

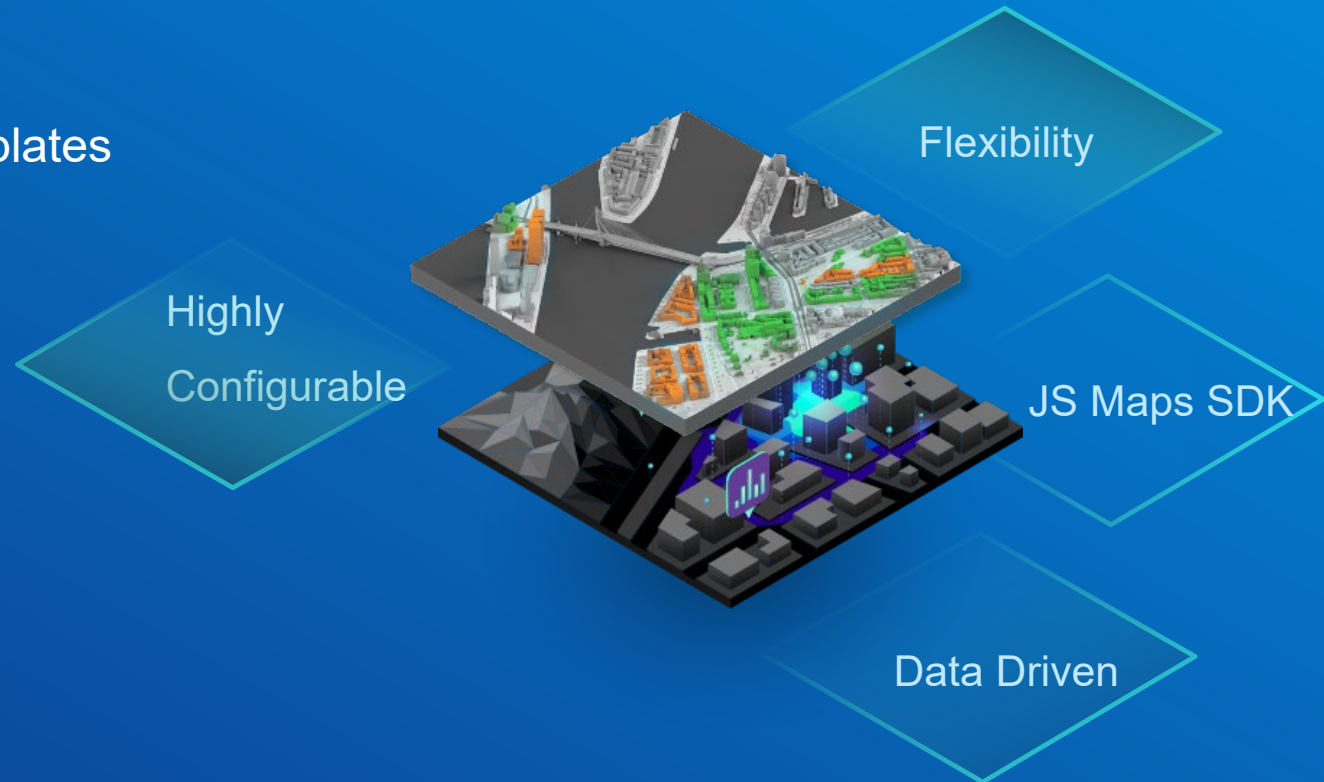
Introduction to ArcGIS Experience Builder

Tom Schwartzman

What Is ArcGIS Experience Builder

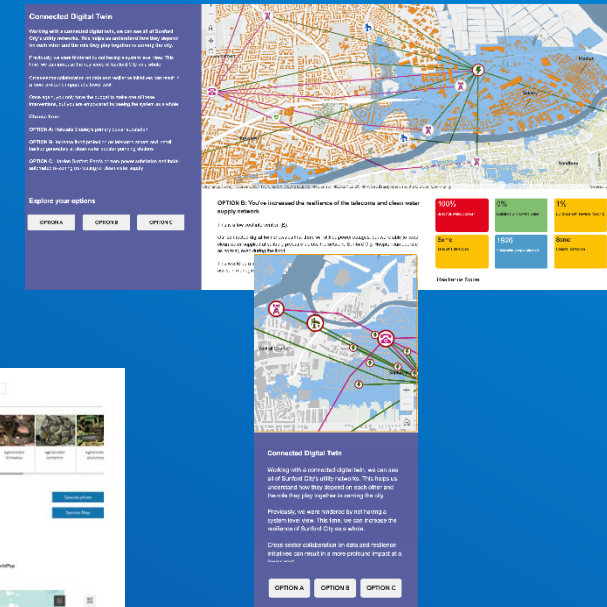
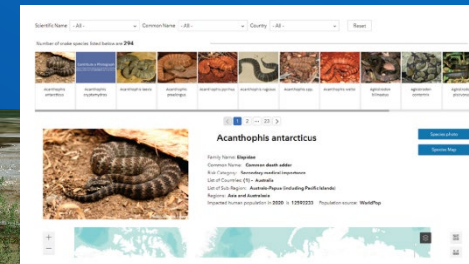
Create the exact app you want

- Build web apps and pages
 - Explore design decisions with templates
 - Access ready-to-use widgets
 - Build custom tools
- Data driven
- Modern interface



ArcGIS Experience Builder Key Features

- Mobile optimization
- Flexible Design
- 2D and 3D in one app
- Widget Interconnection
- Integration with other ArcGIS apps
- Extensibility





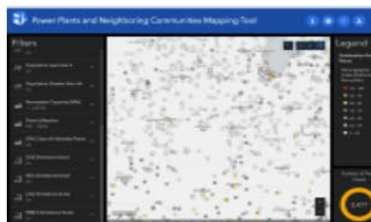
Southeast AK Herring Surveys 2021

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.



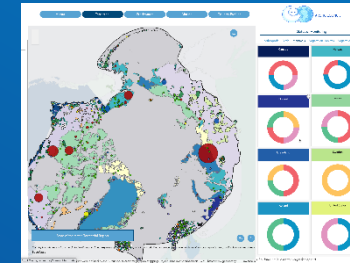
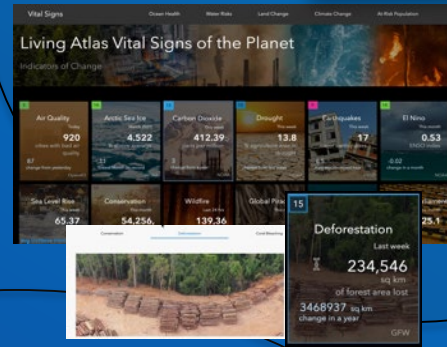
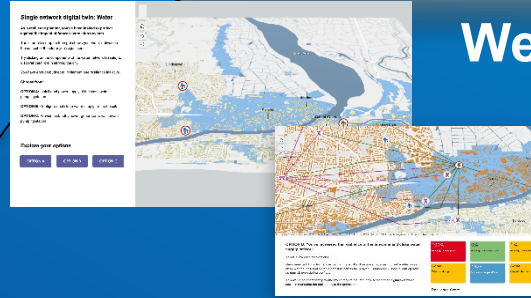
PhotoMappers Public Portal

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.

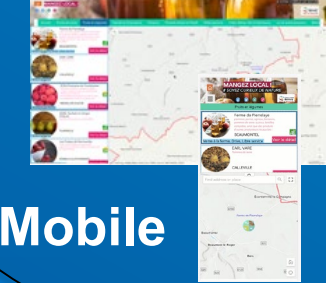
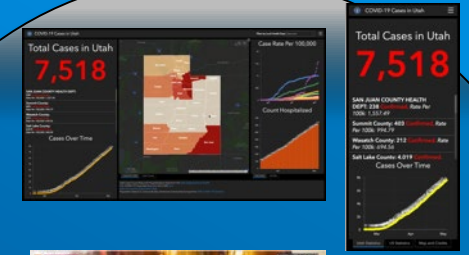
3D



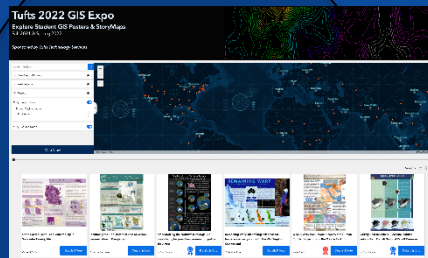
Web pages



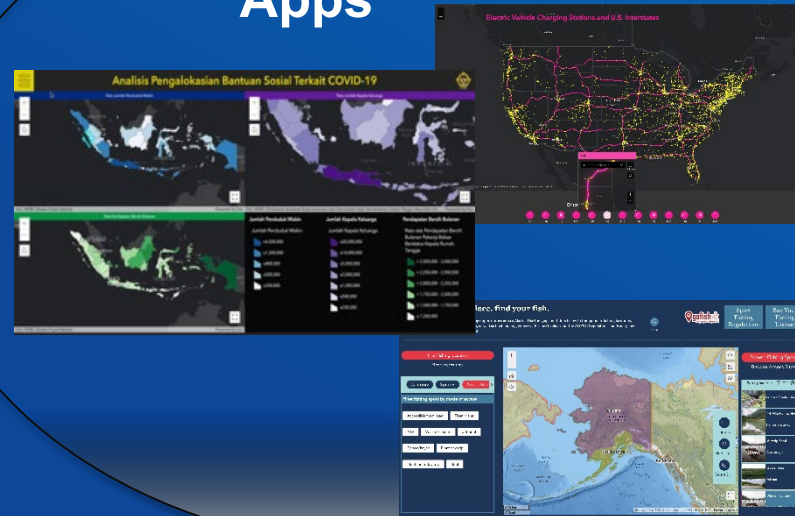
Mobile



Gallery



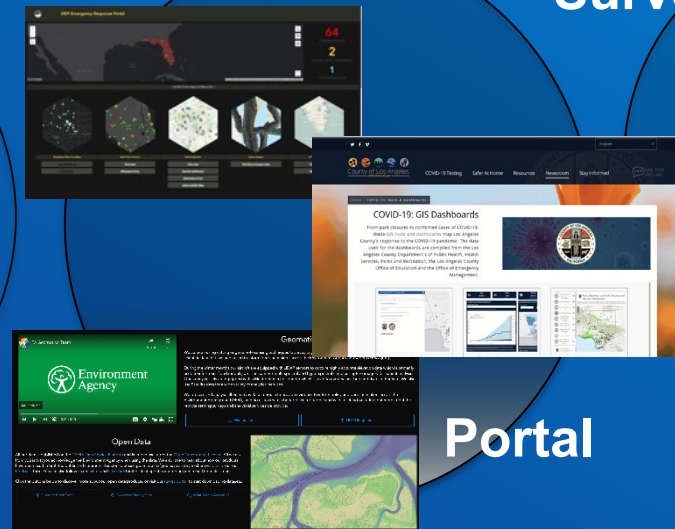
Apps



Survey

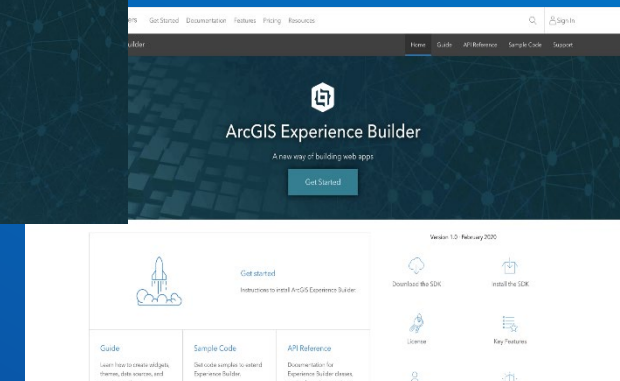
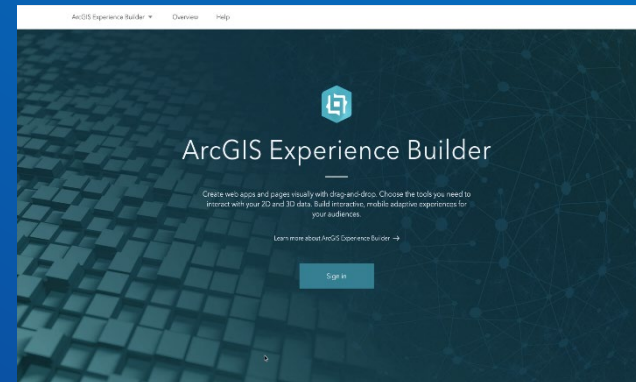


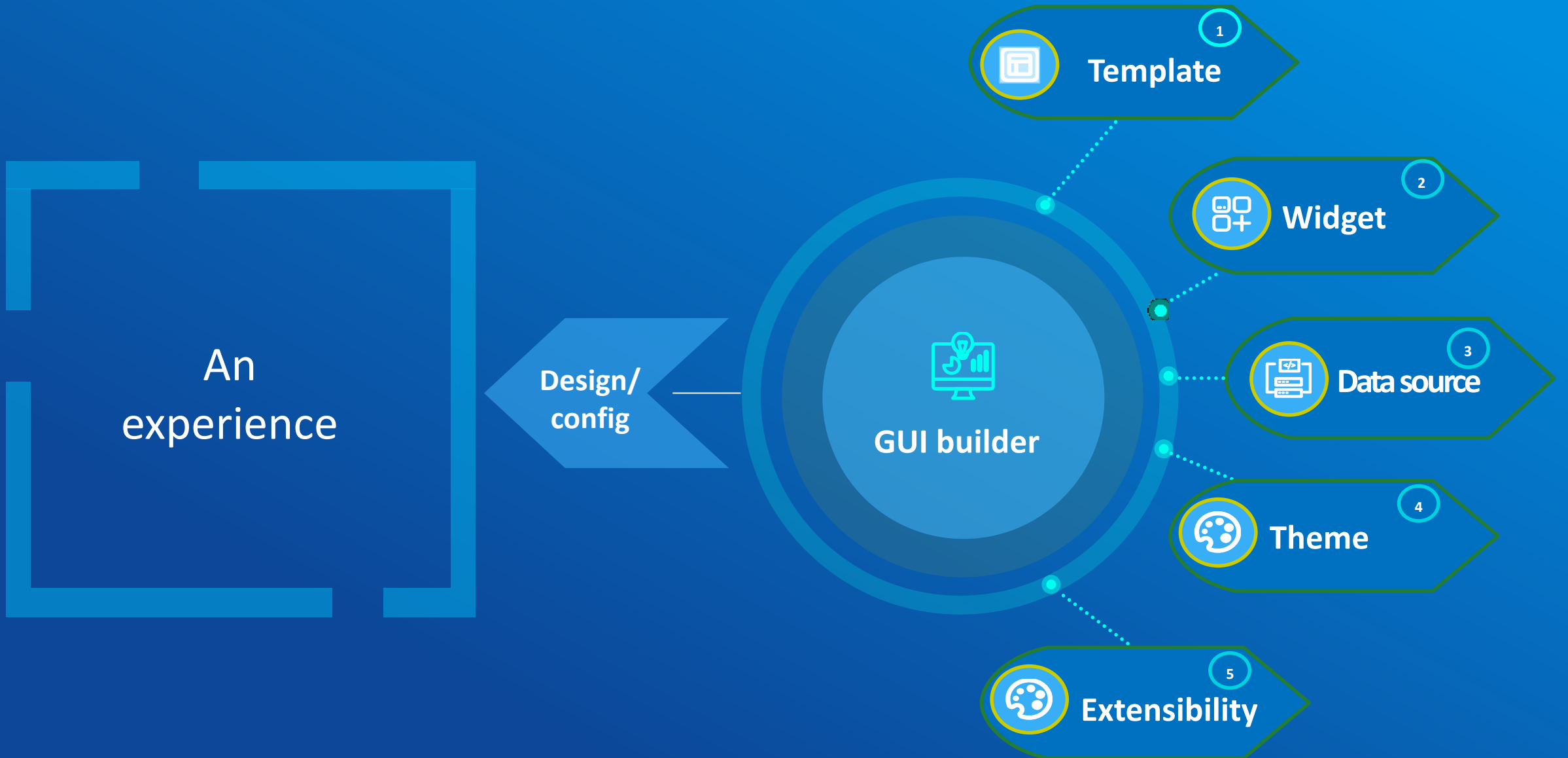
Portal



ArcGIS Experience Builder Offering

- In ArcGIS Online and ArcGIS Enterprise
- ArcGIS Online URL: <https://experience.arcgis.com/>
 - ArcGIS Enterprise 10.8.1 and up
- Developer Edition
 - Download and install locally



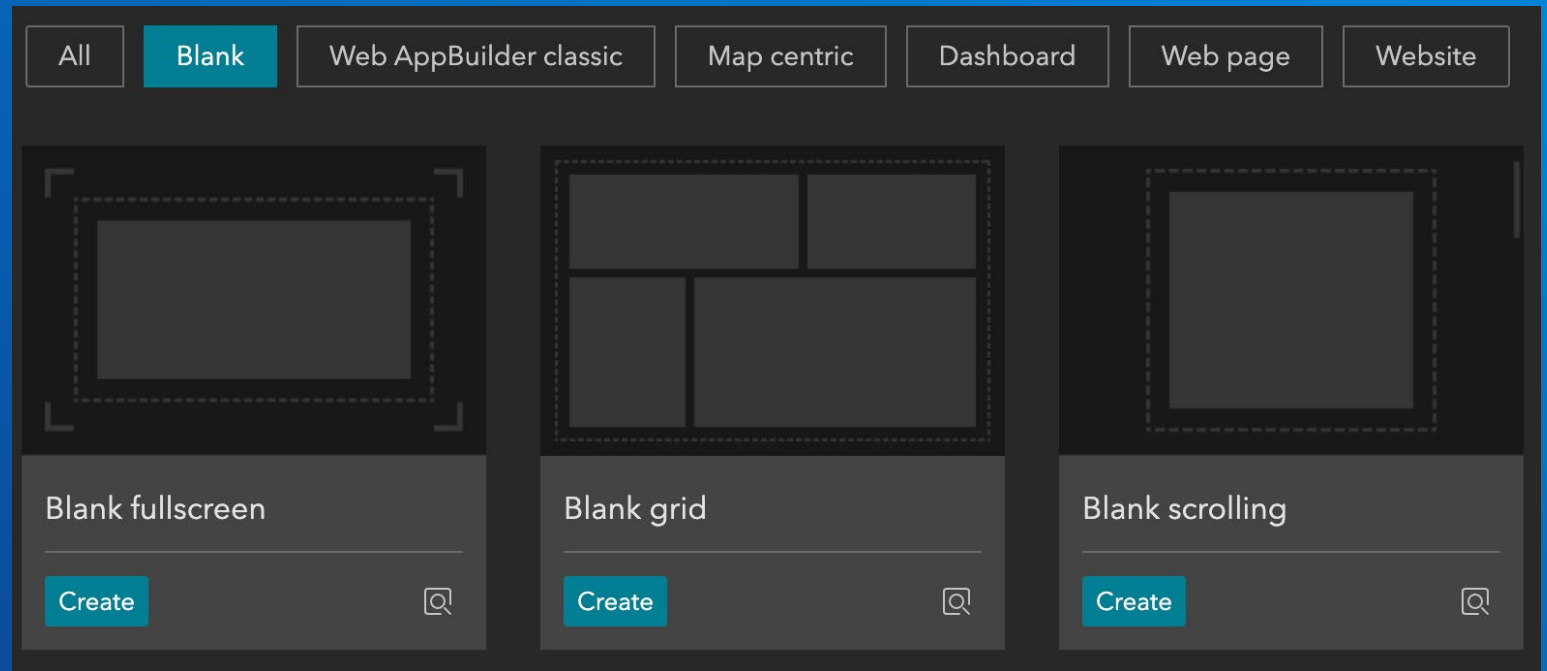


Template

Building Block

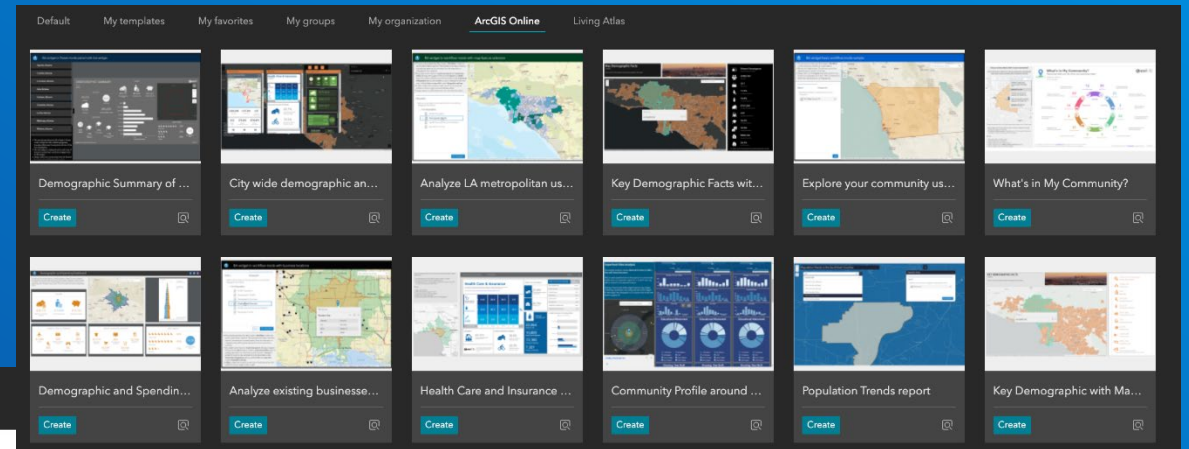
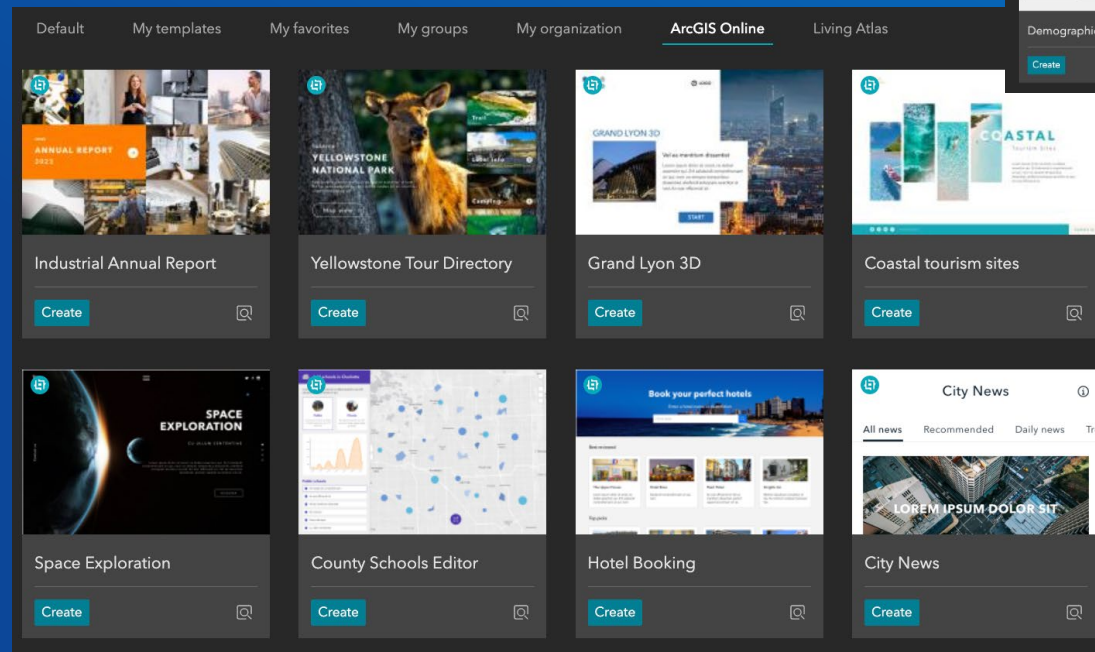
Default Templates

- Fullscreen
- Scrolling
- Grid



Public Templates

Available in ArcGIS Online



Business
Analyst
Templates

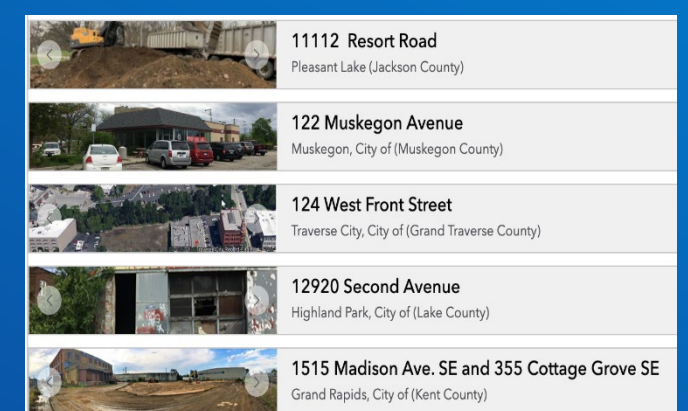
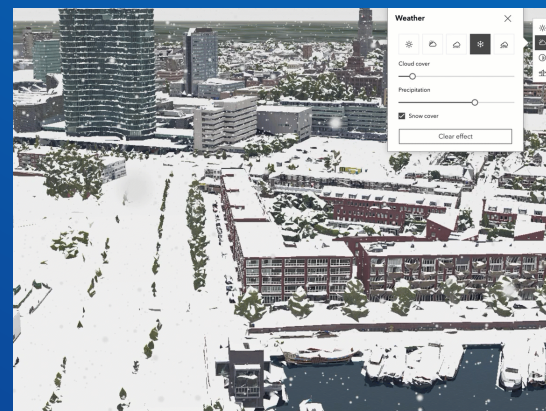
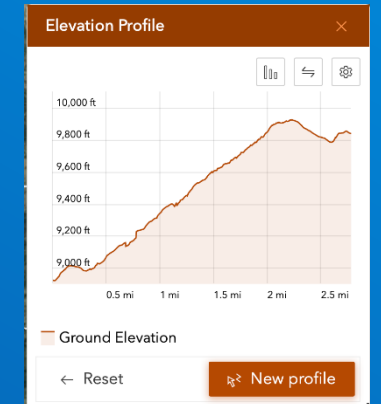
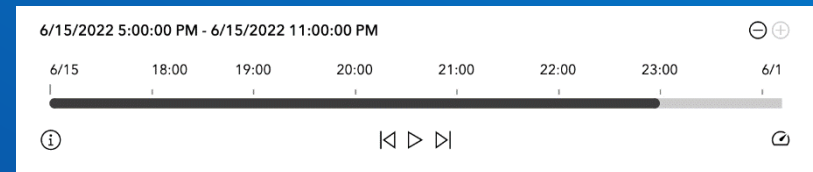
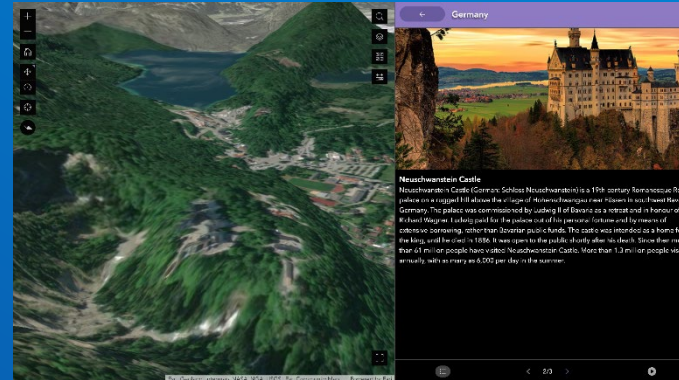
Showcase
New
Features

Widget

Building Block

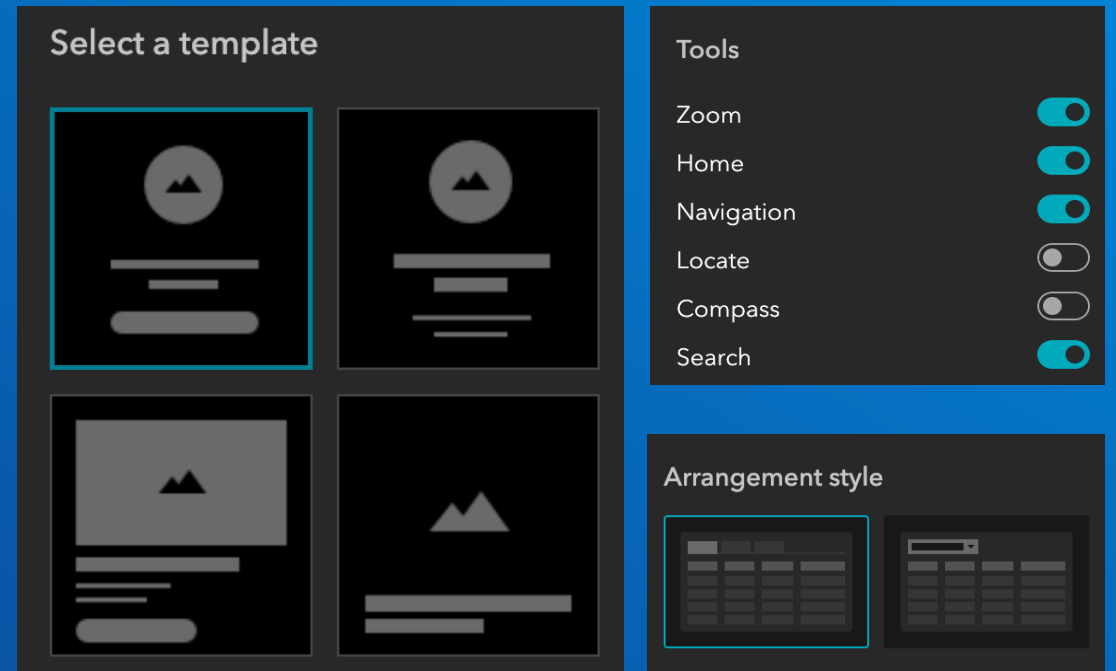
Types of Widgets

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



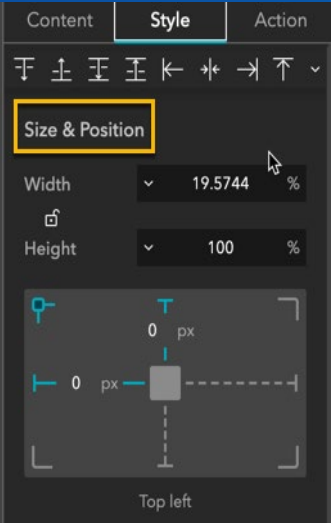
Widget Content

- Select data
- Options
 - Tools, Modes, Templates

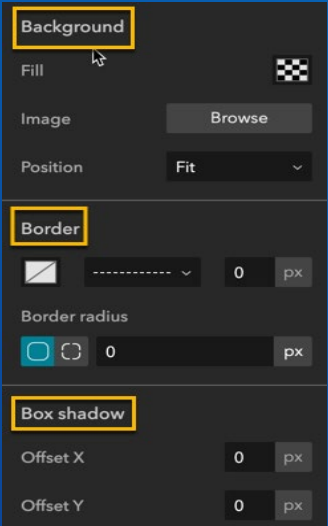


Widget Style

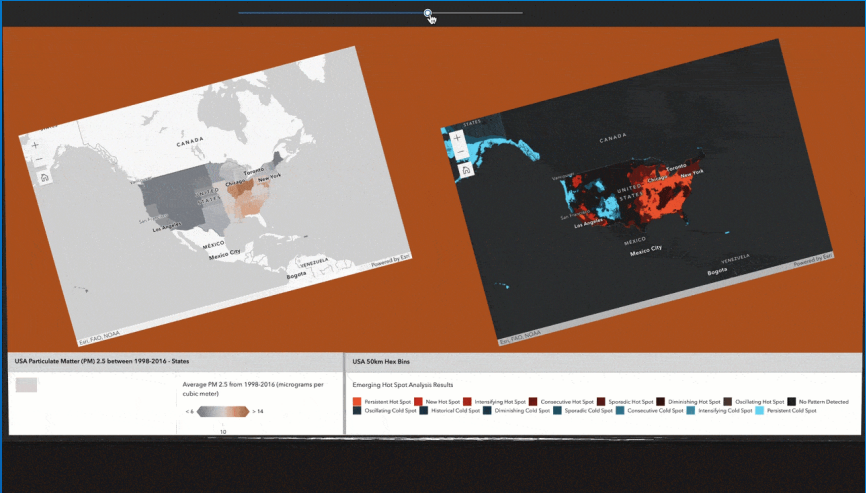
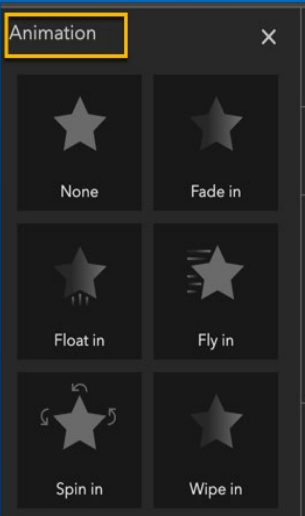
Size & Position



Background, Border & Box shadow

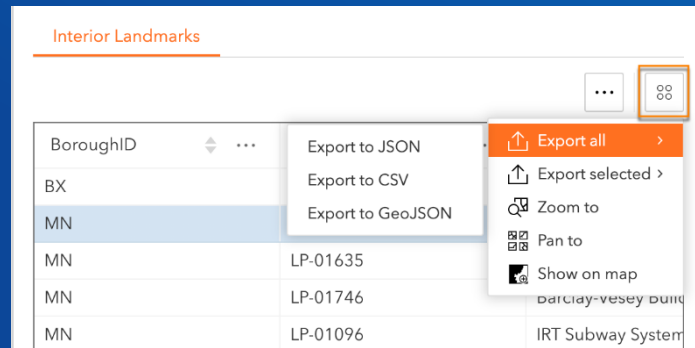


Animation

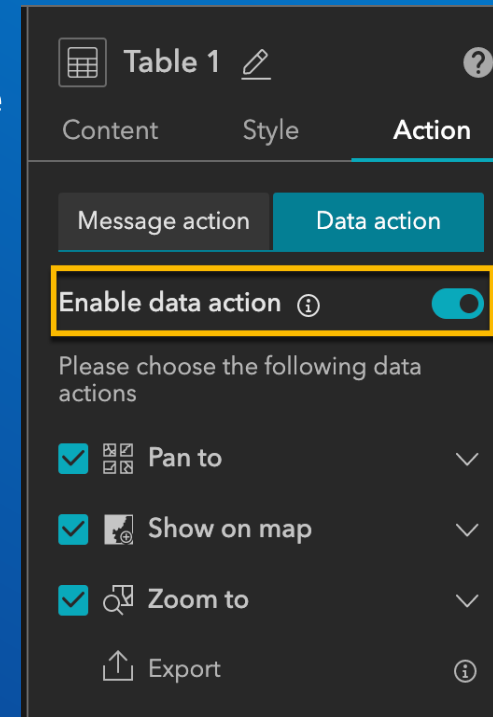


Widget Action

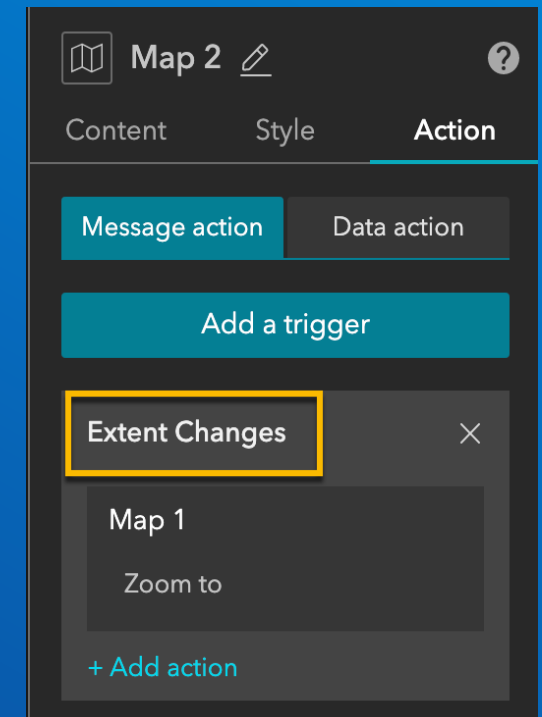
- Widgets communicate with each other
- Data action allows end users to click on
- Message action applies automatically at runtime



Data action



Message action



Message Action

- A **trigger** broadcasts a message
- **Targets** listen to the message
- **Actions** by targets

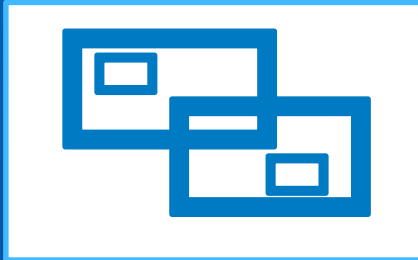
Trigger	Target	Action
Extent Changes from Map 1	Map 2	Zoom to the same extent as Map 1
	Framework (data)	Filter Data Records For example, List 1 displays only features within the current map extent

Layout Widgets

Row



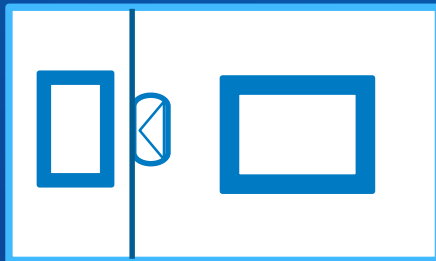
Fixed Panel



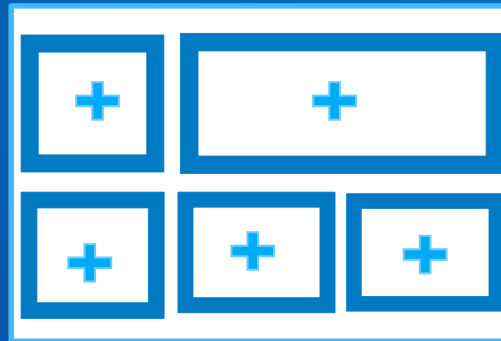
Column



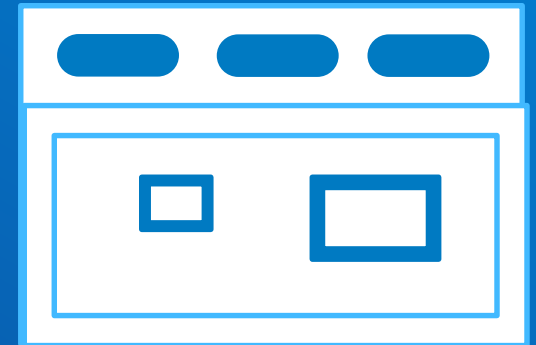
Sidebar



Grid



Section & View

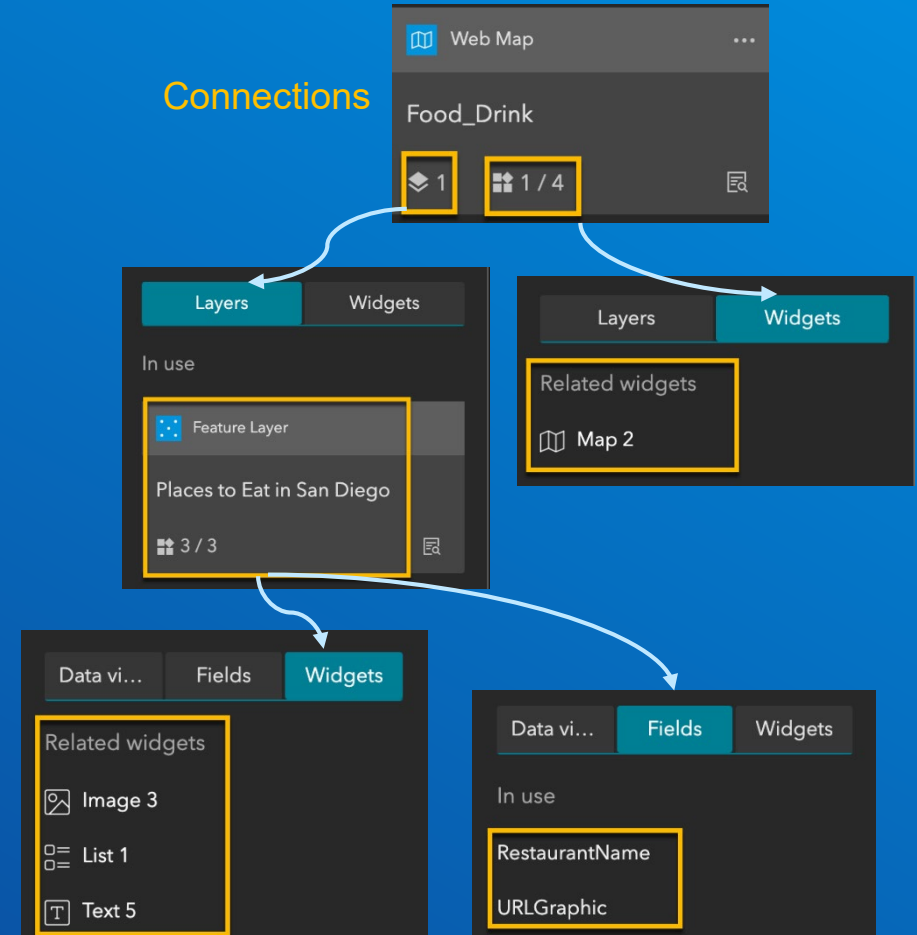


Data Source

Building Block

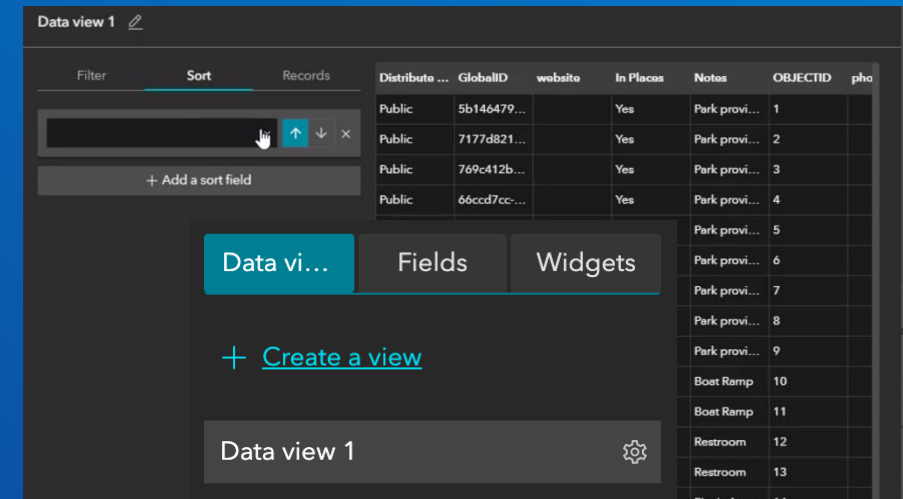
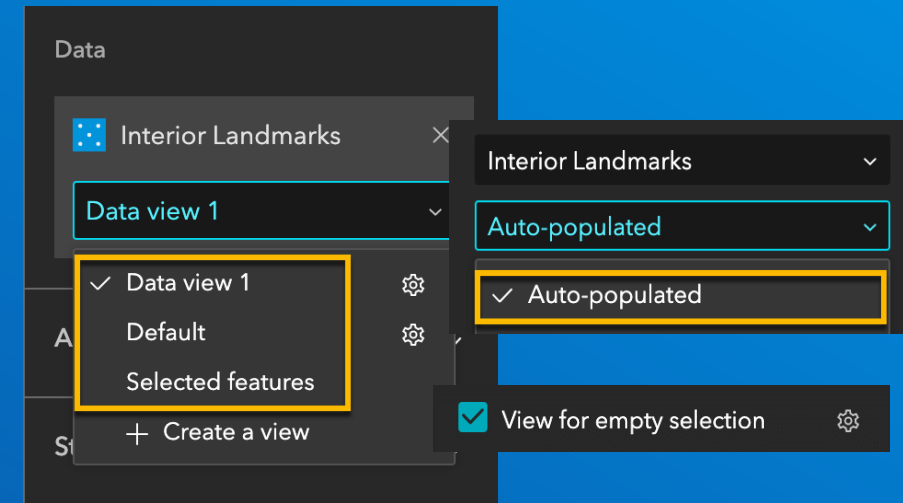
Data Source

- Manage and share data at the app (framework) Level
 - Hosted feature layers
 - 3D Object and Point scene layers that support querying
 - Scene layers with associated feature layers
 - Feature, scene, and map services
 - Feature collections
- Show connections between Map, Layer, Field, Widget



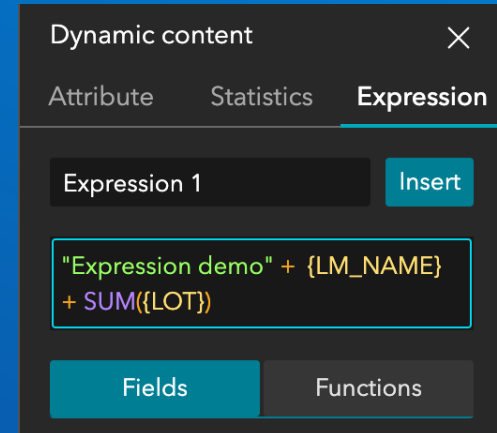
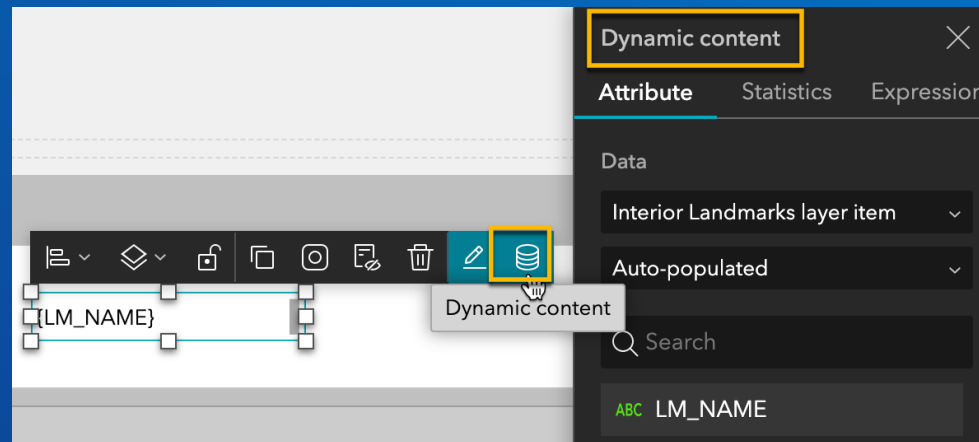
Data Source Views

- Default view
- Selected features' view
 - “View for empty selection” option
- Auto-populated view
- Data view



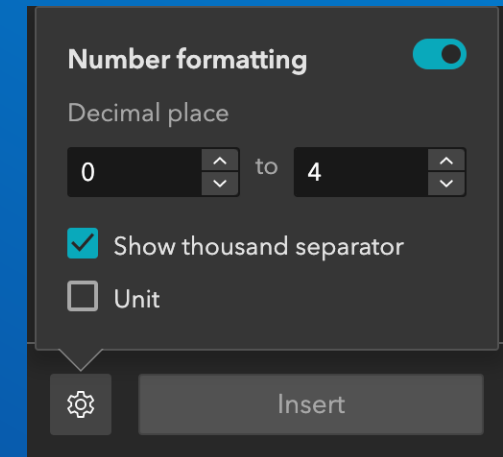
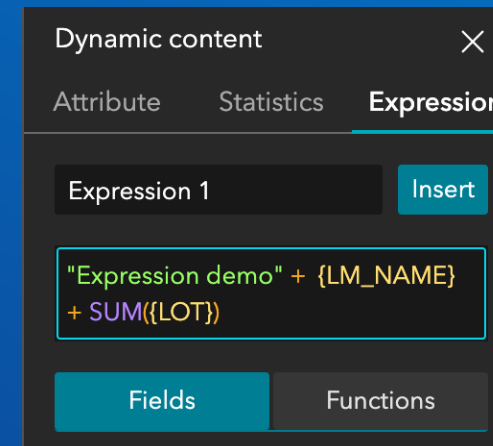
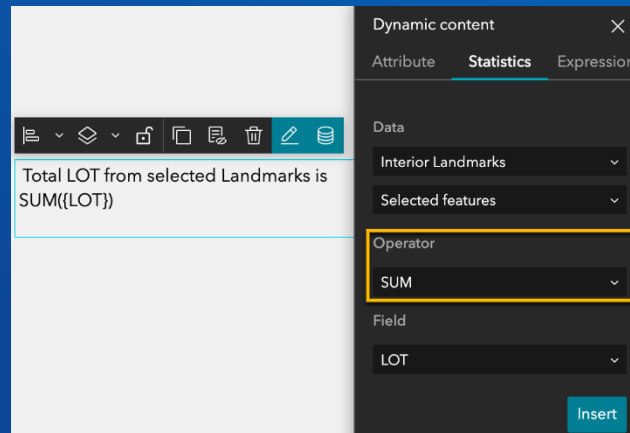
Dynamic Content

- Dynamically display attribute values, statistics or expressions
 - In Image, Text, Button, List, Card, and Embed
 - Must connect to data

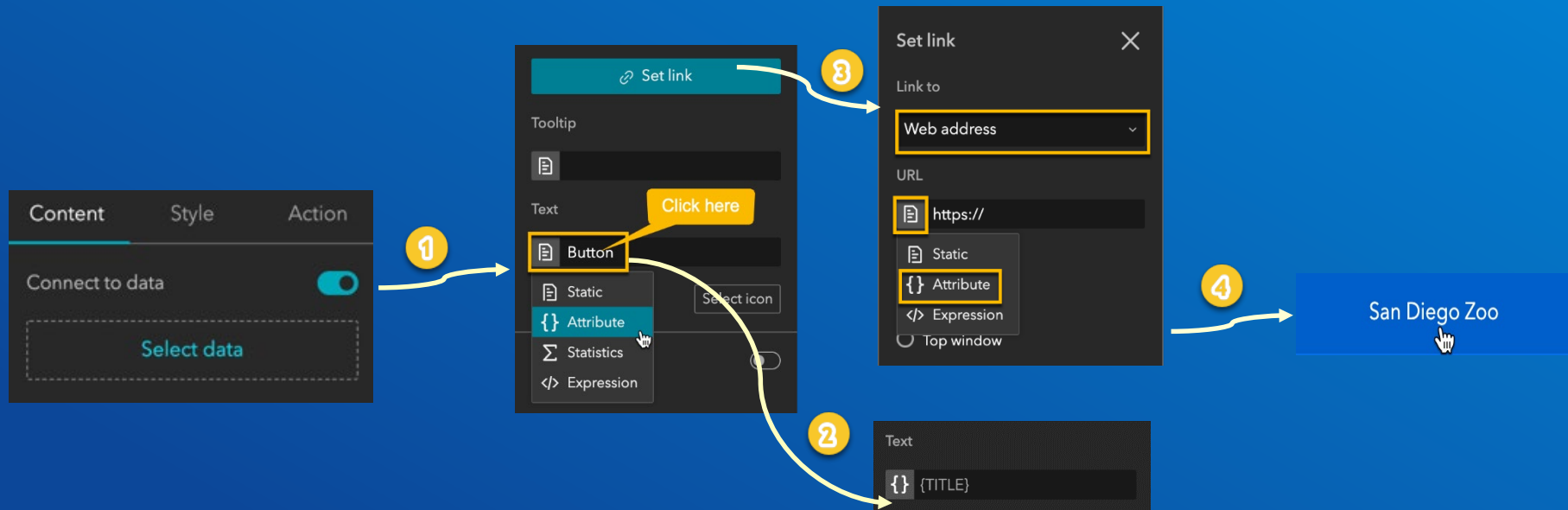


Dynamic Expression

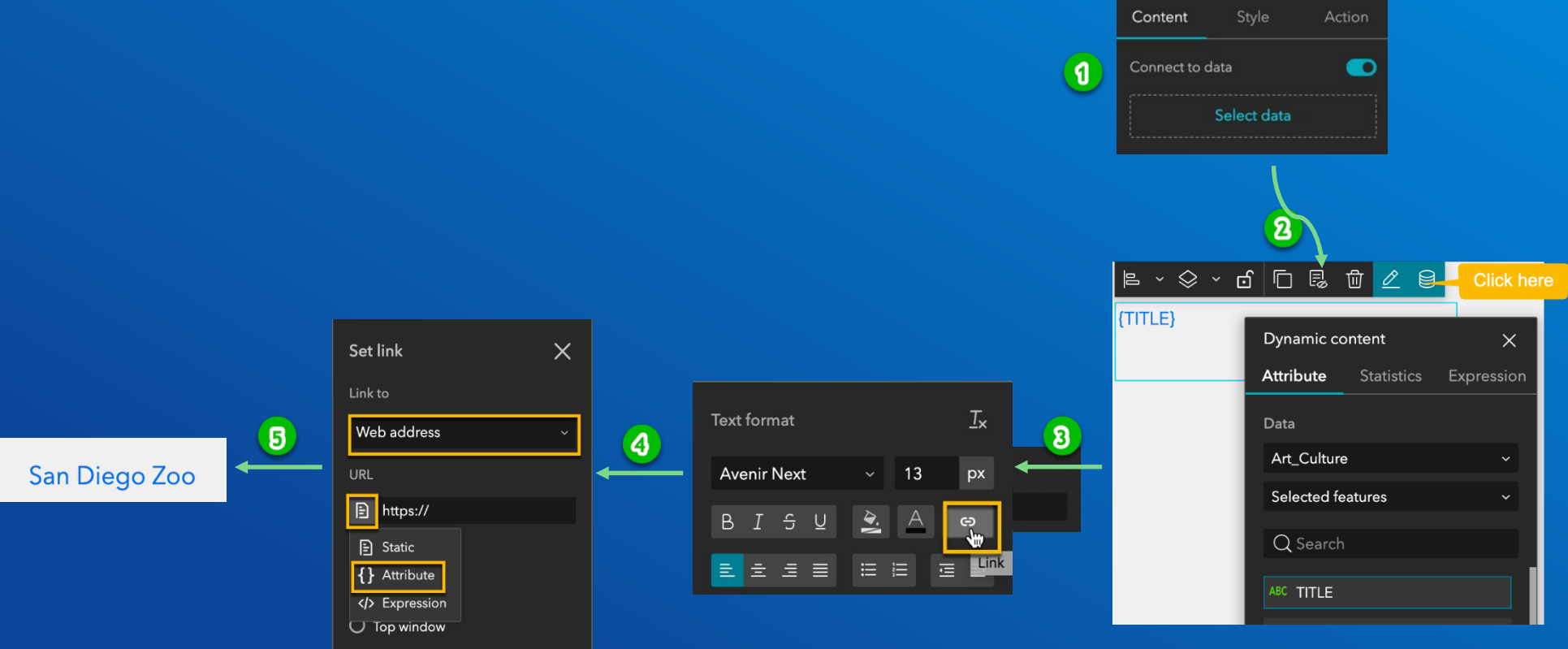
- Get the statistic result of a numeric field
- Use the expression editor to input text, numbers, fields, and functions
- Format numbers



Dynamic Linked Button



Dynamic Linked Text



Theme

Building Block

Theme

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

Default

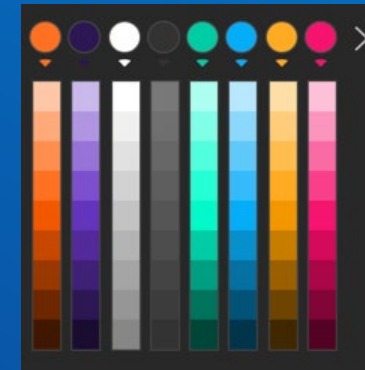
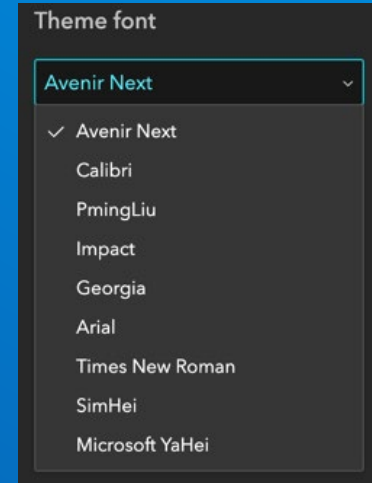
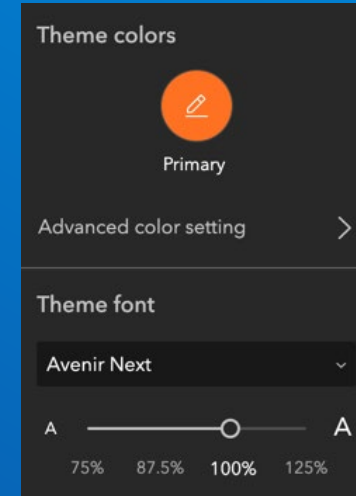
Dark

Vivid

Ink

Mysterious

Shared

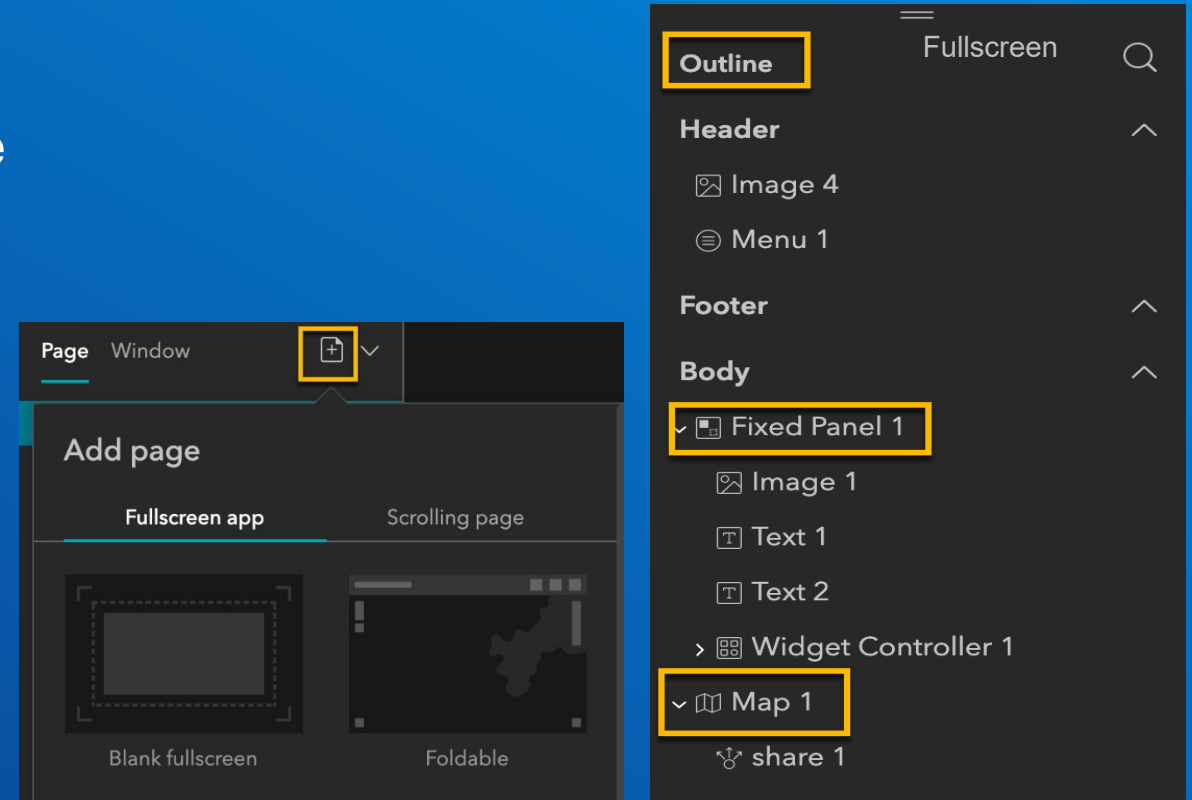


Page, Window, Screen Group

Building Block

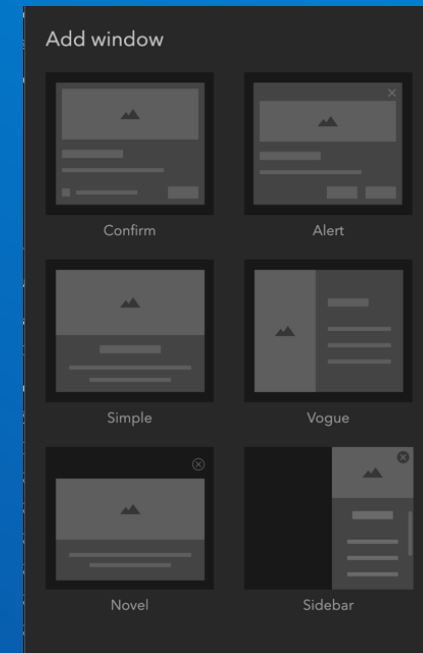
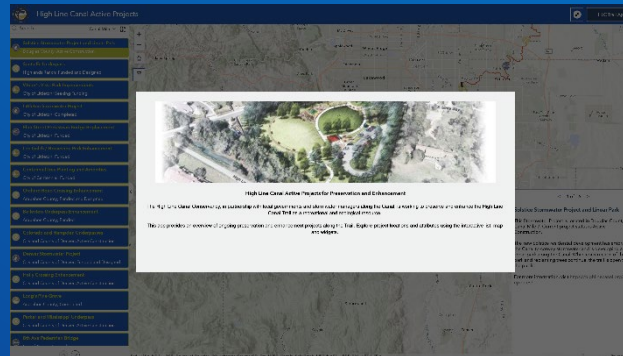
Page

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



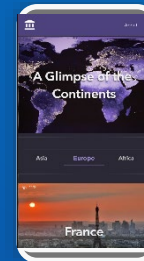
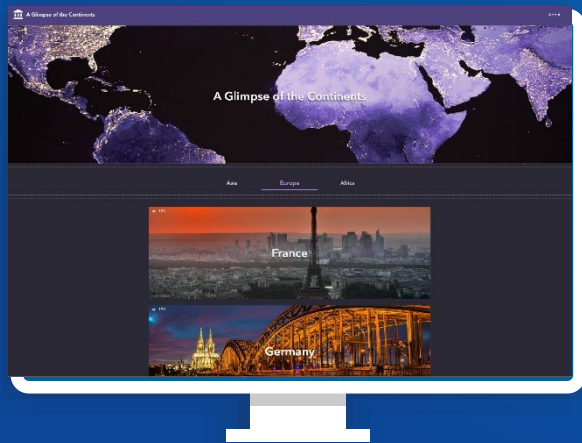
Window

- 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



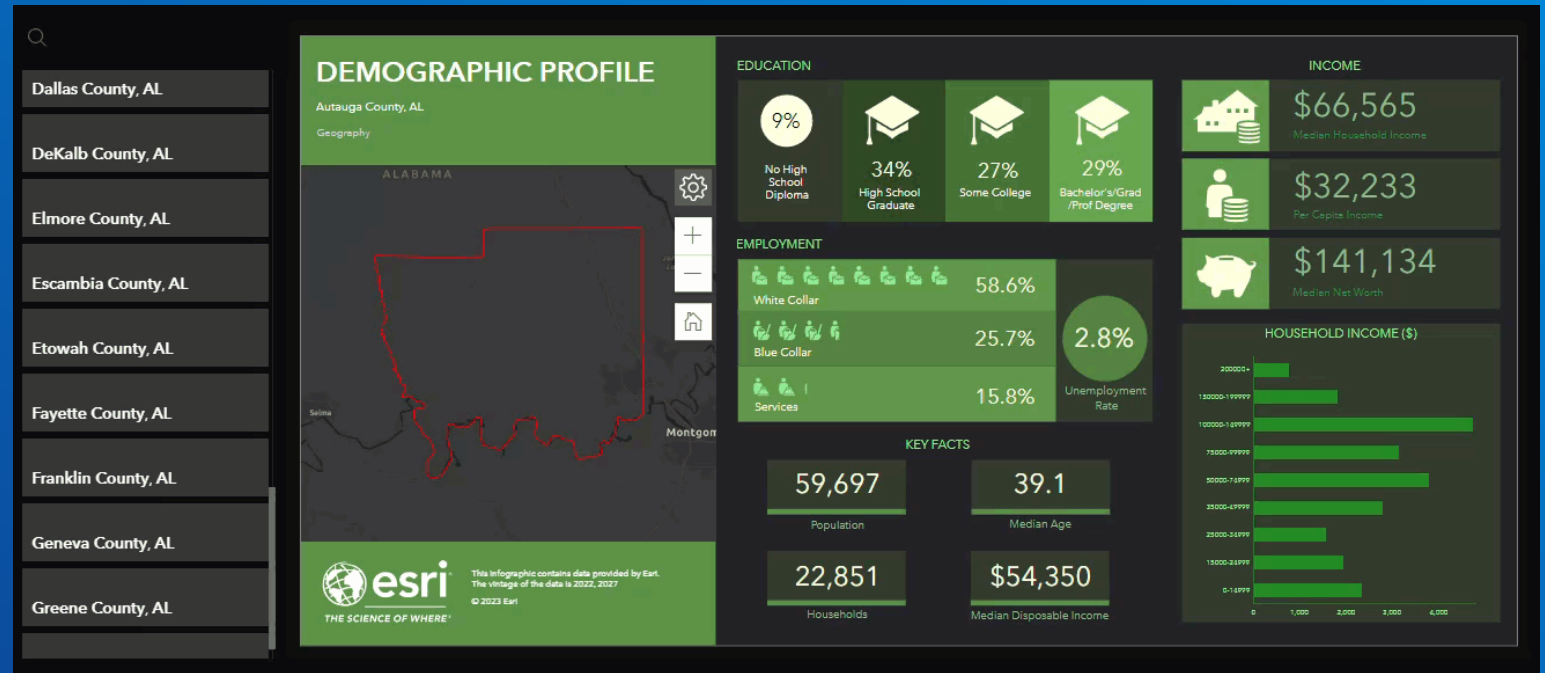
Mobile Optimization

- Configure apps on Mobile, Tablet, and Desktop differently with one URL



Integration with ArcGIS Apps

- Survey widget for Survey123
- Business Analyst widget
- Floor Filter widget for ArcGIS Indoors
- App URL parameter for ArcGIS Dashboards



Developer Edition

Low code

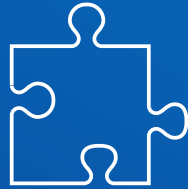
Developer Edition Key Features

Open-Source Widgets



- Ready-to-use widgets provide high quality and stress-tested code samples
- Learn from and easily modify them to meet your needs.

Jimu Library



- A collection of legos used in ready-to-use widgets
- Quickly assemble them to build your own castle

Design System



- Storybook as a playground for UI components
- Preview and play UI components with various styles

Coded Once Used Anywhere



- Custom widgets and themes are portable
- Coded once and used anywhere

Get started with a Learn Lesson

<https://learn.arcgis.com/en/projects/get-started-with-arcgis-experience-builder/>

Helpful Resources



- [ArcGIS Experience Builder Developer Edition SDK](#)
- [ArcGIS Experience Builder in ArcGIS Online Documentation](#)
- [ArcGIS Experience Builder in ArcGIS Enterprise](#)
- [Product page](#)
- [App Gallery](#)
- [Esri Community](#)
- [A full list of helpful resources](#)
 - Videos
 - Blogs
 - Learn lessons
 - Tutorials
 - FAQ

Web AppBuilder vs Experience Builder

Strengths in Web AppBuilder

- Empowered by 70+ widgets
- Rich URL parameters
- Accessibility
- Great communities!



Challenges in Web AppBuilder

- Mobile responsive but optimized
- Widgets interactions are limited
- Can't modify the layout
- Can't take new mapping capability
 - (built on JS API 3.x)
- 2D and 3D apps are separate
- No draft changes to published apps
- The process to generate templates is not simple



Web AppBuilder Retirement Plan

- The developer edition will retire in July 2024, alongside the legacy 3.x version of ArcGIS API for JavaScript.
- Web AppBuilder in ArcGIS Enterprise will be *deprecated* as of now. The final release of Web AppBuilder as part of ArcGIS Enterprise will be planned to be H1 2025 (Enterprise 11.5).
- Web AppBuilder in ArcGIS Online will retire at the end of 2025.

Web AppBuilder Roadmap for Retirement Blog

- [Blog](#)
- Timelines
- FAQ
- Migration resources
- [JavaScript API version 3.x](#)



Will my apps continue to work after retirement?

- Developer edition: Yes. However, there will be no further bug fixes or enhancements. Updates to browsers could introduce functional or security issues which will not be addressed by Esri. In addition, technical support from Esri will no longer be available.
- ArcGIS Enterprise: Yes. ArcGIS Web AppBuilder continues to be fully supported and will continue to be supported in accordance with the [ArcGIS Enterprise product lifecycle](#). However, it will only receive critical bug fixes, such as security updates, and is otherwise in maintenance mode with no functional enhancements being planned.
- ArcGIS Online: Yes. The existing ArcGIS Web AppBuilder apps that you have built will continue to work. However, you will not be able to create new apps after retirement. There will be no further bug fixes or enhancements. Updates to browsers could introduce functional or security issues which will not be addressed by Esri. In addition, technical support from Esri will no longer be available.

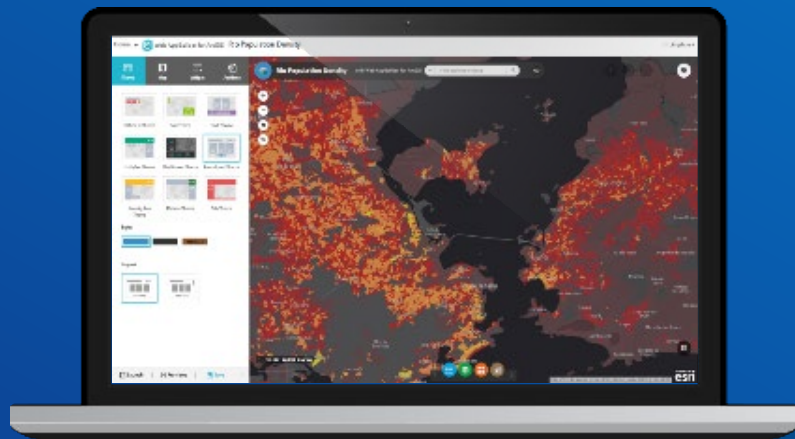
What action should I take to mitigate the impact of this retirement?

- Web AppBuilder apps can be migrated to ArcGIS Experience Builder.
- Some ArcGIS Web AppBuilder widgets will not be migrated to ArcGIS Experience Builder because their functionality can be found in other widgets, ArcGIS apps, or capabilities. See the Functionality Matrix between Web AppBuilder and Experience Builder.
- Consider migrating ArcGIS Web AppBuilder apps to other ArcGIS apps such as ArcGIS Instant Apps, ArcGIS Dashboards, and ArcGIS StoryMaps, when you see fit.

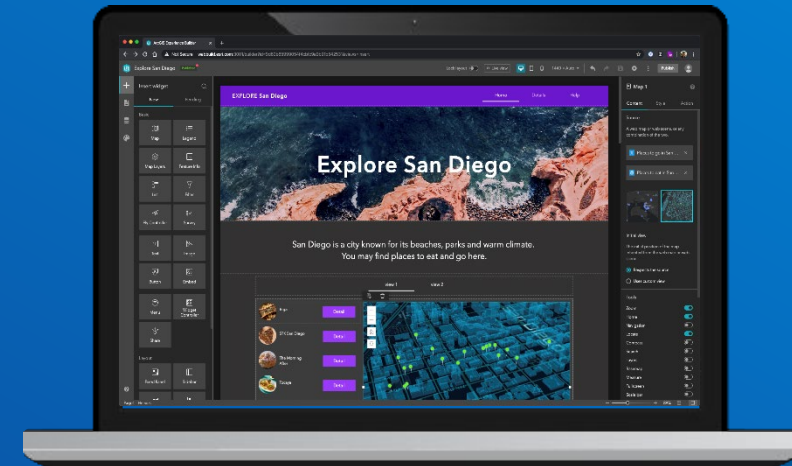
Will I be able to continue to download the developer edition after retirement?

- Yes. You will be able to download existing versions of the ArcGIS Web AppBuilder developer edition from the ArcGIS Developers website after retirement. The developer edition pages on the ArcGIS Developers website will be updated to reflect its status as retired technology.

Functionality Matrix



Web AppBuilder



Experience Builder

WAB													
WAB		WAB		WAB		WAB		WAB		WAB		WAB	
About	<div></div>	Coordinate Conversion	<div></div>	Full Screen	<div></div>	Layer List	<div></div>	Query	<div></div>	Splash	<div></div>	Daylight (3D)	<div></div>
Add Data	<div></div>	Cost Analysis	<div></div>	GeoLookup	<div></div>	Legend	<div></div>	Related Table Charts	<div></div>	Stream	<div></div>	Navigate (3D)	<div></div>
Analysis	<div></div>	Data Aggregation	<div></div>	Geoprocessing	<div></div>	Measurement	<div></div>	Report Feature	<div></div>	Suitability Modeler	<div></div>	Slider (3D)	<div></div>
Attribute Table	<div></div>	Directions	<div></div>	Grid Overlay	<div></div>	My Location	<div></div>	Reviewer Dashboard	<div></div>	Summary	<div></div>	Measurement (3D)	<div></div>
Batch Attribute Editor	<div></div>	District Lookup	<div></div>	Gridded Reference Graphic	<div></div>	Near Me	<div></div>	Scalebar	<div></div>	Swipe	<div></div>		
Basemap Gallery	<div></div>	Distance and Direction	<div></div>	Group Filter	<div></div>	Network Trace	<div></div>	Screening	<div></div>	Threat Analysis	<div></div>		
Bookmark	<div></div>	Draw	<div></div>	Home Button	<div></div>	Oblique Viewer	<div></div>	Search	<div></div>	Time Slider	<div></div>		
Business Analyst	<div></div>	Edit	<div></div>	Image Measurement	<div></div>	Overview Map	<div></div>	Select	<div></div>	Visibility	<div></div>		
Chart	<div></div>	Emergency Response Guider	<div></div>	Incident Analysis	<div></div>	Parcel Drafter	<div></div>	Share	<div></div>	Zoom Slider	<div></div>		
Controller	<div></div>	Extent Navigate	<div></div>	Infographic	<div></div>	Print	<div></div>	Situation Awareness	<div></div>	3DFx	<div></div>		
Coordinates	<div></div>	Filter	<div></div>	Info Summary	<div></div>	Public Notification	<div></div>	Smart Editor	<div></div>	Compass (3D)	<div></div>		

2023 Roadmap

Q1 2023

- Add Data widget
- Business Analyst widget (out of beta)
- Utility Network Trace widget (out of beta)
- New Slice tool in 3D Toolbox widget
- New Histogram chart in Chart

Q2 2023

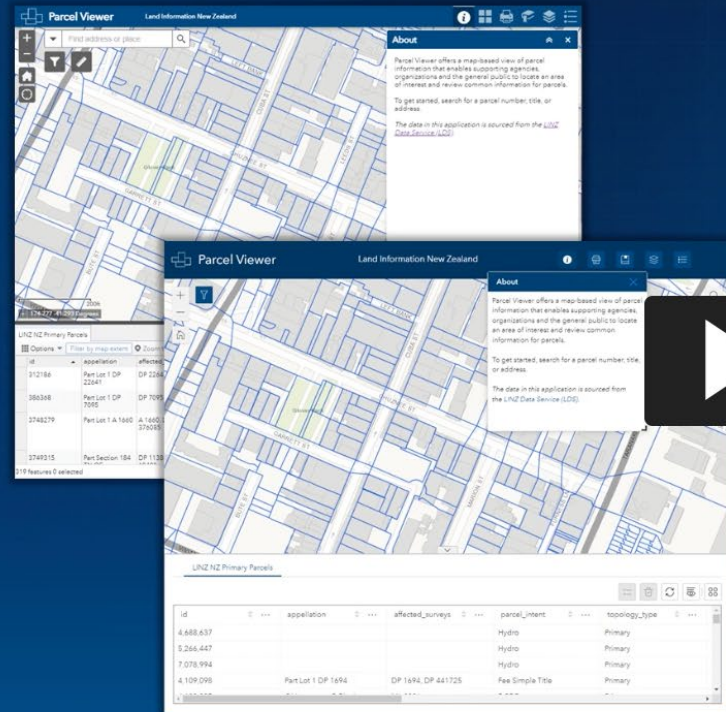
- Basemap Gallery widget
- Swipe widget
- Near Me widget (include capabilities in Situation Awareness, Screening, Info Summary)
- Related table editing
- Accessibility

Q4 2023

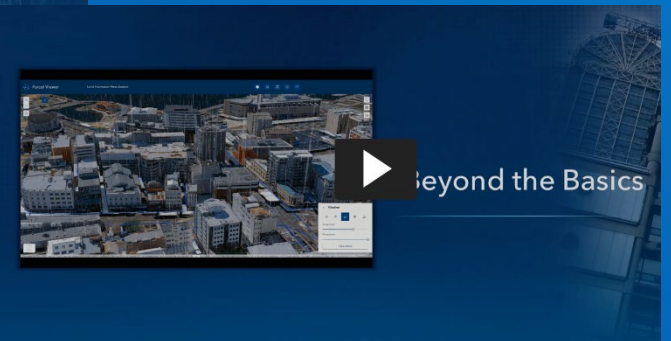
- Geoprocessing widget
- Analysis widget
- Image Measurement widget
- App URL parameters

Migration Video

https://mediaspace.esri.com/media/t/1_t5fhpa0a



Re-create a Web
AppBuilder App Using
Experience Builder





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