

2011 Esri Developer Summit

Palm Springs, CA

What's New in ArcGIS API for Flex

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Agenda

- **Migrating from ...**
- **What's new in ArcGIS Server REST API**
- **What's new in ArcGIS API for Flex**
- **What's new in ArcGIS Viewer for Flex**
- **Getting more information**

A little history

- **Well Adopted**
- **Very active forum**
- **Community code gallery**
- **Release schedule**

	Flex API	Flex Viewer
December 2010	2.2	2.2
September 2010	2.1	2.1
July 2010	2.0	2.0 beta
2008-2009	1.0, 1.1, 1.2 and 1.3	

A little future

- **Next release**
 - April 2011 – 2.3
 - Later:
 - 2.4: Viewer with Builder
 - 3.0 beta to go along with 10.1 beta for ArcGIS

Migrating to 2.x

- **Based on Adobe Flex 4 SDK**
 - Adobe Flash Builder 4
 - Adobe Flash Player 10
 - Adobe Flex 4 SDK
- **Package and Class name changes**
- **See migrating to 2.x**
 - <http://help.arcgis.com/en/webapi/flex/help/content/migrating.htm>

Upgrading to 2.2

- **You can always use the newer API with an older ArcGIS Server**
 - Limited to capabilities of older version (9.3 and up)
 - Mapping and query
- **Some new API functionality requires ArcGIS Server 10, or even 10 SP 1.**



What's new in ArcGIS Server REST API

```
function onMapLoad() {  
    var map = new esri.Map("map", {  
        basemap: "topographic",  
        layers: [new esri.layers.ArcGISDynamicMapServiceLayer("http://services.esri.com/arcgis/rest/services/ESRI_Logo/MapServer")]  
    });  
    map.addLayer(new esri.layers.ArcGISDynamicMapServiceLayer("http://services.esri.com/arcgis/rest/services/ESRI_Logo/MapServer"));  
}  
  
function getDriverFeatures() {  
    var features = null;  
    for (var f=0; f<features.length; f++) {  
        var feature = features[f];  
        var polysymbology = feature.attributes["POLYSYMBOL"];  
        do {  
            var color = polysymbology["Color"];  
            var symbol = new esri.Symbol({color: color});  
            feature.attributes["Symbol"] = symbol;  
        } while (polysymbology["Color"] != null);  
    }  
    return features;  
}
```


What's new in the ArcGIS REST API for 10

- **Editing (FeatureService), Time-aware layers**
- **Stand-alone tables, Related records**
- **Features with attachments, AMF (faster queries)**
- **wkt – spatial reference well-known text**
- **Layer Definitions for Identify & Find**
- **Geocode service: outSR**
- **Image Server: mosaicRule, download raster, identify**
- **Network Analyst: closest facility and service area**
- **More GeometryService operations**

What's new in the ArcGIS REST API for 10 SP1

- Legend - Map service
- Query – returnCountOnly
- Map (layers/tables), Feature, Image, Geocode, NA
 - Service now returns currentVersion
- Map service now includes scale information for layers
- See: REST API what's new documentation
 - <http://links.esri.com/help/rest>



What's new in ArcGIS API for Flex

```
function getDriverFeatures() {  
    var map = new esri.Map({  
        width: 1000, height: 1000,  
        mapServerUrl: "http://services.esri.com/arcgis/rest/services/ESRI_Example1/MapServer",  
        map.addLayer(new esri.layers.ArcGISDynamicMapServiceLayer("http://services.esri.com/arcgis/rest/services/ESRI_Example1/MapServer"));  
    });  
    var features = new esri.layers.FeatureLayer({  
        url: "http://services.esri.com/arcgis/rest/services/ESRI_Example1/MapServer",  
        style: "simple",  
        symbol: new esri.symbol.SimpleFillSymbol({  
            color: "#0000FF",  
            style: "solid",  
            outline: new esri.symbol.SimpleLineSymbol({  
                color: "#0000FF",  
                style: "solid",  
                width: 2  
            })  
        })  
    });  
    map.addLayer(features);  
    map.show();  
}
```

ArcGIS API for Flex 2.0

- **FeatureLayer**
 - Selections
 - Editable layers
- **Editing:**
 - EditTool, Editor, TemplatePicker, AttributeInspector, AttachmentInspector
- **TimeSlider**
- **Clustering**
- **Localization**

ArcGIS API for Flex 2.1

- **WMS Layer and WMS Layer Info**
- **WebMercatorExtent and WebMercatorPoint**
- **Support for extending BaseTask**
 - **sendURLVariables, method (POST)**
- **DrawTool – circles, ellipses**
- **EditTool – rotating, scaling features, new events**
- **Attribute Inspector enhancements**
- **Colors – VGA color name support**

ArcGIS API for Flex 2.2

- **New Legend component**
- **Support for ArcGIS.com web maps**
- **Editor component – undo/redo**
- **Total query count (requires AGS 10 SP1)**
- **Version property**
 - **ArcGIS layers, LayerDetails, TableDetails**
- **Time aware layers – useMapTime property**
- **LayerInfo – minScale, maxScale**

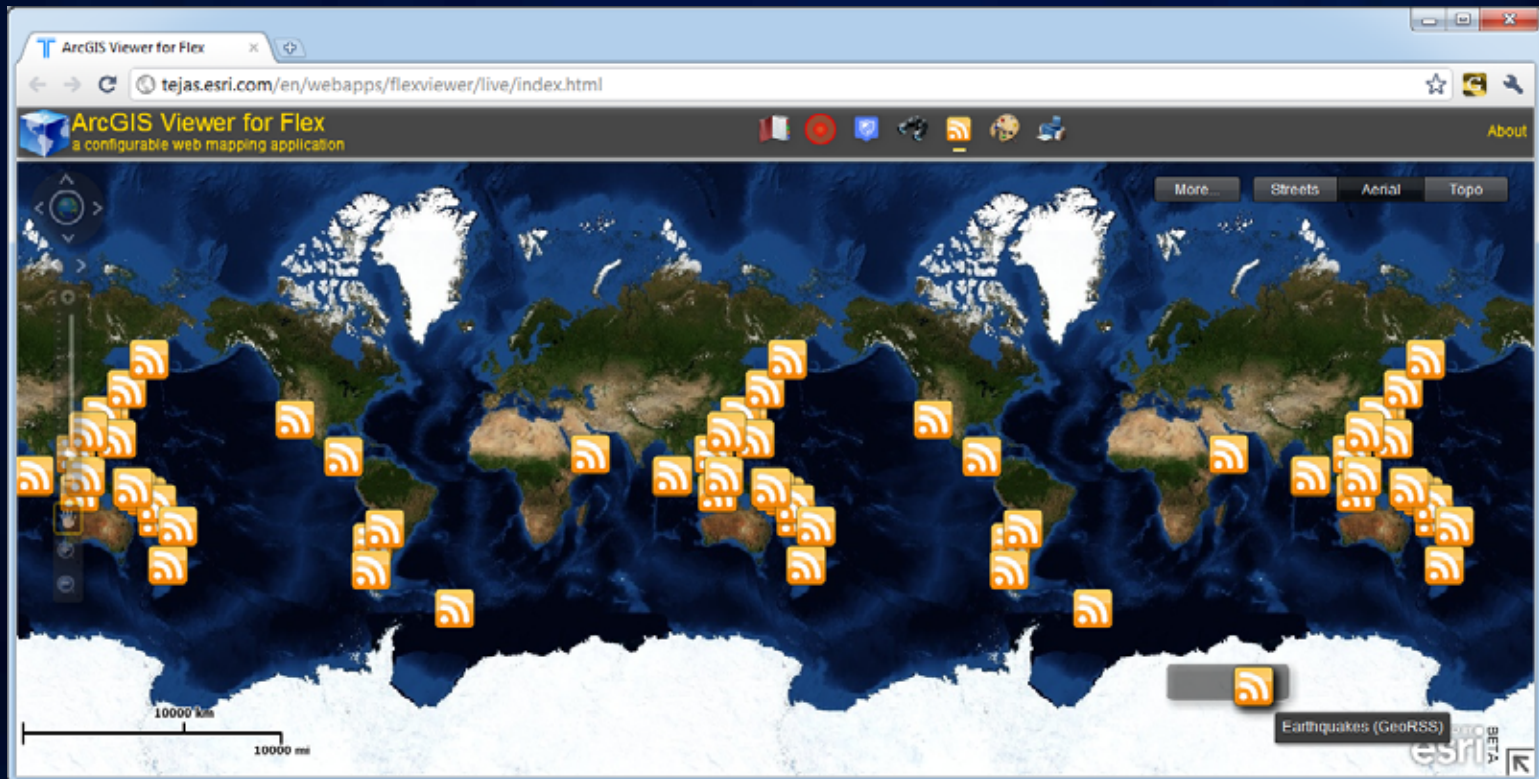
Skinning Template Picker / AttributeInspector

What about the next release?

- **ArcGIS API for Flex 2.3 is currently planned for release in April 2011.**

ArcGIS API for Flex 2.3

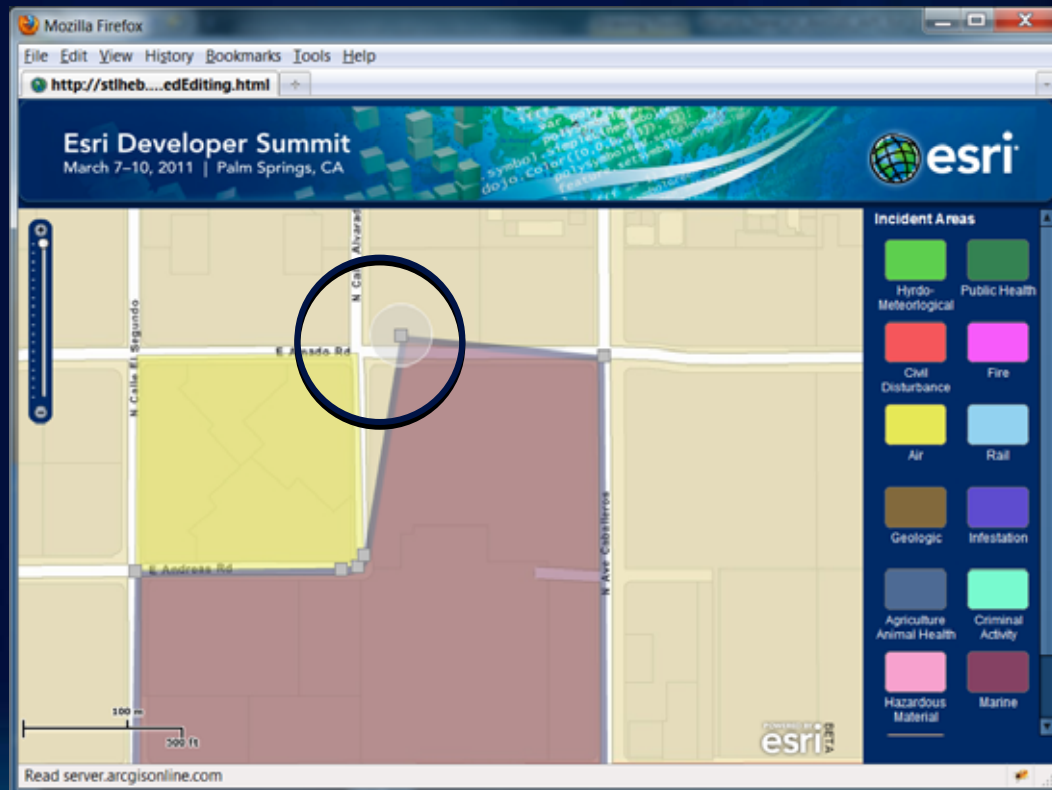
- Wraparound / repeating worlds



Wrap around

ArcGIS API for Flex 2.3

- Snapping
- Restrict what can be edited



Advanced Editing Demo

ArcGIS API for Flex 2.3

- **Support for new ArcGIS.com Web Maps**
 - Configured popups etc
 - Map notes
- **Author / configure your Web Map (ArcGIS.com)**
 - Basemap and operational layers

ArcGIS.com Web Maps

ArcGIS API for Flex 2.3

- Sparkified infoWindow

Sparkified InfoWindow

ArcGIS API for Flex 2.3

- **Wraparound / repeating worlds**
- **Support for new ArcGIS.com Web Maps**
- **Sparkified infoWindow**
- **Snapping**
- **Editing use cases: limit to add new features, move existing features, modify attributes.**
- **Bug fixes**
 - **Scaling extents**
 - **Editor remembers last geometry**
 - **Attribute inspector now has a DateField**



What's new in ArcGIS Viewer for Flex

```
function onMapClick(event) {  
    var map = new esri.Map({  
        width: 1000, height: 1000,  
        mapServerUrl: "http://s3.amazonaws.com/arcgis/arcgis/arcgis",  
        mapServerInfos: [{"url": "http://s3.amazonaws.com/arcgis/arcgis/arcgis"}]  
    });  
    map.addLayer(new esri.ArcGISMapServiceLayer("http://s3.amazonaws.com/arcgis/arcgis/arcgis", {  
        info: {  
            format: "image/png",  
            f: "png",  
            noTiled: true  
        }  
    }));  
    map.on("click", function(event) {  
        var features = results; // results from the query  
        for (var f=0; f<features.length; f++) {  
            var feature = features[f];  
            if (feature.geometry.type === "Point") {  
                var polysymbol = new esri.PolySymbol({  
                    color: "#FF0000",  
                    size: 5  
                });  
                do {  
                    polysymbol.setColor(0, 0, 0, 0.5);  
                    feature.symbol = polysymbol;  
                } while (true);  
            }  
        }  
    });  
}
```

Road ahead

- **ArcGIS API for Flex 2.3**
- **ArcGIS Viewer for Flex 2.3**

- **Compatible with Flex 4.x and Flash Builder 4.x**

What's next for Adobe

- **Adobe FlashBuilder 4.5**
- **Adobe Flash Catalyst 5.5**
- **Flex SDK 4.5**
- **Mobile Projects**
 - **Targeting platforms, screens, devices**
 - **Android**
 - **iOS**

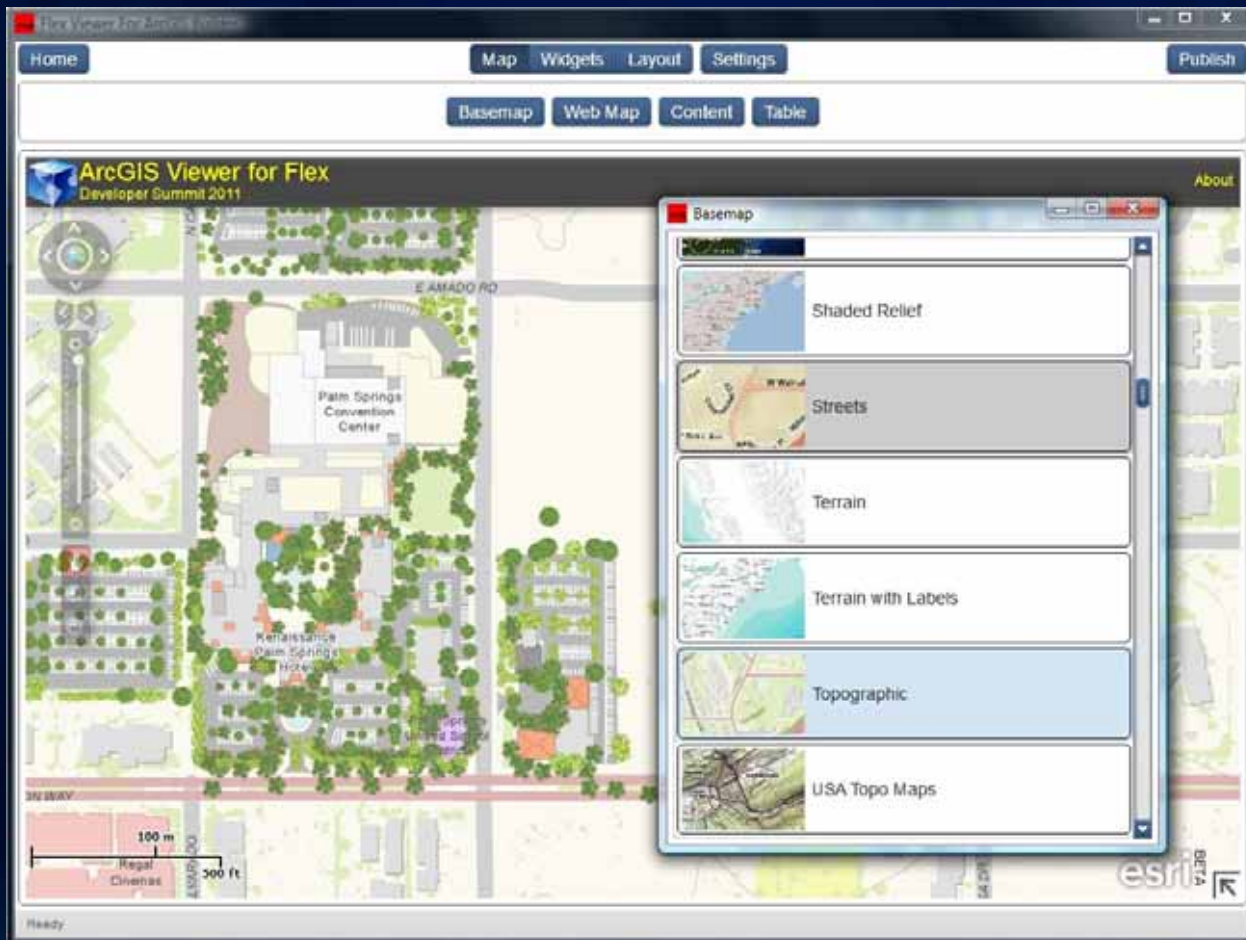
The background is a dark blue gradient with a grid of light blue lines. A glowing horizontal bar is positioned across the middle of the page. The word "Mobile" is written in white, bold, sans-serif font on the right side of the glowing bar.

Mobile

ArcGIS Viewer for Flex - Builder

- Part of ArcGIS Viewer for Flex 2.4
- Configuration schema will remain the same
- AIR application

ArcGIS Viewer for Flex - Builder



ArcGIS API for Flex - Builder

3.0 and 10.1

- 10.1 goes with 3.0 Web APIs
- 10.1 beta <-> 3.0 beta

Getting more information

```
function onMapClick(evt) {  
    // Create a new map instance  
    const map = new Map({  
        target: document.getElementById('map'),  
        styleUrl: 'https://api.mapbox.com/styles/v1/mapbox/streets-v11?access_token=pk.eyJ1IjoiY29udGVudG91dW1hcnR1b3R5IiwiaWF0IjoiMTY1NzA0MjQ5MCJ9.eyJ1IjoiY29udGVudG91dW1hcnR1b3R5IiwiaWF0IjoiMTY1NzA0MjQ5MCJ9',  
    });  
    map.addLayer(new VectorLayer({  
        features: [new Feature({  
            geometry: new Point(100, 100),  
            properties: {  
                'id': '1',  
            },  
        })],  
    }));  
    map.addLayer(new TileLayer({  
        url: 'https://api.mapbox.com/styles/v1/mapbox/streets-v11?access_token=pk.eyJ1IjoiY29udGVudG91dW1hcnR1b3R5IiwiaWF0IjoiMTY1NzA0MjQ5MCJ9.eyJ1IjoiY29udGVudG91dW1hcnR1b3R5IiwiaWF0IjoiMTY1NzA0MjQ5MCJ9',  
    }));  
    map.on('click', function(evt) {  
        console.log('Clicked at: ' + evt.coords);  
        // Get the feature at the clicked location  
        const feature = map.getFeatureAt(evt.coords, map.getLayers(), {  
            map: map,  
            layers: map.getLayers(),  
            tolerance: 10,  
        });  
        if (feature) {  
            console.log('Feature properties: ' + JSON.stringify(feature.getProperties()));  
        }  
    });  
}
```

Where can I get more information?

Adobe and Esri resources

- **Esri**

- <http://resources.arcgis.com>
- **Forums, samples**
- <http://links.esri.com/flex>
- <http://links.esri.com/flexviewer>

- **Adobe**

- <http://www.adobe.com/devnet/flex.html>
- <http://www.adobe.com/devnet/flex/videotraining.html>
- <http://www.adobe.com/devnet/flex/tourdeflex.html>

Esri Training for Web Developers

<http://www.esri.com/training>



- **Instructor-Led Courses**
 - [Introduction to ArcGIS Server](#)
 - **Building Web Applications Using the ArcGIS API for [Flex](#), [JavaScript](#), or [Microsoft Silverlight/WPF](#)**
- [Online Training Seminars](#)
 - **Free, one-hour presentation and demos by Esri technical experts**
 - **Live seminar broadcast on a new topic every month**

Esri Training for ArcGIS Server Developers

<http://www.esri.com/training>



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DevSummit Agenda: Flex Technical Sessions

- **Advanced Development with the ArcGIS API for Flex**
 - **Wed 2:45pm, Thu 1:30pm Catalina/Madera (RH)**

DevSummit Agenda: Demo Theater

- **Building Site Selection & Market Analysis Apps with the Business Analyst Flex API**
 - **Wed 3:00pm Demo Theater 1 - Oasis 1 (PSCC)**

Summary

- **Migrating from ...**
- **What's new in ArcGIS Server REST API**
- **What's new in ArcGIS API for Flex**
- **What's new in ArcGIS Viewer for Flex**
- **Getting more information**



Please complete the session
survey!

Questions?



esri