



Using ArcGIS Online Analysis Widgets

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Technical Workshop

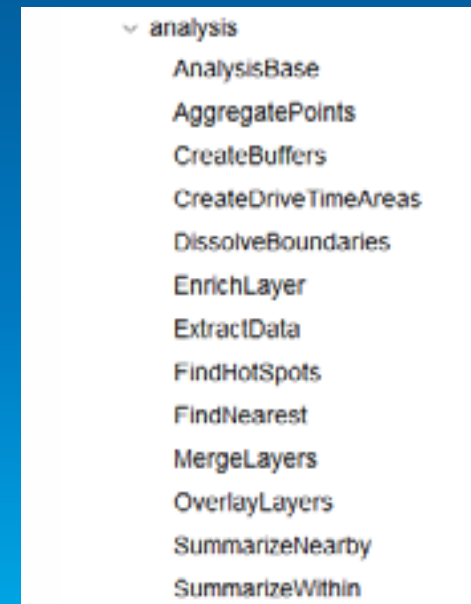
Overview

- **Using ArcGIS Online Analysis**
 - Introduction
 - **Demo 1**

- **Working with Analysis Widgets**
 - What are Analysis Widgets?
 - Why use Analysis Widgets?
 - **Demo 2**

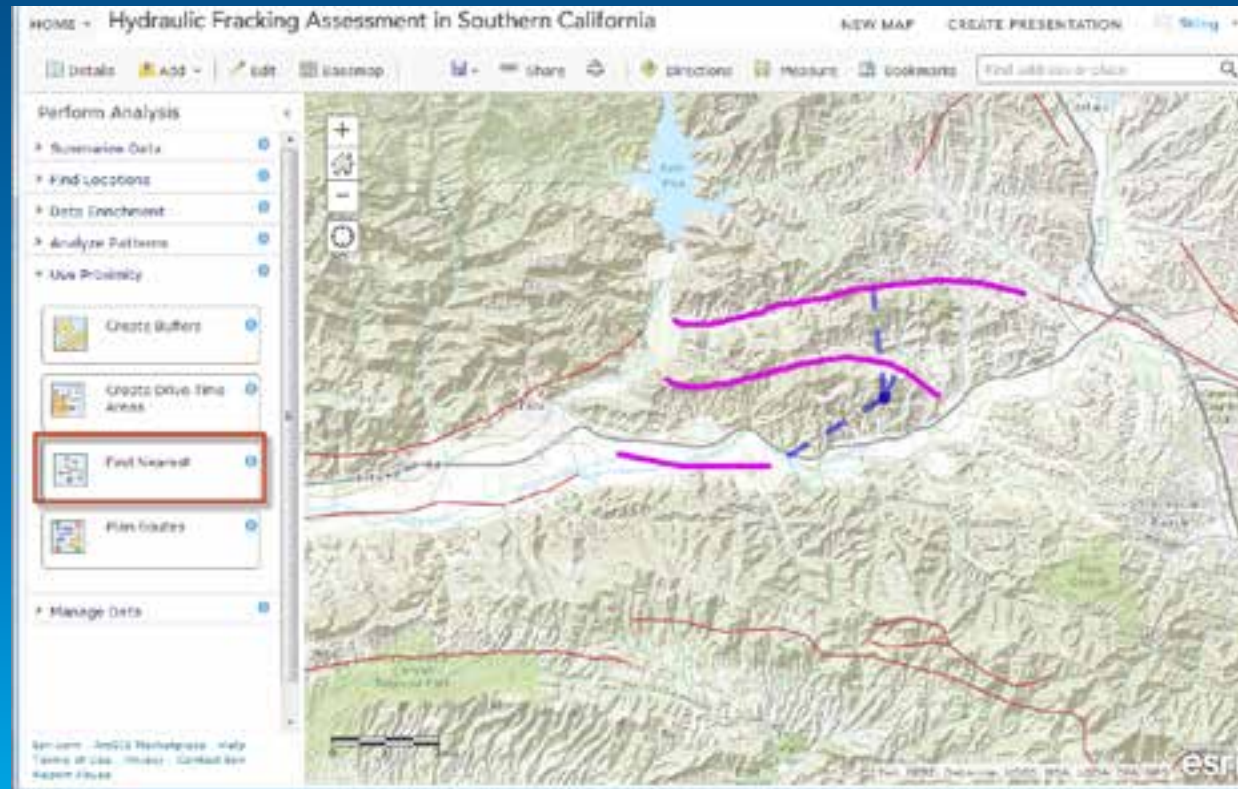
ArcGIS Online Analysis

- **Prerequisite**
 - **Have an organization account**
 - **Permission to access feature services**
- **Online Analysis Categories and Tools**



Demo 1: ArcGIS Online Analysis

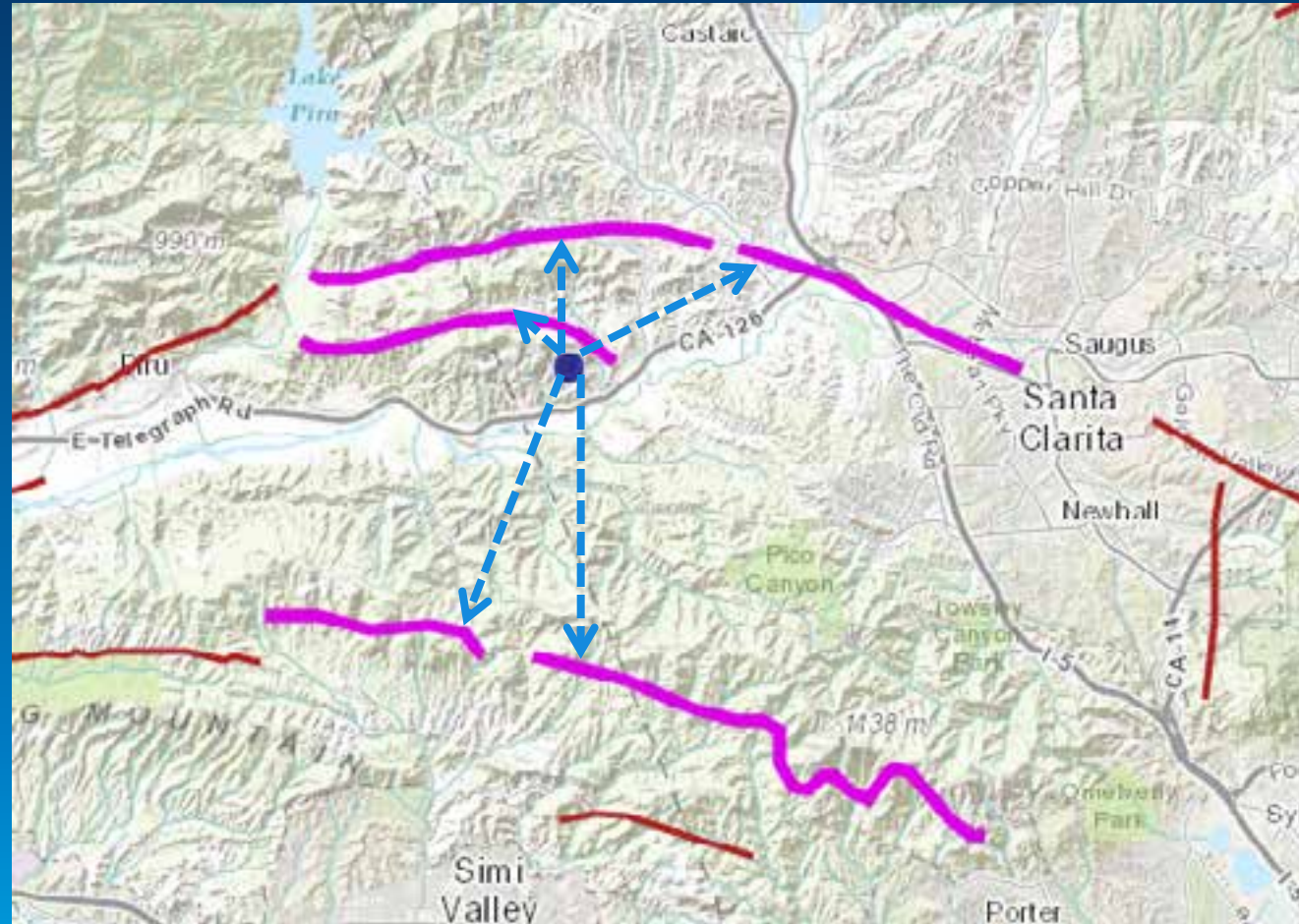
- Use the ArcGIS Online Analysis tool Find Nearest to find the nearest faults from oil well sites



Why Use Analysis Widgets?

| No Analysis Widgets | With Analysis Widgets |
|-----------------------------|-------------------------------|
| Build your own UI | Ready-to-use UI |
| Your own GP server | ArcGIS Online analysis server |
| Hard-coded input parameters | Pre-defined input parameters |
| No status tracking | Built-in status checking |

Demo 2: Creating a JavaScript App with the FindNearest Widget



Find nearest fault line(s) from an oil well.

Step 0: Finding Resources

The screenshot shows the ArcGIS API for JavaScript website. At the top, there is a navigation bar with links for 'FEATURES', 'PLANS', 'DOCUMENTATION', and 'SUPPORT'. Below this is a purple header with the title 'ArcGIS API for JavaScript' and sub-navigation links for 'Tutorials', 'Concepts', 'API Reference', 'Samples', and 'Forum'. The main content area is divided into three columns. The left column has a 'Get started' section with a code snippet for including the API and a 'CREATE YOUR FIRST MAP' button. The middle column has a 'Code samples' section with a 'BROWSE SAMPLES' button. The right column has an 'API reference' section with a 'BROWSE API REFERENCE' button. On the right side, there are three feature highlights: 'ArcGIS Integration', 'Any Screen, Any Browser', and 'HTML5 and CSS3', each with a brief description and a 'JS SDK OVERVIEW' button at the bottom right.

js.arcgis.com

Step 1: Creating a Map

```
25 <script>
26   require(["esri/map", "dojo/domReady!"], function(Map){
27
28     var map = new Map("map", {
29       basemap: "topo",
30       center: [-118.68, 34.42],
31       zoom: 11
32     });
33   });
34 </script>
```

http://developers.arcgis.com/javascript/sandbox/sandbox.html?sample=map_simple

Step 2: Adding Layers

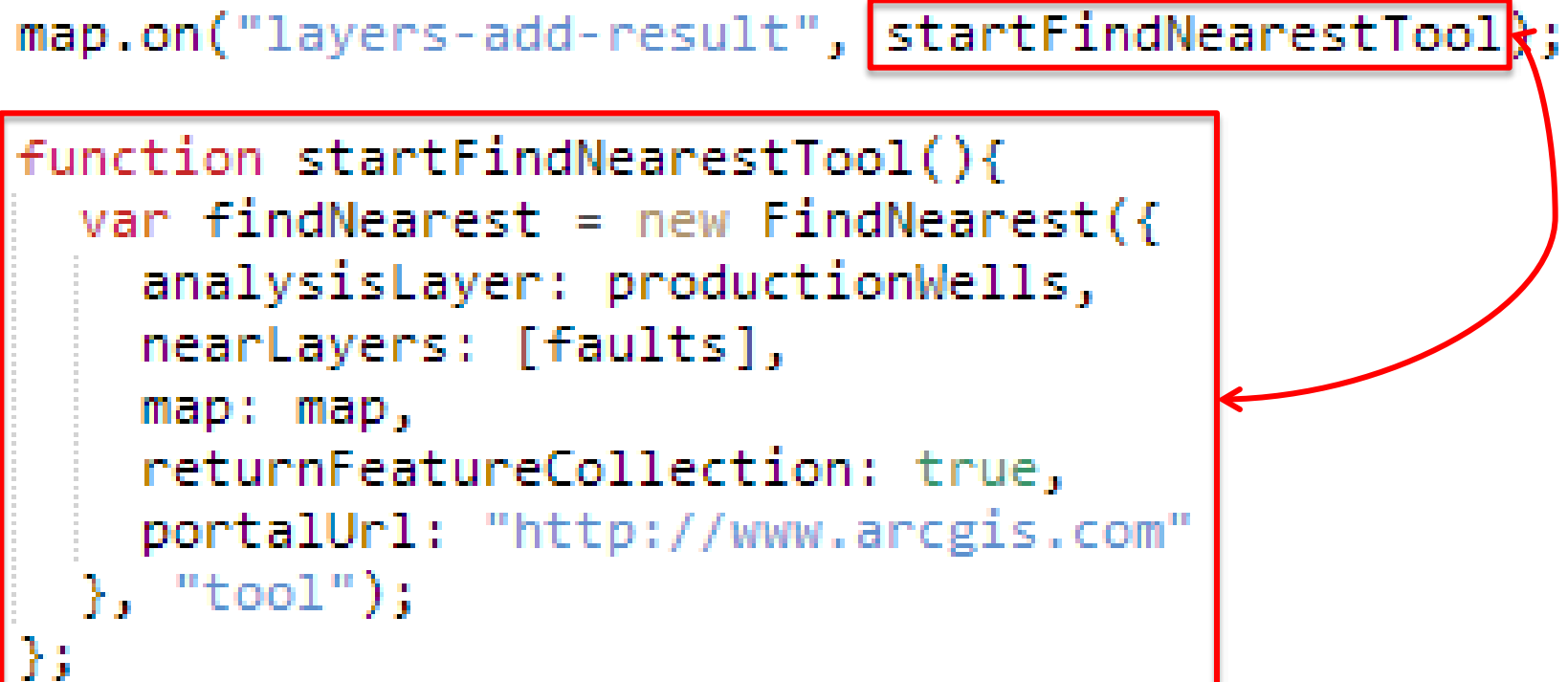
```
25 <script>
26   require(["esri/map", "esri/layers/FeatureLayer", "dojo/domReady!"], function(Map, FeatureLayer){
27
28     var map = new Map("map", {
29       basemap: "topo",
30       center: [-118.68,34.42],
31       zoom: 11
32     });
33
34     var faults = new FeatureLayer("http://services1.arcgis.com/hLJbHVT9ZrDIzK0I/arcgis/rest/service
35     var productionWells = new FeatureLayer("http://services1.arcgis.com/hLJbHVT9ZrDIzK0I/ArcGIS/res
36     map.addLayers([faults, productionWells]);
37   });
38 </script>
```

Step 3: Creating the Widget

```
25 <script>
26   require([
27     "esri/map", "esri/layers/FeatureLayer", "esri/dijit/analysis/FindNearest", "dojo/domReady!"
28   ], function(Map, FeatureLayer, FindNearest) {
29
30     var map = new Map("map", {
31       basemap: "topo",
32       center: [-118.68, 34.42],
33       zoom: 11
34     });
35
36     var faults = new FeatureLayer("http://services1.arcgis.com/hLJbHVT9ZrDIzK0I/arcgis/rest/servi
37     var productionWells = new FeatureLayer("http://services1.arcgis.com/hLJbHVT9ZrDIzK0I/ArcGIS/r
38     map.addLayers([faults, productionWells]);
39
40     var findNearest = new FindNearest({
41       analysisLayer: productionWells,
42       nearLayers: [faults],
43       map: map,
44       returnFeatureCollection: true,
45       portalUrl: "http://www.arcgis.com"
46     }, "tool");
47   });
48 </script>
```

Step 3: Creating the Widget

```
map.on("layers-add-result", startFindNearestTool);  
  
function startFindNearestTool(){  
  var findNearest = new FindNearest({  
    analysisLayer: productionWells,  
    nearLayers: [faults],  
    map: map,  
    returnFeatureCollection: true,  
    portalUrl: "http://www.arcgis.com"  
  }, "tool");  
};
```



Use widgets after all layers are added

Step 4: Listening for the .on("job-result") Event

```
findNearest.on("job-result", function(result){  
    var resultLayer = new FeatureLayer(result.value);  
    map.addLayer(resultLayer);  
});
```

More Resources

- **ArcGIS Online Analysis**

- **Help:** <http://doc.arcgis.com/en/arcgis-online/use-maps/perform-analysis.htm>
- **Video:** <http://training.esri.com/gateway/index.cfm?fa=catalog.webCourseDetail&courseid=2717>

- **Analysis Widgets:**

- **Tutorial:** https://developers.arcgis.com/javascript/jshelp/intro_analysiswidgets.html
- **Samples:**
https://developers.arcgis.com/javascript/jssamples/analysis_summarizenearby.html
- https://developers.arcgis.com/javascript/jssamples/analysis_hotspot.html

Thank you...

- Please fill out the session survey:

First Offering ID: **1708**

Second Offering ID: **1746**

Online – www.esri.com/ucsessionsurveys

Paper – pick up and put in drop box



Understanding our world.