Agenda

• Product overview
• Web AppBuilder for ArcGIS tour
• Customization
• Enterprise deployment
• Community and resources
• Summary
The ArcGIS Platform enables Web GIS
Enabling GIS Everywhere

Available in the Cloud . . . and On-Premises

Simple
Integrated
Open
Creating web apps with ArcGIS
ArcGIS Configurable Application Templates

ArcGIS Online and Portal for ArcGIS
**HTML 5 Viewer needed**

It seems like HTML 5 is going to be one of the leading (if not the leading) GIS web development platforms. Flex and Silverlight APIs, however, have their respective Viewers created. They allow for easy and rapid creation of sophisticated web applications. There is nothing similar for JavaScript API and HTML 5, while there are legions of GIS users who are not very well versed in programming. Can ESRI look into catering to this users too, with respect to HTML 5?

Tags: HTML 5, Viewer, Web, Development

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**JavaScript API Builder**

Create a JavaScript API Application Builder like those created for the Flex and Silverlight APIs.

Tags:

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14 Comments | Posted by: alexroma to ArcGIS Server, Web Apps and APIs Feb 23, 2012

2 Comments | Posted by: TONIFAIRBANKS to ArcGIS Server, Local Government, Web Apps and APIs May 10, 2012
Web AppBuilder for ArcGIS

Create new web apps without programming

40+ widgets
Web AppBuilder for ArcGIS

- Functionality within ArcGIS Online and Portal for ArcGIS
  - ArcGIS Online since Dec 2014
  - Portal for ArcGIS in 10.3 and later
- Enables new apps to be created without coding
  - Interactive WYSIWYG user experience
  - Supports 2D and 3D apps
  - 2D apps runs on any device, in a web browser
- Fully integrated with the ArcGIS Platform
- Built with ArcGIS API for JavaScript and HTML 5 technology
- Extensible
Web AppBuilder for ArcGIS Tour

Demo
2 Options to Work with Web AppBuilder

1. **Within ArcGIS Online or Portal for ArcGIS**
   - Embedded in the web site
   - Activate from the map viewer or My Contents

2. **Developer Edition**
   - Separate download and installed locally
   - Sign into ArcGIS Online or Portal for ArcGIS
   - Support for custom widgets and themes

• Both offer the same “builder” user experience, same capabilities
Web AppBuilder for ArcGIS

Live Sites Showcase

This group contains a collection of live web apps that were built using Web AppBuilder for ArcGIS. The intent is to showcase the many different use cases that Web AppBuilder for ArcGIS can address, as well as more.

Tags:
- Accessibility
- ACT Parks and Conservation Service
- Address
- Airport Runways
- Agriculture
- Alabama
- Alaska
- Alberta
- Asset
- Australia
- Belleville
- Birds
- Directive
- Boone County
- Boone County GIS
- Boone County Planning
- Commission Bridges broken main
- Buildings
- Cadastral Calhoun
- California
- Canberra
- Capital Improvement Plan
- Capital plan
- capital program
- Carnegie Museum of Natural History
- ccpa
- Cities City of Kitakyushu
- Climate-Smart Cities
- Closures
- CMOM
- Collector
- Commercial
- Trucking Con
ditions de circulation
- consent decree
- conservation
- construction
- Construction County
- Cumberland County
- Custom
- Widget DC Demographics
- DEP
- Deshe developers
- Dogo DOT
- drinking water
- Duncan
- Département de la
- Course du Sud
- Economic Development
- ecosystem
- Edmonton Engineering
- Facilities
- Farmland
- First Edition

Web AppBuilder for ArcGIS

Live Sites Showcase
Usage of Web AppBuilder

- # of apps made in ArcGIS Online: 110,900+
- # of Developer Edition downloads: 12,000+
- Pre-UC Survey 2015: 70% are using it

- Very active user community on GeoNet
  - Web AppBuilder for ArcGIS
    - 11th most active
  - Web AppBuilder Custom Widgets
    - 1st most active
  - Custom widgets by the community: over 2100+ downloads
Workflow for Creating a new App

1. Create new app
2. Pick style
3. Select map
4. Add widgets
5. Configure attributes
6. Preview and publish

2D or 3D
Available Widgets for 2D Web Apps

- **Widget**: a chunk of code that can be added in a modular fashion; provides functionality
- 40+ available; enable core web mapping application capabilities
Some Notable Widgets

- Navigation
- Query
- Search
- Geocoding
- Editing
- Geoprocessing
- Printing

- Legend
- Layer List
- Overview Map
- Attribute
- HeaderComponent
Run 2D Apps on Any Device
Other enhancements in ArcGIS Online March 2016 Update

Create new Web Maps

Optional: save app state
Available Widgets for 3D Web Apps

- New 3D enabled widgets
- Some widgets rebuilt to work with 3D content
  - Work with Web Scenes
Leverage your organization’s Utility Services

- ArcGIS Online or Portal for ArcGIS
- Organization settings panel
Web Apps from Web AppBuilder

- Apps are hosted in ArcGIS Online or Portal for ArcGIS
- Become items in App author’s *My Contents*
- Option to download the app from Item Details page
  - Customize web app
  - Host in your own web server
Customization
2 Tiers of Customization

• **Enabling custom functionality – Configurator**
  - Add custom widgets to your apps
  - Non-developer

• **Extending custom functionality – Developer**
  - Create new widgets from scratch
  - Programmer
Using Custom Widgets/Themes in Your Apps

• Workflow
  - Download the source code for the app
  - Apply customizations as desired
  - Host in your own web server

• Help topic: Deploy Apps
GitHub: Custom Widgets by Esri

https://github.com/Esri/solutions-webappbuilder-widgets
https://github.com/Esri/WAB-Image-Services-Widgets

- Sample widgets by Esri Solutions and Raster teams
GeoNet: Custom Widgets shared by Community
https://geonet.esri.com/groups/web-app-builder-custom-widgets

• Mixture of enhanced and brand new widgets
• Approx. 30+ widgets
• Some supporting docs
Web AppBuilder Developer Edition
Developers.ArcGIS.com/web-appbuilder

• **Download and install locally**
  - Sign into ArcGIS Online or Portal for ArcGIS
  - Same “builder” user experience as embedded Web AppBuilder
  - Work with custom widgets and themes

• Provides extensibility framework for apps
• Leverages ArcGIS API for JavaScript
• Create web apps on your own computer
Web AppBuilder Developer Edition

Demo
Web AppBuilder and App ID

- Register Web AppBuilder Developer Edition with ArcGIS Online or Portal for ArcGIS with App ID
- Create new item for Web AppBuilder, generate App ID
  - App ID is used to enable users to sign into ArcGIS Online or Portal for ArcGIS with OAuth 2.0 authentication
  - Enables app to work with user content and work with utility services
Web AppBuilder Developer Edition Templates

- Added in Developer Edition v1.2
- Makes it even easier to deploy a new app
- Templates contain a pre-selection of widgets → purpose driven app
  - Option to add/remove widgets as you like
- You can create your own templates
Export Web Apps as New Templates

- Leverage Web AppBuilder to **create new templates** which can be used in the ArcGIS Online/Portal for ArcGIS map viewer

**Workflow**
- Select *Export As Template* option
  - Set configurable parameters
- Generates a new template item
- Add to a group
- Select group for the Map > Web App Templates option
Enterprise Deployment
Overview of Enterprise Implementation Patterns

Common Enterprise Patterns

More Common

- Portal for ArcGIS with Dev Edition
- ArcGIS Online with Dev Edition
- Portal for ArcGIS with Embedded Version
- ArcGIS Online with Embedded Version

Less Common
Install/Config Tips with Portal for ArcGIS

Pointing to a local JSAPI

```javascript
var apiUrl = 'http://webserver/webadaptor/jsapi/jsapi/';
```

Portal jsapi: http://webserver/webadaptor/jsapi/jsapi/
File location: C:\Program Files\ArcGIS\Portal\framework\jsapi

or

```javascript
{ 
  var apiUrl = 'http://webserver/webadaptor/jsapi/jsapi/';
  ...
}
```

File location: C:\Program Files\ArcGIS\Portal\framework\jsapi
Install/Config Tips
How to run WebAppBuilder

Run as a Windows service
install node.js, navigate to server/
  npm install
  npm run-script install-windows-service

Run as a user

start.bat

install node.js, navigate to server/
  node server.js

Web AppBuilder

Web AppBuilder

Web AppBuilder
Install/Config Tips
Adding your app to your portal
Install/Config Tips

Registering your app (not necessary on web-tier-authenticated portals)

Description

App Registration
Register your app to generate an App ID.

REGISTER
Install/Config Tips
Using AppID for OAuth

App Registration
App ID: iXcvYWD49GyBBCZY
App Secret: Show Secret
App Type: browser
Redirect URI's: http://mywebserver.myorg.com:3344/webappbuilder,
https://mywebserver.myorg.com:3344/webappbuilder

Specify the URL to your organization or Portal for ArcGIS
http://mywebserver.myorg.com/portal

Provide the App ID for Web AppBuilder registered in the portal you specify above (?)

If need to edit: server/signininfo.json

```json
{
    "portalUrl": "http://[webserver]/[webadaptor]",
    "appId": "iXcvYWD49GyBBCZY",
    "supportsOAuth": true,
    "isWebTier": false
}
```
Install/Config Tips
Sharing with your organization

Share

Share the item(s) with:
- Everyone
- Portal for ArcGIS
- These groups:
  - Featured Maps and Apps
  - Web App Templates

These settings will replace the current settings.

OK  CANCEL

My Organization  >  Settings

Home page

Item page  >  Share
Disable the embedded Web AppBuilder
Portal only (not ArcGIS Online)

C:\Program Files\ArcGIS\Portal\customizations\10.4\webapps\arcgis#home\js\arcgisonline\config.json

\...\nmanageLicensesEnabled: true,
findFeaturesWebMapEnabled: true,
webAppBuilderEnabled: false,
webAppBuilderDownload: true,
sceneViewerEnabled: true,
restrictOrganizationPageToAdmin: false,
\...
Using Web AppBuilder in HTTPS

- **WAB ships with a self-signed cert**
  - Not ideal for enterprise users
- **You can use your own certificate and replace**
  - Domain or third-party CA cert
  - Server certificate and key pair
- **Create .pem files**
  - Convert .pfx certificate into a certificate/key pair
  - Replace cacert.pem and cakey.pem in \server
  - Restart WAB
Deployment Scenarios

- **Embedded Versions**
  - EASY! No deployment needed

- **WAB Apps Used as Templates**
  - Deployed through the portal
  - Hosted within WAB (not ideal)

- **Dev Edition WAB**
  - Manual deployment required
  - Fits within existing enterprise framework
Deploying WAB Apps

- **Download**
  - App Author or Developer

- **Deploy**
  - Sys Admin

- **Register**
  - App Author or Developer

- **(re)Configure**
  - Developer
Community and Resources
GeoNet – Esri Community

• 2 places for Web AppBuilder user community
• Both are very active
• Top GeoNet contributors post in these forums/places


- Created, owned, and maintained by the community
- Rebecca Strauch
Web AppBuilder for ArcGIS Resources

- **Online help documentation**

- **Developer Edition help documentation**
  https://developers.arcgis.com/web-appbuilder/guide/xt-welcome.htm

- **Esri Live Training Seminar**: *Get Started with Web AppBuilder for ArcGIS (60 mins)*

- **Esri Web course**: *Creating Web Applications Using Templates and Web AppBuilder for ArcGIS (2-4 hours)*
Summary

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Thank you

Please remember to fill out a survey