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Build Your First Experience Builder App!
June 1st, 2023

Overview
Esri has announced that the Web AppBuilder will be deprecated by 2025 (ArcGIS Web AppBuilder Roadmap for Retirement). Experience Builder is the future of creating web applications in the Esri sphere. It features a different user interface and can be overwhelming at first glance. This training will take you through creating your first web app using Experience Builder.

Goal
Create a simple Experience Builder app that contains a map, a table, and a filter.

Finished Product
Arapahoe County Parcel Land Use Identifier

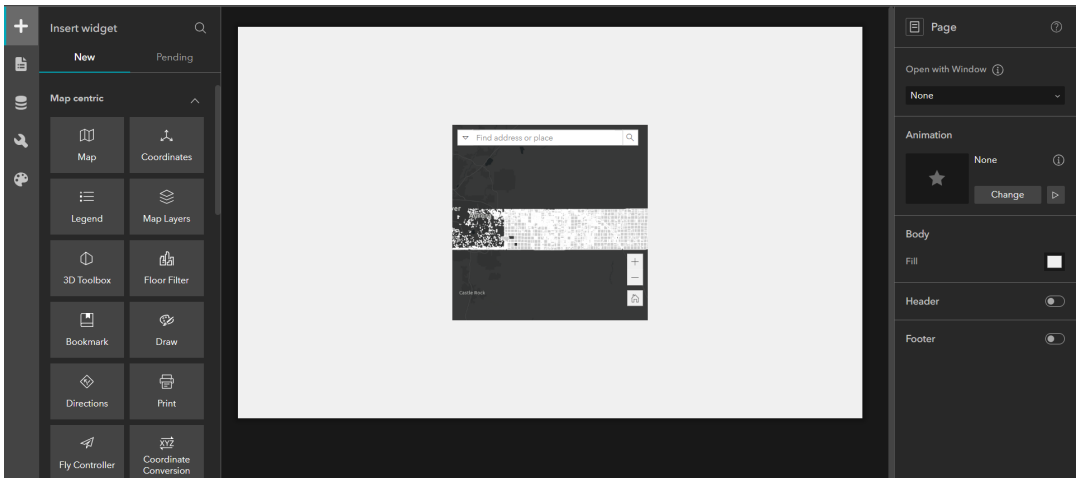
Recording found here!

1. Open this web map of Arapahoe County parcels
2. From the menu on the right, choose 'Create Web App' and choose Experience Builder

This will open the Experience Builder platform and display templates that you can choose to create an app with. As Web AppBuilder is phased out, apps will need to be moved to Experience Builder. If you spend some time looking through these templates, you will notice that many of them have the same name and layout as the standard Web AppBuilder layouts that you are likely familiar with.

3. For the purposes of this tutorial, choose 'Blank Template' and hit 'Create'. It should be the first option.

The web map will show up as a window in the blank app template like this:



4. Before we start configuring the app, delete 'Untitled Experience 1' at the top and give your app a name

   For example, 'Arapahoe County Parcel Land Use Identifier'

5. Lets add a header before formatting the other widgets

   On the right side of the screen, you'll see the settings panel for the page. The page refers to the blank app in this case. You can change the name of the page at the top of this panel – this is a good practice to get in as you begin creating more advanced apps with multiple of the same item.

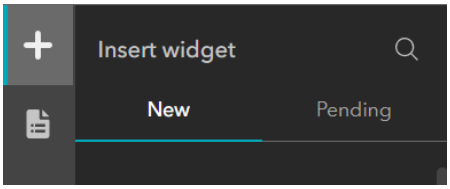
   Toggle on the 'Header' option. Change the height to 60 px and choose a color you like.

6. If you hover over the header, you will see a blue button that says 'Edit Header'. Click this so that we can add a title to our app. Unlike Web AppBuilder, your Experience Builder app will not automatically inherit the name of your app that you created earlier.

7. The Header will expand and you will see a gray icon and a message that says 'Or Drag Widget here'. If you hover over the gray icon, you will see some templates for headers.

   Today, we will just be adding 1 text box so we will simply drag the text widget into the header.

8. Locate the gray plus button on the left side of your screen and click it. This will open the 'Insert Widget' panel. This is where you will drag widgets from into your app.

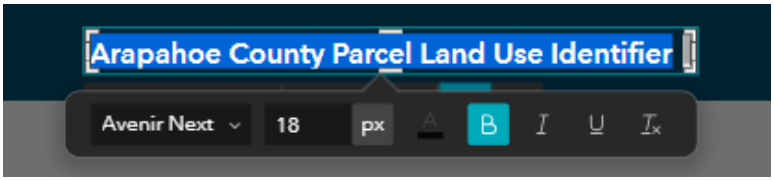


   Locate the 'Text' widget under the category 'Page Elements'. Drag the widget into the header.

9. Double click to edit the text. Name your app 'Arapahoe County Parcel Land Use Identifier'

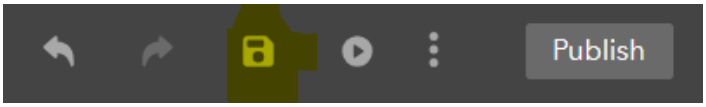
10. Highlight the text. A black box with text editing options including font, size, and color should appear under the text. Change the text to the following format and change the color to contrast the color of your header.

    Options for editing the text format can also be found in the text widget configuration panel, under the 'Content' tab, on the right when you have the text widget selected.



11. To make your title look really clean and centered, resize the text box and drag it until it is centered in your header. Red lines should show up as you drag widgets around to help align things.

Click the save button at the top!



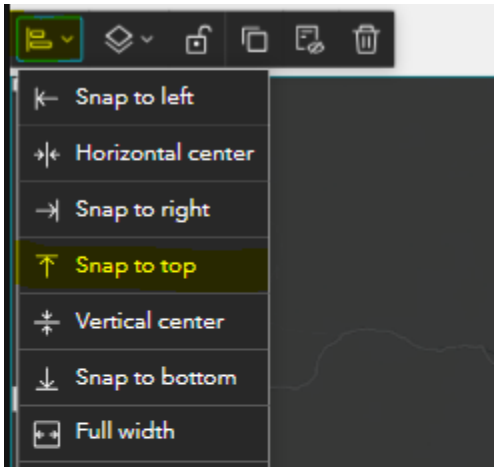
*Note: You can resize the header by dragging the border of it down as well as changing the pixels. If you accidentally resize it to be larger or smaller than you want when adjusting the size of the text widget, you can use the pixel box to enter a size or drag it back to a size you like.

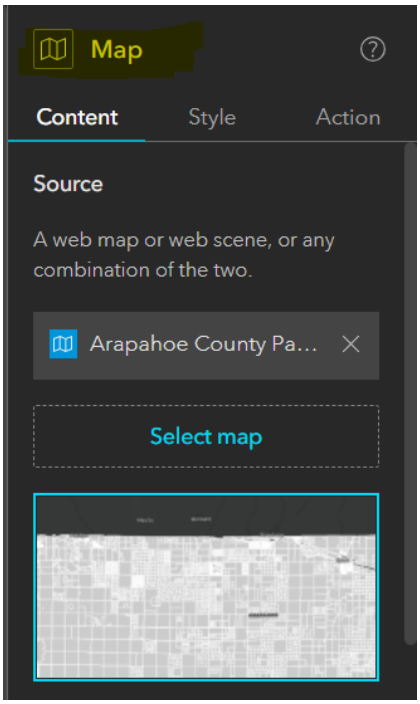
Now our app has a title and header! Lets configure the map. The window that showed up when Experience Builder first opened is a map widget. If you started to create an app without a map, you would drag the map widget into your app, and then choose the web map you wanted to display.

12. For now, let's just put the map where we would like. Stretch the map the full width of the app. Notice how when you drag a widget around the screen, there are blue lines that tell you the percentage of the screen the widget is taking up.

We want our map to be at the top of the screen. It is easy to drag it there, but you can also use the alignment tools that Experience Builder has built in. When you click on the widget, there is a horizontal black menu that appears above. The first option is the align tools. You can use these to snap your widget to a certain area of your app.

Click 'Snap to Top'

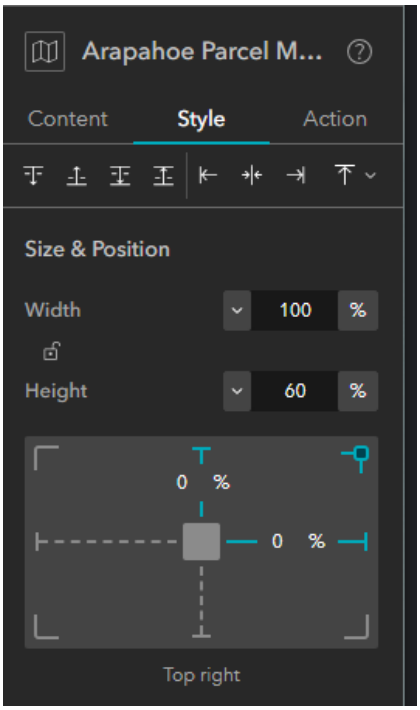




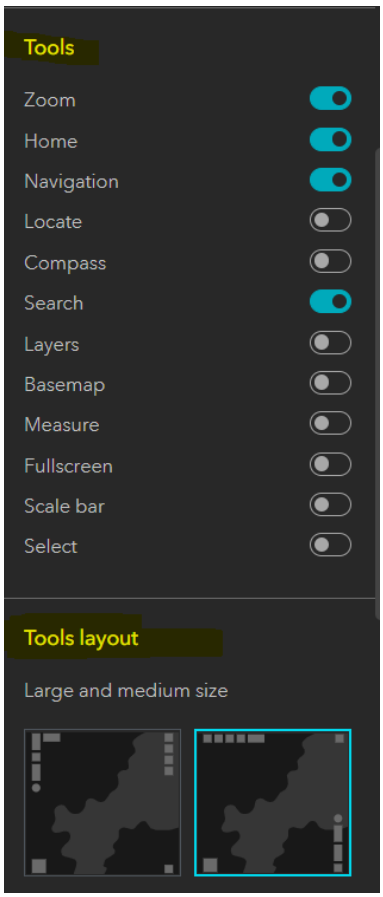
Whenever a widget is selected, the settings pane will show up on the right side. Here, you will configure the widget, adjust the size and position, style it, and add any actions (how widgets are connected). You can also rename the widget at the top – this is a good habit to get into as you begin to create more complicated apps! Let's rename this map from 'Map' to 'Arapahoe Parcel Map'

13. We want to include a table under our map so we do not want to stretch the map widget all the way to the bottom. You can drag the bottom side of the map widget until it is somewhere that you like, or you can use the Size & Position tools in the Map widget settings pane on the right side.

    Click the style tab. Here, you can configure the percentage of the screen that the widget takes up. If you click on the percentage sign, you can input the number of pixels instead. Let's make this map widget take up 100% of the width of the screen and 60% of the height.



*Because we have added a header, this means the map widget is taking up 60% of the height under the header.



14. Lastly, we have a vision for our app and want to put a filter in the top right corner of the map. Right now, the search tool that is included in the map widget lives there.

Click the 'Content' tab in the map widget settings pane. Scroll down to the 'Tools Layout' section and choose the second option. Now there are no map tools located in the top right corner of the map and we can put our filter there!

*You can come back at any time and choose a different 'Tools Layout' option in the map widget. Or, if you don't want any of these tools in the map widget, you can toggle them off in the 'Tools' section!

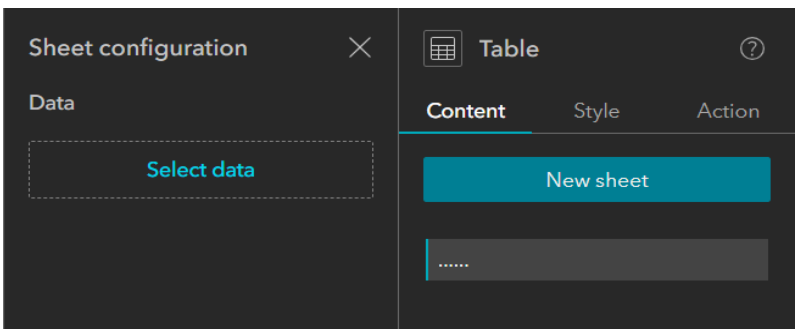
Let's add the table under the map.

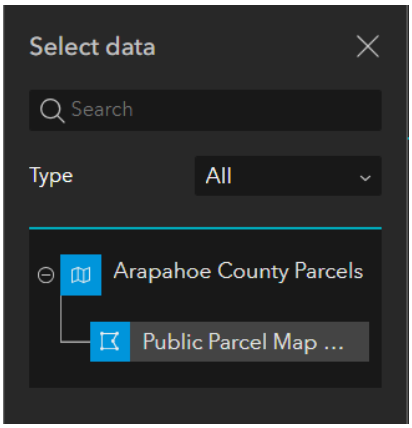
15. On the left, navigate to the 'Insert Widget' pane. Find the table widget in the 'Data Centric' category. Drag and drop a table into the app, under the map

16. Manually drag the borders until it fills up the space under the map. There should be red guiding lines when you drag the border of one widget to meet another to help snap the borders of the widgets together.

17. Make sure you have the table selected so that you can see the table widget menu on the right. Click 'New Sheet' and then click 'Select Data'

The 'Select Data' window will open and the Arapahoe Parcel Map will appear. Click the plus sign next to it to see the layers in the map.

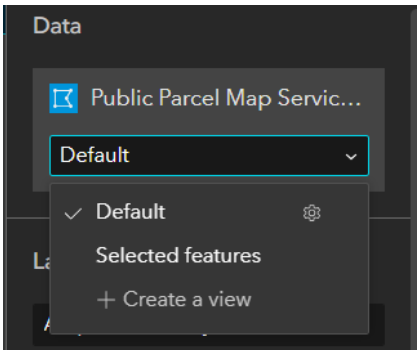




18. This map only has one layer, so we will choose that one – ‘Public Parcel Map Service Arapahoe’

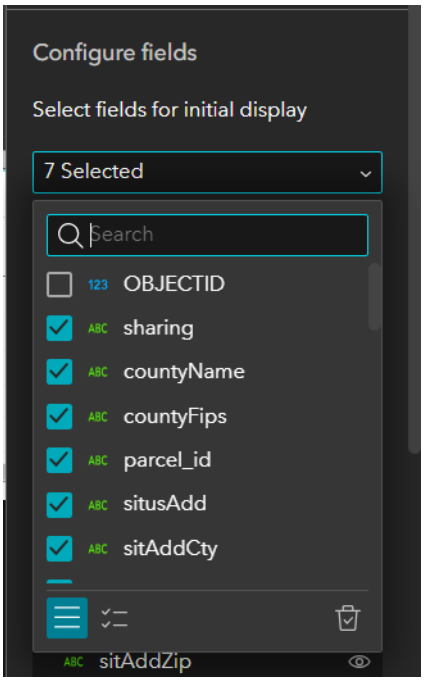
19. Next, a panel titled ‘Sheet Configuration’ will open. This is where you can configure the layout of the table, change the title, and choose which attributes to display.

    The first thing you see is a section called ‘Data’. The default option is selected. If you click the dropdown, you will see an option to display only selected values (selected values in the map) or create a view. Feel free to play around with these but for now, we will leave this as default so that it displays the table for our whole Arapahoe County parcel dataset.



    Next, there is a place to change the label of the table. Lets label the table ‘Arapahoe County Parcel Table’

    Below Label, there is a section called ‘Configure Fields’. This allows us to choose which fields get displayed in the table. To clear the selection, click the trash can icon in the bottom right. Then, select the following attributes:



    - parcel_ID - Parcel ID
    - situsAdd - Address of the parcel
    - situsAddCity - City of the parcel
    - landUseDesc - Land use description

Click the save button at the top.

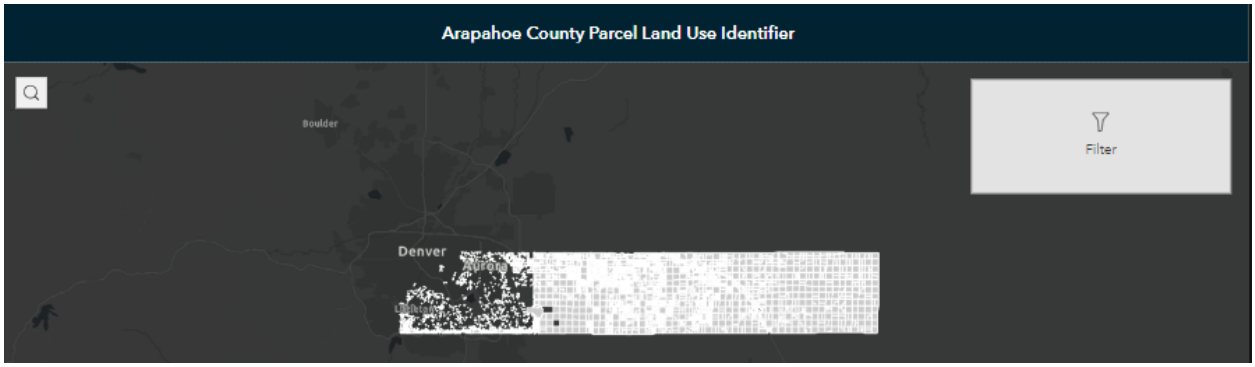
Finally, let’s add a filter so that the user can filter the parcels and the table by the land use.

*The filter widget filters the visibility of the layer it is connected to. Additionally, the layer being filtered will be filtered in all other widgets in the app – in our case, the map widget and the table widget!

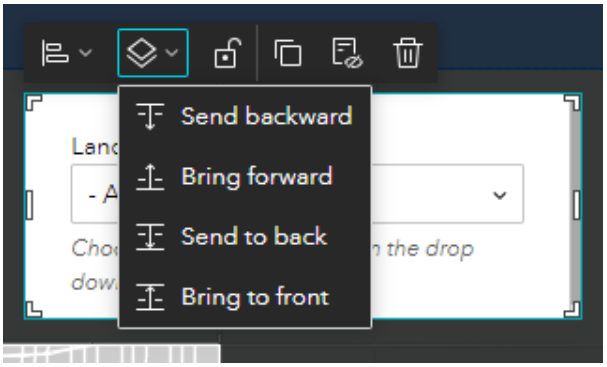
Esri Filter widget page

“The Filter widget allows you to limit the visibility of features in one or more layers to only those that meet the expression criteria. Changes made in a Filter widget affect data across your app, so other widgets that use the same layers are filtered accordingly.”

20. Go to the 'Insert Widget' pane on the left and locate the 'Filter' widget in the 'Data Centric' category. Drag and drop it on top of the map and place it in the top right corner.



*Experience Builder customization options feel endless, but one cool aspect of the drag and drop nature of the widgets is that you are able to layer widgets on top of each other. In this app, we will have the map widget under the filter widget. The arrangement tools found in the horizontal black menu that shows up when you select a widget help you control the layering of the widgets in your app as well.

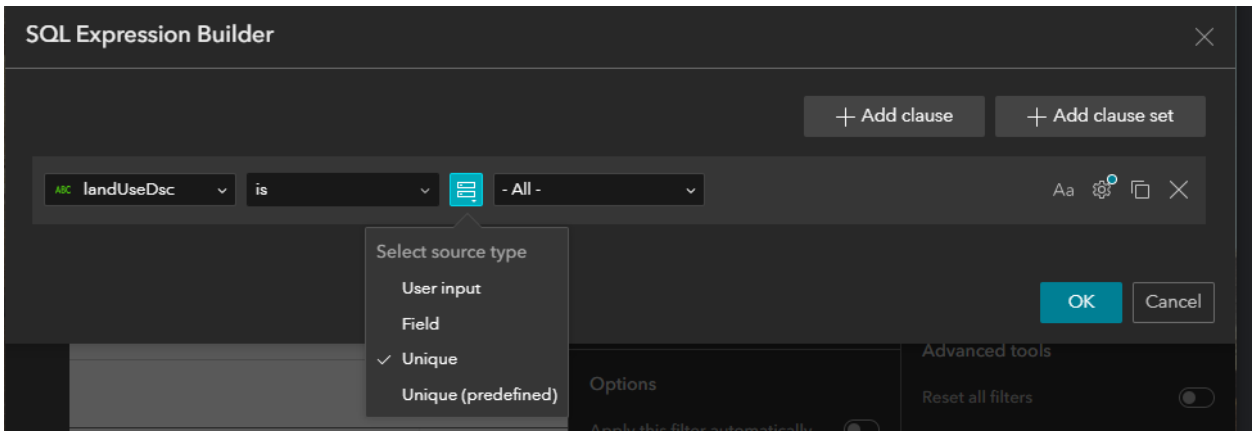


21. Select the filter widget so that the configuration panel shows up on the right side of the screen. Click 'New Filter' and select the Arapahoe Parcel layer from our web map.

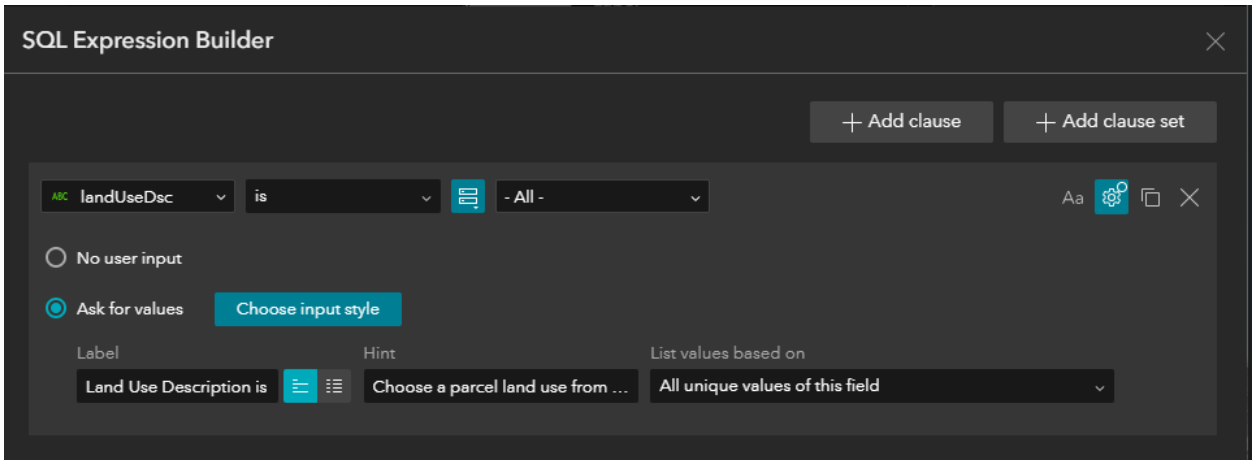
22. Similarly to the table, give the filter a name – let's call it 'Arapahoe Parcel Land Use Filter'

23. You can choose an icon or get rid of it

24. Click 'SQL Expression Builder' and choose the following options:



25. Click the settings icon on the right and configure the following options:



26. In the main settings panel for the filter widget, there are arrangement styles and activation styles. Feel free to play around with these and choose one that you like.

If you only have one clause in your filter, you can click the box that says 'Exclude activation styles for single clause.' This will make it so a user will not have to toggle the filter on or hit the 'Apply' button; the filter will be automatically applied to whatever option is selected. This option is checked in the example app.

Click the save button.

27. To test your app, you can either click the 'Live View' option at the top or the 'Preview' (play icon) to the right of the save button. 'Live View' allows you to interact with your app in the Experience Builder environment, while 'Preview' will open your app in a new tab.

If the parcels in your map are changing and all the landUseDesc fields in the table match what you chose in the filter, you've just built your first app in Experience Builder! 🎉

Experience Builder is a learning curve. The most effective way to learn it is to practice! Spend some time getting familiar with the interface and as always, if you have any questions, reach out to us at oit_gis@state.co.us!

Experience Builder – Good Habits to Build

- Save often!
- Name all of the widgets in your app
- Use a header to help with scaling and format