



# ArcGIS Web Viewers and Templates

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**Esri Developer Summit  
Middle East & Africa**

19-21 November 2013  
Park Hyatt Dubai



# What's new in the ArcGIS Viewer for Flex

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# ArcGIS Viewer for Flex

```
graph TD; A[ArcGIS Viewer for Flex] --- B[ArcGIS API for Flex]; A --- C[ArcGIS Online / Portal / Orgs]; A --- D[ArcGIS Server];
```

The diagram illustrates the components of ArcGIS Viewer for Flex. A central green box at the top is connected by a vertical line to three light gray boxes below it. Each connection is made via a horizontal line branching off the vertical line.

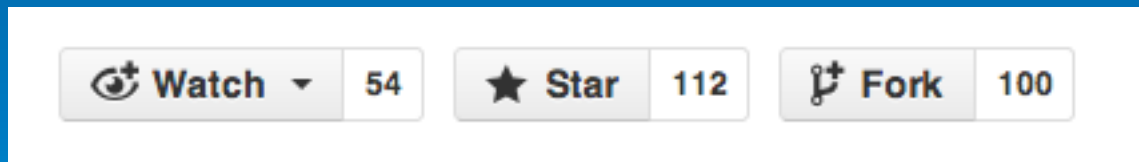
ArcGIS API for Flex

ArcGIS Online / Portal / Orgs

ArcGIS Server

# github.com/Esri/arcgis-viewer-flex

**Esri's most popular open-source project**  
**Tens of thousands of downloads**



# Flex Viewer 3.5 requirements

Build and configure

## Application Builder

- Adobe AIR 3.5+

Flash Player 11.1+

IIS or Apache

- Read/write access to folder containing Viewer application

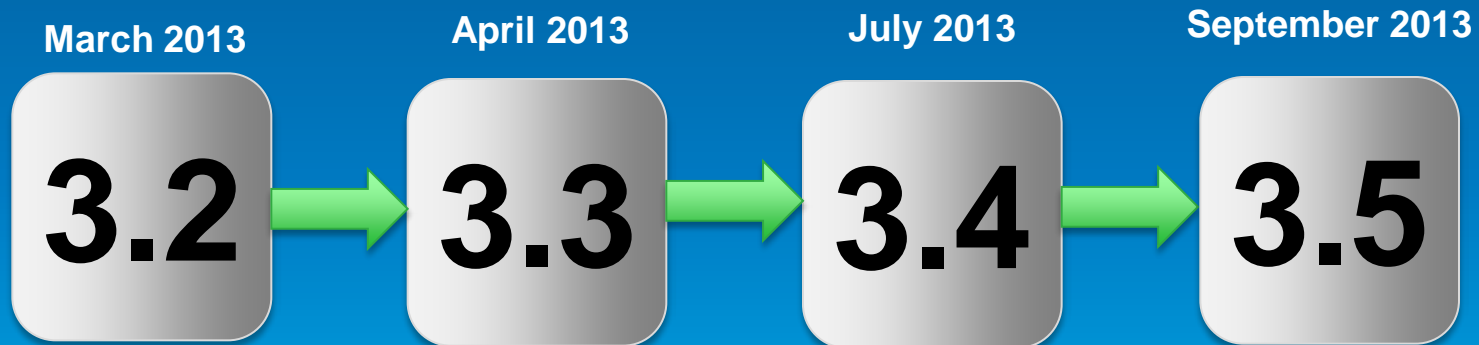
# Flex Viewer 3.5 development requirements

- Adobe Flex 4.6+ SDK or
- Apache Flex 4.8+ SDK
- Flash Player 11.1+
  - Debugger version
- Flash Builder 4.6+
- ArcGIS API for Flex
- ArcGIS Viewer for Flex, [GitHub](#)

# Esri: ArcGIS for Flex

API and Viewer

- Well established
- Active user community
- Consistent release schedule



## 3.2 improvements (March '13)

- Directions widget
- 6 new locales
  - Danish, Estonian, Hebrew, Latvian, Lithuanian, and Portuguese (Portugal)
- Layer list and TOC includes swatches
- Application Builder
  - WMS, WMTS, and Web tiled layers
  - Right-to-left (RTL)



## 3.3 improvements (April '13)

- Portal updates
- Many bug fixes and enhancements
  - E.g. allow map service without matching feature service to be used in Attribute Table widget

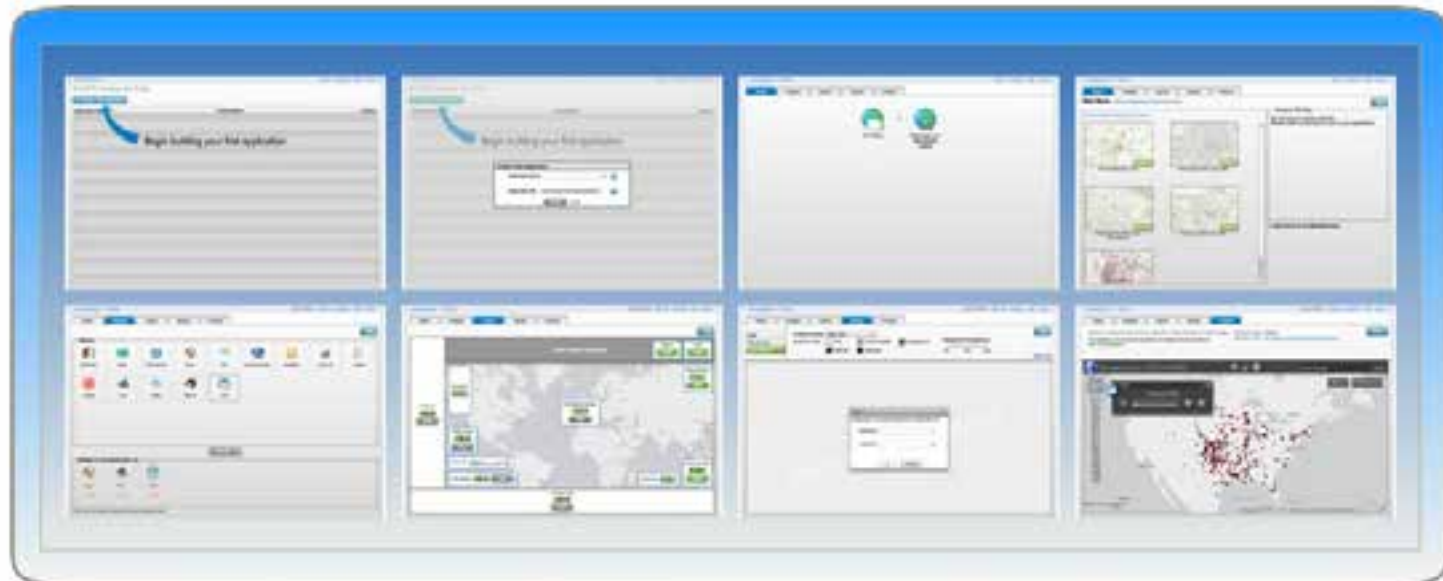
## 3.4 improvements

- **ArcGIS 10.2**
  - Portal for ArcGIS
- **Data validation**
- **Support for setting date format and useutc on date fields (Attribute Table and Edit widgets)**
- **Search extent can be specified by configuration (Directions, Locator, Header Search)**
- **Image service and WMS legend support**
- **Application Builder source code is available on GitHub**

[github.com/Esri/arcgis-viewer-builder-flex](https://github.com/Esri/arcgis-viewer-builder-flex)

## arcgis-viewer-builder-flex

This is the source code for the ArcGIS Viewer for Flex Application Builder (a.k.a Flex Viewer Application Builder). Learn more about Flex Viewer Application Builder at [ArcGIS Viewer for Flex resource center](#).



## 3.5 improvements

- **Oauth Single Sign-in**
- **Many bug fixes in the Viewer**
- **Many bug fixes to Application Builder**

# OAuth 2.0

**For accessing ArcGIS Online content  
Single Sign-in Pattern**

**5 Steps for adding OAuth to the viewer**

<https://developers.arcgis.com/en/authentication/user-logins.html>

ArcGIS for Developers

PLATFORMFEATURESPLANSDOCUMENTATIONSUPPORT

Authentication

OAuth 2.0-based apps

Getting Started

User logins

User logins and OAuth 2.0

JavaScript, Flex, and other browser-based apps

iOS, Android, and WPF apps

PHP, JSP, ASP.NET, and other server-based apps

App logins

App logins and OAuth 2.0

Non OAuth 2.0-based apps

## User logins and OAuth 2.0

Apps that support user logins use OAuth 2.0 to allow users to log in to the ArcGIS platform. Apps based on the application guiding the user to log in to the platform above is common to all types of apps: browser-based Web apps, server-based Web apps, Device, tablet and desktop-based apps use client side browser controls to integrate with the application. The application receives a user access token in return that it can use to access the platform APIs.

The access token needs to be sent to the platform on all requests. Apps working with the Identity Manager of the SDK. The Identity Manager takes care of using the token directly with the ArcGIS REST APIs are responsible for including the token in each REST request.

The details are slightly different for each type of application:

- User logins via JavaScript, Flex, and other browser-based apps
- User logins via iOS, Android, WPF, and other device and desktop apps
- User logins via PHP, JSP, ASP.NET, and other server-based apps

# Step 1 – Share your application

HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION 2

## Demographic Test

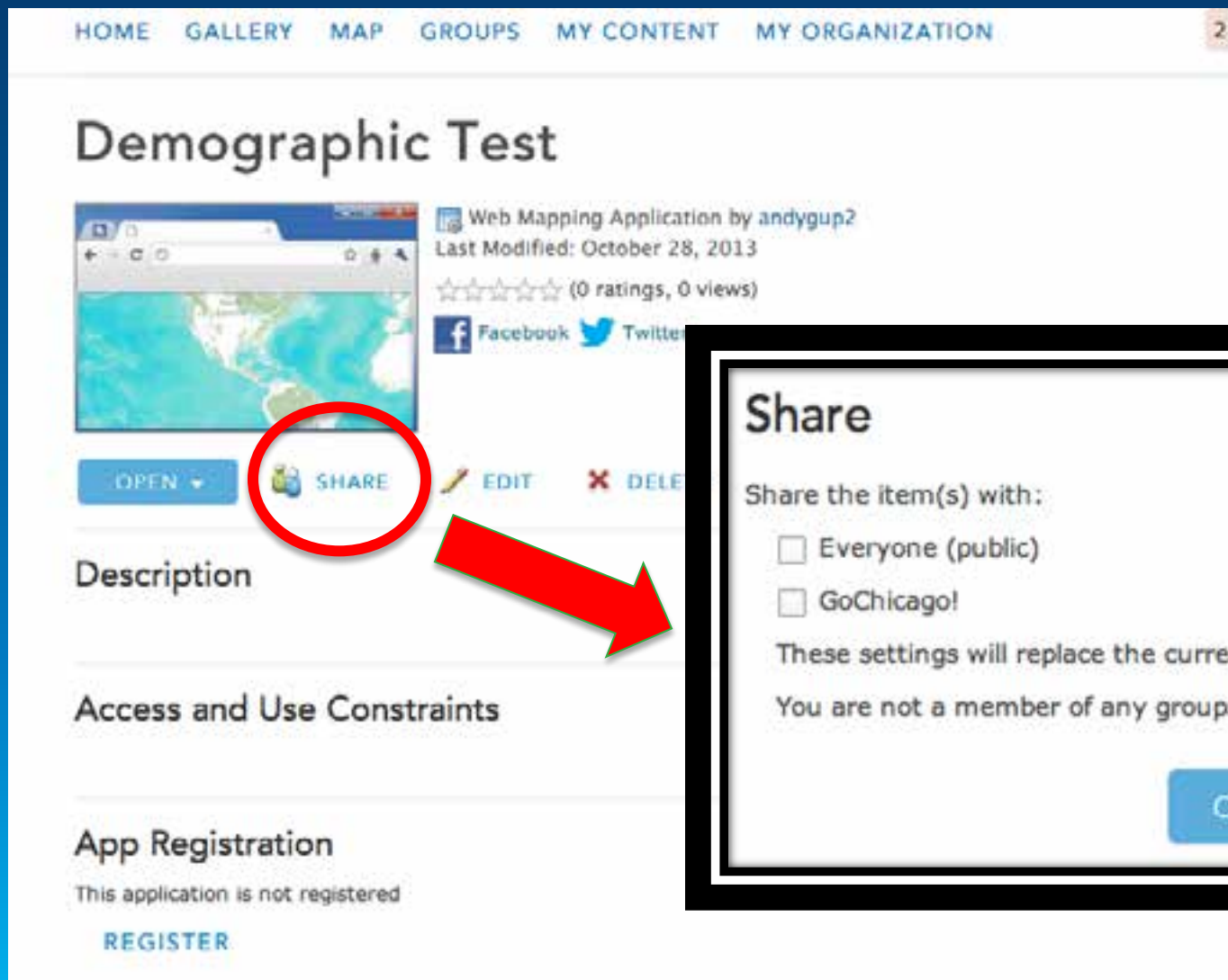
Web Mapping Application by andygup2  
Last Modified: October 28, 2013  
☆☆☆☆ (0 ratings, 0 views)  
Facebook Twitter

OPEN SHARE EDIT DELETE

Description

Access and Use Constraints

App Registration  
This application is not registered  
[REGISTER](#)



The screenshot shows a web application interface with a navigation bar at the top containing links: HOME, GALLERY, MAP, GROUPS, MY CONTENT, and MY ORGANIZATION. A small orange box with the number '2' is in the top right corner. The main content area is titled 'Demographic Test'. Below the title is a thumbnail image of a web browser displaying a map. To the right of the thumbnail, the text reads 'Web Mapping Application by andygup2', 'Last Modified: October 28, 2013', and '☆☆☆☆ (0 ratings, 0 views)'. Below this are social media icons for Facebook and Twitter. At the bottom of the main content area, there are four buttons: 'OPEN', 'SHARE', 'EDIT', and 'DELETE'. The 'SHARE' button is circled in red. A red arrow points from the 'SHARE' button to a 'Share' dialog box that is overlaid on the right side of the screen. The dialog box has a title 'Share' and a close button (X) in the top right corner. It contains the text 'Share the item(s) with:' followed by two checkboxes: 'Everyone (public)' and 'GoChicago!'. Below the checkboxes, it says 'These settings will replace the current settings.' and 'You are not a member of any groups.' At the bottom right of the dialog box are two buttons: 'OK' and 'CANCEL'.

## Step 2 – App Registration

---

### App Registration

This application is not registered

[REGISTER](#)

---



## Step 2 – App Registration

### Register

×

App Type:

Browser

Redirect URI:

Browser

Native

Server

Multiple

REGISTER

CANCEL

## Step 2 – App Registration

### Register

×

App Type:

Redirect URI:

## Step 2 – App Registration

---

### App Registration

App ID:	AEjUUGD7DpkMbb8R
App Secret:	c7d485b2c4f744f78634738e6ddbc5d3
App Type:	browser
Redirect URI's:	<a href="http://edn1.esri.com/demos/viewer2/">http://edn1.esri.com/demos/viewer2/</a>

---

## Step 3 – ViewerContainer.mxml

```
private function initializeHandler(event:FlexEvent):void
{
    IdentityManager.instance.enabled = true;

    //ADD THIS CODE
    var oAuthInfo:OAuthInfo =
        new OAuthInfo("your-app-id");

    IdentityManager.instance.registerOAuthInfos(
        [ OAuthInfo ]
    );
}
```

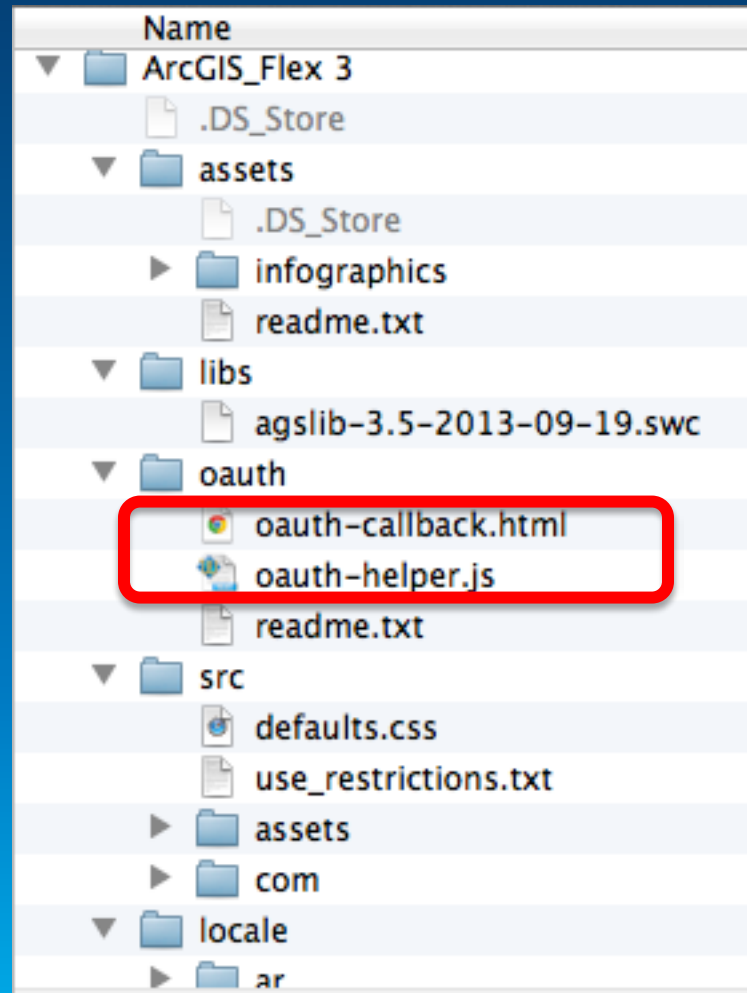
## **Step 4 – Add OAuth Wrapper Files**

**Copy oauth-callback.html & oauth helper.js**

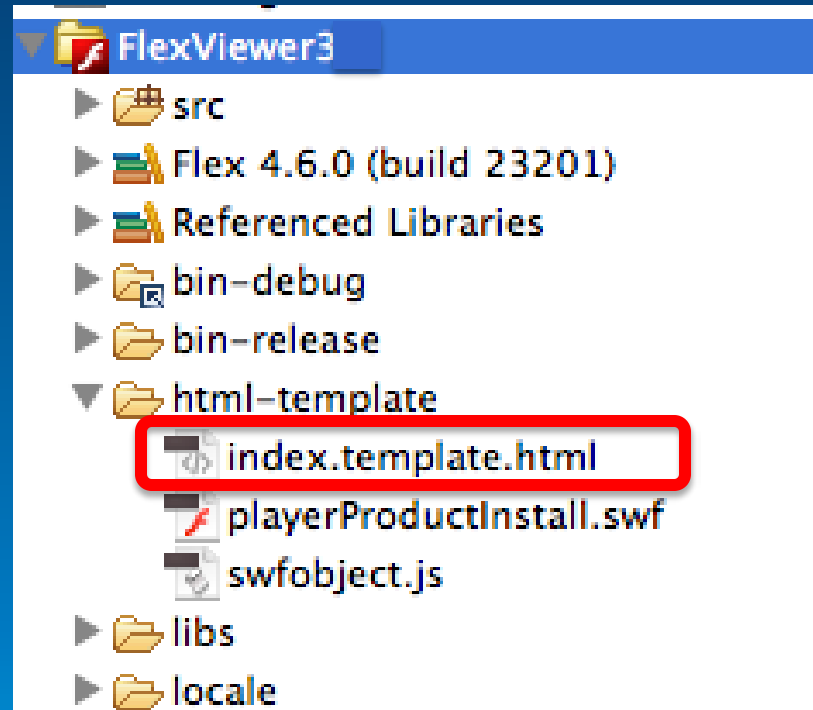
**Paste them into Flex Project > src**

**Add reference to index.template.html**

## Step 4 – Add OAuth Wrapper Files



## Step 4 – index.template.html



## Step 5 – Modify index.template.html

```
<!--${useBrowserHistory} END Browser History required section -->  
<script type="text/javascript" src="oauth-helper.js"></script>  
<script type="text/javascript" src="swfobject.js"></script>
```



# Custom Module Template

<https://github.com/lheberlie/sample-module-viewer-builder-flex>

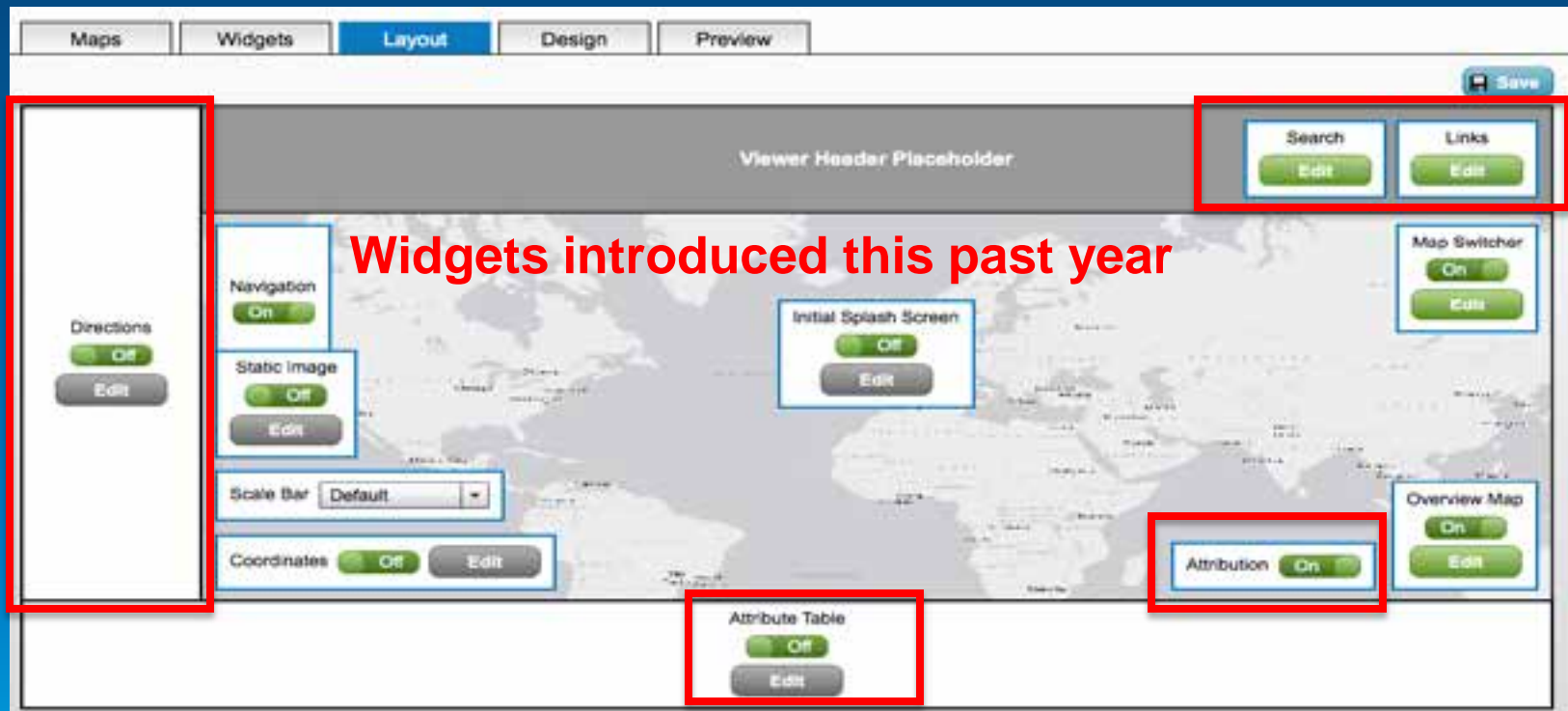
# Custom Widget Skins

Template for custom skinning of the Viewer

<https://github.com/lheberlie/custom-widgets-skins-viewer-flex>

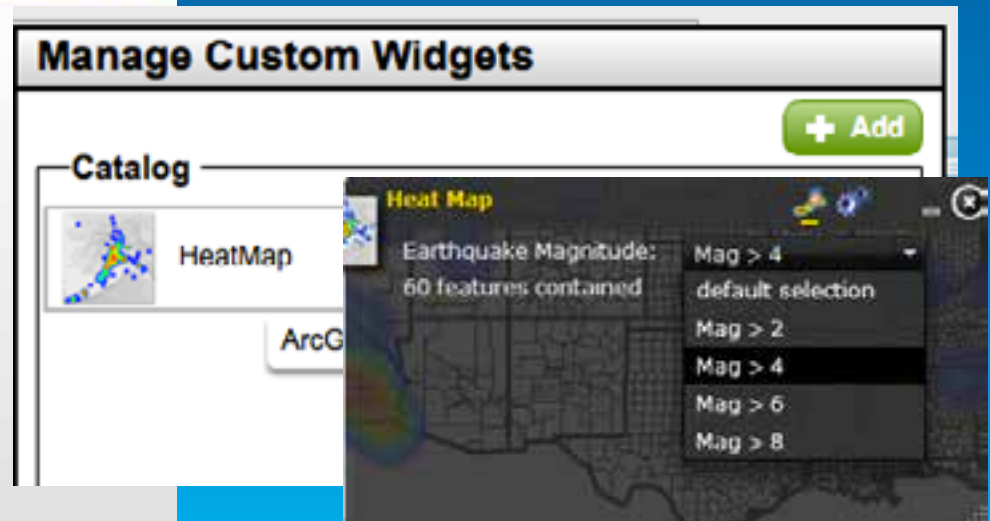
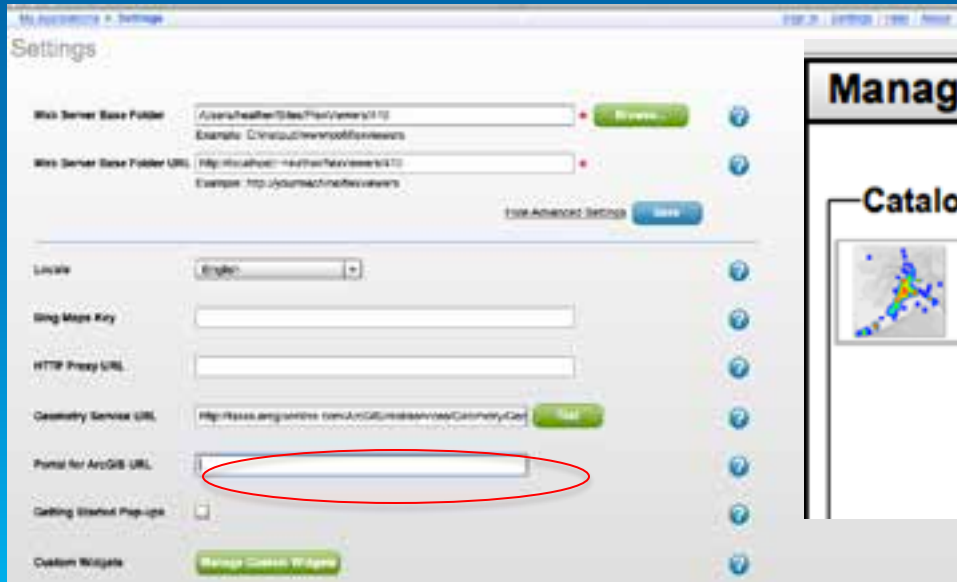
# Layout widgets

## Customize the layout settings



# Importing custom widget into App Builder

- Easy dialog allows importing custom widgets
- Advanced Settings
- Add packaged widget (ZIP)



# Deployment scenarios

- Copy the entire web application's folder to hosting web server
- Export option in Application Builder provides copy functionality also
- Access application from client browser



**QUESTIONS???**



Understanding our world.