Why

- Interactive maps
- Widgets
- Analysis
- Lots of samples
Learn about the API

ArcGIS API for JavaScript

Use the API

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

```html
<script src="http://jsdev.arcgis.com/3.16/javascripts/arcgis.js"></script>
```

Your first 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.

ArcGIS API for JavaScript: An Introduction
Developer Setup

- IDE(s)
- Code Assist
- Plugins
Build sample app

Widgets, Events, Graphics, Selection
Get the API

• Hosted

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

• Download

Make a map

Class: Map

```javascript
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

<table>
<thead>
<tr>
<th>Name</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>new Map(vid, options?)</td>
<td>Creates a new map inside of the given HTML container, which is often a DIV</td>
</tr>
</tbody>
</table>
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
Basemaps
Developer Console

```javascript
map.extent.getCenter().getLatitude();
47.58906024652492
```
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

```javascript
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

Code Violations

Work seen on 8/7/14 requires an electrical permit and inspections.
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

```javascript
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

```javascript
map.on("click", buffer);

// or
//on(map, "click", buffer);
```
Want to learn more?

- **Documentation**
  - [https://developers.arcgis.com/javascript/](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