Web AppBuilder for ArcGIS: JavaScript Apps Made Easy

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Agenda

- Product overview
- Web AppBuilder for ArcGIS tour
- Customization
- Community and Resources
- Summary
The ArcGIS Platform enables Web GIS
Enabling GIS Everywhere

Simple
Integrated
Open

Available in the Cloud . . .
. . . and On-Premises
Creating web apps with ArcGIS
ArcGIS Configurable Application Templates
ArcGIS Online and Portal for ArcGIS

Create a New Web App
Choose your application template.

Web Map
Web AppBuilder for ArcGIS

• Create new web apps without programming

50+ widgets
Why Web AppBuilder?
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
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 Live Sites Showcase
Usage of Web AppBuilder

- Currently hosted in ArcGIS Online

Total AppBuilder Apps
198,857

Access Type
- Private (36.1%)
- Public (34.72%)
- Account (15.77%)
- Shared (13.41%)
# Community

The GeoNet Community page is shown with a table of recommended places. The table includes columns for Place and Latest activity.

<table>
<thead>
<tr>
<th>Place</th>
<th>Latest activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Mapping</td>
<td>March 7, 2017, 2:08 PM</td>
</tr>
<tr>
<td>Web AppBuilder Custom Widgets</td>
<td>March 7, 2017, 2:29 PM</td>
</tr>
<tr>
<td>ArcGIS Online</td>
<td>March 7, 2017, 9:46 PM</td>
</tr>
<tr>
<td>Python</td>
<td>March 7, 2017, 11:29 PM</td>
</tr>
<tr>
<td>ArcGIS API for JavaScript</td>
<td>March 7, 2017, 6:41 PM</td>
</tr>
<tr>
<td>Survey123 for ArcGIS</td>
<td>March 7, 2017, 4:57 PM</td>
</tr>
<tr>
<td>Web AppBuilder for ArcGIS</td>
<td>March 7, 2017, 2:54 PM</td>
</tr>
<tr>
<td>ArcGIS for Server</td>
<td>March 7, 2017, 11:03 PM</td>
</tr>
</tbody>
</table>

The filter by tag option is highlighted, with the sort by most followers option also being shown.

Additional features include a login prompt to follow, share, and participate in places of interest and to join groups.
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
Demo

Web AppBuilder for ArcGIS Tour
Run 2D Apps on Any Device
Available Widgets for 2D Web Apps

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

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

- Legend
- Layer List
- Overview Map
- Attribute
- Add Data
- Select

Most frequently used Web AppBuilder widgets (public apps)
Available Widgets for 3D Web Apps

- 3D enabled widgets
- Some widgets rebuilt to work with 3D content
Demo

Creating 3D Apps with Web AppBuilder for ArcGIS
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
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 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
GeoNet: Custom Widgets shared by Community
https://geonet.esri.com/groups/web-app-builder-custom-widgets

- Mixture of enhanced and brand new widgets
- Approx. 35+ widgets
- Some supporting docs
- Custom widgets by the community: over 2400+ downloads
GitHub: Custom Widgets

• Some Dev sample widgets available from Esri
  - Solutions Team: [https://github.com/Esri/solutions-webappbuilder-widgets](https://github.com/Esri/solutions-webappbuilder-widgets)
  - Raster Team: [https://github.com/Esri/WAB-Image-Services-Widgets](https://github.com/Esri/WAB-Image-Services-Widgets)
Demo

Using Web AppBuilder
Developer Edition
Web AppBuilder Developer Edition Templates

- 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
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
Demo

Templates in Web AppBuilder for ArcGIS
Community and Resources
GeoNet – Esri Community

• 3 places for Web AppBuilder user community

• All are very active
• Top GeoNet contributors post in these forums/places


- Created, owned, and maintained by the community
- Rebecca Strauch
Road Ahead

• Support custom widgets in Portal for ArcGIS
• More features and enhancements
• Better Mobile support

*Not final – Content subject to change
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)

- **Esri Instructor Led course**: Configuring Web Apps Using Web AppBuilder for ArcGIS (1 day)
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