ArcGIS Experience Builder: Introduction

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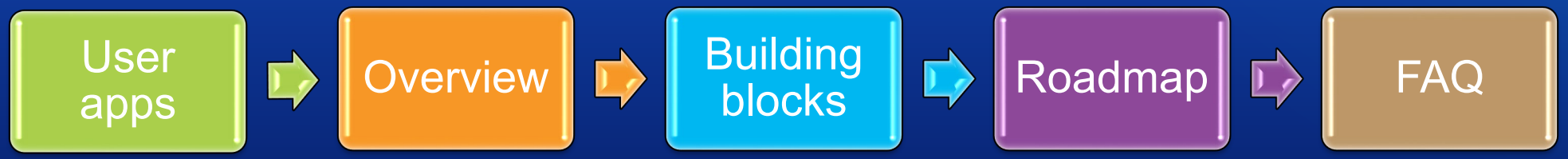
2021 ESRI
DEVELOPER SUMMIT

agenda



Gallery

Explore apps built with ArcGIS Experience Builder

Gr

Heinz Field Explorer

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

Netherlands COVID-19 Time Series

This application shows the spread of Coronavirus over time in the Netherlands.

Oregon Wildfire Response and Recovery Overview

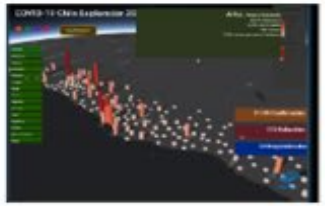
This web experience displays key data regarding the response and recovery due to the 2020 Oregon Wildfires.

Cibolo Development Projects

This app allows staff, citizens, and elected officials to keep up-to-date on new construction projects in the City of Cibolo, TX.

Environment Agency Geomatics Hub

Discover how the Environment Agency captures, processes, and analyzes the data they capture.



COVID-19 Chile Explorer

Explore COVID-19 statistics in Chile with this 3D explorer. Includes confirmed and active cases.

COVID-19 Data Hub

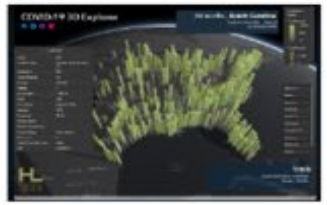
Greenville County, SC COVID-19 statistics, a central data hub for citizens and local decision makers.

Wildfire Initial Attack Reporting

Designed for admins and managers of the wildfire initial attack feed, this is a one-stop-shop for the public map, admin application, and survey.

Beirut Recovery Map

This 2D/3D Beirut Recovery Map visualizes damage assessment after the August 4th explosion.



COVID-19 3D Explorer

COVID-19 3D Explorer is an application to view COVID-19 confirmed cases in the US by county by Houseal Lavigne.

Giessen Hitzekarte

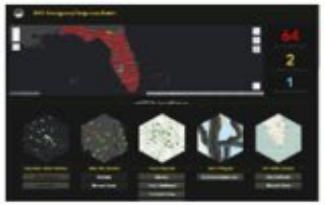
Explore "cool" places for those hot summer days in the city of Giessen, including water fountains and shady parks.

PBES Map Explorer

A one-stop platform for exploring maps and data from the Napa County Planning, Building, and Environmental Services Dept.

Park Tucson

A summary of parking lots, garages, and meters, including availability and rate details, in Tucson, Arizona.



DEP Emergency Response Portal

A proof of concept for staff to find all DEP emergency response related GIS data, apps, dashboards, surveys, and more.

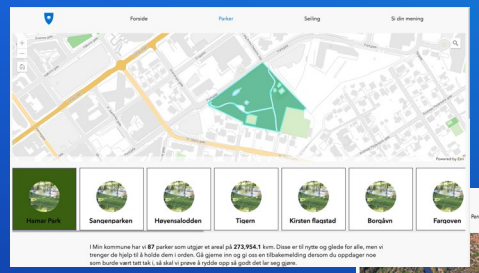
What is ArcGIS Experience Builder

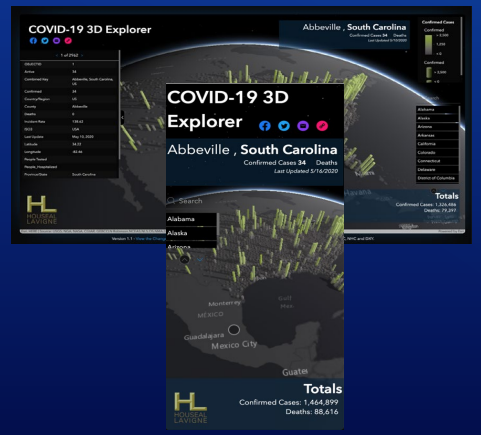
ArcGIS Experience Builder empowers you to quickly transform your data into compelling web apps and pages

- Start with templates and widgets without coding
- Extensibility

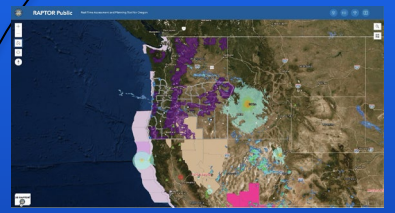
ArcGIS Experience Builder Key Features

- Create flexible web apps and pages easily
- Integrate 2D and 3D content into one app
- Build apps with mobile optimization
- Configure out-of-the-box templates and widgets
- Customize widgets and templates to your needs

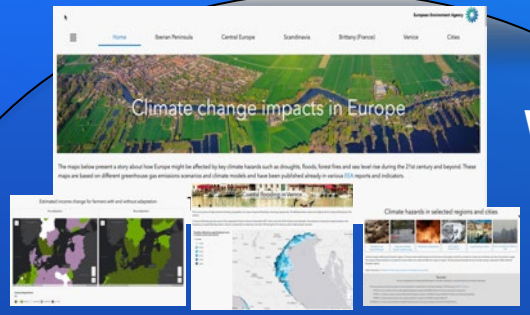


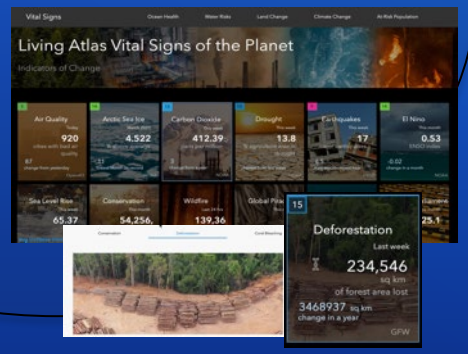


3D



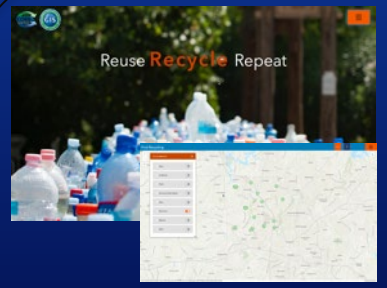
Web pages

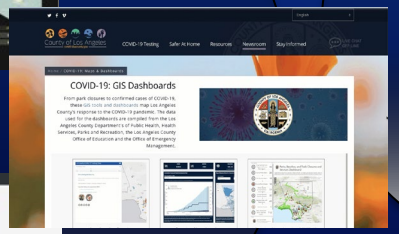




Mobile

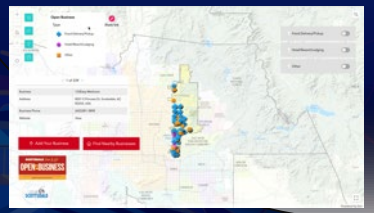
Classic apps

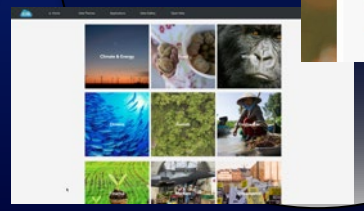




Survey

Gallery





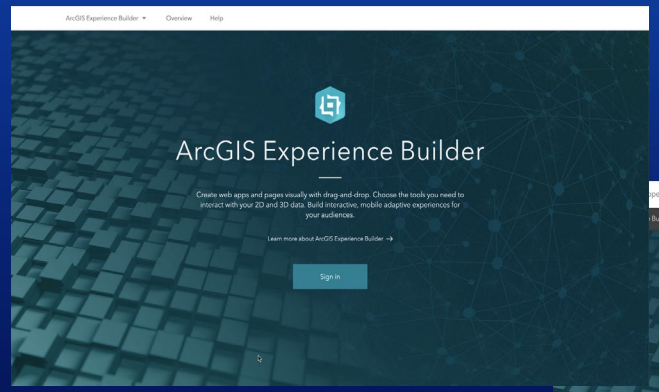
Portal Dashboard

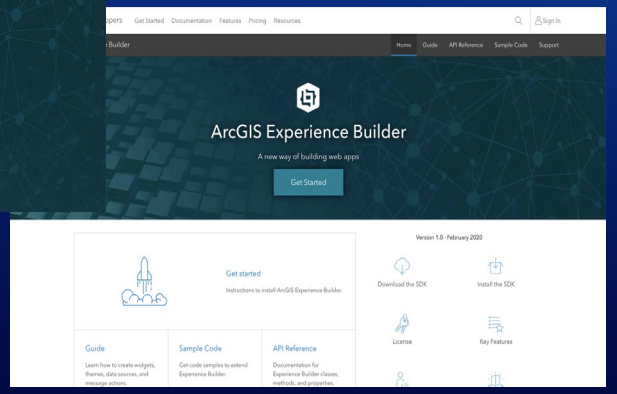
A Canvas for Creativity

ArcGIS Experience Builder Editions

- **ArcGIS Online and ArcGIS Enterprise**
  - **URL: experience.arcgis.com**
  - **ArcGIS Enterprise 10.8.1 and up**

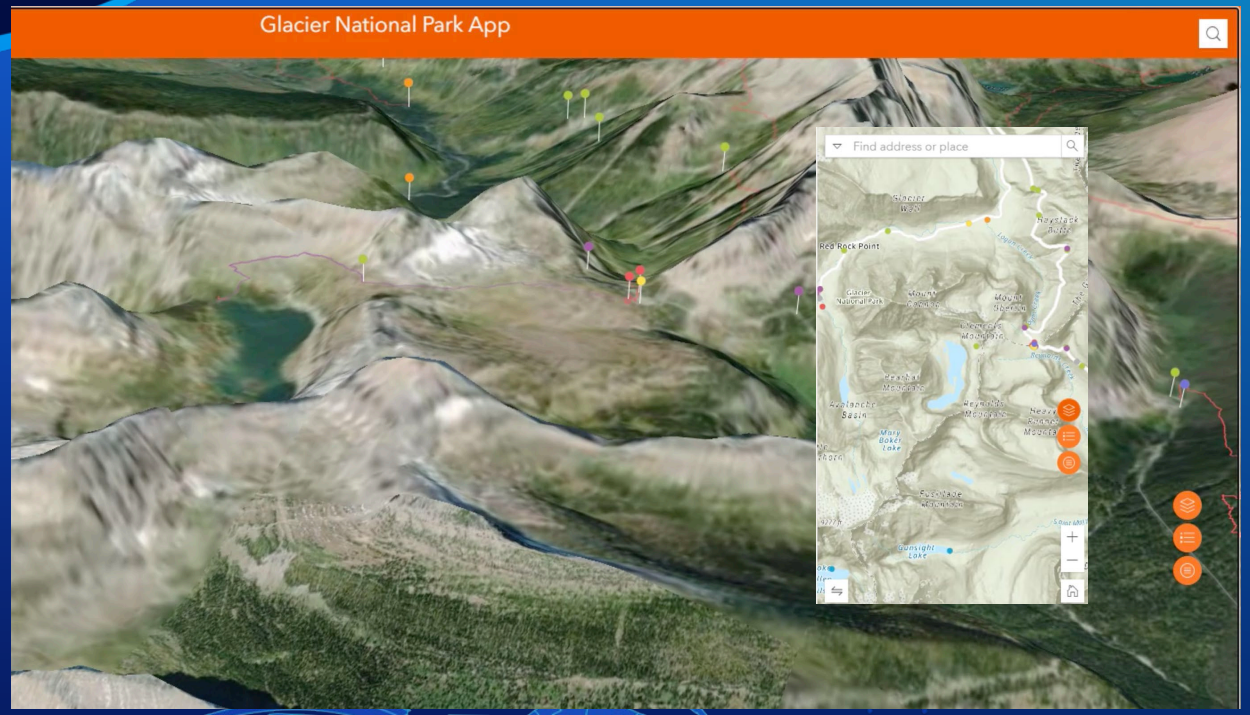
- **Developer Edition**
  - **Download from the Developers website and install locally**
  - **Sign in to ArcGIS Online / Enterprise**





ArcGIS Experience Builder Licensing

- As part of the Essential Apps Bundle
  - Must have a Creator or GIS Professional user type to create experiences
- Through an ArcGIS Developer subscription
  - Allows developers who are not part of an ArcGIS organization to access and use Experience Builder Developer Edition



Quick Tour

Kenyon Huber-Wilker

An experience

Design/ config

GUI builder

01 Templates

02 Widgets

03 Themes

04 Data sources

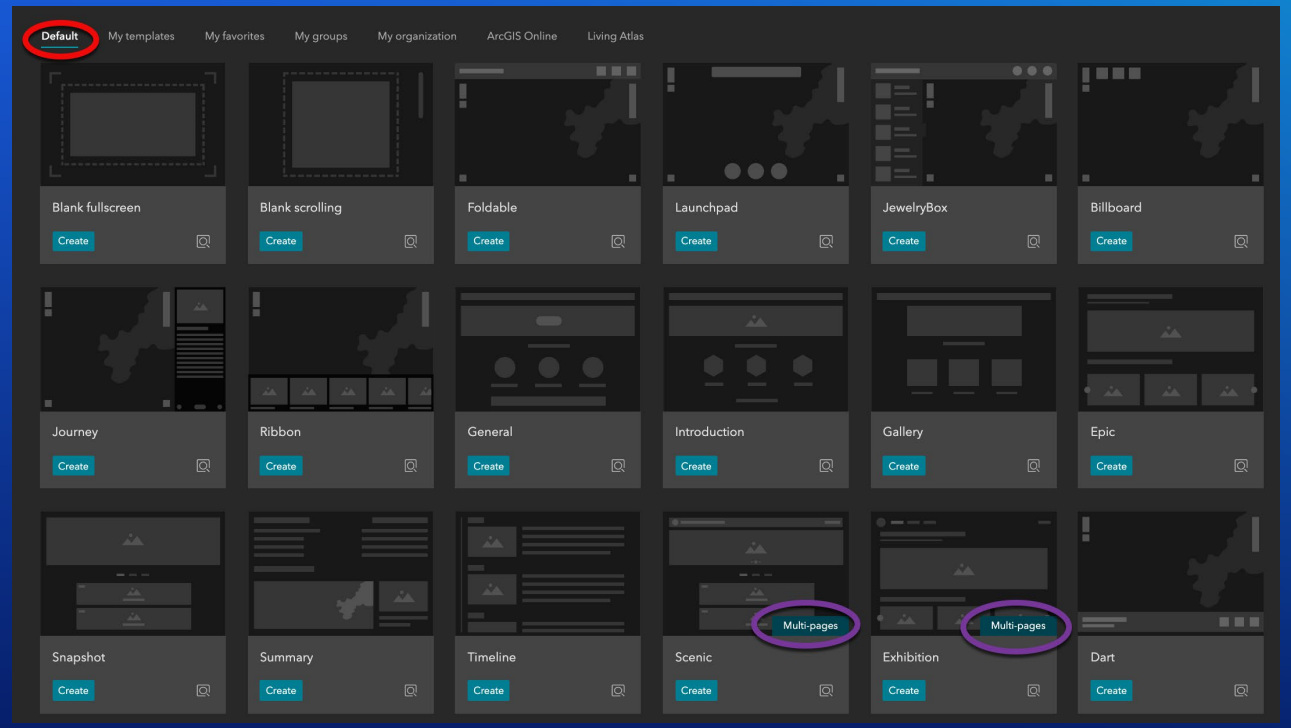
05 Extend

Building Blocks

Templates

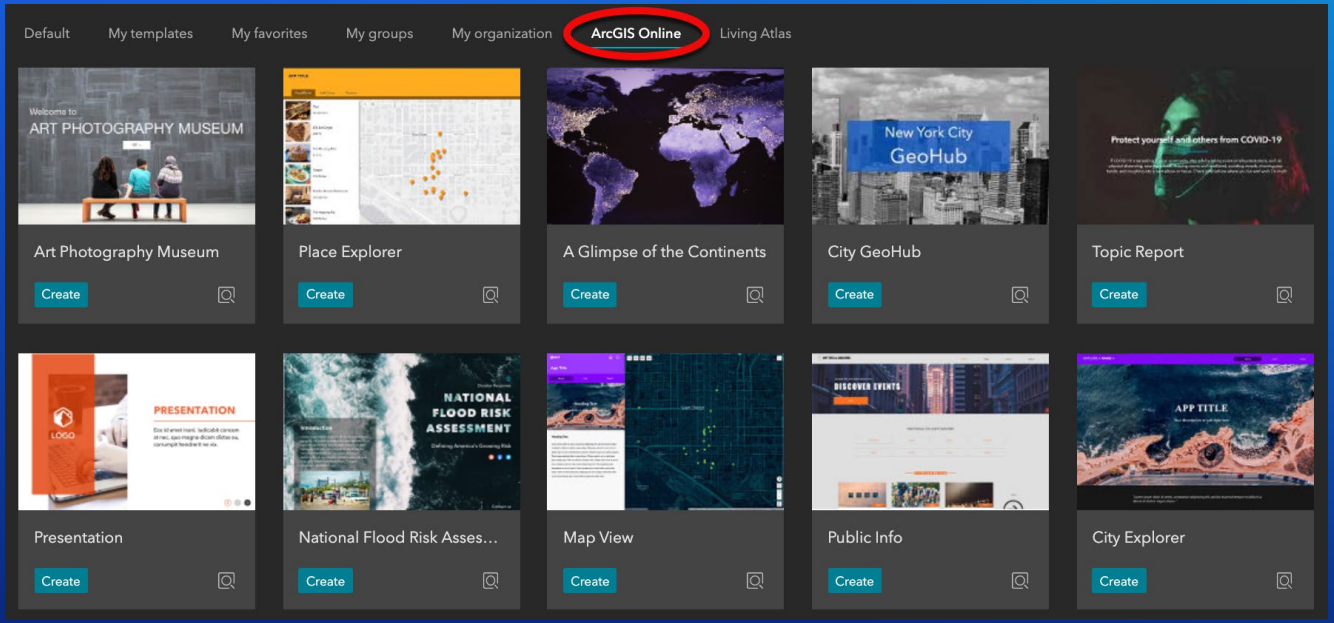
Default Templates

- Full Screen
  - Blank
  - Foldable
  - Launchpad
- Scrolling Page
  - Blank
  - Gallery
  - Timeline
  - Scenic (multi-page)
  - Exhibition (multi-page
- Part of software



Other Templates

- ArcGIS Online
  - Topic Report
  - A Glimpse of Continents
  - Presentation
- Living Atlas
- My Organization
- My Group
- My Favorite
- My Template



Building Blocks

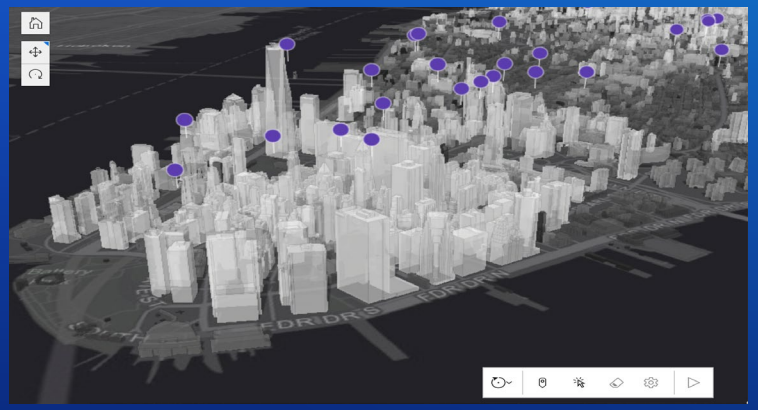
Widgets

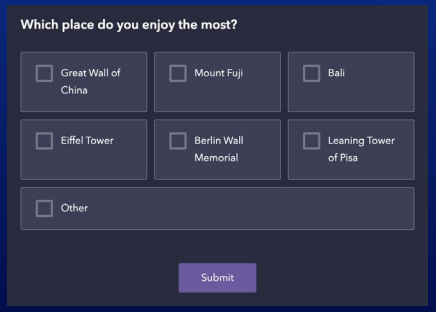
Basic Widgets

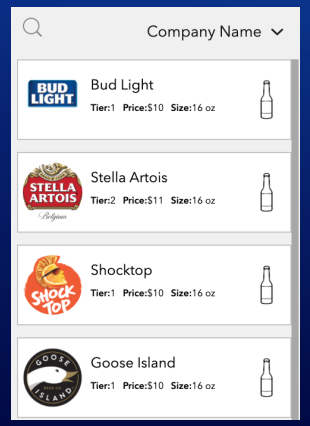
- Map
- List
- Table
- Map Layers
- Legend
- Filter
- Query New
- Chart New
- Bookmark
- Feature Info
- Survey
- Card

- Fly Controller
- Coordinate Conversion New
- Branch Version Management New
- Share
- Widget Controller
- Button
- Text
- Image
- Embed
- Menu
- Divider

Content	Style	Action

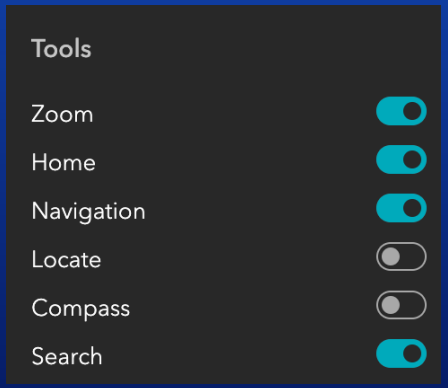


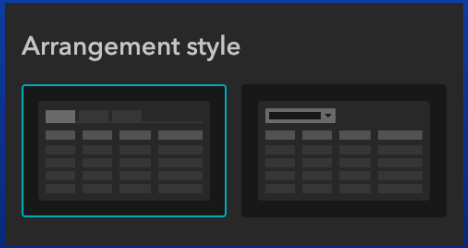


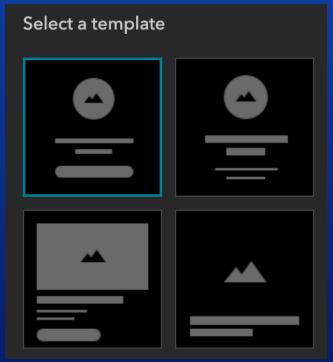


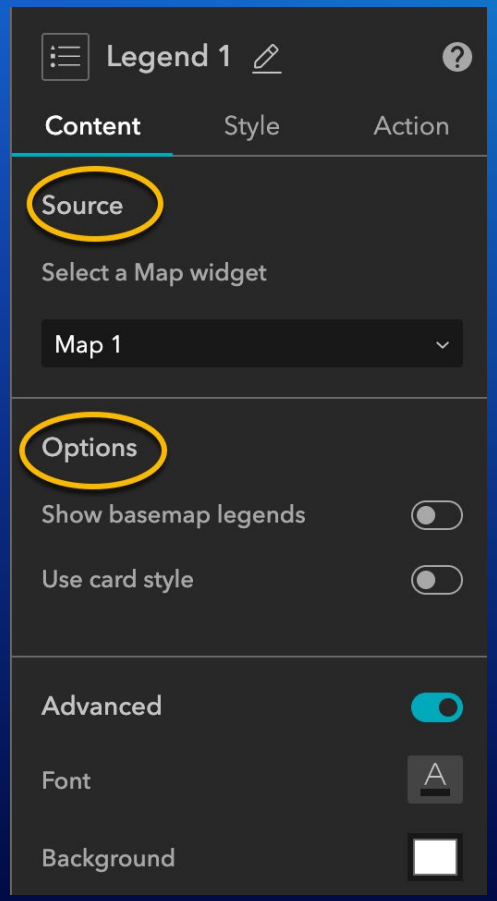
Widget Property - Content

- Data source
- Content options
  - Including tools, arrangement, templates, advanced options



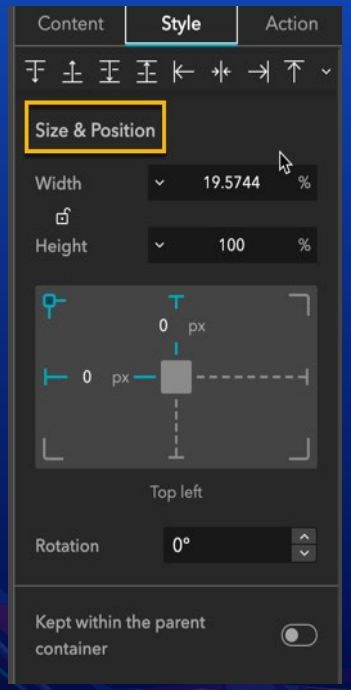




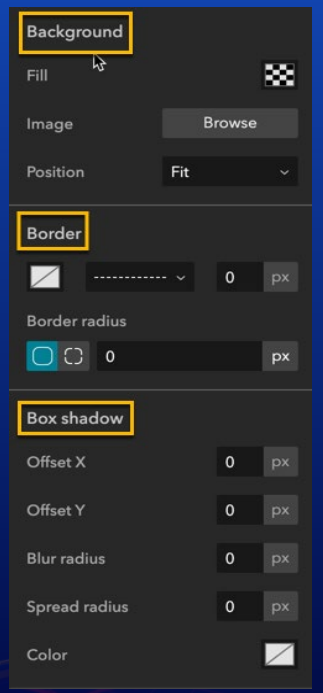


Widget Property - Style

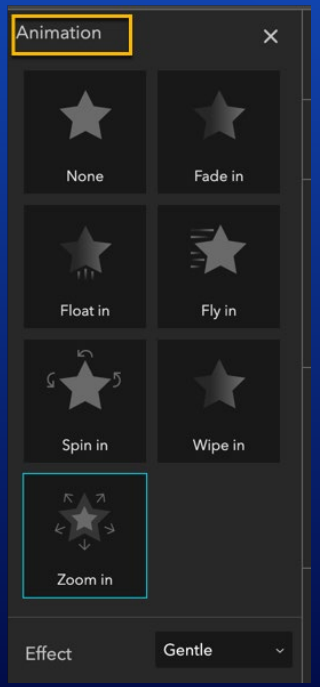
Size & Position

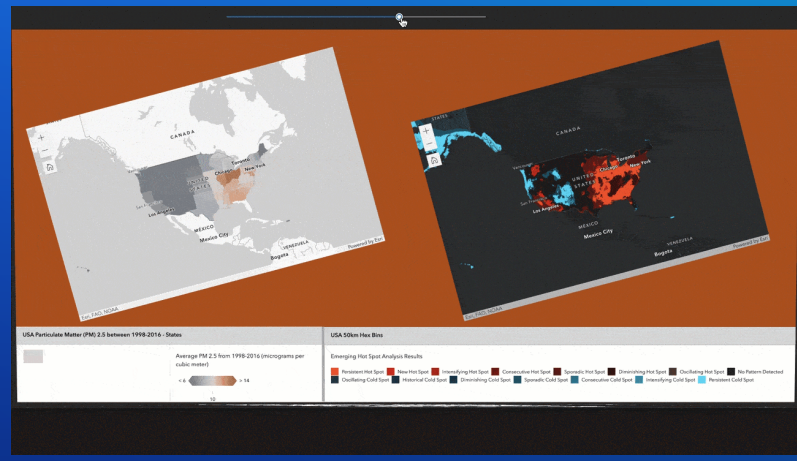


Background, Border & Box shadow



Animation

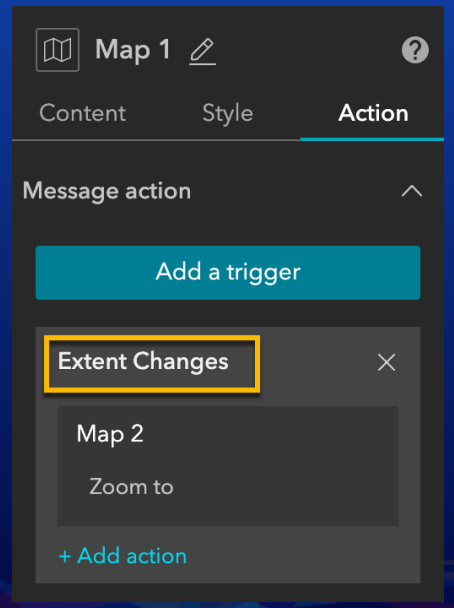


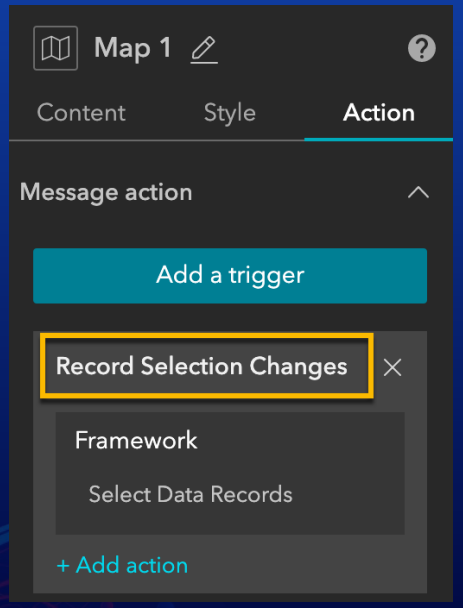


Widget Property- Action

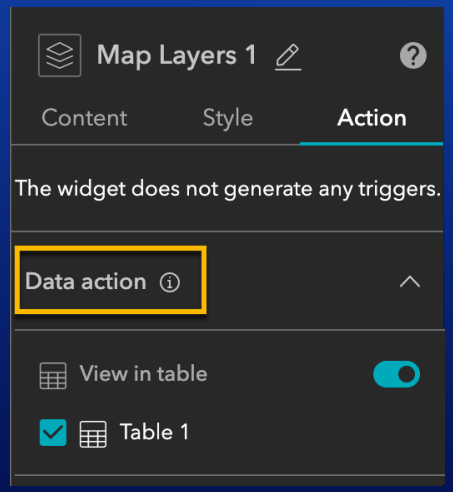
- Action makes widgets talk to each other
- Two types of actions – Message action and Data action New

Message action





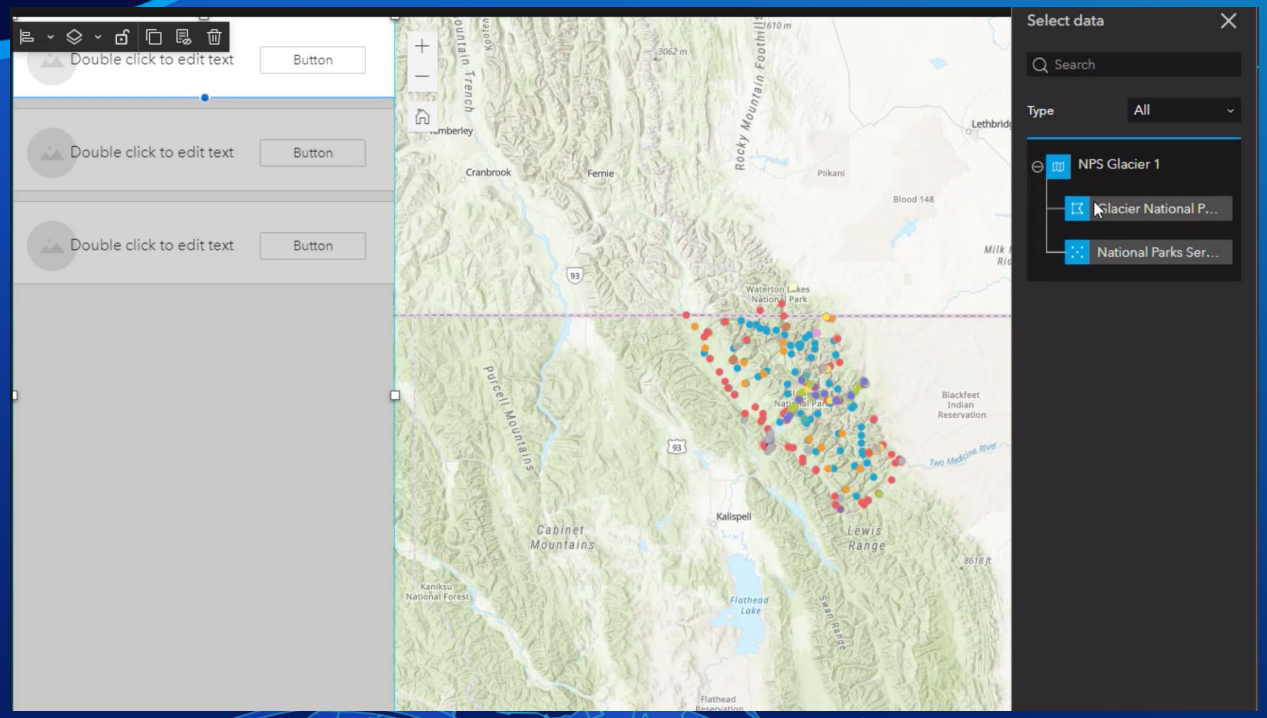
Data action



Message Action

- Consists of three parts
  - Triggers from the source widget
  - Targets that respond to the trigger, including widgets and the app framework (data)
  - Actions from the target related to its intended use from widgets

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



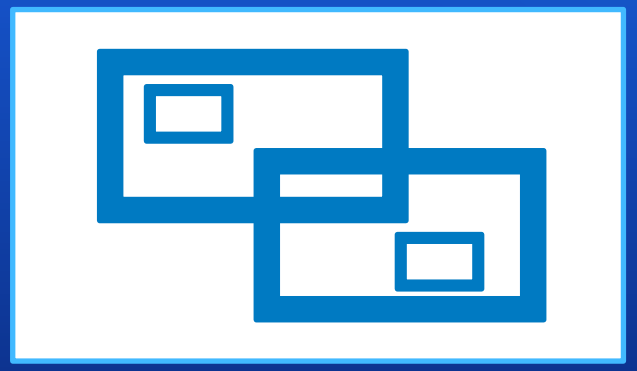
Widget Demo

Kenyon Huber-Wilker

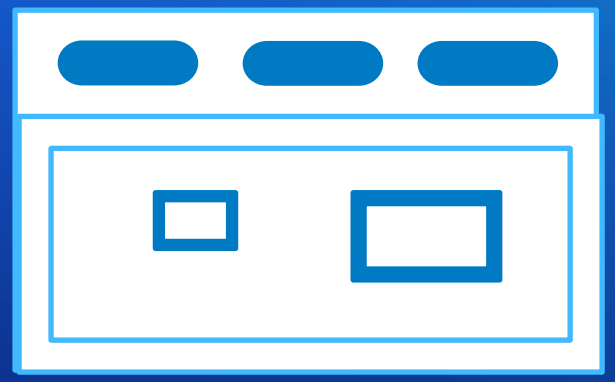
Layout Widgets

Row

Fixed Panel

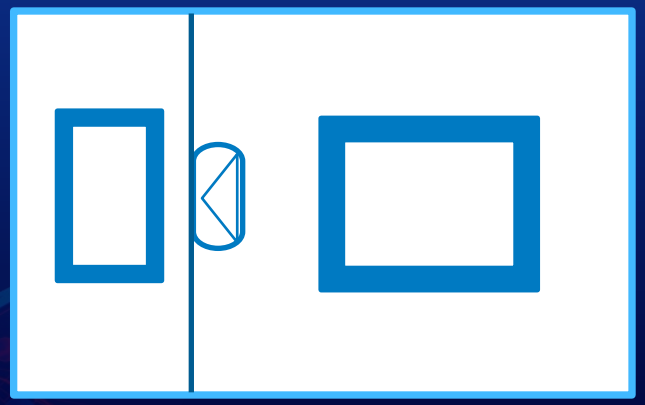


Section & View Navigation

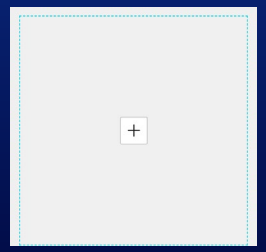


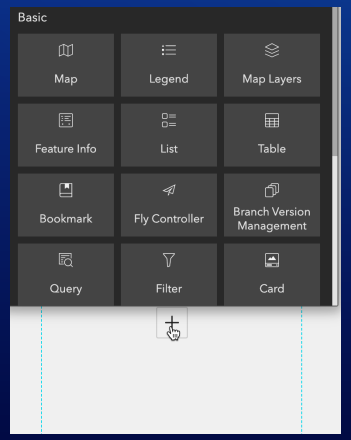
Column

Sidebar



Placeholder





ArcGIS Experience Builder technical session:

“Designing apps with Style and Layout”

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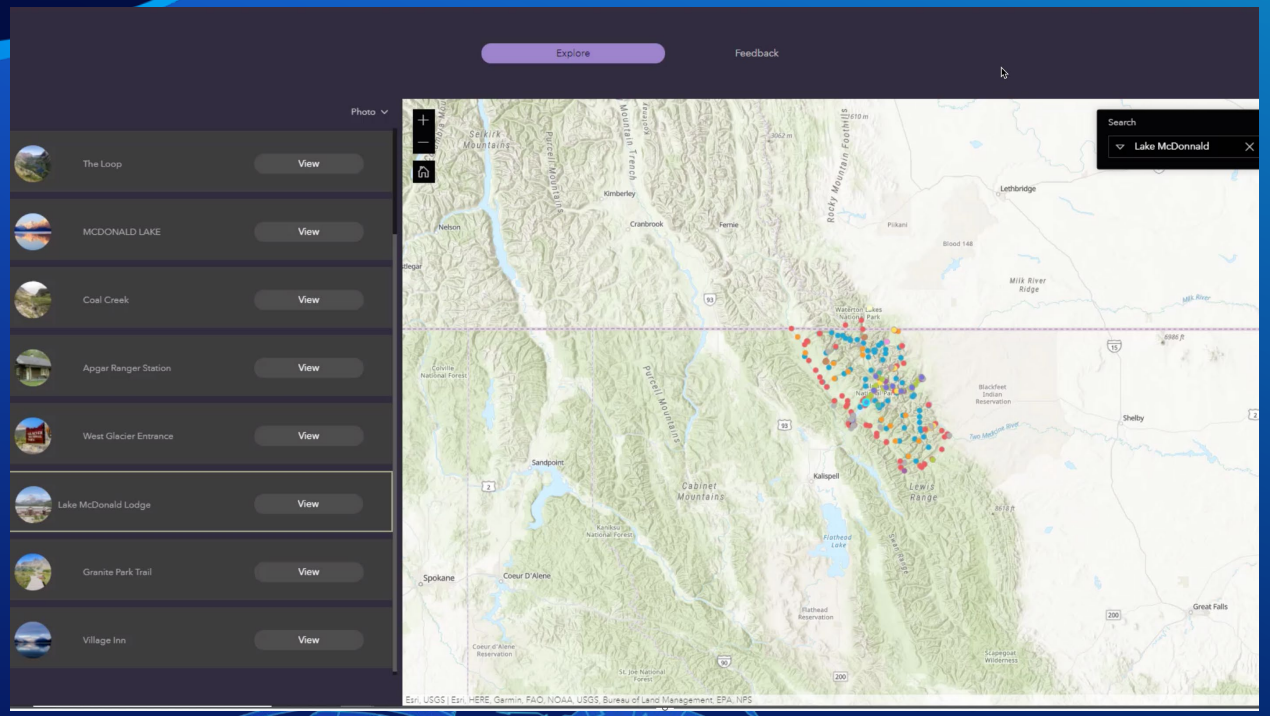
Type: Simu live



Section Demo

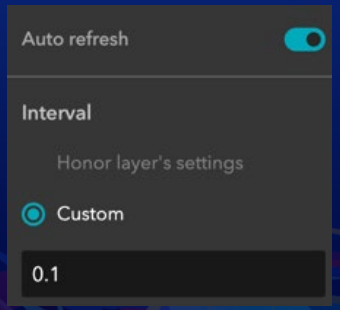
Kenyon Huber-Wilker

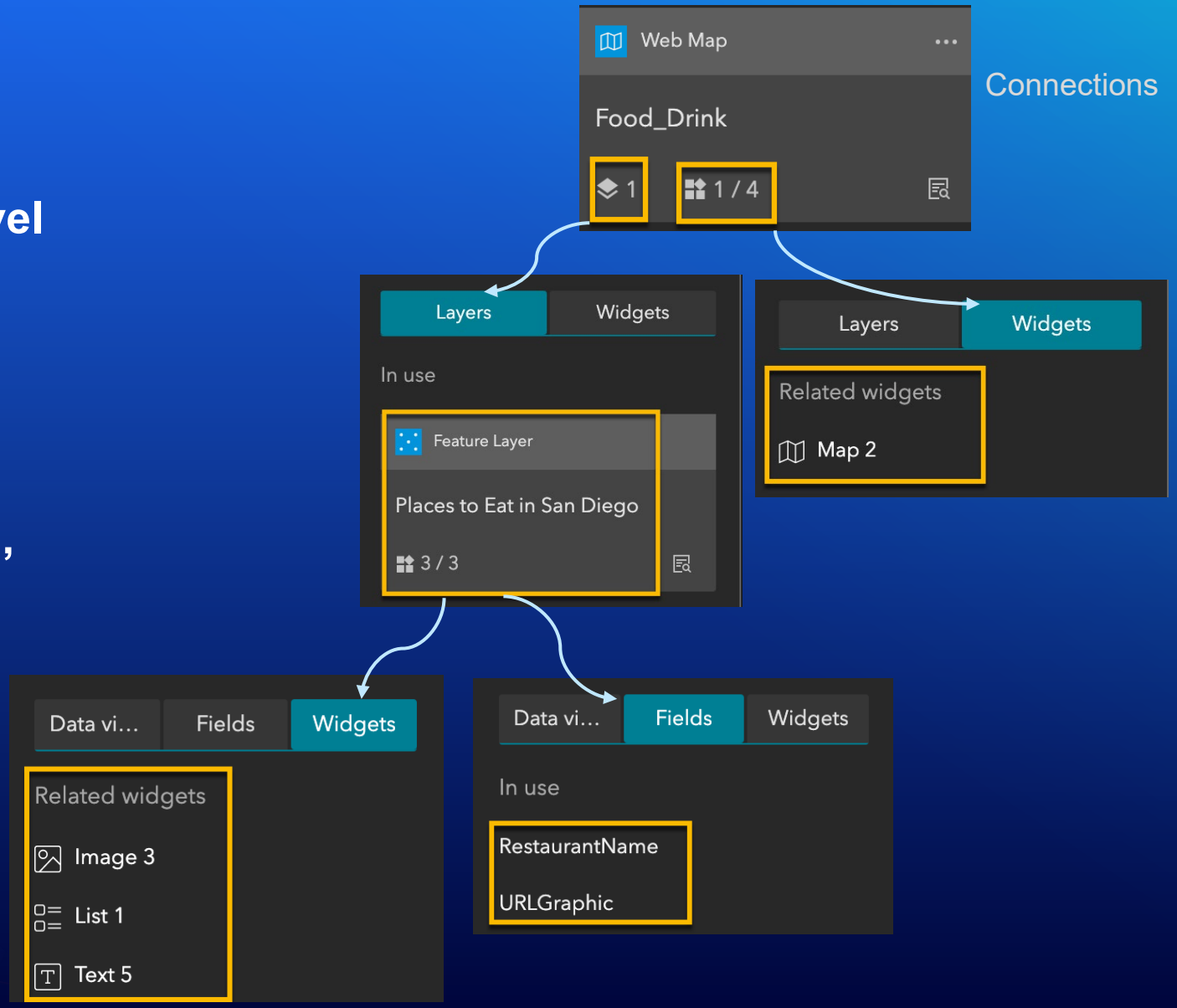
Building Blocks

Data sources

Data sources

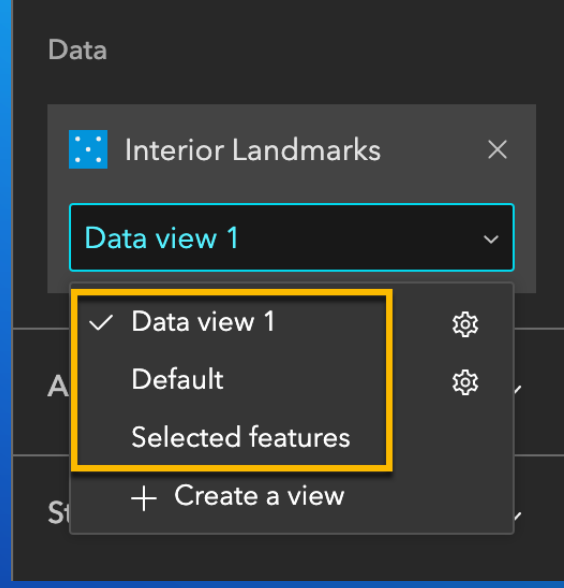
- Shared at the app (framework) Level
  - Web map/scene
  - Feature layer
  - Scene layer
  - Feature collection
- Show connections between layers, widgets, and fields
- Auto refresh with intervals

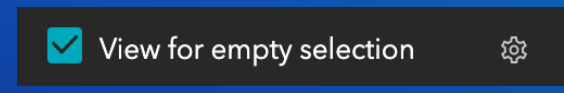


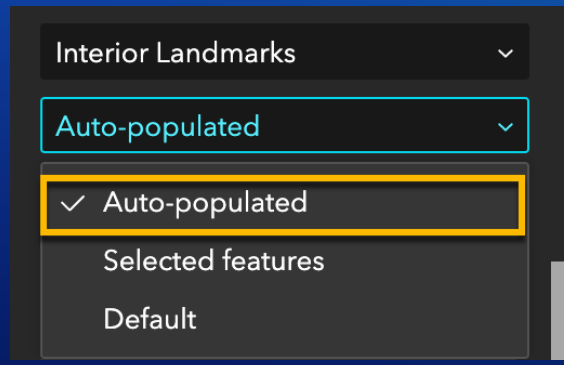


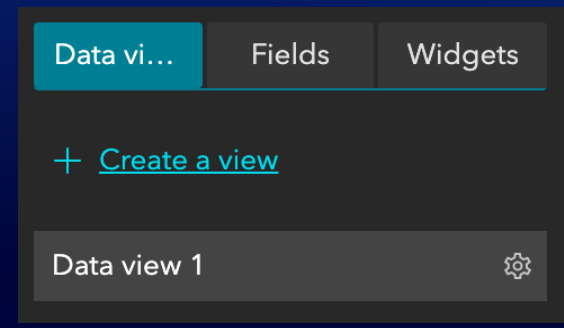
Data source views

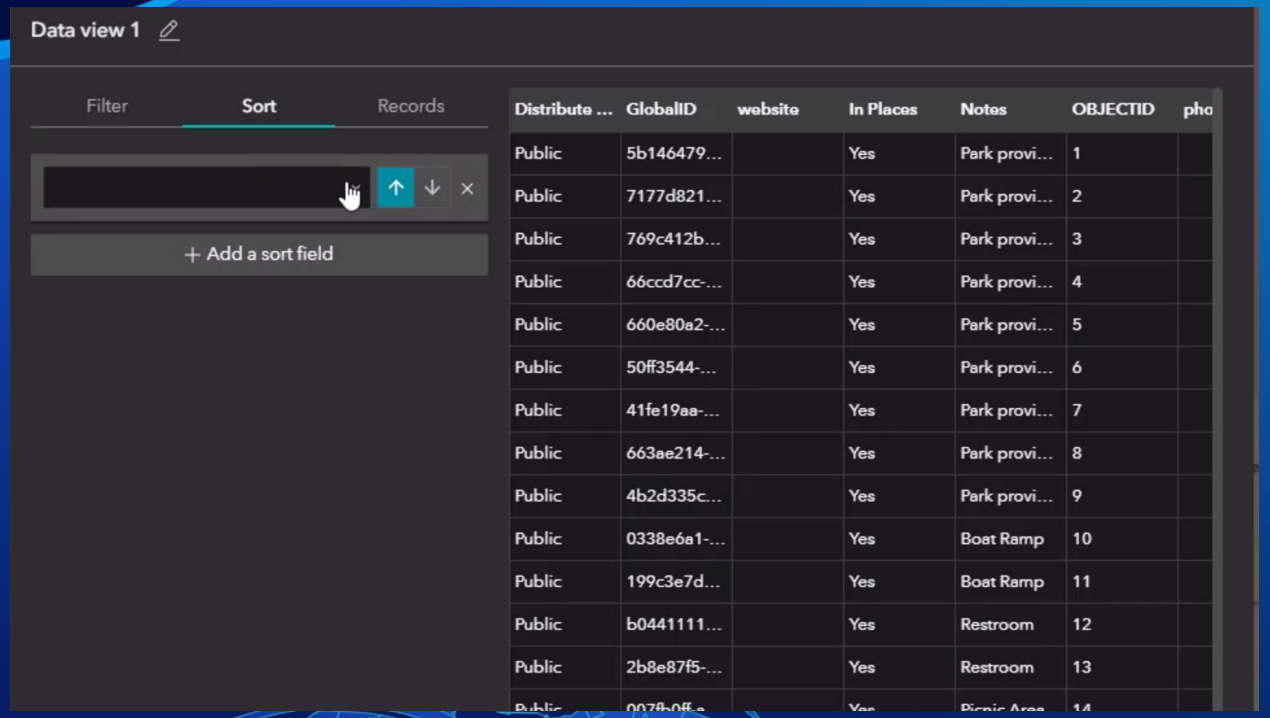
- **Default view**
  - A built-in view contains all the features
- **Selected features' view**
  - A built-in view contains features selected by the user at runtime
  - Use "View for empty selection" option to choose a feature to display when there's no feature selected yet
- **Auto-populated view**
  - A built-in view contains one feature and is only available in the List widget
- **Data view**
  - A data view is a subset of feature layer created through filtering, sorting, and records limitation
  - You can have multiple data views to control which features appear in widgets









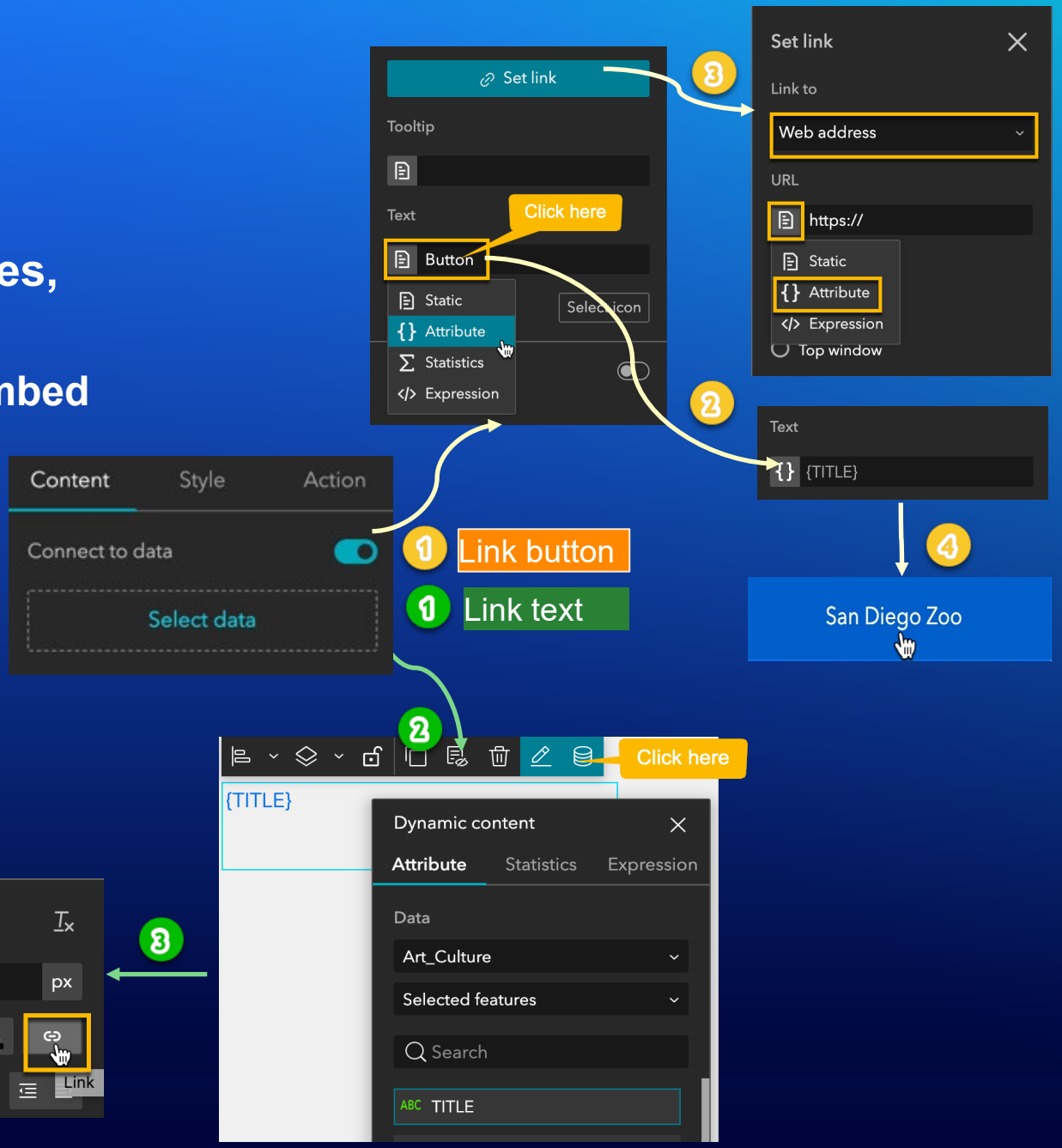


Data View Demo

Kenyon Huber-Wilker

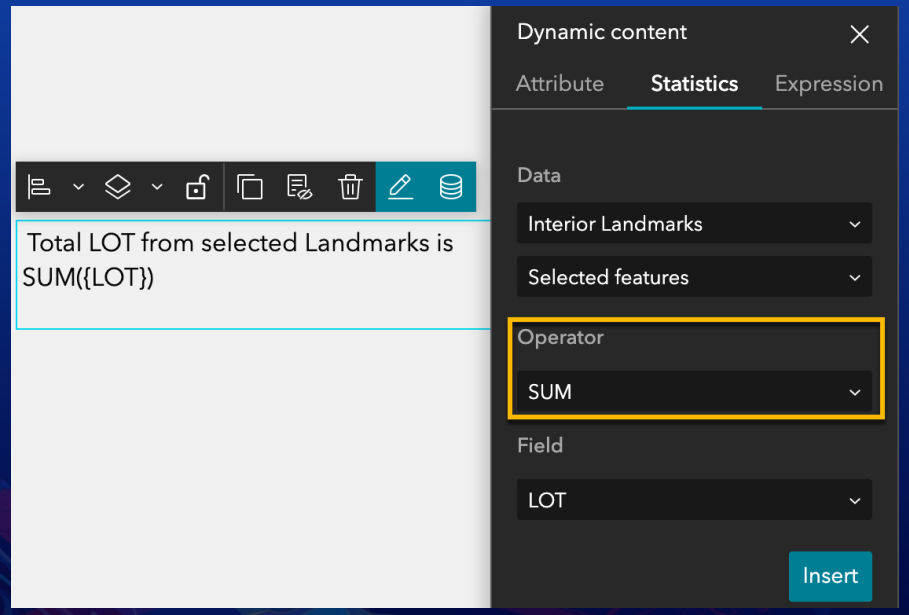
Dynamic content

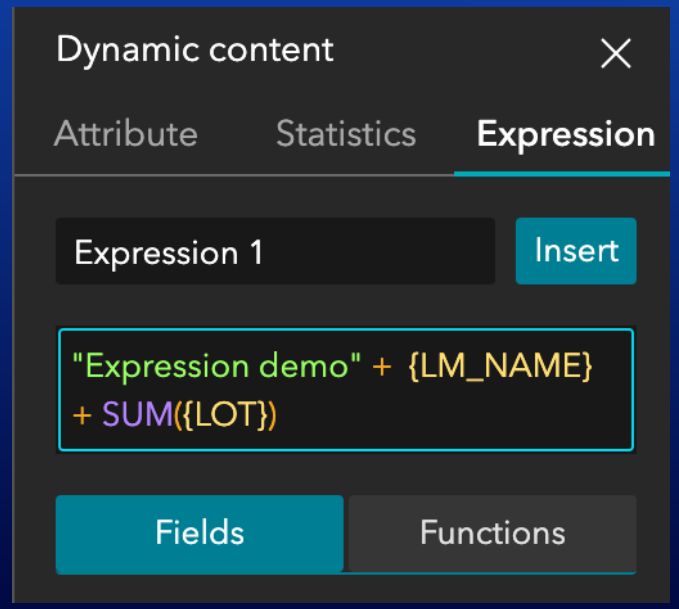
- You can dynamically display attribute values, statistics or expressions from data
  - Using Image, Text, Button, List, Card, and Embed
  - Connect to data
  - Choose a view from data source
- Examples
  - Display a dynamic text / image
  - Display a dynamic link text / link button

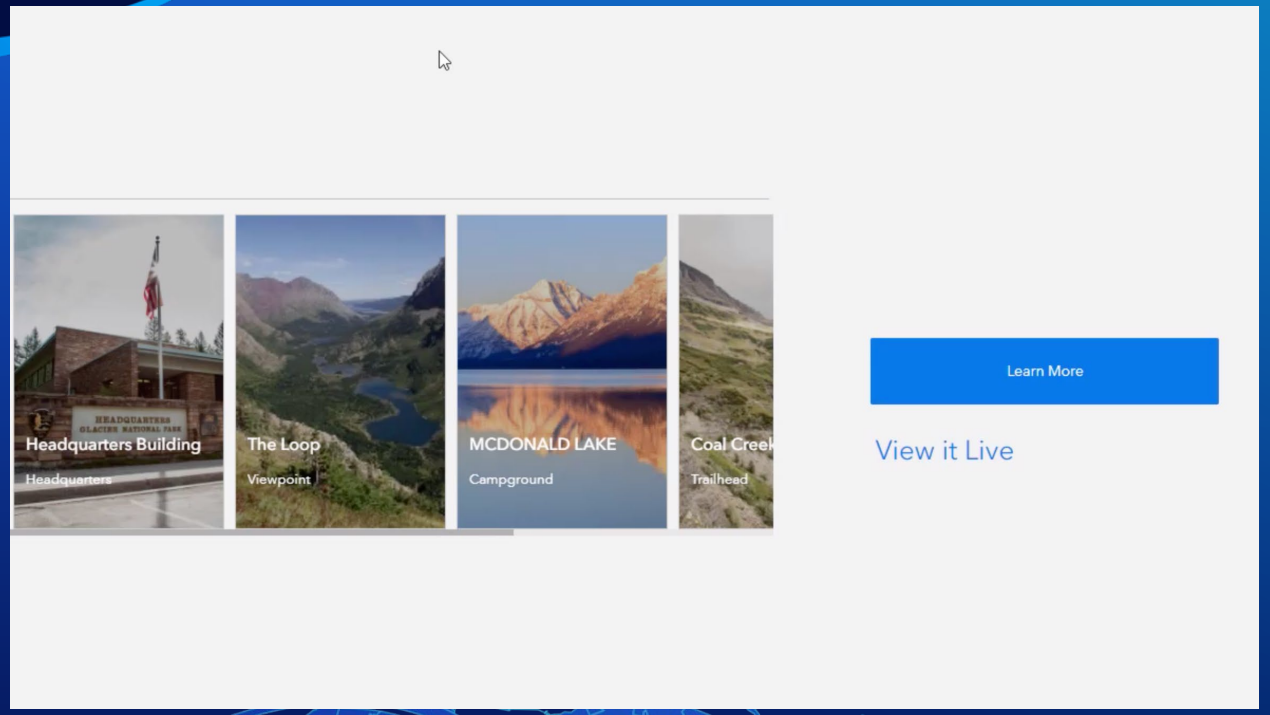


Dynamic content

- Examples
  - Get the statistic result of a numeric field
    - maximum, minimum, average, or sum value
  - Use the expression editor to input text, numbers, fields, and functions







Dynamic Content Demo

Kenyon Huber-Wilker

Building Blocks

Themes

Theme

- Define a set of color and font
- Options to customize
  - Color
  - Font style
  - Font size

Default

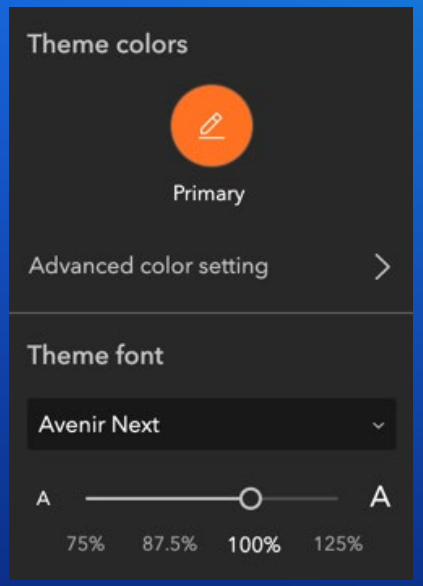
Dark

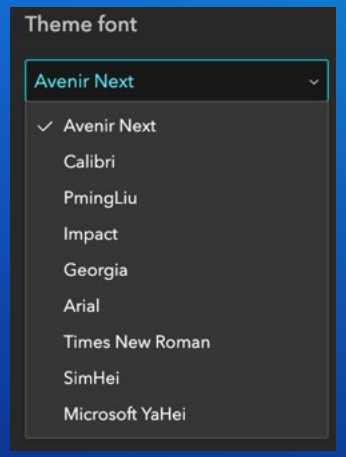
Vivid

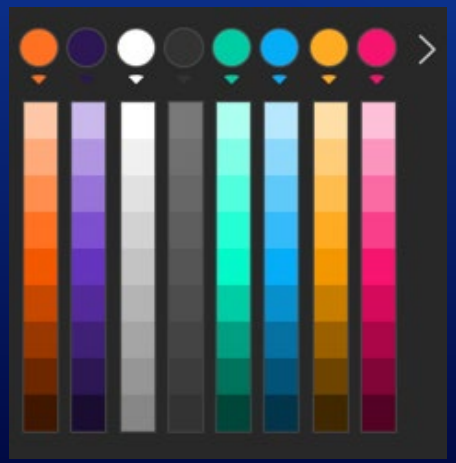
New Ink

New Mysterious

Shared





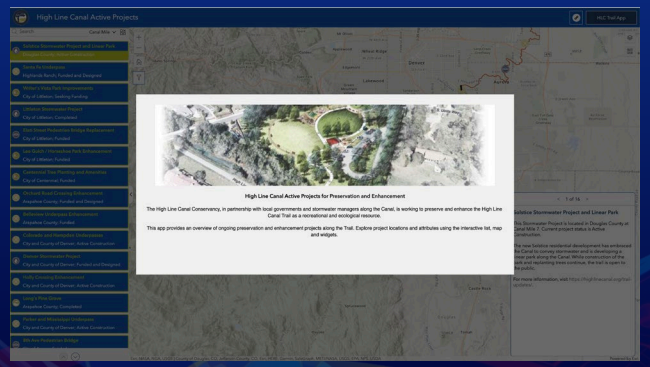


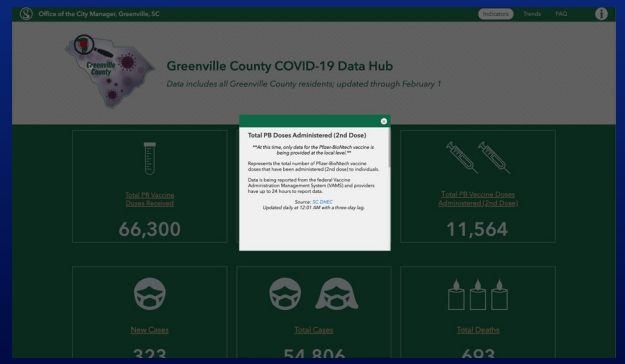
Building Blocks

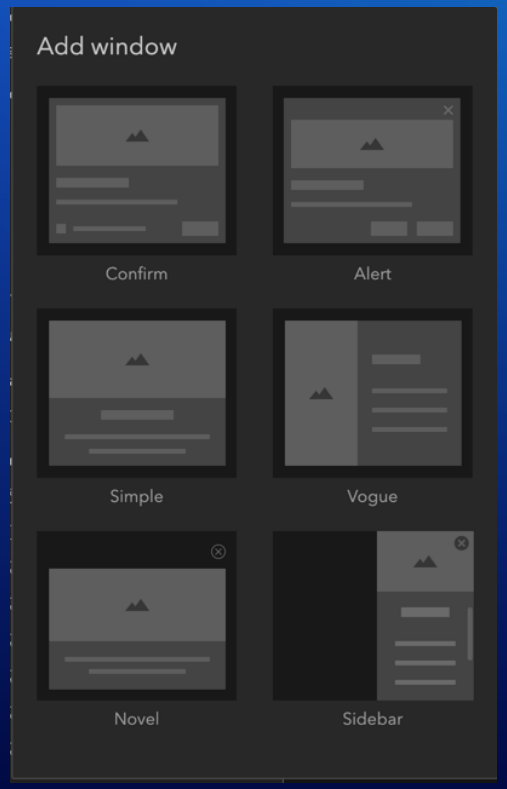
Others including Window, Page, Screen group

Window

- Splash screens, tips, information, confirmation, or alert window
- Two modes
  - Fixed: display in a fixed position like a splash screen
  - Anchored: display around the widget that triggers it
- Start with a window template
- Use any widgets that fit

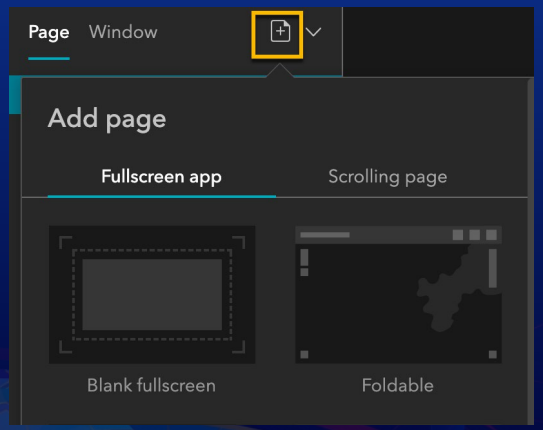


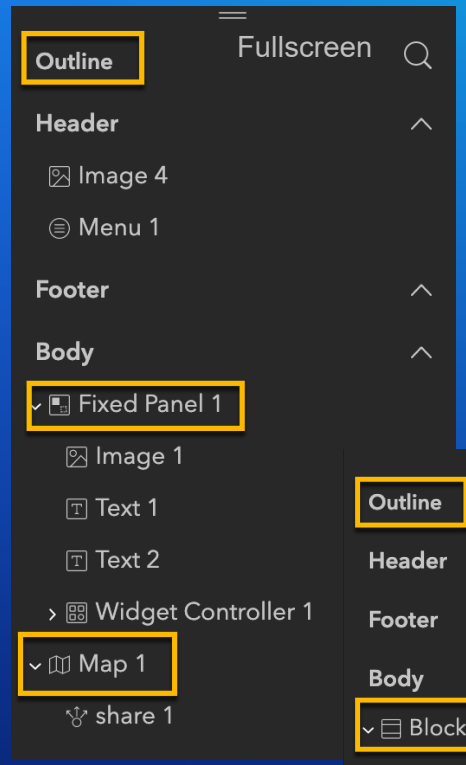


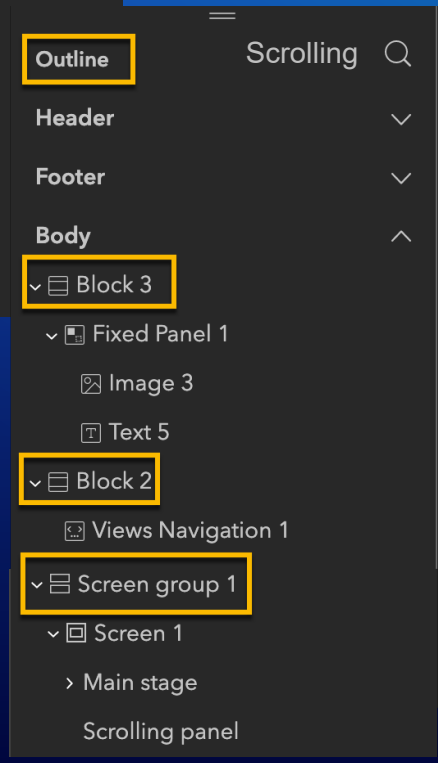


Page

- Header, Footer, Open with window properties
- Outline helps navigate widgets on the page
  - The full-screen page is organized with widgets directly
  - The scrolling page is organized in Block and Screen group where widgets are nested
- Add new pages from default templates





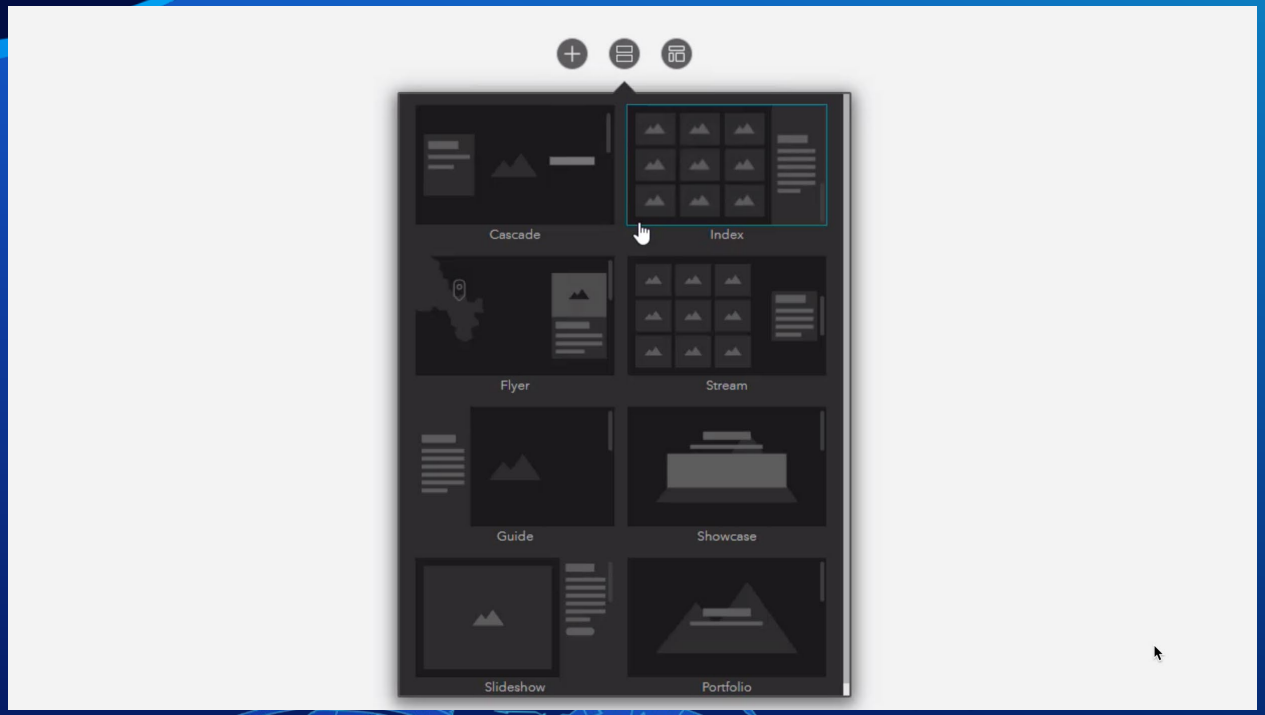


Screen Group New

Engaging

Modern

Web experience

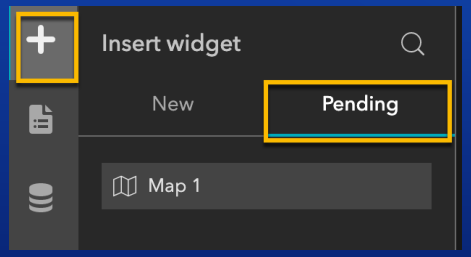


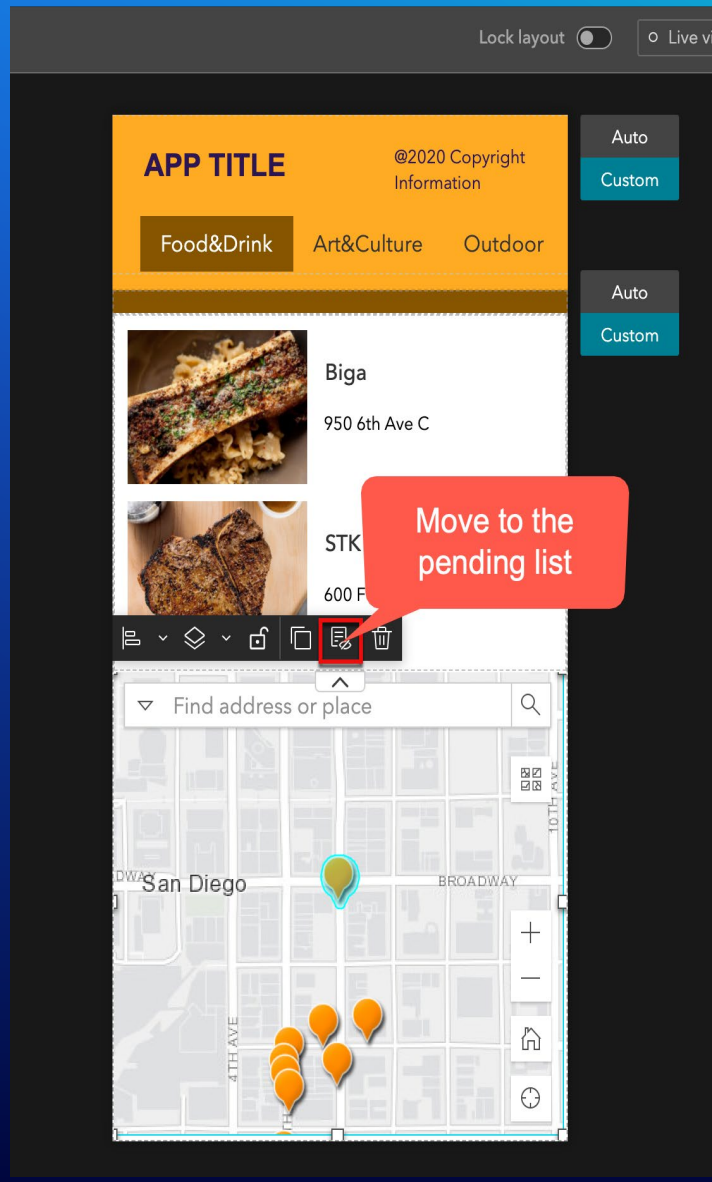
Screen group Demo

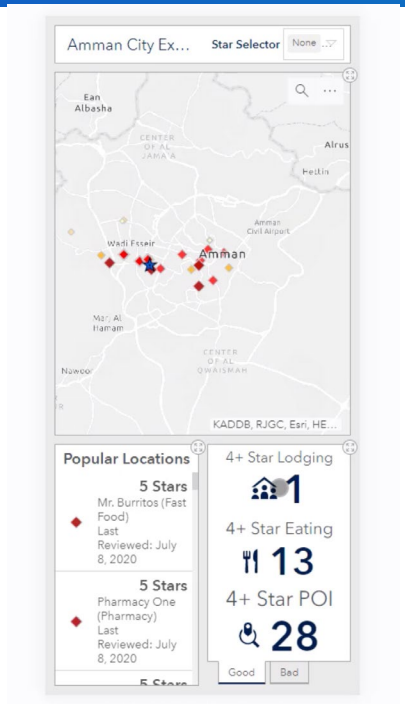
Kenyon Huber-Wilker

Mobile Optimization

- You can configure an app on Mobile differently from that on Desktop with one URL, including
  - Change the content of a widget, like
    - Turn off tools on the map
    - Change the font color and size
    - Embed the mobile version of a dashboard
  - Use less or different widgets
  - Change the layout
- The key is to move widgets to the pending list other than delete them, so they are available on Desktop





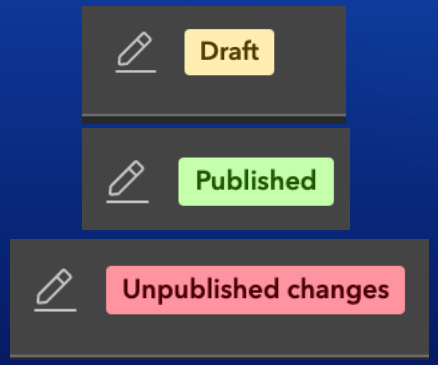


Mobile Optimization

Kenyon Huber-Wilker

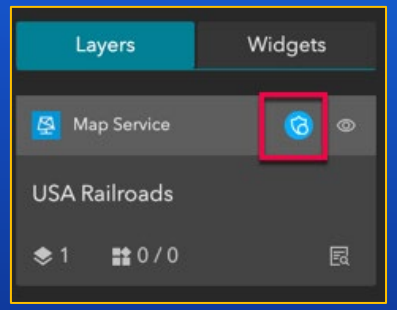
Publish Apps

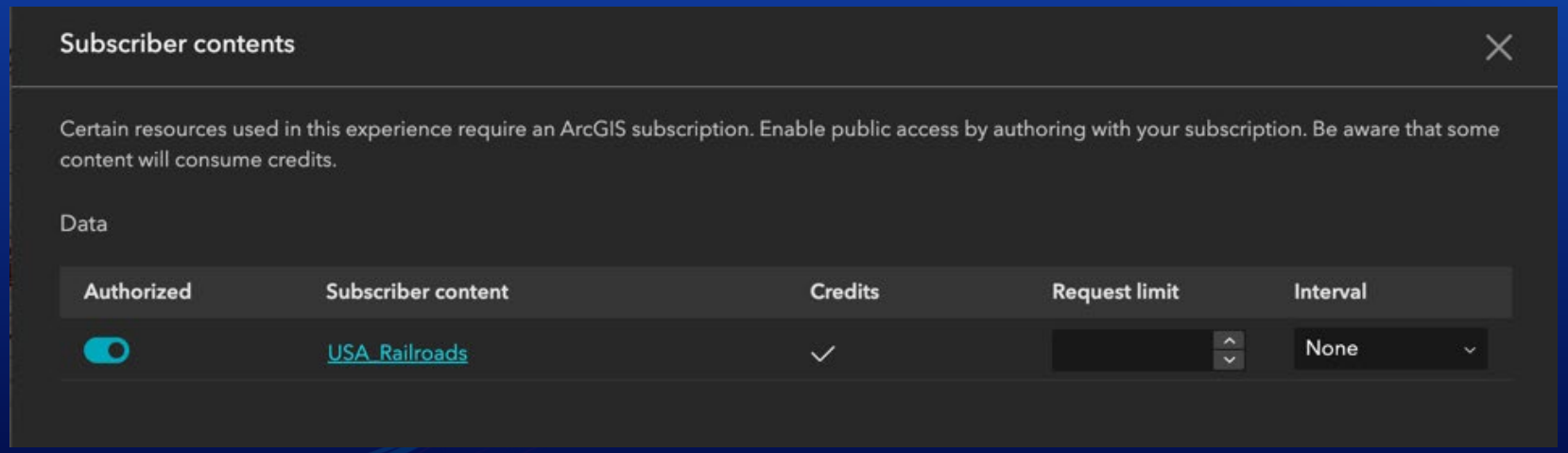
Draft
Published
Unpublished changes



Subscriber Content

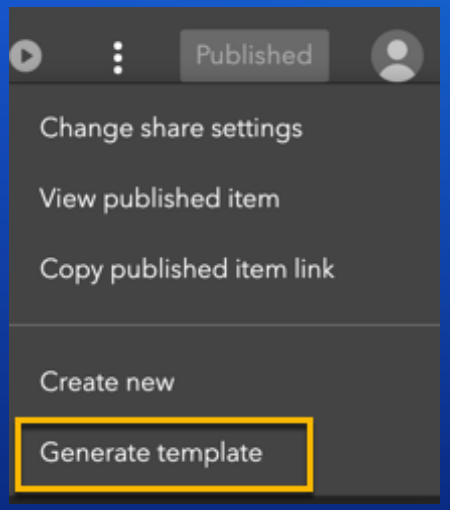
Authorize access from your account, so end users are not asked to sign in

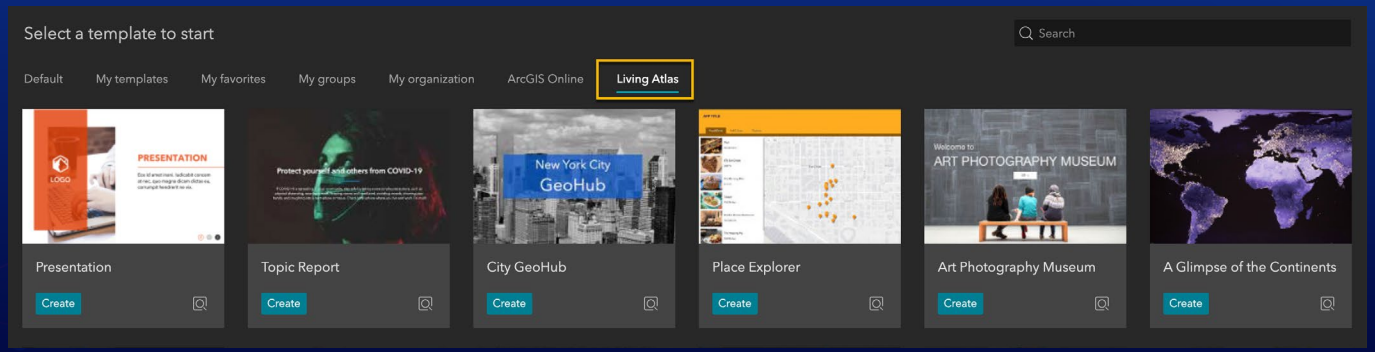




Generate templates

- Create your own starters
  - Reuse
  - Consistent branding
- Shared templates
  - My organization, groups, public





Roadmap

2021 Roadmap and Beyond

*Query
*Chart
*Coordinate Conversion
*Branch Version Management
Service Explorer
Water Outage Isolation Trace
Print
Elevation Profile
Time Slider
Add Data
Business Analyst

Image Gallery
Search
Edit
Geoprocessing
Sketch (Draw)
Swipe
Basemap Gallery
Directions
Slice (3D)
Line of Sight (3D)
Daylight (3D)

Accessibility (508/WCAG)

Custom widgets in ArcGIS Marketplace

*Planned in March 2021 update
*

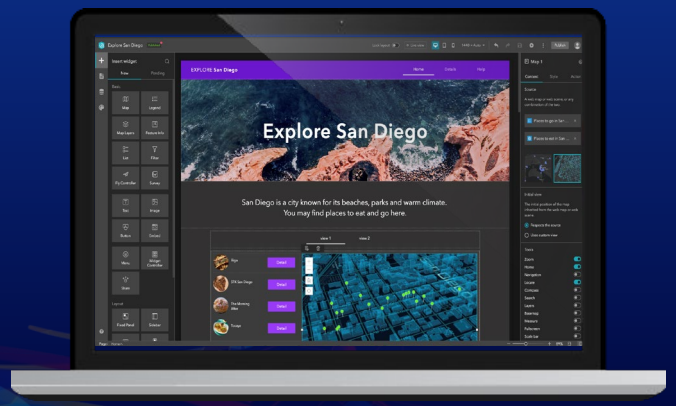
Things are subject to change

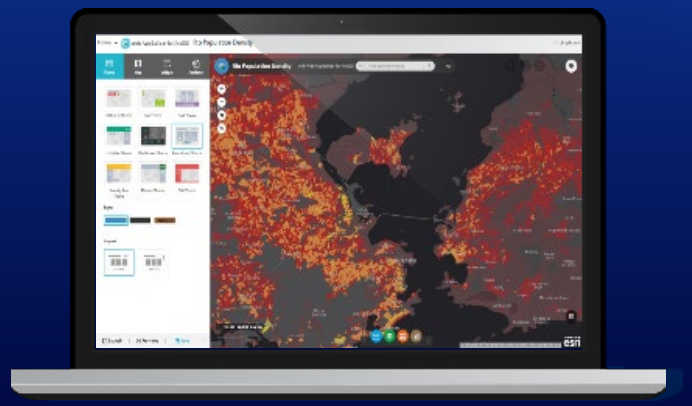
FAQ

Section Subhead

FAQ

- Will Experience Builder replace Web AppBuilder?
  - For the Online Edition, there is no plan to replace and obsolete Web AppBuilder. Both builders will be running and maintained in parallel. Web AppBuilder will continue to be available.
  - The Enterprise Edition follows ArcGIS Enterprise product life cycle
  - The Developer Edition follows ArcGIS API for JavaScript 3.x product life cycle





FAQ

- Can anything be transferred between Web AppBuilder and Experience Builder?
  - You need to re-configure apps or rewrite custom widgets created with Web AppBuilder if you choose to move them to Experience Builder.

- Will Experience Builder reach functional parity of Web AppBuilder?
  - Starting with the core and popular widgets, Experience builder is planned to reach most of functional parity of Web AppBuilder through incremental releases.

Helpful Resources

ArcGIS Experience Builder Online Edition

experience.arcgis.com

Download Developer Edition

developers.arcgis.com/experience-builder

Help documentation

doc.arcgis.com

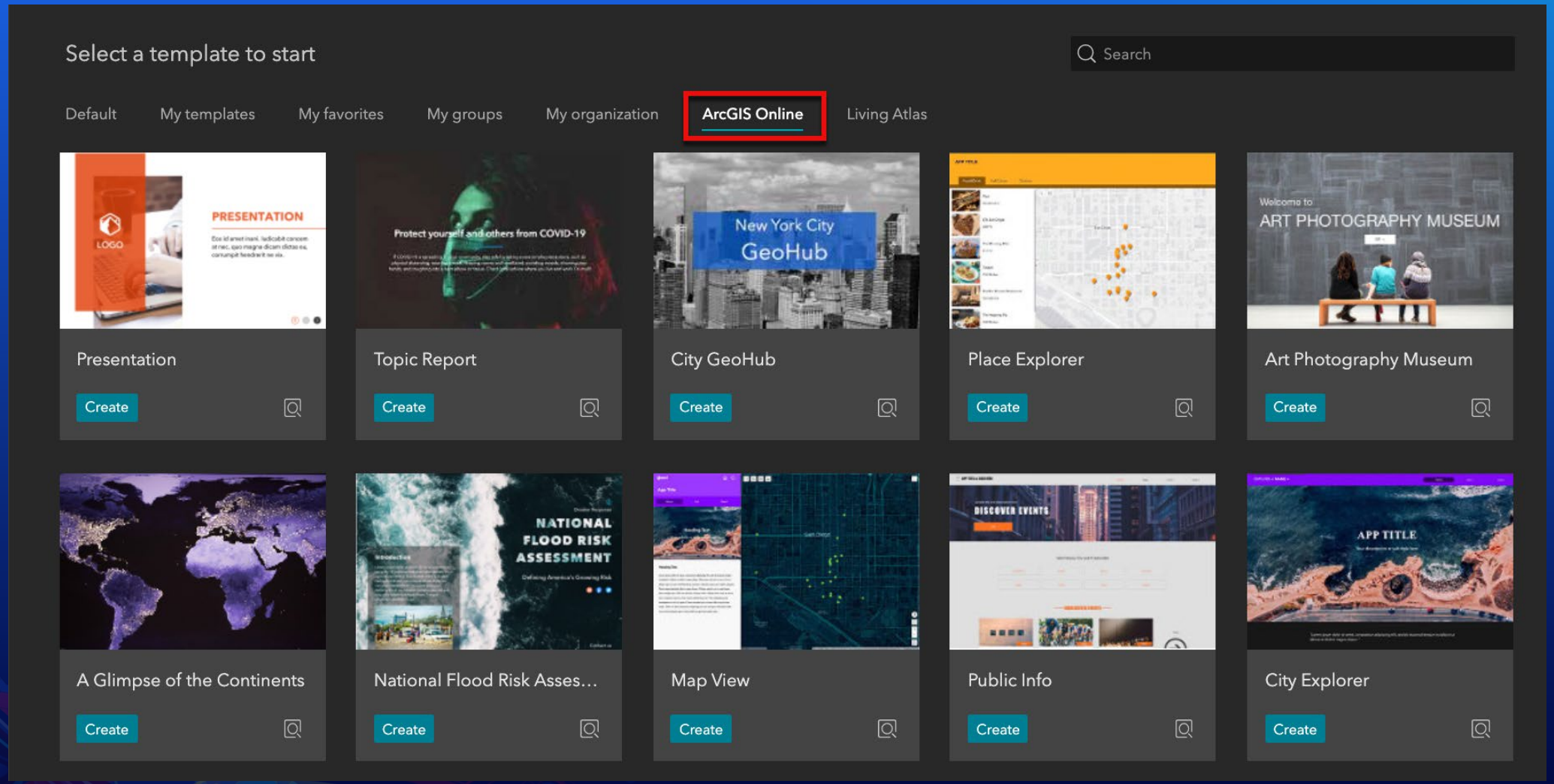
Product page

esri.com

Community

https://community.esri.com/community/arcgis-experience-builder

Sample templates



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