

TRANSITIONING APPLICATIONS TO THE WEB APPBUILDER

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WEB APPLICATION BUILDERS

{A BRIEF HISTORY}

CREATE AN APPLICATION IN ARCGIS SERVER

{ VERSIONS 9.2, 9.3, 10 }



GIS Server Status

Name: TEST
Status: Online
Started: 1/4/2007 1:42:53 PM
Messages: View

Related Help Topics

[Overview of ArcGIS Server administration in Manager](#)
[Getting started after install](#)
[Working with an ArcGIS Server system](#)

Welcome to ArcGIS Server Manager

With ArcGIS Server, you can share your geographic information in many ways.
What do you want to do?



[Publish a map, globe or other GIS resource as a service](#)



[Create a web application](#)



[Manage my GIS server](#)

WorldMap - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Home

Address http://bc.0399/WorldMap/mapviewer.s?width=320&height=404#

WorldMap Add Tab

WorldMap

Search Attributes

Results

- Search By Text : Africa (1)
 - StreetMap (1)
 - 3

FID	3
Shape	Polygon
CONTINENT	Africa

Map Contents

- ESRI_StreetMap_World_2D
- StreetMap

Search Attributes

Search for Africa

Search

1174 5000 0 1174700 Meters

Done Local intranet

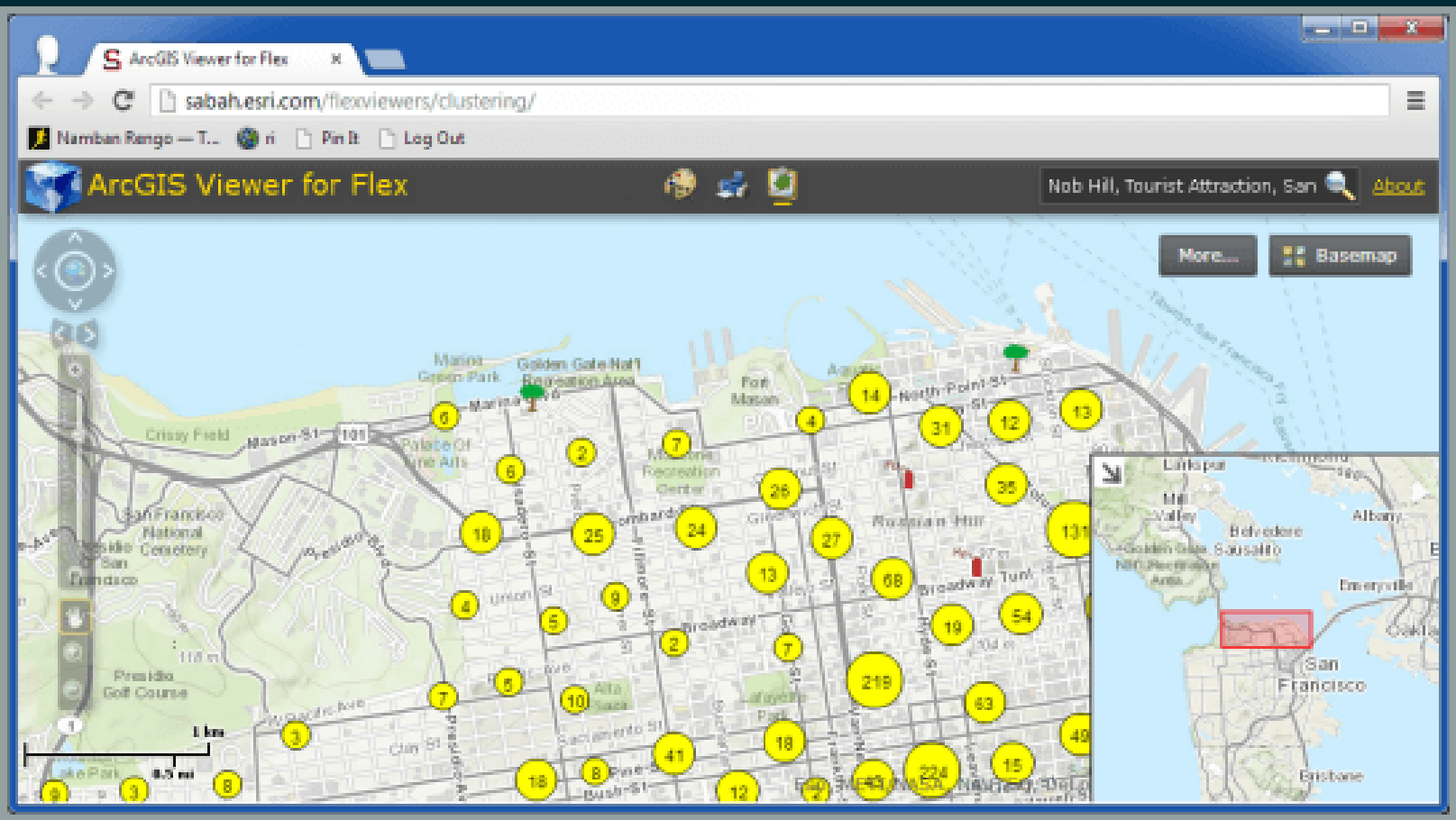
FLEX & SILVERLIGHT

2009-2014

```

▼<configuration>
  <title>ArcGIS Viewer for Flex</title>
  <subtitle>a configurable web mapping application</subtitle>
  <logo>assets/images/logo.png</logo>
  ▼<style>
    <colors>0xFFFFFFFF,0x333333,0x101010,0x000000,0xFFD700</colors>
    <alpha>0.8</alpha>
  </style>
  ▼<!--
    replace the following url with your own geometryservice
  -->
  <geometryservice url="http://tasks.arcgisonline.com/ArcGIS/rest/services/Geometry/GeometryServer"/>
  <!-- UI elements -->
  <widget left="10" top="50" config="widgets/Navigation/NavigationWidget.xml" url="widgets/Navigation/NavigationWidget.swf"/>
  <widget right="0" bottom="0" config="widgets/OverviewMap/OverviewMapWidget.xml" url="widgets/OverviewMap/OverviewMapWidget.swf"/>
  <widget right="20" top="55" config="widgets/MapSwitcher/MapSwitcherWidget.xml" url="widgets/MapSwitcher/MapSwitcherWidget.swf"/>
  <widget left="0" top="0" config="widgets/HeaderController/HeaderControllerWidget.xml" url="widgets/HeaderController/HeaderControllerWidget.swf"/>
  ▼<map wraparound180="true" initialextent="-14083000 3139000 -10879000 5458000" fullextent="-20000000 -20000000 20000000 20000000" top="40" addarcgisbasemaps="true">
    ▼<operationallayers>
      ▼<layer label="Demographics" type="tiled" visible="false" alpha="0.5" url="http://server.arcgisonline.com/ArcGIS/rest/services/Demographics/USA_Median_Household_Income/MapServer">
        <sublayer id="1" popupconfig="popups/PopUp_Demographics_BlockGroups.xml"/>
        <sublayer id="2" popupconfig="popups/PopUp_Demographics_Tracts.xml"/>
        <sublayer id="3" popupconfig="popups/PopUp_Demographics_Counties.xml"/>
        <sublayer id="4" popupconfig="popups/PopUp_Demographics_States.xml"/>
      </layer>
      <layer label="Fires" type="feature" visible="false" alpha="1.0" popupconfig="popups/PopUp_Fires.xml"
        url="http://sampleserver3.arcgisonline.com/ArcGIS/rest/services/Fire/Sheep/FeatureServer/0"/>
    </operationallayers>
  </map>
  ▼<!--
    widgets organized into widget containers that manage close/open etc
  -->
  ▼<!--
    supported layout property options: horizontal(default)|float|vertical|fix
  -->
  ▼<widgetcontainer layout="float">
    <widget label="Bookmarks" left="430" top="90" icon="assets/images/i_bookmark.png" config="widgets/Bookmark/BookmarkWidget.xml" url="widgets/Bookmark/BookmarkWidget.swf"/>
    <widget label="Louisville Police" left="590" top="280" icon="assets/images/i_police.png" config="widgets/Query/QueryWidget_Louisville_PoliceStations.xml"
      url="widgets/Query/QueryWidget.swf"/>
  </widgetcontainer>

```



{ 2014 }



The next release of each ArcGIS API and Viewer (for Flex and Silverlight) will be significant in that they are the last planned releases of two once-popular technologies. While technical support will be available for both APIs and viewers through June of 2016, maintenance of these products will be discontinued.

<http://blogs.esri.com/esri/supportcenter/2014/11/10/final-release-and-support-plan-for-the-arcgis-apis-viewers-for-flex-and-silverlight/>

WEB APPBUILDER FOR ARCGIS

- September 2014: ArcGIS Online
- December 2014: Developer Edition

WEB APPBUILDER FOR ARCGIS

- Create responsive HTML/JavaScript apps that run anywhere
- Configurable themes
- Configurable widgets
- Developer community

WEB APPBUILDER - CASE STUDY

CITY OF NOVI, MICHIGAN



24 (!) UNIQUE SILVERLIGHT APPS

Community Basemap - Aerials Present & Past - Subdivision & Condo Locator - Zip Code Finder - Land Records and Parcels - Community Park Locations - Voting Precincts - Benchmark and Survey information - Zoning District - Future Land Use - Existing Land Use - FEMA Flood Hazard Areas - Wetlands Information - Woodlands Information - Roadway Jurisdiction - Roadway Weight Classifications - 2014 PASER Ratings - Development Projects - Economic Development Assets - Police Districts - Emergency Relief Centers - Non-Motorized Routes and Trails - School District Attendance Areas - Elementary Attendance Areas

ISSUES...

- Apps require plugin to work
- Work best in Internet Explorer
- Not supported on iOS devices

STEP 1

INVENTORY CURRENT APP FUNCTIONALITY



City of Novi, Michigan
Internet Mapping Portal
 Current Theme: Community Basemap

Map Layers Change Theme Active Layer: Point of Interest Map Tips Search Measure / Markup Coordinates Overview Map Print Help

Base Map 2012 Aerial

Map Layers

- Points of Interest
- Points of Interest
- Base Layer
- Base Map
- ESRI Reference
- New HD Novi Base

Overview Map

Search Tool

Text Search Map Search Buffer Search

Quick Search Active Layer: Point of Interest

Search For:

Value:

Search

Measurement / Markup Tools

Measure Markup

GPS Coordinates

Select a coordinate system below, then type coordinates and click "Place Marker", or click on the map to get coordinates for that location.

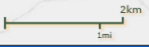
Coordinate System

Current Coordinate System:
Decimal Degrees

Y / Lat

X / Long

Name First Baptist Church Novi
Address 45301 ELEVEN MILE
Website
[Additional Record Information / Add to Results](#)



Map Tips (Popups) - Address Search - Parcel Search - Map
Search - Buffer Search - Measure - Markup - GPS
Coordinates - Overview Map - Print - Help - Export to .CSV

STEP 2

CONFIGURE WEB MAP

POP-UP CONFIGURATION

The image shows a map application interface with two overlapping dialog boxes. The background is a map with street names like 'TWO VE MILE' and 'ADOW'. The 'Custom Attribute Display' dialog is the primary focus, containing a rich text editor toolbar with options for bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, indent, and outdent. Below the toolbar, there are fields for 'Font' and 'Size' (set to 'x-small'). The main content area shows a preview of the attribute display with the text 'Type: {TYPE}' and 'Address: {ADDRESS}, {CITY} {ZIPCODE}'. Below this, the word 'Link' is displayed with a blue underline. At the bottom of the dialog are 'OK' and 'CANCEL' buttons. A smaller 'Link Properties' dialog is open over the 'Link' text, with fields for 'URL' (containing '{URL}') and 'Description' (containing 'Link'), and 'Set' and 'Cancel' buttons.

Custom Attribute Display

Use the area below to define, format, and lay out the information you want to display.

B I U A [Color] [Background Color] [List] [Link] [Unlink] [Indent] [Outdent]

Font [] Size x-small

Type: {TYPE}

Address: {ADDRESS}, {CITY} {ZIPCODE}

Link

Link Properties

URL: {URL}

Description: Link

Set Cancel

OK CANCEL

FEATURE SEARCH SETTINGS

Application Settings Select the tools and capabilities to enable in applications that access this web map

- Routing
- Measure Tool
- Basemap Selector
- Find Locations [-]

Hint text

By Layer

Layer	Field	Condition	
<input type="text" value="Points of Interest"/> ▼	<input type="text" value="DESCRIPTION"/> ▼	<input type="text" value="Contains"/> ▼	✕

[ADD LAYER](#)

By Address

STEP 3

CONFIGURE WEB APPLICATION

COMPARE & MATCH FUNCTIONALITY

Old App | New App

Map Tips | Web Map Pop-Up

Location Search | Search Widget

Map Search | Query Widget

Measure, Markup | Draw Widget

GPS Coordinates | Coordinate Widget

Overview Map | Overview Map Widget

Print | Print Widget (w/ Print Service)

Help | About Widget

Export to .csv | Attribute Table Widget

CUSTOM SCALES

Customize Visible Scales ✕

Type a scale number +


✕ Delete ↺ Reset to map's initial scales

2,311,162.217155
1,155,581.108577
577,790.554289
288,895.277144
144,447.638572
72,223.819286
36,111.909643
18,055.954822
9,027.977411
4,513.988705
2,256.994353
1,128.497176
564.248588

OK Cancel

SEARCH WIDGET

Configure Geocoder ✕



Geocoder

change widget icon

[Learn more about this widget](#)

Add and configure geocode services or feature layers as search sources. These specified sources determine what is searchable within the search box.

+ Add Search Source

Name
City of Novi Address Search
Points of Interest

Suggestions are not available because the geocoding service doesn't support suggest capability.

Geocoder URL Set

Example: http://<myServerName>/arcgis/rest/services/World/GeocodeServer

Geocoder Name

Placeholder Text

Maximum Results

QUERY WIDGET

Query Tasks [+ Add New](#)

Name
Search Points of Int...
Search Points of Int...
Parcels on Map
Parcels by Property...
Parcels by Tax ID

Data Source [Set](#)

Task Name

[Filter Definition](#) [Results Setting](#)

[+ Add a filter expression](#) [+ Add an expression set](#)

[×](#)

Value Field Unique

Ask for values Case Sensitive

Prompt

Hint

COORDINATE WIDGET

[+ Add Output Coordinate System](#)

Output Coordinate System Name	Actions
GCS_WGS_1984	
NAD_1983_StatePlane_Michigan_South_FIPS_2113_Feet_Intl	

STEP 4

LEVERAGE THE DEVELOPER COMMUNITY

{OPTIONAL}

ESRI ON GITHUB

<https://github.com/Esri/solutions-webappbuilder-widgets>

WEB APPBUILDER CUSTOM WIDGETS

<https://geonet.esri.com/groups/web-app-builder-custom-widgets>

WEB APPBUILDER - CUSTOMIZATION RESOURCE LIST

<https://geonet.esri.com/blogs/myAlaskaGIS/2015/02/20/web-appbuilder-developer-edition-customization-resource-list>

APPLICATION REQUIREMENT



Buffer Search with CSV Export

{not possible with OOTB Query widget}

DEVELOPER COMMUNITY TO THE RESCUE!

Enhanced Search Widget Version 1.2.0.1 - 8/24/15

 Version 34

Created by Robert Scheitlin, GISP  on Jul 14, 2014 3:57 PM. Last modified by Robert Scheitlin, GISP  on Aug 24, 2015 6:53 AM.

Live Preview Site 

<https://geonet.esri.com/docs/DOC-1731>

{DEMO}

Enhanced Search Widget - GeoNet

Web AppBuilder - Widgets Folder

Web AppBuilder - Root

STEP 5

DEPLOY!

1. Deploy applications in ArcGIS Online
2. Deploy applications on your own web server

TAKEAWAYS

QUESTIONS?



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