Reading Metadata – Important When Doing Data Analyses

1. Open the Layer List (Click on the 'Layers' tab, at the bottom left of the map)
2. Click › to the right of any layer in the layer list to open 'Layer Actions'
3. Click View Metadata at the bottom of the list
4. Click on 'Identification' and 'Data Quality' tabs to get a good idea for what the data is, and its accuracy level

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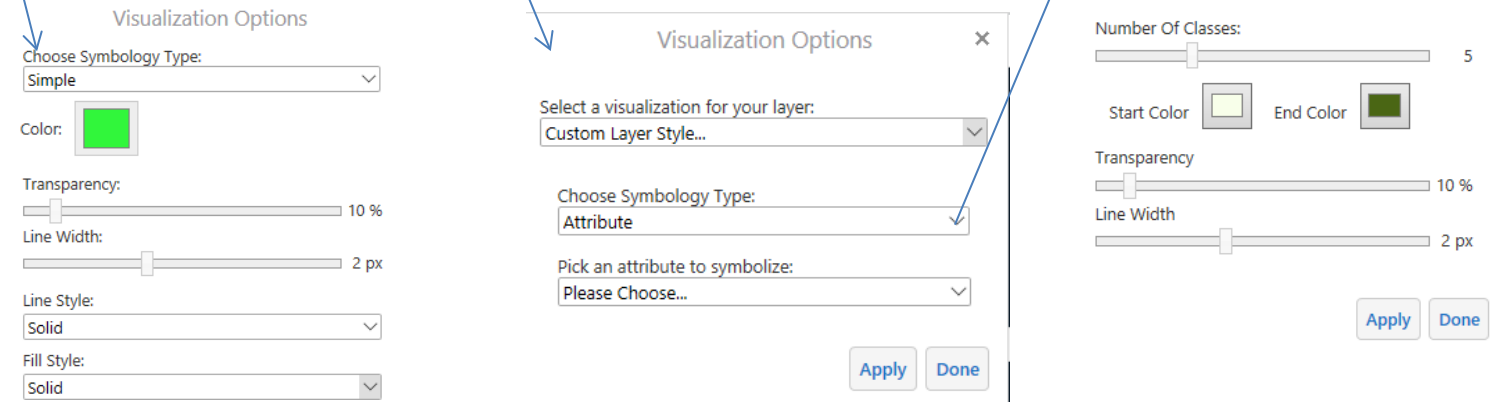
Change Layer Symbology: Visually *See* Changes in the Data

1. Open Layer List
2. Click › next to the layer you want to change the symbol for (opens 'Layer Actions')
3. Select 'Turn on/off layer visualizations'
4. Select from Dropdown if options are available *or* Select 'Custom Layer Style'
5. From 'Choose Symbology Type' Dropdown choose:

Simple = Features all look the same (you're just changing the color) OR

Attribute = Features symbolized by an attribute (ex. parcels color coded by values)
(Limited to 12 categories or computer generated ranges)



Querying for Information:

1. Open Toolbar (Or double-click 'ICGeoMap')
2. Click Query
3. Use dropdowns to select the data layer
4. Use dropdown to select attribute of interest, operator and value. Note – numerical fields and text fields will have different operators. Numbers allow for equal: =, not equal: != and greater than: > less than: < Text fields allow for 'contains', 'does not contain', 'starts with', 'ends with', = and !=

** 'AND' statements – if data you're trying to query needs to include all the statements use 'AND' – this narrows down your options to very specific criteria.*

*** 'OR' statements – if data you're trying to query needs to include at least one of the statements use 'OR' – this opens up your options to more varied results and will show more results then 'AND' statements*

5. Query results will show up to 2,000 parcels; 1,000 features of any other layer. Click on the ☰ for additional functionality.

Filtering Features – To Turn Features Off in a Layer you don't want to see:

1. Open Toolbar (Or double-click 'ICGeoMap')
2. Click Filter
3. Repeat steps 3 & 4 of 'Querying for Information' shown above – for the features you *want to see*
4. Click Filter
5. {Optional} Click 'Add Another Condition' you can filter by the Current Extent in the 'Spatial Filter' dropdown

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Performing a Buffer Analysis:

1. Identify a feature – search in the map and click on the feature you want to do a buffer analysis on (if you previously performed a query you can do a buffer analysis on all the features that resulted from the query)
2. In the pop-up window click View Additional Details
3. At the top of the Additional Details pop-up click on the ☰ to see more options
4. Click 'Show Buffer Options' Show Buffer Options / Identify nearby features
5. Use dialog boxes to provide a distance and units
   *You do not need to check the 'Write to Drawing Layer' unless you want to see the actual buffer shape after viewing the results
6. View Results – Click on the ☰ at the top of the Identify Results window and export to XLSX (for mailing labels) or view in table or save these results to work with them again.

**Remember, the layers you have turned on at the time of the analysis will be the layers resulting from your buffer – turn layers on/off according to what you're doing your analysis for*

Measuring with Pictometry Data:

1. Identify the area of interest in ICGeoMap
2. Open Toolbar (Or double-click 'ICGeoMap')
3. Click Linked Maps
4. Access tools by clicking on the Pictometry toolbar
5. Measure height of objects: Click once on the bottom, use mouse to create a line and click once on the top
6. Measure elevation: Click once on the spot for the elevation
7. Measure bearing: Click once on the start of the line, double click to end OR to measure a difference in Bearing (angle) – Click once on the start, click on the end of the first line, then click the end on the second line

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Perform a Table Join: (Add an excel spreadsheet to the map)

Table Join

1. Click ' Upload Excel File' and browse to the location the file is saved, click 'open'
2. Click 'Next'
3. Choose the field in the spreadsheet you know can join to a field in one of the layers in the map (i.e. Parcel Number or PID)
4. Choose the Map layer you want to join the table to
5. Choose the Name of the field in the layer you want to join on (i.e. Parcel Number or PID) – note the type of data will need to be the same – numbers to numbers and text to text
6. {optional} Select the field from your spreadsheet you want to label on the map
7. Provide a name for the newly created layer (this will show on the legend)
8. Click 'Next'
9. Layer Symbols and labels can be adjusted like all other layers by clicking the › next to the layer name

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Getting Started with Spatial Analysis:

1. Start off easy – use the layer visualizations your departments' data stewards helped create for you (if available). Get used to visualizing data in different ways that already had a pre-defined business case for.
2. After you've grown comfortable visualizing data in ways others have created for you – think about the other pieces of data you would like to tell apart when looking at the map – and begin creating your own custom visualizations. Start looking at patterns in the data and getting a handle on all the ways you can visualize the data with various attributes.

3. Get comfortable performing buffers and exporting their results. This is how you can create mailing lists or lists of roads, culverts, parks, etc. that fall within proximity of another feature. Work with different distances. Try using 1 ft distance to query a set of features, then buffer those features as well.

4. Begin to use 'AND' statements in queries to search for data. Remember this means you are narrowing down your search of the features in a layer that meet **all** the criteria you set (ex. Parcels with an assessed value of > 150,000 AND Parcels with GIS Acres > 5)

5. Start working with Filters to turn features off that are not a part of your analysis. Using 'AND' and 'OR' statements works the same way for querying and filtering – the difference is filtering turns them off, querying highlights them.

6. Begin to use 'OR' statements in queries and filters. Remember 'OR' statements open up your search results. A feature needs to meet only one of the conditions you set. This can be tricky, make sure your results make sense and the features of interest really do only need to meet one condition.