

# ArcGIS Experience Builder Developer Edition 1.12

## Complete Tutorial – Part 1

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## Overview

ArcGIS Experience Builder is the next generation Web Mapping Platform from ESRI.

It is the successor to the Web AppBuilder for ArcGIS.

The Experience Builder allows anyone to design mobile friendly multi-page websites with dynamic maps, charts, lists, tables, and images that update automatically as you interact with the elements *without having to write a single line of code!*

It presents a true drag & drop interface using a collection of Themes and Widgets that allows seamless integration between 2D and 3D maps.

The Experience Builder uses JavaScript API 4.x and integrates several Web Mapping Applications like Survey 123 and StoryMaps.

The Developer Edition allows you to add Custom Widgets.

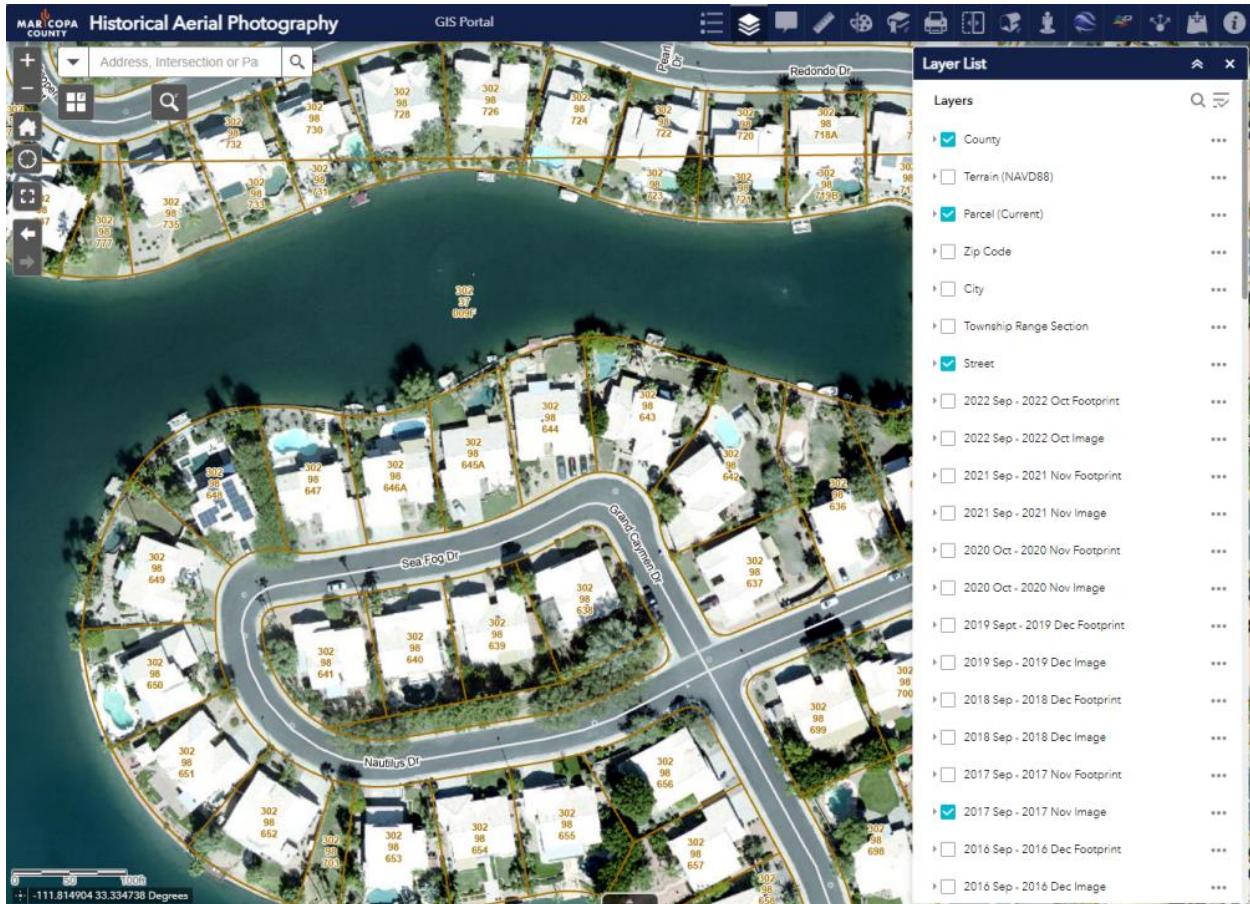
This Tutorial explains how to transition from WAB to EXB using the Historical Aerials Web App as a Case Study.

You will be using **EXB Developer Edition 1.12** with Node.js 14.21.3. The Developer Edition is necessary to add Custom Widgets for Google Maps and Pictometry.

If you have no need to add Custom Widgets, you can go through this tutorial using the ArcGIS Online Edition of the Experience Builder starting at page 66. The interface is identical.

This is the **Web AppBuilder** version of the Historical Aerials Web App.

<https://gis.maricopa.gov/GIO/HistoricalAerial/>



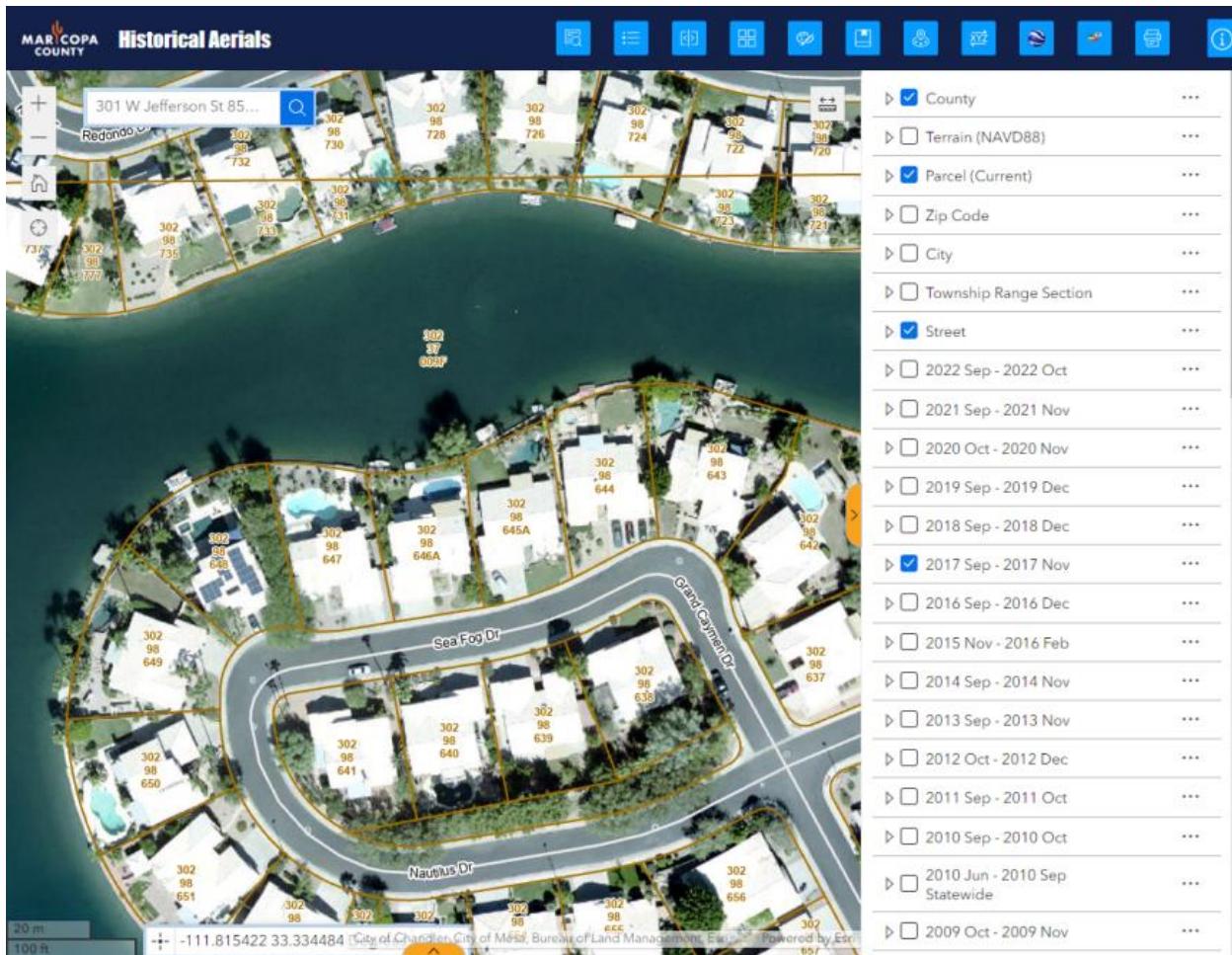
This was built using WAB Developer Edition 2.27

The WAB Developer version uses the following widgets:

- Zoom In
- Zoom Out
- Home
- Location
- Full Screen
- Previous Extent
- Next Extent
- Graphical Scale Bar
- Coordinate Widget
- Attribute Table Widget
- Search Tool
- Enhanced Basemap Gallery Widget (Custom Widget by Robert Scheitlin)
- Enhanced Search Widget (Custom Widget by Robert Scheitlin)
- Legend Widget
- Layer List Widget
- Popup Panel Widget (Custom Widget by Robert Scheitlin)
- Measurement Widget
- Draw Widget
- Enhanced Bookmark Widget (Custom Widget by Robert Scheitlin)
- Print Widget
- Swipe Widget
- Enhanced Locate Widget (Custom Widget by Robert Scheitlin)
- Google Street View Widget (Custom Widget by Robert Scheitlin)
- Google Earth Widget (Custom Widget by Kevin MacLeod)
- Pictometry Widget (Custom Widget by Kevin MacLeod)
- Share Widget
- Add Data Widget
- About Widget

This is the **Experience Builder** version of the Historical Aerials Web App.

<https://daviddas2.github.io/HistoricalAerials/>



This was built using EXB Developer Edition 1.12 (July, 2023).

The EXB Developer version uses the following widgets:

- Zoom In
- Zoom Out
- Home
- Location
- Graphical Scale Bar
- Coordinate Widget
- Search Tool
- Measure Tool
- Map Widget
- Map Layers Widget
- Attribute Table Widget
- Query Widget
- Legend Widget
- Swipe Widget
- Basemap Gallary Widget
- Draw Widget
- Bookmark Widget
- Near Me Widget
- Coordinate Conversion Widget
- Google Maps Widget (Custom Widget by Frederic Poliart, ESRI Australia)
- Pictometry Widget (Custom Widget by Frederic Poliart, ESRI Australia)
- Print Widget

This tutorial will walk you through all the steps showing you how to recreate this EXB app.

No programming is necessary. The two Custom Widgets have been preconfigured for you.

Let's begin!

## Publish your Map Services

The very first step to creating a Web Application is to curate your data, create a Geodatabase and publish your Map Services which will then be consumed by your Web Map on ArcGIS Online or Portal.

If you want to make your Web Application open to the public, make sure your Map Services and Web Map are shared with everyone.

The Historical Aerials Web Application uses the following public Map Services:

Aerial Cache Tile Footprints

<https://gis.maricopa.gov/imagery/rest/services/AerialCacheTileFootprint/MapServer>

Aerial Photography Not Available

<https://gis.maricopa.gov/imagery/rest/services/AerialPhotographyNotAvailable/MapServer>

1930 Jan - 1930 Jan

<https://gis.maricopa.gov/imagery/rest/services/Aerial1930Jan1930JanMosaic/MapServer>

1930 Jan - 1930 Jan Oblique

<https://gis.maricopa.gov/imagery/rest/services/Aerial1930Jan1930JanOblique/MapServer>

1937 Jan - 1937 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1937Jan1937DecMosaic/MapServer>

1949 Feb - 1949 Apr

<https://gis.maricopa.gov/imagery/rest/services/Aerial1949Feb1949AprMosaic/MapServer>

1951 Apr - 1951 Apr

<https://gis.maricopa.gov/imagery/rest/services/Aerial1951Apr1951AprMosaic/MapServer>

1953 Mar - 1953 May

<https://gis.maricopa.gov/imagery/rest/services/Aerial1953Mar1953MayMosaic/MapServer>

1959 Feb - 1959 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial1959Feb1959FebMosaic/MapServer>

1961 Jan - 1962 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1961Jan1962DecMosaic/MapServer>

1964 Jan - 1964 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1964Jan1964DecMosaic/MapServer>

1969 Jan - 1969 Mar

<https://gis.maricopa.gov/imagery/rest/services/Aerial1969Jan1969MarMosaic/MapServer>

1976 Feb - 1976 Apr

<https://gis.maricopa.gov/imagery/rest/services/Aerial1976Feb1976AprMosaic/MapServer>

1979 Dec - 1979 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1979Dec1979DecMosaic/MapServer>

1982 Jan - 1982 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1982Jan1982DecMosaic/MapServer>

1986 Jan - 1986 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1986Jan1986DecMosaic/MapServer>

1990 Oct - 1990 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial1990Oct1990OctMosaic/MapServer>

1991 Jun - 1991 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial1991Jun1991DecMosaic/MapServer>

1991 Nov - 1991 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial1991Nov1991NovMosaic/MapServer>

1993 Jan - 1993 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial1993Jan1993FebMosaic/MapServer>

1996 Dec - 1997 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial1996Dec1997FebMosaic/MapServer>

1998 Jan - 1998 Mar

<https://gis.maricopa.gov/imagery/rest/services/Aerial1998Jan1998MarMosaic/MapServer>

1998 Dec - 1999 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial1998Dec1999OctMosaic/MapServer>

2000 Dec - 2001 Mar

<https://gis.maricopa.gov/imagery/rest/services/Aerial2000Dec2001MarOrthoMosaic/MapServer>

2000 Jan - 2000 Apr

<https://gis.maricopa.gov/imagery/rest/services/Aerial2000Jan2000AprMosaic/MapServer>

2001 Jan - 2001 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2001Jan2001DecOrthoMosaic/MapServer>

2001 Dec - 2002 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial2001Dec2002FebOrthoMosaic/MapServer>

2002 Jan - 2002 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2002Jan2002DecOrthoMosaic/MapServer>

2002 Dec - 2002 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2002Dec2002DecOrthoMosaic/MapServer>

2003 Oct - 2003 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial2003Oct2003OctOrthoMosaic/MapServer>

2003 Dec - 2004 Jan

<https://gis.maricopa.gov/imagery/rest/services/Aerial2003Dec2004JanOrthoMosaic/MapServer>

2004 Nov - 2004 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2004Nov2004DecOrthoMosaic/MapServer>

2005 Apr - 2005 Apr

<https://gis.maricopa.gov/imagery/rest/services/Aerial2005Apr2005AprOrthoMosaic/MapServer>

2006 Jan - 2006 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial2006Jan2006FebOrtho/MapServer>

2006 Oct - 2006 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2006Oct2006NovOrtho/MapServer>

2007 Jun - 2007 Jul Statewide

<https://gis.maricopa.gov/imagery/rest/services/Aerial2007Jun2007JulOrtho/MapServer>

2007 Oct - 2008 Jan

<https://gis.maricopa.gov/imagery/rest/services/Aerial2007Oct2008JanOrtho/MapServer>

2008 Oct - 2008 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2008Oct2008DecOrtho/MapServer>

2009 May - 2009 Jun

<https://gis.maricopa.gov/imagery/rest/services/Aerial2009May2009JunOrtho/MapServer>

2009 Oct - 2009 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2009Oct2009NovOrtho/MapServer>

2010 Jun - 2010 Sep Statewide

<https://gis.maricopa.gov/imagery/rest/services/Aerial2010Jun2010SepOrtho/MapServer>

2010 Sep - 2010 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial2010Sep2010OctOrtho/MapServer>

2011 Sep - 2011 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial2011Sep2011OctOrtho/MapServer>

2012 Oct - 2012 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2012Oct2012DecOrtho/MapServer>

2013 Sep - 2013 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2013Sep2013NovOrtho/MapServer>

2014 Sep - 2014 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2014Sep2014NovOrtho/MapServer>

2015 Nov - 2016 Feb

<https://gis.maricopa.gov/imagery/rest/services/Aerial2015Nov2016FebOrtho/MapServer>

2016 Sep - 2016 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2016Sep2016DecOrtho/MapServer>

2017 Sep - 2017 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2017Sep2017NovOrtho/MapServer>

2018 Sep - 2018 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2018Sep2018DecOrtho/MapServer>

2019 Sep - 2019 Dec

<https://gis.maricopa.gov/imagery/rest/services/Aerial2019Sep2019DecOrtho/MapServer>

2020 Oct - 2020 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2020Oct2020NovOrtho/MapServer>

2021 Sep - 2021 Nov

<https://gis.maricopa.gov/imagery/rest/services/Aerial2021Sep2021NovOrtho/MapServer>

2022 Sep - 2022 Oct

<https://gis.maricopa.gov/imagery/rest/services/Aerial2022Sep2022OctOrtho/MapServer>

Street

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Street/MapServer>

Township Range Section

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/TownshipRangeSection/MapServer>

City

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/City/MapServer>

Zip Code

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/ZipCode/MapServer>

Parcel (Current)

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer>

Terrain (NAVD88)

<https://gis.maricopa.gov/arcgis/rest/services/GIO/Countywide10FootContour/MapServer>

County

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/County/MapServer>

Basemap Layers Streets

World\_Street\_Map\_8421

[https://services.arcgisonline.com/ArcGIS/rest/services/World\\_Street\\_Map/MapServer](https://services.arcgisonline.com/ArcGIS/rest/services/World_Street_Map/MapServer)

**Note:** It can take weeks, months, years to curate your data, generate the cached tiles and publish your map services. This is a laborious process. There is no shortcut.

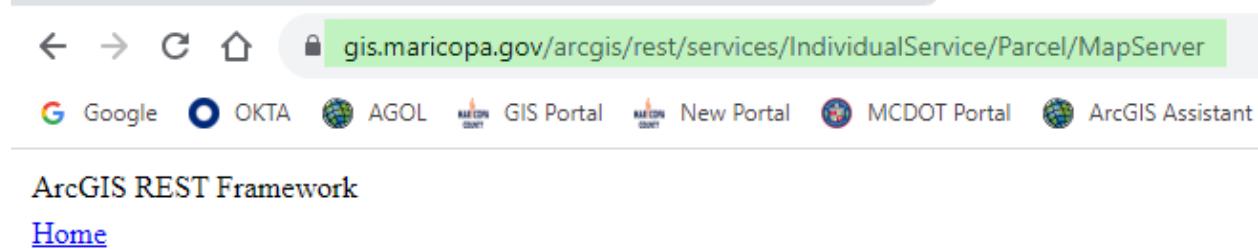
Creating the Web Map and the subsequent Web App using the Experience Builder is the fun and easy part which can be done in a matter of hours.

## Examine the Parcel Map Service

Open the URL for the Parcel Map Service:

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer>

You will get this error message:



A screenshot of a web browser window. The address bar shows the URL: [gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer](https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer). Below the address bar is a navigation bar with links to Google, OKTA, AGOL, GIS Portal, New Portal, MCDOT Portal, and ArcGIS Assistant. The main content area displays the ArcGIS REST Framework logo and a link to Home. Below that, an error message is shown: "Error: The administrator has disabled the Services Directory." and "Code: 403".

**Error:** The administrator has disabled the Services Directory.  
**Code:** 403

*This is because directory browsing has been disabled on the ArcGIS Servers.*

The workaround is to add the `/?f=json` qualifier.

To read the **description** of the map service use:

<https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/?f=json>

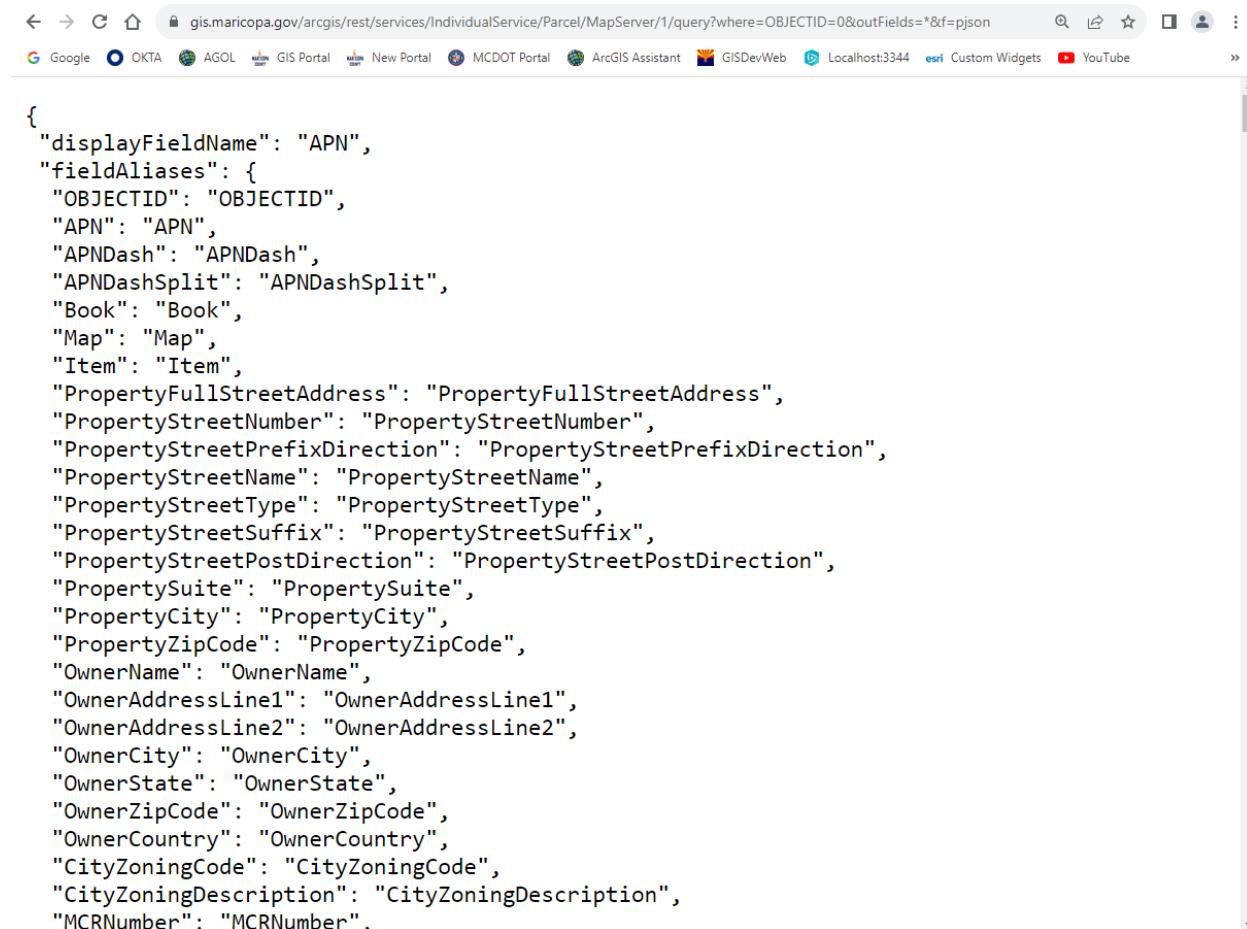


A screenshot of a web browser window showing the JSON response for the map service description. The address bar shows the URL: [gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/?f=json](https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/?f=json). Below the address bar is a navigation bar with links to Google, OKTA, AGOL, GIS Portal, New Portal, MCDOT Portal, ArcGIS Assistant, and GISDevWe. The main content area displays a JSON object representing the service description, including fields for currentVersion, cimVersion, and serviceDescription. The serviceDescription field contains a detailed text about parcels and real estate taxes.

```
{  
  "currentVersion": 10.91,  
  "cimVersion": "2.9.0",  
  "serviceDescription": "<DIV STYLE=\"text-align:Left;\"><DIV><DIV><SPAN>In real estate, a lot or plot is essentially considered a parcel of real property. Possible owner(s) of a lot can be one or more government, or trust. Like most other types of real estate, lots owned by private parties are subject to a county or municipality. These real estate taxes are based on the assessed value of the real property; Other fees by government are possible for improvements such as curbs and sidewalks or an impact fee for land on which is located a dwelling house, occupied or unoccupied. There will be multiple parcels on to</SPAN></P><P><SPAN>Subdivision is the act of dividing land into pieces that are easier to sell or to</SPAN></P><P><SPAN>Surveying is the process of measuring and mapping the surface of the earth, including its features, to establish boundaries, elevations, and other characteristics for legal, engineering, and scientific purposes. It involves the use of various instruments and techniques to collect data and create accurate maps and plans. Surveyors play a crucial role in the development and management of land resources, ensuring that property boundaries are correctly defined and recorded. They also contribute to the design and construction of infrastructure projects, such as roads, bridges, and buildings, by providing precise measurements and location information. Surveying is a specialized field that requires a strong understanding of mathematics, physics, and geography, as well as technical skills in the use of surveying equipment and software. Surveyors work in various settings, including construction sites, landfills, and office environments, and often collaborate with other professionals like engineers, architects, and geologists to complete their work. The surveying industry is constantly evolving, with new technologies and methods being developed to improve efficiency and accuracy. One such technology is Global Positioning System (GPS), which uses satellite signals to provide precise location data. Another is the use of drones for aerial surveys, which can capture high-resolution images and data points from above. These advancements have revolutionized the field, making it faster, more accurate, and more accessible than ever before. Surveying is a critical part of our society, helping to build and maintain the infrastructure that we rely on every day. It is a profession that requires a combination of technical expertise, attention to detail, and a commitment to accuracy. Surveyors are essential to the success of many projects, from small residential developments to large-scale commercial ventures. By providing accurate and reliable data, they help ensure that land is used effectively and responsibly, and that the needs of all stakeholders are met. Surveying is a vital part of our built environment, and its importance cannot be overstated. As our world continues to grow and change, surveyors will remain a crucial part of the process, ensuring that our land resources are managed and used in a sustainable and responsible way."}
```

To view the items in the map service use:

[https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/1/query?where=OBJECTID=0&outFields=\\*&f=json](https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/1/query?where=OBJECTID=0&outFields=*&f=json)



The screenshot shows a browser window with the URL [https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/1/query?where=OBJECTID=0&outFields=\\*&f=json](https://gis.maricopa.gov/arcgis/rest/services/IndividualService/Parcel/MapServer/1/query?where=OBJECTID=0&outFields=*&f=json). The page displays a large JSON object representing the attributes of a parcel record. The JSON structure includes fields like APN, OBJECTID, and various property details such as street address, city, state, and zip code.

```
{
  "displayFieldName": "APN",
  "fieldAliases": {
    "OBJECTID": "OBJECTID",
    "APN": "APN",
    "APNDash": "APNDash",
    "APNDashSplit": "APNDashSplit",
    "Book": "Book",
    "Map": "Map",
    "Item": "Item",
    "PropertyFullStreetAddress": "PropertyFullStreetAddress",
    "PropertyStreetNumber": "PropertyStreetNumber",
    "PropertyStreetPrefixDirection": "PropertyStreetPrefixDirection",
    "PropertyStreetName": "PropertyStreetName",
    "PropertyStreetType": "PropertyStreetType",
    "PropertyStreetSuffix": "PropertyStreetSuffix",
    "PropertyStreetPostDirection": "PropertyStreetPostDirection",
    "PropertySuite": "PropertySuite",
    "PropertyCity": "PropertyCity",
    "PropertyZipCode": "PropertyZipCode",
    "OwnerName": "OwnerName",
    "OwnerAddressLine1": "OwnerAddressLine1",
    "OwnerAddressLine2": "OwnerAddressLine2",
    "OwnerCity": "OwnerCity",
    "OwnerState": "OwnerState",
    "OwnerZipCode": "OwnerZipCode",
    "OwnerCountry": "OwnerCountry",
    "CityZoningCode": "CityZoningCode",
    "CityZoningDescription": "CityZoningDescription",
    "MCRNumber": "MCRNumber",
  }
}
```

The Parcel Map Service has over 1.7 million records with 99 attributes including hyperlinks to the Maricopa County Assessor, Treasurer and Recorder web pages.

## Create a Web Map

After you have decided what Map Services you are going to use, the next step is to create a Web Map.

**Note:** The New Map Viewer on ArcGIS Online allows several enhancements like the option to group layers. This feature was not available in the Classic Map Viewer.

The Web AppBuilder does not recognize these new features. You are limited to using the Classic Map Viewer.

On the other hand, the Experience Builder takes advantage of all the new features introduced in the New Map Viewer. You will be using the New Map Viewer to group the layers.

Login to ArcGIS Online for your Organization.

Example:

<https://maricopa.maps.arcgis.com/home/index.html>



Sign in to Maricopa County  
Enterprise GIS



ArcGIS login

GIO\_DasT

••••••••••

Keep me signed in

**Sign In**

[Forgot username?](#) or [Forgot password?](#)

[Privacy](#)

Open the Map Tab

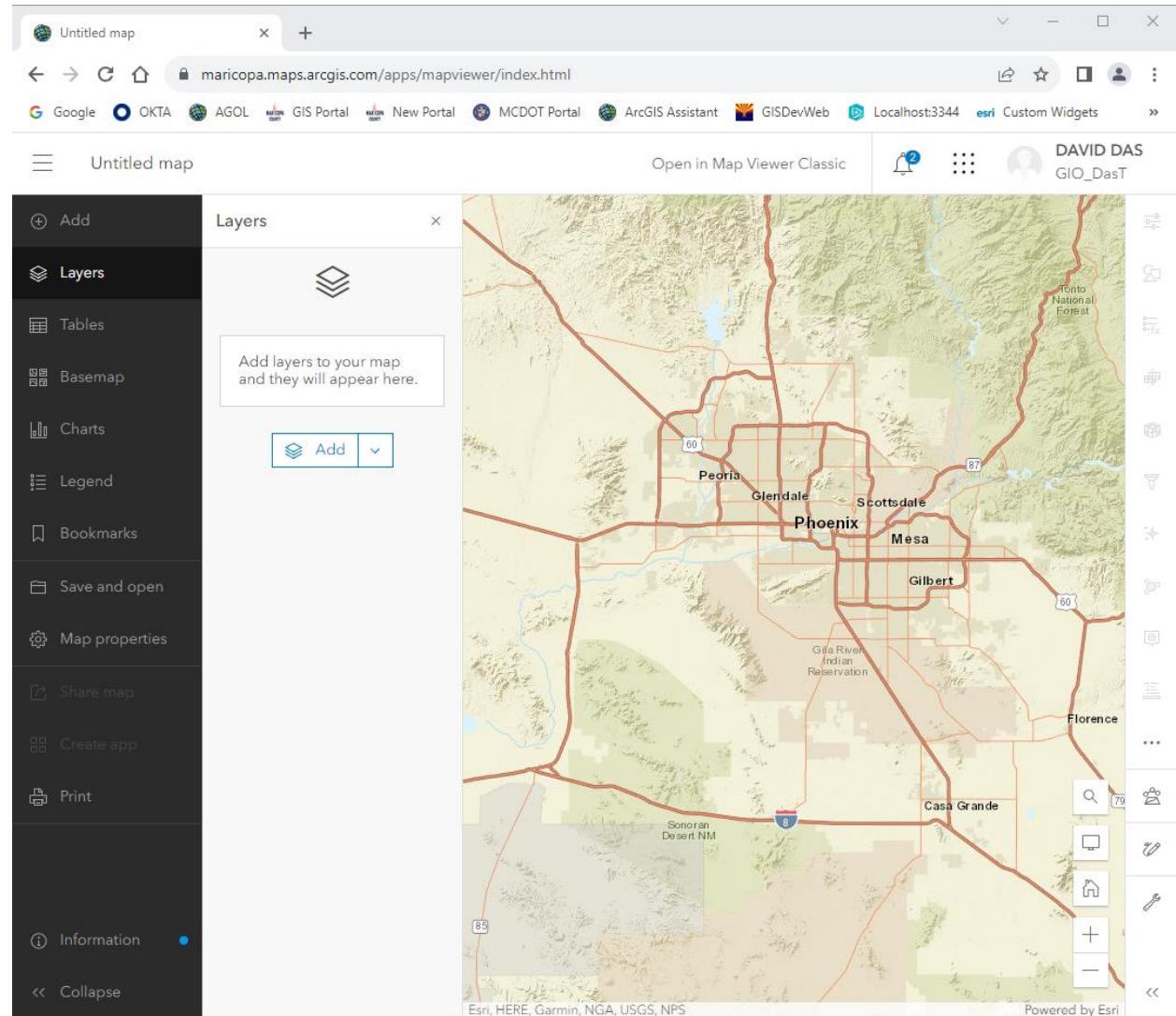
Home    Gallery    **Map**    Scene    Notebook    Groups    Content    Organization    [Privacy](#)

Maricopa County Enterprise GIS    Overview    Members    Licenses    Status    Settings

Maricopa County Enterprise GIS	Edit settings	Credits	<a href="#">View status</a>   <a href="#">Buy credits</a>
MARICOPA COUNTY	Subscription ID 7074579360	Total remaining credits <b>442,718.97</b>	Last 7 days <b>364.81</b>
	Feature Data Store		Last 24 hours <b>45.39</b>

You are ready to create a Web Map in the New Map Viewer.

<https://maricopa.maps.arcgis.com/apps/mapviewer/index.html>



To save time, the Web Map has already been created for you.

<https://maps.arcgis.com/apps/mapviewer/index.html?webmap=9db8a92251964f0f8790118e9af156fe>

Name of Web Map = **Historical Aerials EXB**

The screenshot shows the ArcGIS Web Map interface titled "Historical Aerials EXB". The main view is a satellite map of a residential area in Phoenix, Arizona, with streets labeled such as Camelback Rd, 7th Ave, 12th St, and various numbered streets. The left sidebar is a navigation menu with the following sections:

- Layers**: Contains items like County, Terrain (NAVD88), Parcel (Current), Zip Code, City, Township, Street, and date ranges from 2019 Sep - 2020 Nov to 2022 Sep - 2022 Oct.
- Tables**
- Basemap**
- Charts**
- Legend**
- Bookmarks**
- Save and open**
- Map properties**
- Share map**
- Create app**
- Print**
- Information**
- Collapse**

The top of the screen shows a browser header with the URL <https://maricopa.maps.arcgis.com/apps/mapviewer/index.html?webmap=9db8a92251964f0f8790118e9af156fe>. The top right corner shows a user profile for "DAVID DAS GIO\_DasT".

Notice how the layers have been grouped to make the Layer List more compact.

The screenshot shows the ArcGIS application interface. On the left is a dark sidebar with various options: Add, Layers (selected), Tables, Basemap, Charts, Legend, Bookmarks, Save and open, Map properties, Share map, Create app, Print, and Information. The main area is titled "Layers" and contains a list of layers. Some layers are grouped under specific dates. A red box highlights the group for "2022 Sep - 2022 Oct". Inside this group, "Footprint" and "Aerial Photography" are listed. A large red arrow points from the text "Grouped Layers" to this highlighted group. To the right of the layer list is a map view showing a residential area with streets labeled 87th Ln, 88th Ln, 89th Ln, Highland Ave, Campbell Ave, Heatherbrae Dr, and Indian School Rd. The map displays historical aerial imagery for different periods: 2022 Sep - 2022 Oct, 2021 Sep - 2021 Nov, and 2020 Oct - 2020 Nov.

Layer Group	Sub-layers
2022 Sep - 2022 Oct	Footprint, Aerial Photography
2021 Sep - 2021 Nov	
2020 Oct - 2020 Nov	
County	
Terrain (NAVD88)	
Parcel (Current)	
Zip Code	
City	
Township Range Section	
Street	

Make sure your Web Map is being shared with everyone.

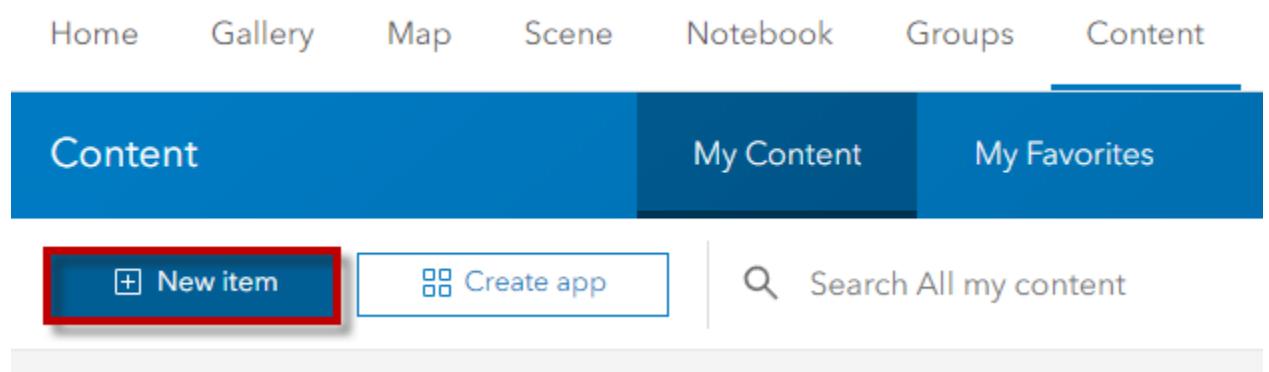
The screenshot shows the ArcGIS Online interface. At the top, there is a navigation bar with links for Notebook, Groups, Content, Organization, a search bar, a notification bell with a '2' badge, a user profile for DAVID DAS GIO\_DasT, and a three-dot menu. Below the navigation bar is a blue header bar with tabs for My Content (selected), My Favorites, My Groups, My Organization, and Living Atlas. A search bar with the placeholder "Search Historical Aerials EXB" is located below the header. To the right of the search bar are buttons for Table, Date Modified, and Filter. The main content area displays a list of items under "My Content". One item, "Historical Aerials EXB", is selected and highlighted with a red box around its sharing icon. A red callout bubble points to this icon with the text "Shared with Everyone". Other items in the list include "Historical Aerials New Map 6". At the top of the content list, there are buttons for Categorize, Move, Change Owner, Share, and Delete. A "Modified" dropdown menu is also visible.

Title	Type	Sharing	Last Modified
Historical Aerials EXB	Web Map		Sep 4, 2023
Historical Aerials New Map 6	Web Map		Aug 27, 2023

This will allow others outside of your organization to access your Web Map, make a copy and modify it to suit their needs and build a new Web Application.

## Obtain a Client ID

Open Content | My Content | Add a New Item



Add **Developer credentials**.

The screenshot shows the 'New item' dialog box. At the top left is the text 'New item ⓘ' and at the top right is a close button 'X'. The main area is a large dashed box containing a file icon with an upward arrow, the text 'Drag and drop your file or choose an option', and four cloud storage integration buttons: 'Your device', 'Google Drive', 'Dropbox', and 'OneDrive'. Below this are six items listed in two columns:

 Feature layer Create an editable layer with fields copied from a template or feature layer.	 URL Link to an ArcGIS Server web service, KML, OGC WFS, OGC WMS, OGC WMTS, or GeoJSON.
 Developer credentials Create OAuth 2.0 credentials to build custom applications.	 Application Link to an application on the web or create a new registered application.
 Tile layer Create a fast drawing vector tile layer or raster tile layer.	 Scene layer Create a fast drawing scene layer using 3d content.

Add your first redirect URL = <http://localhost:3001>

New item

---

OAuth 2.0 can be used to authenticate ArcGIS users to access content and location-based services on behalf of the authenticated user. Learn more in the [security and authentication guide](#).

**Redirect URLs**

Add allowed URLs to a web page or server endpoint to redirect users to after completing authentication.

+ Add

Click on Add

Add your second redirect URL = <https://localhost:3001>

New item

---

OAuth 2.0 can be used to authenticate ArcGIS users to access content and location-based services on behalf of the authenticated user. Learn more in the [security and authentication guide](#).

**Redirect URLs**

Add allowed URLs to a web page or server endpoint to redirect users to after completing authentication.

Delete

Delete

+ Add

Select Application Environment = **Multiple**

URL = <https://localhost:3001>

**Application environment**

The application environment will affect when the item appears in filtered search results.

<input checked="" type="radio"/> Multiple	<input type="radio"/> Browser
<input type="radio"/> Native	<input type="radio"/> Server

URL

[Back](#)

[Cancel](#) [Next](#)

[Next](#)

Title = EXB Client ID

Tags = EXB

Summary = EXB Client ID

## New item

X

### Title

EXB Client ID

### Folder

Historical Aerials EXB

### Categories

Assign categories

### Tags

EXB X Add tags

### Summary

EXB Client ID

Characters left: 2035

Back

Cancel

Save

Save

Make a note of your Client ID and Client Secret.

Home    Gallery    Map    Scene    Notebook    Groups    Content    Organization

## EXB Client ID / Overview

 Edit thumbnail   
 Edit  Add to Favorites

EXB Client ID 

 Application by GIO\_DasT

Item created: Sep 4, 2023    Item updated: Sep 4, 2023  
View count: 0

 OAuth 2.0

### Description

Add an in-depth description of the item.

### Credentials

OAuth 2.0 can be used to authenticate ArcGIS users to access content and location-based services on behalf of the authenticated user. Learn more in the [security and authentication guide](#).

Client ID  qx2Eu4b0uyJb224A 

Client Secret  800b2640128b4787ae2c24c07ca8f418  

Client ID = **qx2Eu4b0uyJb224A**

Client Secret = **800b2640128b4787ae2c24c07ca8f418**

**Note:** These values will not work. They were created just for this demo.  
You would need to obtain your own Client ID to proceed with this Tutorial.

Do not share your Client ID.

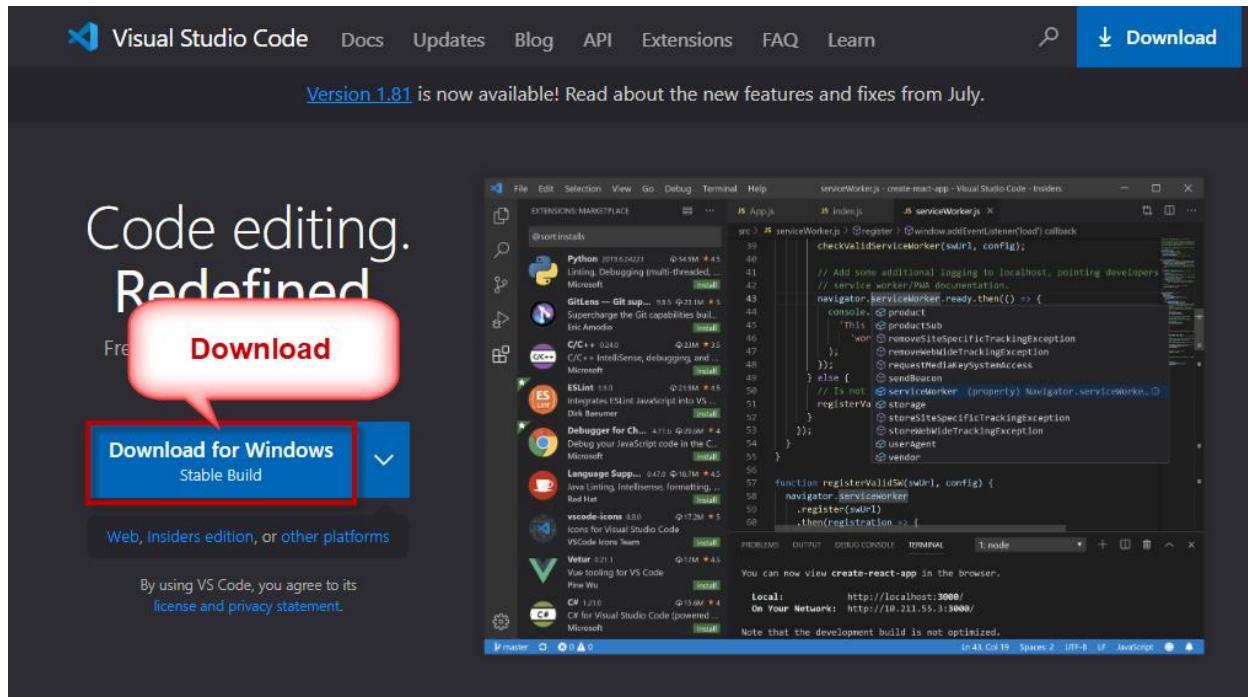
The screenshot shows the ArcGIS Content page. At the top, there are navigation tabs: Notebook, Groups, Content (which is selected), and Organization. To the right of the tabs are search, notification (with 2 notifications), and user profile icons. Below the tabs, a secondary navigation bar includes My Content, My Favorites, My Groups, My Organization, and Living Atlas. A search bar with the placeholder "Search Historical Aerials EXB" is positioned above a table. The table lists three items: "EXB Client ID" (Application type, not shared) and "Historical Aerials EXB" (Web Map type, shared). The "EXB Client ID" row is highlighted with a green background. A red callout bubble with the text "Not shared" points to the status icon for the EXB Client ID row. The table has columns for Title, Type, Status, and Modified.

Title	Type	Status	Modified
EXB Client ID	Application	Not shared	Sep 4, 2023
Historical Aerials EXB	Web Map	Shared	Sep 4, 2023

## Install Microsoft Visual Studio Code

Although you can use Notepad++ to make some quick edits, it is much more elegant to use Microsoft Visual Studio Code as your editor.

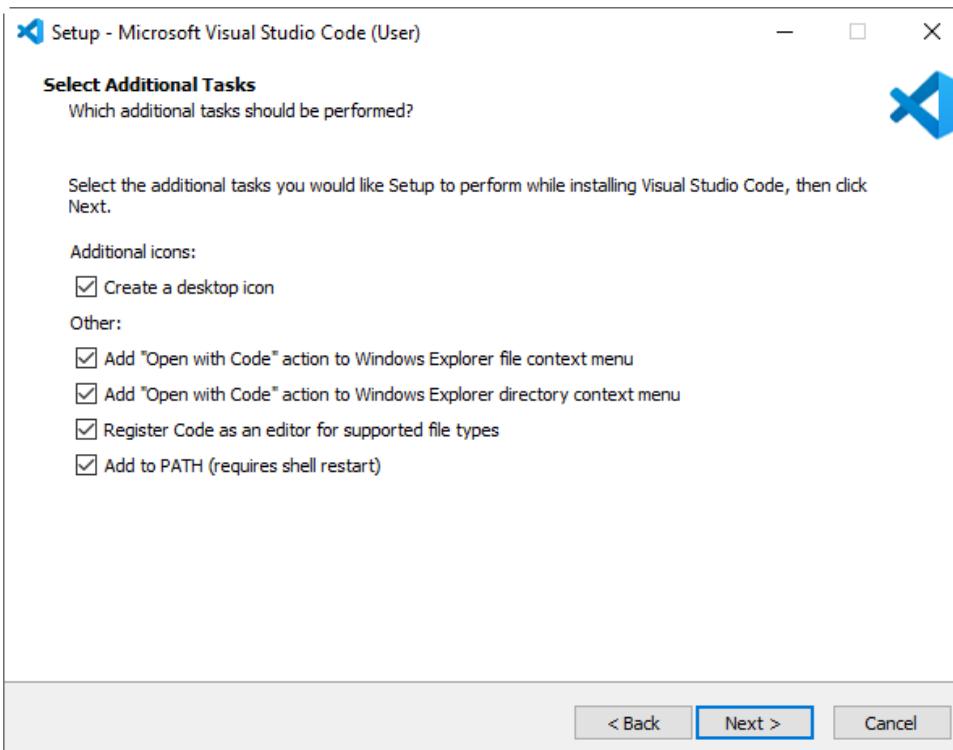
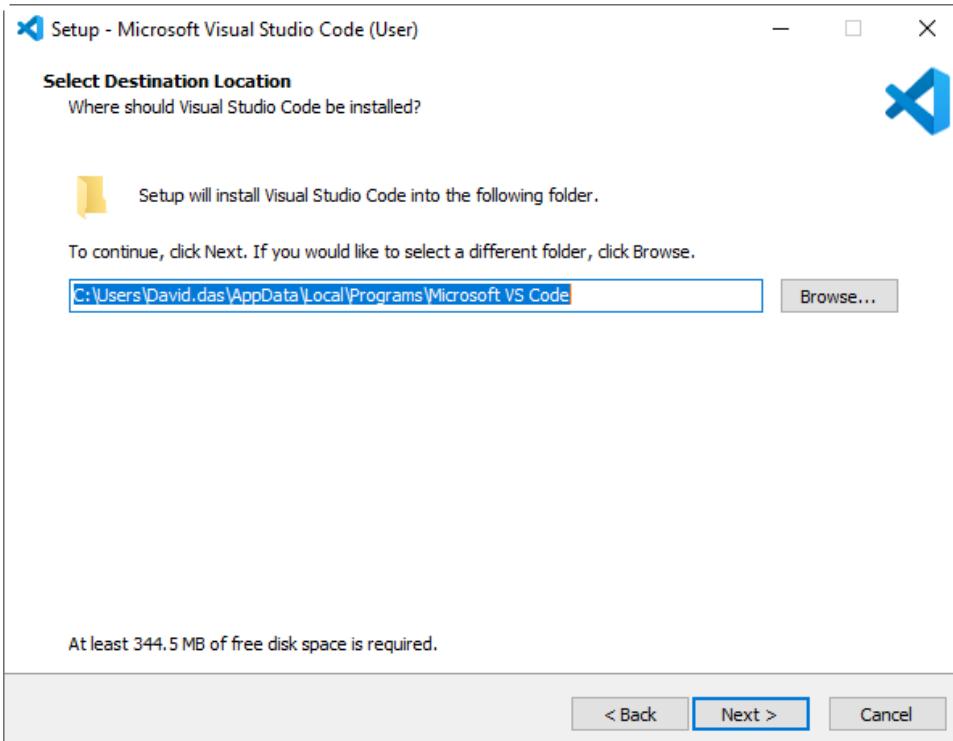
<https://code.visualstudio.com/>

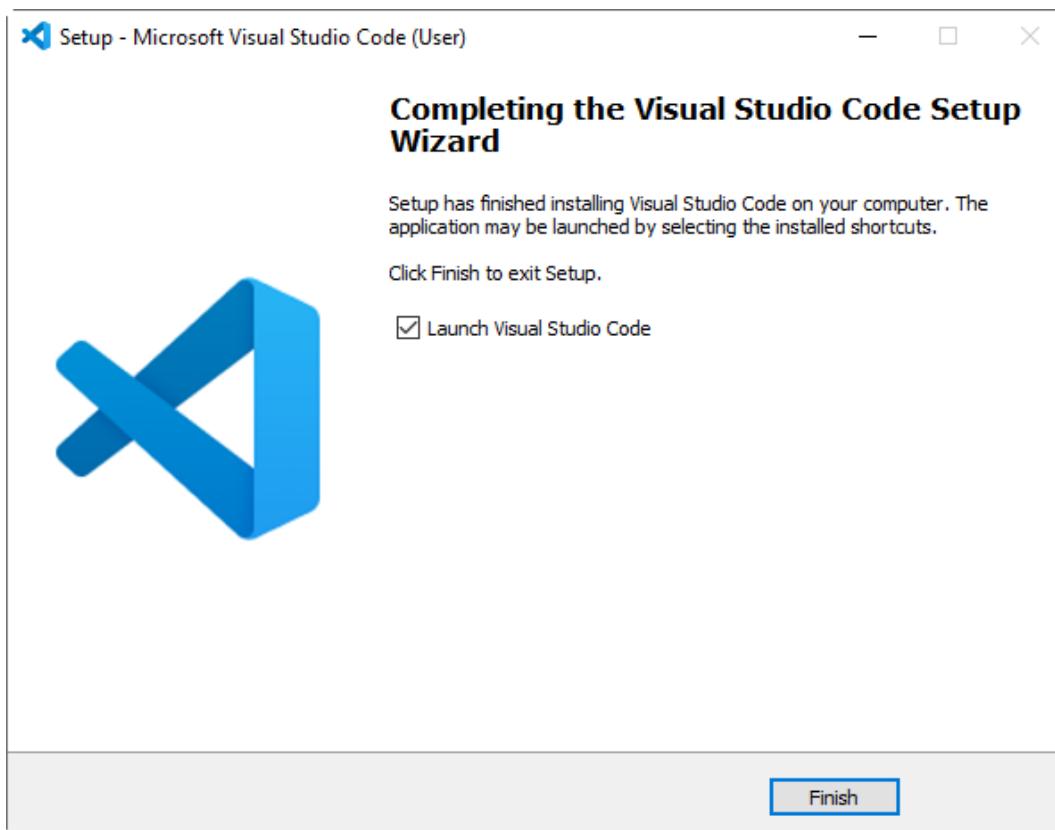
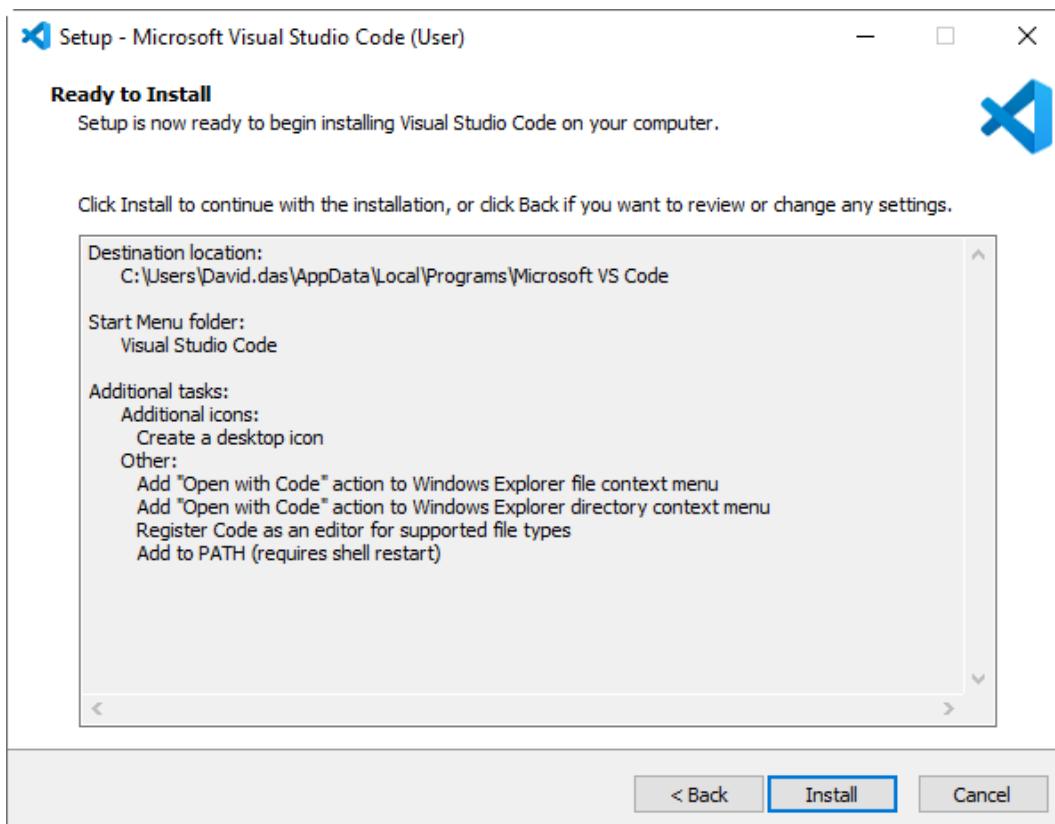


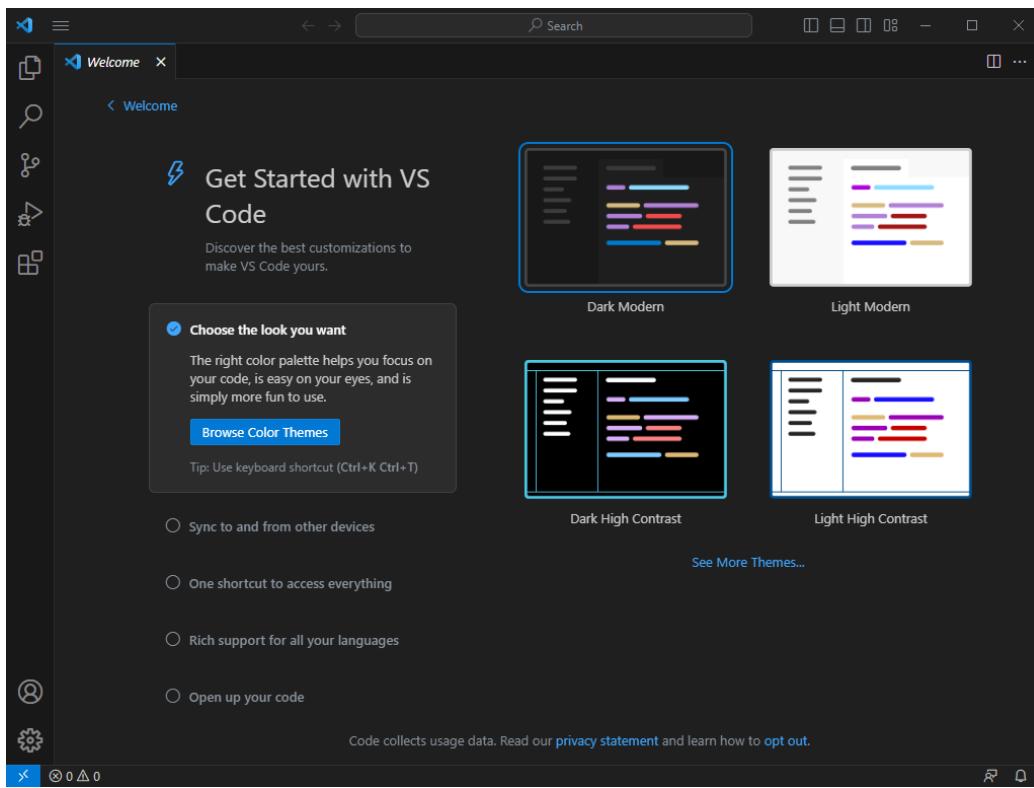
Download Visual Studio Code for Windows (64-bit):

[VSCodeUserSetup-x64-1.81.1.exe](#) 9/1/2023 2:56 PM Application 91,164 KB

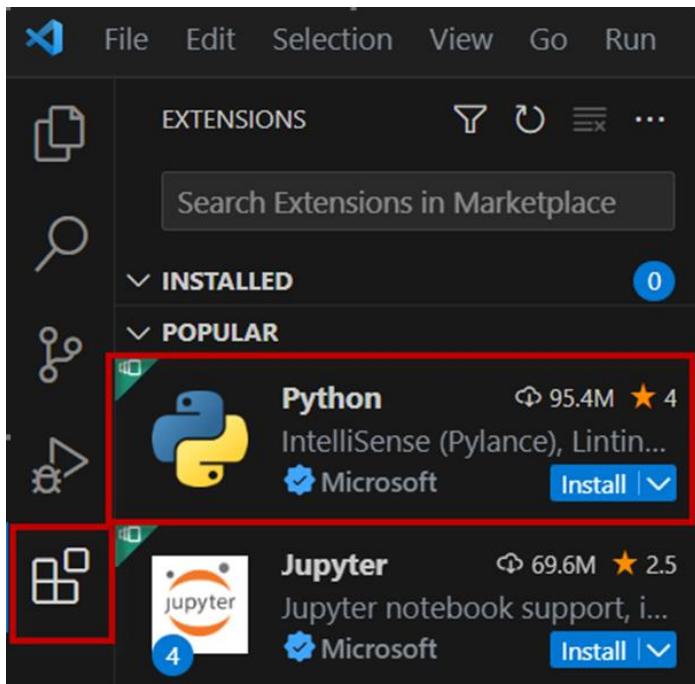
Install Folder = C:\Users\David.das\AppData\Local\Programs\Microsoft VS Code





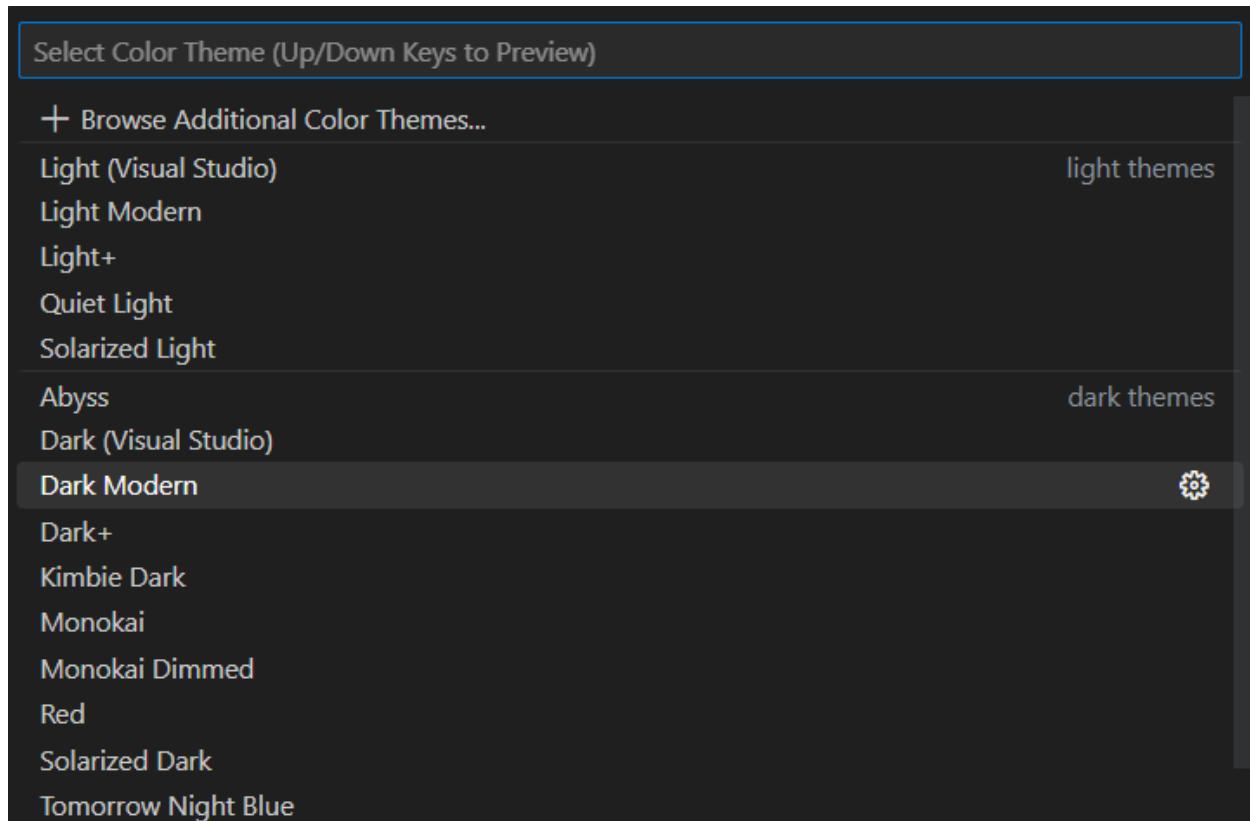


Install the Python and Jupyter Extensions.

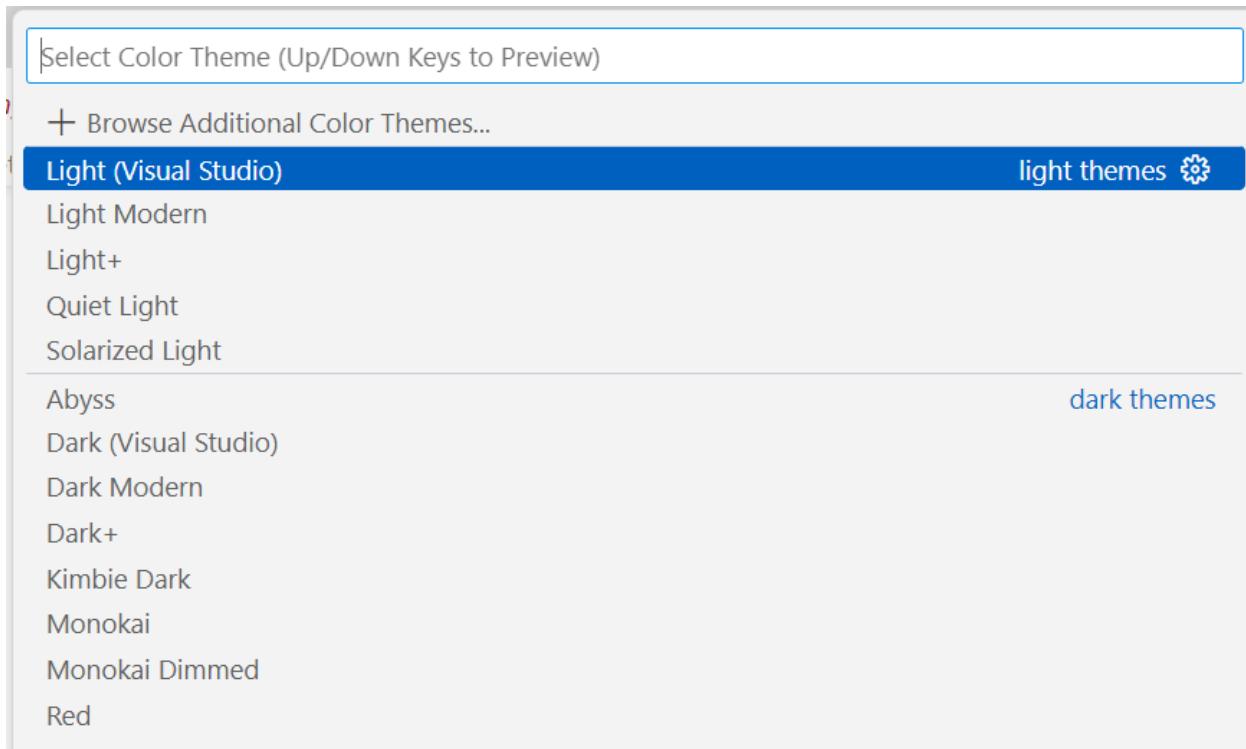


The default Theme is **Dark Modern**.

File | Preferences | Theme | Color Theme



Change this to **Light (Visual Studio)**



## Download Experience Builder Developer Edition 1.12

<https://developers.arcgis.com/experience-builder/>

Download the SDK

EXB Dev Version 1.12, July 2023

The screenshot shows the ArcGIS Experience Builder Developer Edition 1.12 landing page. At the top, there's a navigation bar with links for ArcGIS Developers, Documentation, Features, Pricing, Support, Search, and a user profile for DAVID DAS GIO\_DasT. Below the navigation bar, the main header reads "ArcGIS Experience Builder" and "A new way of building web apps". A prominent blue button labeled "Get Started" is centered. In the bottom right corner of the main content area, there's a callout box with a red border containing a download icon and the text "Download the SDK". To the left of this callout, there's another section with a rocket ship icon and the text "Get started Instructions to install ArcGIS Experience Builder.". On the far right, there's a link "Install the SDK" with an icon. The overall background has a dark teal grid pattern.

# ArcGIS Experience Builder

Latest release

v1.12 - July 6, 2023

Type	Size	SHA256 checksum	
Download	32.5 MB	4a43d4d7dc04ed53d4f41fc469df9d78b3de3...	 <a href="#">arcgis-experience-builder-1.12.zip</a>

Type	Size	SHA256 checksum	
Node cache	256 MB	bd3a3180cd37cecaf53ec508af332ff52c7...	 <a href="#">exb-1.12-node_modules-cache.zip</a>

Type	Size	SHA256 checksum	
Documentation	19.5 MB	0d9cdc90b6e7a235100e232dc29662ba...	 <a href="#">experience-builder-docs-1.12.zip</a>

 <a href="#">arcgis-experience-builder-1.12.zip</a>	7/13/2023 2:44 PM	Compressed (zipped) Folder	33,343 KB
--	-------------------	----------------------------	-----------

Unzip this file.

You will get a folder named ArcGISExperienceBuilder-1.12

 <a href="#">arcgis-experience-builder-1.12</a>	9/4/2023 4:52 PM	File folder
--	------------------	-------------

Open this folder.

C:\Users\David.das\Downloads\arcgis-experience-builder-1.12\

You will find another folder named ArcGISExperienceBuilder.

 <a href="#">ArcGISExperienceBuilder</a>	9/4/2023 5:05 PM	File folder
---	------------------	-------------

Open the ArcGISExperienceBuilder folder:

C:\Users\David.das\Downloads\arcgis-experience-builder-1.12\ArcGISExperienceBuilder\

All the necessary files are within this folder.

 client	9/4/2023 5:05 PM	File folder
 server	9/4/2023 5:05 PM	File folder
 3rd-party-license.txt	9/4/2023 4:52 PM	Text Document 68 KB
 readme.txt	9/4/2023 4:52 PM	Text Document 1 KB
 version.json	9/4/2023 4:52 PM	JSON File 1 KB

Rename the **ArcGISExperienceBuilder** folder to something short like **EXB15**

C:\Users\David.das\Downloads\arcgis-experience-builder-1.12\

 EXB15	9/4/2023 5:05 PM	File folder
---	------------------	-------------

Move the **EXB15** folder to C:\DAVID\EXB

C:\DAVID\EXB\

📁 EXB2	2/13/2022 8:44 PM	File folder
📁 EXB3	7/26/2022 2:36 PM	File folder
📁 EXB4	3/15/2023 11:27 AM	File folder
📁 EXB5	5/1/2023 10:18 AM	File folder
📁 EXB6	5/11/2023 11:54 AM	File folder
📁 EXB7	5/23/2023 10:02 AM	File folder
📁 EXB8	5/26/2023 9:59 AM	File folder
📁 EXB9	6/1/2023 12:59 PM	File folder
📁 EXB10	6/2/2023 8:39 AM	File folder
📁 EXB11	6/15/2023 11:24 AM	File folder
📁 EXB12	6/21/2023 10:48 AM	File folder
📁 EXB13	7/13/2023 2:57 PM	File folder
📁 EXB14	7/18/2023 3:52 PM	File folder
📁 EXB15	9/4/2023 5:34 PM	File folder
📁 Experience Builder Docs	7/20/2023 11:17 AM	File folder

It will be much easier to manage your EXB projects if you keep your pathnames as short as possible.

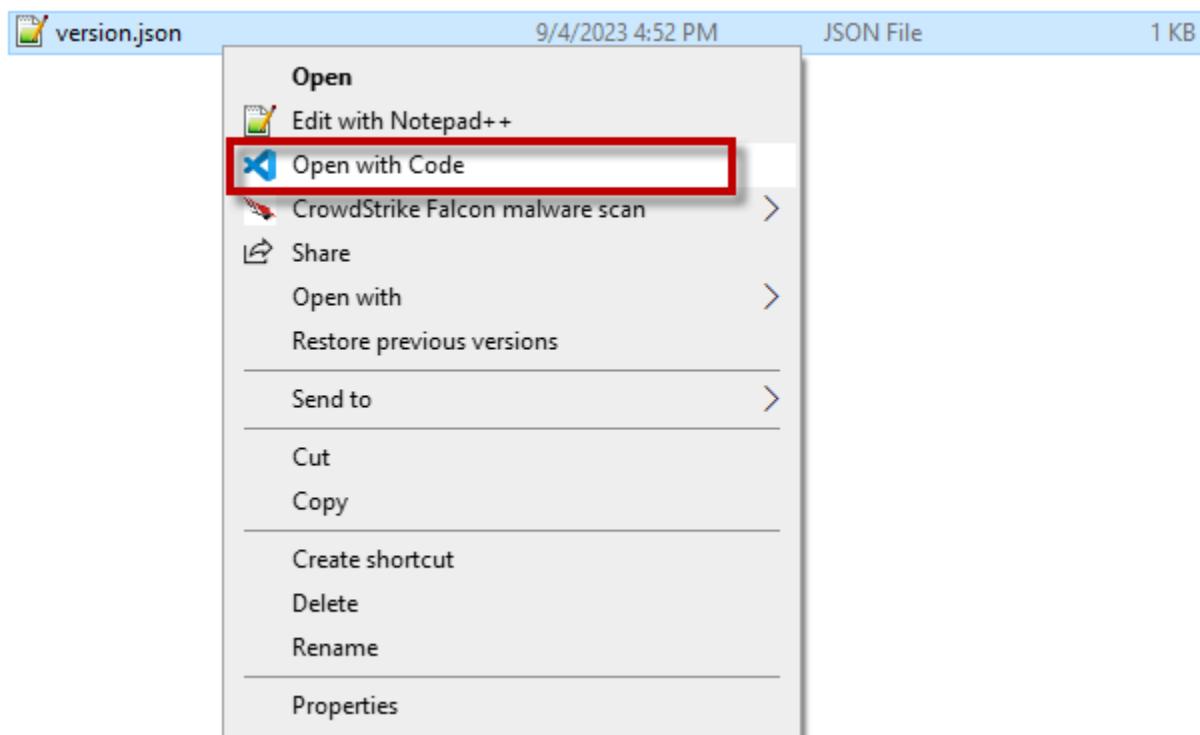
Long pathnames may create issues.

Open the EXB15 folder and examine the contents.

C:\DAVID\EXB\EXB15\

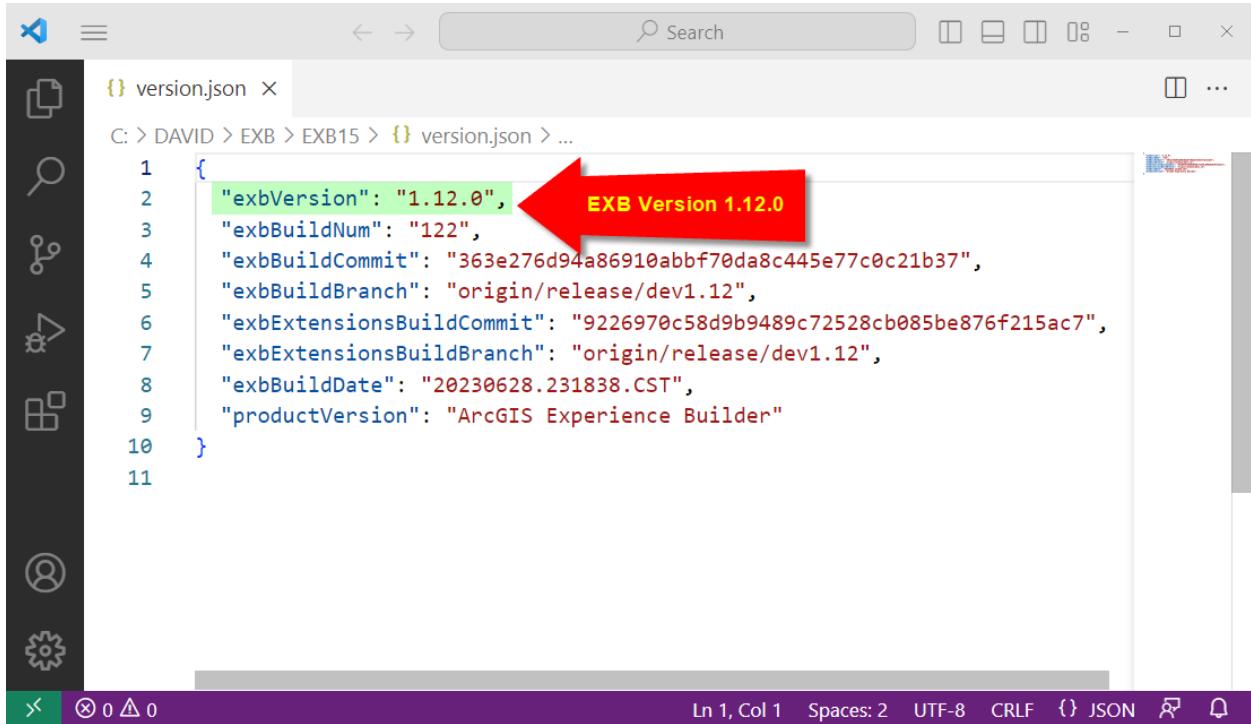
client	9/4/2023 5:34 PM	File folder
server	9/4/2023 5:34 PM	File folder
3rd-party-license.txt	9/4/2023 4:52 PM	Text Document 68 KB
readme.txt	9/4/2023 4:52 PM	Text Document 1 KB
version.json	9/4/2023 4:52 PM	JSON File 1 KB

Right Click on version.json and Open with Code



Check the EXB Version.

It should read **1.12.0**



```
version.json
C: > DAVID > EXB > EXB15 > version.json > ...
1  {
2    "exbVersion": "1.12.0", ← EXB Version 1.12.0
3    "exbBuildNum": "122",
4    "exbBuildCommit": "363e276d94a86910abbf70da8c445e77c0c21b37",
5    "exbBuildBranch": "origin/release/dev1.12",
6    "exbExtensionsBuildCommit": "9226970c58d9b9489c72528cb085be876f215ac7",
7    "exbExtensionsBuildBranch": "origin/release/dev1.12",
8    "exbBuildDate": "20230628.231838.CST",
9    "productVersion": "ArcGIS Experience Builder"
10   }
11
```

Ln 1, Col 1 Spaces: 2 UTF-8 CRLF {} JSON ⚙️ 🗑️

Open the **Client Folder**.

C:\DAVID\EXB\EXB15\client

 <b>_mocks_</b>	9/4/2023 5:34 PM	File folder
 <b>dist</b>	9/4/2023 5:32 PM	File folder
 <b>jimu-arcgis</b>	9/4/2023 5:33 PM	File folder
 <b>jimu-core</b>	9/4/2023 5:33 PM	File folder
 <b>jimu-for-builder</b>	9/4/2023 5:34 PM	File folder
 <b>jimu-for-test</b>	9/4/2023 5:34 PM	File folder
 <b>jimu-icons</b>	9/4/2023 5:34 PM	File folder
 <b>jimu-layouts</b>	9/4/2023 5:34 PM	File folder
 <b>jimu-theme</b>	9/4/2023 5:34 PM	File folder
 <b>jimu-ui</b>	9/4/2023 5:34 PM	File folder
 <b>scripts</b>	9/4/2023 5:34 PM	File folder
 <b>types</b>	9/4/2023 5:34 PM	File folder
 <b>webpack</b>	9/4/2023 5:34 PM	File folder
 <b>your-extensions</b>	9/4/2023 5:34 PM	File folder
 <b>.eslintignore</b>	9/4/2023 4:52 PM	ESLINTIGNORE File
 <b>.eslintrc.js</b>	9/4/2023 4:52 PM	JavaScript Source ...
 <b>jest.config.js</b>	9/4/2023 4:52 PM	JavaScript Source ...
 <b>jest-systemjs-transformer.js</b>	9/4/2023 4:52 PM	JavaScript Source ...
 <b>lerna.json</b>	9/4/2023 4:52 PM	JSON File
 <b>package.json</b>	9/4/2023 4:52 PM	JSON File
 <b>package-lock.json</b>	9/4/2023 4:52 PM	JSON File
 <b>tsconfig.json</b>	9/4/2023 4:52 PM	JSON File
 <b>webpack.config.js</b>	9/4/2023 4:52 PM	JavaScript Source ...

All your Custom Widgets and Themes will go under the **your-extensions** folder.

Open the **your-extensions** folder.

C:\DAVID\EXB\EXB15\client\your-extensions\

 themes	9/4/2023 5:34 PM	File folder
 widgets	9/4/2023 5:34 PM	File folder
 manifest.json	9/4/2023 5:05 PM	JSON File 1 KB

Open the **widgets** folder.

C:\DAVID\EXB\EXB15\client\your-extensions\widgets\

 simple	9/4/2023 5:34 PM	File folder
 .gitkeep	9/4/2023 5:05 PM	GITKEEP File 0 KB

All your custom widgets will go here.

Open the **simple** folder. This is a sample widget.

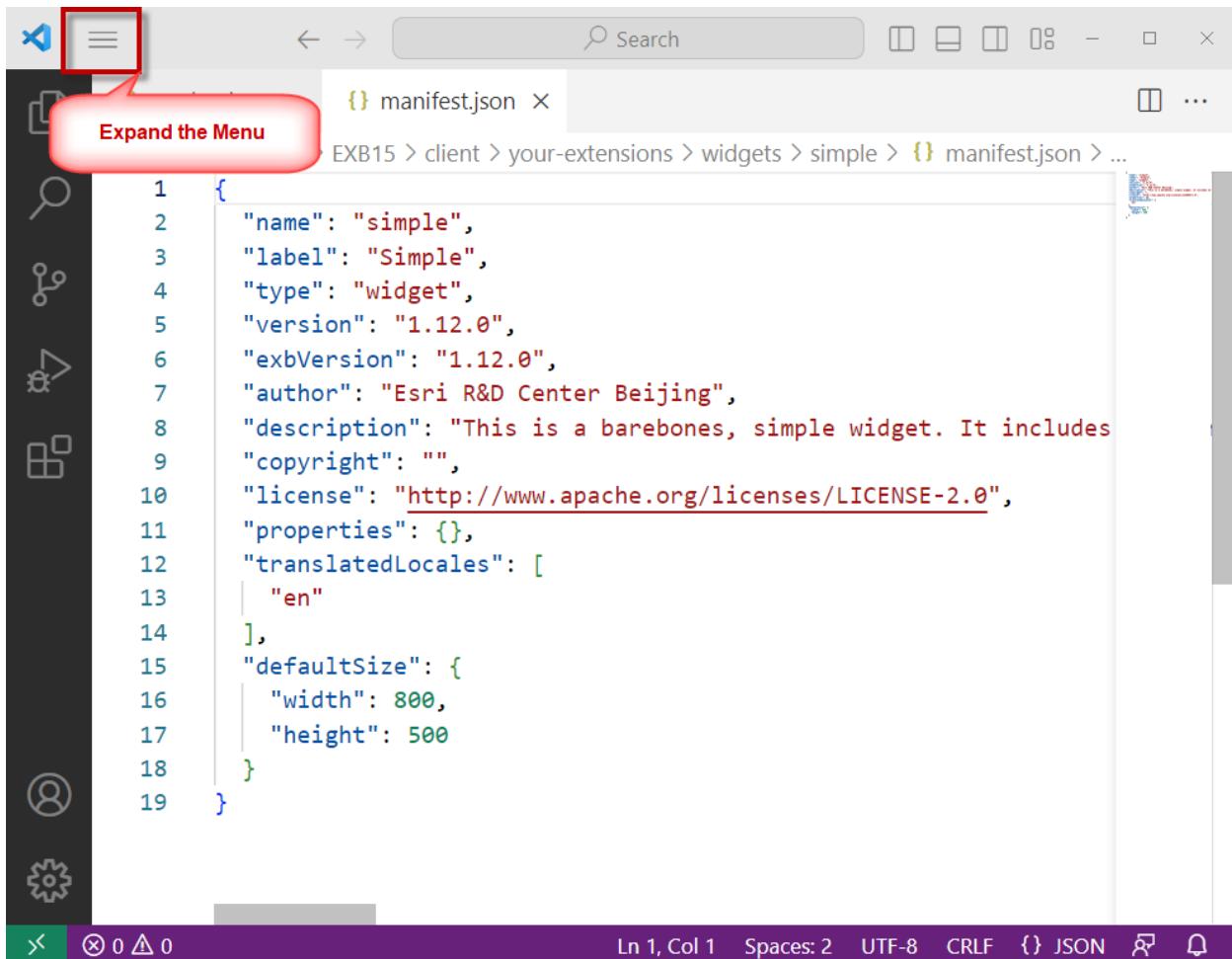
 simple	9/4/2023 5:34 PM	File folder
 .gitkeep	9/4/2023 5:05 PM	GITKEEP File 0 KB

C:\DAVID\EXB\EXB15\client\your-extensions\widgets\simple

 src	9/4/2023 5:34 PM	File folder
 tests	9/4/2023 5:34 PM	File folder
 config.json	9/4/2023 5:05 PM	JSON File 1 KB
 icon.svg	9/4/2023 5:05 PM	SVG Document 3 KB
 manifest.json	9/4/2023 5:05 PM	JSON File 1 KB

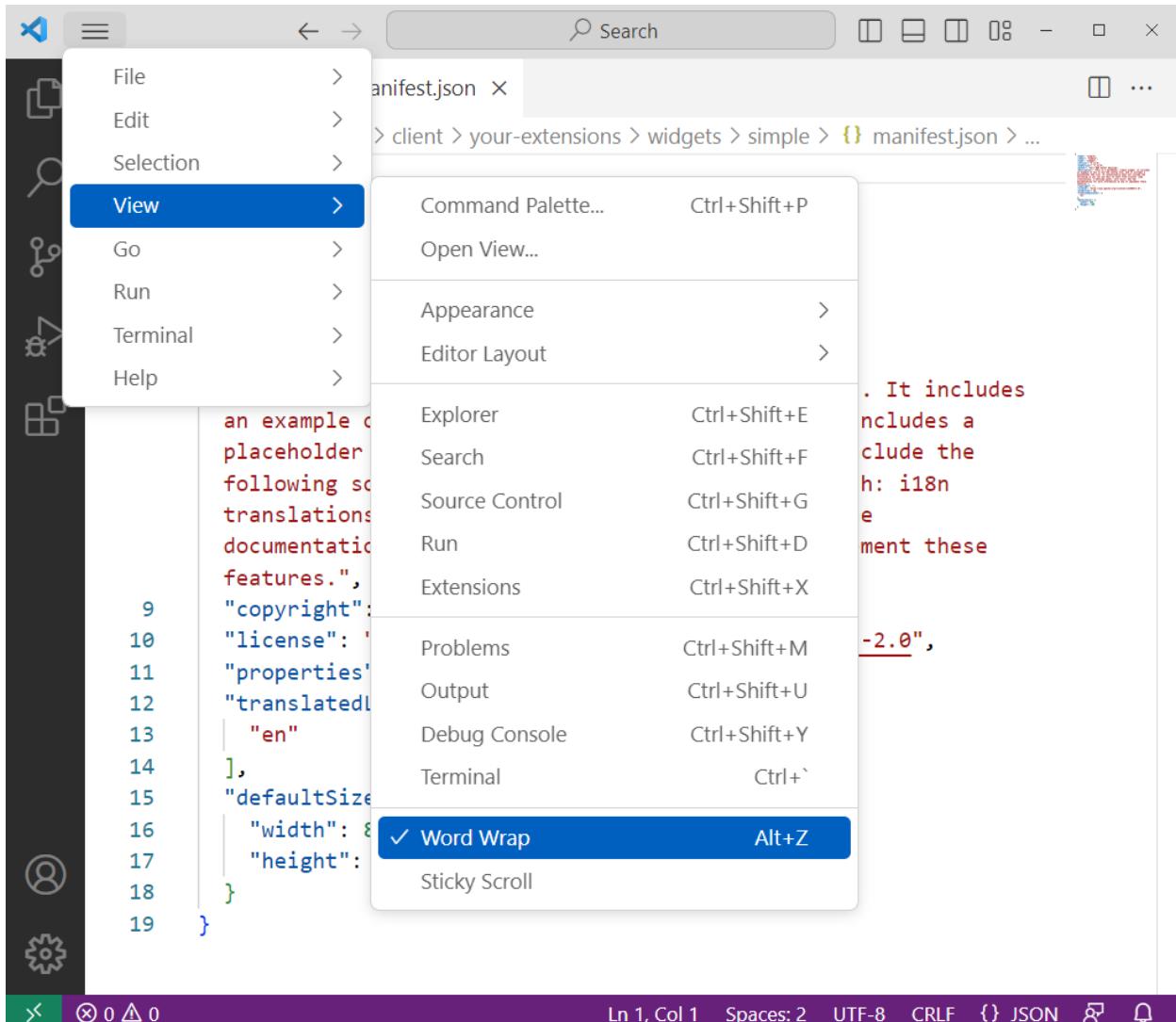
Open **manifest.json** in Code

## Expand the Menu



Turn on Word Wrap

File | View | Word Wrap



“version” = Widget Version set by the author.

“exbVersion” = The Experience Builder Version this widget has been designed to run.

The screenshot shows a code editor with the file `manifest.json` open. The file contains JSON configuration for a widget. Two specific fields are highlighted with red boxes and labeled with callouts:

- `"version": "1.12.0"` is labeled **Widget Version**.
- `"exbVersion": "1.12.0"` is labeled **EXB Version**.

The JSON code is as follows:

```
1  {
2    "name": "simple",
3    "label": "Simple",
4    "type": "widget",
5    "version": "1.12.0",
6    "exbVersion": "1.12.0",
7    "author": "Esri R&D Center Beijing",
8    "description": "A simple widget. It includes an example of how to use a placeholder icon file, and it includes a placeholder SVG icon. It intentionally does not include the following so you can use this to start from scratch: i18n translations, a Settings panel, unit tests. See the documentation for more information on how to implement these features.",
9    "copyright": "",
10   "license": "http://www.apache.org/licenses/LICENSE-2.0",
11   "properties": {},
12   "translatedLocales": [
13     "en"
14   ],
15   "defaultSize": {
16     "width": 800,
17     "height": 500
18   }
19 }
```

**Note:** A widget that has been designed to run on EXB 1.12 may not work on earlier versions without modifications.

Conversely, a widget designed to run on EXB 1.12 may not work on future versions because of breaking changes.

When you add Custom Widgets, make sure they are compatible with the Experience Builder Version you are using.

Custom Widgets designed for a specific version of EXB Dev may not function properly on newer or older versions.

Open the **Server folder**.

C:\DAVID\EXB\EXB15\

 client	9/4/2023 5:34 PM	File folder
 server	9/4/2023 5:34 PM	File folder
 3rd-party-license.txt	9/4/2023 4:52 PM	Text Document 68 KB
 readme.txt	9/4/2023 4:52 PM	Text Document 1 KB
 version.json	9/4/2023 4:52 PM	JSON File 1 KB

C:\DAVID\EXB\EXB15\server\

 cert	9/4/2023 5:34 PM	File folder
 src	9/4/2023 5:34 PM	File folder
 package.json	9/4/2023 5:05 PM	JSON File 2 KB
 package-lock.json	9/4/2023 5:05 PM	JSON File 559 KB
 version.json	9/4/2023 5:05 PM	JSON File 1 KB

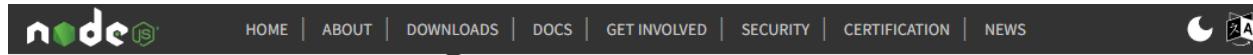
There are only a handful of files.

This folder will get populated once you run a Clean Install of Node.js

## Install Node.js version 14.21.3

If you open the Downloads Page for Node.js, you will find the latest Long Term Support (LTS) Version.

<https://nodejs.org/en/download>



### Downloads

Latest LTS Version: 18.16.0 (includes npm 9.5.1)

Download the Node.js source code or a pre-built installer for your platform, and start developing today.

LTS Recommended For Most Users	Current Latest Features	
 Windows Installer	 macOS Installer	 Source Code
node-v18.16.0-x64.msi	node-v18.16.0.pkg	node-v18.16.0.tar.gz
<a href="#">Windows Installer (.msi)</a>	32-bit	64-bit
<a href="#">Windows Binary (.zip)</a>	32-bit	64-bit
<a href="#">macOS Installer (.pkg)</a>	64-bit / ARM64	
<a href="#">macOS Binary (.tar.gz)</a>	64-bit	ARM64
<a href="#">Linux Binaries (x64)</a>	64-bit	
<a href="#">Linux Binaries (ARM)</a>	ARMv7	ARMv8
<a href="#">Source Code</a>	node-v18.16.0.tar.gz	

Do not download the latest version!

You may run into issues.

For Experience Builder Developer Edition 1.12, the recommended version of Node.js = 16

<https://developers.arcgis.com/experience-builder/guide/release-versions/>

exbVersion	JSAPI versions	ArcGIS Enterprise	Developer edition	ArcGIS Online	Recomended Node.js versions	Recomended React.js versions
1.12	4.27		1.12	July 2023	16	18
1.11	4.26		1.11	March 2023	16	17
1.10	4.25	11.1	1.10	November 2022	16	17
1.9	4.24		1.9	June 2022	14	17
1.8	4.23	11.0	1.8	March 2022	14	17
1.7	4.22		1.7	January 2022	14	17
1.6	4.21		1.6	October 2021	14	17
1.5	4.20	10.9.1	1.5	June 2021	14	17
1.4	4.19		1.4	April 2021	14	17
1.3	4.18	10.9	1.3	December 2020	14	16
1.2	4.17		1.2	October 2020	12	16
1.1	4.16		1.1	June 2020	12	16
1.0	4.15	10.8.1	1.0	February 2020	12	16

**Note:** Do not use a Node.js version higher than 16.

However, you can use any version lower than 16.

The minimum version of Node.js required is 12.

For this Tutorial, you will be installing Node.js version 14.

You will get a clean installation with zero warning messages.

Scroll down this page and select Previous Releases

<https://nodejs.org/en/download>

## Additional Platforms

Docker Image

Official Node.js Docker Image

Linux on Power LE Systems

64-bit

Linux on System z

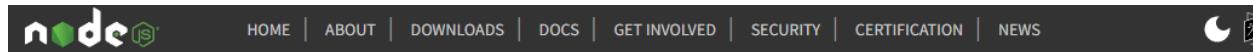
64-bit

AIX on Power Systems

64-bit

- Signed SHASUMS for release files ([How to verify](#))
- All download options
- Installing Node.js via package manager
- **Previous Releases**  **Previous Releases**
- Nightly builds
- Unofficial builds
- Building Node.js from source on supported platforms
- Installing Node.js via binary archive
- Install on Windows Subsystem for Linux (WSL)

<https://nodejs.org/en/download/releases>



## Previous Releases

### io.js & Node.js

Releases 1.x through 3.x were called "io.js" as they were part of the io.js fork. As of Node.js 4.0.0 the former release lines of io.js converged with Node.js 0.12.x into unified Node.js releases.

Looking for latest release of a version branch?

Version	LTS	Date	V8	npm	NODE_MODULE_VERSION[1]	Releases	Changelog	Docs
Node.js 20.1.0		2023-05-03	11.3.244.8	9.6.4	115	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 19.9.0		2023-04-10	10.8.168.25	9.6.3	111	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 18.16.0	Hydrogen	2023-04-12	10.2.154.26	9.5.1	108	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 17.9.1		2022-06-01	9.6.180.15	8.11.0	102	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 16.20.0	Gallium	2023-03-28	9.4.146.26	8.19.4	93	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 15.14.0		2021-04-06	8.6.395.17	7.7.6	88	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 14.21.3	Fermium	2023-02-16	8.4.371.23	6.14.18	83	<b>Releases</b>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 13.14.0		2020-04-29	7.9.317.25	6.14.4	79	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>
Node.js 12.22.12	Erbium	2022-04-05	7.8.279.23	6.14.16	72	<a href="#">Releases</a>	<a href="#">Changelog</a>	<a href="#">Docs</a>

Select **Releases** for Node.js 14.21.3 Fermium

<https://nodejs.org/download/release/v14.21.3/>

## Index of /download/release/v14.21.3/

<a href="#">..</a>		
<a href="#">docs/</a>	16-Feb-2023 15:40	-
<a href="#">win-x64/</a>	16-Feb-2023 15:42	-
<a href="#">win-x86/</a>	16-Feb-2023 15:39	-
<a href="#">SHASUMS256.txt</a>	16-Feb-2023 22:06	2953
<a href="#">SHASUMS256.txt.asc</a>	16-Feb-2023 22:06	3835
<a href="#">SHASUMS256.txt.sig</a>	16-Feb-2023 22:06	566
<a href="#">node-v14.21.3-aix-ppc64.tar.gz</a>	16-Feb-2023 15:33	43699874
<a href="#">node-v14.21.3-darwin-x64.tar.gz</a>	16-Feb-2023 16:04	32241321
<a href="#">node-v14.21.3-darwin-x64.tar.xz</a>	16-Feb-2023 16:04	20885076
<a href="#">node-v14.21.3-headers.tar.gz</a>	16-Feb-2023 15:41	603369
<a href="#">node-v14.21.3-headers.tar.xz</a>	16-Feb-2023 15:41	391980
<a href="#">node-v14.21.3-linux-arm64.tar.gz</a>	16-Feb-2023 15:40	34313013
<a href="#">node-v14.21.3-linux-arm64.tar.xz</a>	16-Feb-2023 15:41	21532688
<a href="#">node-v14.21.3-linux-armv7l.tar.gz</a>	16-Feb-2023 15:28	32444336
<a href="#">node-v14.21.3-linux-armv7l.tar.xz</a>	16-Feb-2023 15:29	19390324
<a href="#">node-v14.21.3-linux-ppc64le.tar.gz</a>	16-Feb-2023 15:24	36255542
<a href="#">node-v14.21.3-linux-ppc64le.tar.xz</a>	16-Feb-2023 15:26	22698084
<a href="#">node-v14.21.3-linux-s390x.tar.gz</a>	16-Feb-2023 15:22	34570308
<a href="#">node-v14.21.3-linux-s390x.tar.xz</a>	16-Feb-2023 15:23	21208244
<a href="#">node-v14.21.3-linux-x64.tar.gz</a>	16-Feb-2023 15:22	34278372
<a href="#">node-v14.21.3-linux-x64.tar.xz</a>	16-Feb-2023 15:23	22187736
<a href="#">node-v14.21.3-win-x64.7z</a>	16-Feb-2023 15:43	17670640
<a href="#">node-v14.21.3-win-x64.zip</a>	16-Feb-2023 15:44	29088388
<a href="#">node-v14.21.3-win-x86.7z</a>	16-Feb-2023 15:40	16537820
<a href="#">node-v14.21.3-win-x86.zip</a>	16-Feb-2023 15:40	27489213
<a href="#">node-v14.21.3-x64.msi</a>	16-Feb-2023 15:45	30670848
<a href="#">node-v14.21.3-x86.msi</a>	16-Feb-2023 15:40	28975104
<a href="#">node-v14.21.3.pkg</a>	16-Feb-2023 15:59	32427197
<a href="#">node-v14.21.3.tar.gz</a>	16-Feb-2023 15:33	64736018
<a href="#">node-v14.21.3.tar.xz</a>	16-Feb-2023 15:37	34508116

Download

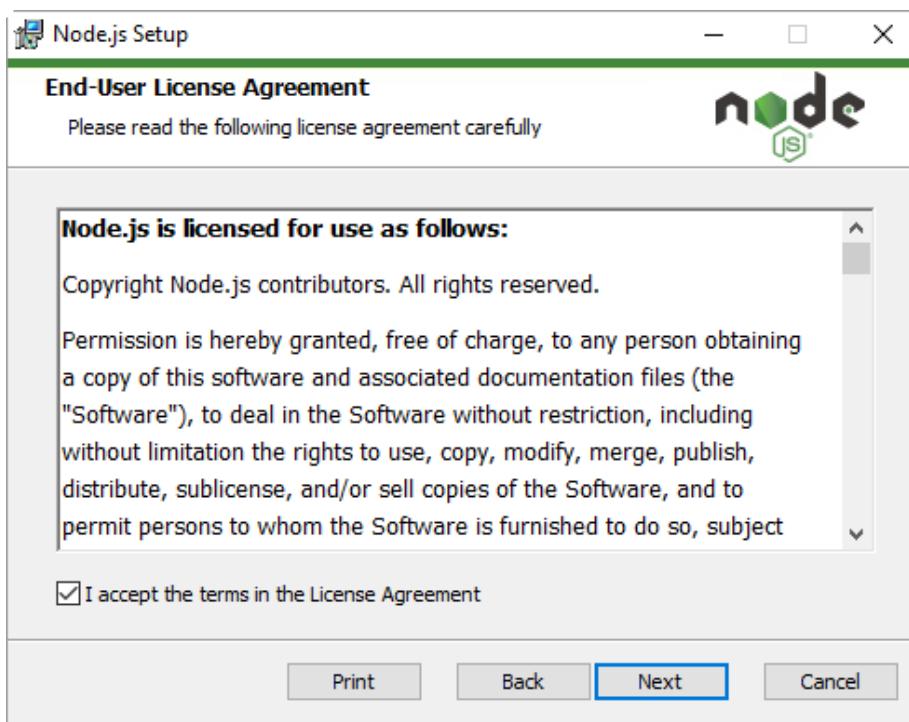
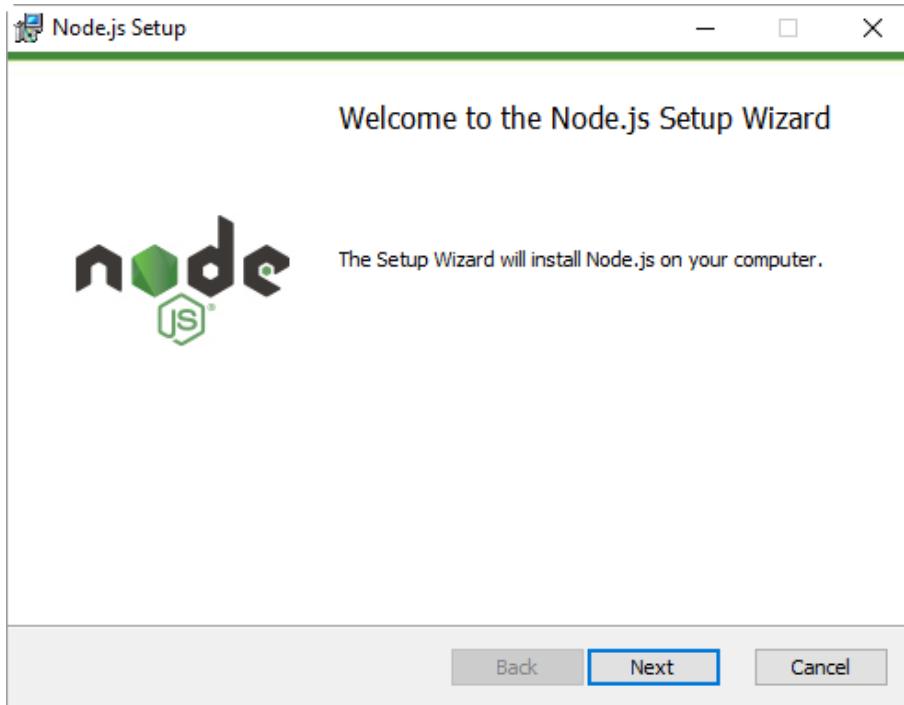
Download the file:

[node-v14.21.3-x64.msi](#)

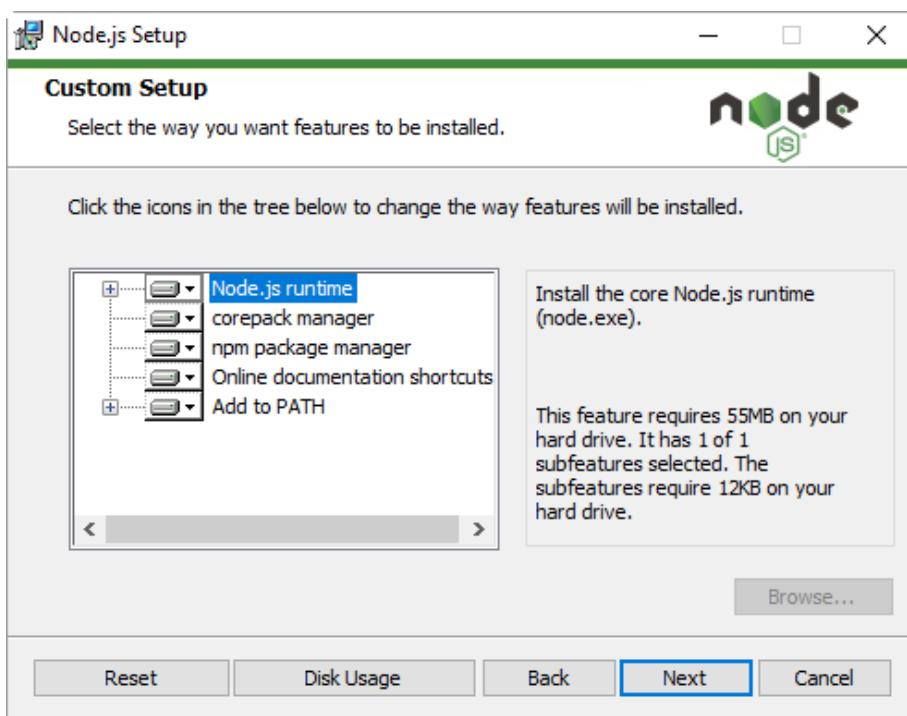
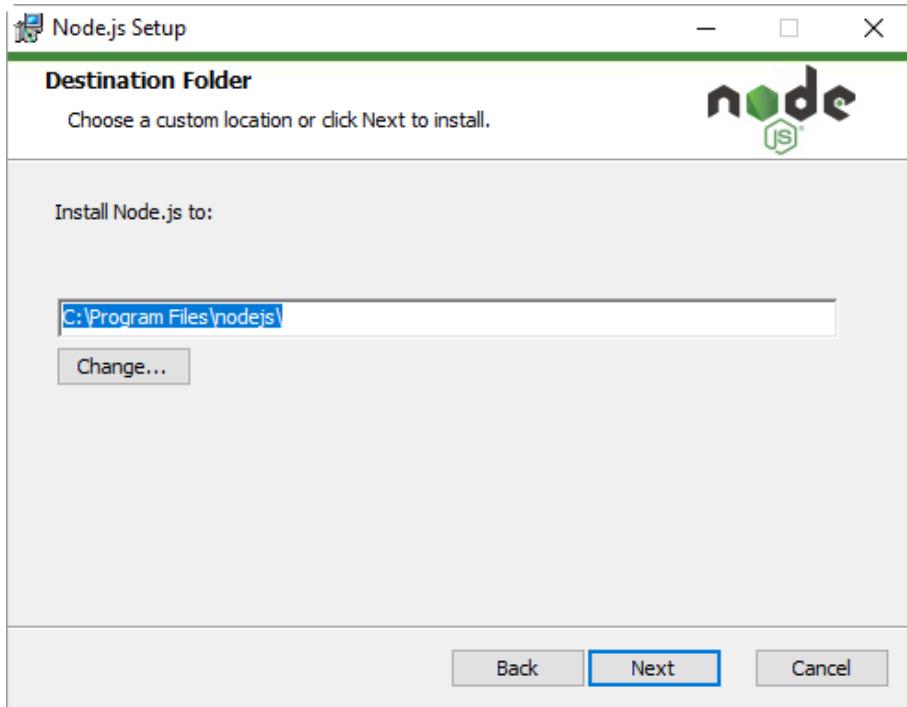
Note, the x64 is for 64-bit machines.

 node-v14.21.3-x64.msi	9/4/2023 6:25 PM	Windows Installer Package	29,952 KB
---	------------------	---------------------------	-----------

Double click on this msi file to run the installation.

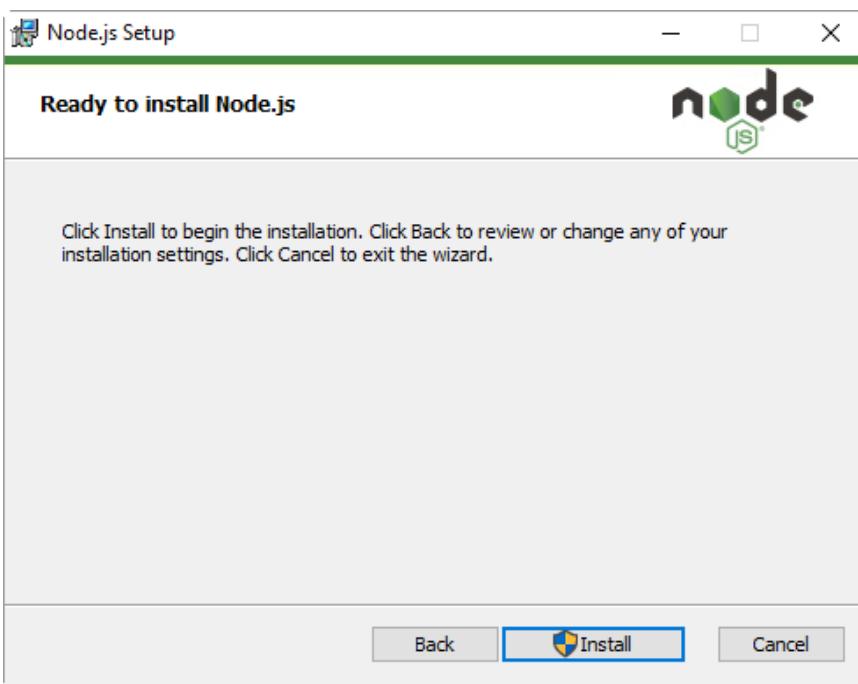
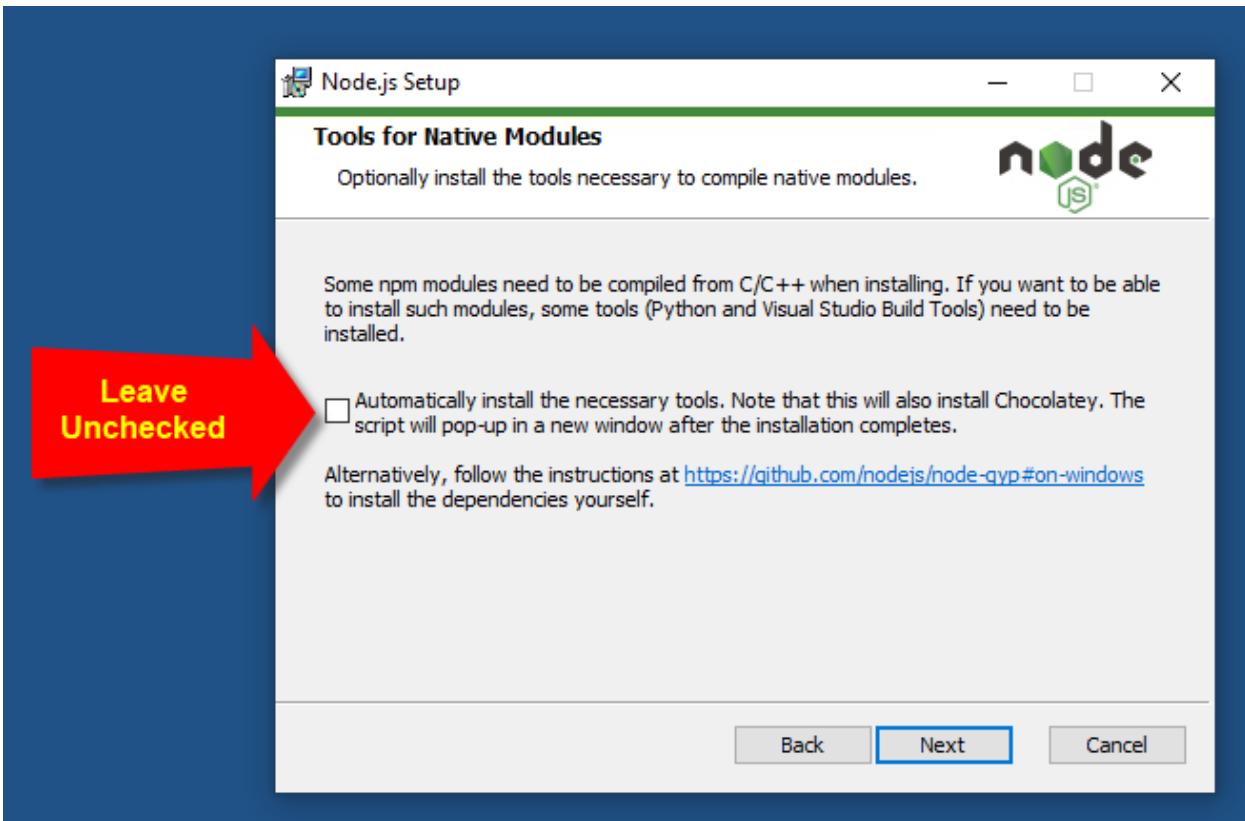


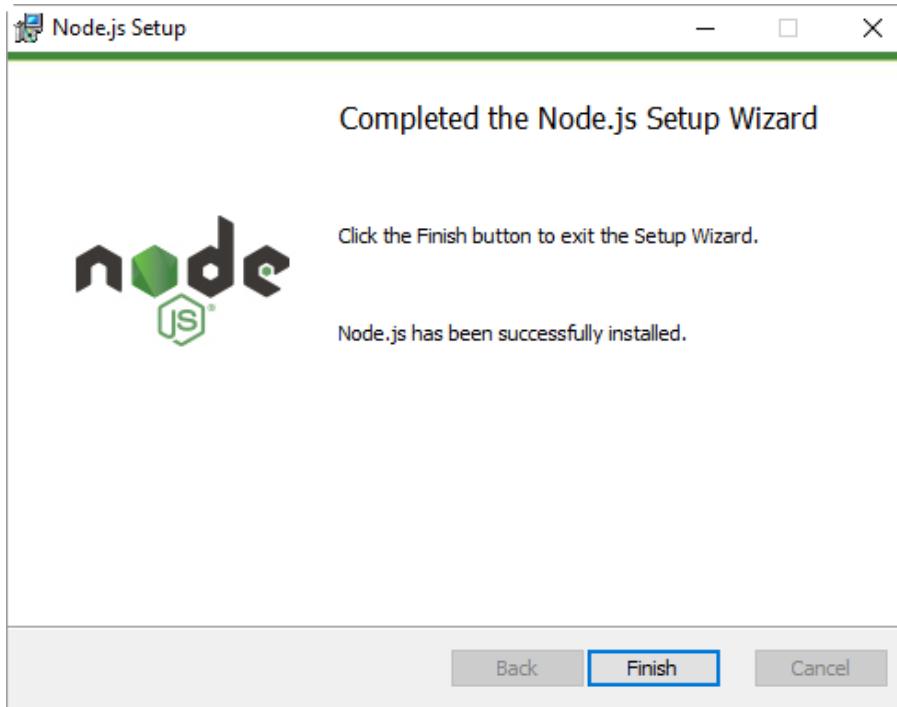
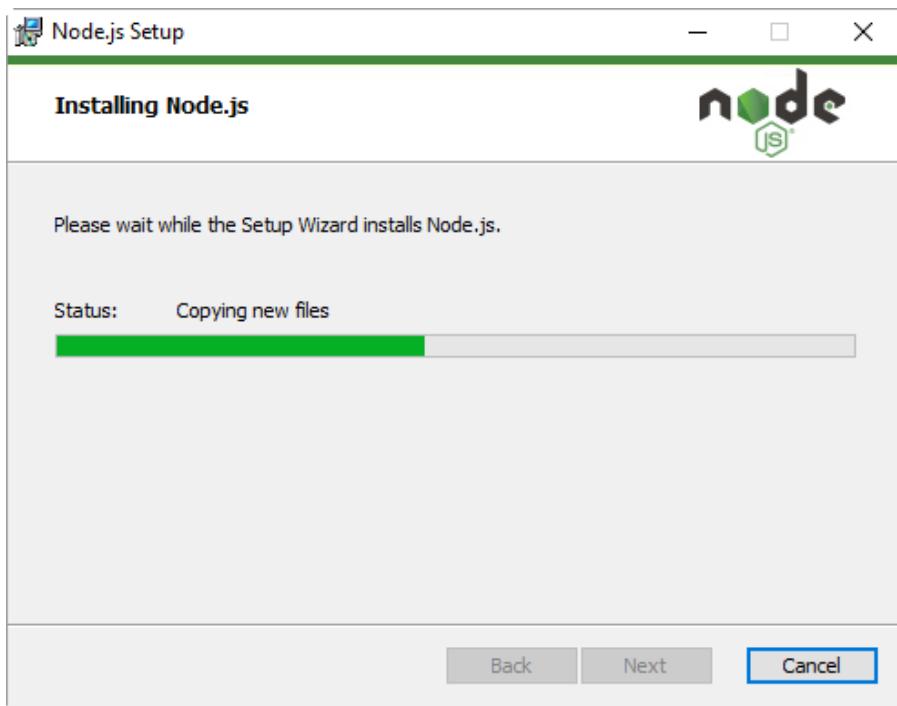
Installation Folder = C:\Program Files\nodejs\



**Important: Do not install Chocolatey!**

Leave this option unchecked.





Node.js version 14.21.3 has now been installed on your computer.

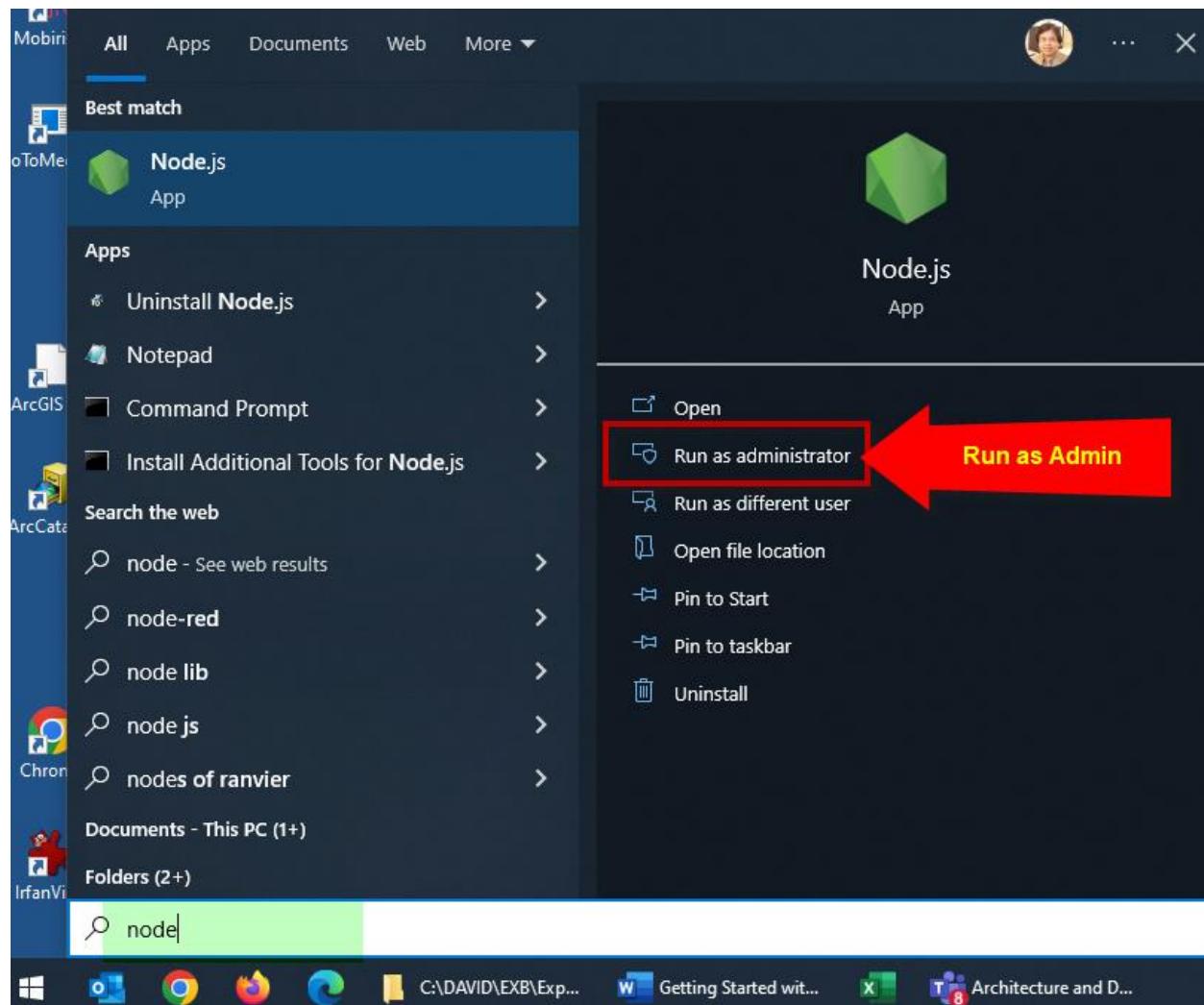
#### Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

Name	Publisher	Installed On	Size	Version
Microsoft Visual Studio Code (User)	Microsoft Corporation	9/1/2023	344 MB	1.81.1
Microsoft Visual Studio Installer	Microsoft Corporation	2/10/2022		3.5.2150.18781
Mobirise4	Mobirise.com	2/19/2022	164 MB	
Mozilla Firefox (x64 en-US)	Mozilla	9/1/2023	216 MB	117.0
Mozilla Maintenance Service	Mozilla	8/19/2023	573 KB	116.0.3
Netskope Client	Netskope, Inc.	6/21/2023	26.2 MB	102.1.6.1356
Node.js	Node.js Foundation	9/4/2023	83.0 MB	14.21.3
Notepad++ (64-bit x64)	Notepad++ Team	8/21/2023	14.8 MB	8.5.5
NVIDIA Graphics Driver 517.37	NVIDIA Corporation	2/3/2023		517.37
NVIDIA HD Audio Driver 1.3.39.14	NVIDIA Corporation	2/3/2023		1.3.39.14
NVIDIA USBC Driver 1.46.831.832	NVIDIA Corporation	2/3/2023		1.46.831.832

Node.js

Search for Node from the Start Menu



Run Node.js as Administrator.

This verifies you are running Node.js version 14.21.3

A terminal window displays the Node.js welcome message: "Welcome to Node.js v14.21.3. Type ".help" for more information." A red speech bubble highlights the text "Node.js version 14.21.3" above the terminal window.

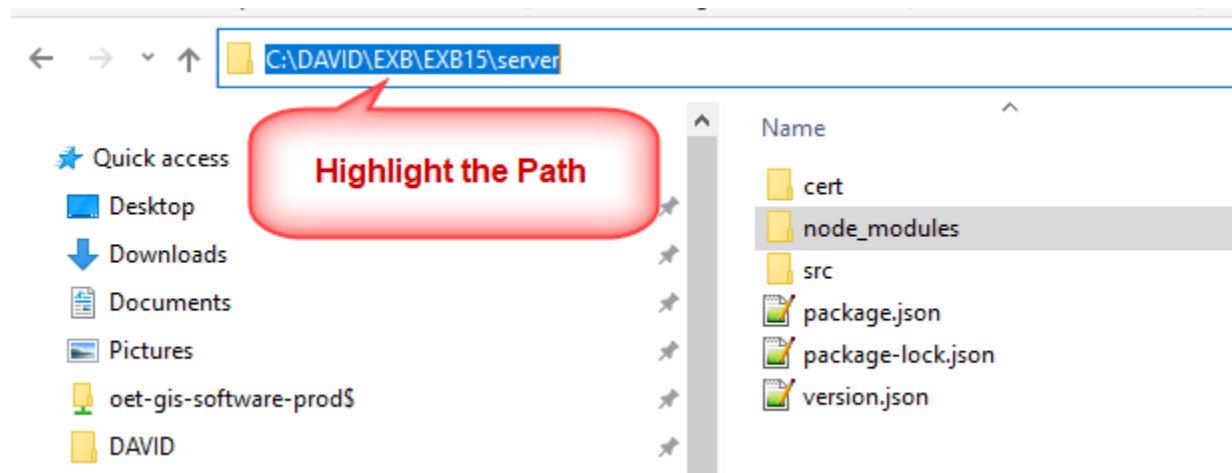
```
Welcome to Node.js v14.21.3.
Type ".help" for more information.
> -
```

## Node.js Server Clean Installation

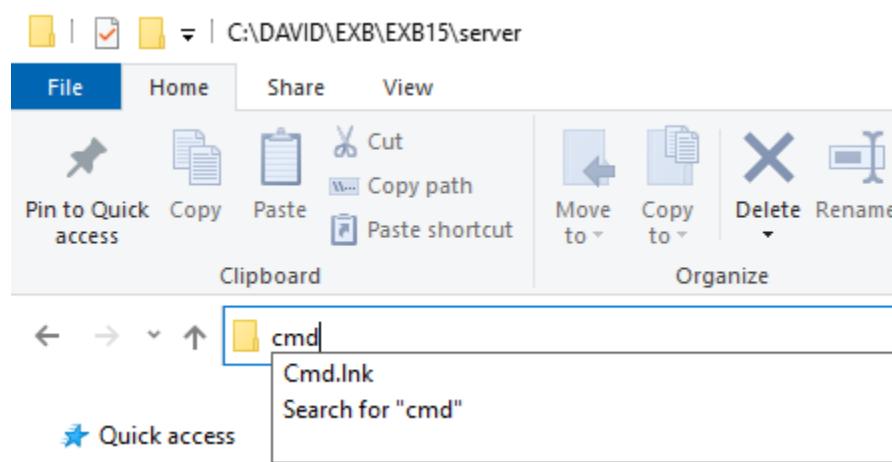
Navigate the **Server Folder**

C:\DAVID\EXB\EXB15\server

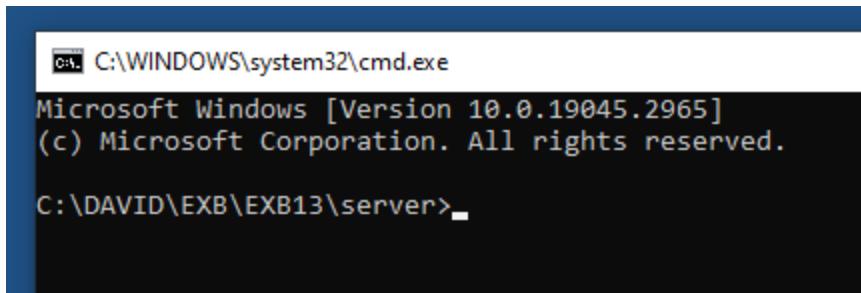
Highlight the path.



Type **cmd** and press Enter.



This opens a Command Window with the correct path already in place.

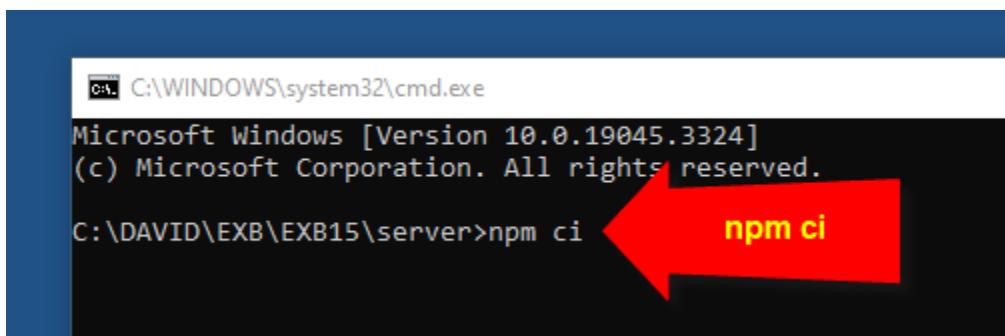


```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB13\server>
```

Run a Clean Install.

Enter **npm ci**



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

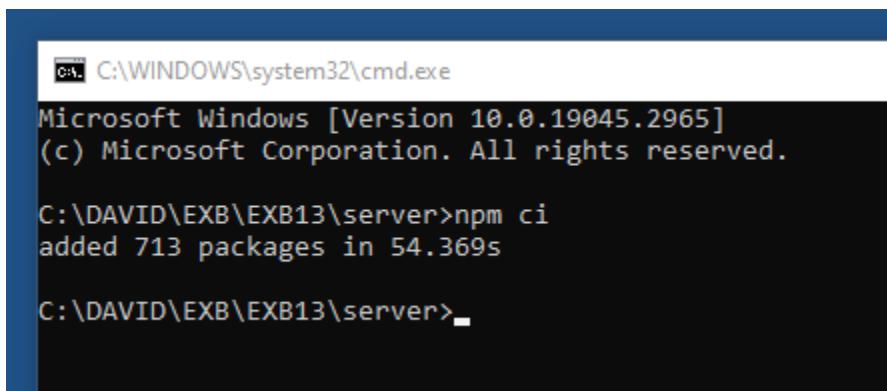
C:\DAVID\EXB\EXB15\server>npm ci
```

Be patient!

This may take 5 minutes.

You may think that the process has hung. Do not close this window.

Wait till you see this prompt.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB13\server>npm ci
added 713 packages in 54.369s

C:\DAVID\EXB\EXB13\server>
```

713 Packages were added.

Examine your Server Folder.

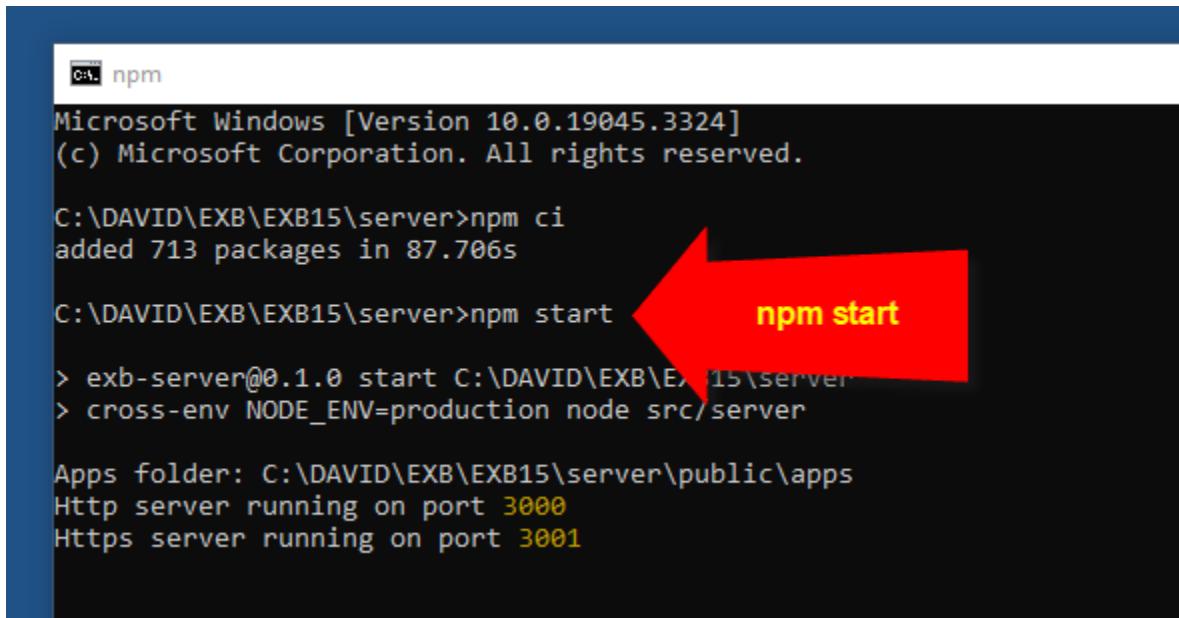
C:\DAVID\EXB\EXB15\server\

A new folder named **node\_modules** was created.

 cert	9/4/2023 5:34 PM	File folder
 node_modules	9/4/2023 6:41 PM	File folder
 src	9/4/2023 5:34 PM	File folder
 package.json	9/4/2023 5:05 PM	JSON File 2 KB
 package-lock.json	9/4/2023 5:05 PM	JSON File 559 KB
 version.json	9/4/2023 5:05 PM	JSON File 1 KB

Start the npm server

Enter **npm start**



```
C:\ npm
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB15\server>npm ci
added 713 packages in 87.706s

C:\DAVID\EXB\EXB15\server>npm start
npm start

> exb-server@0.1.0 start C:\DAVID\EXB\EXB15\server
> cross-env NODE_ENV=production node src/server

Apps folder: C:\DAVID\EXB\EXB15\server\public\apps
Http server running on port 3000
Https server running on port 3001
```

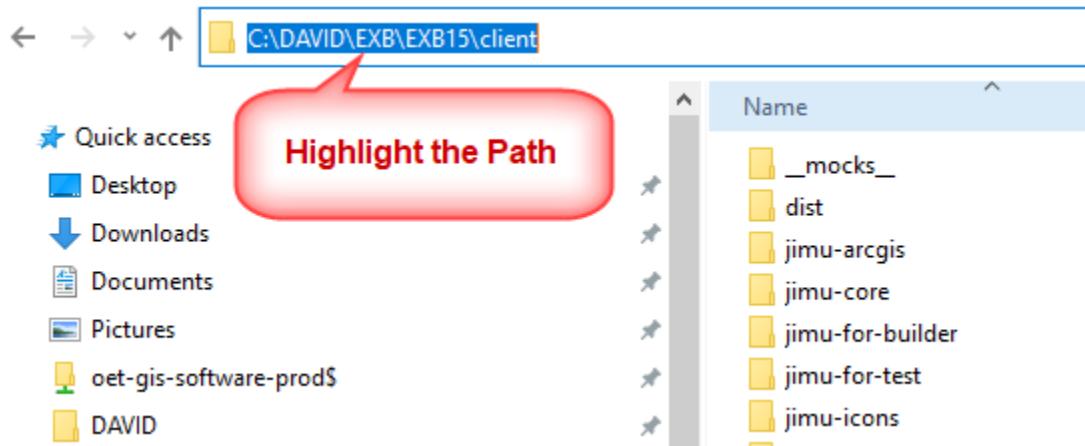
Keep this window open. Do not close this.

## Node.js Client Clean Installation

Navigate to the **Client Folder**

C:\DAVID\EXB\EXB15\client\

Highlight the Path



Type **cmd** and press Enter.

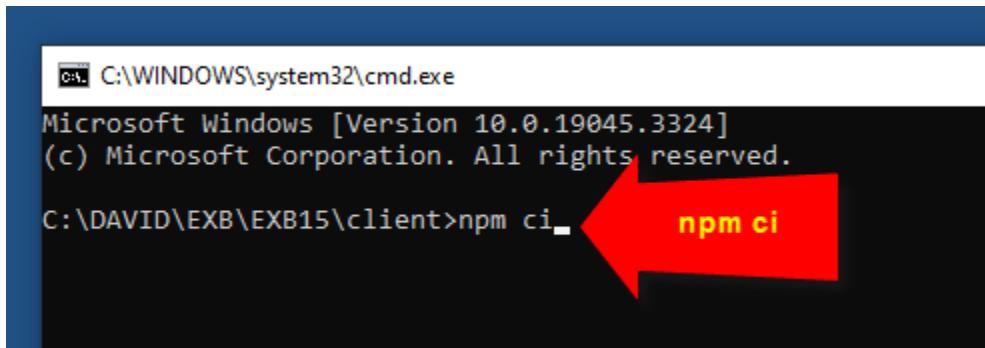
This opens a second Command Window with the correct path already in place.

```
C:\> C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB15\client>
```

Run a Clean Install.

Enter **npm ci**



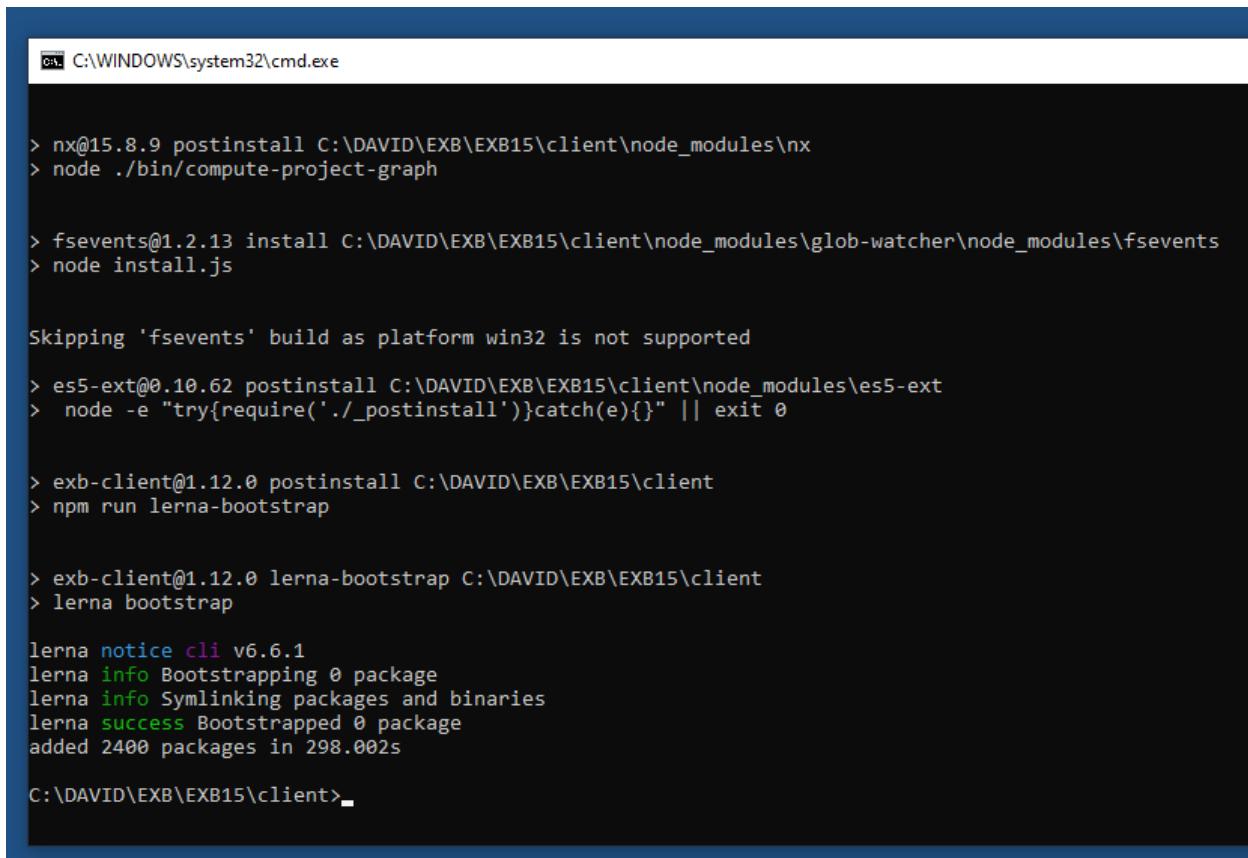
```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB15\client>npm ci
```

Be patient as the extraction takes place.

This may take 5 minutes.

Eventually, you will get back the prompt like this.



```
C:\WINDOWS\system32\cmd.exe

> nx@15.8.9 postinstall C:\DAVID\EXB\EXB15\client\node_modules\nx
> node ./bin/compute-project-graph

> fsevents@1.2.13 install C:\DAVID\EXB\EXB15\client\node_modules\glob-watcher\node_modules\fsevents
> node install.js

Skipping 'fsevents' build as platform win32 is not supported

> es5-ext@0.10.62 postinstall C:\DAVID\EXB\EXB15\client\node_modules\es5-ext
> node -e "try{require('./_postinstall')}{catch(e){}}" || exit 0

> exb-client@1.12.0 postinstall C:\DAVID\EXB\EXB15\client
> npm run lerna-bootstrap

> exb-client@1.12.0 lerna-bootstrap C:\DAVID\EXB\EXB15\client
> lerna bootstrap

lerna notice cli v6.6.1
lerna info Bootstrapping 0 package
lerna info Symlinking packages and binaries
lerna success Bootstrapped 0 package
added 2400 packages in 298.002s

C:\DAVID\EXB\EXB15\client>
```

2400 packages were added.

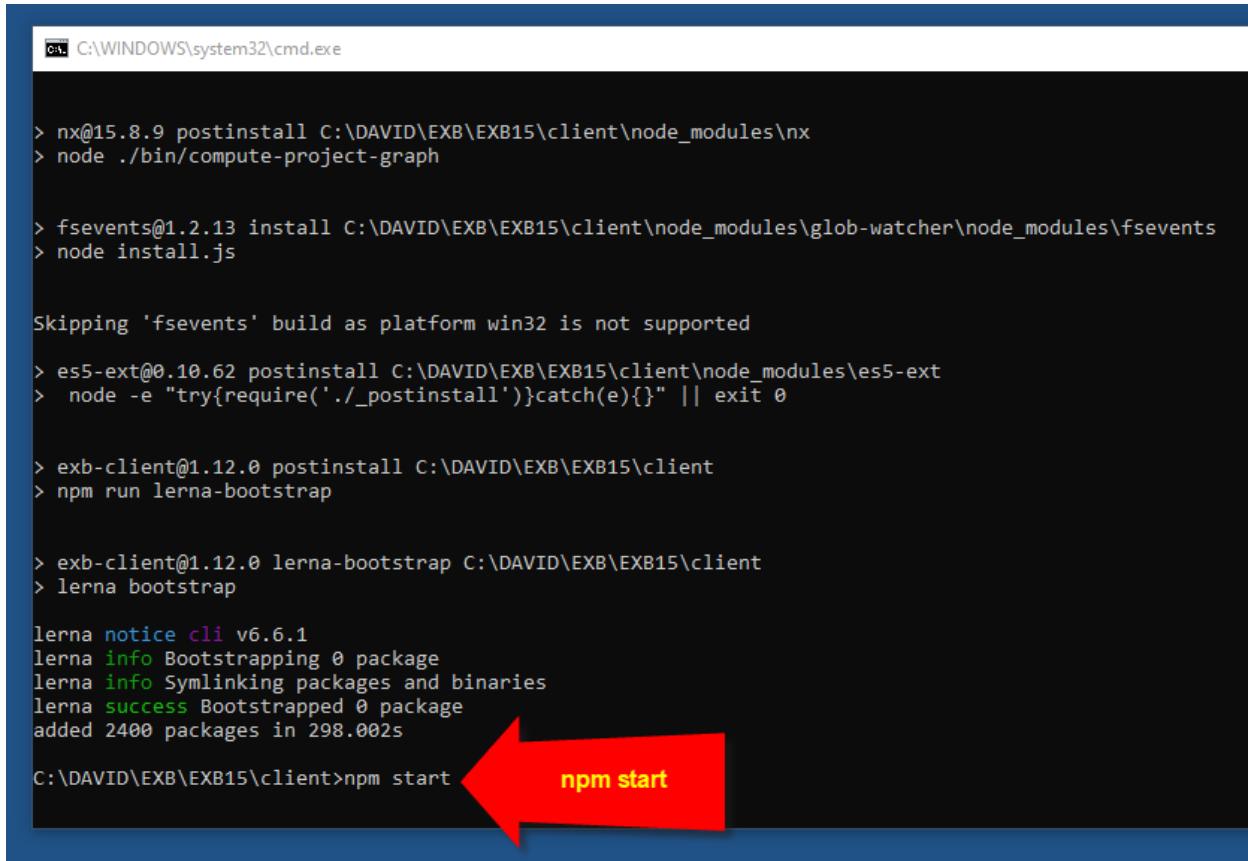
A new node\_modules folder was added.

C:\DAVID\EXB\EXB15\client\

📁 _mocks_	9/4/2023 5:34 PM	File folder
📁 dist	9/4/2023 5:32 PM	File folder
📁 jimu-arcgis	9/4/2023 5:33 PM	File folder
📁 jimu-core	9/4/2023 5:33 PM	File folder
📁 jimu-for-builder	9/4/2023 5:34 PM	File folder
📁 jimu-for-test	9/4/2023 5:34 PM	File folder
📁 jimu-icons	9/4/2023 5:34 PM	File folder
📁 jimu-layouts	9/4/2023 5:34 PM	File folder
📁 jimu-theme	9/4/2023 5:34 PM	File folder
📁 jimu-ui	9/4/2023 5:34 PM	File folder
📁 node_modules	9/4/2023 6:58 PM	File folder
📁 scripts	9/4/2023 5:34 PM	File folder
📁 types	9/4/2023 5:34 PM	File folder
📁 webpack	9/4/2023 5:34 PM	File folder
📁 your-extensions	9/4/2023 5:34 PM	File folder
📄 .eslintignore	9/4/2023 4:52 PM	ESLINTIGNORE File 1 KB
JS .eslintrc.js	9/4/2023 4:52 PM	JavaScript Source ... 4 KB
JS jest.config.js	9/4/2023 4:52 PM	JavaScript Source ... 4 KB
JS jest-systemjs-transformer.js	9/4/2023 4:52 PM	JavaScript Source ... 2 KB
JSON lerna.json	9/4/2023 4:52 PM	JSON File 1 KB
JSON package.json	9/4/2023 4:52 PM	JSON File 6 KB
JSON package-lock.json	9/4/2023 4:52 PM	JSON File 2,030 KB
JSON tsconfig.json	9/4/2023 4:52 PM	JSON File 1 KB
JS webpack.config.js	9/4/2023 4:52 PM	JavaScript Source ... 1 KB

Start the npm client service

Enter **npm start**



```
C:\WINDOWS\system32\cmd.exe

> nx@15.8.9 postinstall C:\DAVID\EXB\EXB15\client\node_modules\nx
> node ./bin/compute-project-graph

> fsevents@1.2.13 install C:\DAVID\EXB\EXB15\client\node_modules\glob-watcher\node_modules\fsevents
> node install.js

Skipping 'fsevents' build as platform win32 is not supported

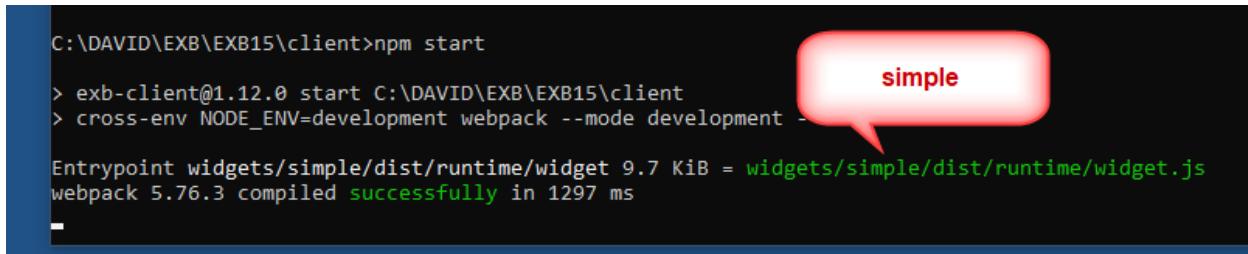
> es5-ext@0.10.62 postinstall C:\DAVID\EXB\EXB15\client\node_modules\es5-ext
> node -e "try{require('./_postinstall')}catch(e){}" || exit 0

> exb-client@1.12.0 postinstall C:\DAVID\EXB\EXB15\client
> npm run lerna-bootstrap

> exb-client@1.12.0 lerna-bootstrap C:\DAVID\EXB\EXB15\client
> lerna bootstrap

lerna notice cli v6.6.1
lerna info Bootstrapping 0 package
lerna info Symlinking packages and binaries
lerna success Bootstrapped 0 package
added 2400 packages in 298.002s

C:\DAVID\EXB\EXB15\client>npm start
```



```
C:\DAVID\EXB\EXB15\client>npm start
> exb-client@1.12.0 start C:\DAVID\EXB\EXB15\client
> cross-env NODE_ENV=development webpack --mode development -
  Entrypoint widgets/simple/dist/runtime/widget 9.7 KiB = widgets/simple/dist/runtime/widget.js
  webpack 5.76.3 compiled successfully in 1297 ms
  
```

Notice how it picks up the simple custom widget.

You should have 2 command windows open.

- npm server
- npm client

The image shows two separate command-line windows side-by-side. The top window is titled 'npm' and has a red speech bubble above it labeled 'npm server'. The bottom window is titled 'webpack' and has a red speech bubble above it labeled 'npm client'. Both windows display terminal logs.

**npm server window log:**

```
Microsoft Windows [Version 10.0.19045.3324]
(c) Microsoft Corporation. All rights reserved.

C:\DAVID\EXB\EXB15\server>npm ci
added 713 packages in 87.706s

C:\DAVID\EXB\EXB15\server>npm start

> exb-server@0.1.0 start C:\DAVID\EXB\EXB15\server
> cross-env NODE_ENV=production node src/server

Apps folder: C:\DAVID\EXB\EXB15\server\public\apps
Http server running on port 3000
Https server running on port 3001
```

**webpack window log:**

```
C:\ DAVID\EXB\EXB15>webpack

> fsevents@1.2.13 install C:\DAVID\EXB\EXB15\client\node_modules\glob-watcher\node_modules\fsevents
> node install.js

Skipping 'fsevents' build as platform win32 is not supported

> es5-ext@0.10.62 postinstall C:\DAVID\EXB\EXB15\client\node_modules\es5-ext
> node -e "try{require('./_postinstall')}catch(e){}|| exit 0"

> exb-client@1.12.0 postinstall C:\DAVID\EXB\EXB15\client
> npm run lerna-bootstrap

> exb-client@1.12.0 lerna-bootstrap C:\DAVID\EXB\EXB15\client
> lerna bootstrap

lerna notice cli v6.6.1
lerna info Bootstrapping 0 package
lerna info Symlinking packages and binaries
lerna success Bootstrapped 0 package
added 2400 packages in 298.002s

C:\DAVID\EXB\EXB15\client>npm start

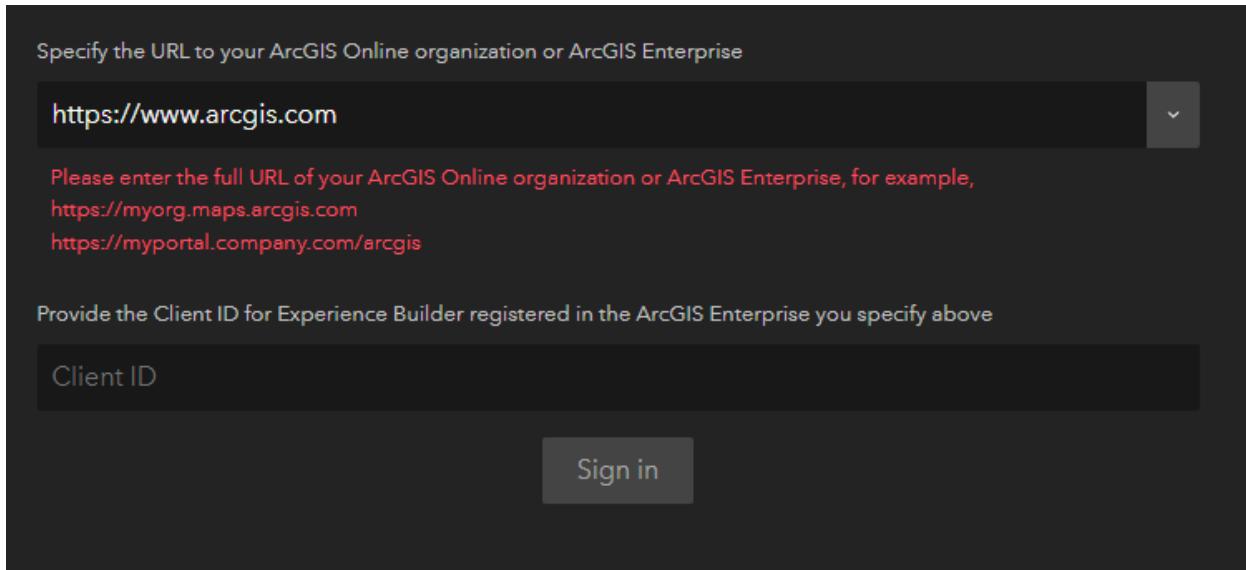
> exb-client@1.12.0 start C:\DAVID\EXB\EXB15\client
> cross-env NODE_ENV=development webpack --mode development --watch

Entrypoint widgets/simple/dist/runtime/widget 9.7 KiB = widgets/simple/dist/runtime/widget.js
webpack 5.76.3 compiled successfully in 1297 ms
```

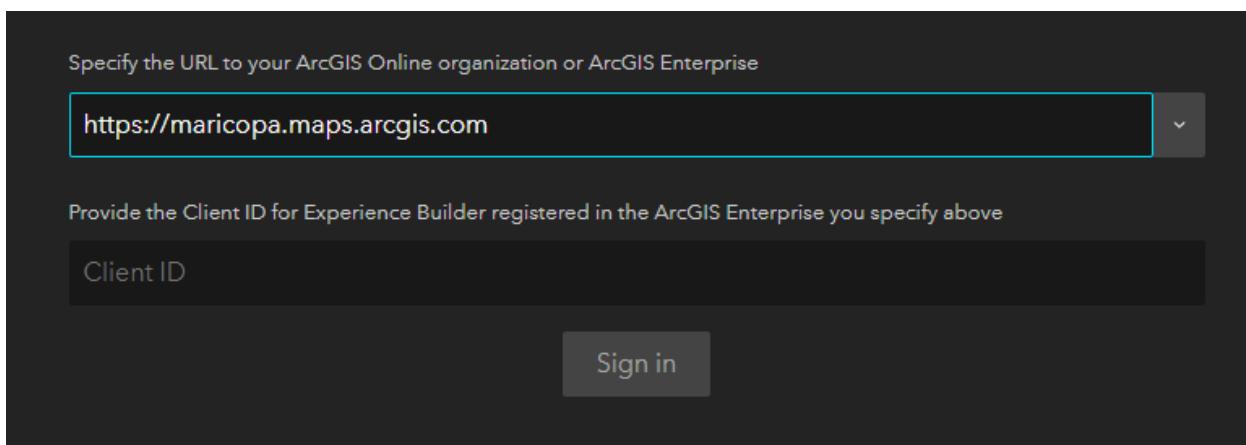
## Launch the Experience Builder Developer Edition

Open Chrome and enter:

<https://localhost:3001/>



Specify the URL to your ArcGIS Online Organization = <https://maricopa.maps.arcgis.com>



Enter your Client ID = **qx2Eu4b0uyJb224A**

Specify the URL to your ArcGIS Online organization or ArcGIS Enterprise

Provide the Client ID for Experience Builder registered in the ArcGIS Enterprise you specify above

**Sign in**

EXB Client ID wants to access your ArcGIS Online account information [?](#)

Sign in to Maricopa County Enterprise GIS 

ArcGIS login

Keep me signed in

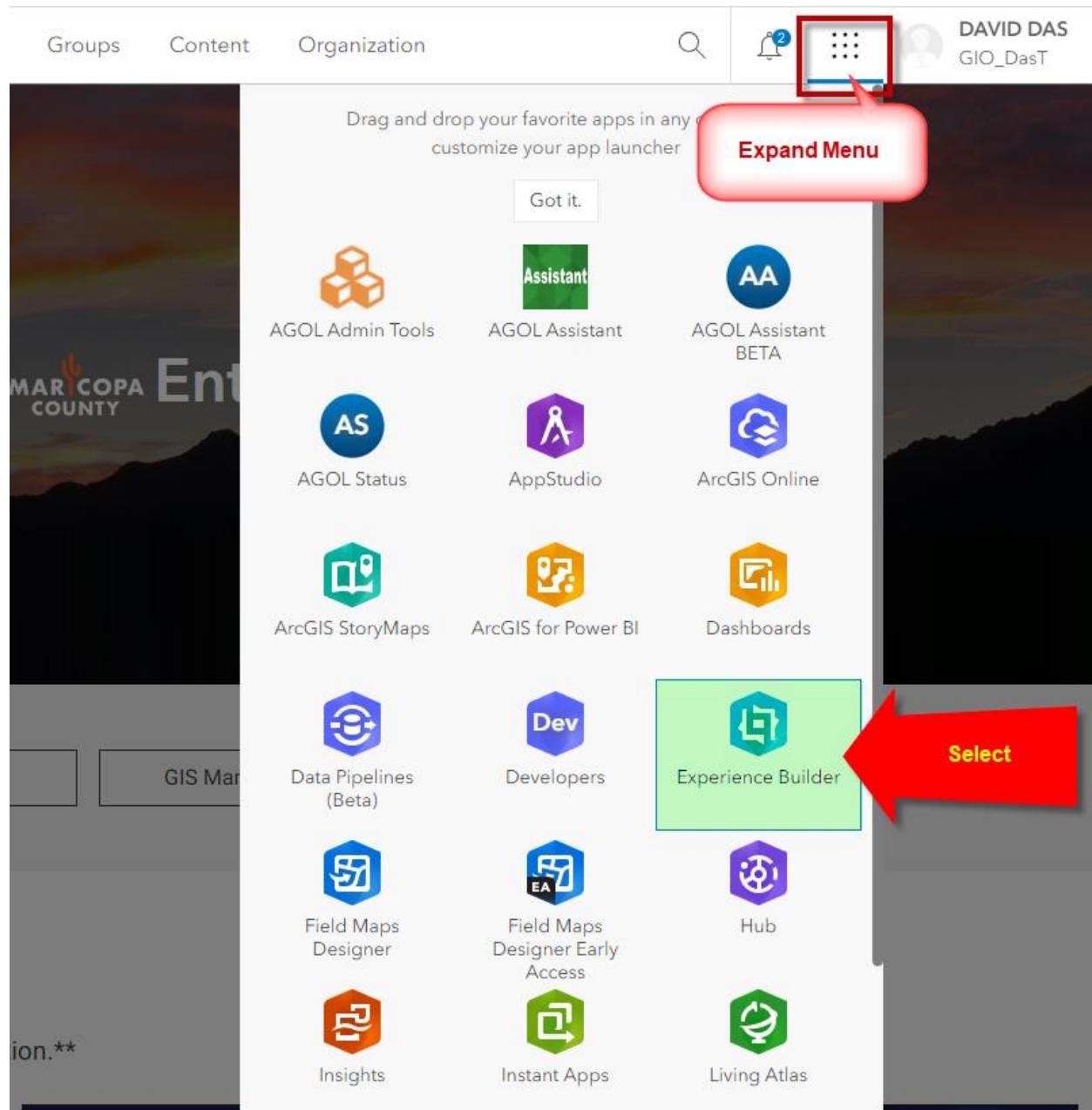
**Sign In** **Cancel**

[Forgot username?](#) or [Forgot password?](#)

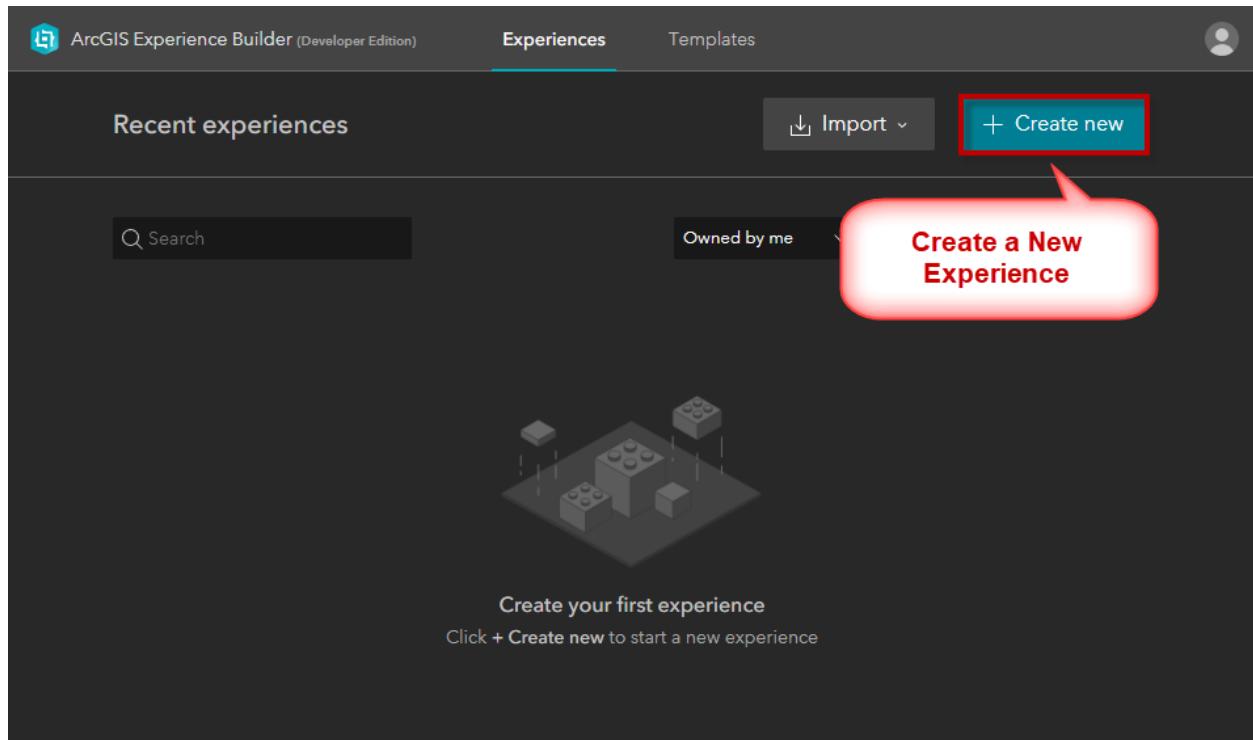
## Launching the Experience Builder ArcGIS Online Edition

**Note:** If you were to launch the ArcGIS Online Edition of the Experience Builder, you would Sign In to your AGOL Account, expand the Menu and select Experience Builder.

<https://maricopa.maps.arcgis.com/home/index.html>

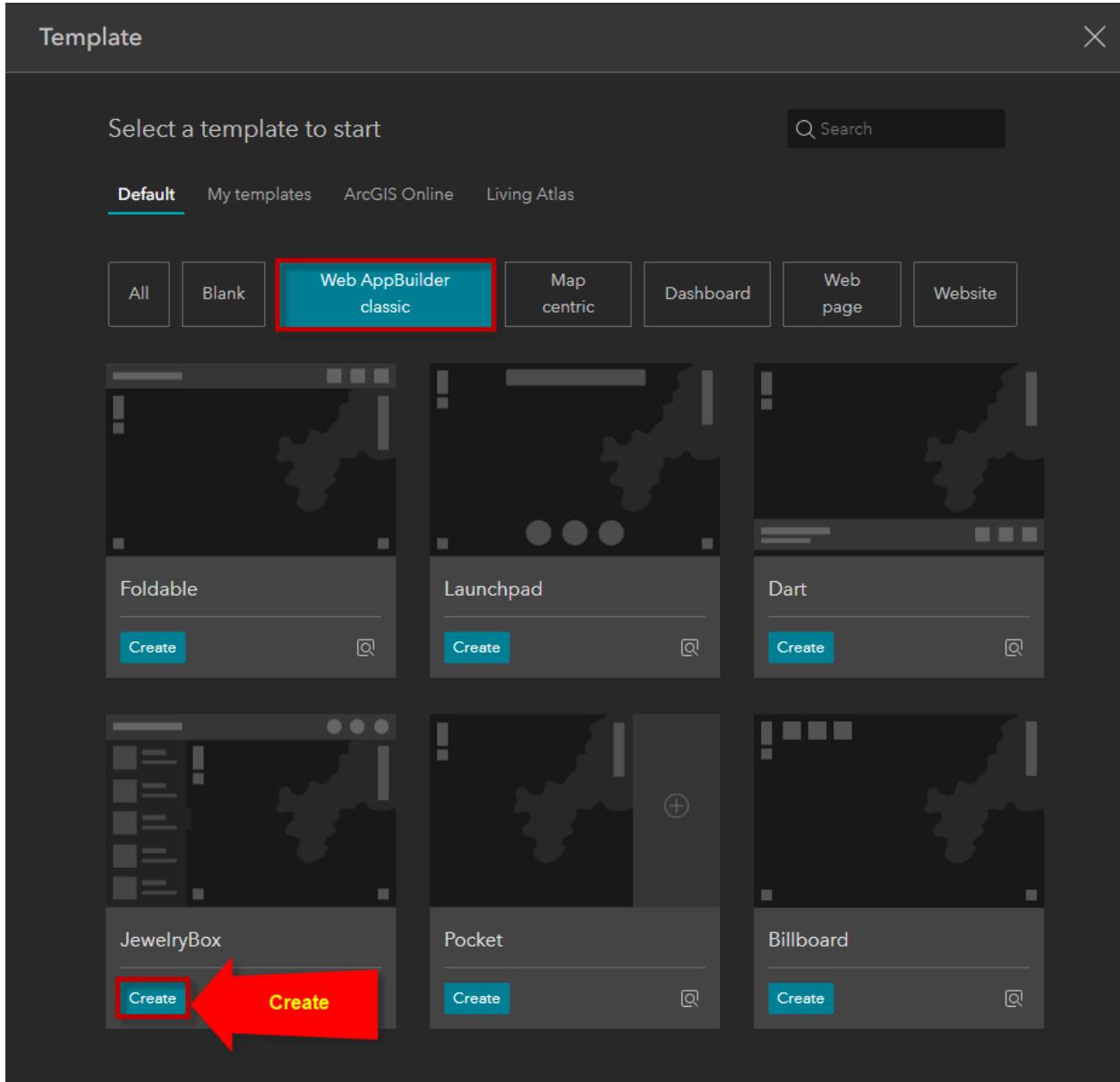


## Create a New Experience



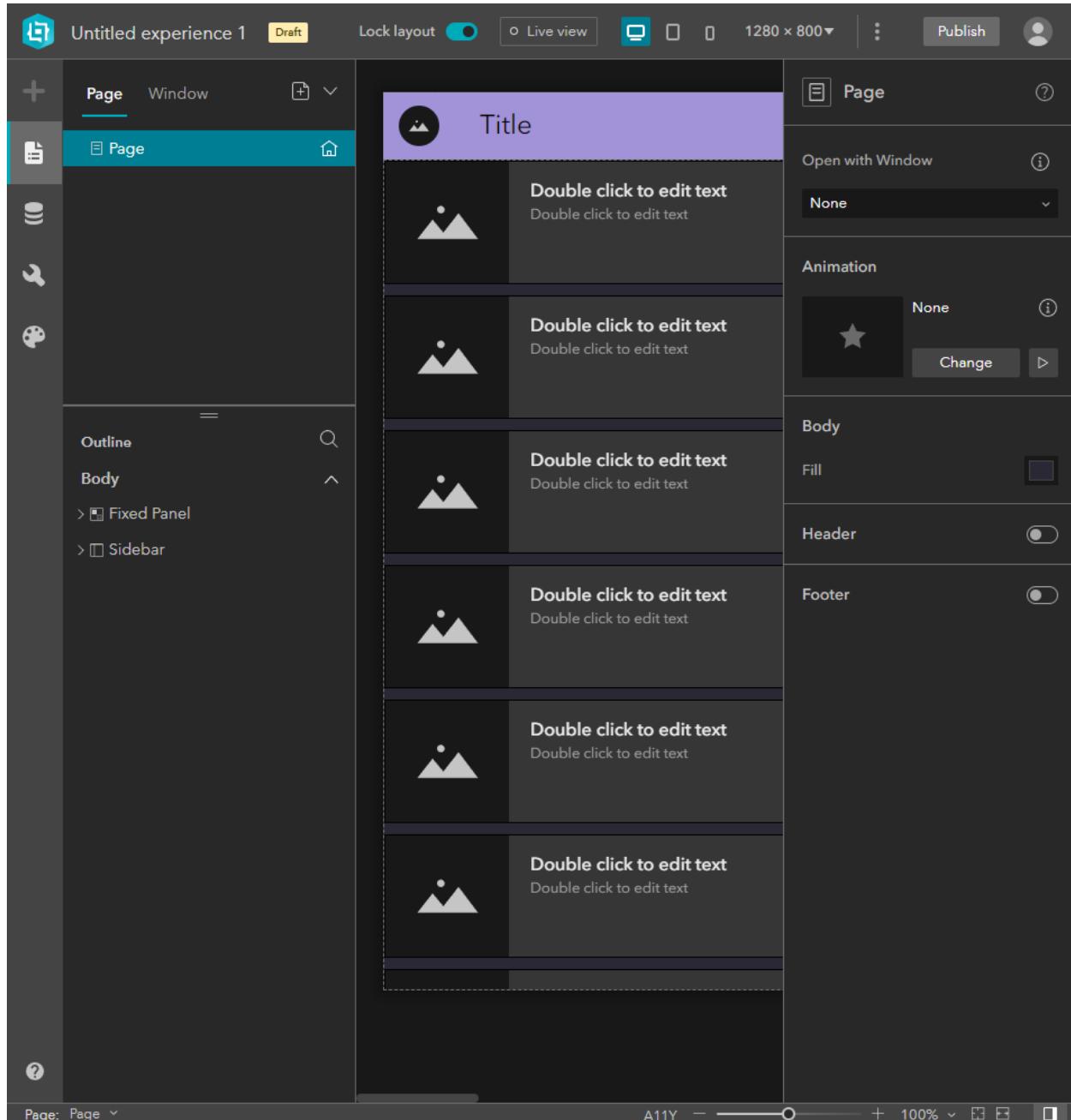
## Select the Jewelry Box Template

Select Web AppBuilder classic.

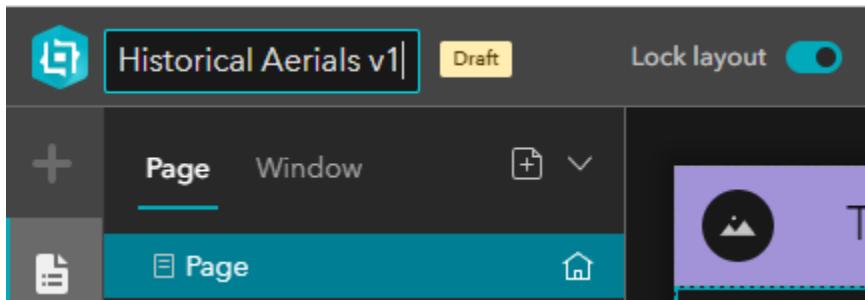


Create your Experience using the Jewelry Box Template.

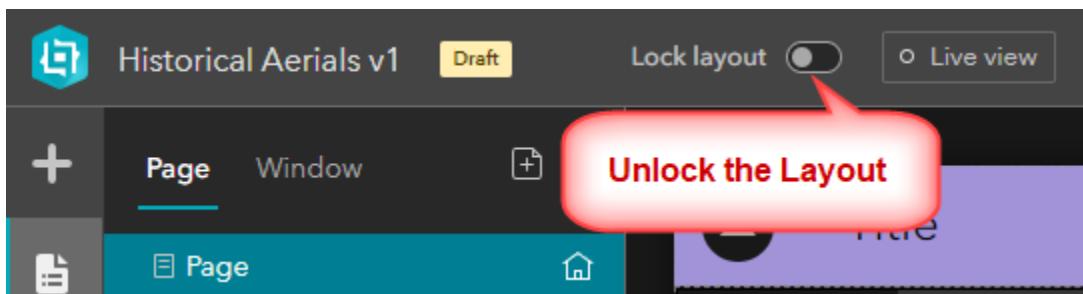
This is what you will see:



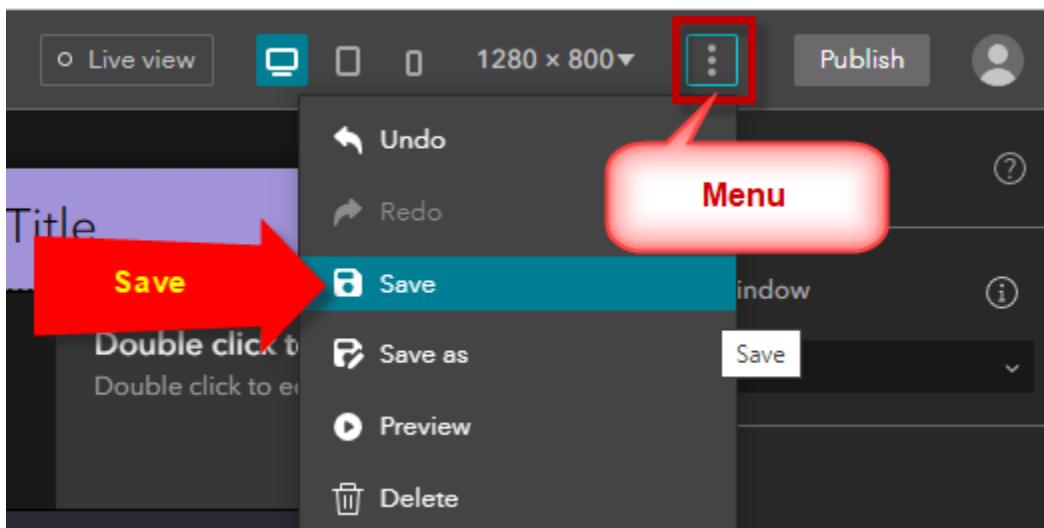
Name your Experience = **Historical Aerials v1**



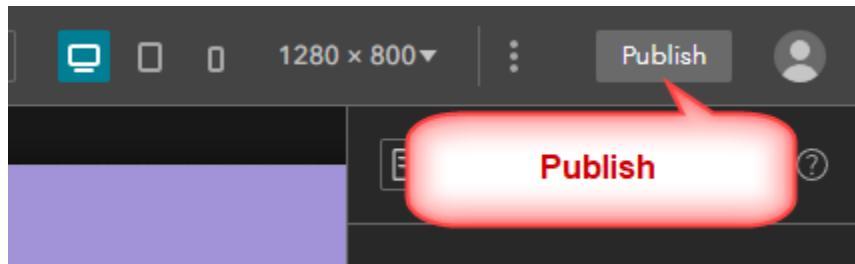
Unlock the Layout



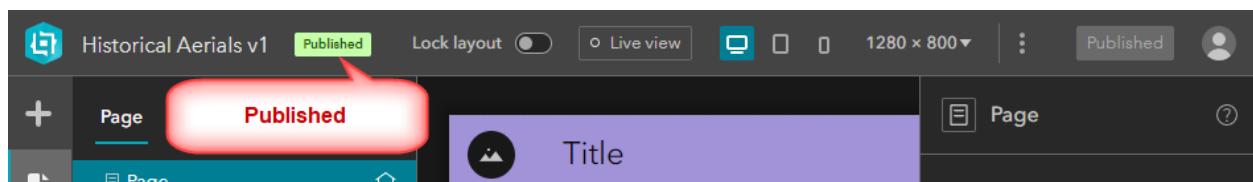
Open the Menu and **Save** the Experience



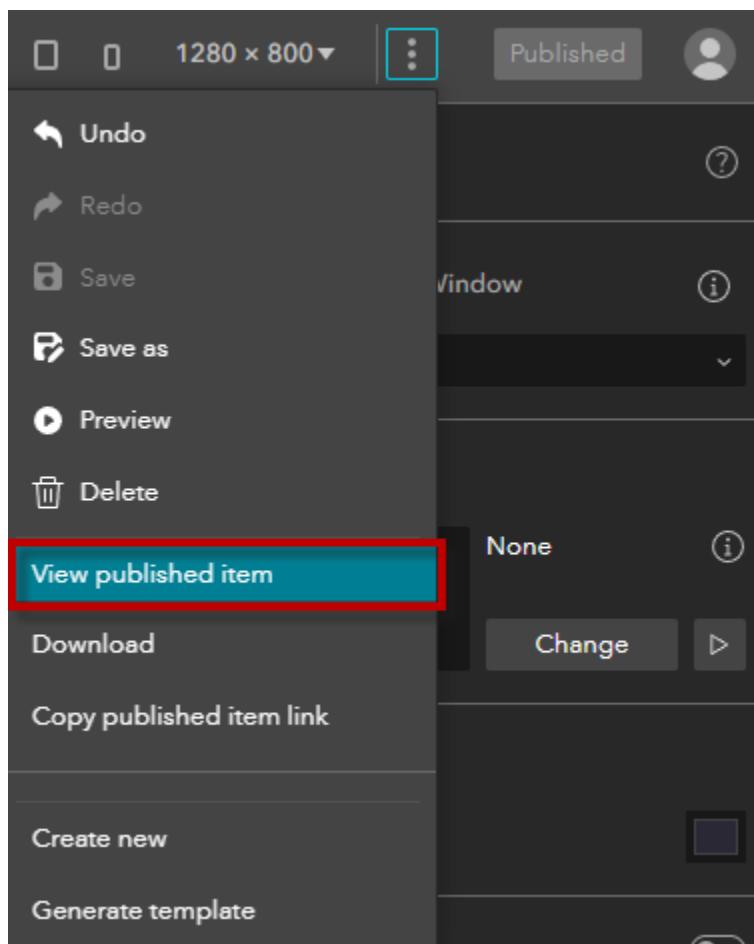
**Publish** your Experience.



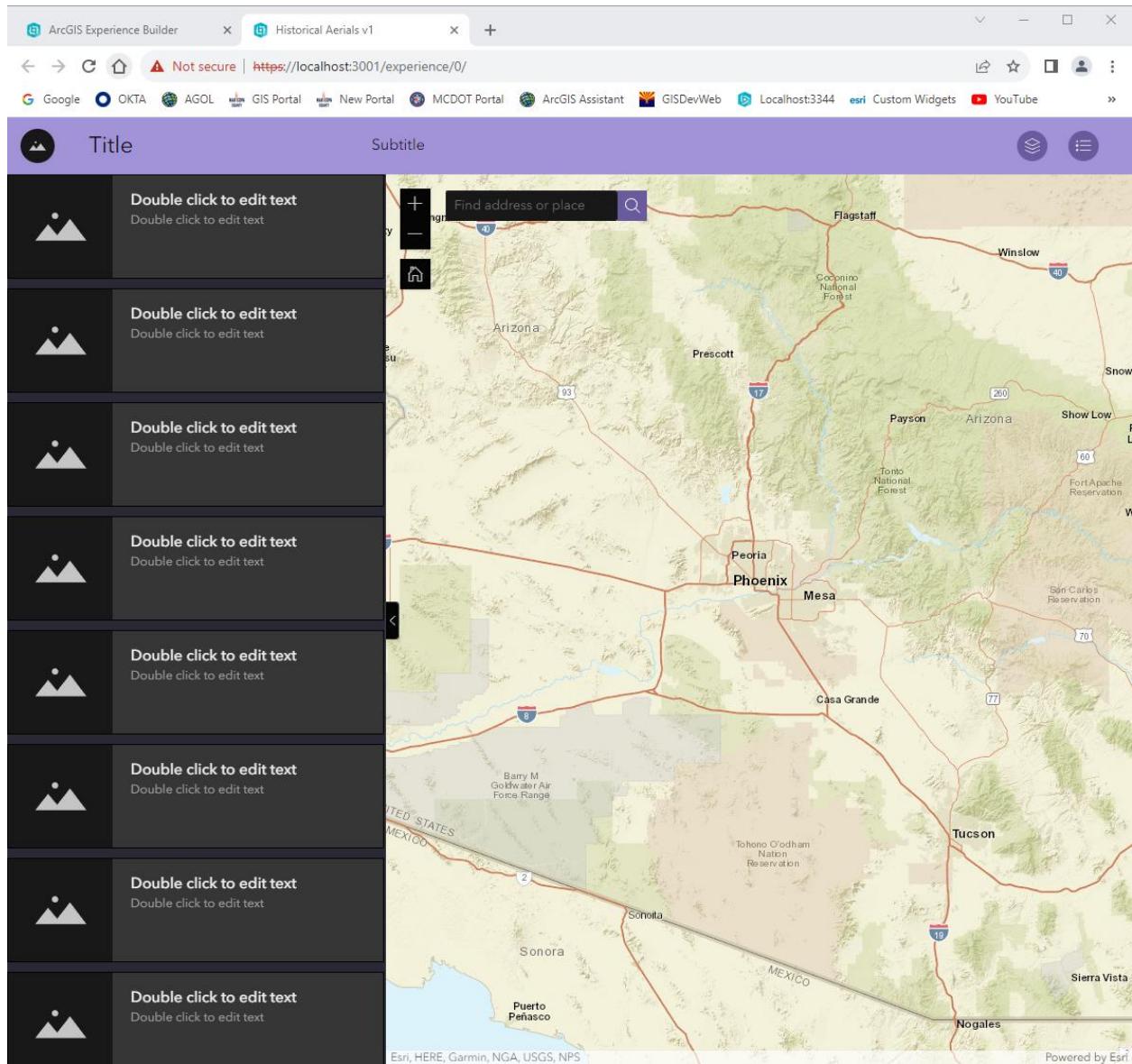
Your Experience has been published.



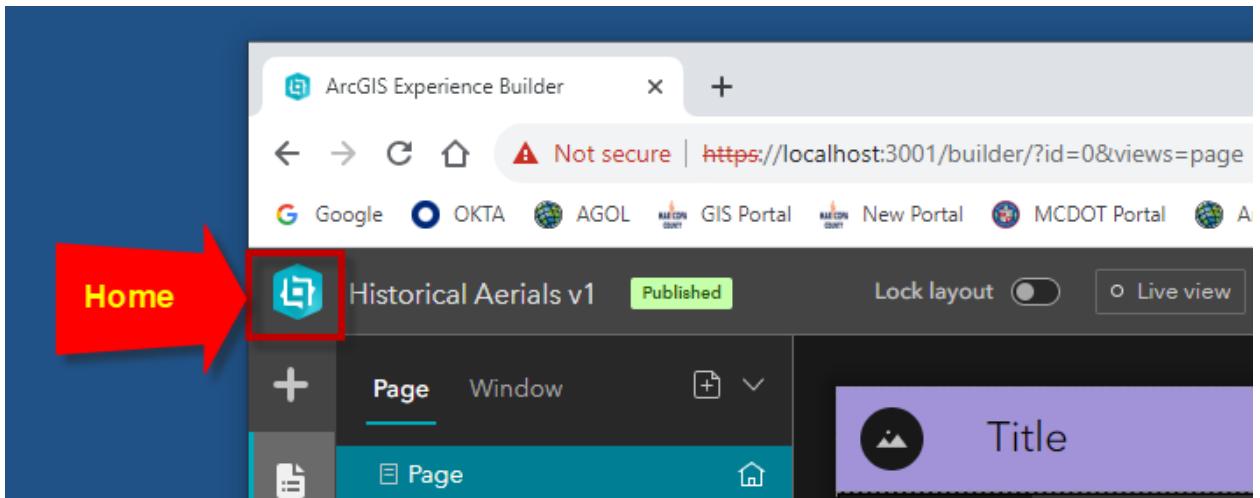
View published item.



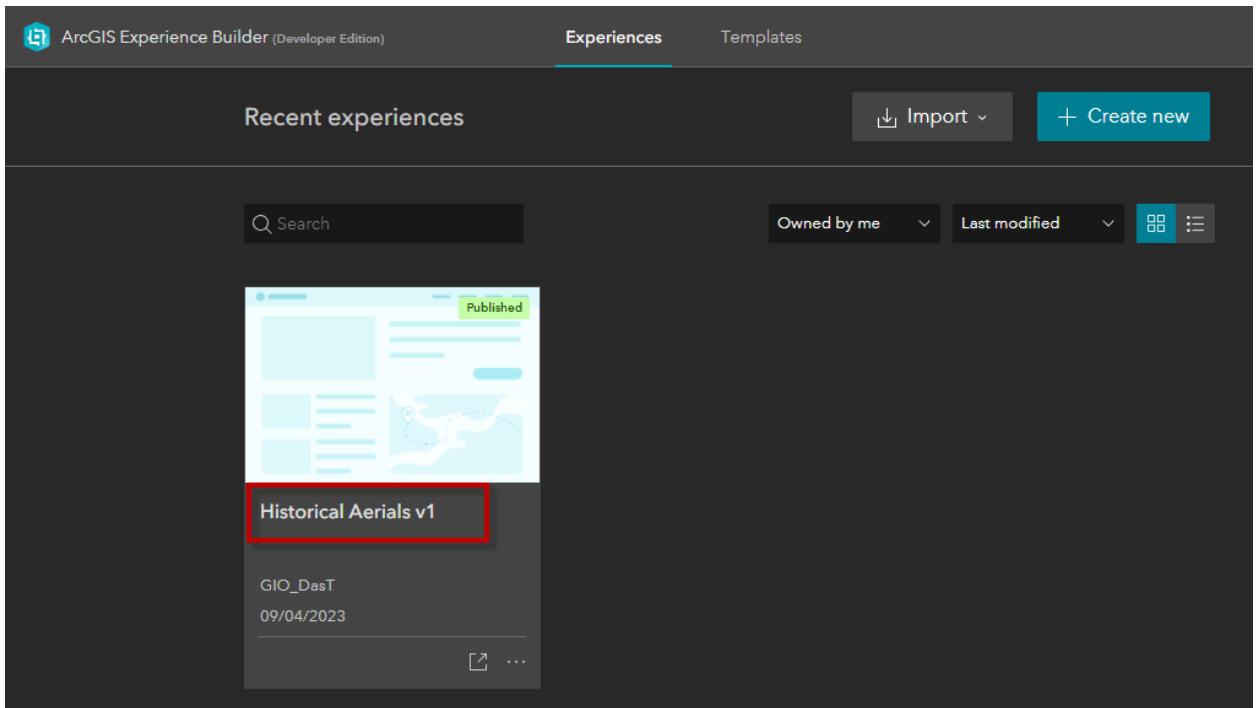
<https://localhost:3001/experience/0/>



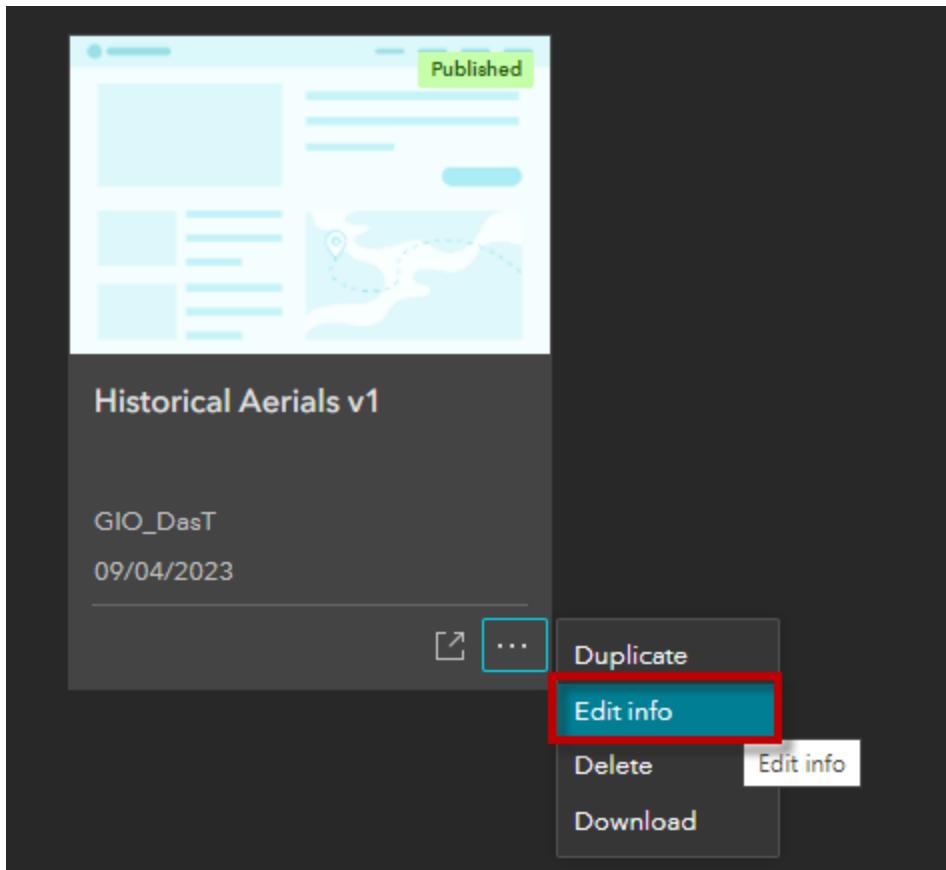
Go back to the Experience Builder Home Page.



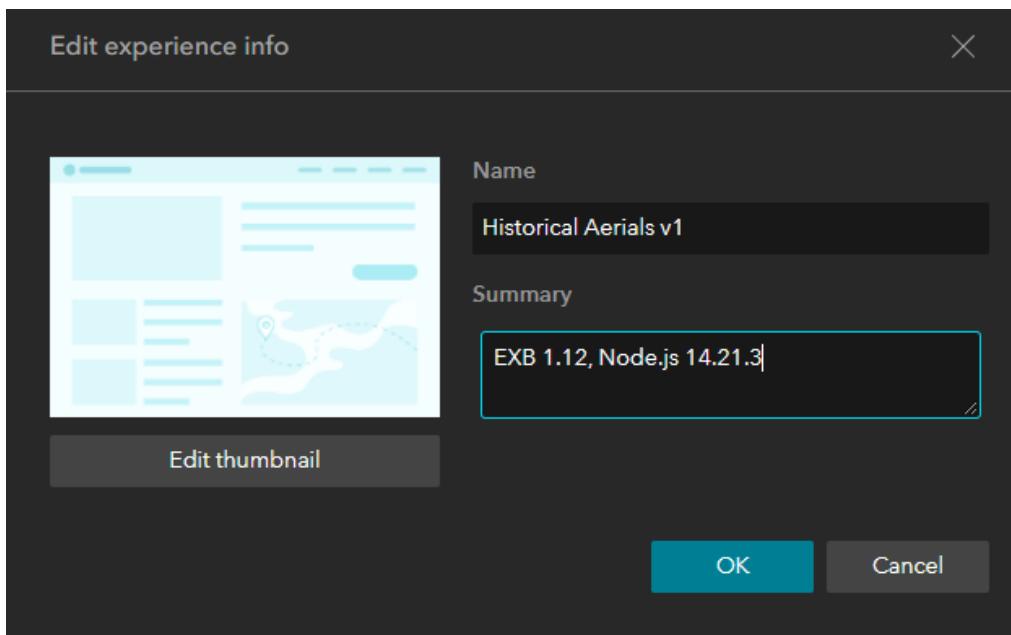
You have one Experience named **Historical Aerials v1**



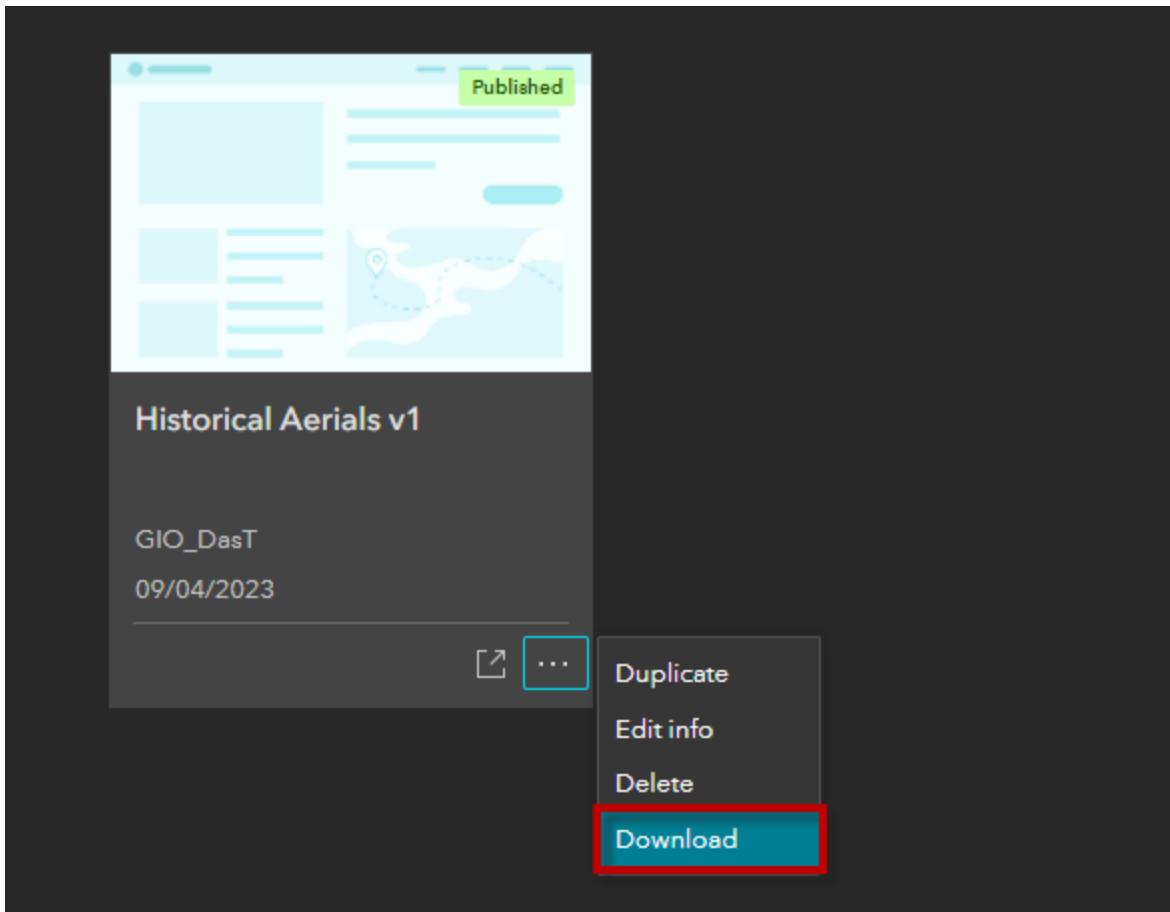
Edit the information.



Add Summary = EXB 1.12, Node.js 14.21.3



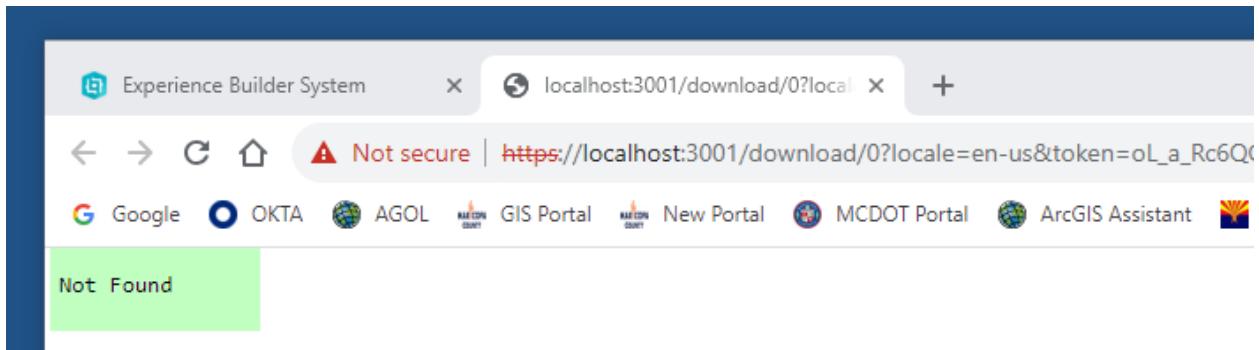
Download the ZIP File.



[https://localhost:3001/download/0?locale=en-us&token=oL\\_a\\_Rc6QCHyFXYJ5IINQEG1HLbQqd9jqBG7wE6ZD6x5tX-O59mLUYZS-q1EX9Z3Qzw4DvpF\\_NOHTEqL7JH6LUF8VyhrPp9IMBFy-jw9lZoasm31gUGoyVNK6FOQyNmeZ1HhGioAez1XDvR-0HYL\\_QUHy9h5dqaZuBhpUmYLeImjCXLfaVHkic2FJNVWZCN0aXo-v2hYTodd00jZkh7uC44nz1W8IGz198WpXjHdrKg.](https://localhost:3001/download/0?locale=en-us&token=oL_a_Rc6QCHyFXYJ5IINQEG1HLbQqd9jqBG7wE6ZD6x5tX-O59mLUYZS-q1EX9Z3Qzw4DvpF_NOHTEqL7JH6LUF8VyhrPp9IMBFy-jw9lZoasm31gUGoyVNK6FOQyNmeZ1HhGioAez1XDvR-0HYL_QUHy9h5dqaZuBhpUmYLeImjCXLfaVHkic2FJNVWZCN0aXo-v2hYTodd00jZkh7uC44nz1W8IGz198WpXjHdrKg.)

Most likely this process will fail.

You will get an error message = **Not Found**

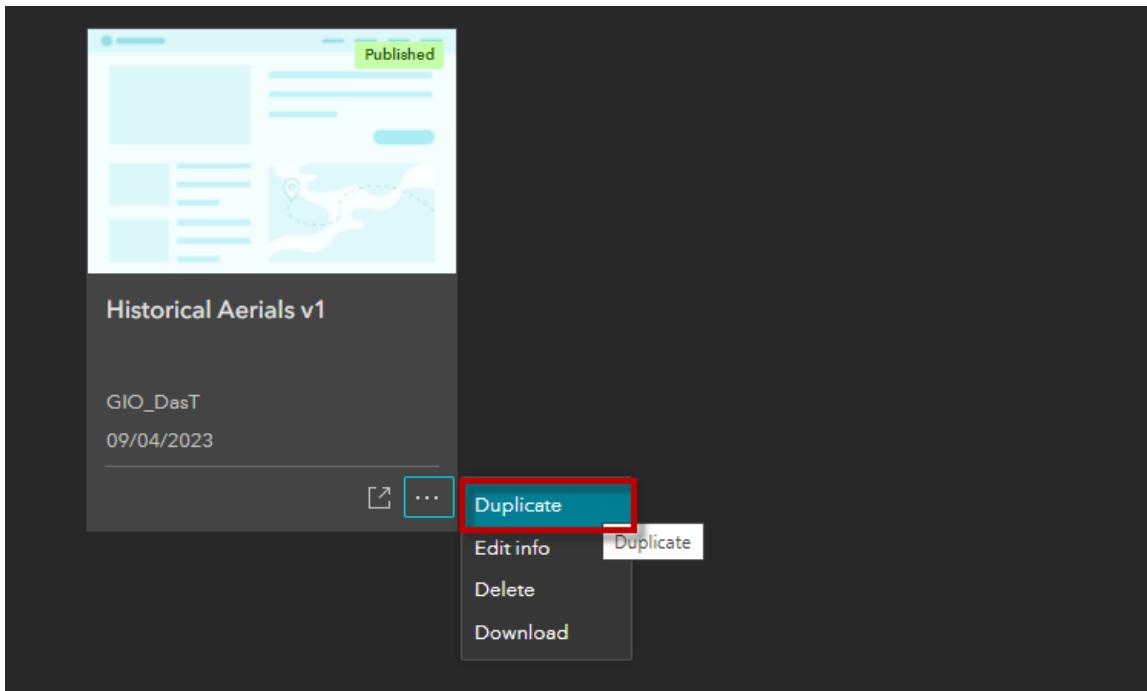


Do not worry!

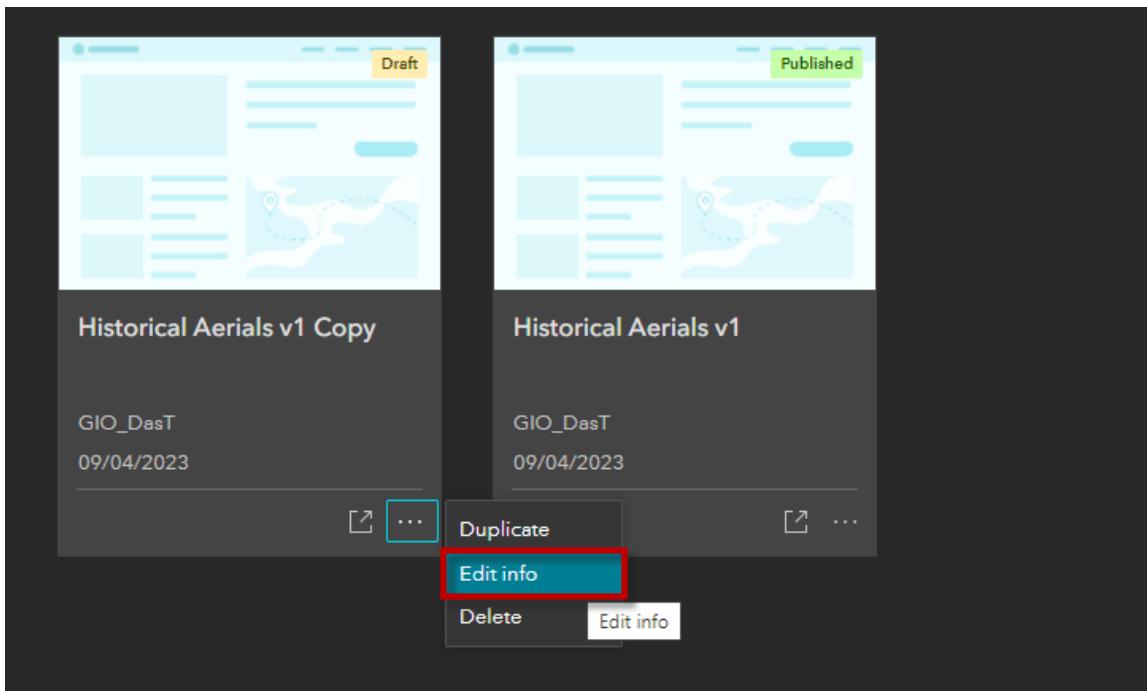
You will learn later how to manually assemble the necessary files that you would need to host your finished Web App.

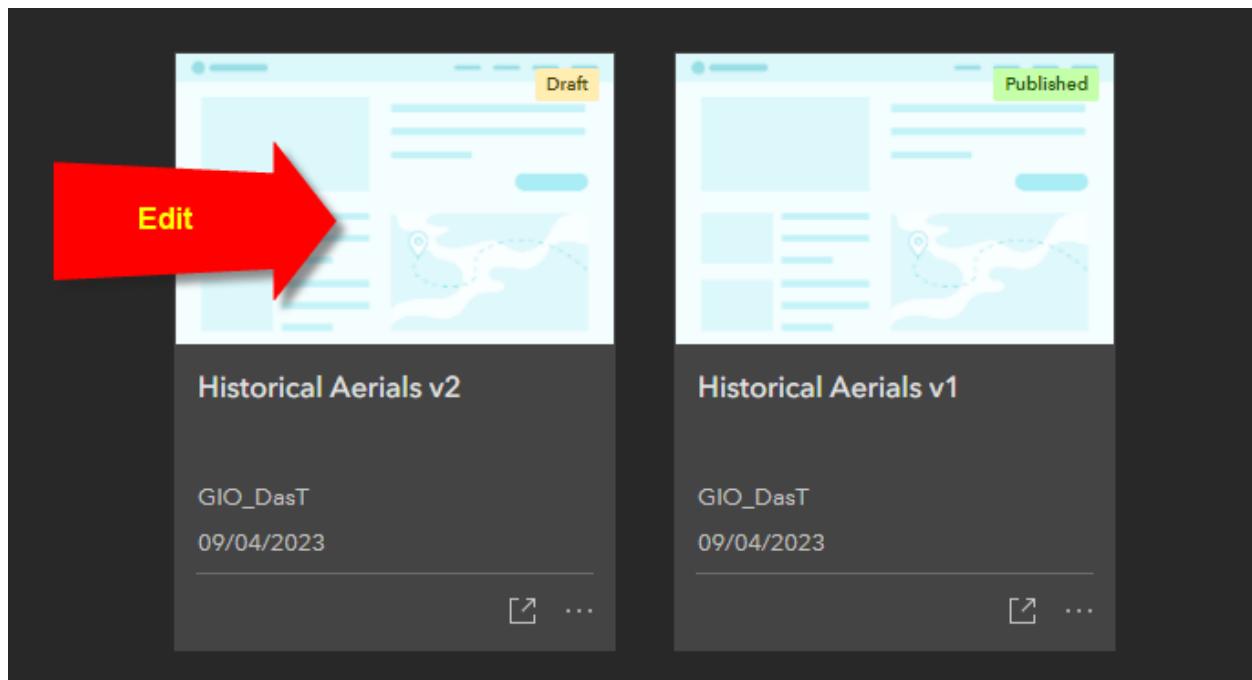
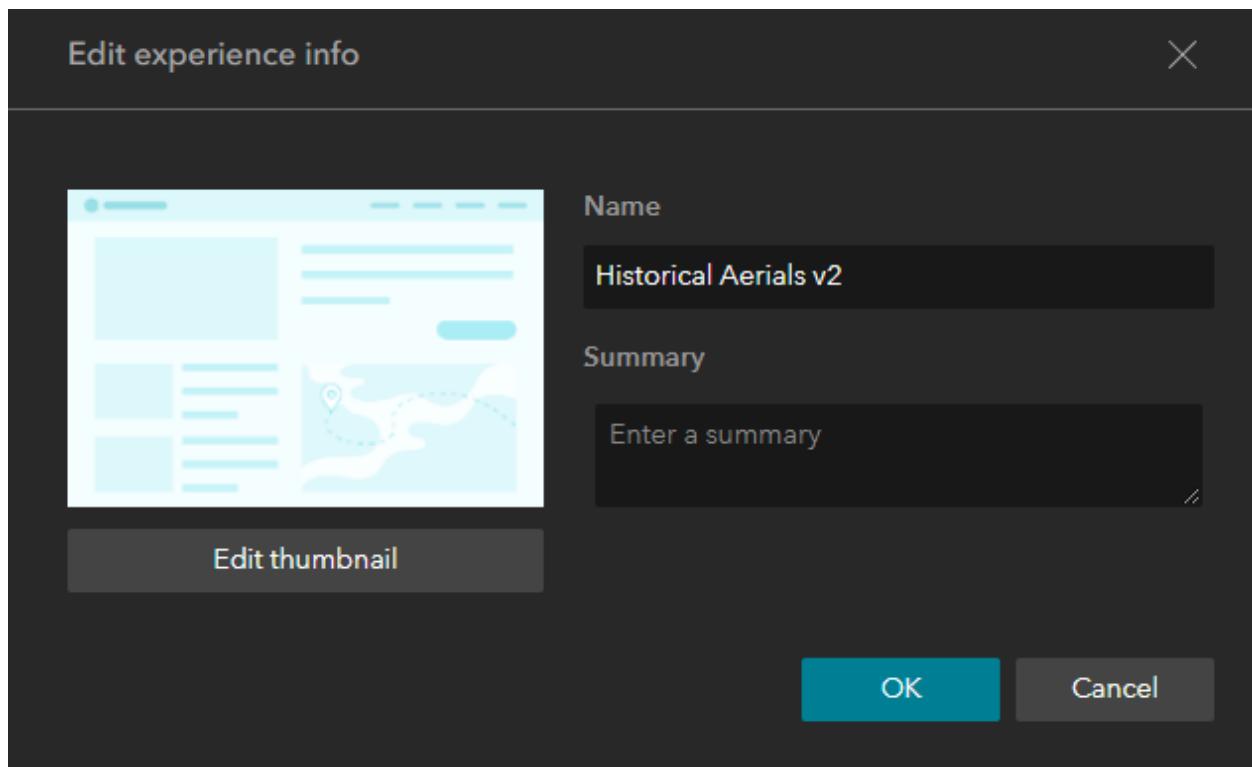
## Create Historical Aerials v2

Duplicate Historical Aerials v1 to create Historical Aerials v2

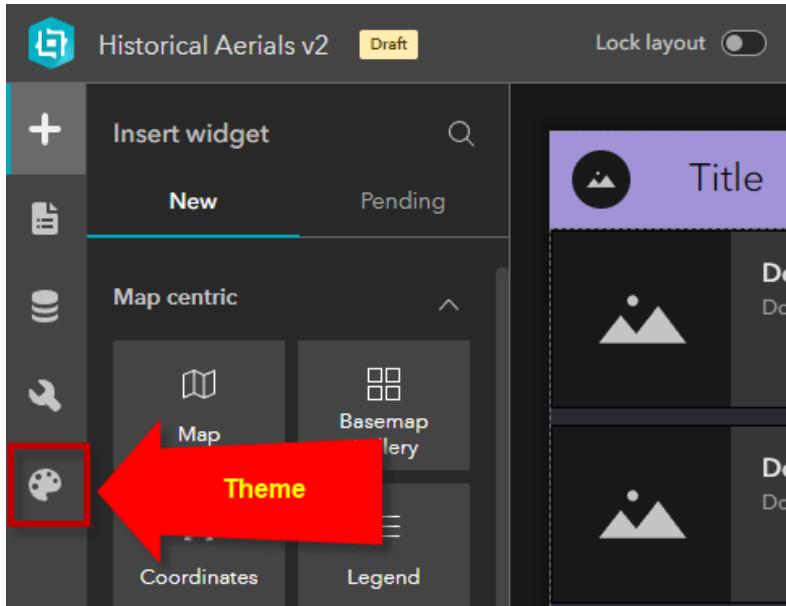


Edit Info

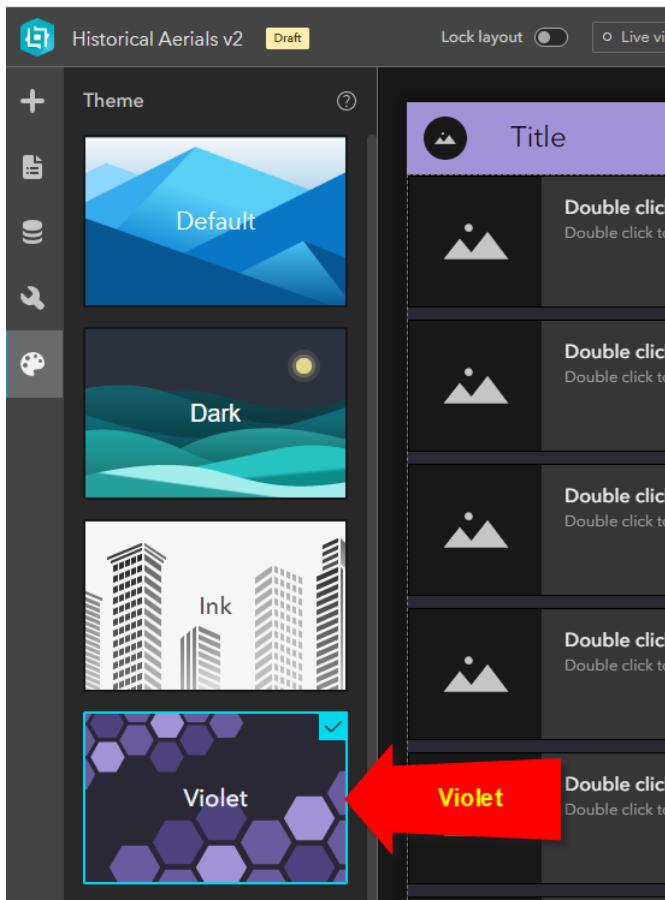




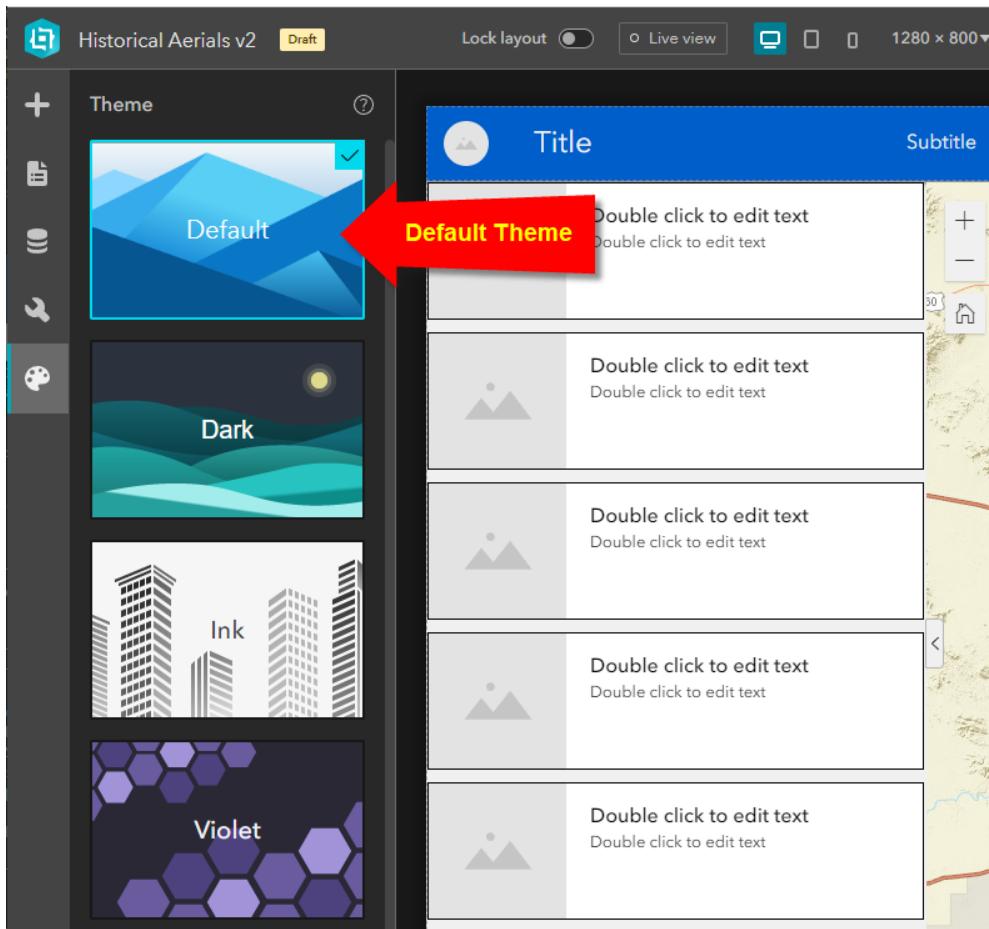
Open the Theme Tab



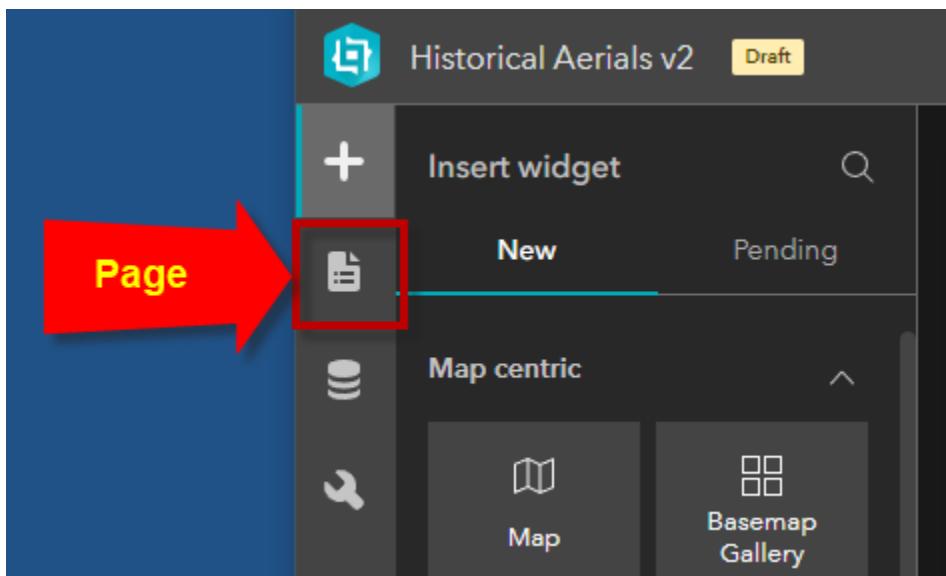
The current Theme = **Violet**



## Switch to the Default Theme

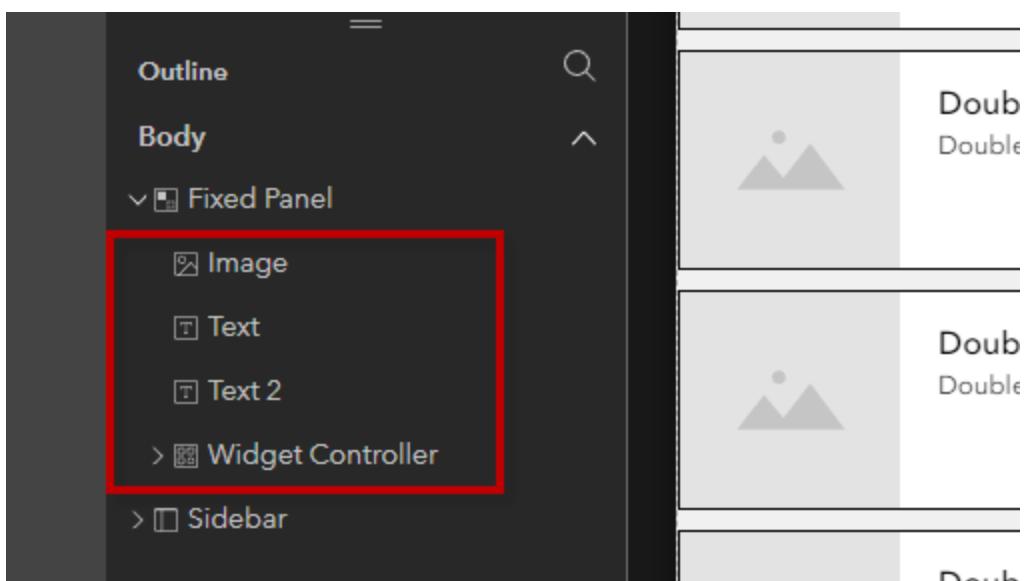
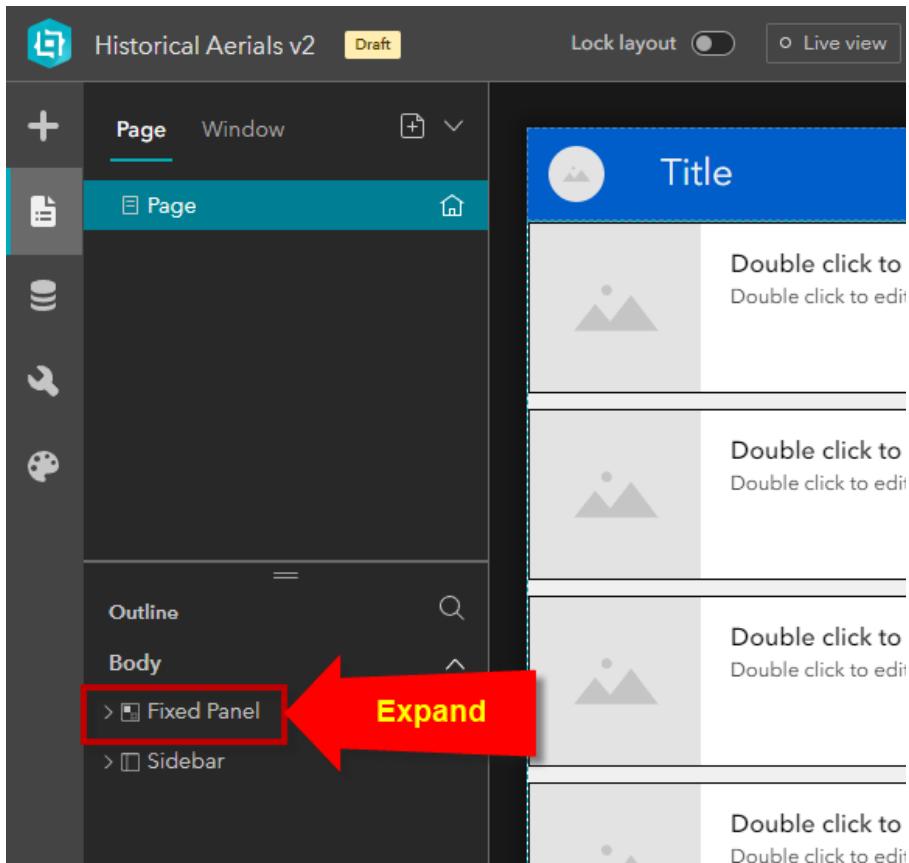


## Open the Page Tab



The Page Tab reveals the outline.

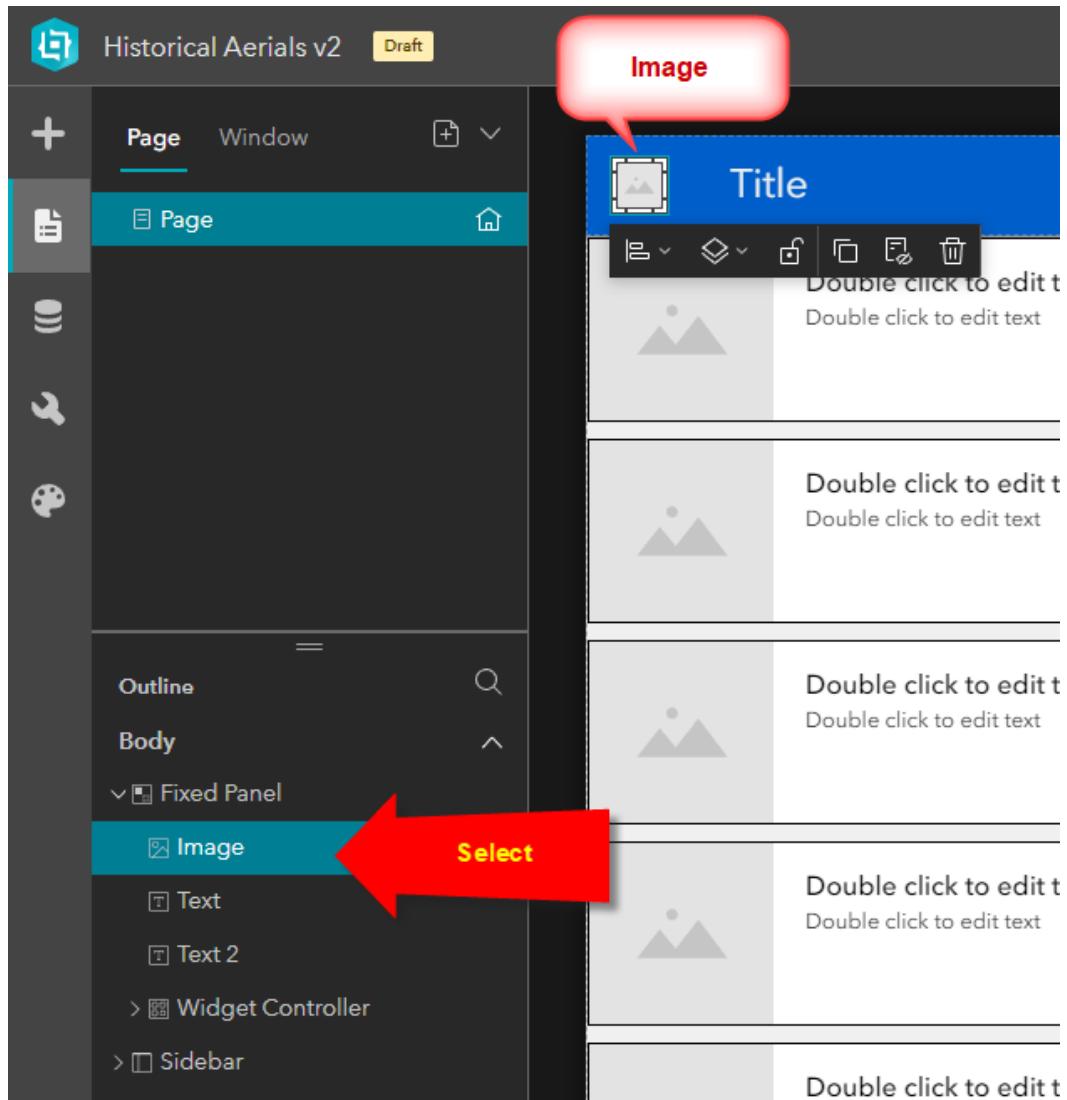
Expand the Fixed Panel.



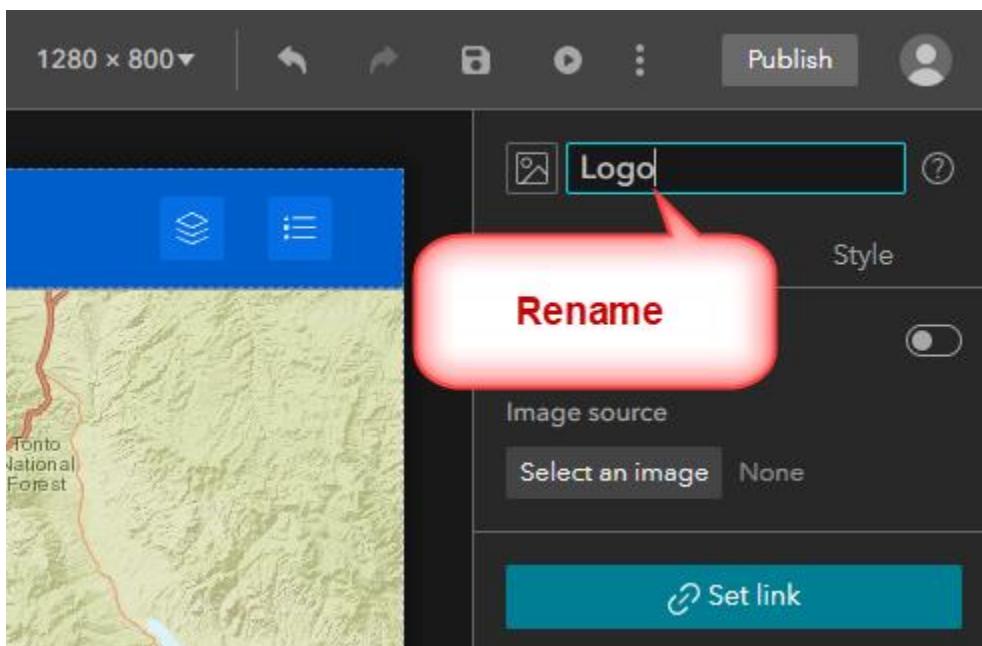
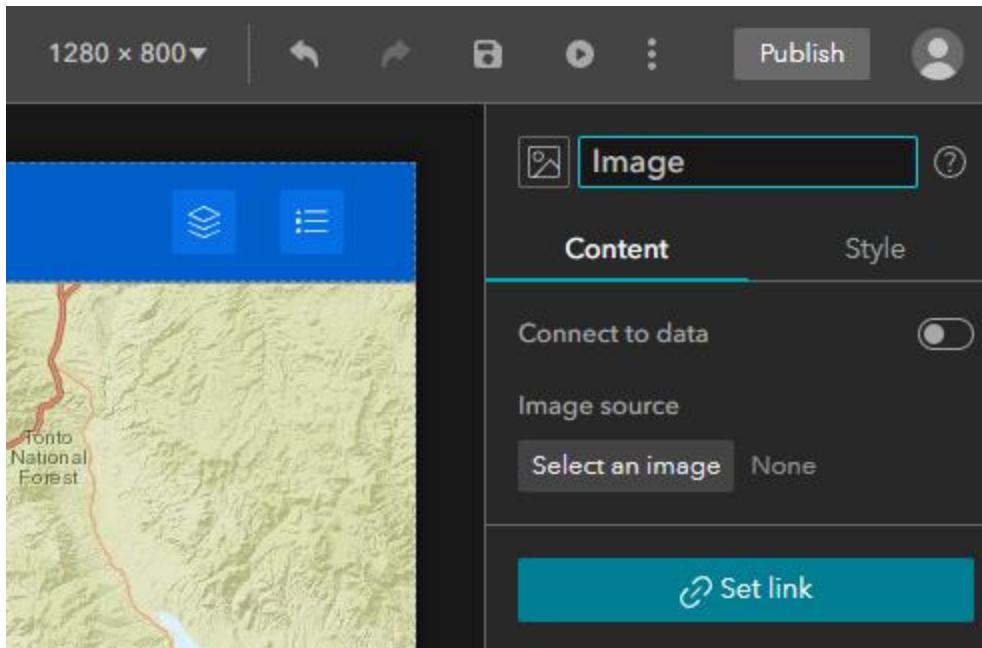
Identify each widget on the Page.

Select the Image widget on the Page Outline.

This allows you to configure the Image widget.



Rename the Image widget to Logo



Download Custom.zip from:

<https://github.com/DavidDas2/exb/>

Unzip custom.zip

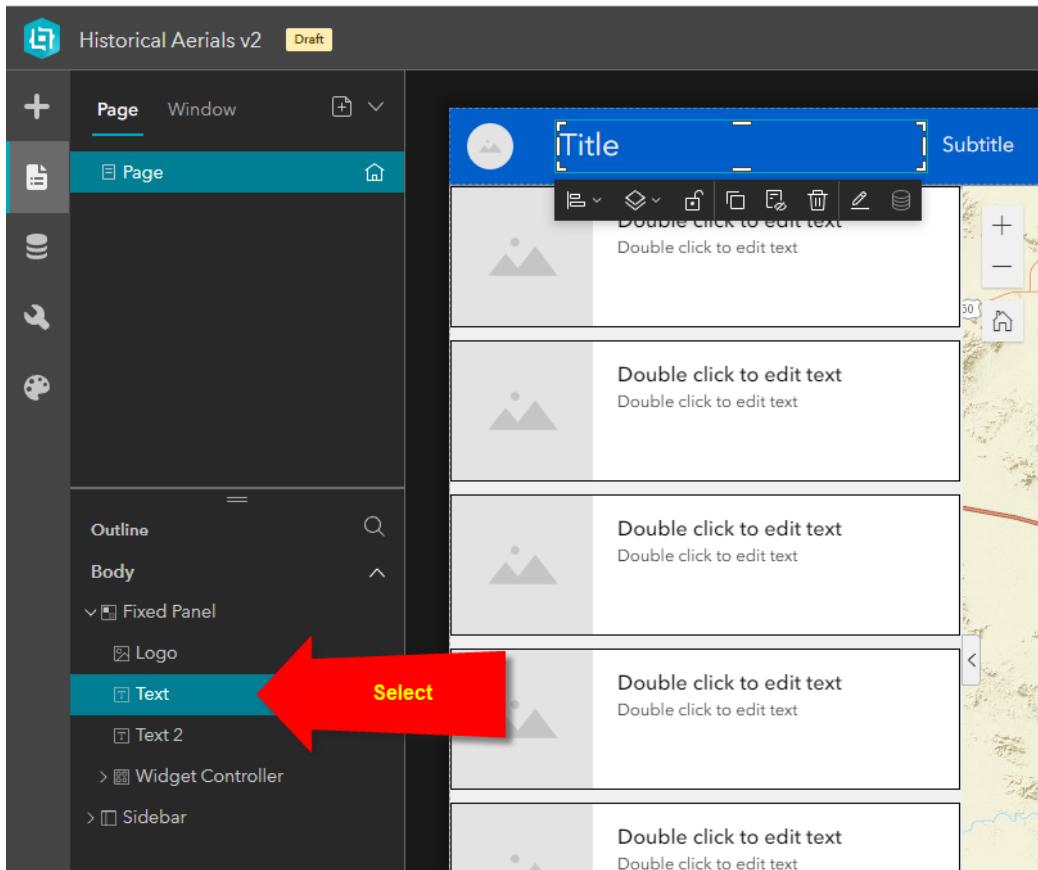
 custom.zip	9/4/2023 9:15 PM	Compressed (zipped) Folder	43 KB
--	------------------	----------------------------	-------

C:\Users\David.das\Downloads\custom\Custom\

You will get two fully configured custom widgets for Google Maps and Pictometry.  
You will use the included Logo.png image.

 get-map-coordinates-class	9/4/2023 9:16 PM	File folder	
 get-map-coordinates-class2	9/4/2023 9:16 PM	File folder	
 Logo.png	9/4/2023 9:16 PM	IrfanView PNG File	11 KB

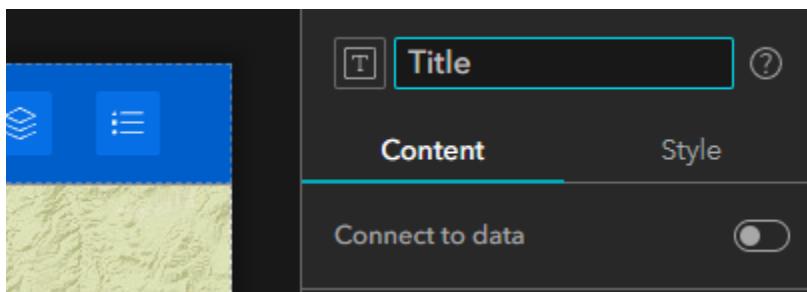
Select the Text widget in the Outline.



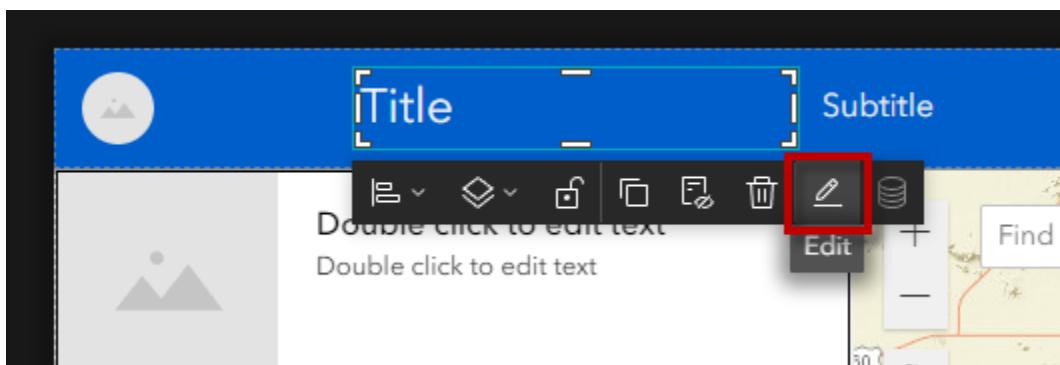
Resize the Title Box to make more room for the rectangular Logo.



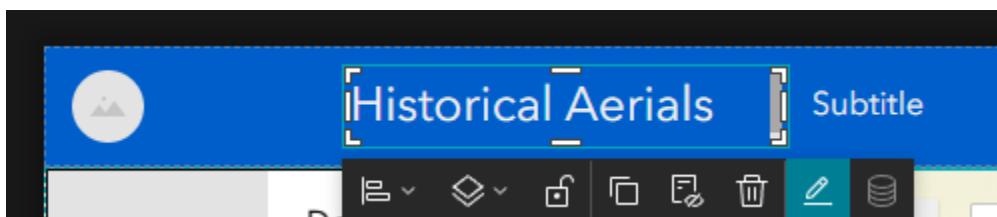
Rename the Text widget to Title.



Select the **Edit Tool** or double click on the Text Box to enter Edit Text Mode.



Enter: Historical Aerials

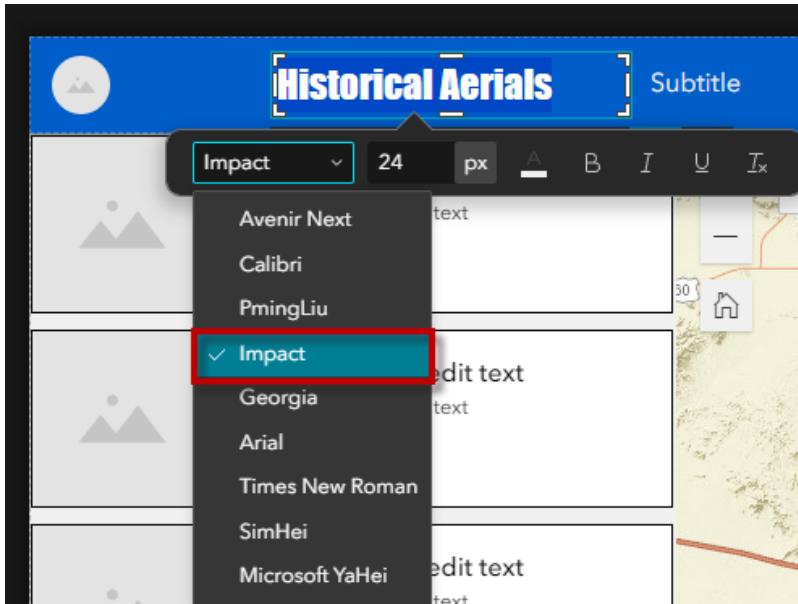


Select the entire Text string.

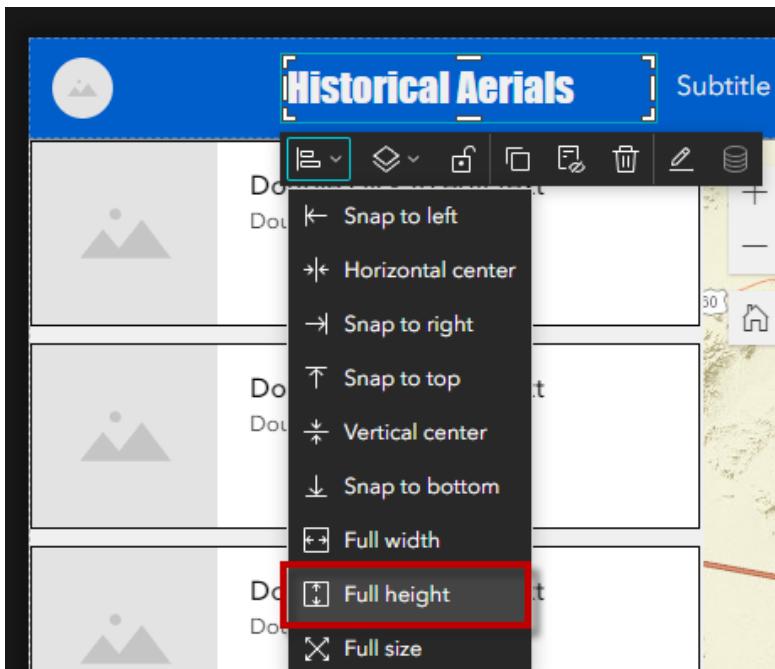
Select Font = Impact

Font Size = 24

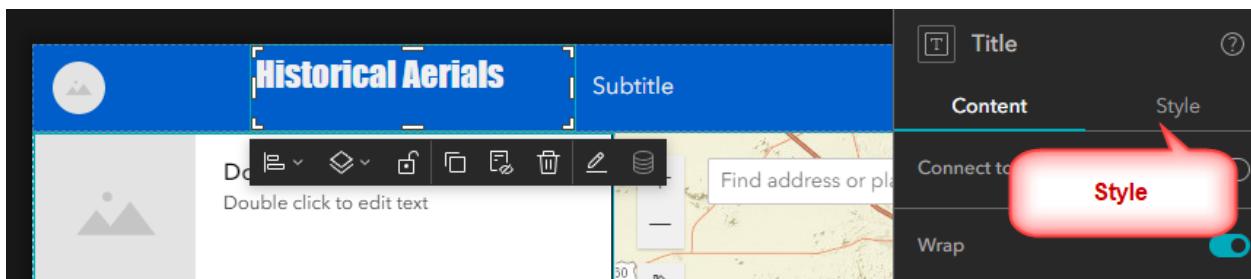
Color = White



Select Align = Full Height

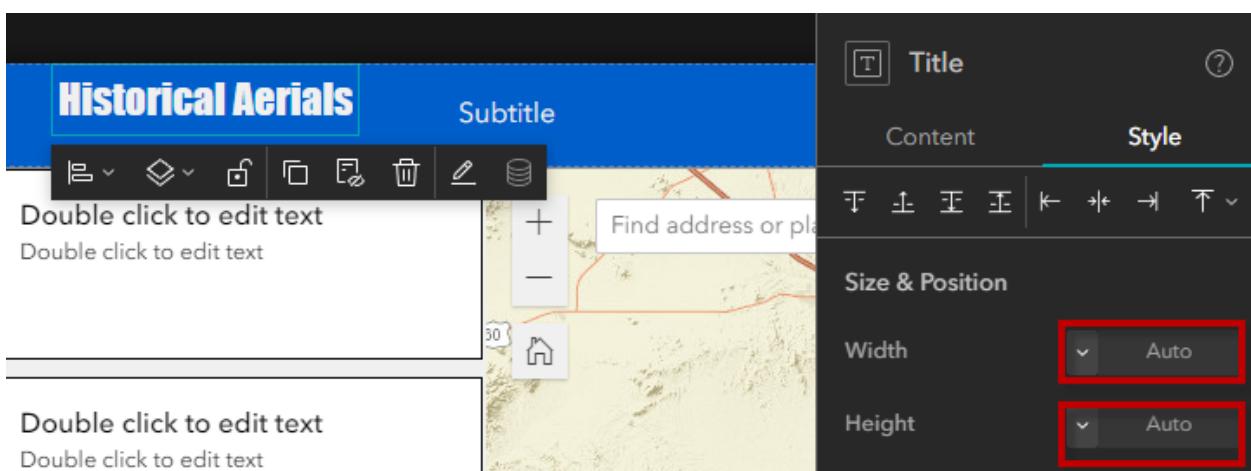


Open the Style Tab

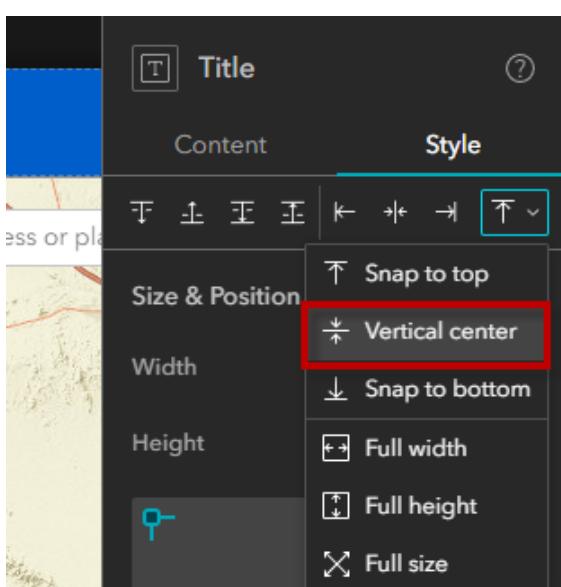


Set Width = Auto

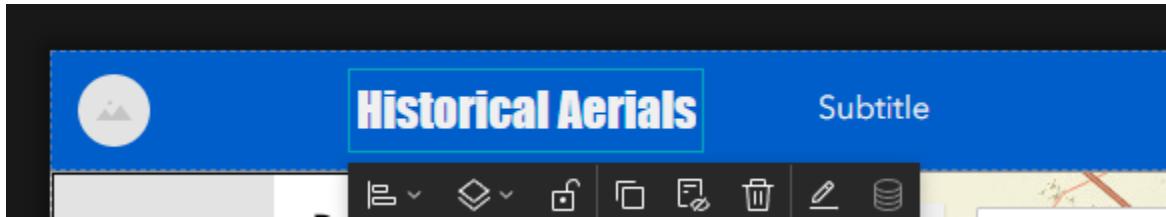
Set Height = Auto



Select Vertical Center



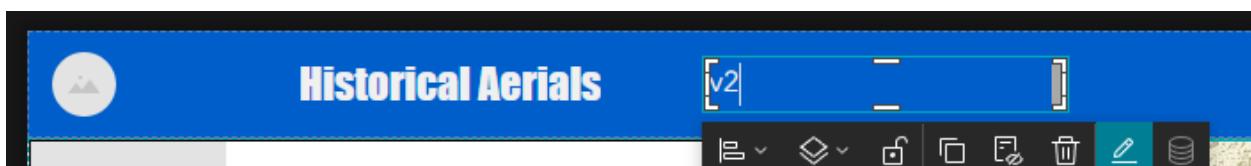
This is your Title perfectly fitted and vertically centered.



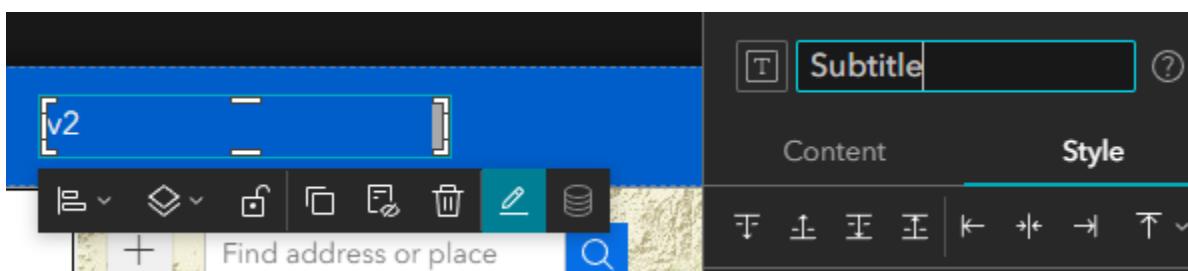
Select the **Text 2** widget from the Page Outline.

A screenshot of the Mapline software interface. On the left, there is a sidebar titled "Page" with a "Page" icon. Below it is an "Outline" section with a "Body" category expanded. Under "Body", there are several items: "Fixed Panel" (with "Logo" and "Title" sub-items), "Text 2" (which is highlighted with a red arrow pointing to it and the word "Select" written over it), and "Widget Controller". To the right of the sidebar is the main workspace showing a map with survey lines. The "Text 2" item in the outline has a tooltip "Double click to edit text" above it.

Enter v2 for your Subtitle.



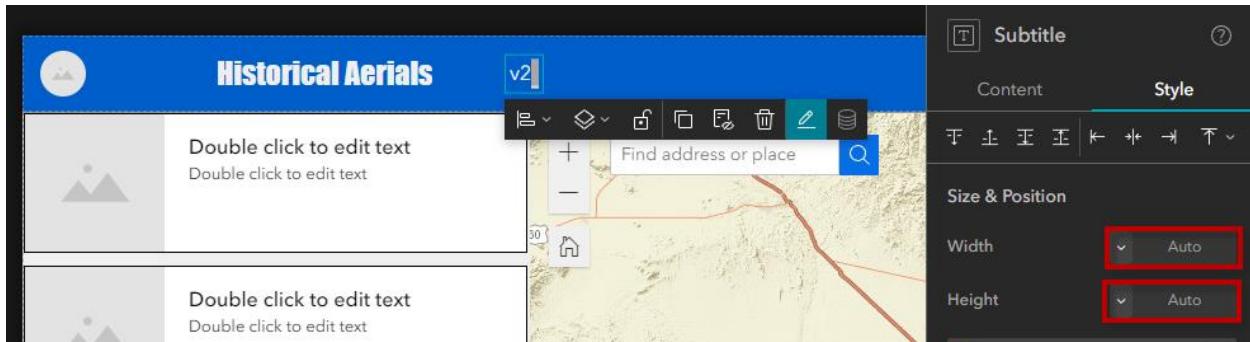
Rename the Text 2 widget to Subtitle.



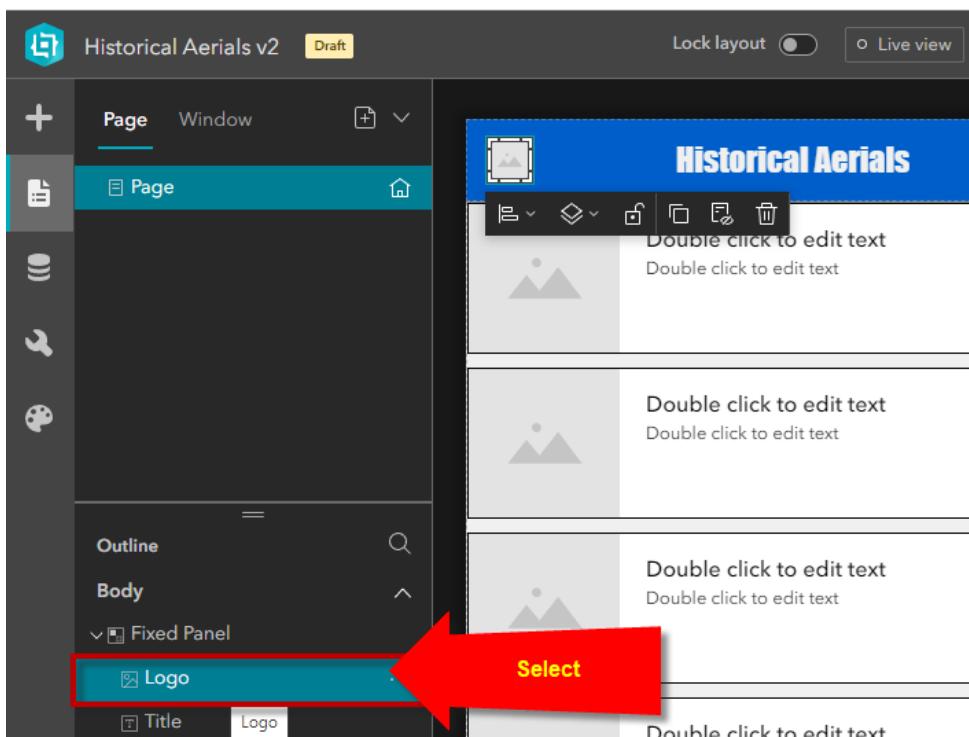
Set the Size & Position:

Width = Auto

Height = Auto



Select the Logo widget from the Page Outline.

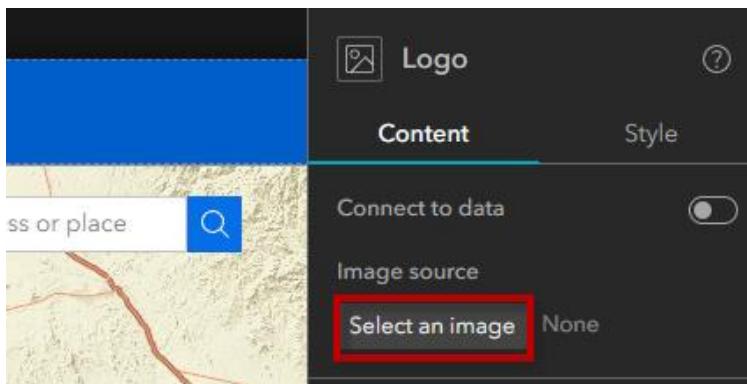


Increase the width of the Logo box.

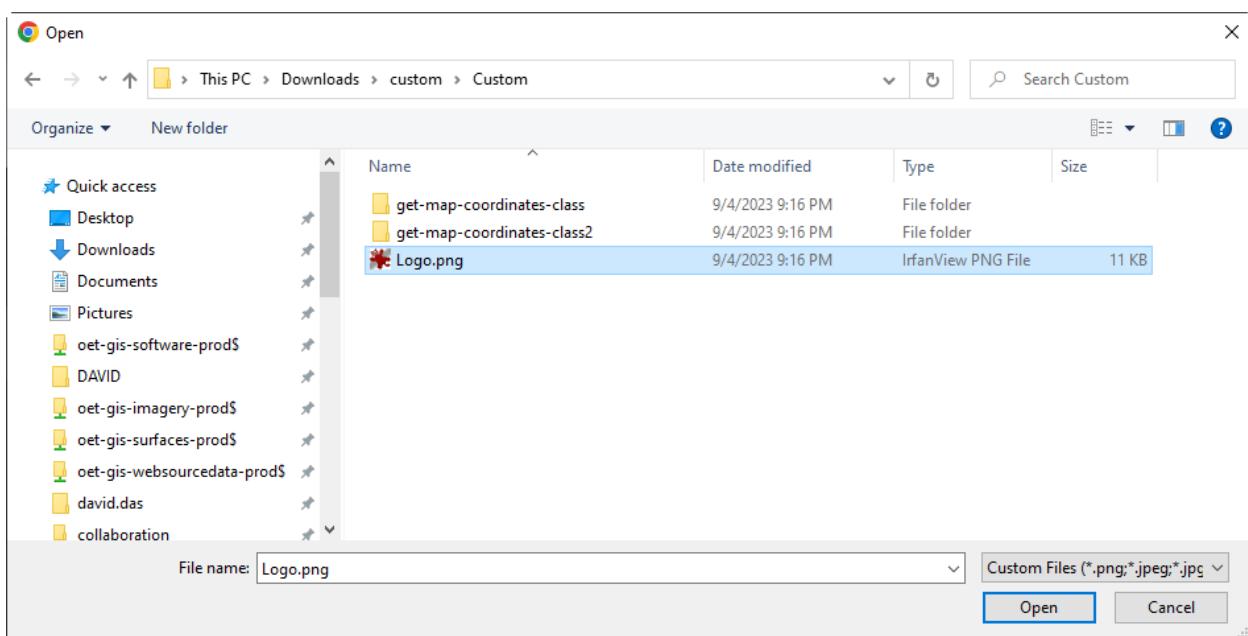
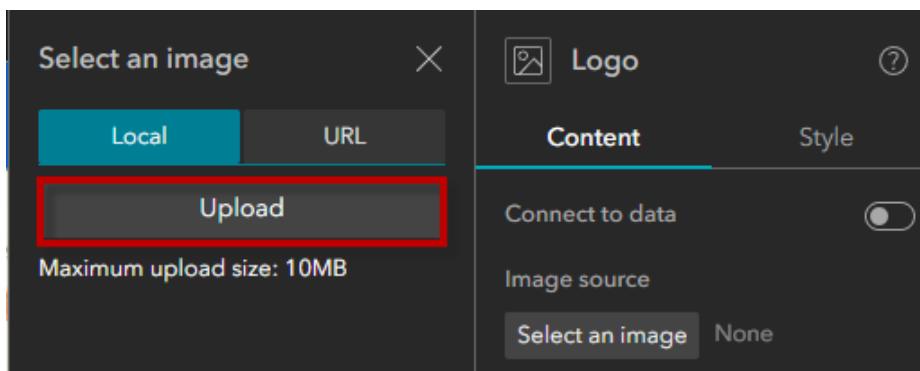


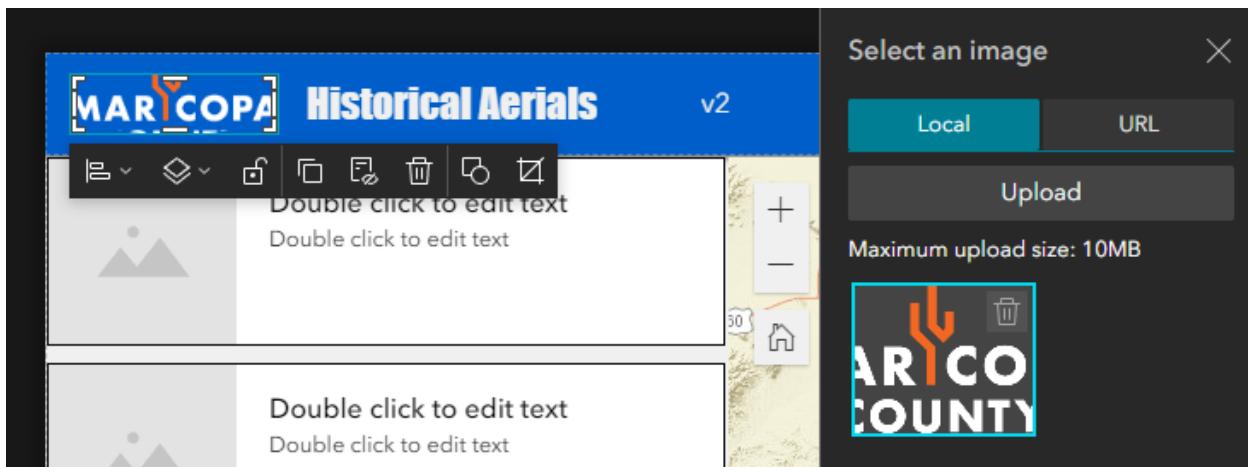
Open the Content Tab for the Logo Properties.

Select an image.

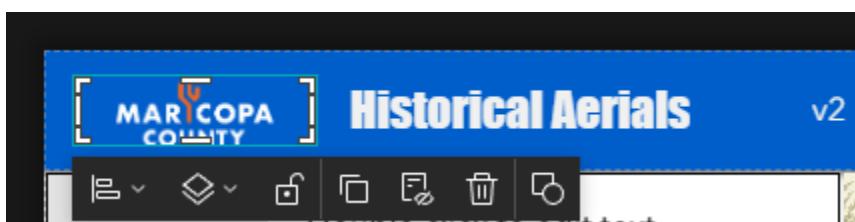
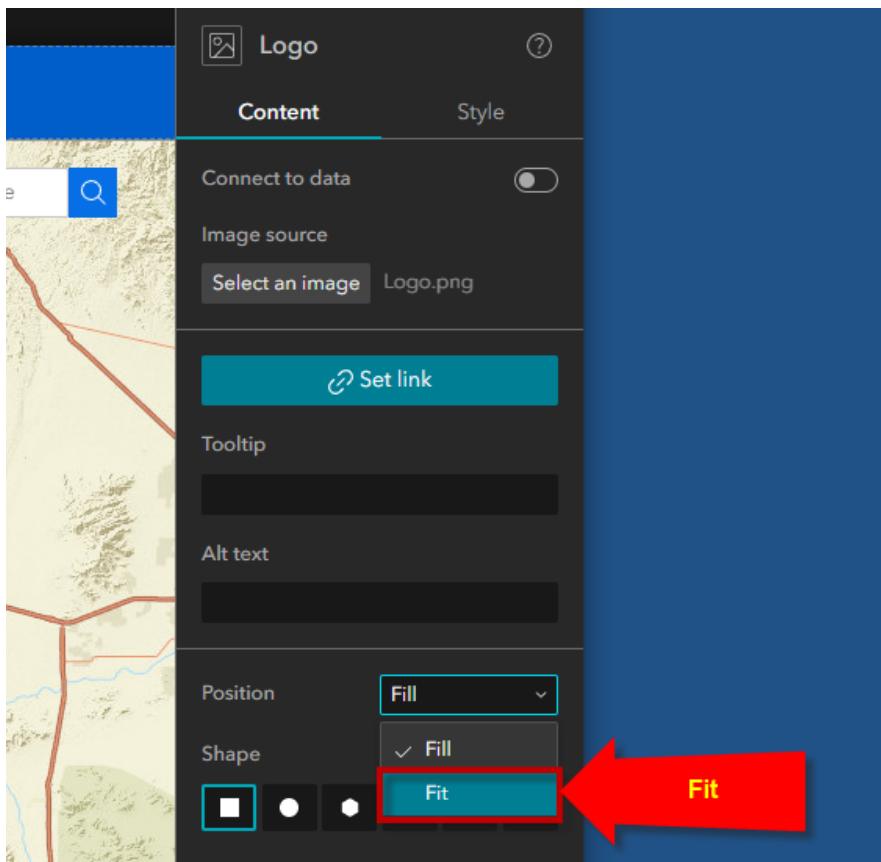


Upload Logo.png from your Local computer.

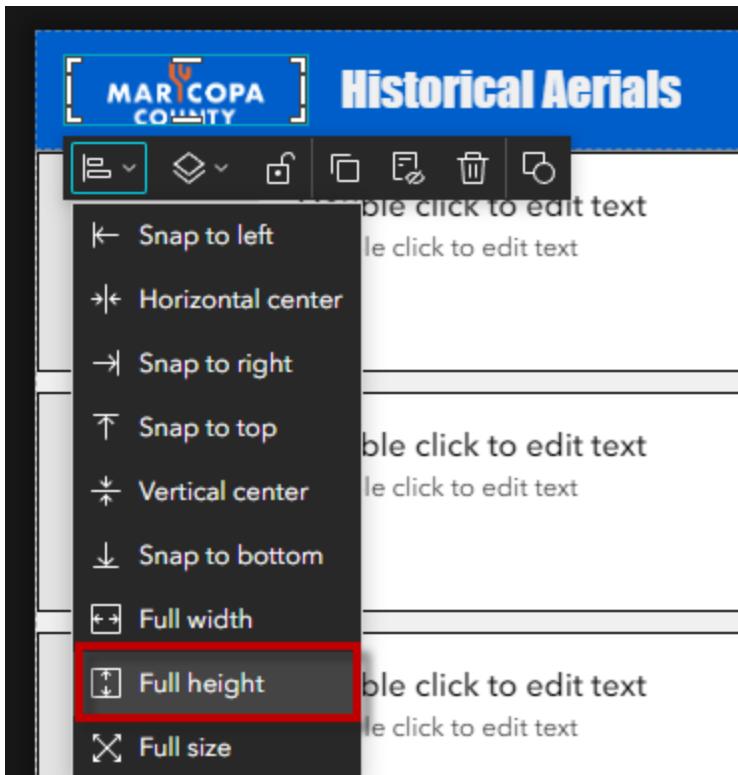




Change Position to Fit

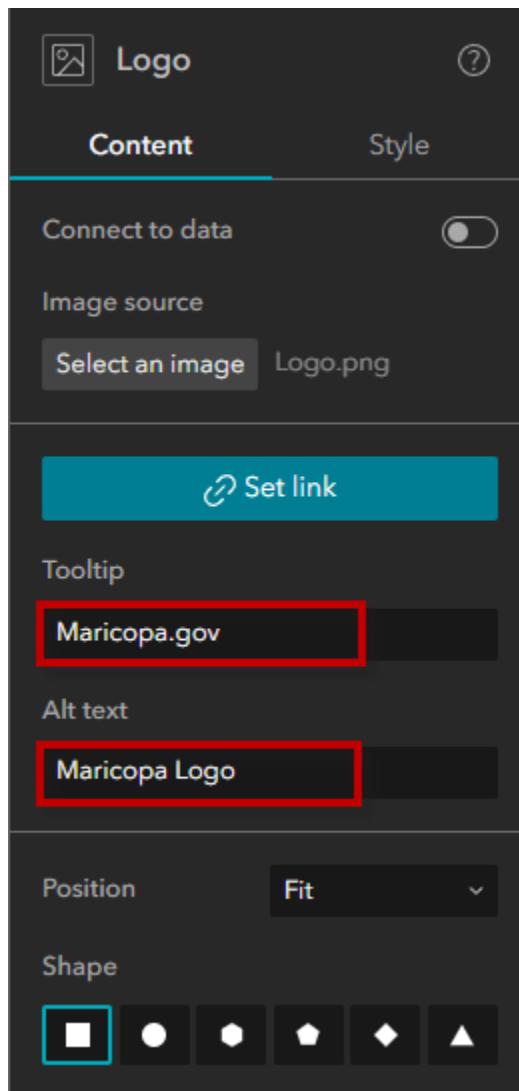


Align = Full Height

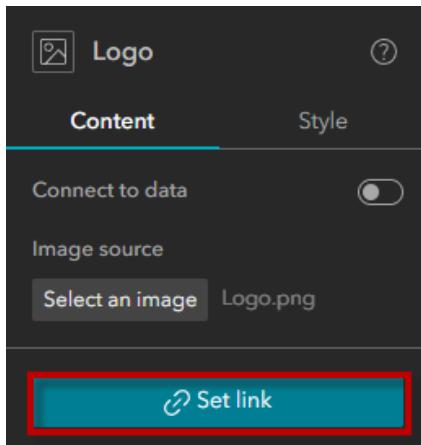


Tooltip = Maricopa.gov

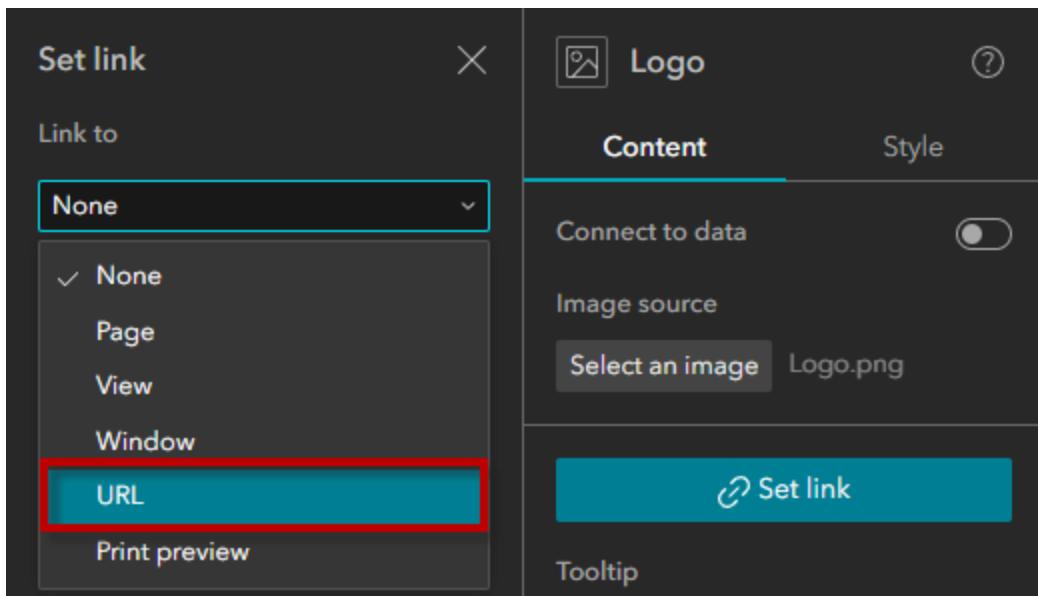
Alt Text = Maricopa Logo



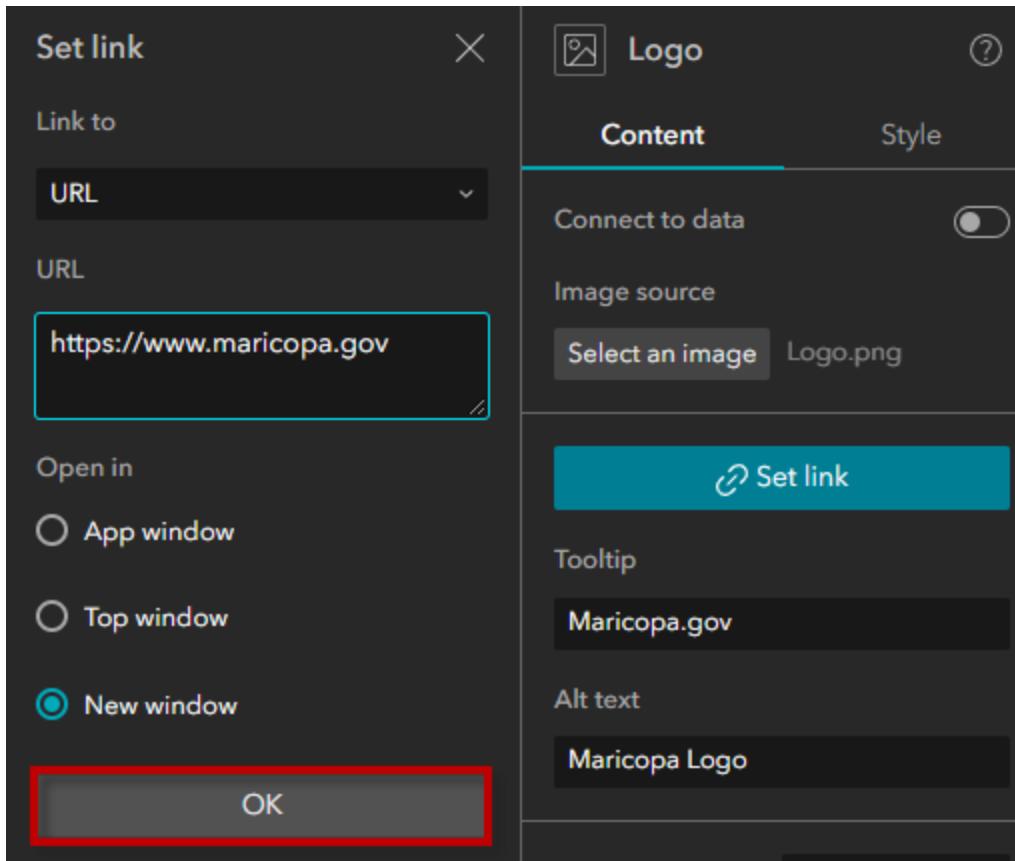
Click on the Set Link button.



Link to URL



URL = <https://www.maricopa.gov>



Resize the Logo to make it aesthetically pleasing.



## Apply Maricopa County Color Palette

### PRIMARY COLORS



SUMMER NIGHT BLUE  
#132048



SUNRISE ORANGE  
#F26724

### SECONDARY COLORS



#006EB5



#383838



#F3F3F3



#FAA21B

COLORS TO USE WHEN PLACED ON SUMMER NIGHT  
BLUE #132048



#059BFF



#FF8F5C

### Primary Colors:

Summer Night Blue = #132048

Sunrise Orange = #F26724

### Secondary Colors:

Blue = #006EB5

Dark Gray = #383838

Light Gray = #F3F3F3

Orange = #FAA21B

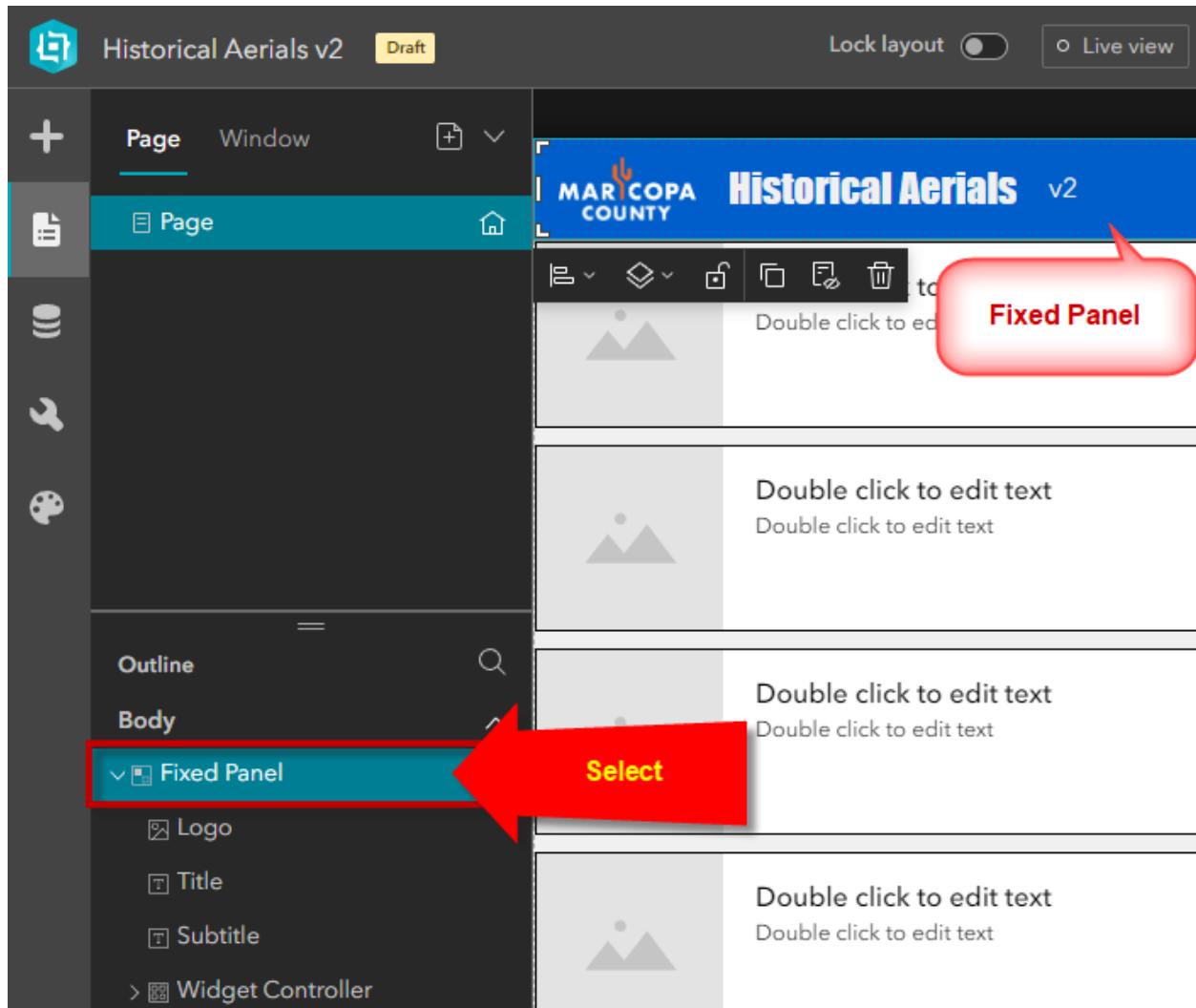
### Colors to be used when placed on Summer Night Blue

Light Blue = #059BFF

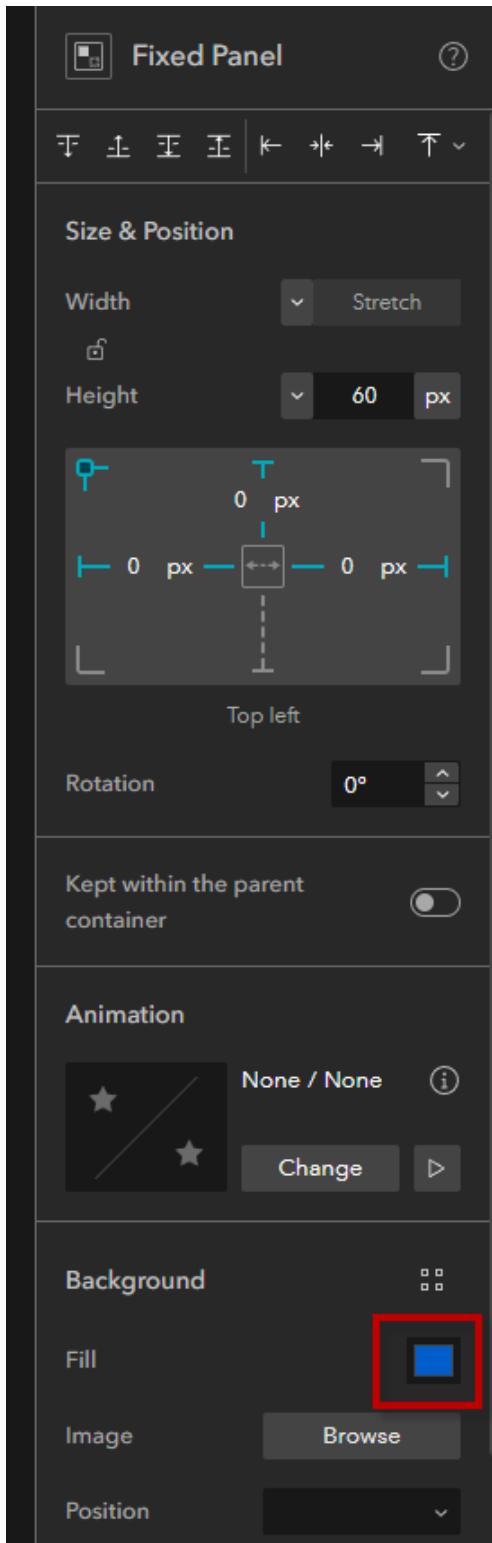
Pale Orange = #FF8F5C

## Change the Fixed Panel Background Color

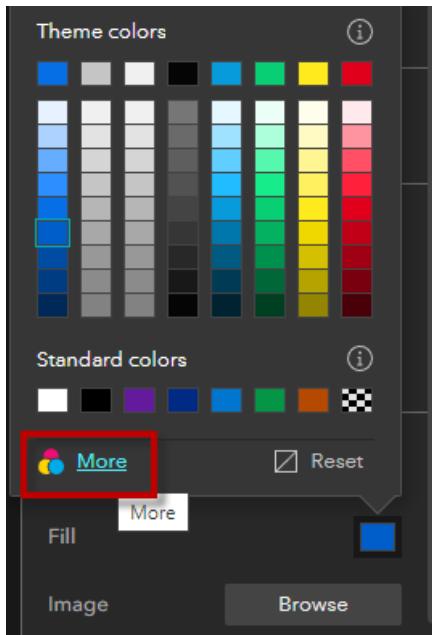
Select the Fixed Panel from the Page Outline.



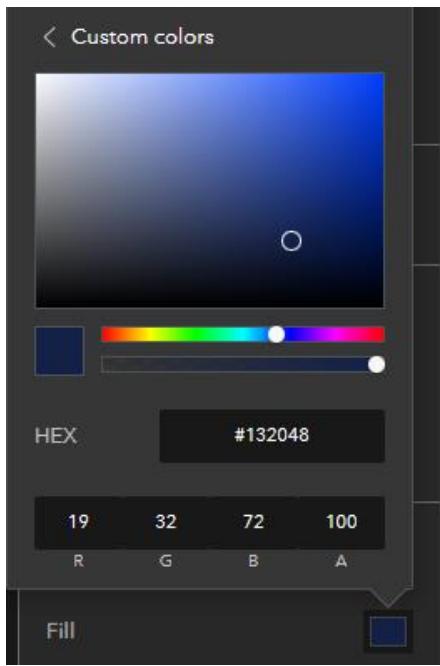
Select the Background Fill.



Select More

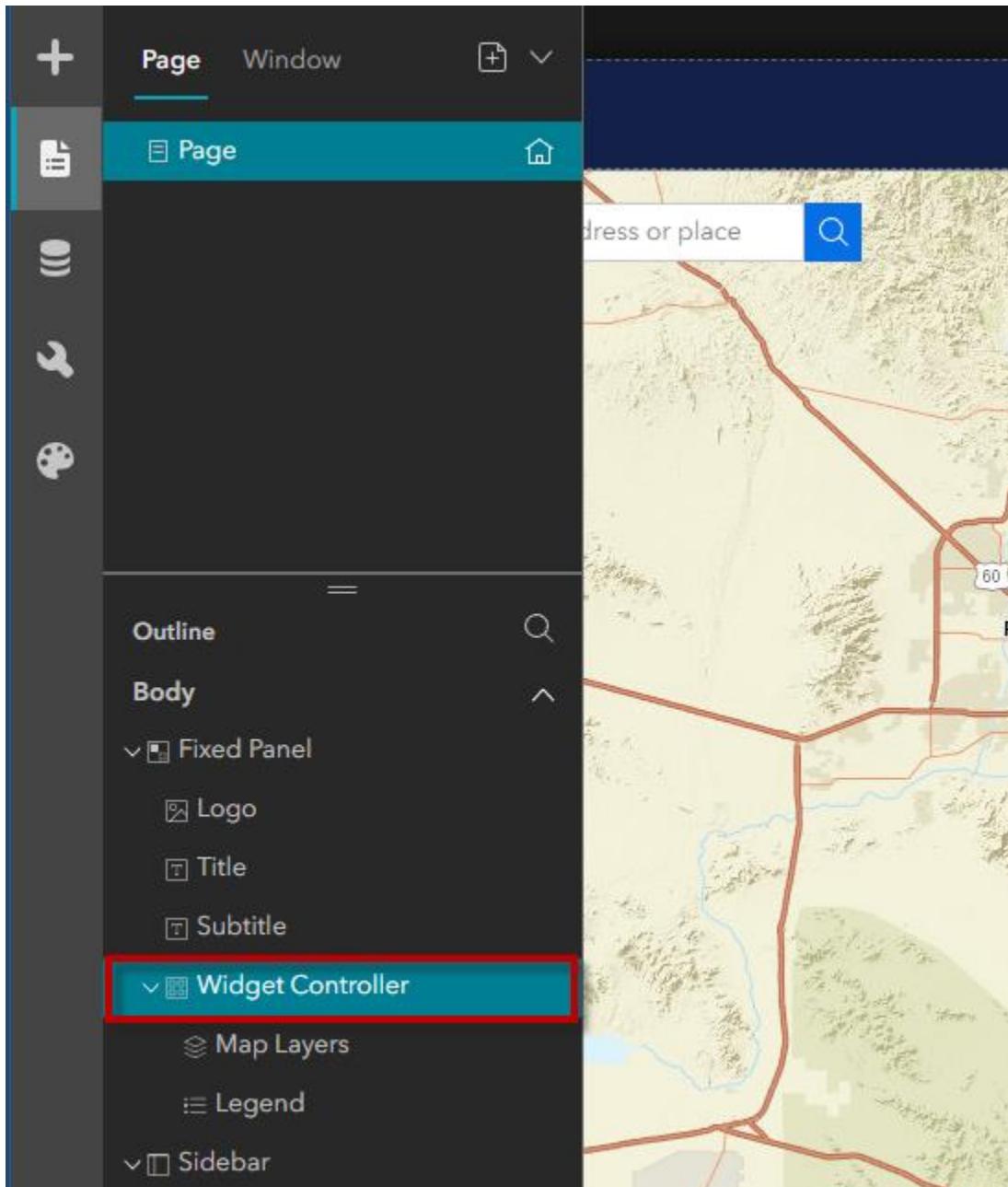


Enter HEX value = #132048

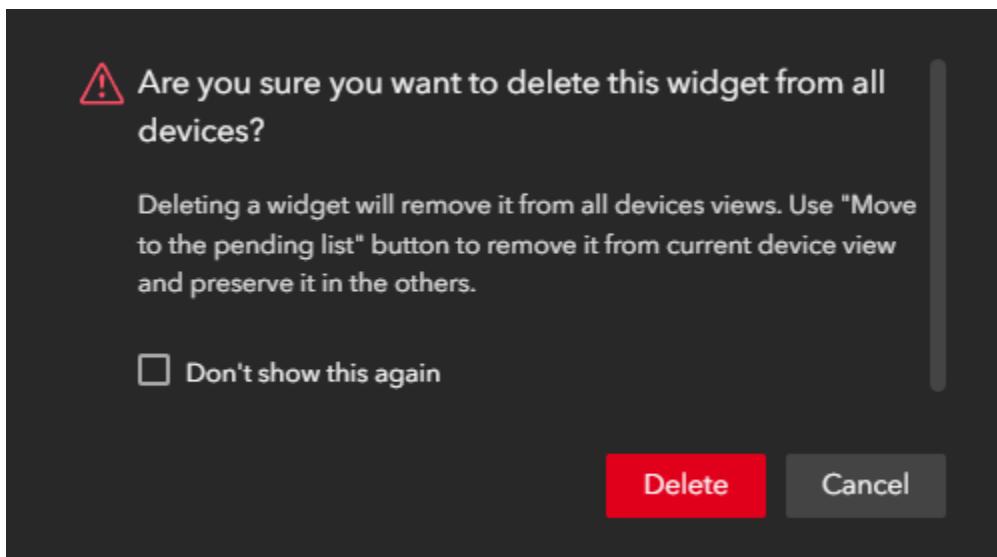
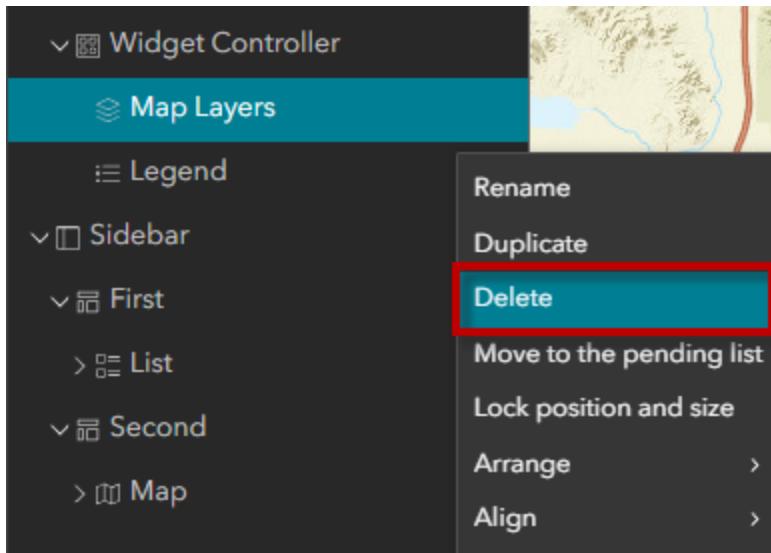


## Delete the Map Layers Widget

Expand the Widget Controller in the Page Outline.



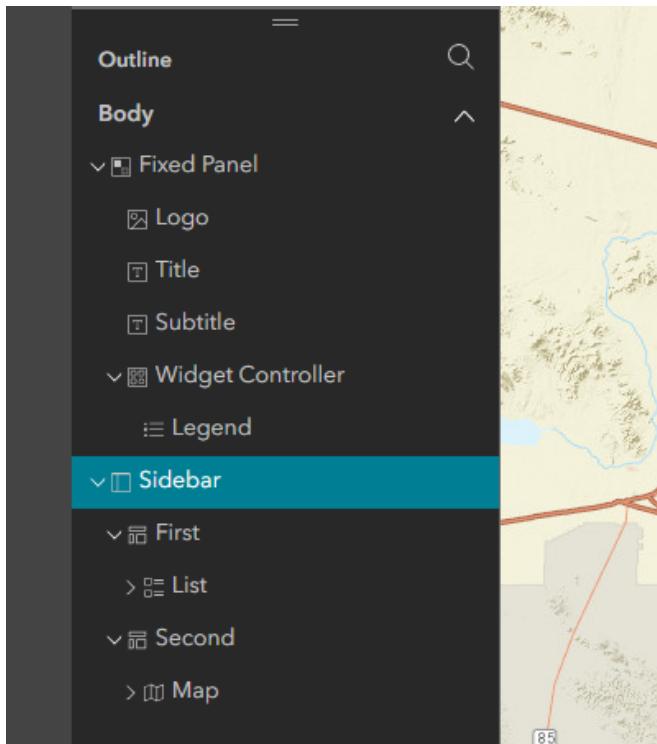
Delete the Map Layers Widget.



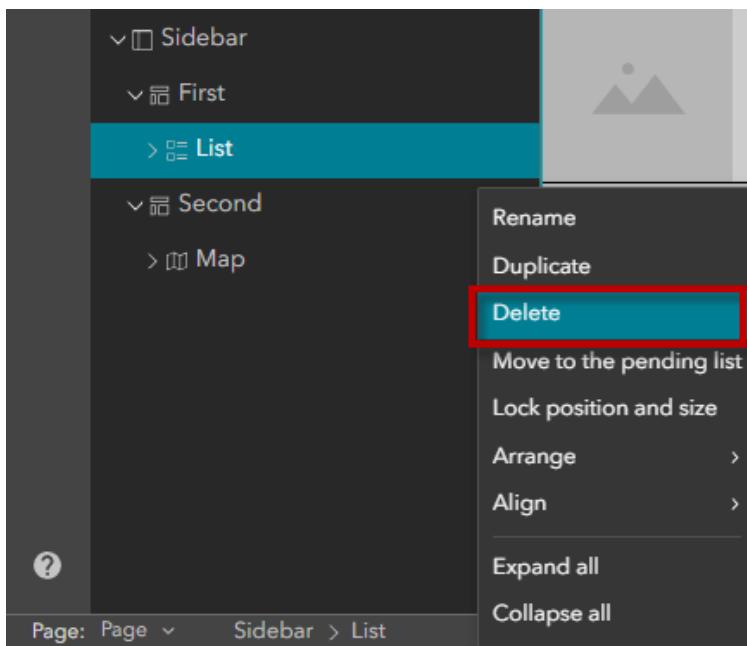
Delete

## Delete the List Widget

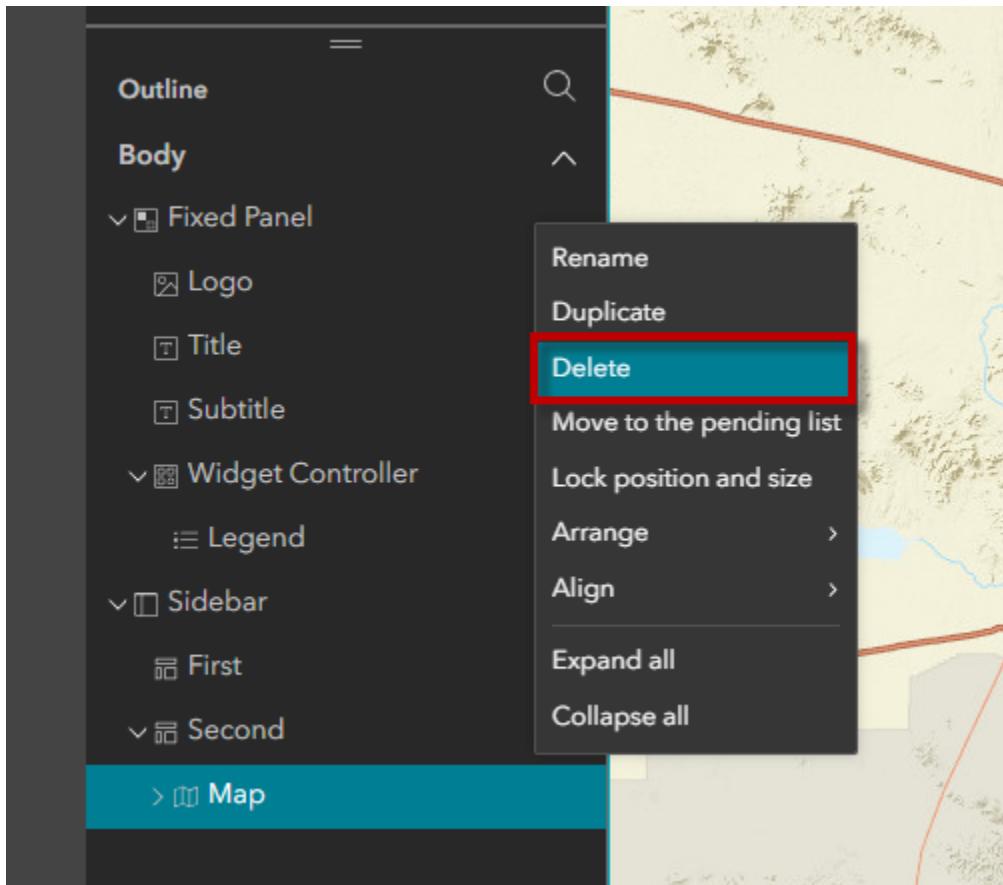
Expand the Sidebar widget on the Page Outline.



Delete the List Widget

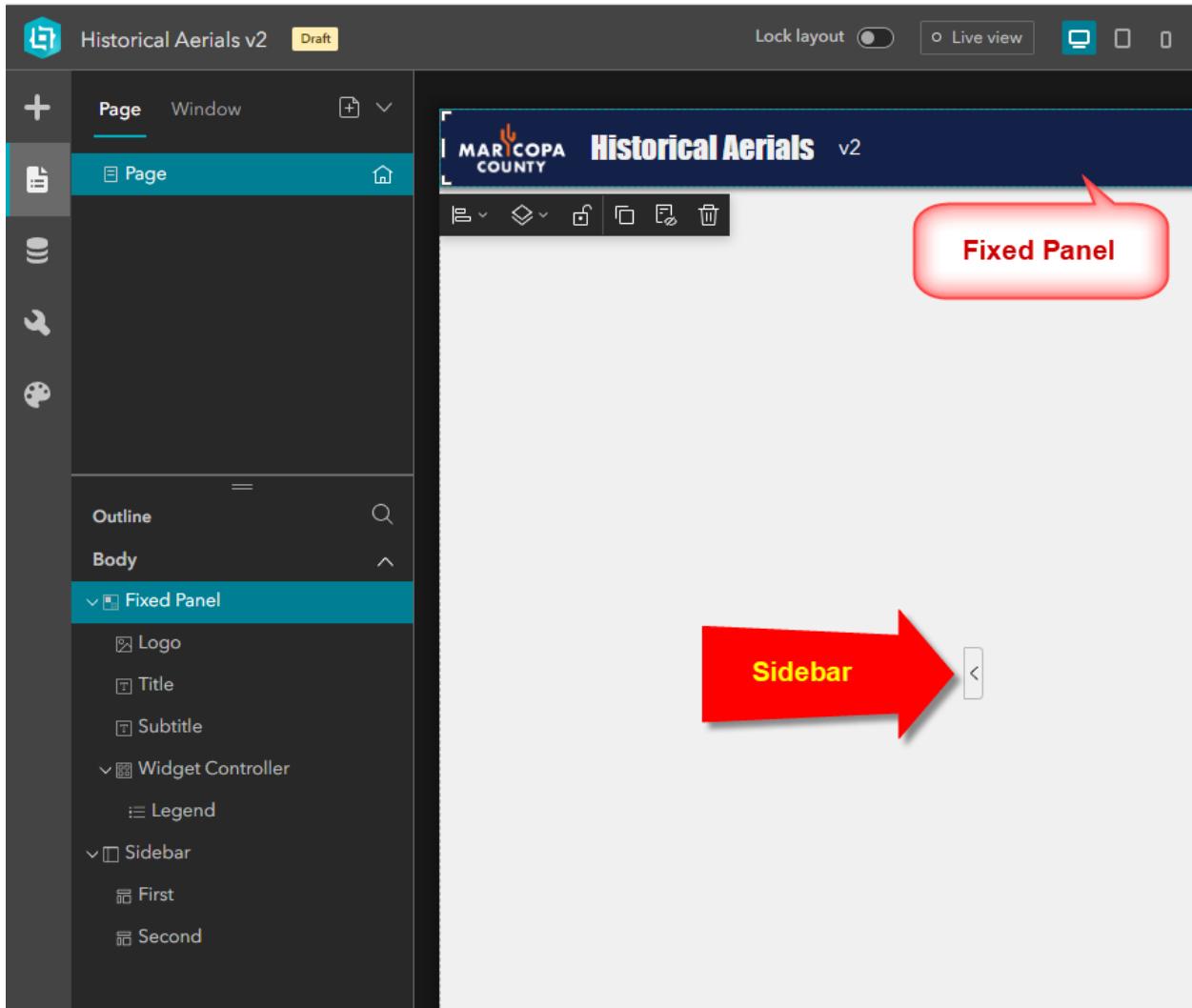


## Delete the Map Widget



- Rename
- Duplicate
- Delete**
- Move to the pending list
- Lock position and size
- Arrange >
- Align >
- Expand all
- Collapse all

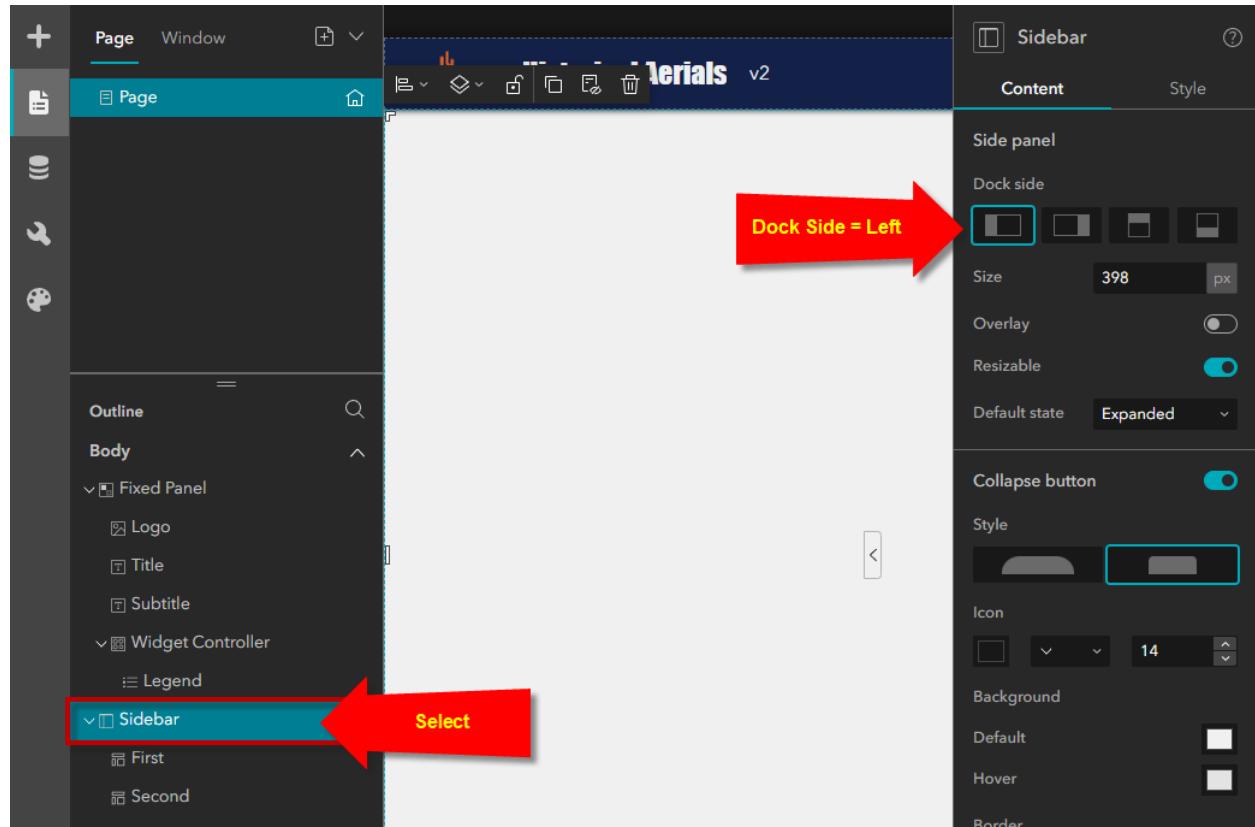
This leaves you with an almost empty template featuring a Fixed Panel and a Sidebar.



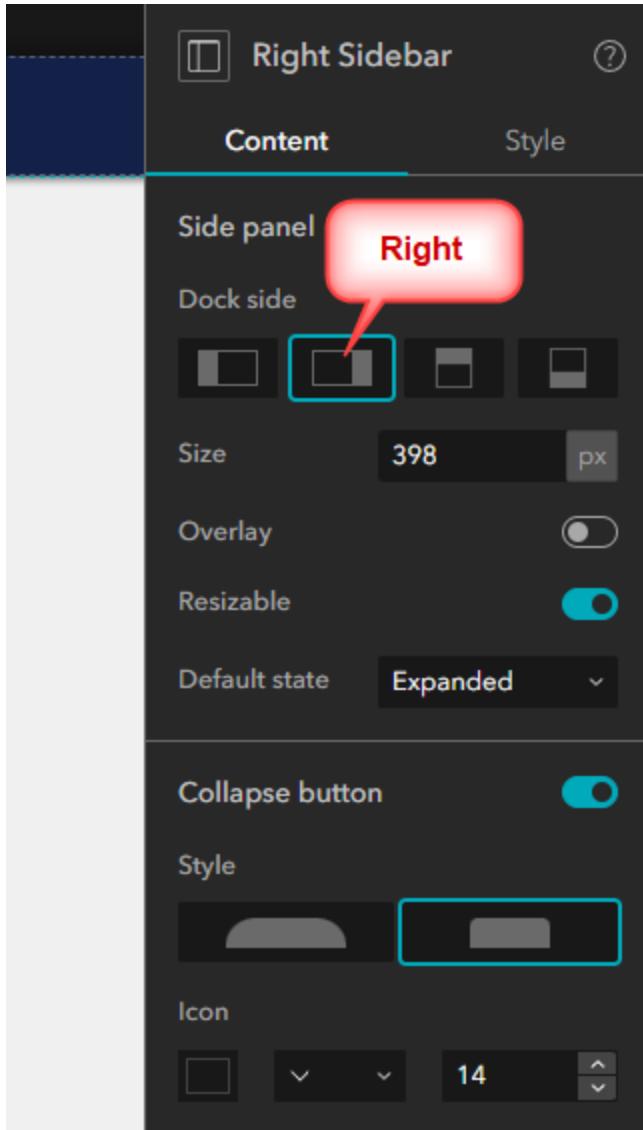
## Make the Sidebar dock to the Right

Select the Sidebar from the Page Outline.

Notice that this Sidebar docks on the Left.



Change Dock Side = Right

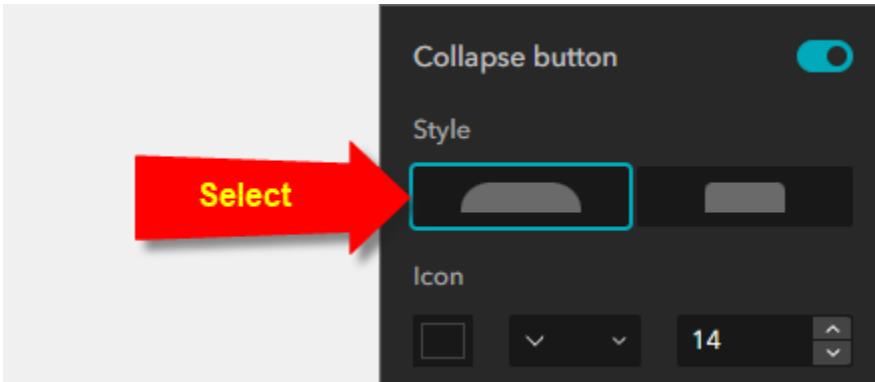


Resizable = Yes

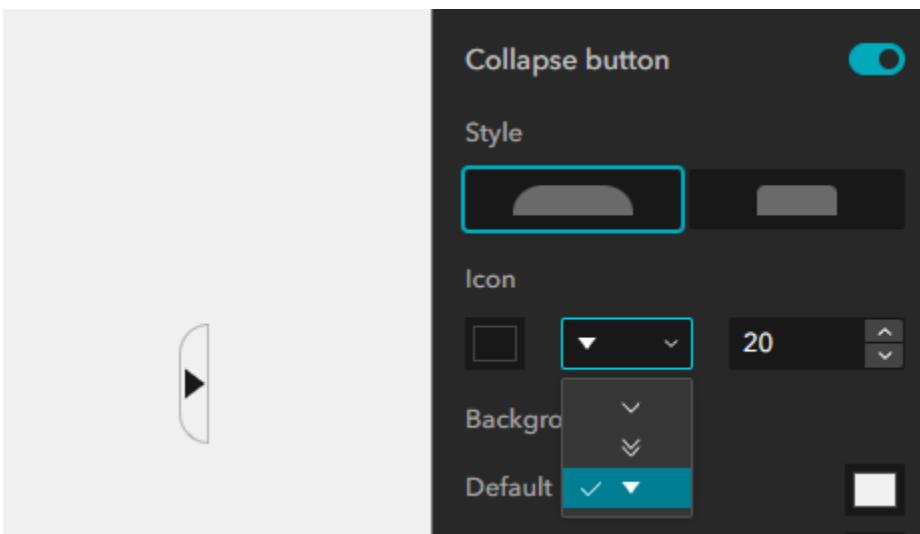
Default state = Expanded

Collapse button = Yes

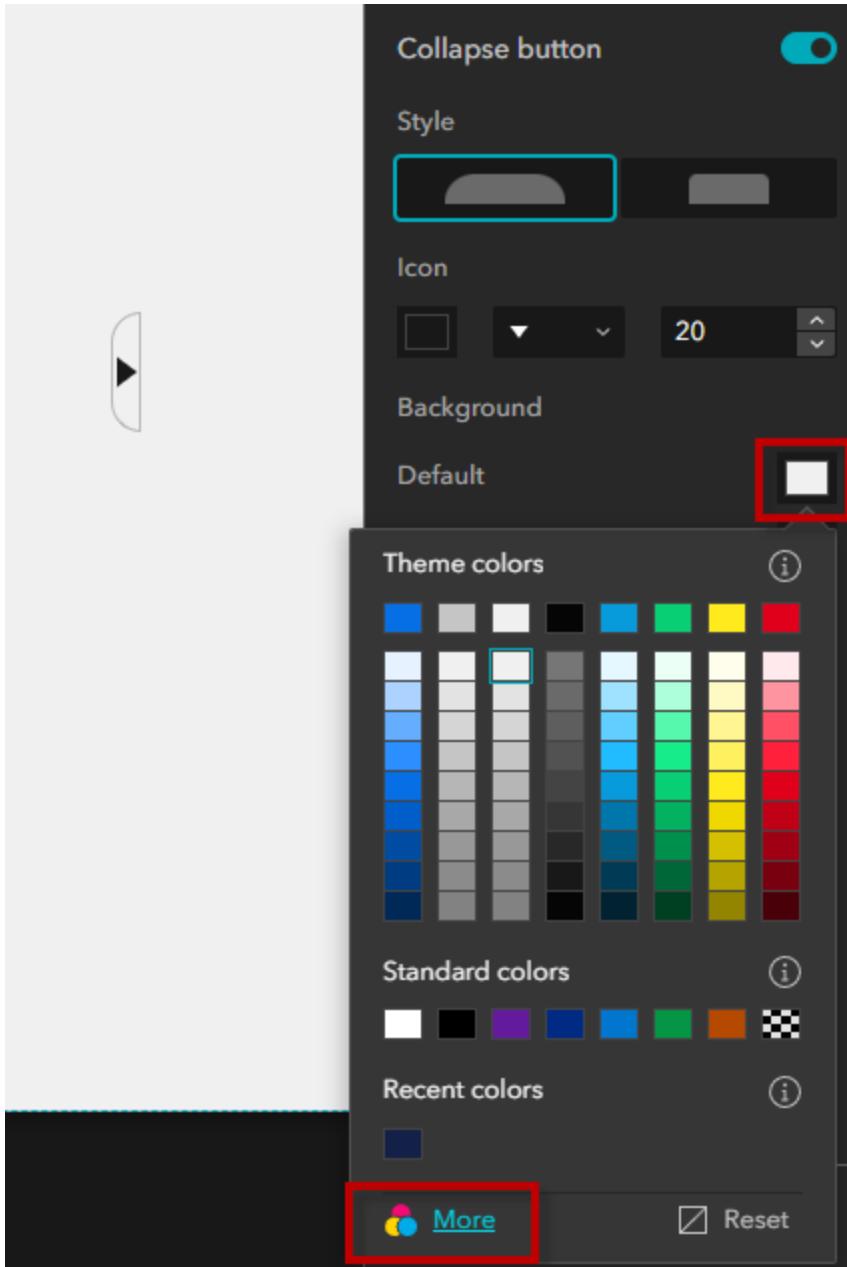
Change the Collapse button style.

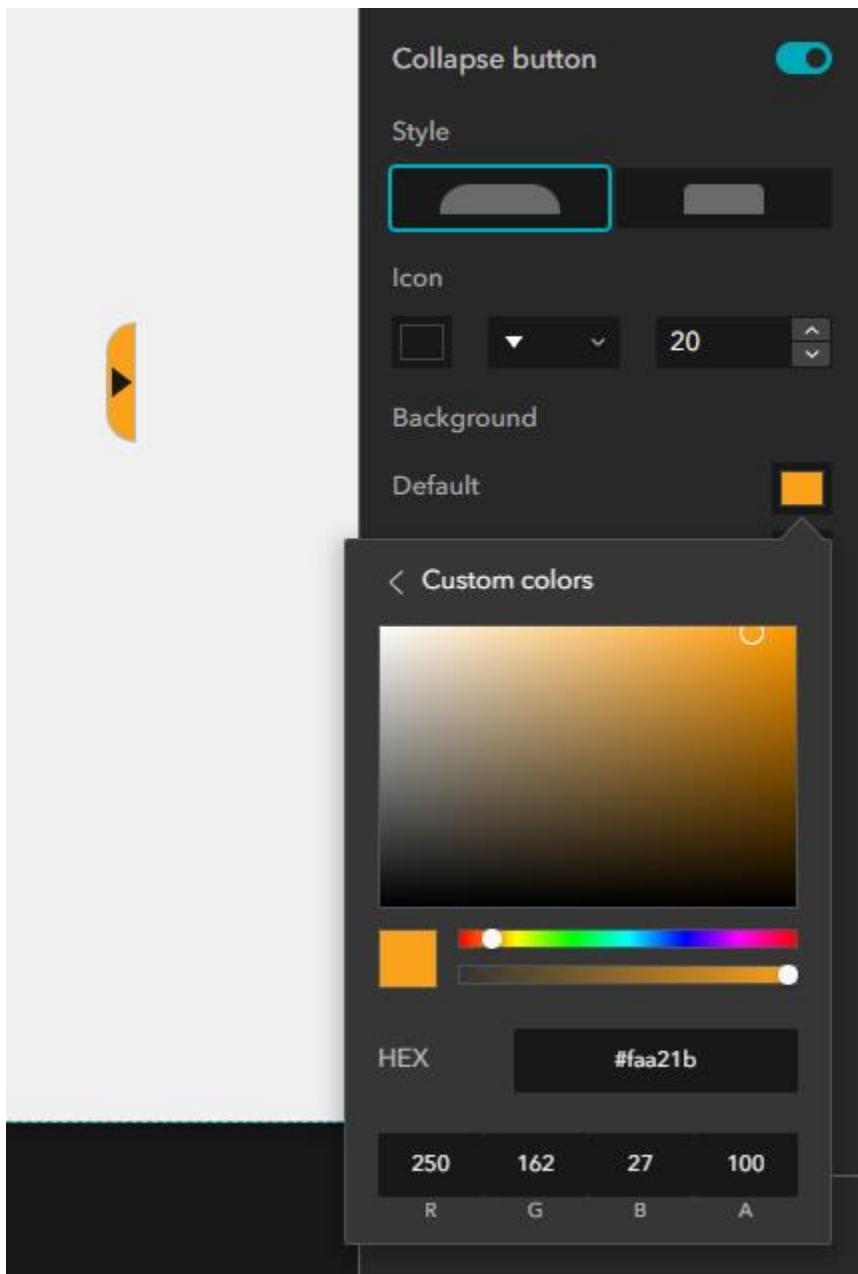


Change the Icon Style and Size

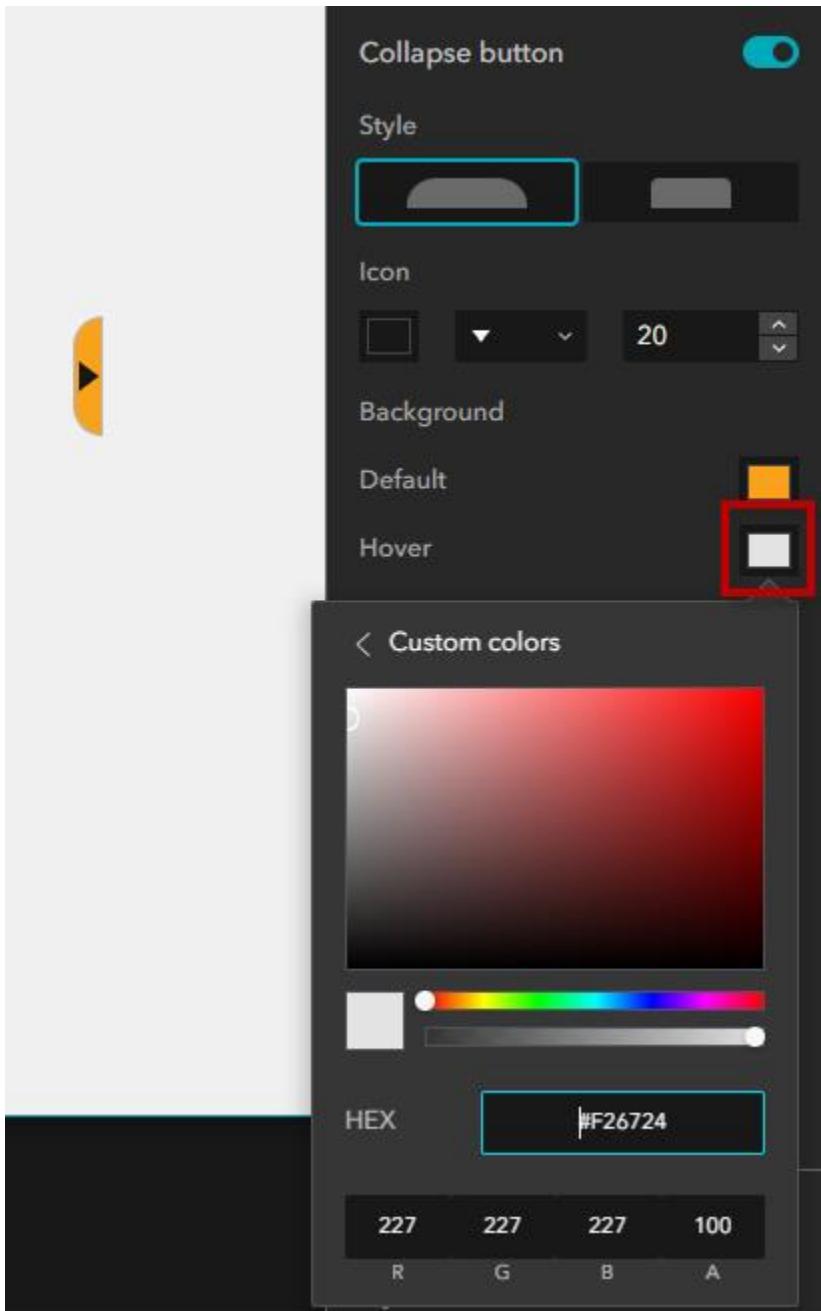


Change the default color of the Collapse button = #FAA21B





Change the Hover Color = #F26724



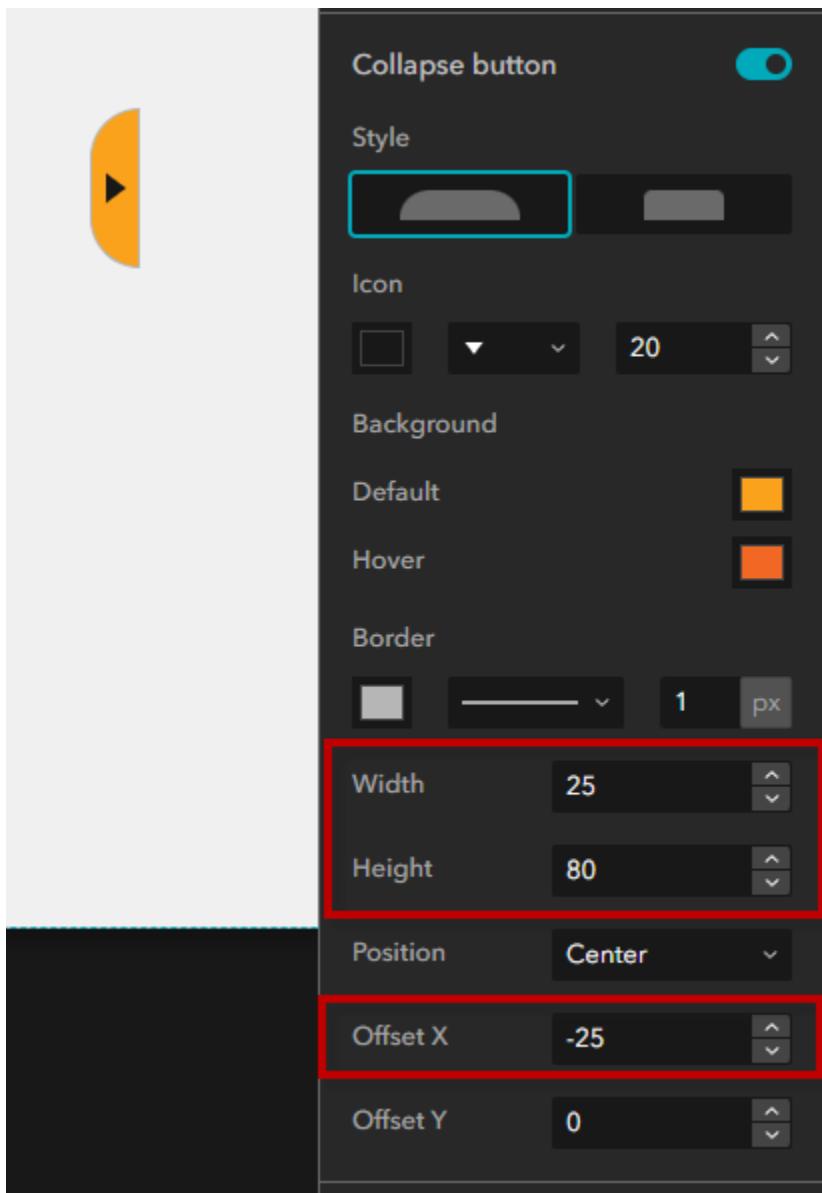
Change the Width and Height of the Collapse button.

Width = 25

Height = 80

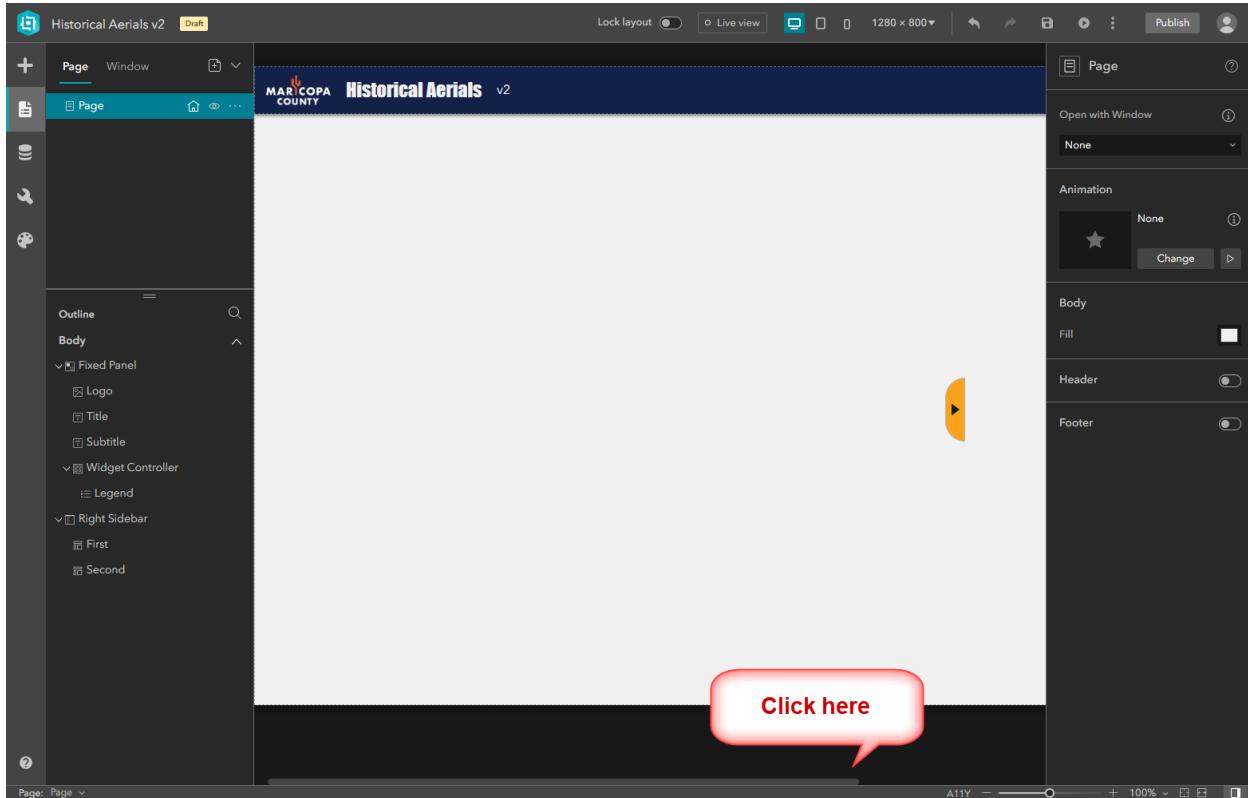
Offset X = -25

*The negative Offset X must match the width.*

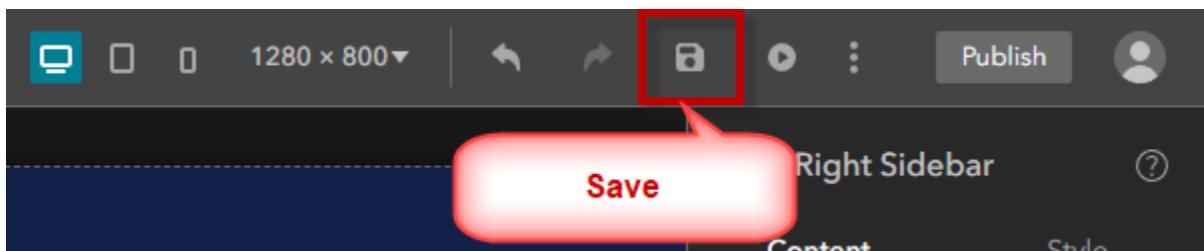


**Note:** If you have problems engaging the Collapse button on a Smartphone, you need to make this collapse button larger.

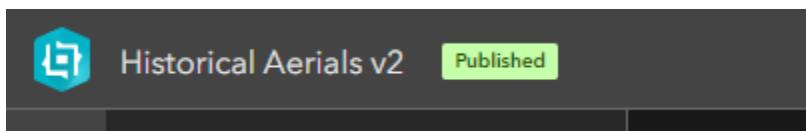
Click anywhere outside the Page.



Save

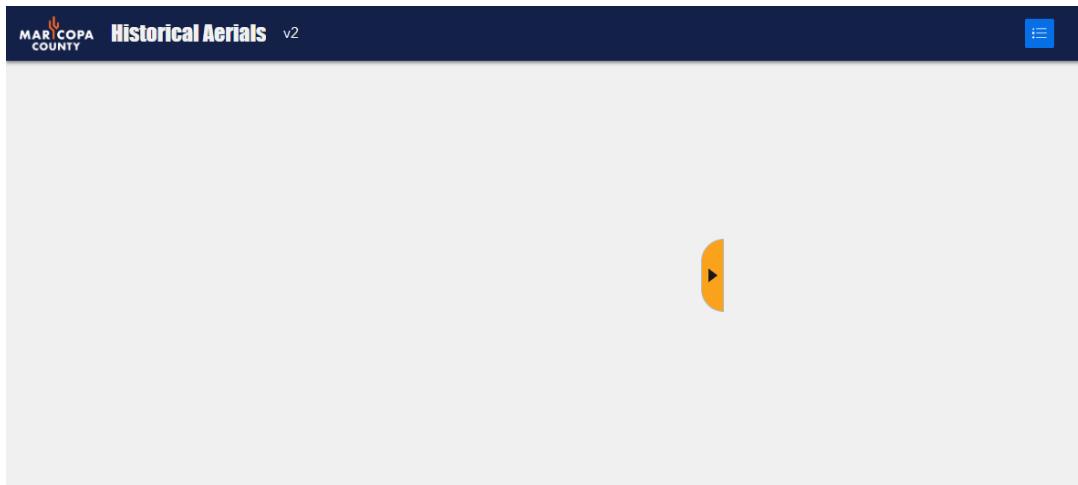


Publish



View Published Item.

<https://localhost:3001/experience/1/>



Click on the collapse button.

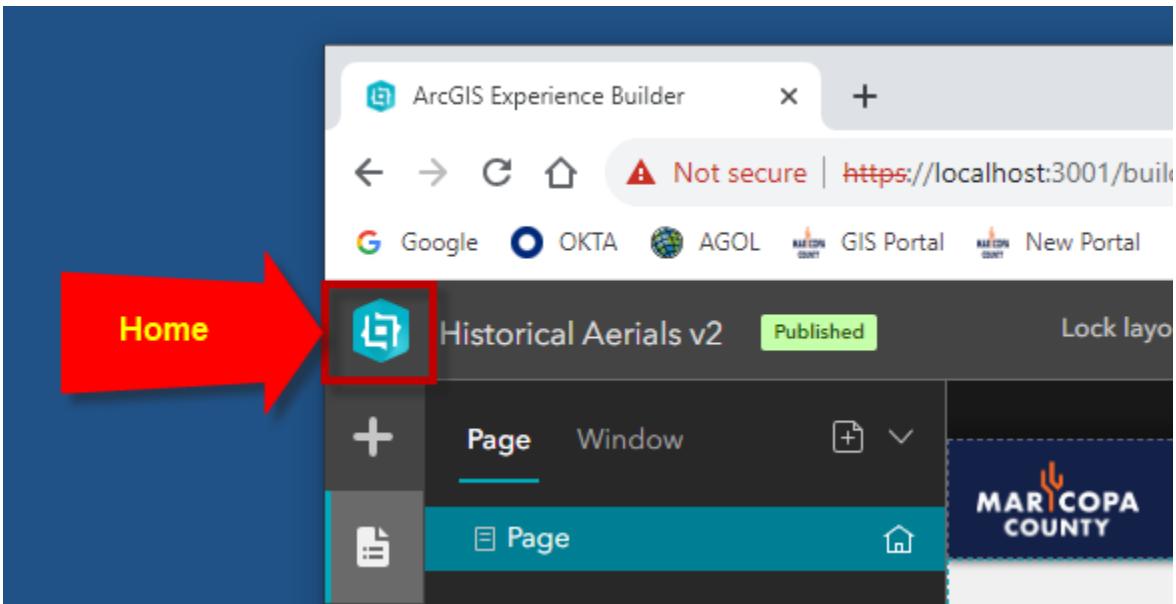
The Right Sidebar will collapse to the right.



When you hover over the button, it would turn orange.



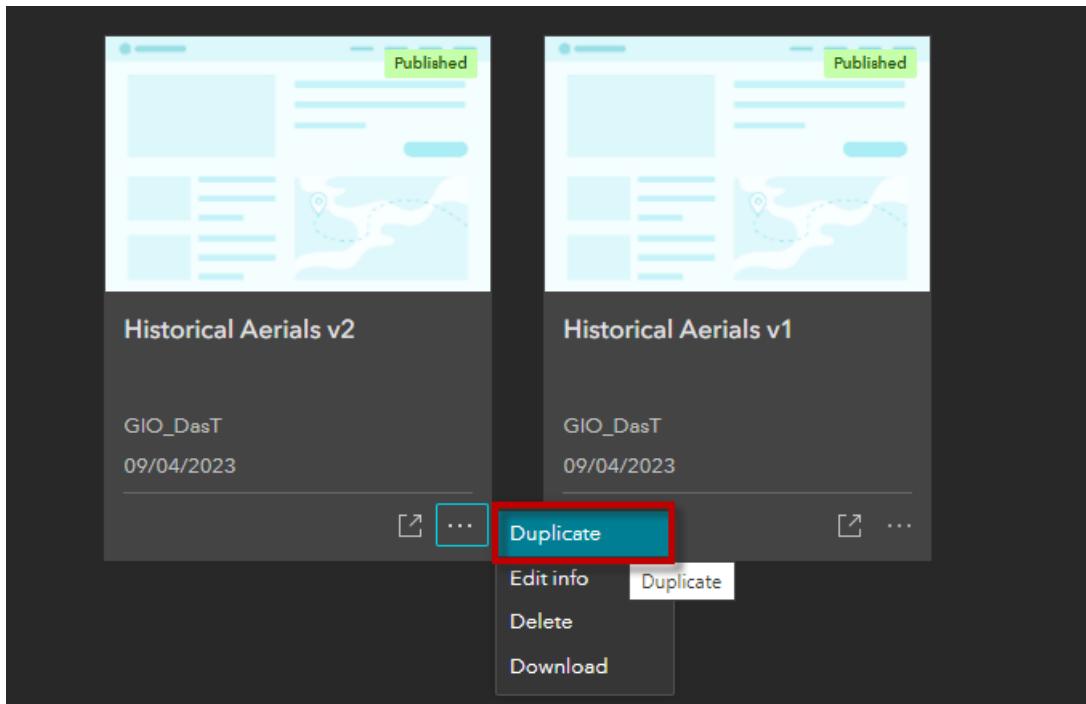
Go back to the Home Page



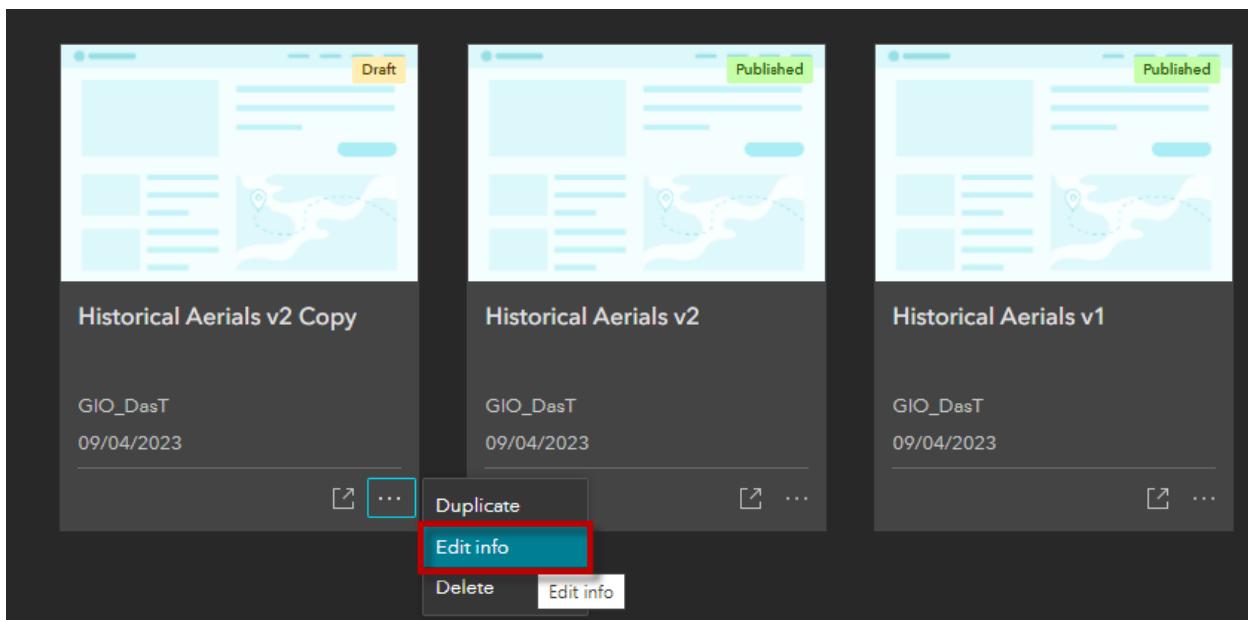
A screenshot of the ArcGIS Experience Builder (Developer Edition) interface. The top navigation bar includes the title 'ArcGIS Experience Builder (Developer Edition)', a 'Recent experiences' section, a search bar, and buttons for 'Import' and 'Create new'. The main content area is titled 'Experiences' and shows a list of recent experiences. There are two items in the list: 'Historical Aerials v2' and 'Historical Aerials v1'. Both experiences are marked as 'Published' and were created by 'GIO\_DasT' on '09/04/2023'. Each item has a preview thumbnail, a title, the owner's name, the creation date, and three-dot and edit icons at the bottom.

## Create Historical Aerials v3

Duplicate Historical Aerials v2 to create Historical Aerials v3

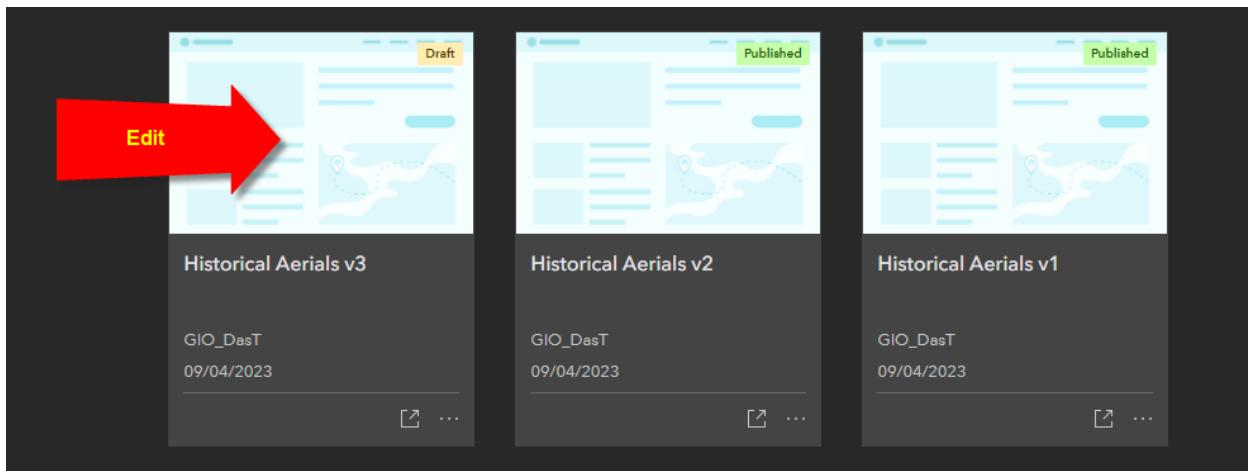
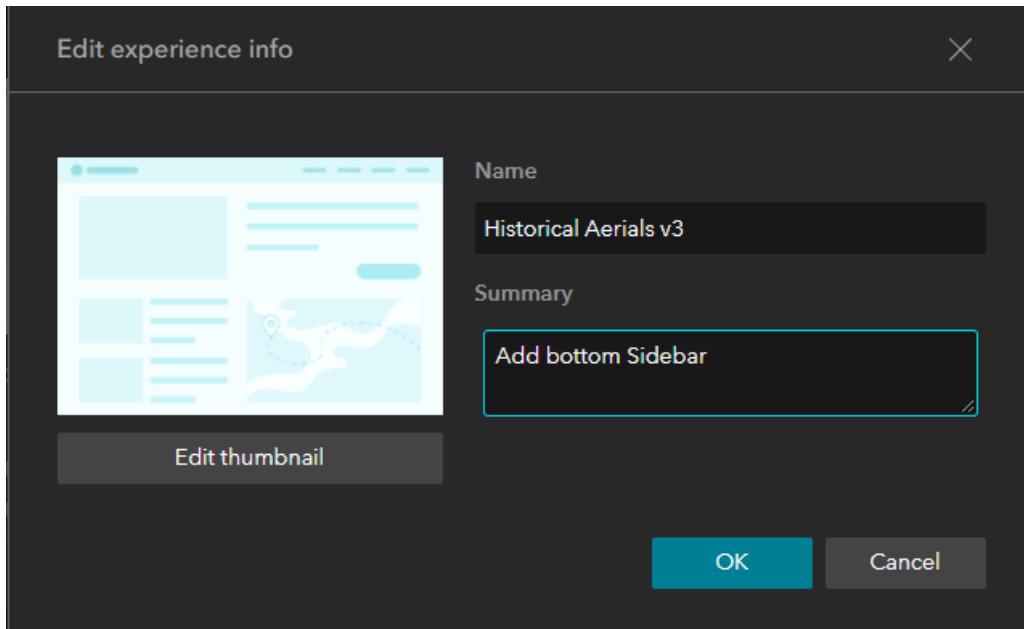


Edit Info

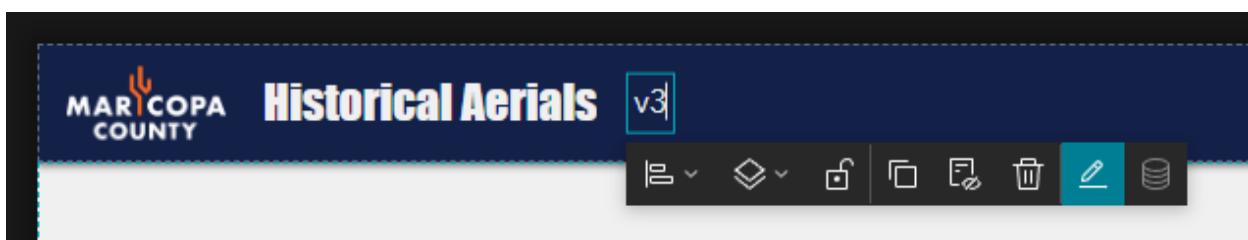


Name = Historical Aerials v3

Summary = Add bottom Sidebar



Edit the Subtitle to read v3

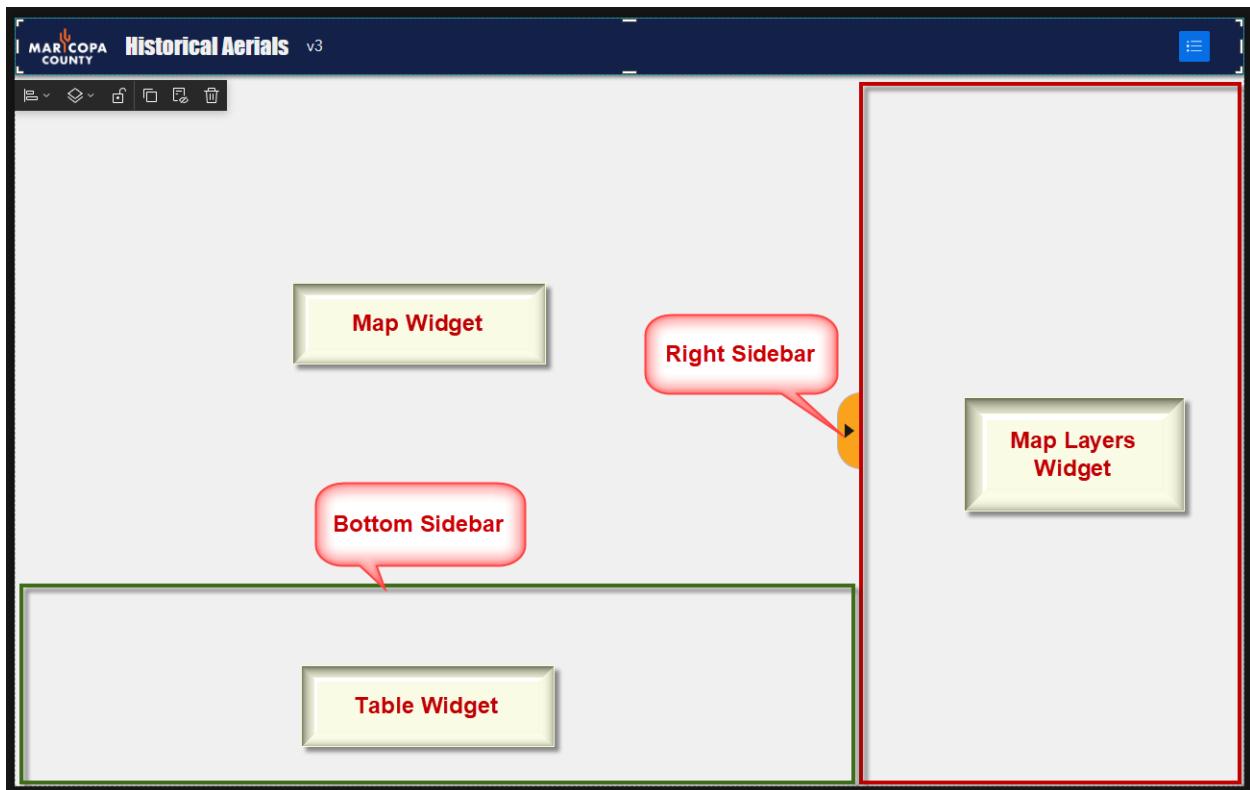


## Plan your Layout

The Map Layers widget will be housed within Right Sidebar widget that can be collapsed to make more room for the Map widget on the Left.

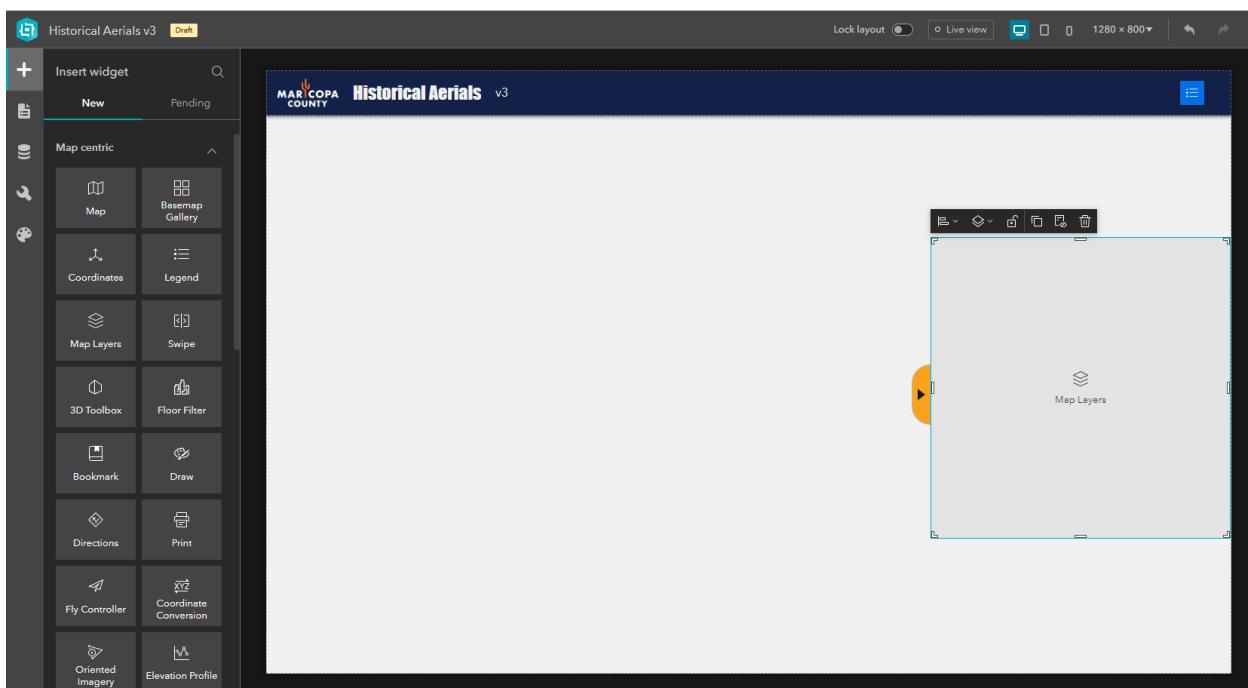
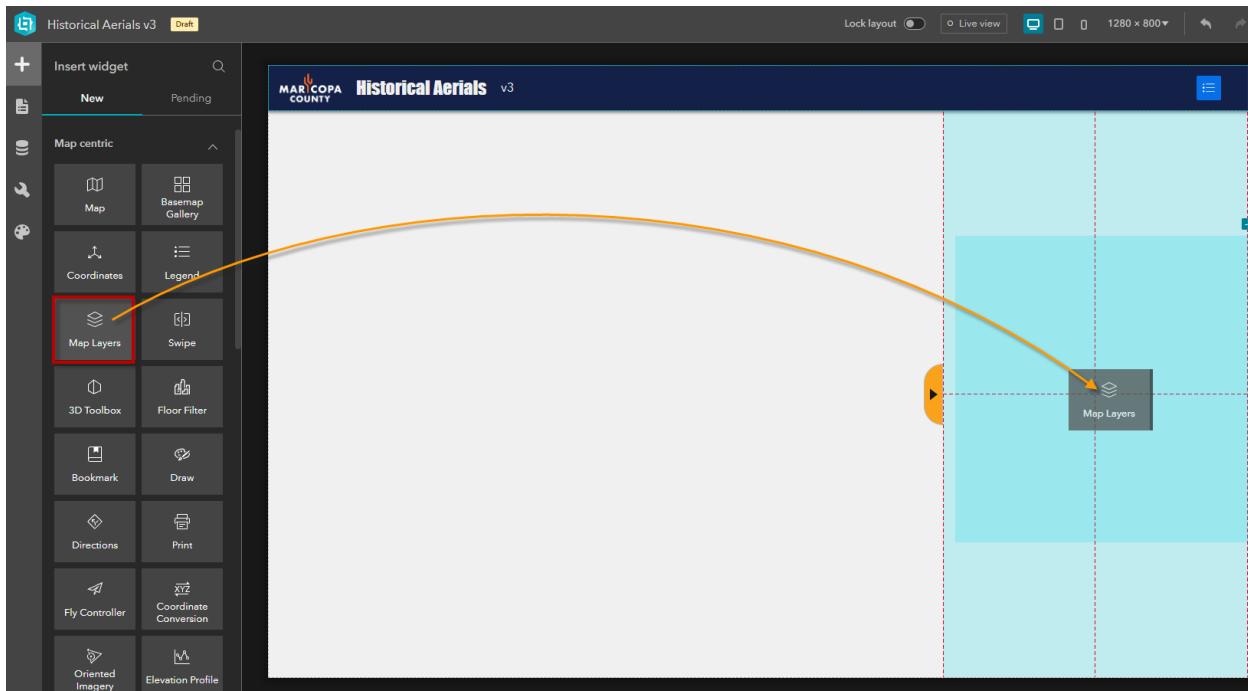
You will add a Bottom Sidebar widget to house the Table widget which can be collapsed to make more room for the Map widget.

The Bottom Sidebar widget will remain closed by default.

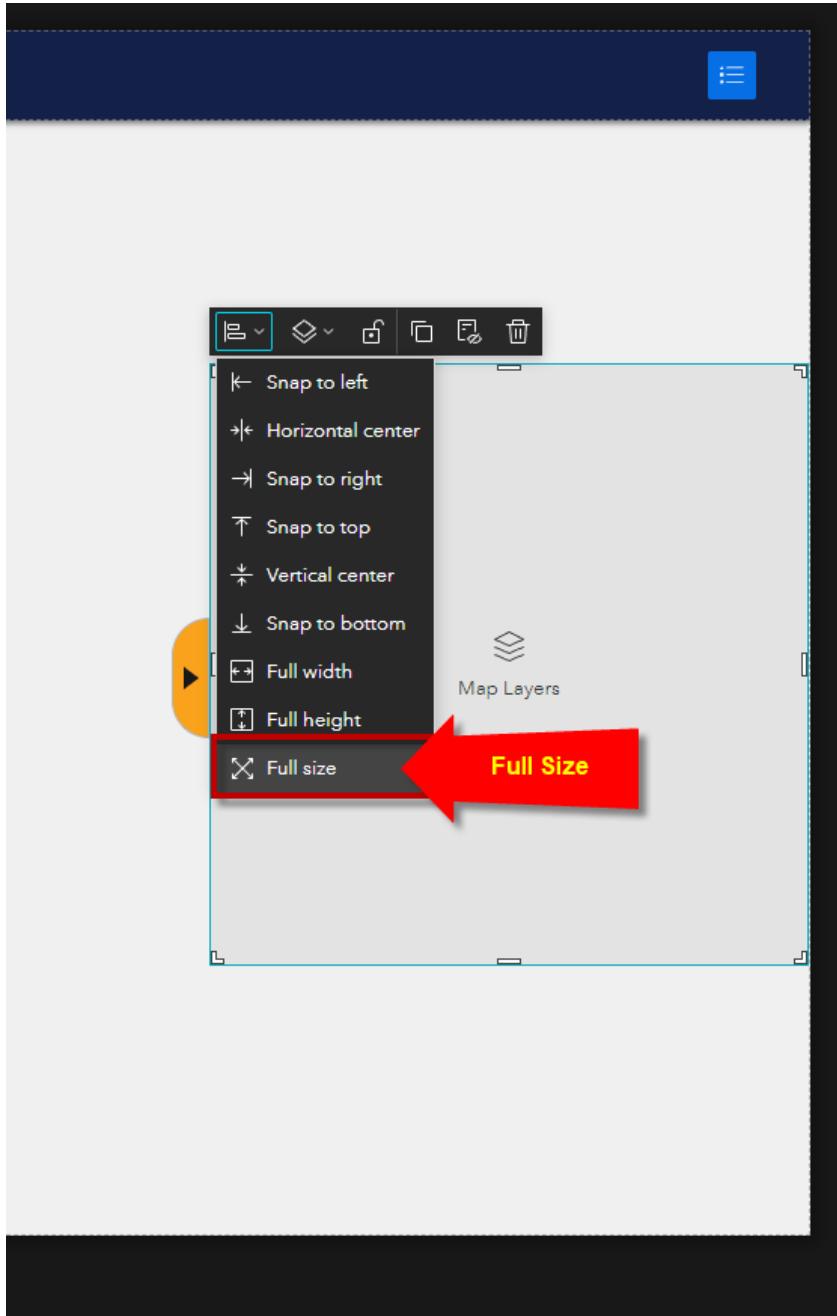


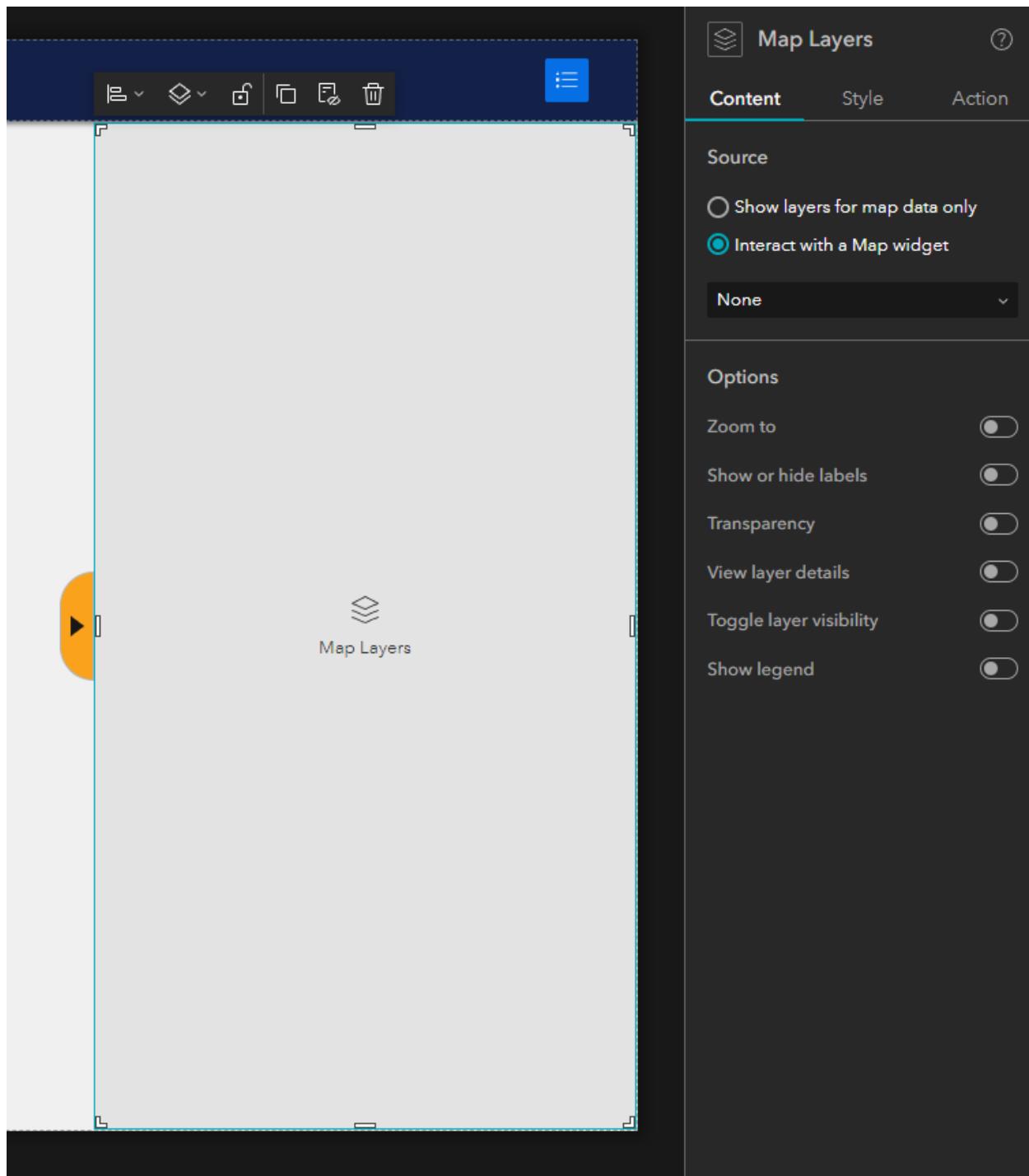
## Add the Map Layers Widget

Drag the Map Layers widget over the Right Sidebar.



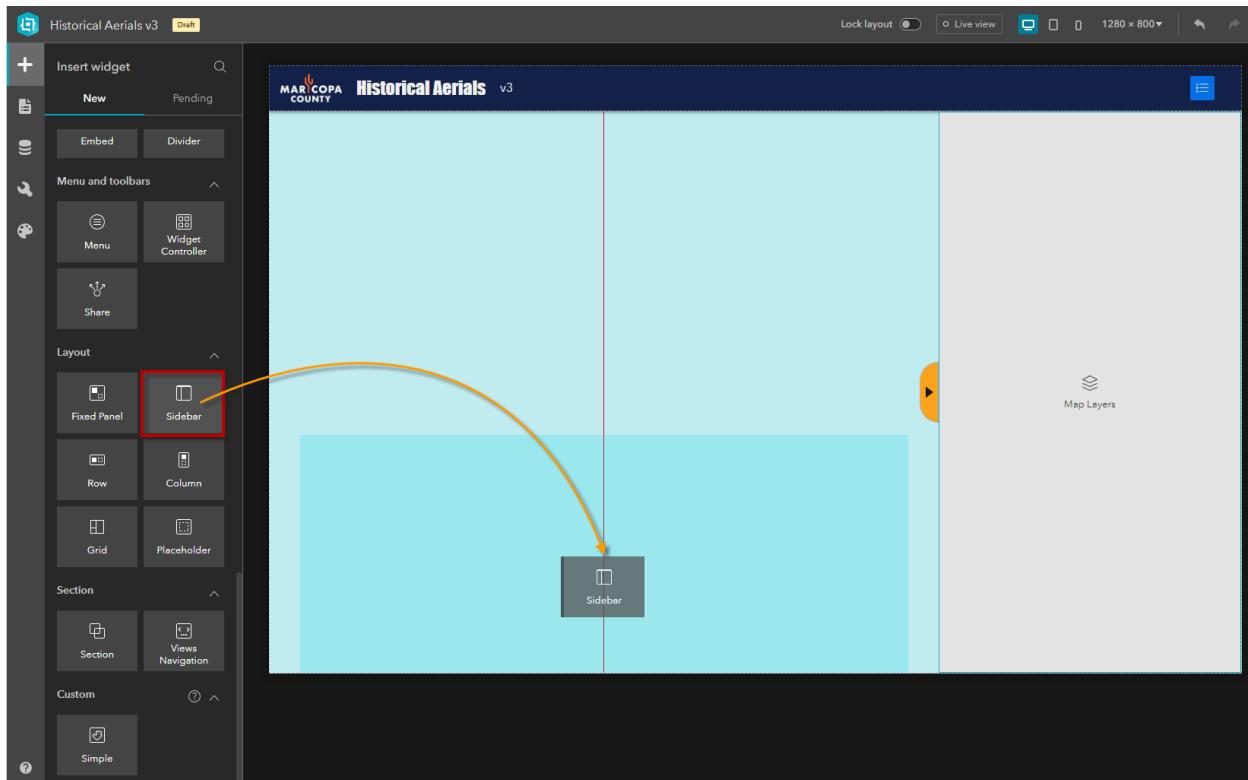
Align = Full Size



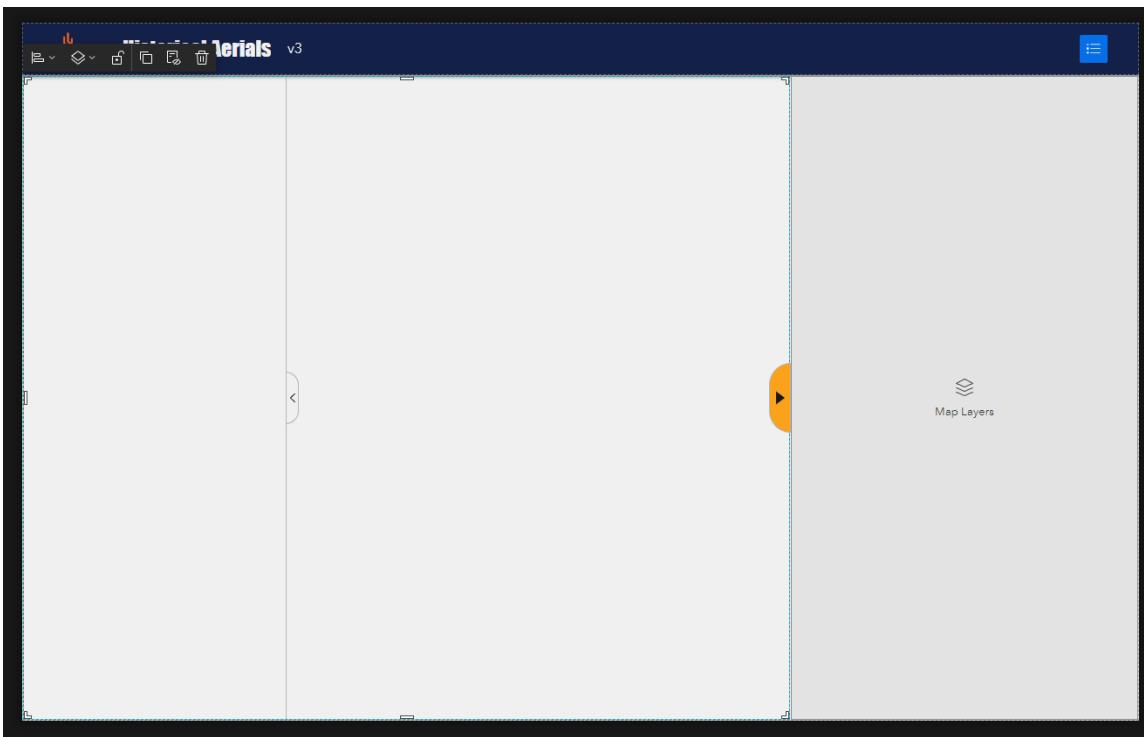
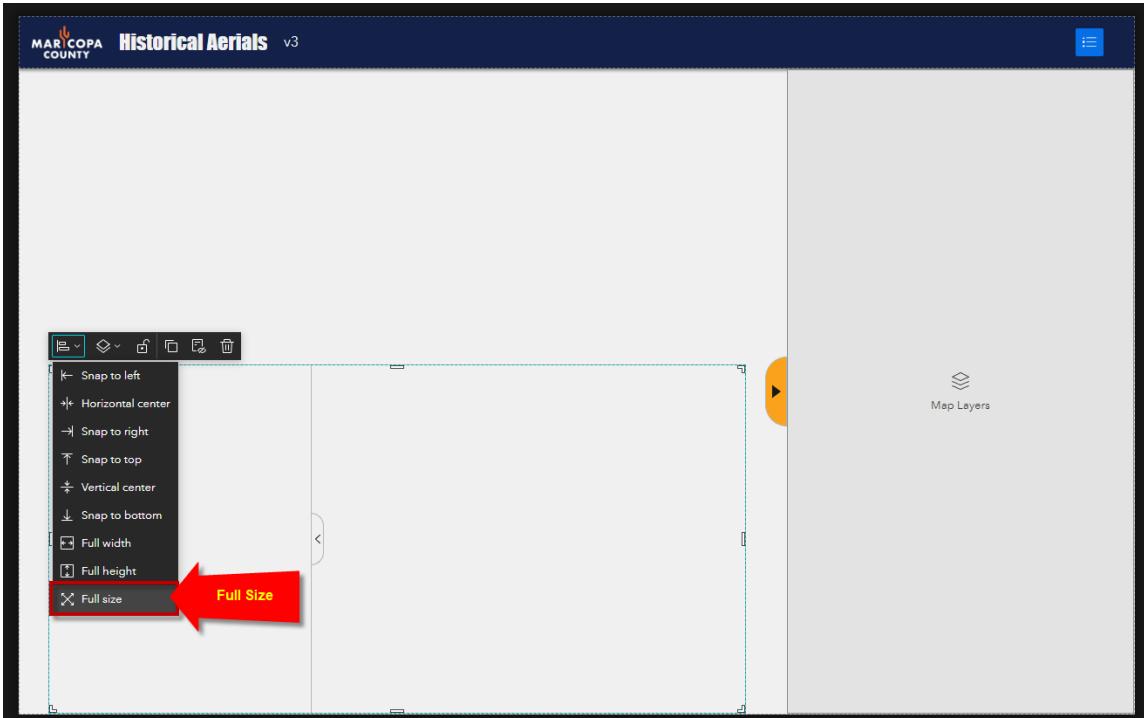


## Add the Bottom Sidebar widget

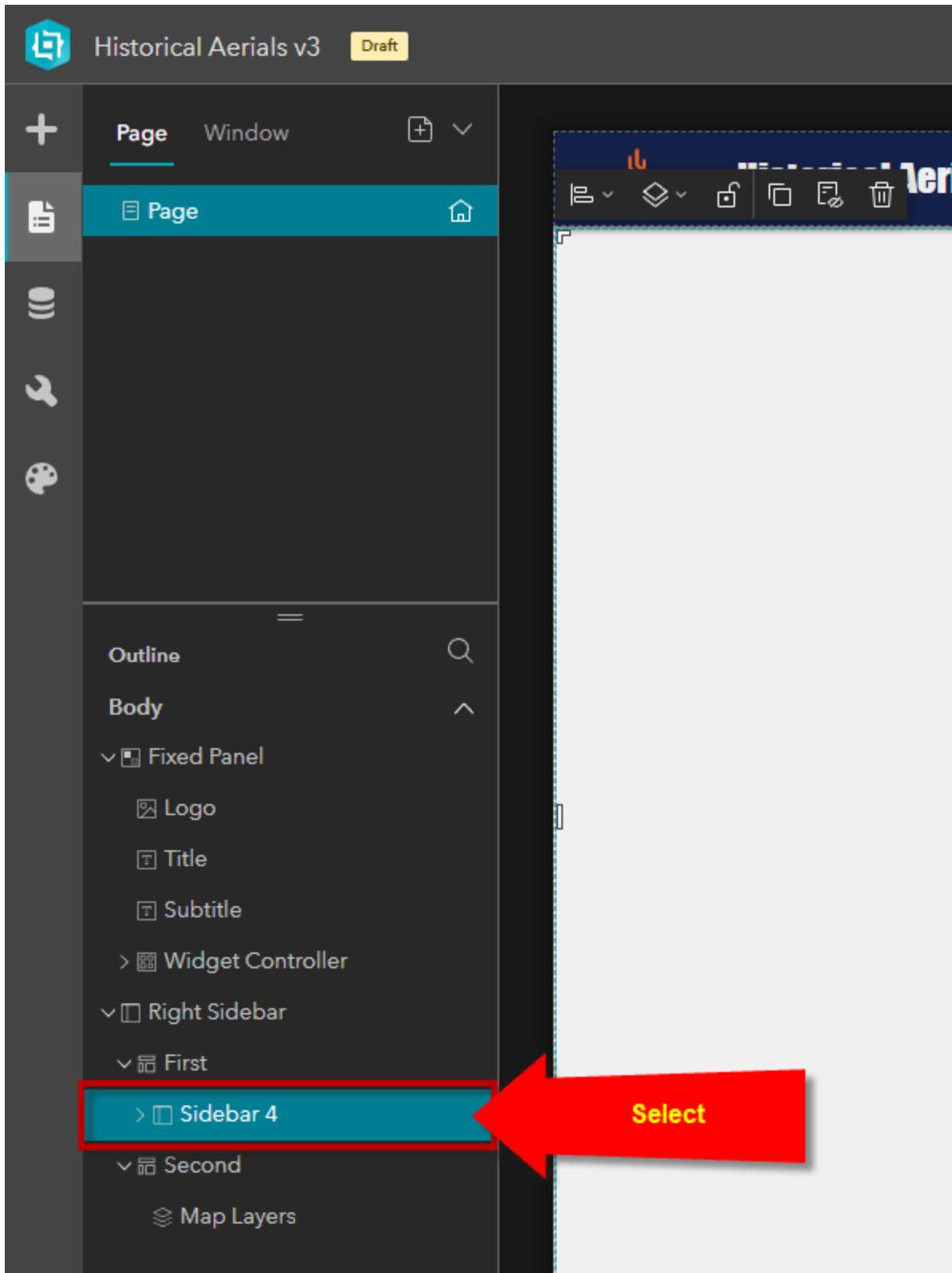
Drag the Sidebar widget on bottom left of the page as shown.



Align = Full Size



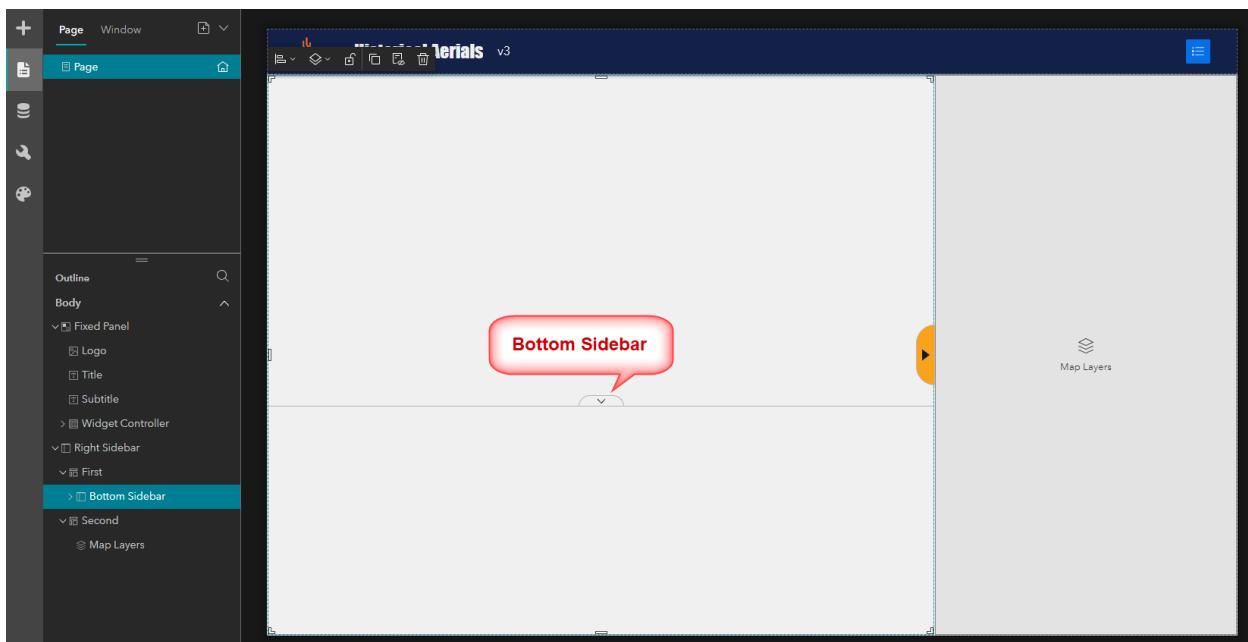
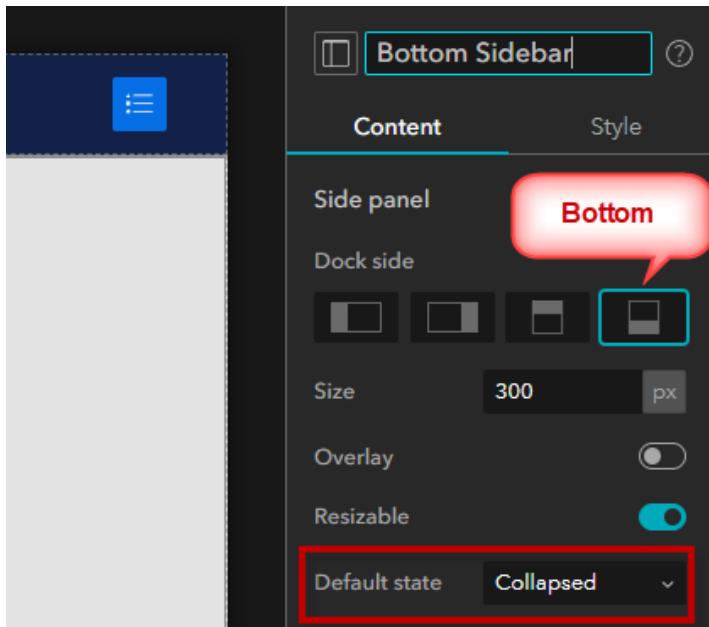
Select the Sidebar 4 widget from the Page Outline.



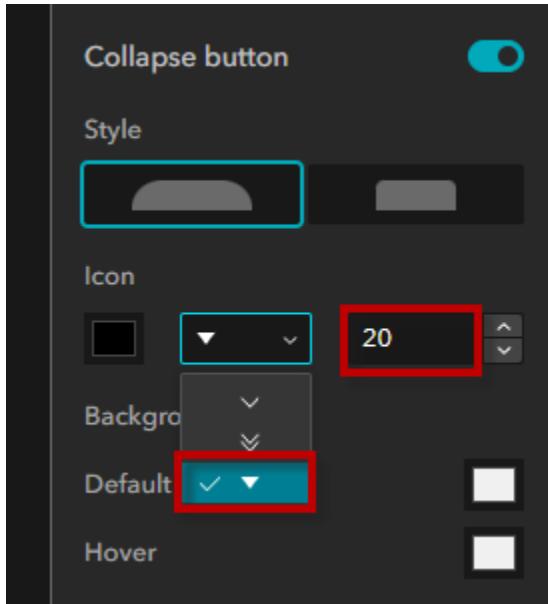
Rename the Sidebar 4 widget to **Bottom Sidebar**

Dock side = **Bottom**

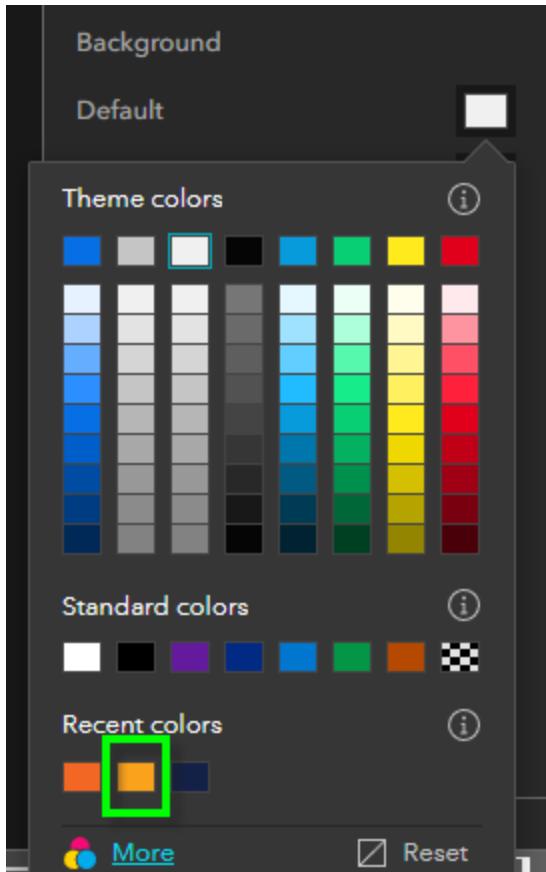
Default state = **Collapsed**



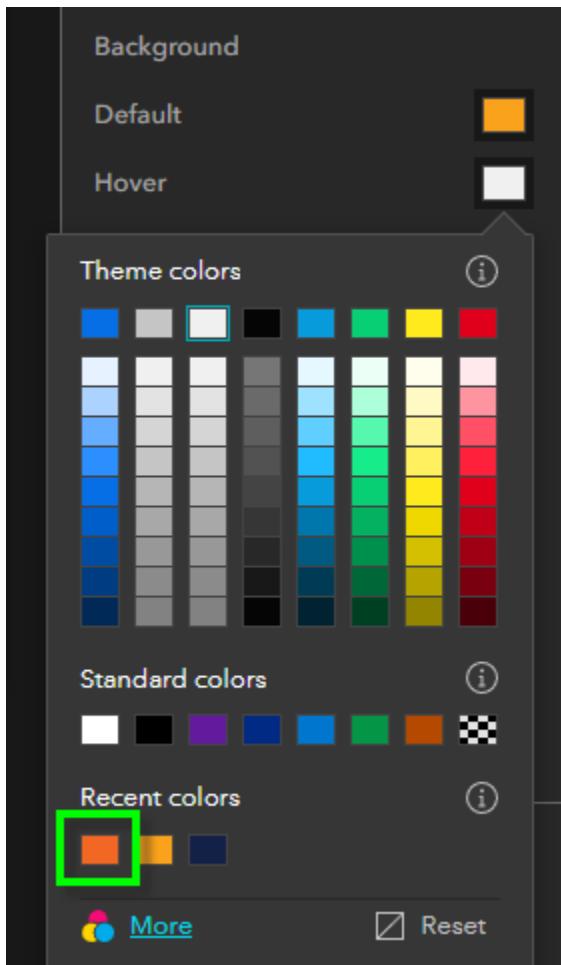
Change the Button Icon and size.



Change the Default Color = #FAA21B



Change the Hover Color = #F26724



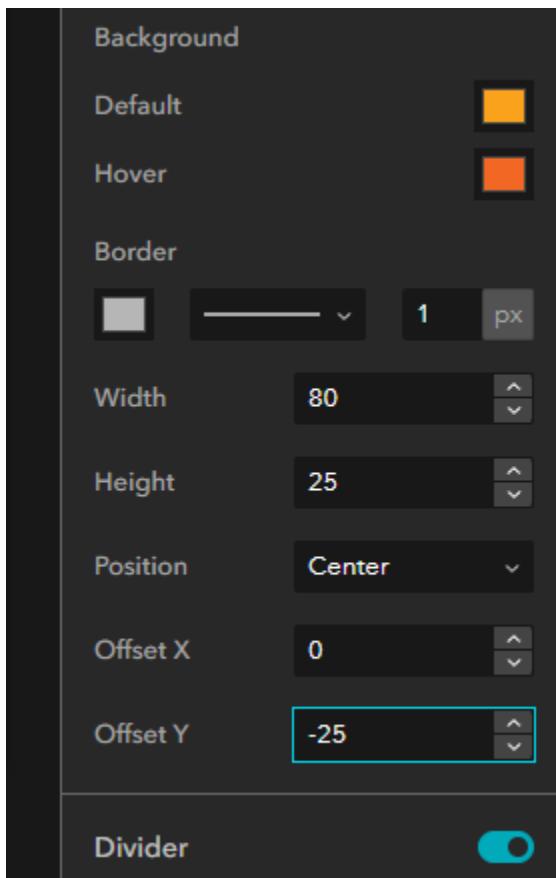
Change the Width and Height of the Collapse button.

Width = **80**

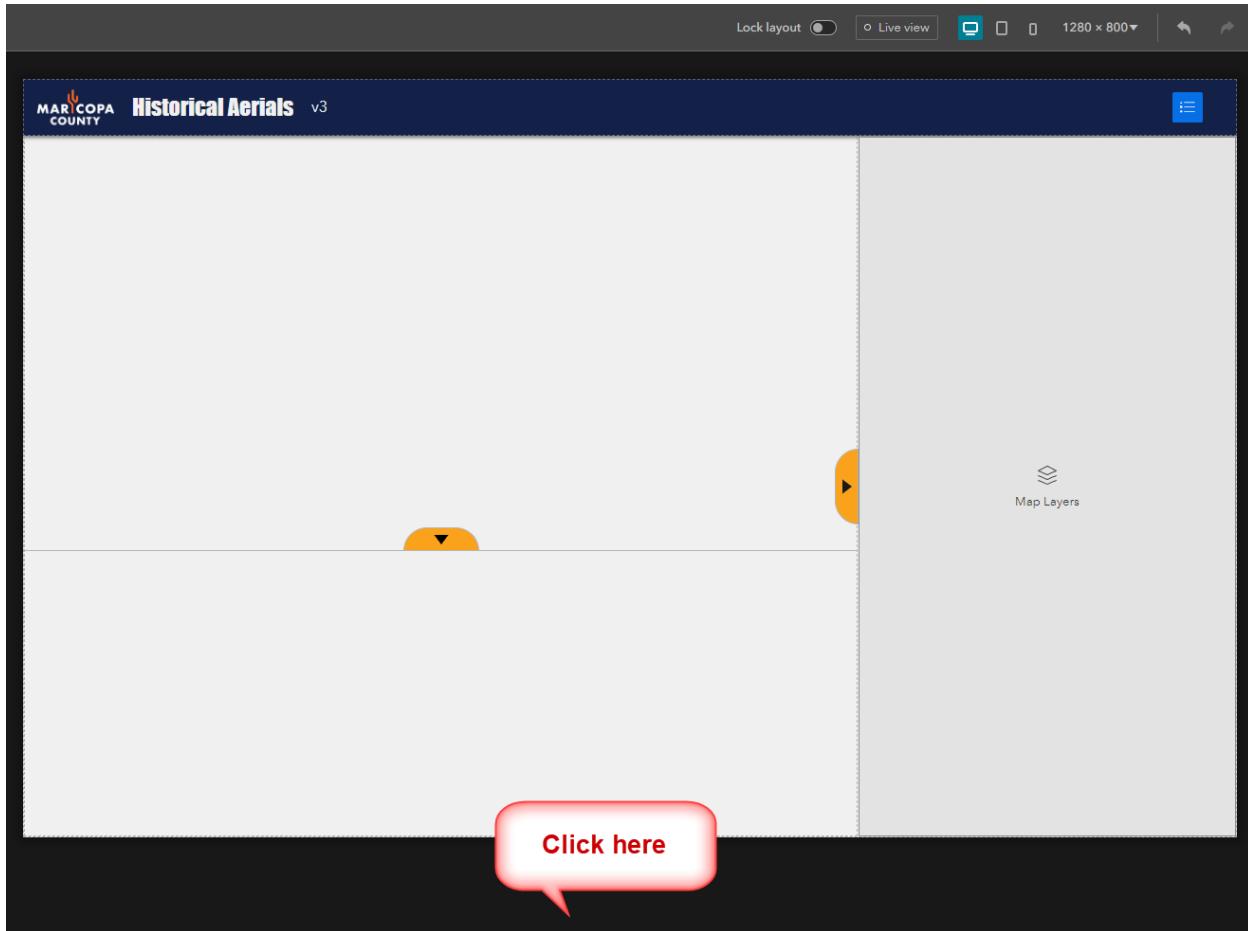
Height = **25**

Offset Y = **-25**

*The negative Offset Y must match the height.*



Click anywhere outside the Page.

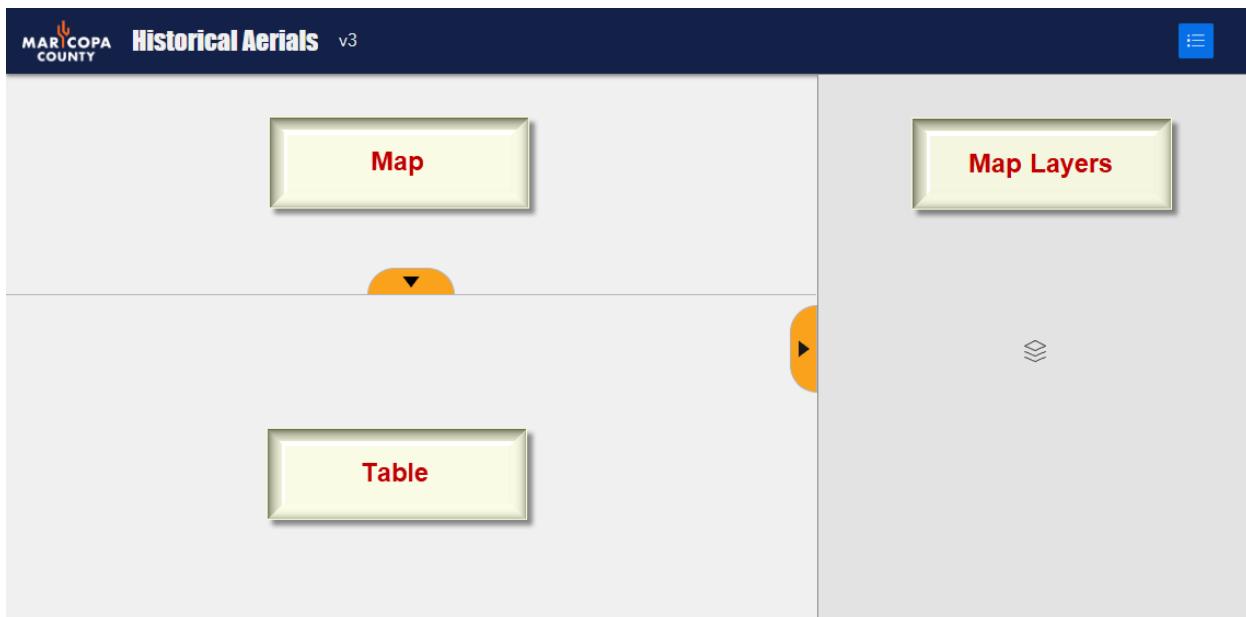
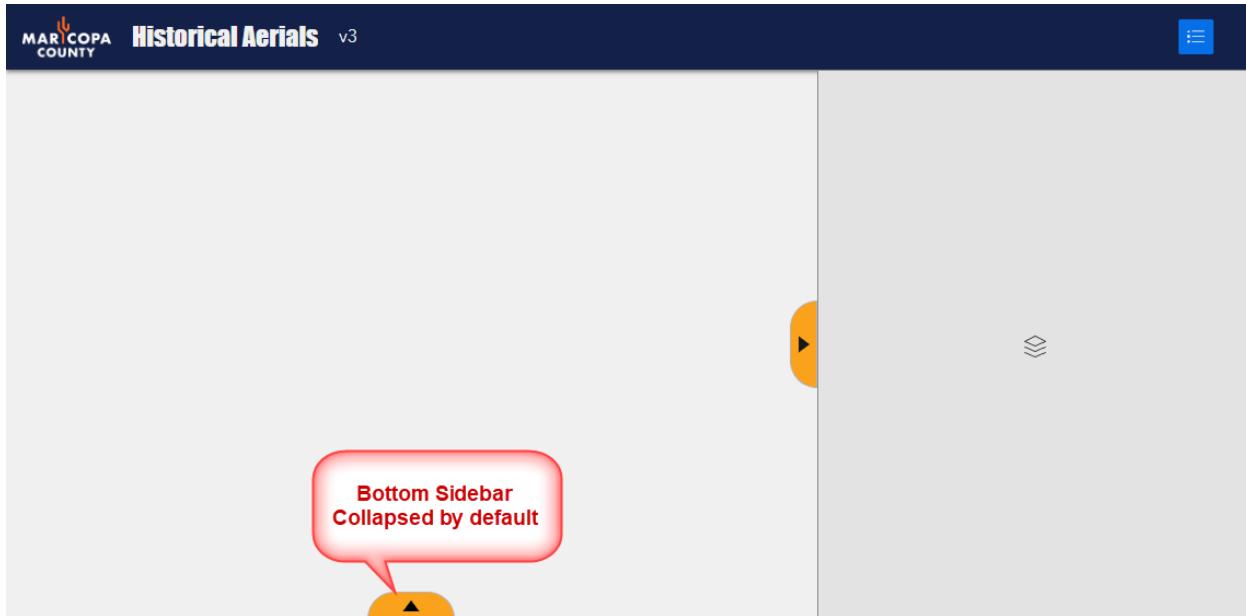


Save

Publish

## View Published Item

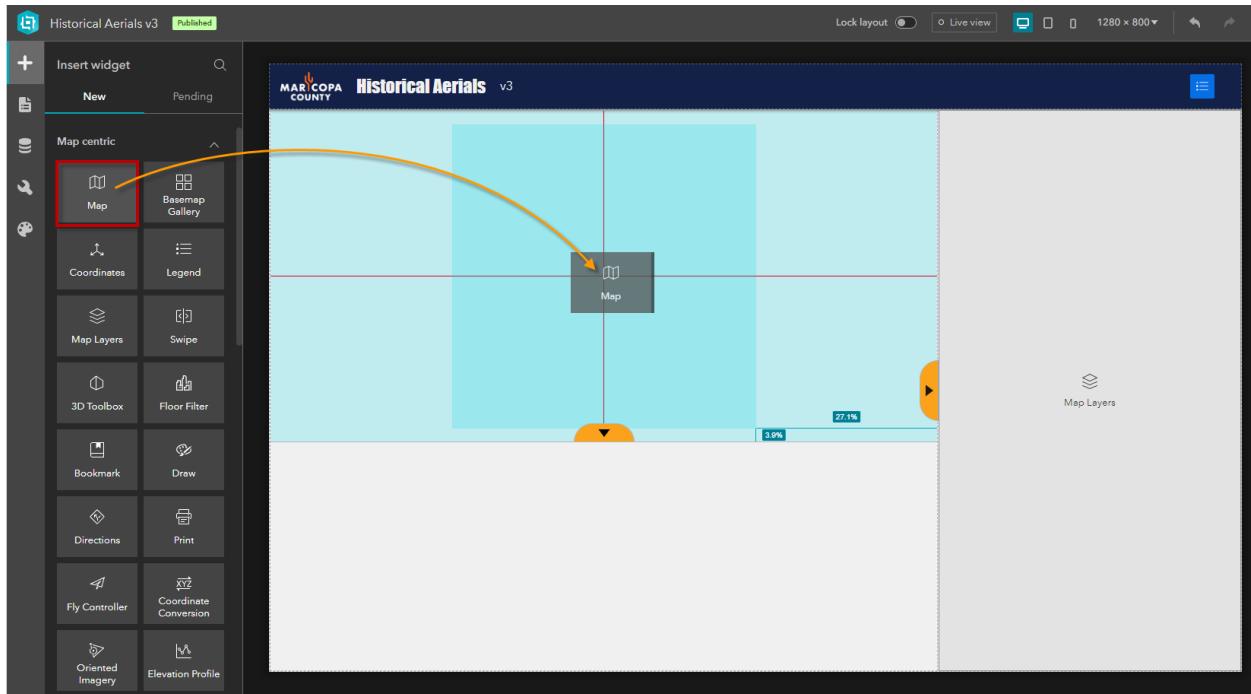
<https://localhost:3001/experience/2/>



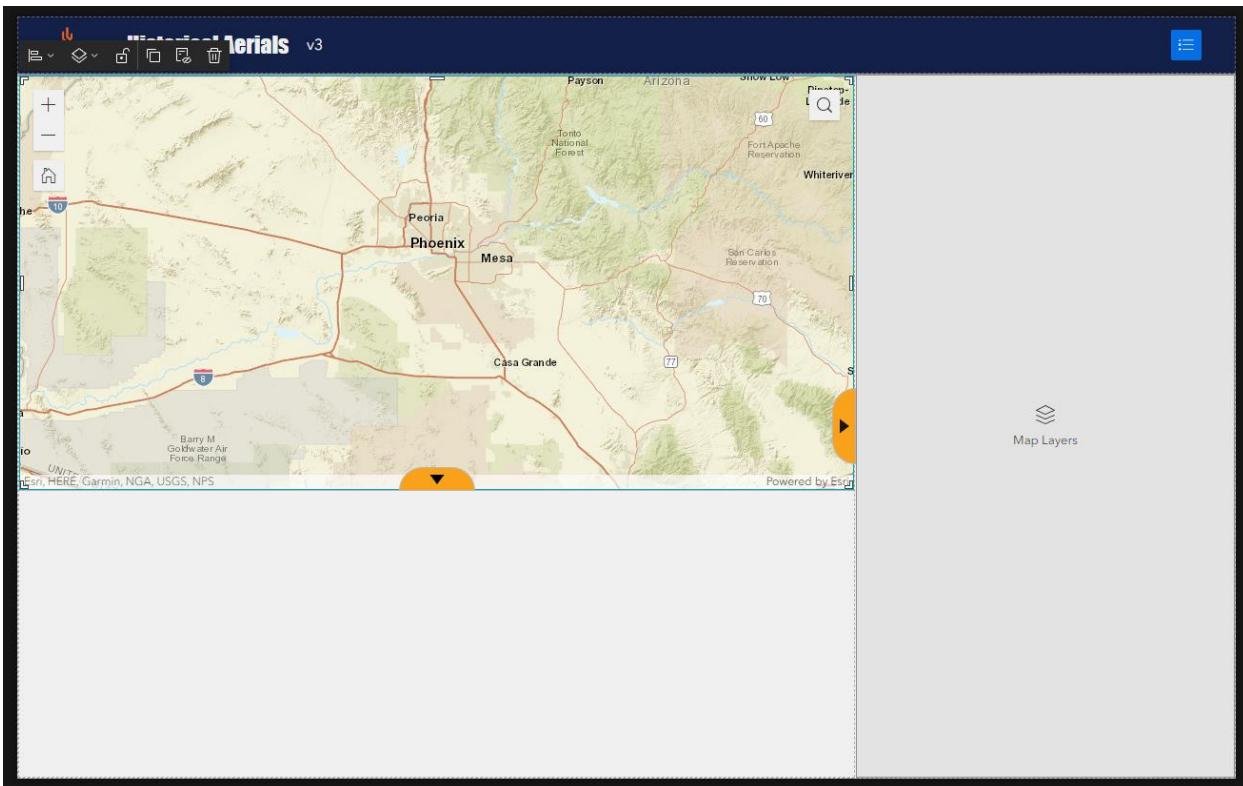
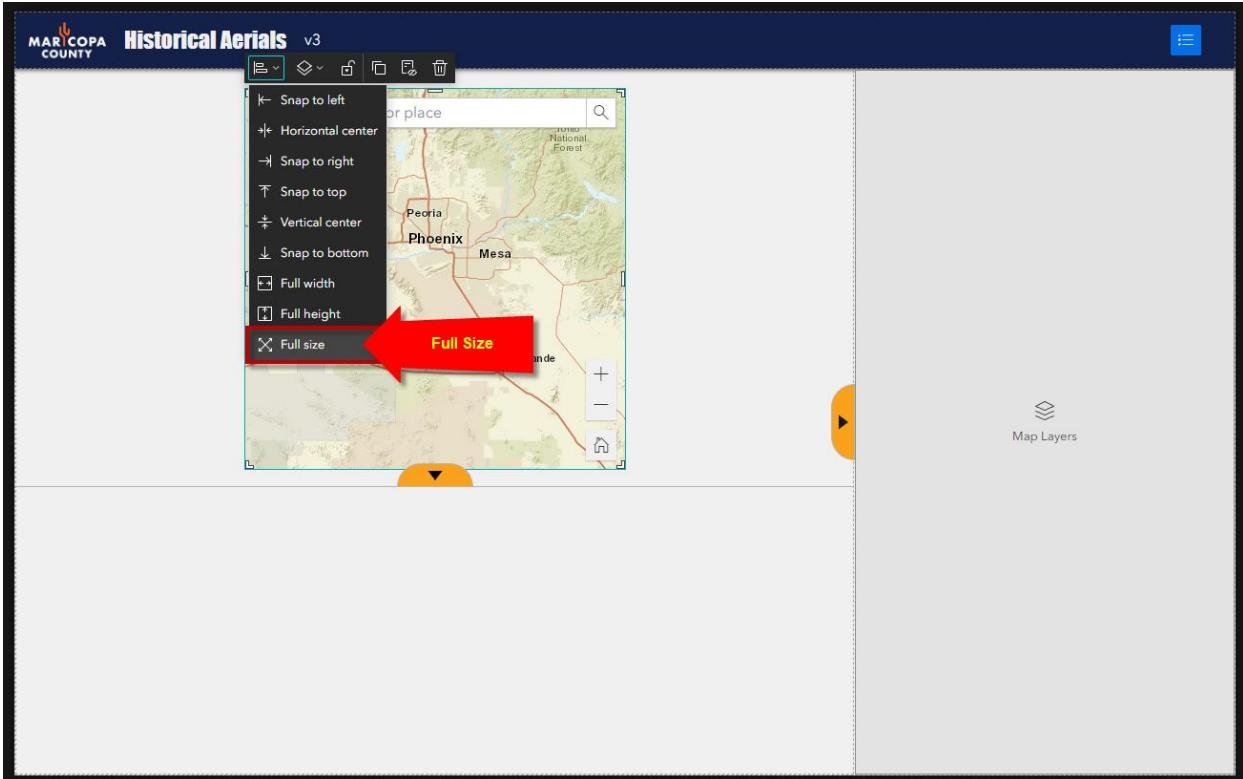
## Add the Map Widget

Open the Insert Tab.

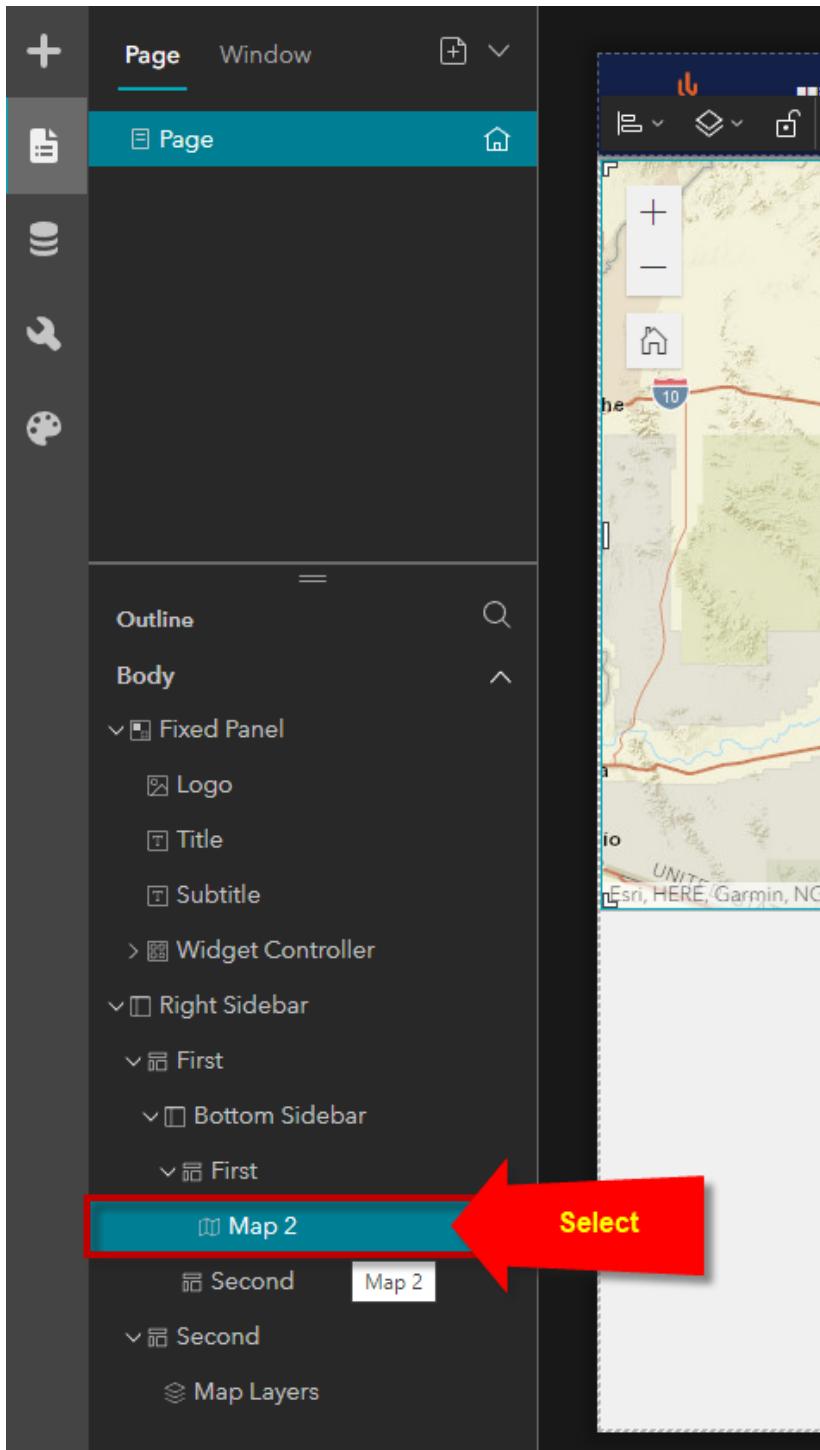
Drag the Map widget on the top left of the page as shown.



Align = Full Size



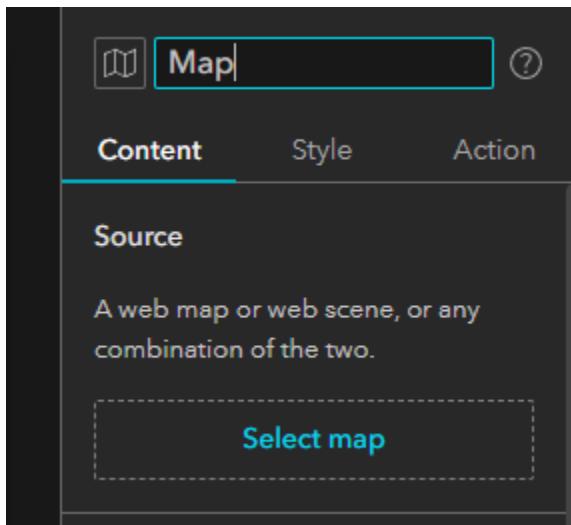
Select Map 2 from the Page Outline.



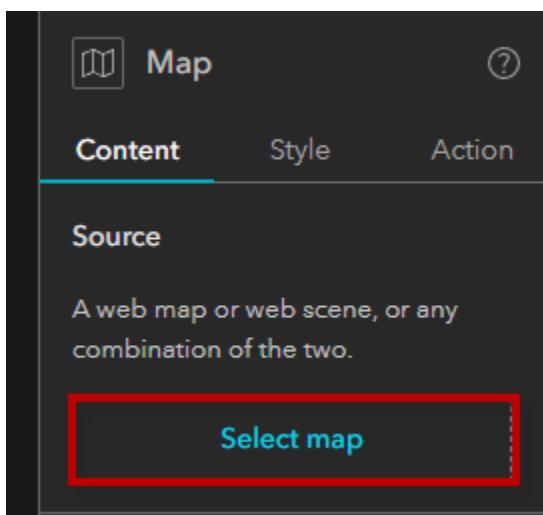
Map 2

Select

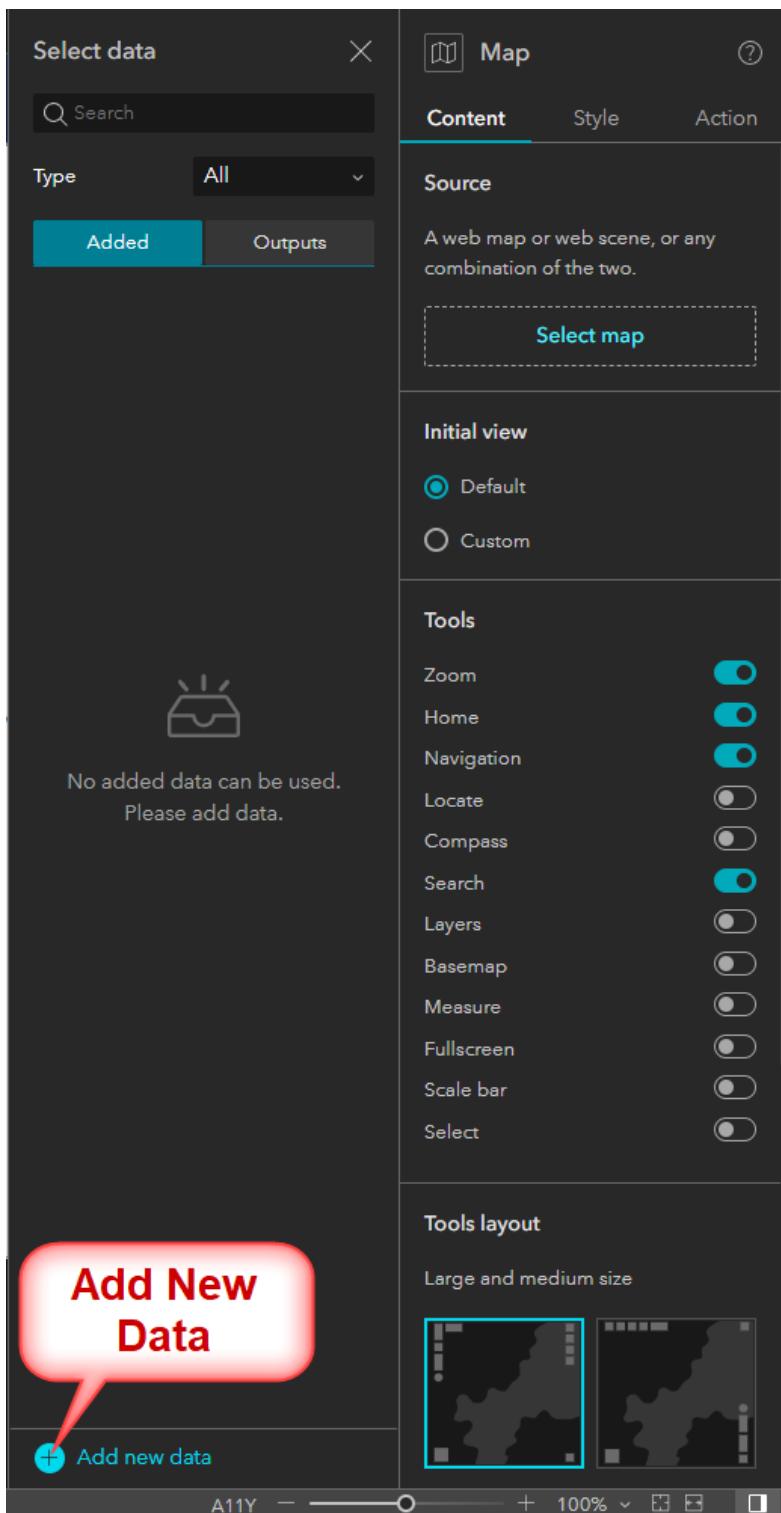
Rename the Map 2 widget = Map



Select Map



At the very bottom, select Add New Data

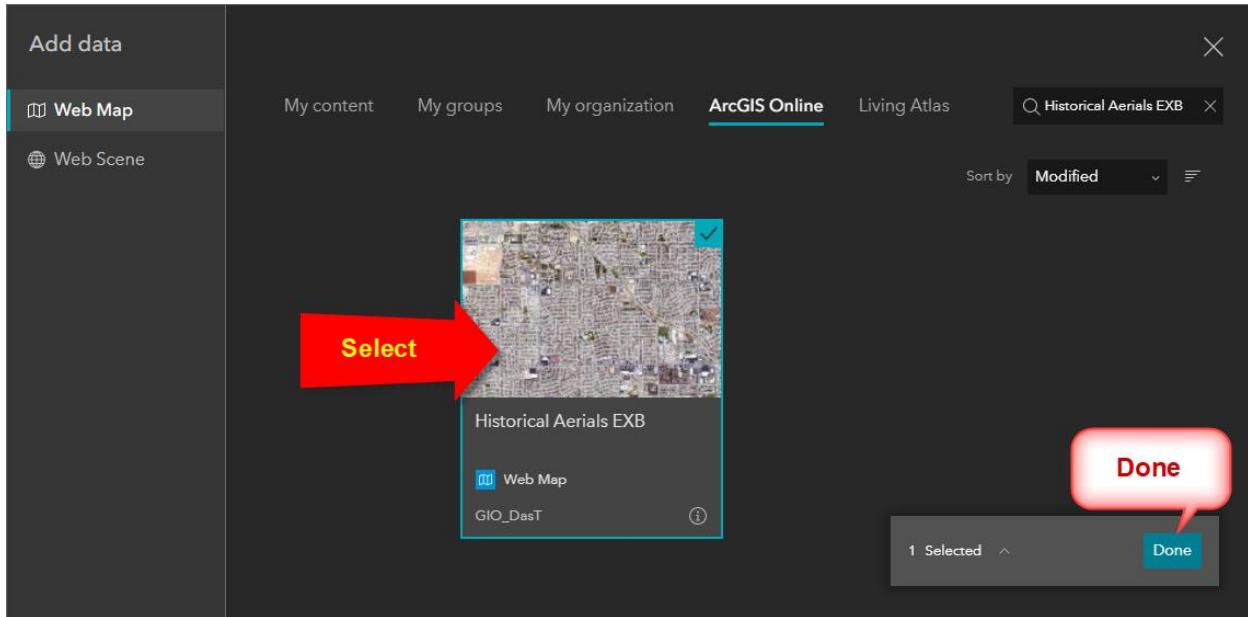


Open the ArcGIS Online Tab.

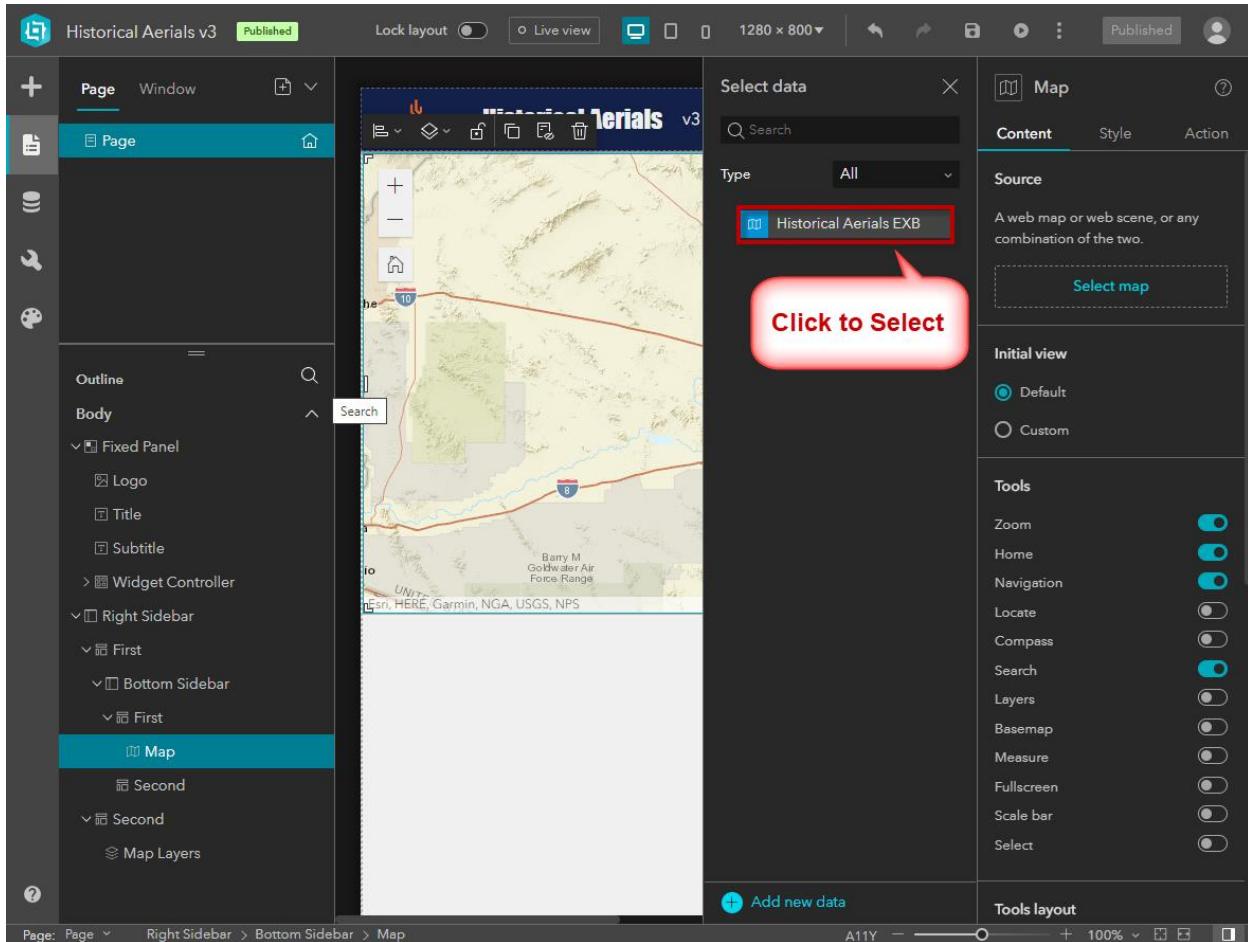
Enter **Historical Aerials EXB** in the Search Box.

Select this Web Map.

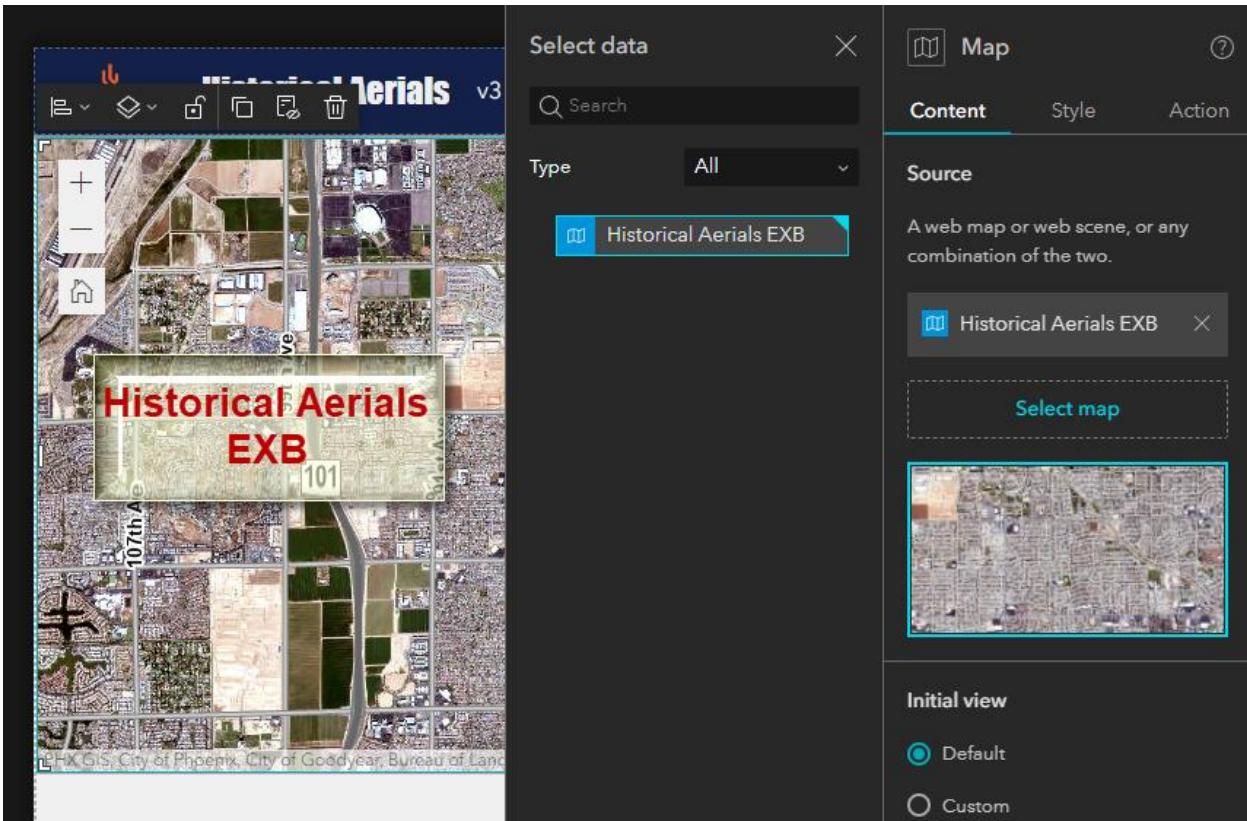
Press **Done**.



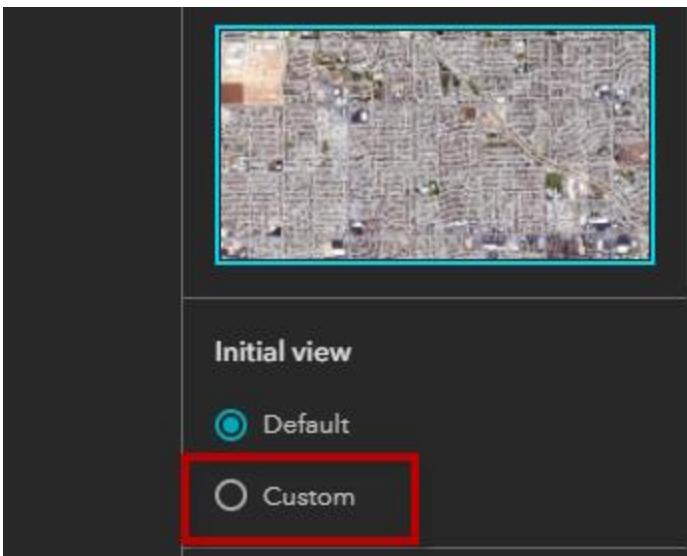
Click on **Historical Aerials EXB** to select this Web Map.



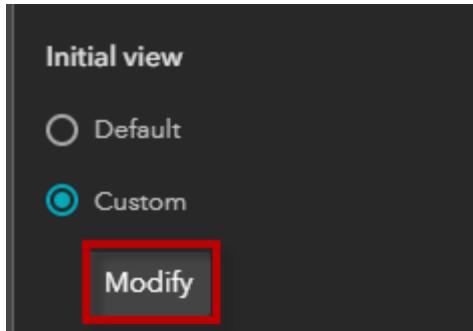
This is how the **Historical Aerials EXB** Web Map will appear.



Set a custom Initial View.



## Modify



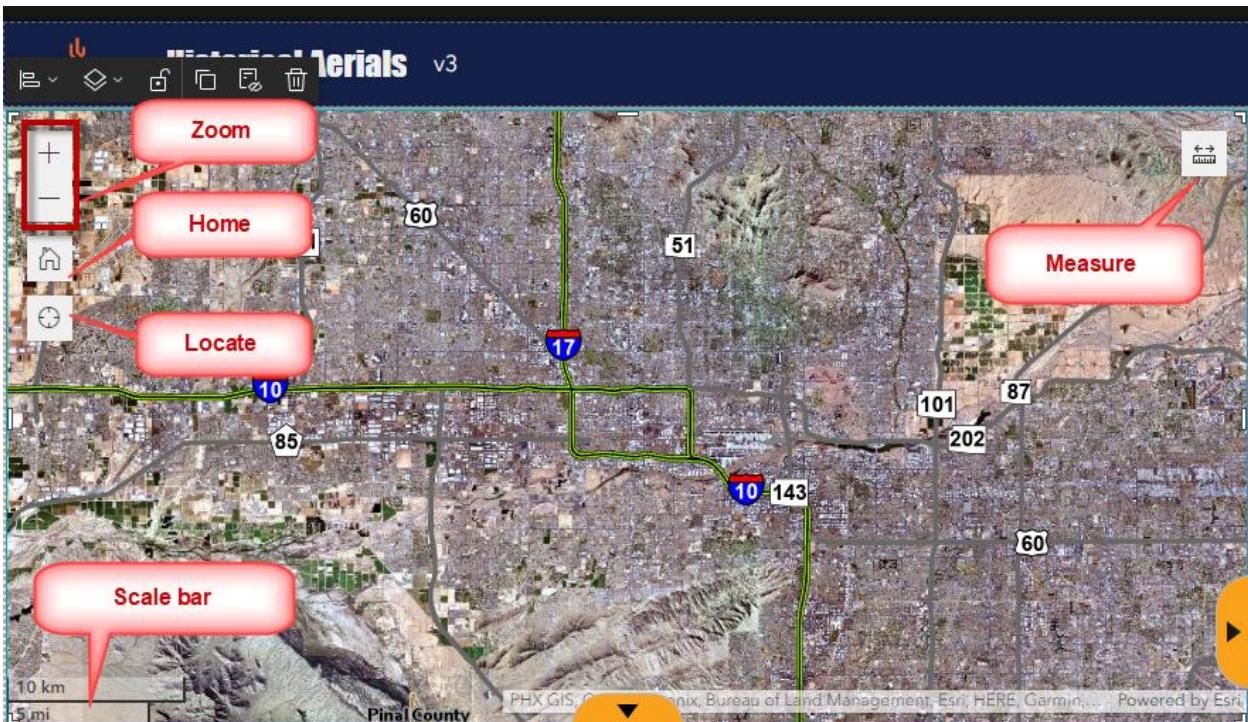
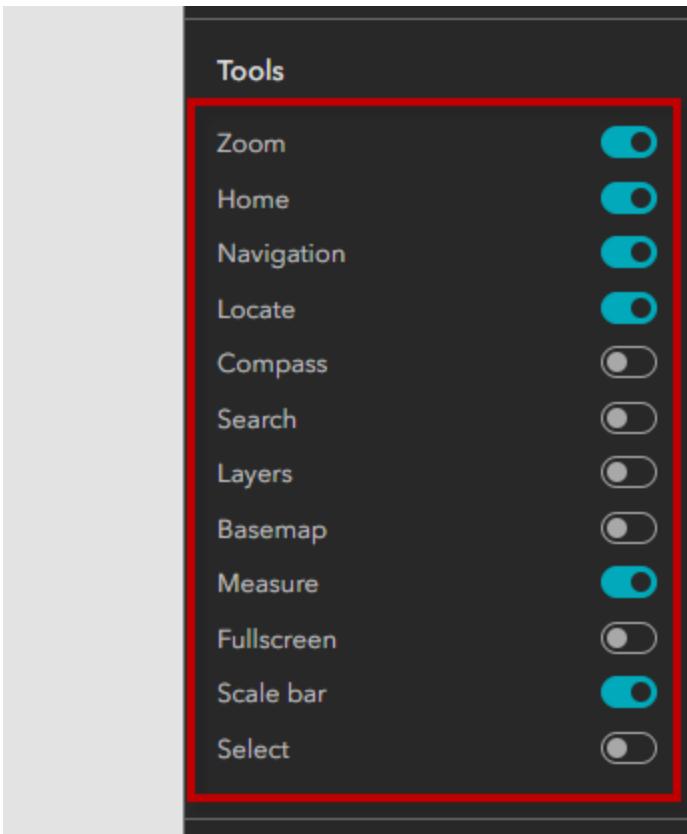
Modify Initial View.

Pan and zoom to set your initial extents.

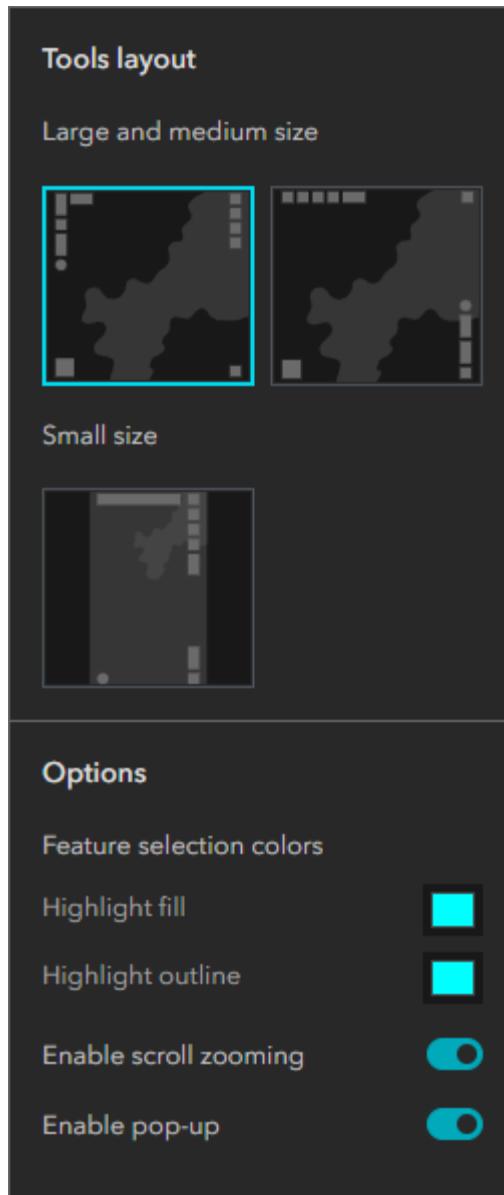


OK

Turn on these Map Tools.



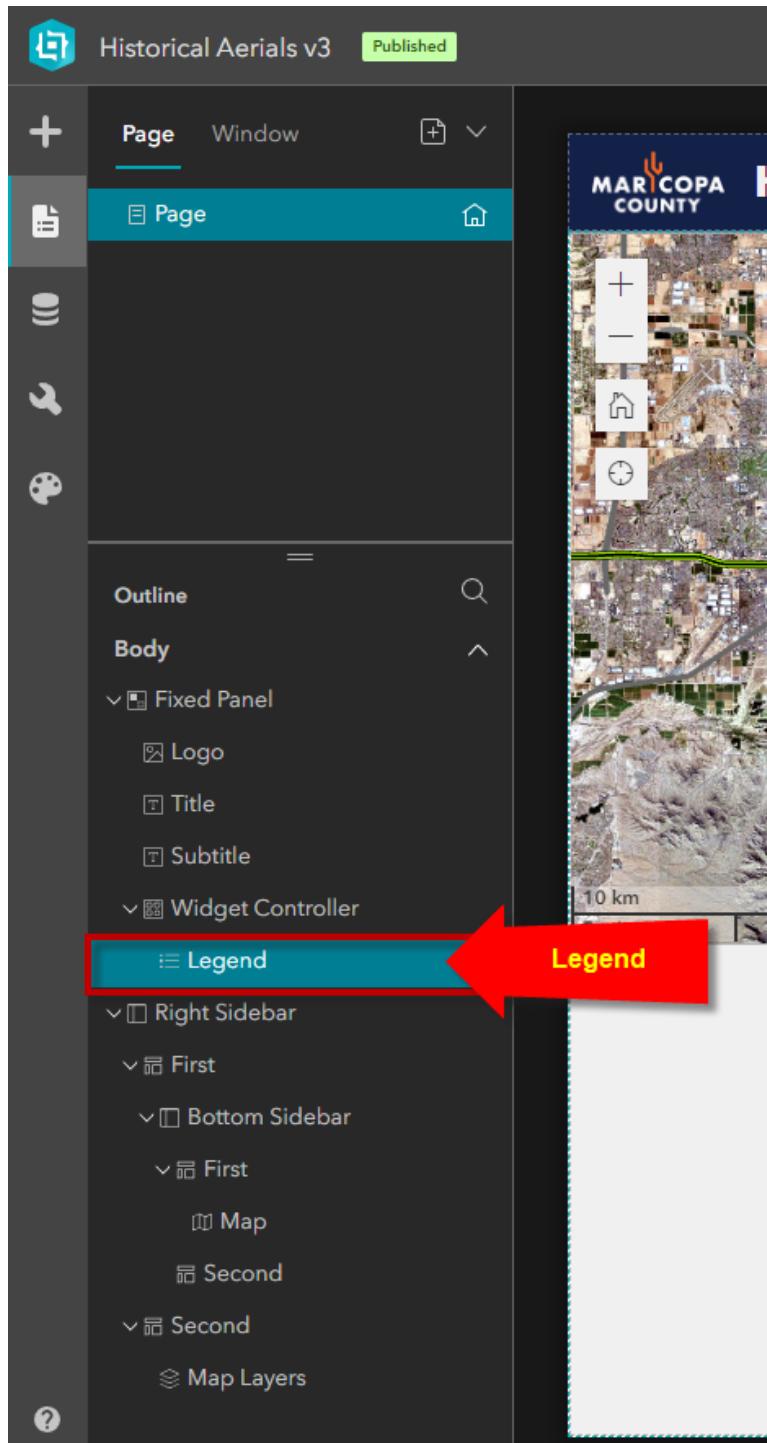
Tools Layout and Options.



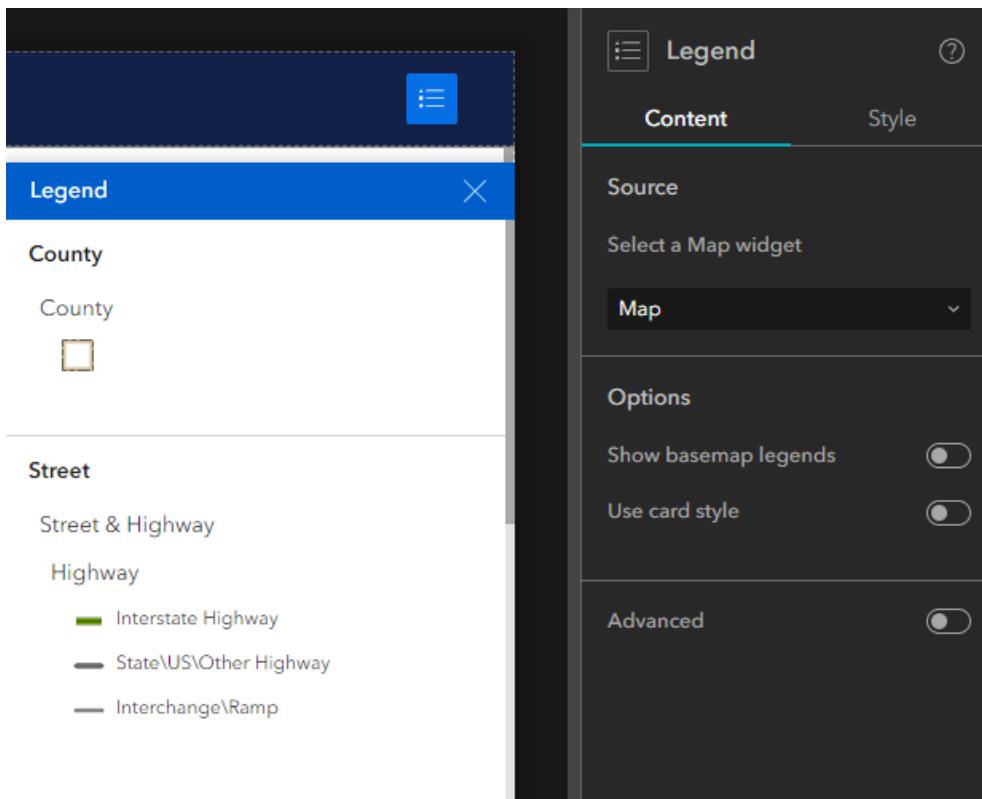
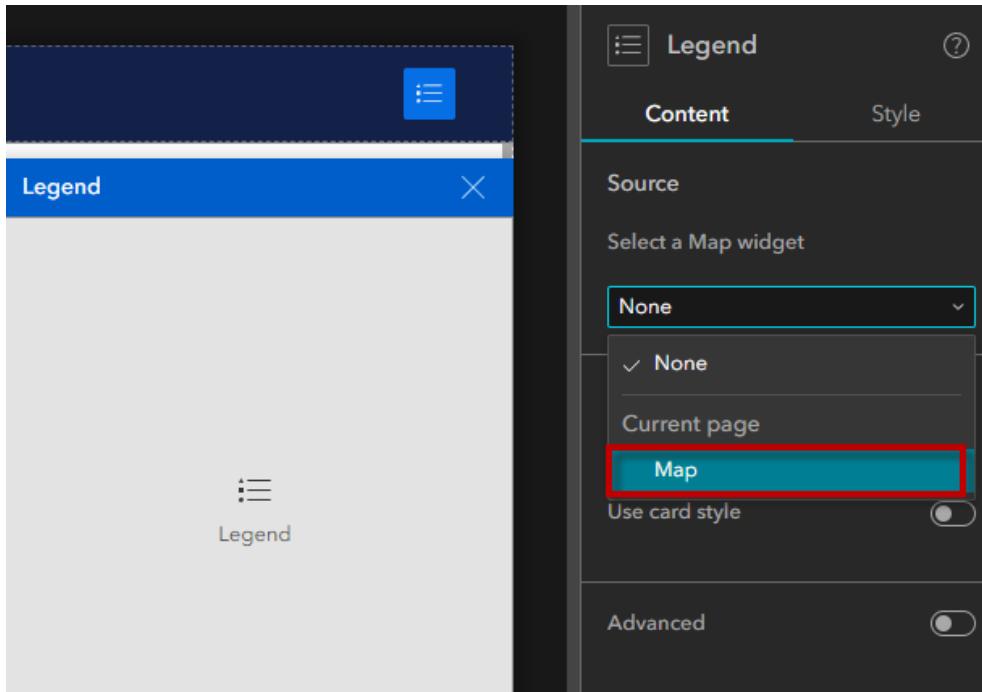
Keep the defaults.

## Configure the Legend Widget

Expand the Widget Controller in the Page Outline and select **Legend**.

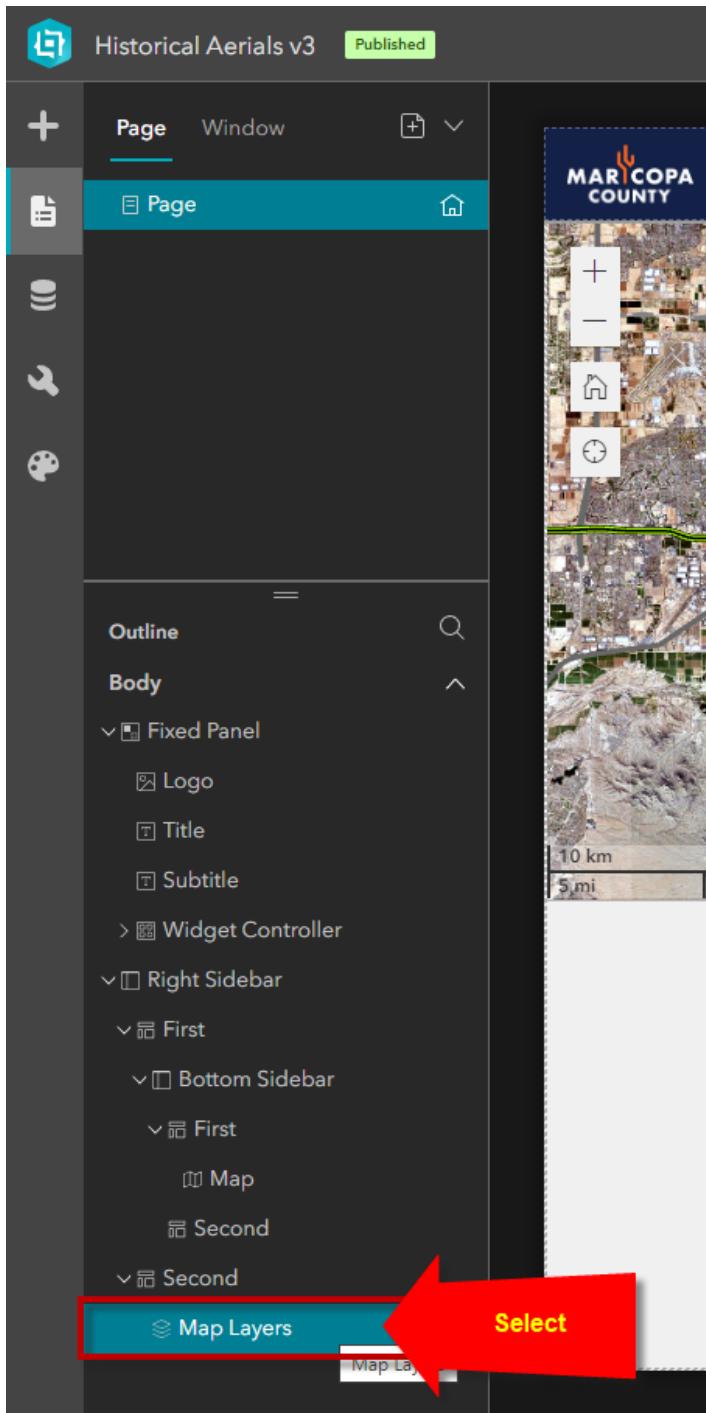


Select Source = Map

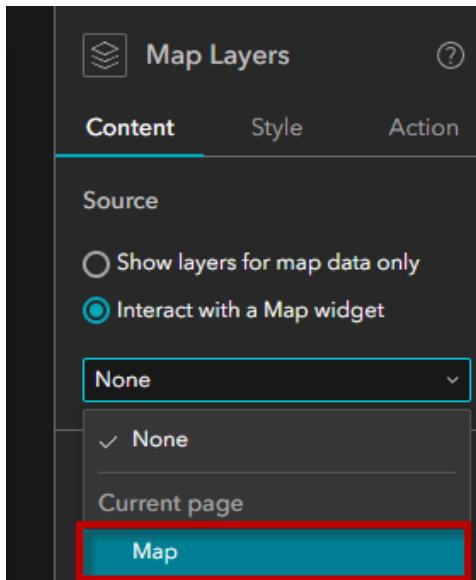


## Configure the Map Layers Widget

Select the Map Layers widget from the Page Outline.



Select Source = Map



Map Layers

Content Style Action

Source

Show layers for map data only

Interact with a Map widget

Map

Customize layers

Historical Aerials EXB

Options

Zoom to

Show or hide labels

Transparency

View layer details

Toggle layer visibility

Show legend

County

Terrain (NAVD88)

Parcel (Current)

Zip Code

City

Township Range Section

Street

2022 Sep - 2022 Oct

2021 Sep - 2021 Nov

2020 Oct - 2020 Nov

2019 Sep - 2019 Dec

2018 Sep - 2018 Dec

2017 Sep - 2017 Nov

2016 Sep - 2016 Dec

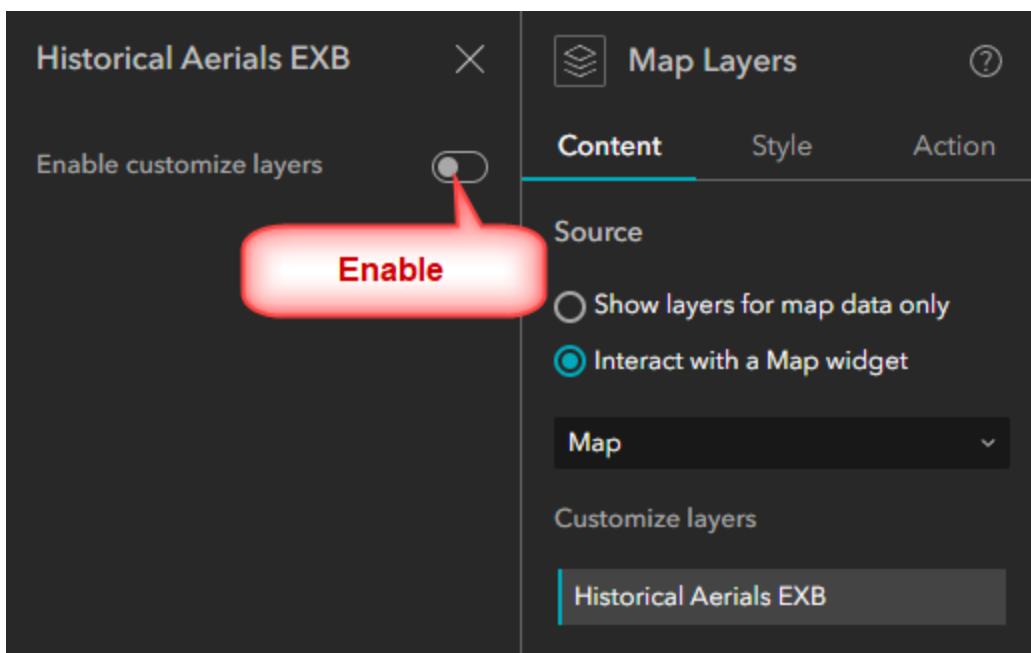
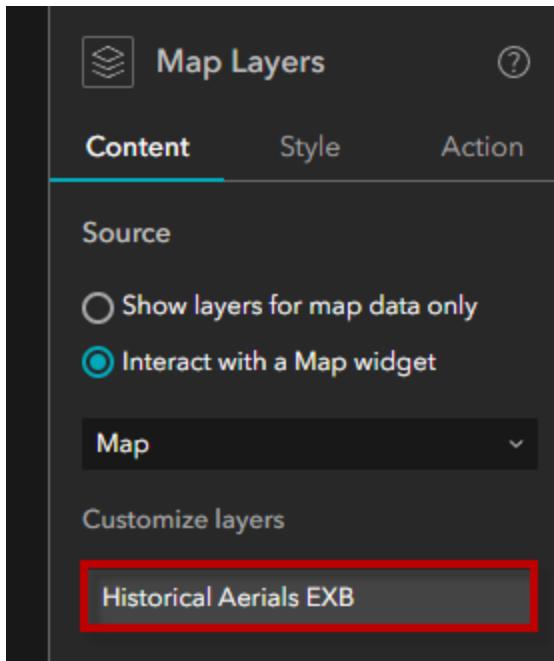
Enable these Options.

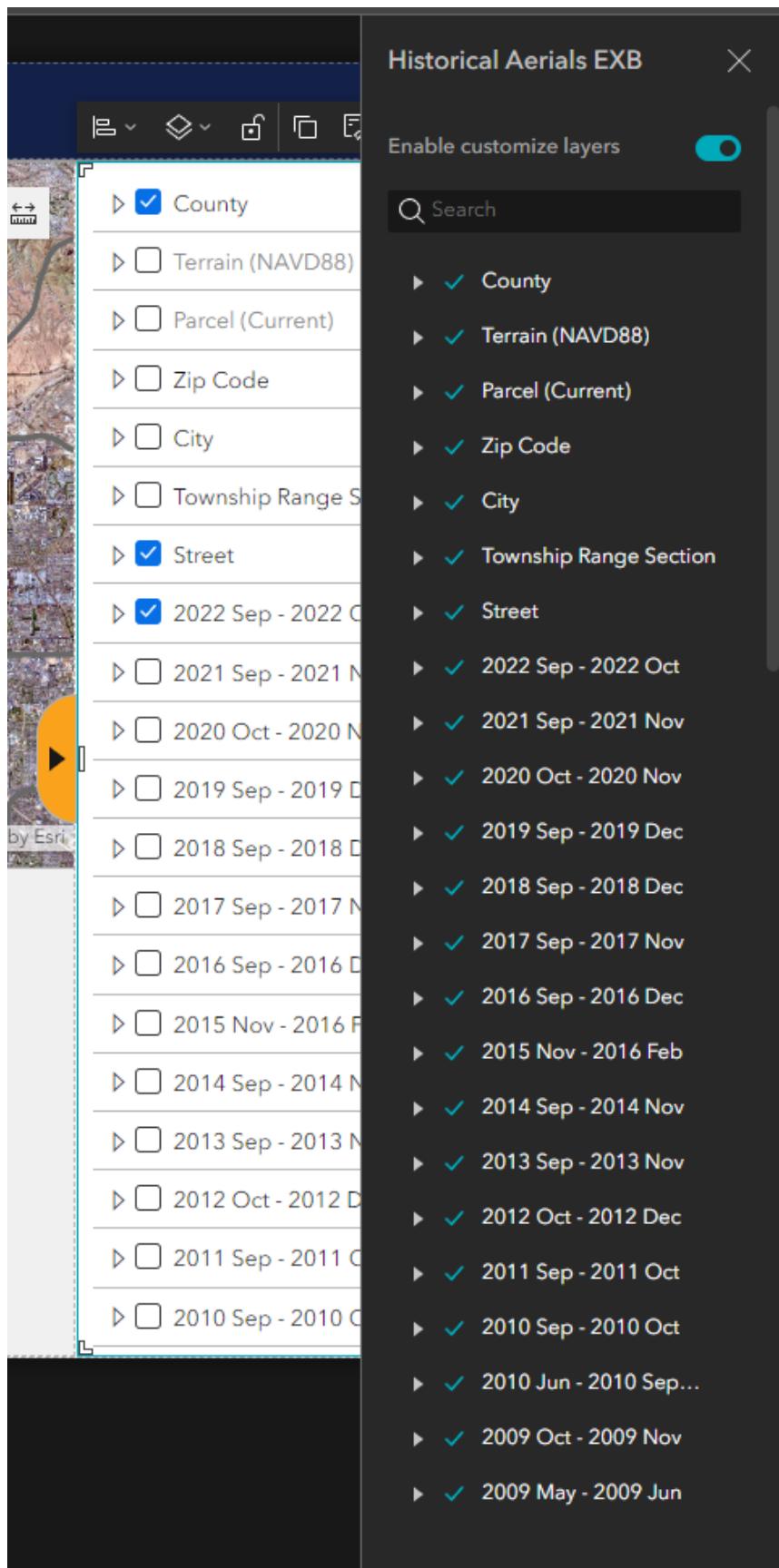
The screenshot shows the ArcGIS interface with the following components:

- Map Layers Panel:** On the left, it lists historical aerial layers from 2010 to 2022. Layers for "County", "Street", and "2022 Sep - 2022 Oct" are checked. Other layers like "Terrain (NAVD88)" and "Parcel (Current)" are unchecked.
- Map Layers Panel (Content Tab):** Shows the "Source" section with two options:
  - Show layers for map data only
  - Interact with a Map widgetIt also includes a "Map" dropdown set to "Historical Aerials EXB".
- Options Panel:** On the right, a red box highlights the following settings:
  - Zoom to:
  - Show or hide labels:
  - Transparency:
  - View layer details:
  - Toggle layer visibility:
  - Use tick boxes
  - Show legend:
  - Show legend for all visible layers by default

It is possible to customize this Layer List.

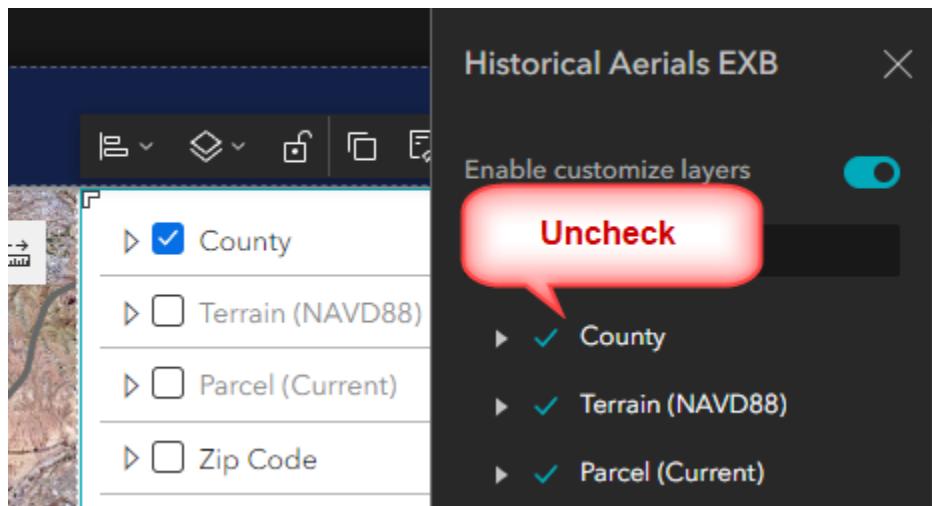
Select Historical Aerials EXB



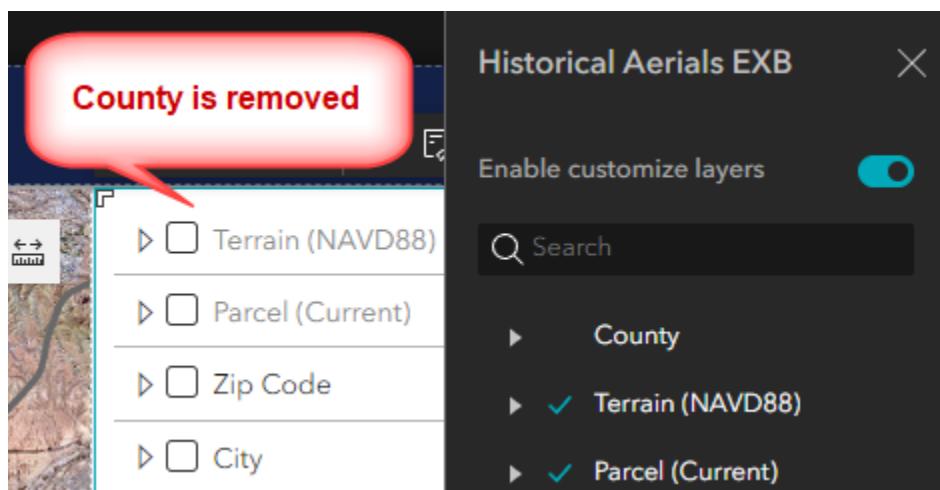


Let's say you do not want the County Layer to appear on the Layer List.

Uncheck the County Layer.

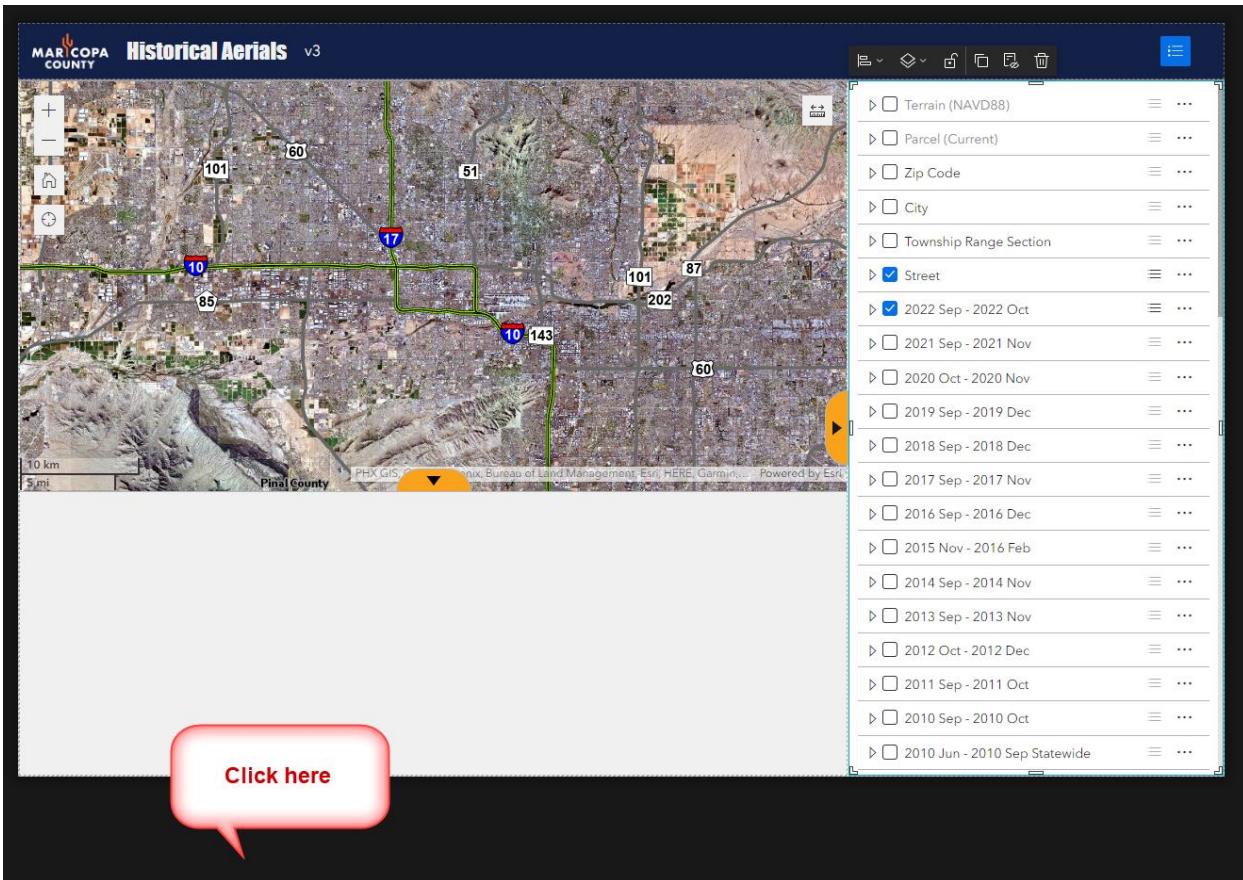


The County Layer is removed from the Layer List.



Check the County Layer to make it reappear.

Click anywhere outside the Page.

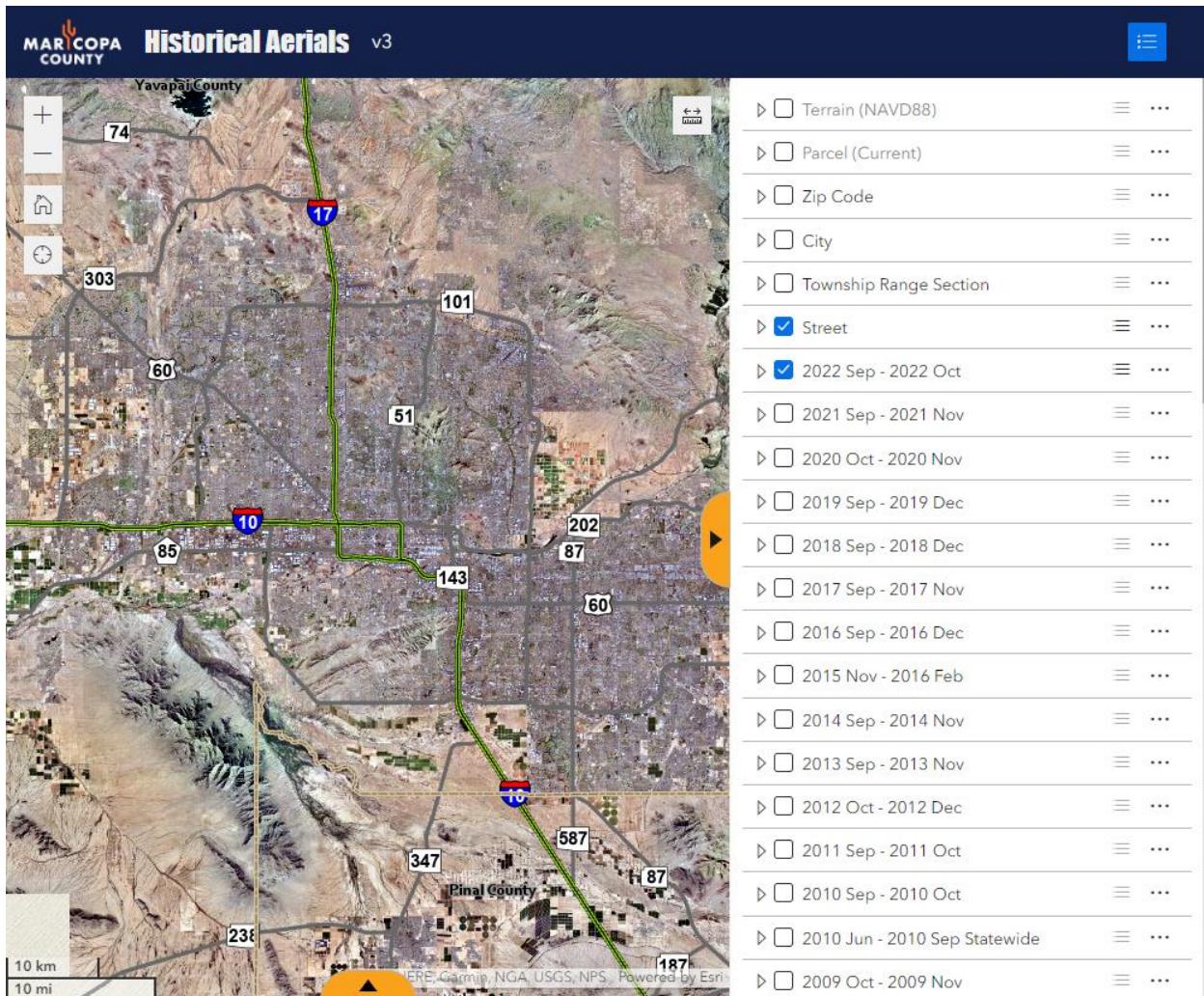


Save

Publish

Preview published item.

<https://localhost:3001/experience/2/>



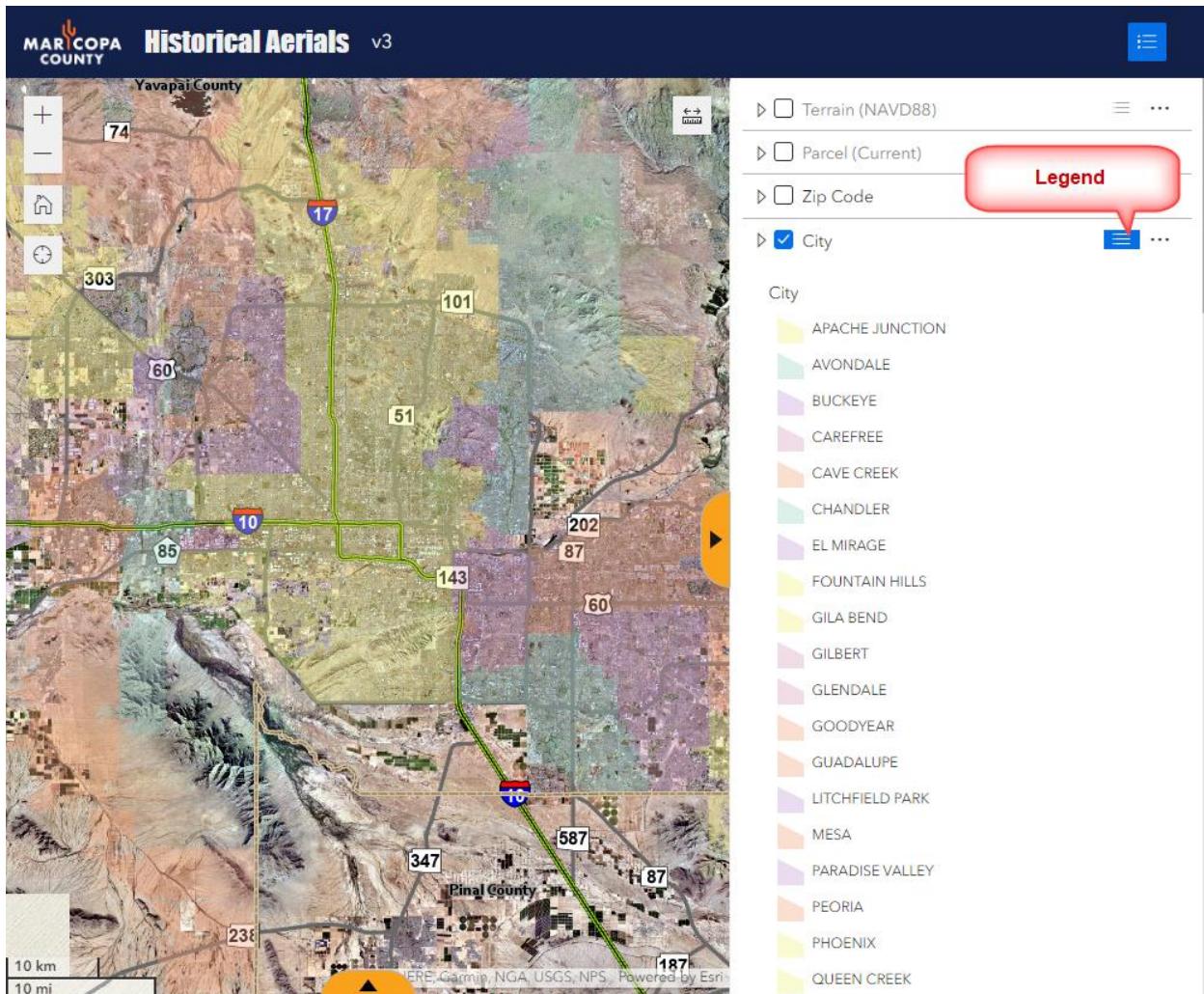
Turn on the City Layer.

The screenshot shows a historical aerial map of the Phoenix area in Maricopa County, Arizona. The map includes satellite imagery, roads, and various administrative boundaries. A red arrow points to the 'City' layer in the legend on the right side of the screen. The legend also lists other layers such as Terrain (NAVD88), Parcel (Current), Zip Code, Street, and numerous time periods from 2009 to 2022.

Legend:

- Terrain (NAVD88)
- Parcel (Current)
- Zip Code
- City
- Township Range Section
- Street
- 2022 Sep - 2022 Oct
- 2021 Sep - 2021 Nov
- 2020 Oct - 2020 Nov
- 2019 Sep - 2019 Dec
- 2018 Sep - 2018 Dec
- 2017 Sep - 2017 Nov
- 2016 Sep - 2016 Dec
- 2015 Nov - 2016 Feb
- 2014 Sep - 2014 Nov
- 2013 Sep - 2013 Nov
- 2012 Oct - 2012 Dec
- 2011 Sep - 2011 Oct
- 2010 Sep - 2010 Oct
- 2010 Jun - 2010 Sep Statewide
- 2009 Oct - 2009 Nov

Expand the **Legend Icon** next to the City Layer.



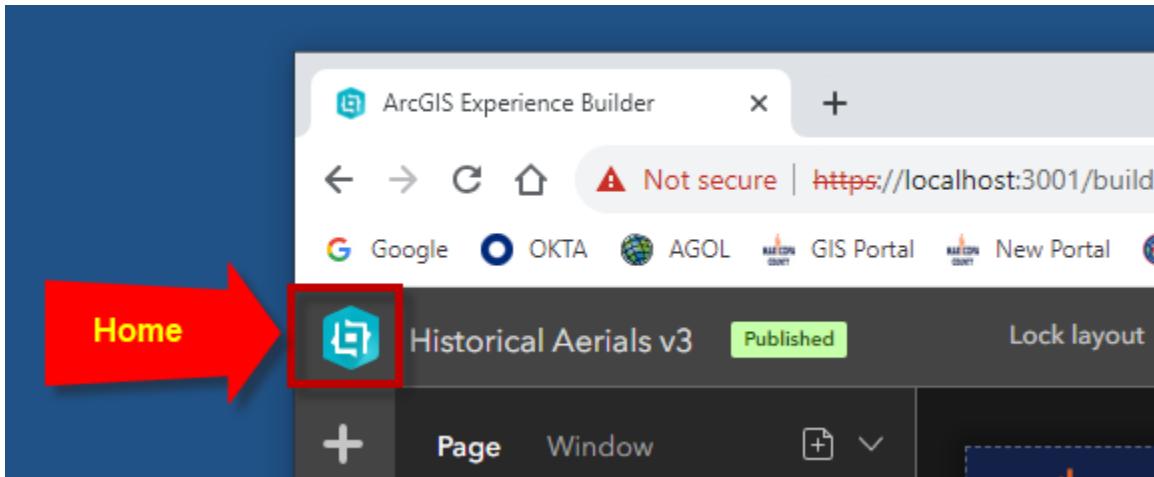
*Congratulations for making it this far!!*

It is all downhill from here. All you need to do is add a few more widgets to complete your Web App.

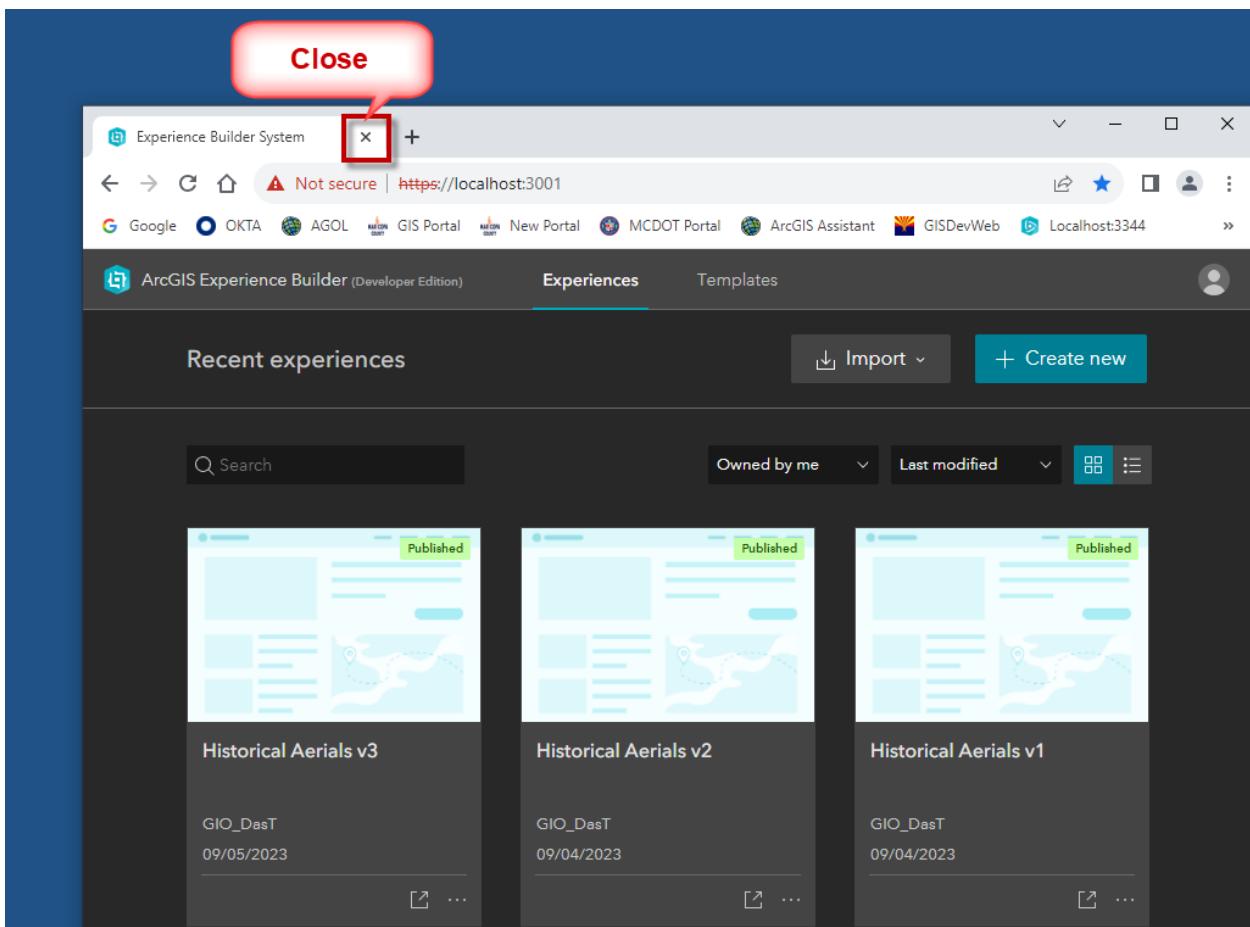
It is time to take a break.

You will be closing this session and starting up a new one.

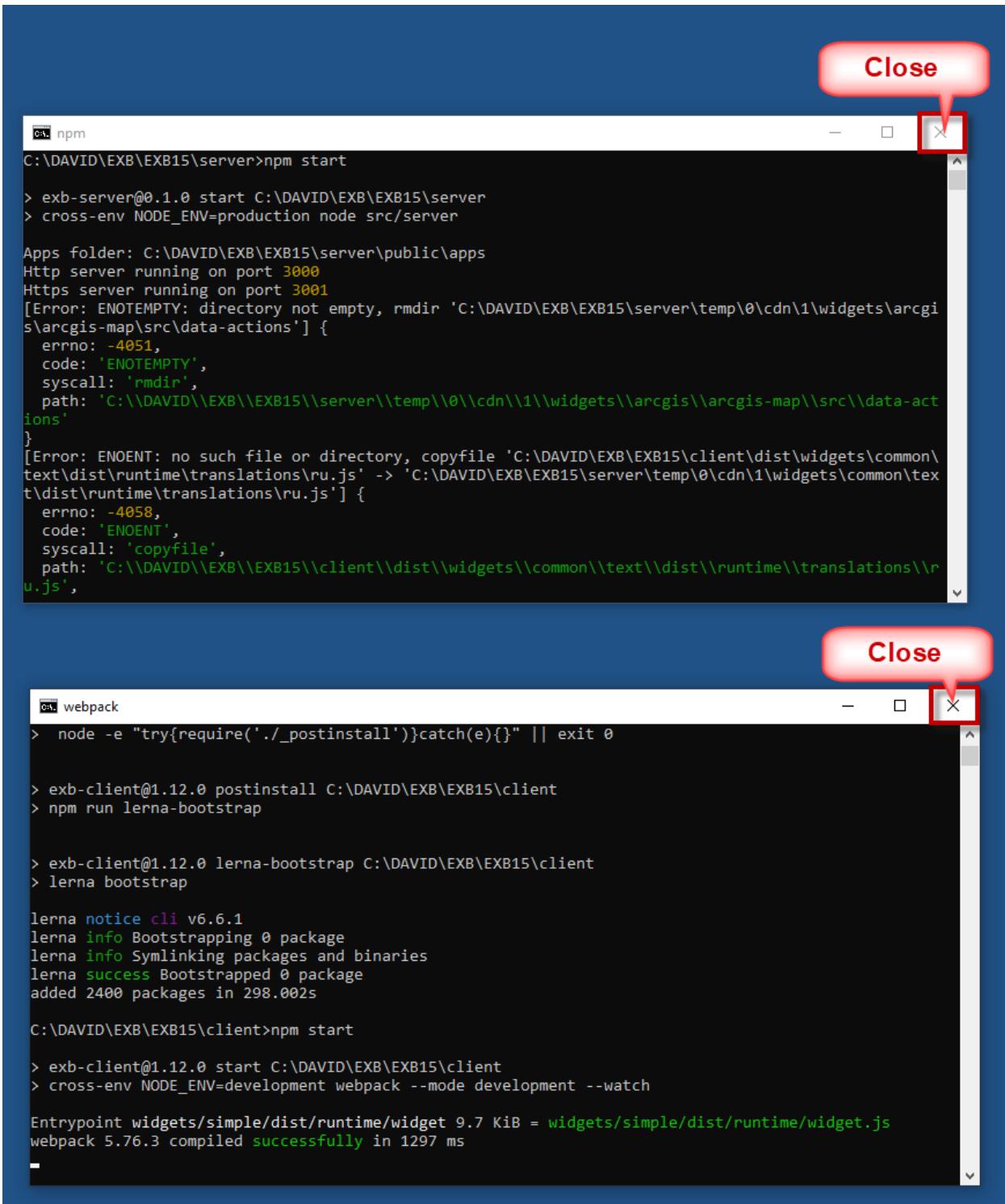
Go back to the Experience Builder Home Page.



Close the Experience Builder System Tab.



Close the npm Server and npm Client Command Windows.



```
C:\DAVID\EXB\EXB15\server>npm start
> exb-server@0.1.0 start C:\DAVID\EXB\EXB15\server
> cross-env NODE_ENV=production node src/server

Apps Folder: C:\DAVID\EXB\EXB15\server\public\apps
Http server running on port 3000
Https server running on port 3001
[Error: ENOTEMPTY: directory not empty, rmdir 'C:\DAVID\EXB\EXB15\server\temp\0\cdn\1\widgets\arcgis-map\src\data-actions'] {
  errno: -4051,
  code: 'ENOTEMPTY',
  syscall: 'rmdir',
  path: 'C:\\DAVID\\EXB\\EXB15\\server\\temp\\0\\cdn\\1\\widgets\\arcgis\\arcgis-map\\src\\data-actions'
}
[Error: ENOENT: no such file or directory, copyfile 'C:\DAVID\EXB\EXB15\client\dist\widgets\common\text\dist\runtime\translations\ru.js' -> 'C:\DAVID\EXB\EXB15\server\temp\0\cdn\1\widgets\common\text\dist\runtime\translations\ru.js'] {
  errno: -4058,
  code: 'ENOENT',
  syscall: 'copyfile',
  path: 'C:\\DAVID\\EXB\\EXB15\\client\\dist\\widgets\\common\\text\\dist\\runtime\\translations\\ru.js',
}

C:\DAVID\EXB\EXB15\client>node -e "try{require('./_postinstall')}{catch(e){}}" || exit 0
> exb-client@1.12.0 postinstall C:\DAVID\EXB\EXB15\client
> npm run lerna-bootstrap

> exb-client@1.12.0 lerna-bootstrap C:\DAVID\EXB\EXB15\client
> lerna bootstrap

lerna notice cli v6.6.1
lerna info Bootstrapping 0 package
lerna info Symlinking packages and binaries
lerna success Bootstrapped 0 package
added 2400 packages in 298.002s

C:\DAVID\EXB\EXB15\client>npm start
> exb-client@1.12.0 start C:\DAVID\EXB\EXB15\client
> cross-env NODE_ENV=development webpack --mode development --watch

Entrypoint widgets/simple/dist/runtime/widget 9.7 KiB = widgets/simple/dist/runtime/widget.js
webpack 5.76.3 compiled successfully in 1297 ms
```

This concludes **Part-1** of the Experience Builder Developer Edition 1.12 Tutorial.