ArcGIS API for JavaScript: What’s New

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Learn about the latest advances in the ArcGIS API for JavaScript. This session is an overview of several important updates in the API and some of the smaller capabilities that you may not have noticed.
Quarterly releases
(with ArcGIS Online)

- July 2017: 4.4 and 3.21
- September 2017: 4.5 and 3.22
- December 2017: 4.6 and 3.23
- (April 2018): 4.7 and 3.24
3x and 4x
Webmap support in 4x

- 4.4: MapNotes, WMS, WMTS
- 4.5: KML
https://developers.arcgis.com

DevLabs

- 10 JSAPI DevLabs
- Example Apps
- Maps App JavaScript
Mapping & Patterns
2D & 3D
Layers
Widgets
Visualizations
Popups
Documentation
Mapping and Patterns
Kinetic panning

Video
Autocasting support

- Renderers, symbols, symbol layers
- geometries to add as graphics
require([ "esri/layers/FeatureLayer", ], function (FeatureLayer) {
    var diamondSymbol = {
        type: "simple-marker", // autocasts as new SimpleMarkerSymbol()
        style: "diamond",
        color: [ 255, 128, 45 ], // autocasts as new Color()
        outline: { // autocasts as new SimpleLineSymbol()
            style: "dash-dot",
            color: [ 255, 128, 45 ]
        }
    });
    var layer = new FeatureLayer({
        url: "https://services.arcgis.com/V6ZHFr6zdgNZuVG0/arcgis/rest/services/WorldCities/FeatureServer/0",
        renderer: {
            type: "simple", // autocasts as new SimpleRenderer()
            symbol: diamondSymbol
        }
    });
});
Autocasting a Graphic

```javascript
var pointGraphic = new Graphic({
  geometry: {
    type: "point", // autocasts as new Point()
    longitude: -71.2643,
    latitude: 42.0909
  },
  symbol: {
    type: "simple-marker", // autocasts as new SimpleMarkerSymbol()
    color: [226, 119, 40]
  }
});
```
Programming patterns

- Autocasting
- Working with Promises
- Promises compatibility
- Implementing Accessor
More Sessions

ArcGIS API 4.x for JavaScript: Programming Patterns and API Fundamentals

- Tuesday, March 06, 5:30 pm - 6:30 pm, Oasis 4
- Friday, March 09, 1:00 pm - 2:00 pm, Primrose B
Measuring in 3D
Layers
FeatureLayer performance updates
MapNotesLayer

- **API Reference - MapNotesLayer**
- **WebMap**
- **Sample MapNotesLayer**
StreamLayer

- filter features by attribute values and geometry
Additional Layers

- WMTSLayer, WMSLayer, KMLLayer
- **Samples**
Custom Layers

- BaseTileLayer
- BaseDynamicLayer
- BaseElevationLayer
- **Samples**
Related session

ArcGIS API for JavaScript: Creating Custom Layers and Layer Views

Wednesday, March 07

4:00 pm - 5:00 pm

Primrose C-D
Arcade
Arcade help

- https://developers.arcgis.com/arcade/index.html
- https://developers.arcgis.com/javascript/latest/guide/arc
Arcade - geometry support

- perform overlay, proximity, topological relationship testing, and measurement operations
Arcade support in 3D

- labels and elevation offsets
Using Arcade in Popups

- **Profile for Arcade Popups**
layer.popupTemplate = {
  expressionInfos: [{
    name: "participation-rate",
    title: "% of population 16+ participating in the labor force",
    // CIVLBFR_CY and POP_16UP fields are used to calculate
    // the labor force participation rate for each county
    expression: "Round(($feature.CIVLBFR_CY / $feature.POP_16UP)*100,2)"
  }],
  content: "In {NAME} county, {expression/participation-rate}% of the population
  participates in the labor force."
};
Arcade Session

ArcGIS API for JavaScript: Using Arcade with Your Apps

Thursday, March 08

1:00 pm - 2:00 pm

Primrose A
Widgets
- Directions widget 4.6
- 3D measurements
- Sketch 4.7 / SketchViewModel+Draw in 4.5
- **CoordinateConversion**
- Popup widget improvements and updates
- More widgets supporting widget framework
Visualizations
Point Clustering
Smartmapping - styling building data

- Supporting SceneLayers with mesh geometries
  - color and type renderer and
  - visual variable creators
Smartmapping - PointCloudLayer
Data driven visualization

- `typeRendererCreator` object
- generate unique value renderers
Popups
Mobile friendly popups
Documentation

- Site wide shortcuts
- Keyboard shortcuts
- Search enhancements
- Sandbox enhancements
Questions?

- https://developers.arcgis.com/javascript