

Extending Utility Workflows with Esri's Experience Builder

The Future of Utility Web Apps

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Topics

- Overview – experience what?!
- Navigating the sunset of Web AppBuilder
- Web AppBuilder vs. Experience Builder
- Common use cases
- Configuration and customization
- Working with templates
- Widgets and Actions
- Working with embedded apps
- Working with URL Parameters
- Working with Utility Network
- Beyond the desktop

Experience Builder Overview

- Low-code configurable app apart of Esri's low-code/no-code suite that is available through Enterprise and AGOL.
- Standard edition and developer edition available
- Key features
- It's no longer just about the web map!

Web AppBuilder's Sunset

- ArcGIS API for JavaScript retired in July 2024, replaced by ArcGIS SDK for JavaScript
- Retirement timeline:
 - Enterprise February 2023 (deprecated) – will be available through Enterprise through June 2025 (retired)
 - AGOL October 2025 (retired)
 - Dev edition July 2024 (retired)
- Rebuild and replace ([Migrate a Web AppBuilder app to Experience Builder, Esri](#))
- Not all functionality is equal ([Web AppBuilder and Experience Builder functionality matrix, Esri](#))

Web AppBuilder vs. Experience builder

Feature	Web App Builder	Experience Builder
Purpose	Create web apps that interact with ArcGIS data	Create web apps and web pages that interact with ArcGIS data
Underlying technology	ArcGIS API for JavaScript	ArcGIS Maps SDK for JavaScript
Customization with out-of-the-box configuration (WYSIWYG)	Limited	High
App types	Single-page map-centric apps	Single, multipage, and longform apps (map-centric or not)
Content support	2D content only (3D only available in later editions of Enterprise and AGOL)	2D and 3D content
Layouts	Fixed layouts	Responsive layouts that adapt to any device (mobile first design)
Widget interactions	Limited	Action triggers that create interactions between widgets
Ease of use	Easy to use for beginners	More complex, but offers more flexibility
Future development	No longer being actively developed	Esri's primary app builder for the future

Common Use Cases for Experience Builder

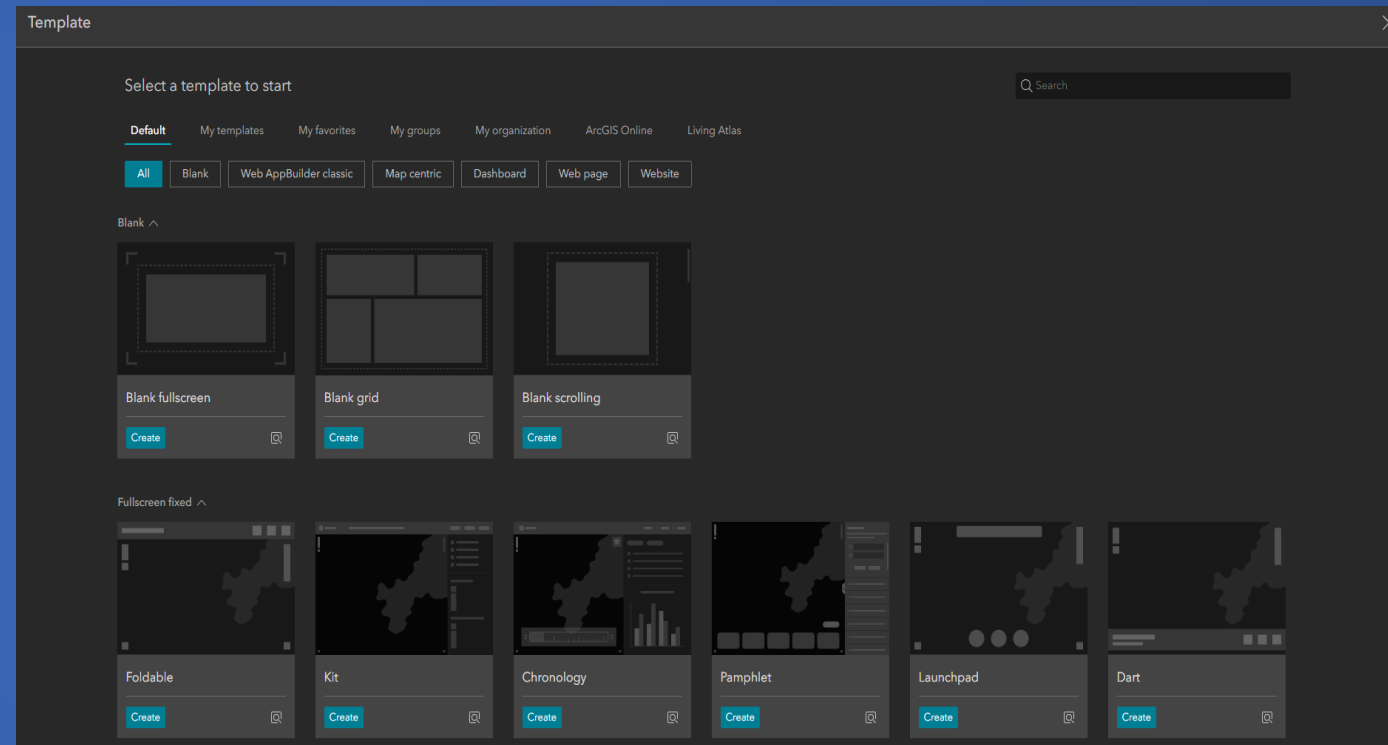
- Simple to complex data collection, data editing or referencing
- Simple to complex spatial analysis
- Network tracing
- Dynamic data visualizations—“mapcentric” or not
 - Dashboard integration for dynamic data displays

Configuration and Customization

- WYSIWYG
- No code out-of-the-box configuration.
- Ability to customize applications with low-code elements, like HTML and CSS available in out-of-the-box configuration properties.
- Highly customizable with developer edition, requires self-deployment.

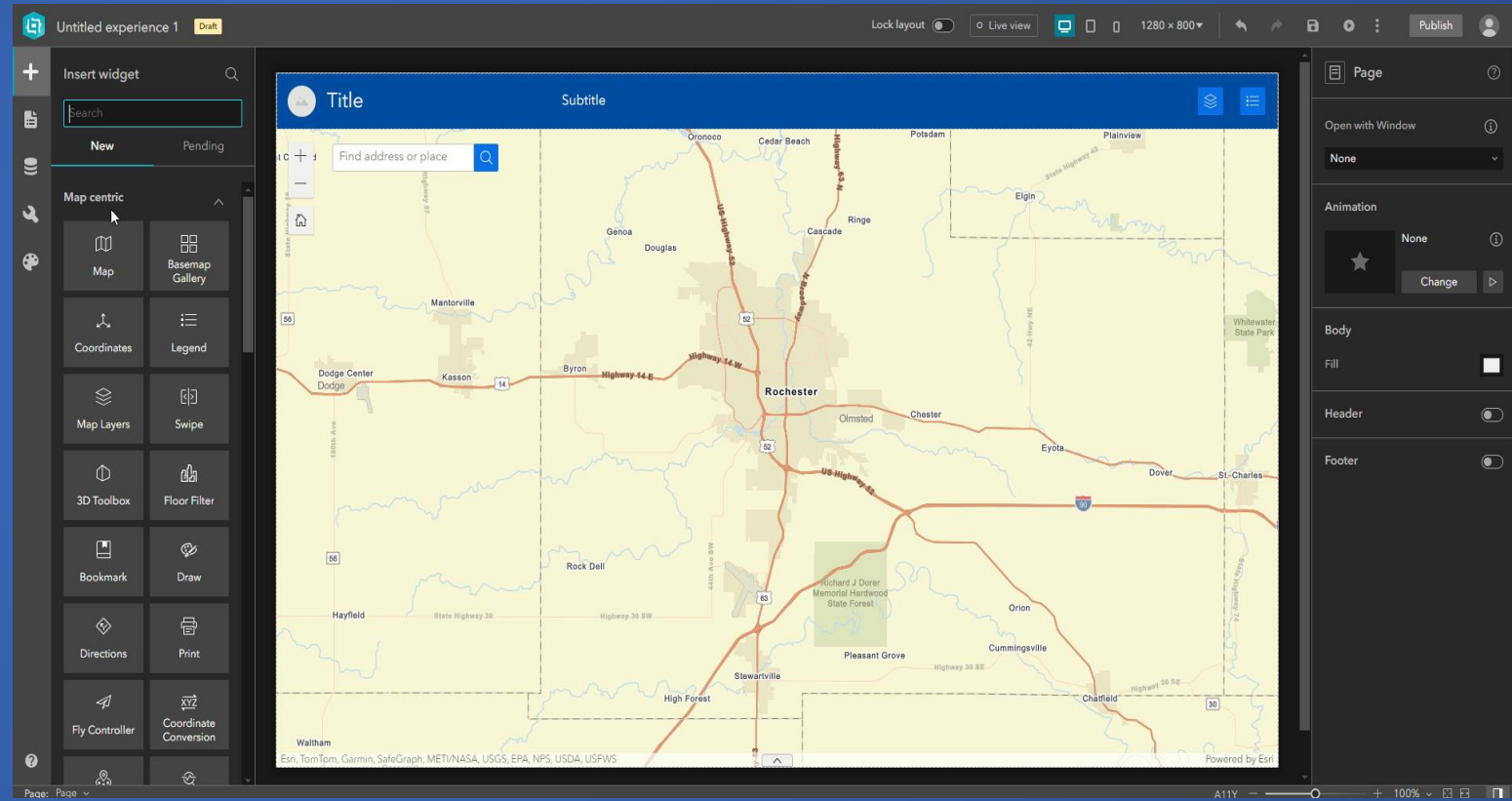
Working with Templates

- Out-of-the-box templates vs. customized templates
- Web AppBuilder templates are available in Experience Builder
- Templates include map focused and non-map focused designs.



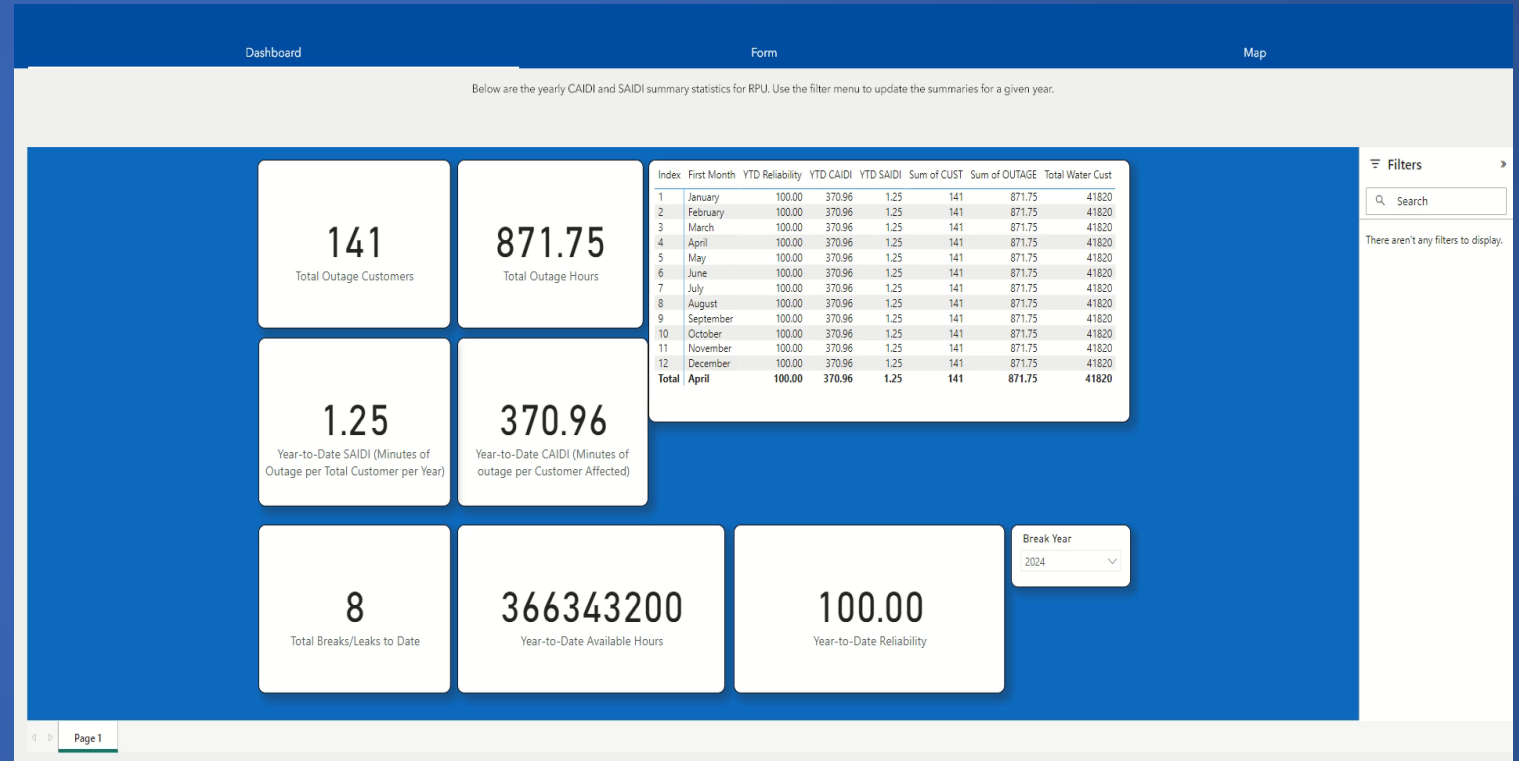
Widgets and Actions

- 70+ widgets available
- Organized by widget behavior
- Availability dependent on platform (AGOL vs. Enterprise)
- Actions are configured within widgets, there are two types
 - Message Action
 - Data Action
- Interconnected widgets



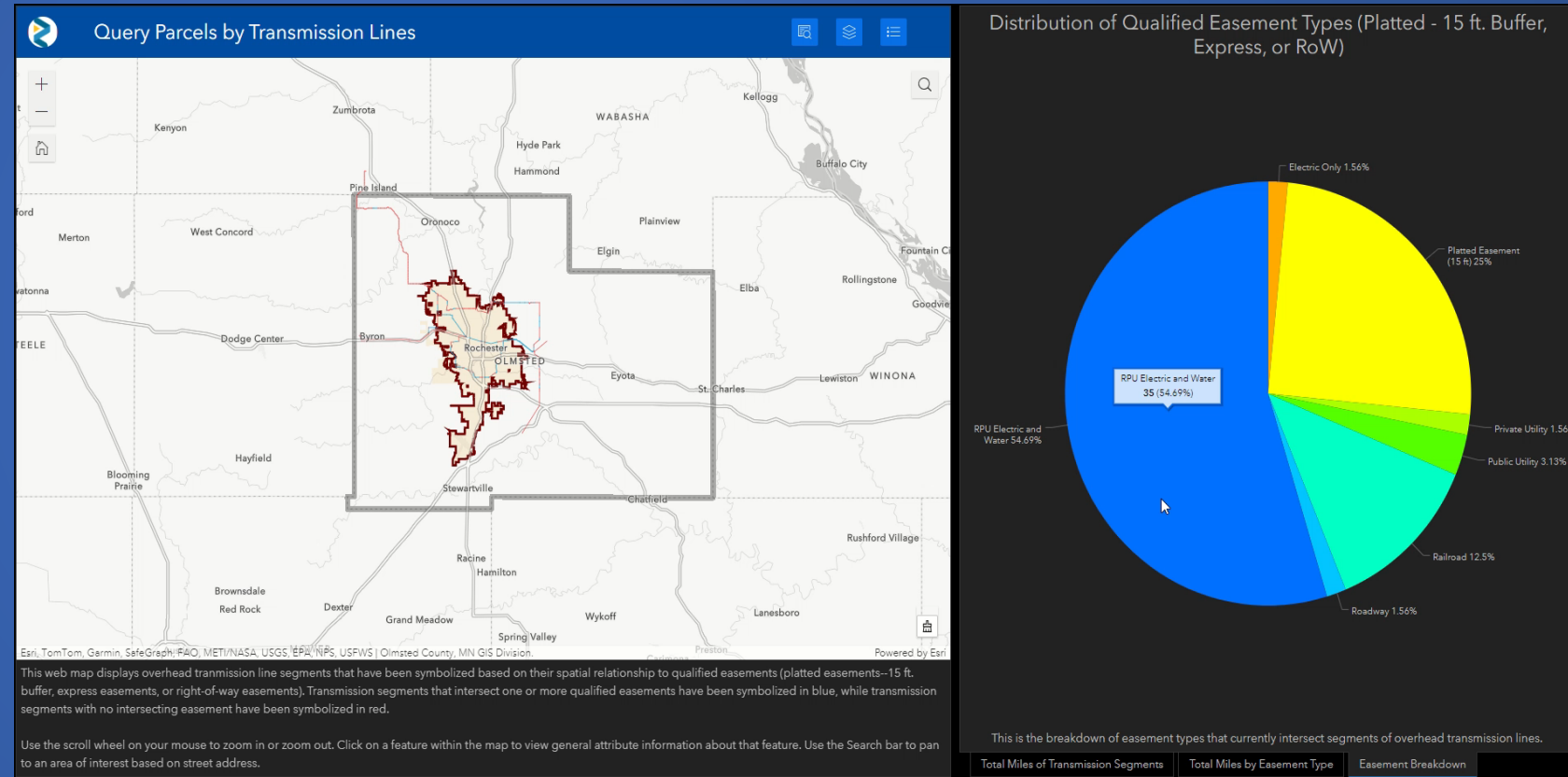
Working with Embedded Apps

- Both ArcGIS native and non-native content can be embedded within Experience Builder apps.
- Content can be embedded using dynamic URLs or custom HTML code



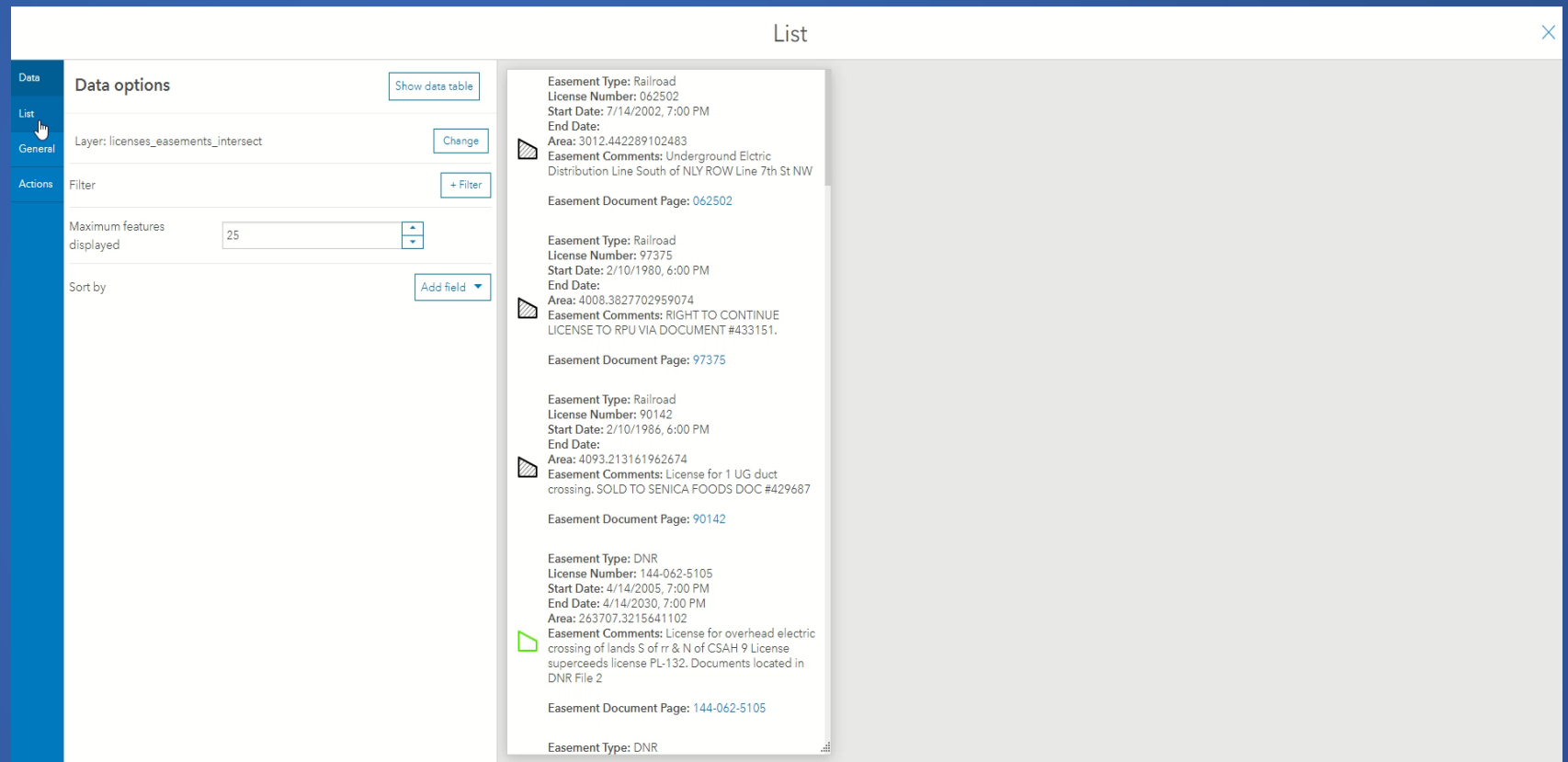
Working with Embedded Apps

- Embed Experience Builder in Dashboards
- For more info on data expressions, check out Eris GitHub: https://github.com/Esri/arcade-expressions/tree/master/dashboard_data



Working with URL Parameters

- General URL Parameters for controlling styling on the screen
- Data-driven URL Parameters for controlling visuals and widgets



The screenshot displays a web application interface with a sidebar on the left and a main content area on the right. The sidebar has a blue background and contains a vertical menu with the following items: "Data", "List" (highlighted with a mouse cursor), "General", and "Actions".

The main content area is titled "List" and is divided into two sections:

- Data options:** This section contains several controls:
 - A "Show data table" button.
 - A "Layer: licenses_easements_intersect" field with a "Change" button.
 - A "Filter" field with a "+ Filter" button.
 - A "Maximum features displayed" field with a value of "25" and a dropdown arrow.
 - A "Sort by" field with an "Add field" dropdown arrow.
- Record List:** This section displays a list of easement records. Each record includes the following information:
 - Easement Type:** Railroad
 - License Number:** 062502
 - Start Date:** 7/14/2002, 7:00 PM
 - End Date:** (blank)
 - Area:** 3012.442289102483
 - Easement Comments:** Underground Electric Distribution Line South of NLY ROW Line 7th St NW
 - Easement Document Page:** 062502

Working with Utility Network Trace

- Utility Network Trace widget is available in Experience Builder
 - Enterprise 10.9+
- Prerequisites:
 - Web map with trace configuration
 - Feature service that supports UN
 - Topology enabled and validated
 - ArcGIS Utility Network user type extension
- Configure an Application to Trace a Utility Network, Alix Vezina, 2022

Service Connections: 33

Utility Network Trace

Asset ID	Install Date
Srvc-Cnnctn-100	1989-12-31, 4:00 p.m.
Srvc-Cnnctn-514	1989-12-31, 4:00 p.m.
Srvc-Cnnctn-679	1989-12-31, 4:00 p.m.

Water Isolation: Isolated features
The features that are being isolated.

Functions (2) >

Features (192) >

Select features

Show graphics

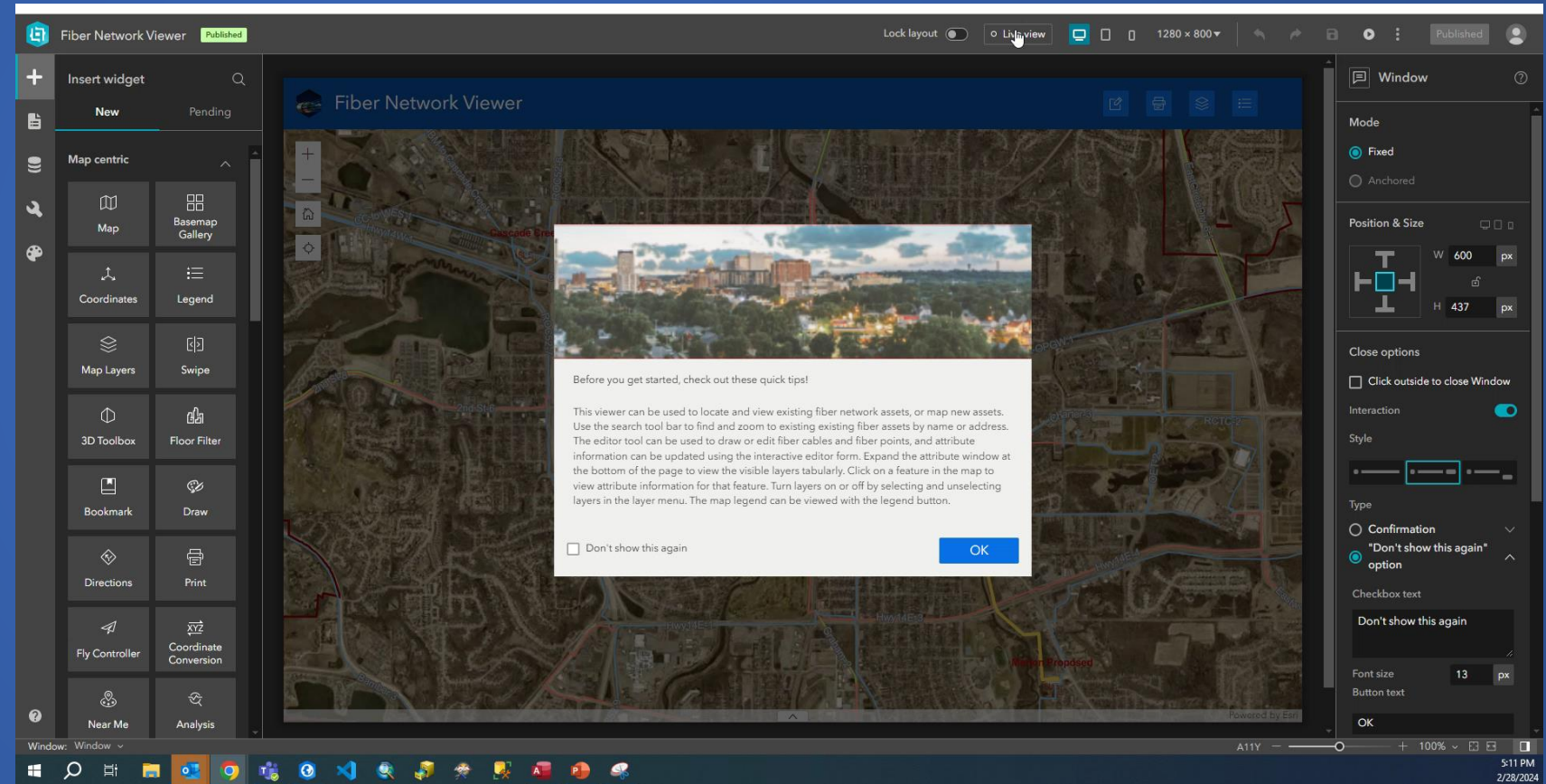
Clear All

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Powered by Esri

Beyond the Desktop

- Layout options include desktop and mobile options
- Configure different layouts for various screen sizes
- Widgets and controllers are configured for each layout



References

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- Esri. Web AppBuilder and Experience Builder functionality matrix. ArcGIS Web AppBuilder, Esri Products. <https://doc.arcgis.com/en/web-appbuilder/latest/create-apps/wab-exb-widget-functionality-matrix.htm>
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Questions