

Intro to ArcGIS Pro

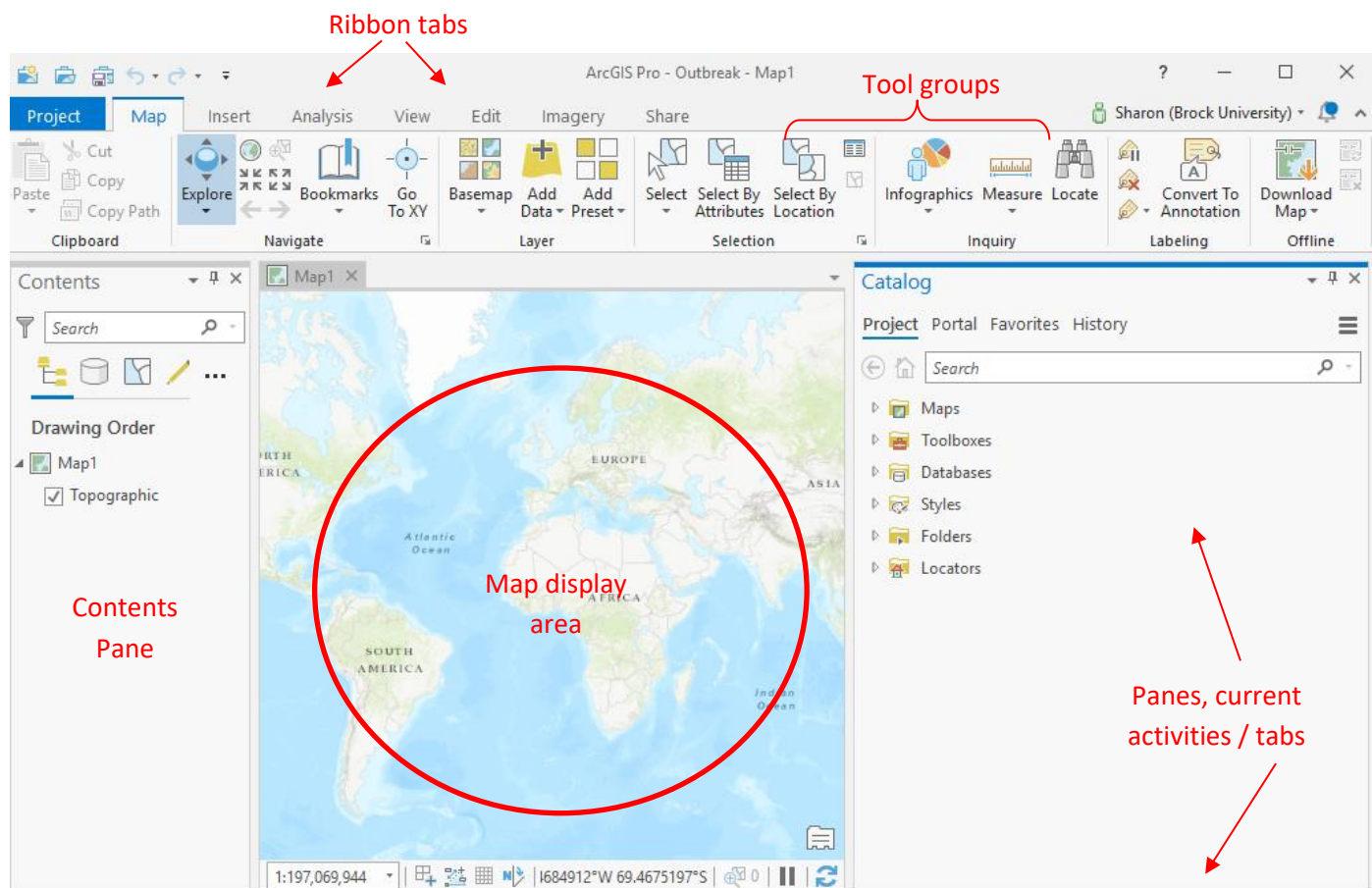
What is “GIS”?

Geographic Information Systems (GIS) is a tool used to display, create, and analyze spatial information to help solve real world problems. It combines the graphics that make up a map with data tables of associated attributes.

Section 1: Introducing ArcGIS Pro

1. Run **ArcGIS PRO**. HINT: Click the Windows button then start typing ArcGIS
2. When prompted, login using your ArcGIS Online credentials. These are the same credentials you used to login to *Collector for ArcGIS*.
3. Under Create a new project, click **Blank**.
4. At the prompt, enter a name for the project (i.e. BIOL4P05) and identify a folder in which to store the project file and all associated files. This folder may be on a USB, in your student storage space or other storage device. Each project (.aprx) includes the associated toolboxes, databases, folder connections, styles and more.
5. Click OK.

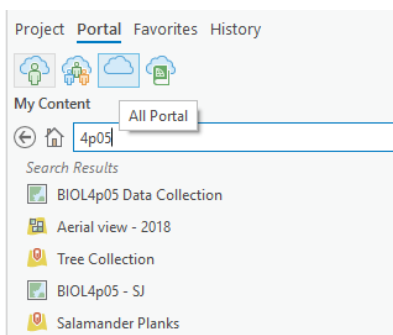
The ArcGISPro interface is made up of ribbons, tabs, groups, panels, panes and window views.



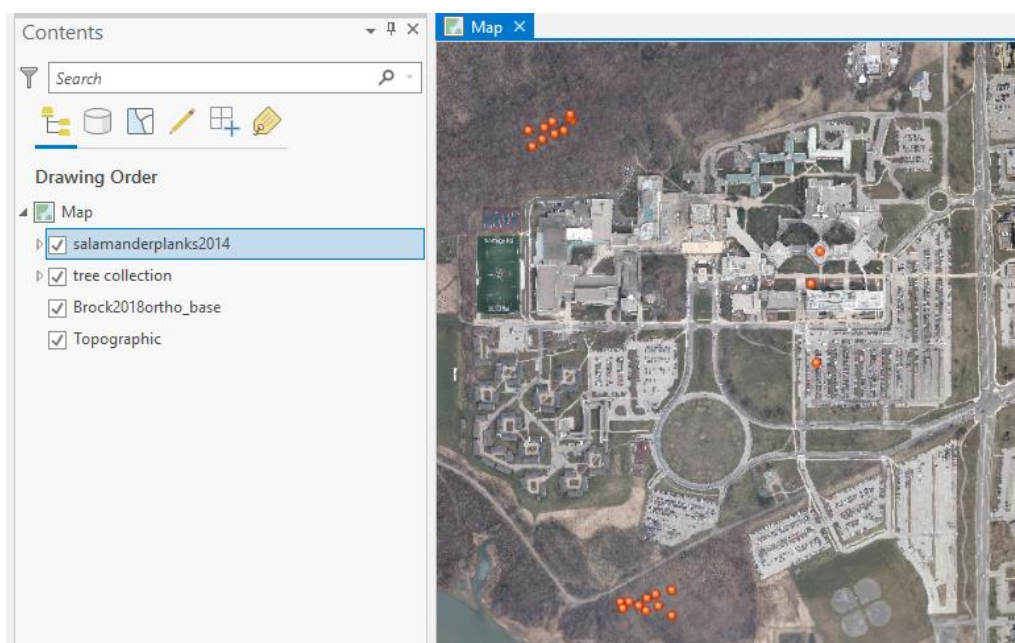
6. ArcGIS Pro is very intuitive and adjusts depending on the layer that is active or the last tool used.

Creating a map and adding data

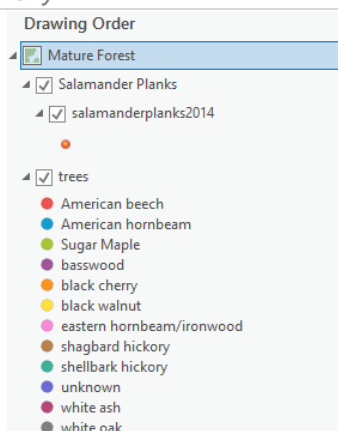
1. Click the **Insert** tab at the top of the window and click **New Map**. The map window is automatically populated with an Esri basemap to give context to your mapping project. To select a different basemap, go to the **Map** tab and click **Basemap**.
2. From the **View** tab, click **Catalog Pane**.
3. From the **Catalog** window on the right, click the **Portal** tab. The layers used in Collector will be available through the ArcGIS Online portal.
4. Click the cloud icon that provides a search window for “All Portal”. Enter the term “BIOL4p05” and hit enter. A number of layers appear in the search results.



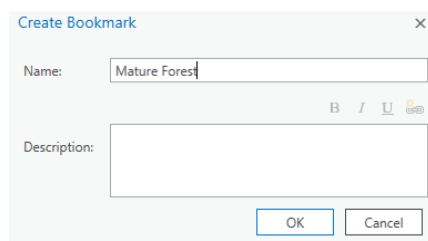
5. To add a layer to the map, drag and drop the layer onto the map view. For example, drag and drop “Aerial view - 2018” to the map.
6. Add “Tree Collection” and “Salamander Planks” to the map. The other BIOL4p05 layers are not applicable to this tutorial.



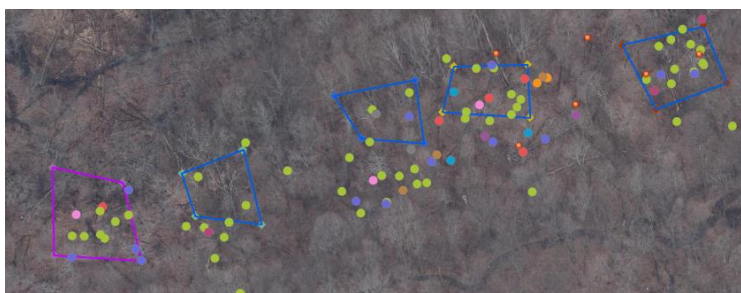
7. From the Contents panel on the left, see the layers listed under **Drawing Order**.
8. Right-click “Map” and from the General section, rename the Map to “Mature Forest”. Click OK.
9. Click the little triangle beside a layer to expand it and see the symbol assigned to that layer.




10. Click the symbol below the salamander planks layer to access the symbol selector.
11. Make a selection and see the effects on the map. Click Properties to adjust colour/size, etc.
12. Use the mouse and scroll wheel to zoom and pan to the mature forest to the North of campus.
13. From the Map tab at the top of the window, click Bookmarks > New Bookmark. Change the name to Mature Forest and click OK. A bookmark allows you to zoom to the extent saved with the bookmark.

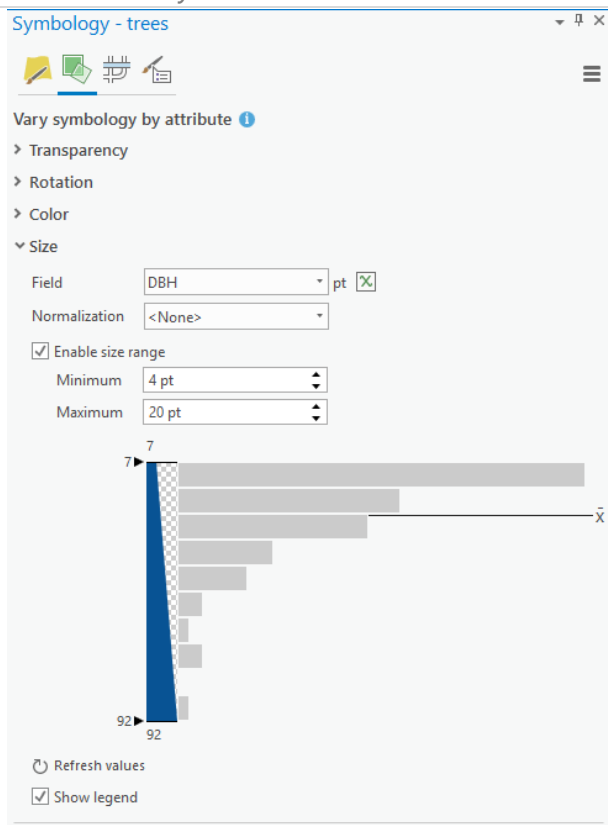


14. Zoom and pan to the Young Forest and add a bookmark.
15. From the Bookmarks dropdown, select the **Mature Forest** and the view zooms to the saved extent.



Symbolizing Multiple Variables

1. From the Contents panel, click on the tree layer to activate it.
2. Click the **Appearance** tab at the top of the window then click **Symbolology**. The Symbolology pane is open the right of the map view.
3. Click the second icon "Vary symbology by attribute"  to add a second element to our display.
4. Expand the **Size** option and select **DBH** from the field listing. This option will adjust the size of the circle symbols based on the measurement added to the DBH field.
5. Click **Enable size range**. Change the maximum to **20**. And check the option to **Show Legend**. See the screenshot below for details.



The map updates to reflect the new symbology assignment.



Creating a Layout and Sharing

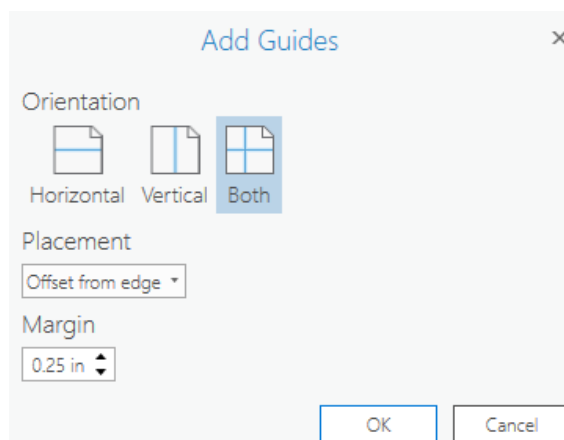
Let's clean up the Contents panel.

1. To change a layer name, slowly click twice on the name which will activate the edit tool. Type a new name and hit enter.
2. Turn off layers you don't want displayed in your final layout.
3. Click the **Insert** tab and select **New Layout**.
4. Select **ANSI Landscape Letter**. A new blank layout is added to the project views.
5. Right-click the ruler at the top of the layout view and select **Add Guides...**

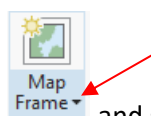
Guides are non-printing lines that help you align elements on the layout.

6. From the dialogue box, under **Orientation**, click **Both**.
7. Click **Placement** drop-down menu and click **Offset from edge**.

8. Replace the value in the **Margin** box with 0.25 in. Click **OK**.



9. From the **Contents** pane, under **Drawing Order**, right-click **“Layout”** and select **properties**. Change the name to **“Mature Forest Layout”**.

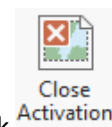


10. Click the dropdown arrow beside **Map Frame** and select **“Mature Forest”**. Drag a box on the layout to place the map frame.

11. Click and drag the window to reposition it.

12. Click and drag a corner handle to resize the map. Leave room for other layout elements such as the legend.

13. To change the zoom level of the map, right click the map and select **Activate**. When the map element is active you can use the **Explore** tool and other zoom and pan tools to customize the display.

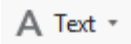


14. When you are finished setting the zoom, click the **Layout** ribbon at the top of the display and click

15. From the **Insert** ribbon in the **Map Surrounds** group, add a **North Arrow** and **Scale bar**. Reposition and resize the elements as you see fit.

16. Select the **Map Frame** then, from the **Map Surrounds** group, click **Legend** then draw a box on the map where you want the legend to sit.

17. **Double-click** the legend to activate the **Format Legend** panel to the right of the **Layout** view. Options are also available in the **Contents** panel to the left (turn layers off if you don't want them to appear in the Legend).

18. Click the **Text** tool  to add customized text including a title and source statement. Explore the text options on the **Format** ribbon.

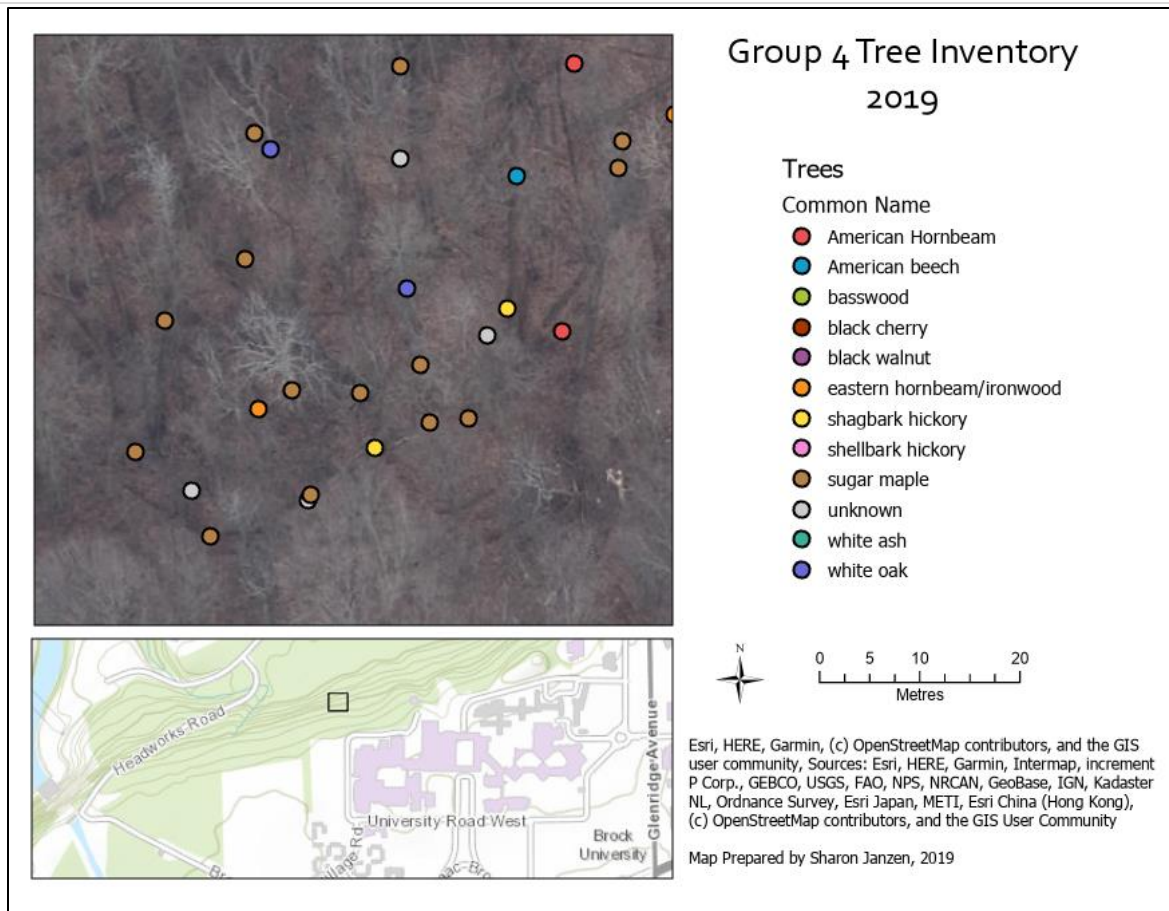
19. Save your map!

Our map is complete and ready to share!

20. Click the **Share** ribbon at the top of the window. To make a PDF or JPEG, click **Layout**

21. Change the **Save As** type to the format of choice and navigate to your storage space on X:\ drive.

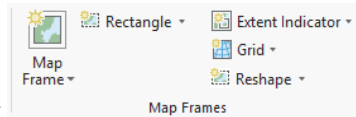
22. Click **Export**.



Extra Detail

To add an inset map...

1. From the **Insert** ribbon in the **Map Frames** group, select **Map Frame** and choose the map to add.
2. Draw a box on the map layout where you want to place the map.
3. Right-click on the selected map and choose **Activate**. Zoom and pan to the campus area.
4. Close activation. HINT: Layout tab > Close Activation.

5. From the Insert tab, in the Map Frames group, select Extent Indicator  and choose the map for which you want the extent shown. An extent box appears on the inset map.

To add a picture...

1. From the **Insert** ribbon in the **Graphics** group, click **Picture**. Browse to the location of your picture and click Open.
2. Draw a box on the map to place the image.
3. Resize and reposition the image as you see fit.

Additional Resources:

- *Going Pro: ArcGIS Pro Essentials for ArcMap Users* (1 hour training video)
<https://www.esri.com/training/catalog/590901ecdb250232197d2326/going-pro%3A-arcgis-pro-essentials-for-arcmap-users/>
- *Getting Started with ArcGIS Pro* (5 hours, web course)
<https://www.esri.com/training/catalog/57630435851d31e02a43f007/getting-started-with-arcgis-pro/>
- *ArcGIS Pro Help* <http://pro.arcgis.com/en/pro-app/help/main/welcome-to-the-arcgis-pro-app-help.htm>