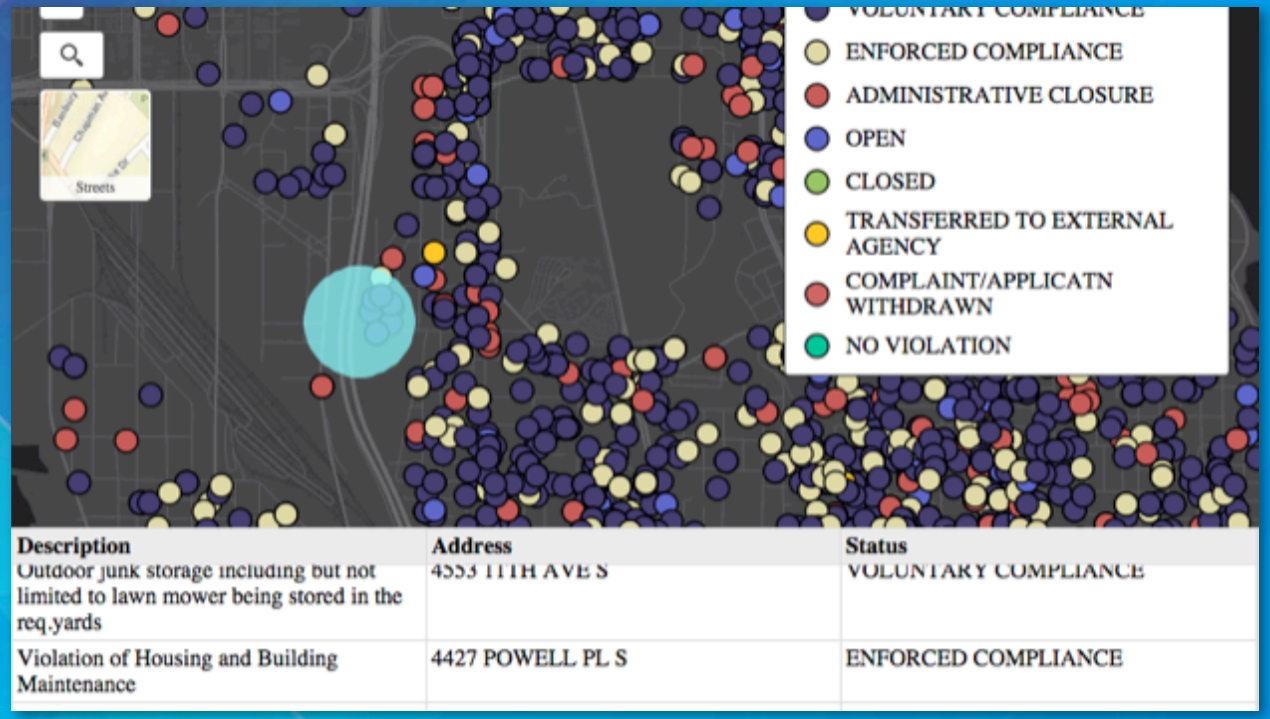
- Interactive maps
- Widgets
- Analysis
- Lots of samples

Learn about the API



Developer Setup

- IDE (s)
- Code Assist
- Plugins



Description	Address	Status
Outdoor junk storage including but not limited to lawn mower being stored in the req.yards	4553 11TH AVE S	VOLUNTARY COMPLIANCE
Violation of Housing and Building Maintenance	4427 POWELL PL S	ENFORCED COMPLIANCE

Build sample app

Widgets, Events, Graphics, Selection

Gotcha!

Get the API

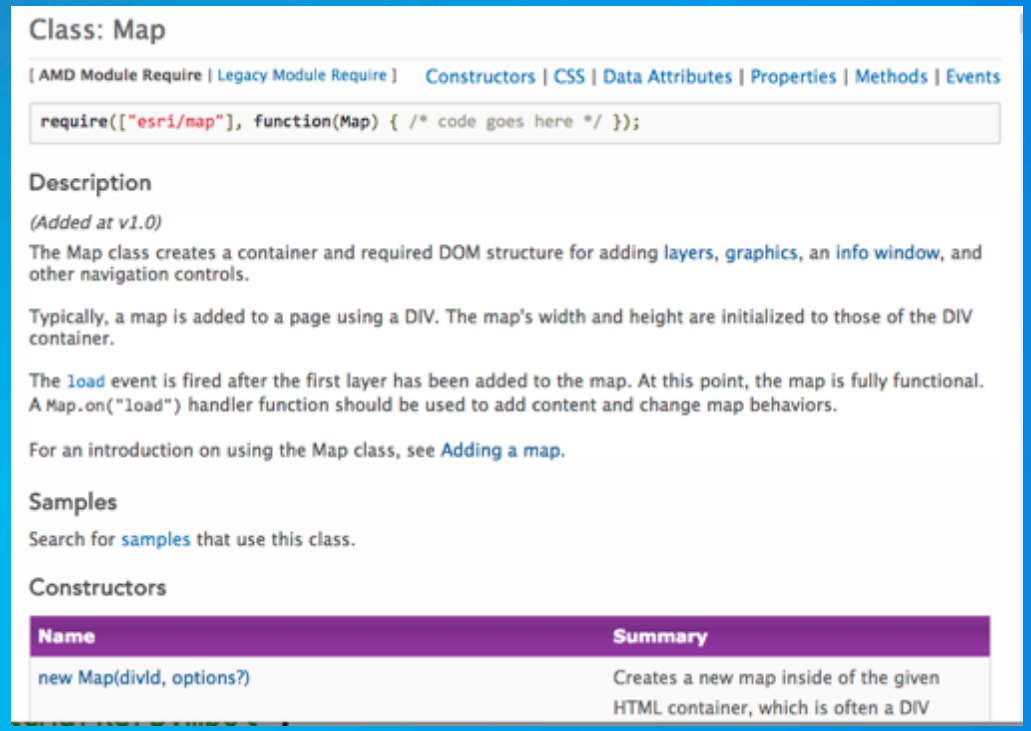
- **Hosted**

```
<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

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

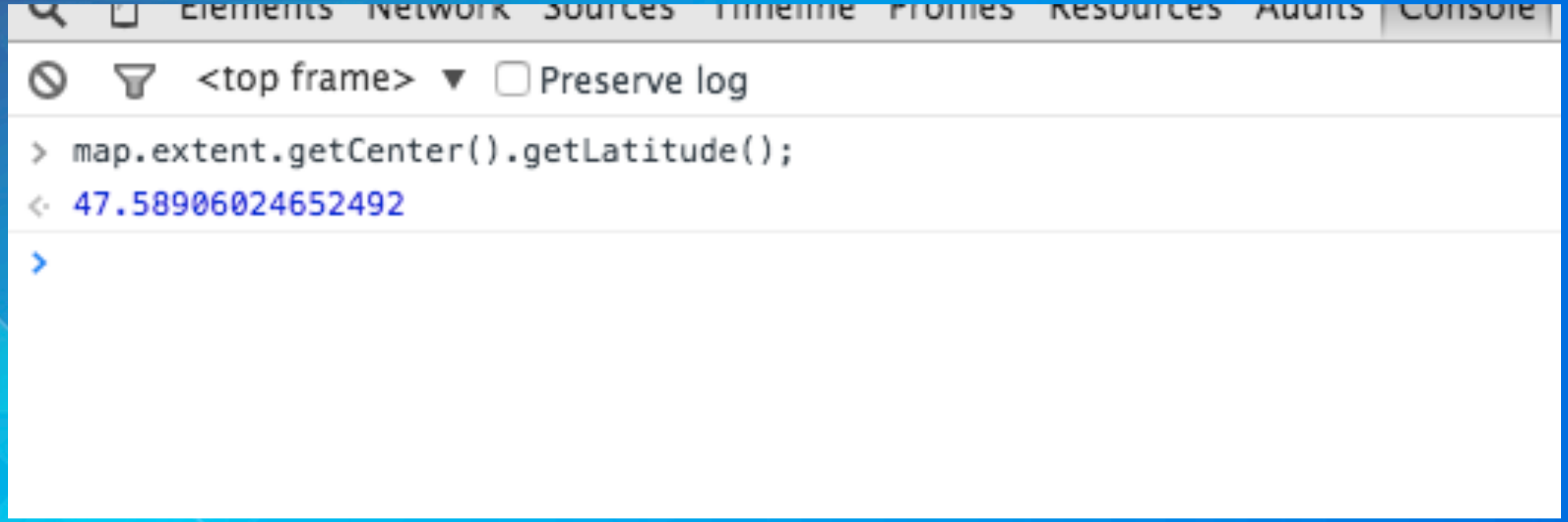
```
require(["esri/map", "dojo/domReady!"], function(Map) {
  map = new Map("mapDiv", {
    center: [-122.27, 47.58],
    zoom: 14,
    basemap: "streets"
  });
});
```

Scrambled Tiles

UNITED
STATES
Chicago
Detroit
Dallas
Atlanta
Houston
Gulf of
Mexico
MÉXICO
Havana

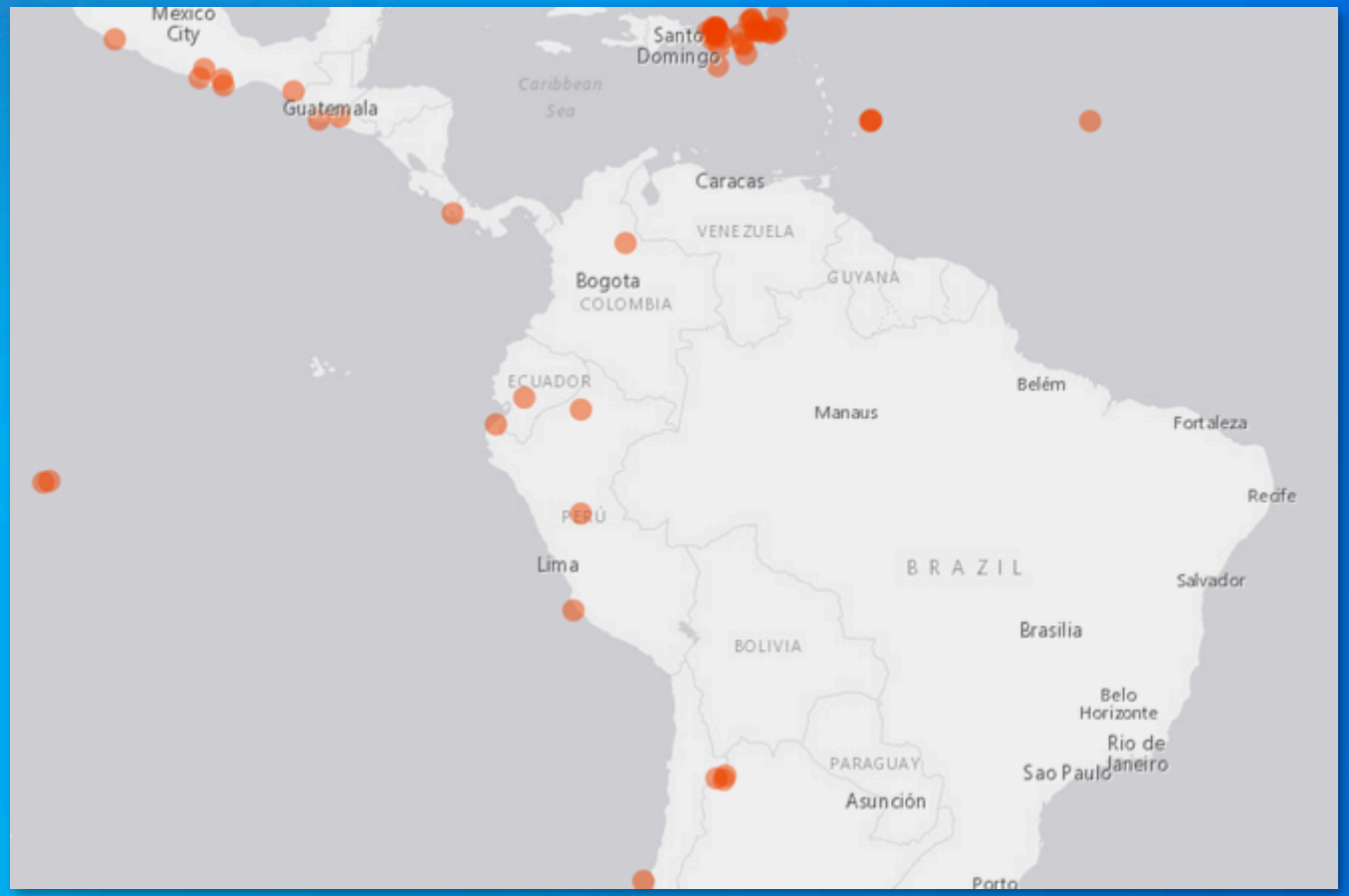
Basemaps

Developer Console



Add Layers

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



Layer coding pattern

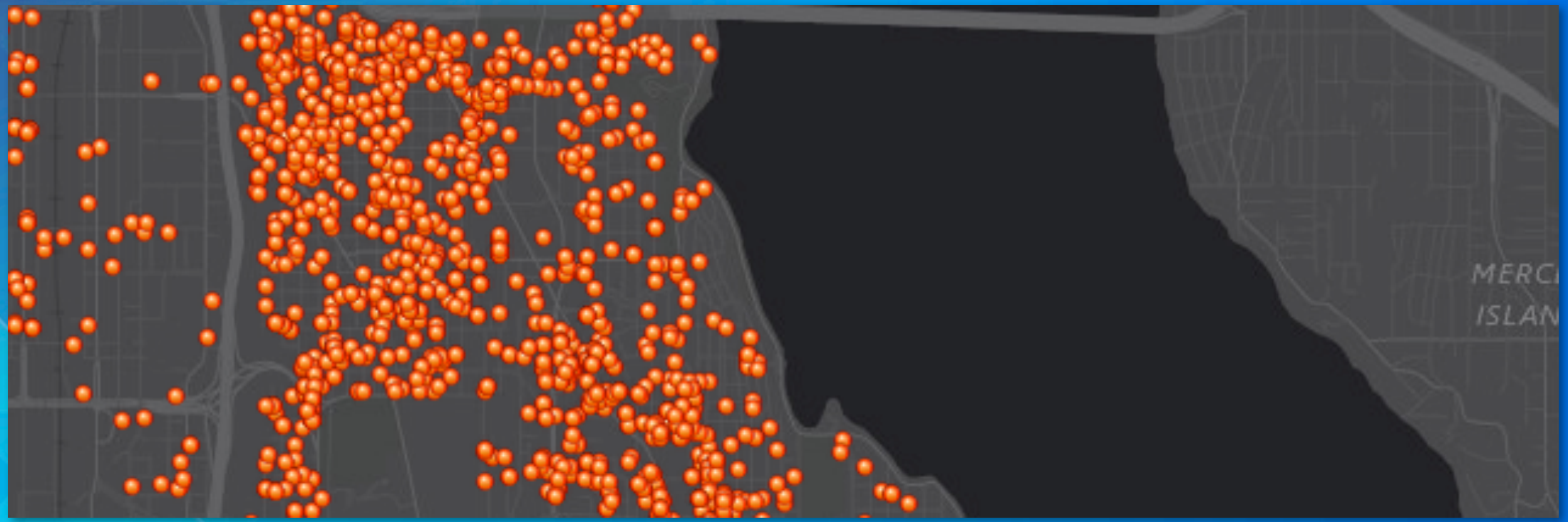
1. Load module
2. Create layer
3. Specify properties
4. Add layer to map

```
require(["esri/map",
"esri/layers/FeatureLayer",
"dojo/domReady!"], function(Map,
FeatureLayer)
```

```
var featureLayer = new
FeatureLayer("http://
sampleserver6.arcgisonline.com/arcgis/
rest/services/USA/MapServer/2",{
  outFields: ["*"]
});

map.addLayer(featureLayer );
```

Demo: Add feature layer to application

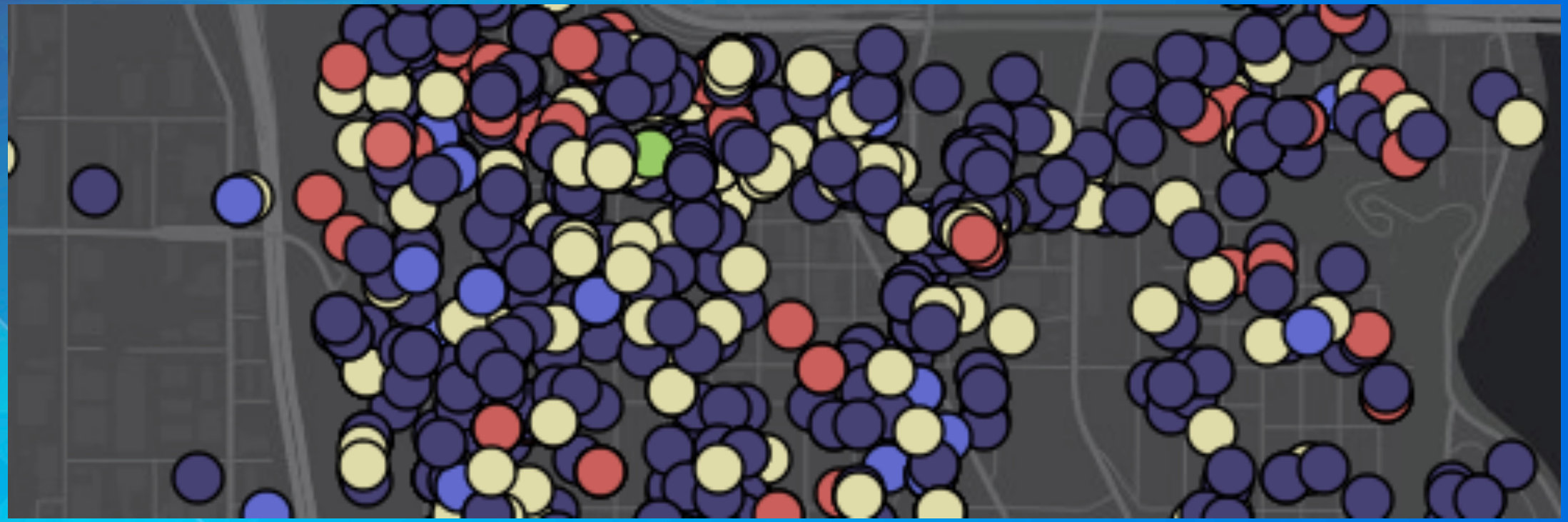


Deep Dive: Feature Layers

- Selection …
- Query
- Edit
- Renderer

Renderers

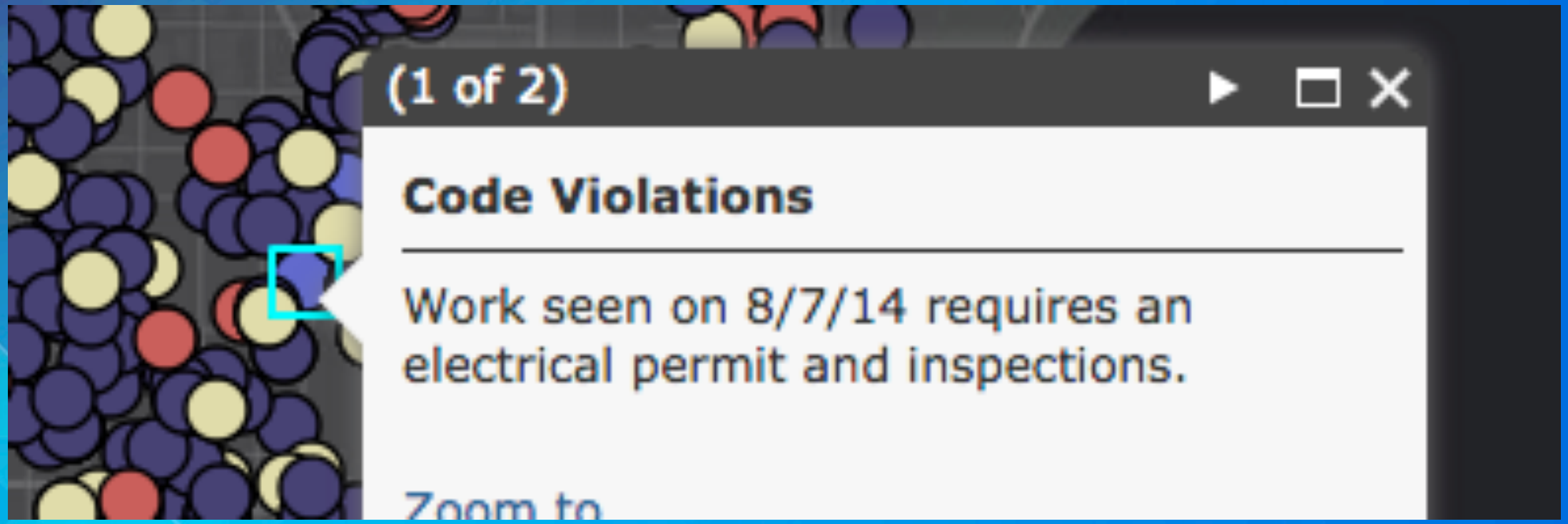
Demo: Apply renderer



Popups

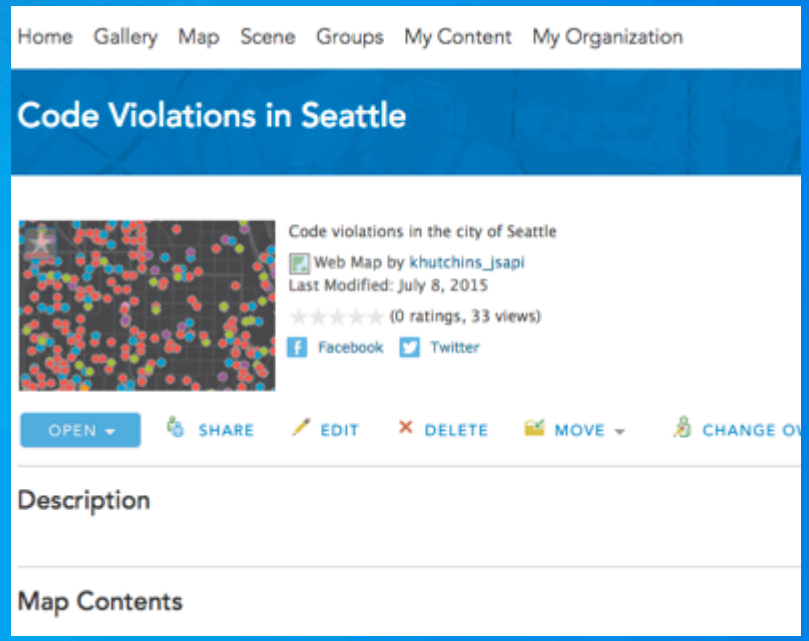
- Add interactivity
- Information about ..
  - A location
  - A feature
  - The results of a search
- Customizable

Demo: Make map interactive



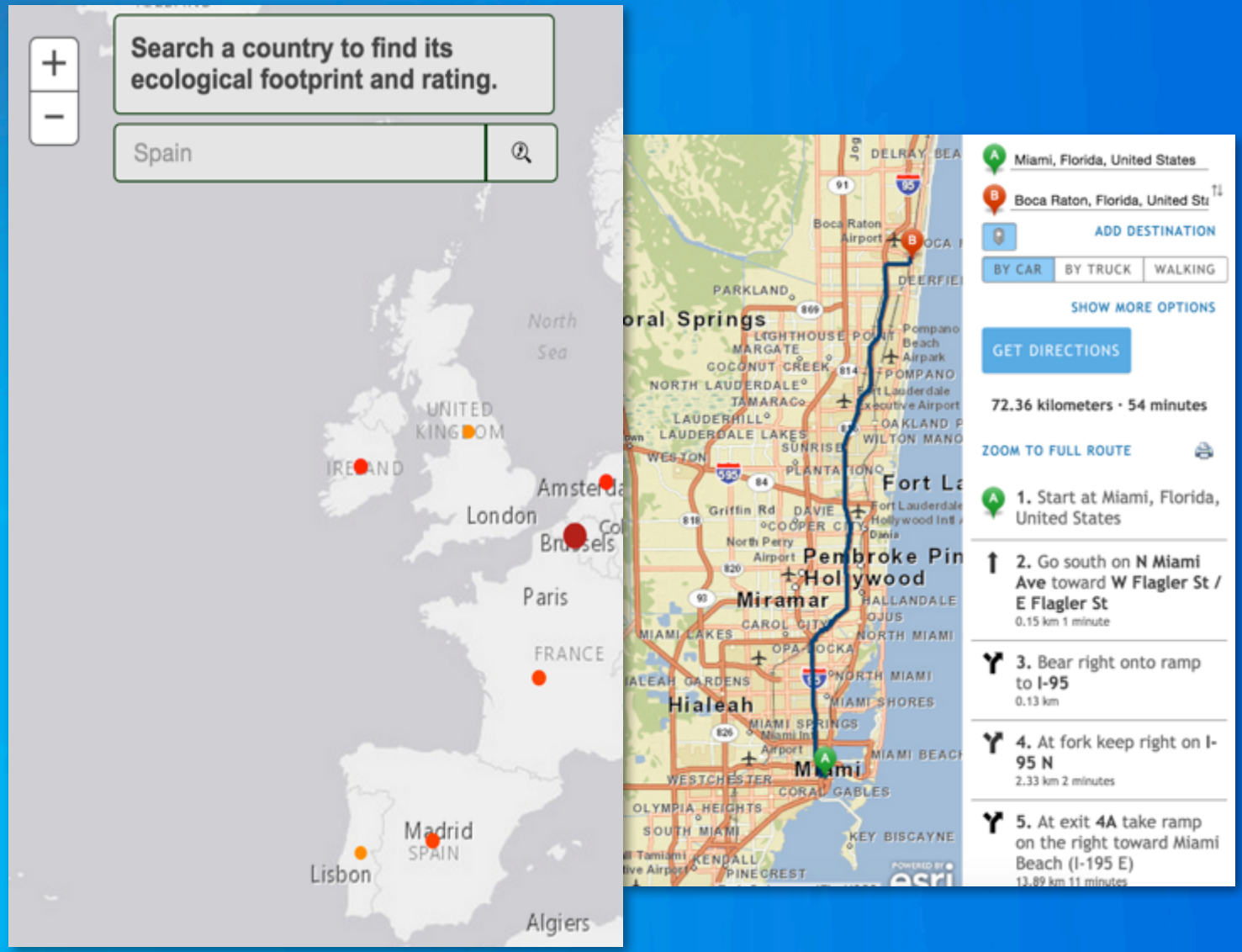
Tip: Reduce code by using a web map

- esri/arcgis/utils
  - createMap



Widgets

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

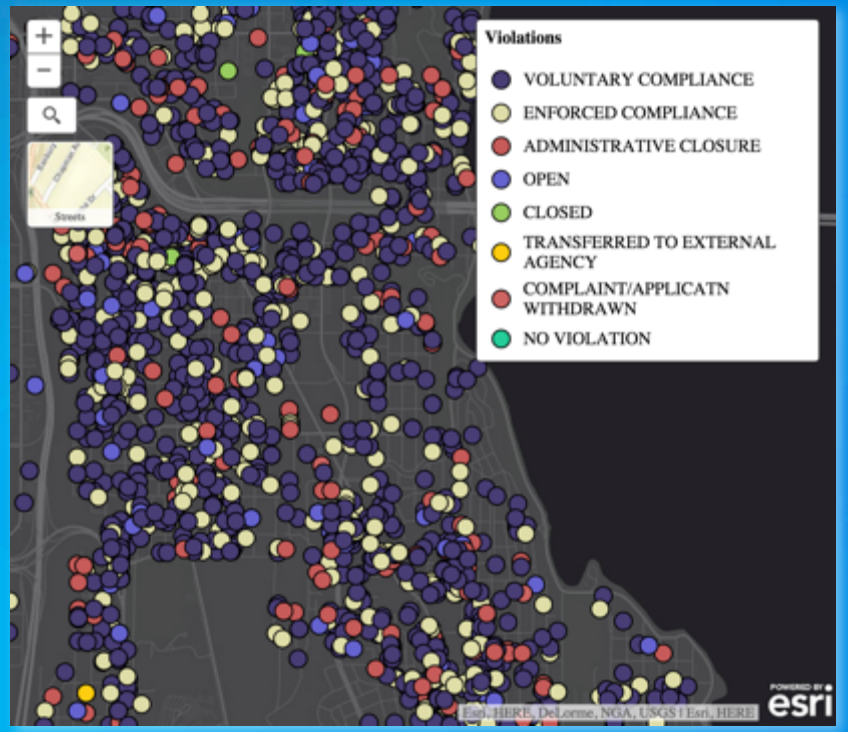


Widget coding pattern

- Load module
- Create widget
- Set widget properties
- Call startup

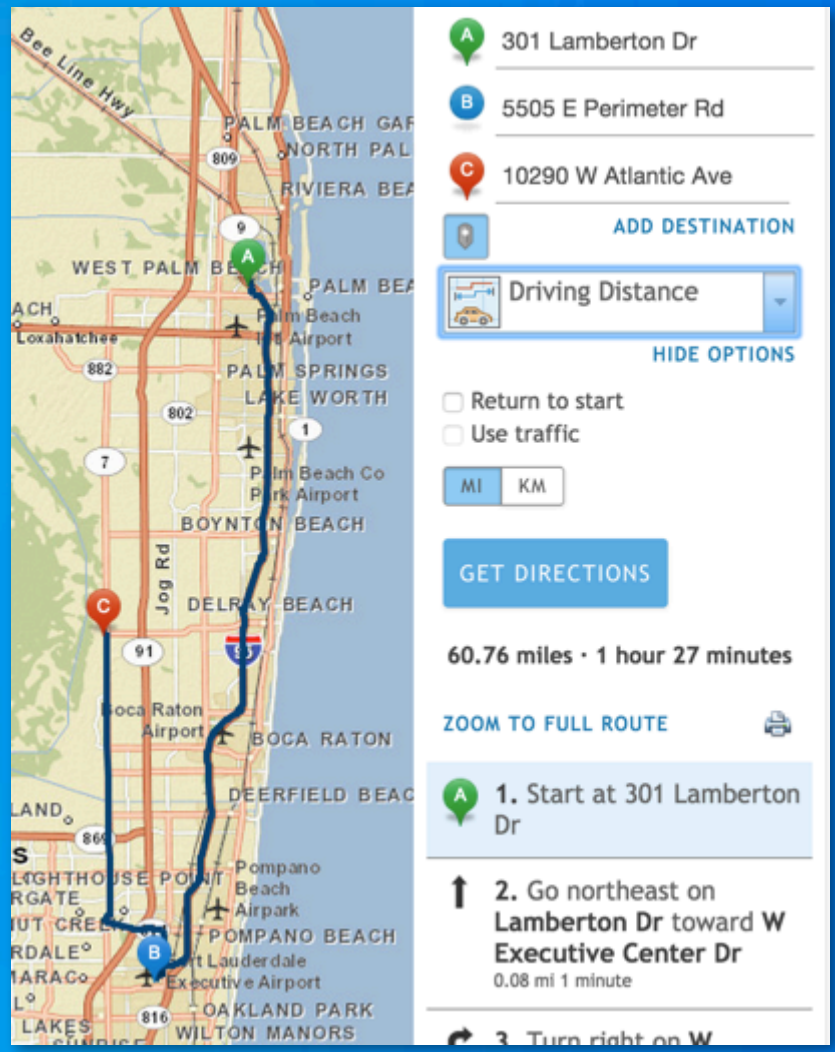
```
var basemapToggle = new BasemapToggle({
  map: map,
  basemap: "streets"
},"basemapDiv");
basemapToggle.startup();
```

Demo: Add search widget



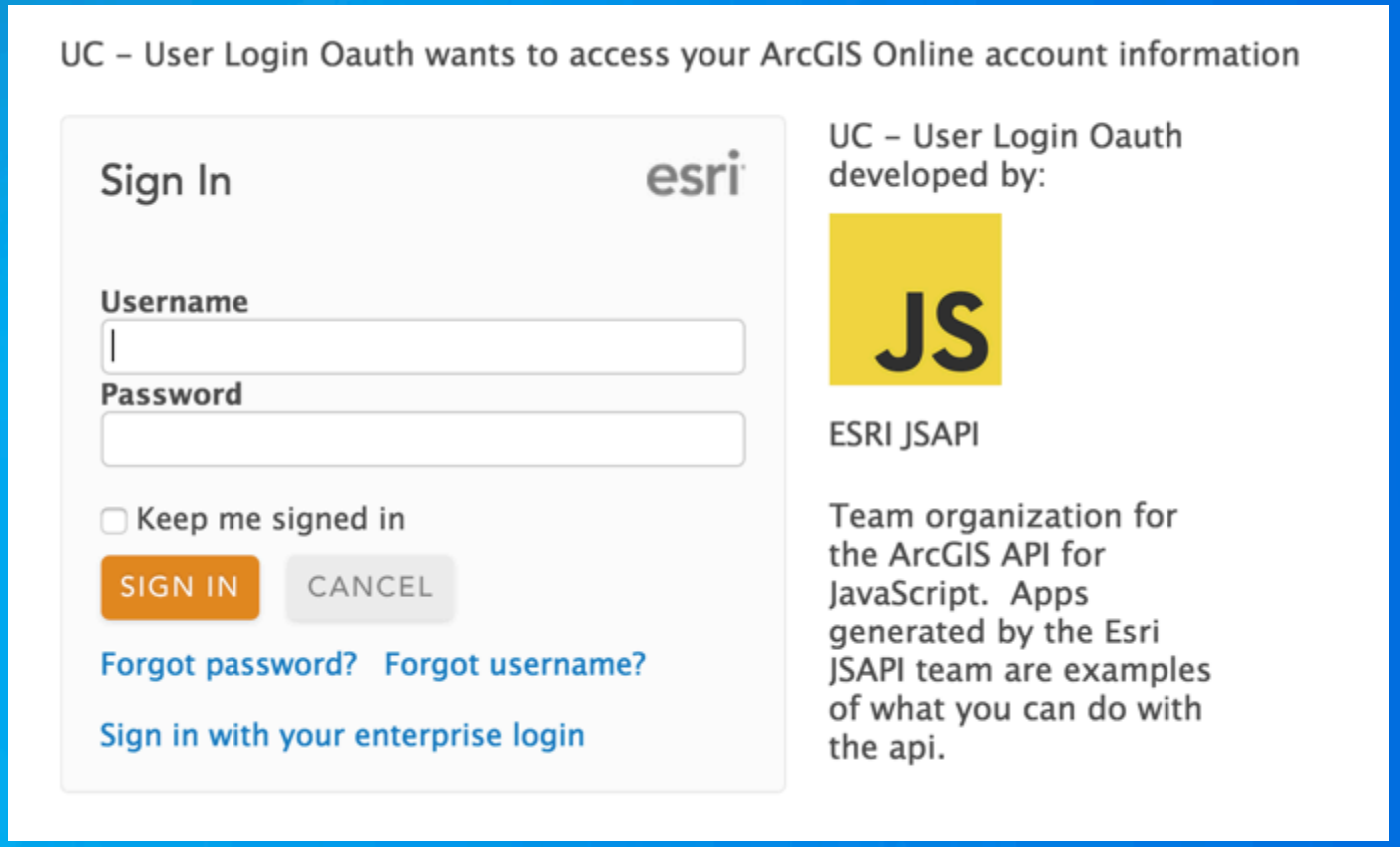
Demo: Directions widget

- Requires credit-based route service



Tip: Working with secure resources

- Identity Manager
- OAuth Support
- Proxies



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…

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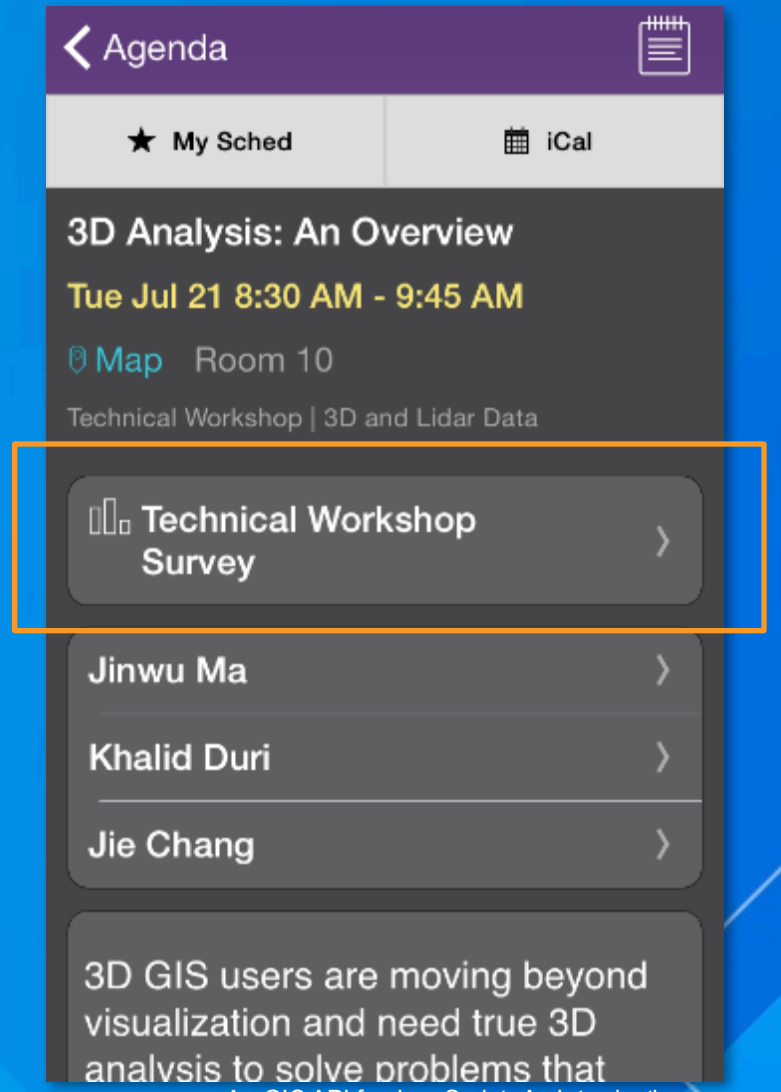

Understanding our world.