ArcGIS Experience Builder: An introduction

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What is ArcGIS Experience Builder?

Highly configurable

- Build web apps and pages
  - Explore **design** decisions with templates
  - Access ready-to-use **tools**
  - build custom tools

- Data driven
- Modern interface
ArcGIS Experience Builder Key Features

- Mobile optimization
- Flexible Design
- 2D and 3D in one app
- Interconnection between widgets
- Integration with other ArcGIS apps
- Extensibility
**Southeast AK Herring Surveys 2021**
ADF&G Commercial Fisheries
Southeast AK - Region 1 herring survey data collected using Esri Field Maps app are shown in these interactive maps.

**Is My River Fit to Play in?**
The Rivers Trust has released this interactive map which aims to help shed the light on the reality of sewage pollution and allow river users to weigh up the risks before taking to the water.

**Power Plants and Neighboring Communities Mapping Tool**
The map identifies the locations of power plants and highlights the key demographics of people living within three miles of those plants.

**ASEAN Biodiversity Dashboard**
The ASEAN Centre for Biodiversity and NatureServe created the ASEAN Biodiversity Dashboard to provide access to an interactive, online platform for visualizing trends and geographic variation in biodiversity indicators.

**RenewMI Project Viewer**
This project viewer contains past and present projects from the Remediation and Redevelopment Division (RRD). These are state-funded environmental remediation projects, as well as a few non-state funded remediation sites of interest.

**Kansas Situation Report**
The Kansas Situation Report brings together data from Emergency Management, Weather and Mapping organizations to provide the most up-to-date and accurate information possible in support of emergency response, situational awareness and preparedness across the State of Kansas.

**Heinz Field Explorer**
Built by Houseal Lavigne Associates, LLC., this app explores seating and beer distribution at Heinz Field in Pittsburgh, PA.

**Empowering Photogrammetry with SURE Software**
SURE software, along with ArcGIS, enables users to seamlessly capture, process, and analyze high-quality 3D data from imagery and LiDAR data.

**Mars2020 Perseverance Rover**
This web app tracks the progress of Perseverance Rover and Ingenuity Helicopter on the surface of Mars in both space and time.

**Ohio Sentry Hazard Awareness**
Hazard awareness maps for the watch office, including current and severe weather outlook, flooding potential, hurricane tracker, drought, earthquakes and wildfires.

**Gray’s Reef National Marine Sanctuary**
Help conserve the incredible marine resources of Gray’s Reef National Marine Sanctuary with this virtual fishing guide.

**PhotoMappers Public Portal**
NAPSG Foundation hosts a volunteer-powered platform for quickly finding, mapping, and sharing the location of disaster photos found in news stories and social media platforms.
A Canvas for Creativity
ArcGIS Experience Builder Editions

• Online and Enterprise Editions
  - ArcGIS Online URL: https://experience.arcgis.com/
  - ArcGIS Enterprise 10.8.1 and up

• Developer Edition
  - Download and install locally
ArcGIS Experience Builder Licensing

• Essential Apps Bundle
  - Must have a Creator or GIS Professional user type to create experiences

• ArcGIS Developer subscription
  - For developers who are not part of an ArcGIS organization to use Developer Edition
An experience

GUI builder

Design/config

1. Template
2. Widget
3. Data source
4. Theme
5. Extensibility
Default Templates

- Fullscreen
- Scrolling
Public Templates
Available in ArcGIS Online

Business Analyst Templates

Showcase New Features
Types of Widgets

- Map centric
- Data centric
- Page elements
- Menu and toolbars
- Layout
- Section
Widget Style

Size & Position

Background, Border & Box shadow

Animation
Widget Action

- Widgets talk with each other
- Data action allows end users to click on
- Message action applies automatically at runtime
Message Action

- A trigger (source) broadcasts a message
- Targets listen to the message
- Targets take actions

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Target</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent Changes from Map 1</td>
<td>Map 2</td>
<td><strong>Zoom to</strong> the same extent as Map 1</td>
</tr>
<tr>
<td>Framework (data)</td>
<td><strong>Filter Data Records</strong> For example, List 1 displays only features within the current map extent</td>
<td></td>
</tr>
</tbody>
</table>
Layout Widgets

Row

Fixed Panel

Sidebar

Section & View Navigation
Data Source

• Manage and share data at the app (framework) Level
• Show connections between
  - layers
  - fields
  - widgets
Output Data Source

- Generated by widgets at runtime
  - Chart, Query, Directions
- Can be other widget’s data source
  - Table, Text
Dynamic Content

- Dynamically display attribute values, statistics or expressions
  - Apply to Image, Text, Button, List, Card, and Embed
  - Connect to data
  - Choose a view from data source
Dynamic Expression

- Get the statistic result of a numeric field
- Use the expression editor to input text, numbers, fields, and functions
- Format numbers
Dynamic Linked Text

1. Connect to data
2. Select data
3. Edit Text format
4. Set link
5. Enter Web address
Manage Utility Service

- Manage utility services at the app level
- Shared and used by widgets
Theme

- Define a set of color and font
- Customized options
  - Color
  - Font style
  - Font size

Default

Dark

Vivid

Ink

Mysterious

Shared
Page

- Header, Footer, Open with window
- **Outline** helps navigate widgets on the page
- Page templates
Window

• Display Splash screens or information
• Fixed mode - shown in a fixed position like a splash screen
• Anchored mode - shown around the widget that triggers it
• Window templates
Screen Group

Engaging Experience
Mobile Optimization

- Provides screen sizes for Mobile, Tablet, and Desktop
- Configure the app differently on devices with one URL
Widget Pending List

- A place to store widgets available on other screen sizes
- Move widgets to the pending list if you want to
  - Change widget’s content
  - Use less widgets
  - Use different different
Integration With ArcGIS Apps

- Survey widget for Survey123
  - Pass field values from Map to Survey
  - Submit, Edit, View forms
- Business Analyst Infographic
- Floor Filter for Indoors
- Embed Dashboards, Storymaps, Web AppBuilder
  - Pass URL parameters
Publish Apps

Draft
Published
Unpublished changes
Generate templates

- Create your own starters for reuse and branding
- Shared with others
What’s New & Coming
New Widgets In 2022

Print
Timeline
Draw
Directions
Floor Filter
Utility Network Trace (beta)
Business Analyst Infographic (beta)
3D Toolbox
Road Map

Near Term
- Add custom widgets in ArcGIS Enterprise 11 & up
- Coordinates widget

Mid Term
- Basemap Gallery widget
- Swipe widget
- Emergency Response Guide widget
- Threat Analysis widget
- Public Notification widget
- Add Data widget
- Accessibility

Long Term
- Geoprocessing widget
- Analysis widget
- Situation Awareness widget
- Image Measurement widget
- Oblique Viewer widget
Helpful Resources

- Experience Builder Developer Edition
- Experience Builder Online Edition
- Gallery
- Product page
- Community
- Blog

- Learn lessons
- YouTube Playlist (full video)
- YouTube Playlist (short video)
- YouTube Release Playlist