

ArcGIS LOJIC Tools Toolbar

Starting LOJIC Tools

The LOJIC Tools is a suite of ArcGIS based tools which are accessible through the LOJIC Intranet Citrix server using Internet Explorer. The LOJIC Tools toolbar is designed to assist LOJIC's ArcGIS users in the creation and/or development of ArcGIS projects. The LOJIC Tools provides a variety of functionality.

If you are using this document for the online training, please follow the steps in this golden box.

Go to <http://www.lojic.org/lojic-user-portal/arcgis-training> and **download the Exercise Data for the Introductory Training. Unzip it and copy it to C:\MyGISFiles** directory. Open **ArcCatalog** and create a directory in **H:** called **CitrixTraining**. In **ArcCatalog**, go to **V:\MyGISFiles** and copy the **exercises** directory to the **H:\CitrixTraining** directory.

Open **ArcMap**. Click on **Browse for maps...** and navigate to **M:\Production\lojic\resources** and click on **beginner.mxd**.

In the *File* Menu, **Save As H:\CitrixTraining\exercises\lojictools.mxd**.

The LOJIC Tools toolbar should appear when the mxd is opened. If not, there are two ways to display it.

View Menu:

1. Click **Customize** and point to **Toolbars**.
2. Check **LOJIC Tools Toolbar** to show it.

Menu or Toolbar area:

1. **Right click** in a blank area of the menu bar or toolbar area at the top of the ArcMap window.
2. Click **LOJIC Tools Toolbar** in the list of available toolbars.
3. The **LOJIC Tools** toolbar may appear floating in the ArcMap window. (Figure 1)
4. Move or dock the toolbar as needed.



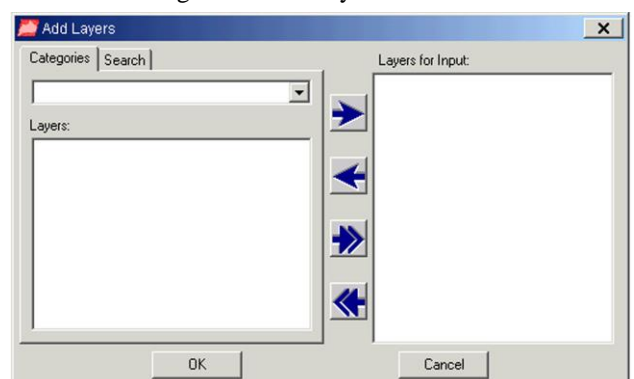
Figure 1- LOJIC Tools toolbar.

Figure 2- Add Layers window.

Add Layers to Map (Data and Layout View)



This tool assists both new and experienced users in adding layers for any ArcMap projects. This tool provides a menu driven, point-and-click interface for adding layers as quickly as possible. The **Add Layers to Map** button initiates the **Add Layers** window. (Figure 2)



The **Add Layers** window allows the user to select layers by categories and to search for layers. When a user selects the category, the layers that are associated with the category will be listed in the **Layers** listbox. A user can select and input the desired layers into the **Layers for Input** listbox. Layers that are displayed in **all CAPS** are **group layers** and inputs multiple layers under that single group layer name. Users have the ability to select the multiple layers in the **Layers** listbox.

The **Single Right Arrow** button will move a user’s selected layer(s) to the **Layers for Input** listbox and the **Single Left Arrow** button will remove the user selected layer(s) in the **Layers for Input** listbox. The **Double Right Arrows** button will move all layers from the selected category to the **Layers for Input** listbox. The **Double Left Arrows** button will remove all layers from the **Layers for Input** listbox. Click the **OK** button when all the desired layers are in the **Layers for Input** listbox and they will be added to the project.

Exercise for Add Layers to Map:

1. Click on the **Add Layers to Map** button and add the layers in the categories below:

Category	Layer
Address/Transportation	Public Works Street Class
Administrative	ZIP Codes
Planning Districts	Enterprise Zone

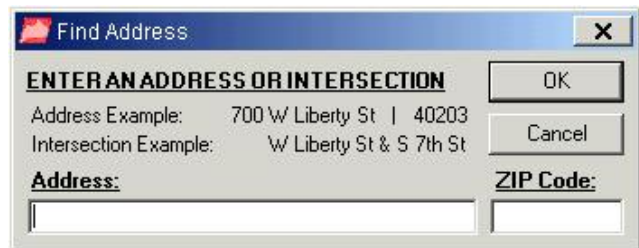
2. Click on the **Search** tab and enter “Soils” in the **Search Layer Name that contains:** option. **Select Soils-Type. Click OK** to add the layers.

Find Address (Data View only)



This tool allows a user to enter an address or street intersection and have that location highlighted in the map view. The **Find Address** tool uses both **Jefferson and Oldham County** address information. (Figure 3)

Figure 3- Zoom to Address window.



If an entered address is found, the view will zoom to it, and a red dot with the address is placed at the address point. If an entered address is not found, a list of possible addresses will appear for selection. After selecting an address and clicking **OK**, the view will zoom to the selected address. A user also has the option to search for an intersection. If a user enters an intersection with one street like “Yale dr. &”, then the user will get a list of intersection candidates.

Exercise for Find Address:

1. Click **Zoom to Address** button.
 - Typical address - Enter: **700 W Liberty St**
 - Find an intersection with one street name - Enter: **Yale Dr &**
 - Multiple intersections - Enter: **Deer Ln & Deerwood Ave**
 - Street address without a house number - Enter: **Mile of sunshine Dr**
 - Address that exists only in the street centerline with one segment - Enter: **Eads Pl**
 - Enter in any address in Jefferson or Oldham County.

Find Street (Data View only)



This tool allows the user to zoom to any street in **Jefferson County**. In the **Find Streets** window, the user enters a street name and clicks **OK**. (Figure 4) There is a drop down that will give possible matches to the entered street. (Figure 4a)

If an entered street is found, the view will zoom to and highlight that street. If an entered street is not found, a list of possible street names will appear for selection. After selecting a street name and clicking **OK**, the view will zoom to and highlight the selected street.

The lists in both **Find Address** and **Find Street** tools are sorted by street direction. This means that streets names that are similar like E Main St, Main St, W Main St will not be sorted together but will instead have E Main St at the beginning, Main St in the middle and W Main St at the end of the list. In the **Find Address** tool, when the list contains house numbers, the list will be sorted in numeric order.

Exercise for Zoom to Street:

1. Click **Find Street** button.
 - Typical Address - Enter: **W Liberty St**.
 - Enter: **Boulevard Napoleon**.
 - Enter in anything.

Label Address (Data View only)



This tool allows the user to mouse **click** within a data view and display the unique addresses that exists within the parcel boundary the user clicked. This tool only labels addresses within **Jefferson County**.

Exercise for Address Label:

1. **Click** on the **Find Address** button and enter an address within Jefferson County.
2. **Click** on the **Address Labeler** button and **click** on a parcel.

Find Subdivision (Data View only)



This tool locates subdivisions by using a subdivision name. If a user misspells the name of the subdivision, the tool will search candidates using the first letter entered into the **Enter a Subdivision Name** textbox. (Figure 5)

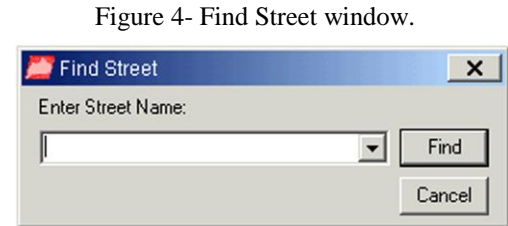


Figure 4- Find Street window.

Figure 4a- Find Street window drop down list.

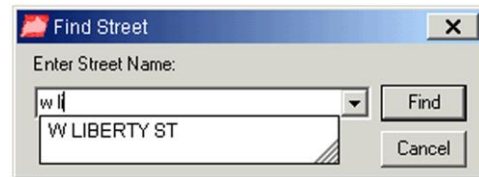


Figure 5 - Find Subdivision Information.

Find Parcel by Owner Name (Data View only)



This tool locates a parcel by the owner's last name. (Figure 6)

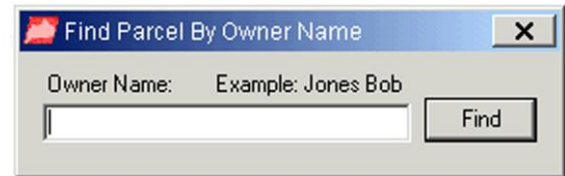


Figure 6 - Zoom by Owner Name.

Find Parcel by PIN*(Data View only)



This tool locates a parcel by using the tax block, lot, and subplot. The user does not need to insert all four digits for block, lot and subplot. The program will automatically add zeros in front of the entered input. The user can also just insert the block in this zooming option and all the parcels associated with the inserted block will appear in a selection list. A user also can just enter the block and lot. (Figure 7)



Figure 7 – Find Parcel by PIN.

***PIN = Parcel ID Number**

Exercise for Find Subdivision:

1. Click the **Find Subdivision** button.
 - o Enter: **Bryan Estates**, Click **Find**.
 - o Select a record within the list.

Exercise for Find Parcel by Owner Name:

1. Click the **Find Parcel by Owner Name** button.
 - o Enter: Your last name, Click **Find**.
 - o Select a record within the list.

Exercise for Find Parcel by PIN:

1. Click the **Find Parcel by PIN** button.
 - o Enter: **2323**, Click **Find**.
 - o Select a record within the list.
2. Click the **Find Parcel by PIN** button.
 - o Enter: **1117**, Click **Find**.
 - o Select a record within the list.
3. Click the **Find Parcel by PIN** button.
 - o Enter: **029B**, Click **Find**.
 - o Select a record within the list.
4. Enter in anything.

Get Parcel Information Tool (Data View only)



This tool allows the user to select the parcel in ArcMap and retrieve information for that parcel. The user is able to click within the ArcMap view window and select a parcel. When the user selects a parcel, the **Parcel Information Report** pdf appears.

Exercise for Parcel Information Tool:

1. Click on the CURRENT PARCEL INFORMATION layer and click **Parcel Information Tool**.
2. Pan over the map view window in ArcMap and click within a parcel.
3. Click in a street right of way.

Parcel Map (Data View only when a parcel is selected)



This tool enables the printing of a map of a **selected** parcel and the REMF information.. The map size is 8.5 x 11 inch landscape. Make sure you set the printer to the appropriate settings. Make sure the page orientation is landscape.

Exercise for Parcel Map Tool:

1. Click **Parcel Map Tool** and click within a parcel. Print the map if you wish. Switch back to Data view.

General Information Query (Data View only)



This tool displays general information for the selected point. The **Blue** links in the PDF go to internet links.

Exercise for General Information Query Tool:

1. Click **General Information Query Tool** and click within a parcel.
2. Click on a **Blue** link

Development Information (Data View only)



This tool provides critical information for consideration in development or construction projects on a selected parcel. The **Blue** links in the PDF file explains the information available in the **Development Information** tool. The **LDC** option is a link to Louisville Metro's Land Development Code.

Exercise for Development Information Tool:


1. Click **Development Information Tool** and click within a parcel.
2. Click on a **Blue** link and then the **LDC** link.

2010 Census Information By Selection (Data View Only)



This tool determines approximate census information by all selected polygons within the Table of Contents (TOC).

Exercise for Census Information by Selection.

1. **Zoom out** to a County-wide view.
2. Using the **List by Selection button** above the Table of Contents, make the **Municipalities** layer the only **Selectable** layer.
3. Using the Select Features button ,  select Jeffersontown (light purple area when Municipalities layer is on.)

- Click on the **Census Information by Selection** and enter “**Jeffersontown- 2010 Census Information**” as the report title. **Click OK**. Save the PDF to your H: drive as **JeffersontownCensusReport**. (NO SPACES) The report PDF will appear.

2010 Census Information By Graphic (Data View Only)



This tool determines approximate census information when the user clicks on the tool then draws a polygon.

Exercise for Census Information by Graphic.

- Using the **Find Street tool**, zoom to W. Broadway.
- Click on the **Census Information by Graphic** tool.
- Draw a graphic around an area of several blocks. Double click to finish the graphic and a Census Information window will appear with statistics for the area. Enter a report title and save the pdf.

2010 Census Multiple Report(s) (Data View Only)



This tool prints or exports census information based on field values from a polygon layer. It should be noted that this tool will only display polygon based layers from the active data frame. This tool was not designed to be used on layers with a large amount of polygons. **If this tool is used on a layer with more than 10,000 polygons ArcMap will be brought to a standstill.**

Exercise for Census Multiple Report(s).

- If necessary, **Add** the Urban Neighborhoods Layer.
- Click** on the Census Multiple Report(s) Tool and select the **Urban Neighborhoods Layer**, select the **NH_NAME** field and **Select All** the Field Values. (Figure 11)
- Click** the **Export** button to export the data to a dbase (.dbf) file. **Click Yes** in the question window.
- Save** the file called **Urban_Neighborhoods.dbf** to **H:\CitrixTraining\exercises**.
- When the export is done, add the table to the .mxd. Right Click on the Urban Neighborhoods and Select Joins and Relates. **Join (Join Attributes from a Table)** the table using the **NH_NAME** field at the join items. Click **Yes** to the indexing question.

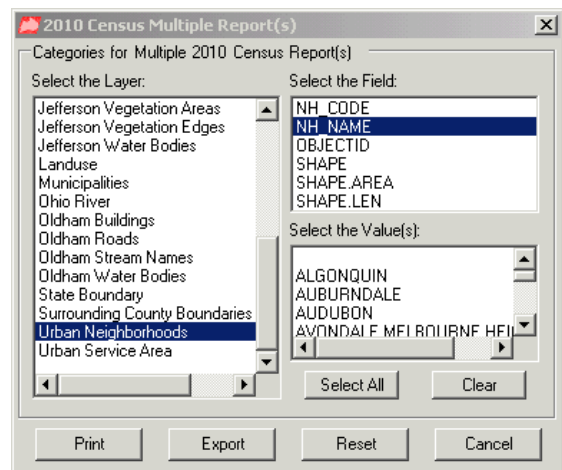


Figure 11 – Census Multiple Report(s) window.

Symbolize the layer using one of the newly joined fields with the **Quantities** symbology option. (The P0010001 is the total population field.)

Convert Latitude/Longitude Coordinates (Data View Only)



This tool can be used to convert individual coordinates or a list of coordinates from Latitude/Longitude to Kentucky State Plane NAD83 North Zone coordinates or State Plane to Latitude/Longitude.

Exercise for Latitude/Longitude Converter

1. Click on the **Convert Coordinate** tab and **Select Input Coordinate Format - Latitude/Longitude (DMS)** option. (Figure 12)
2. Enter **38 10 57** for the latitude and **-85 44 3** longitude into the menu in Degree / Minutes / Seconds format.
3. Click the **OK** button. This will produce the conversion.
4. Click the **Latitude/Longitude (DD)** option.
5. Enter **38.35** for the latitude and **-85.60** for the longitude.
6. Click the **OK** button. This will produce the conversion.
7. Click the **KY State Plane** option.
8. Enter **1255181** for the X Coordinate and **259313** for the Y Coordinate.
9. Click the **OK** button. This will produce the conversion.

Note: All coordinates entered should be in NAD83 datum and all results will be in NAD83 datum.

Converting a Table of Coordinates

The Latitude/Longitude Converter dialog also gives the user the ability to convert a table of coordinates.

Exercise for Converting a Table of Coordinates

If you are using this document for the online training, please follow the steps in this golden box.

1. Add the file **H:\CitrixTraining\exercises\Lesson 8\convert.xls\convert\$** into your ArcMap project. The new table should contain fields for the X and Y coordinates (XCOORD, YCOORD) and a field called NAME.

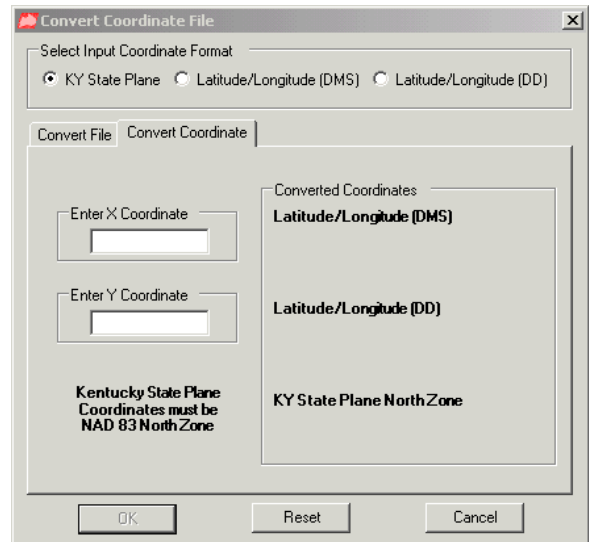


Figure 12 – Latitude/Longitude Converter window.

1. Add an .xls or .dbf file with a field for X coordinates and a field for the Y coordinates.
2. Select the input coordinate type from the **Select Coordinate System** section. Click the **Convert File** tab.
3. Use the pull down in the Input Table to select the table you wish to convert.
4. Select the fields **XCOORD** and **YCOORD**. (Figure 13) Click the **OK** button
5. Select the Fields to Include or the **Select All** button and click **OK**.
6. **Save** the table as a shape file and it to your mxd.

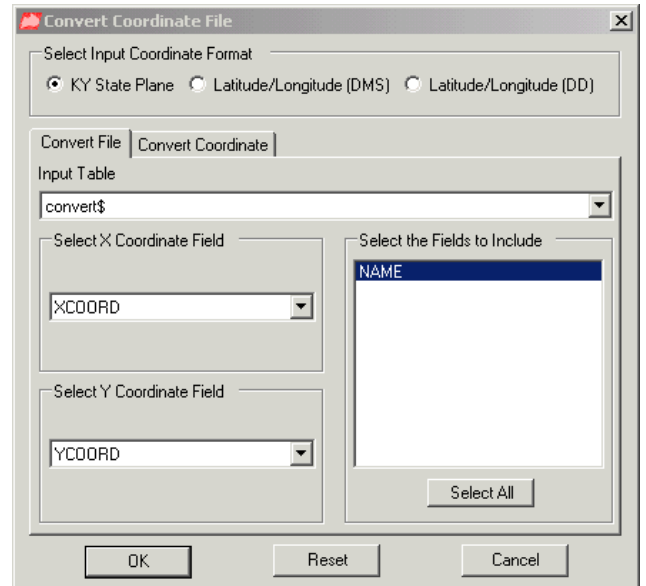


Figure 13 – Convert File Window.

If you are using this document for the online training, please follow the steps in this golden box.

1. **Save** the table as a shape file called **converted.shp** in your **H:\CitrixTraining\exercises** directory.
2. **Add** the converted.shp to the .mxd and take a look at the table.

Label Coordinates Tool (Data View only)



This tool is used to label the state plane or latitude/longitude coordinates for any point you select on the screen. After selecting this tool and clicking on a point in your data frame, a window will display the coordinates in both stateplane and latitude/longitude in Decimal Degrees (DD) and Degree / Minutes / Seconds (DMS) format. (Figure 14) Select the desired format and click **OK** to place a dot at the point with a label of the coordinates.

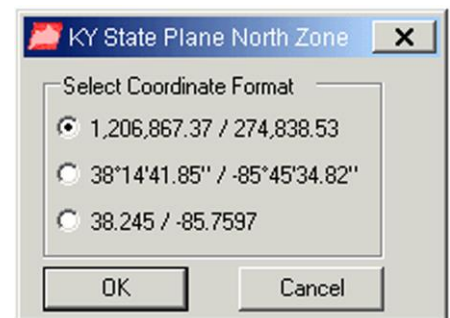


Figure 14 – Label Coordinates Window.

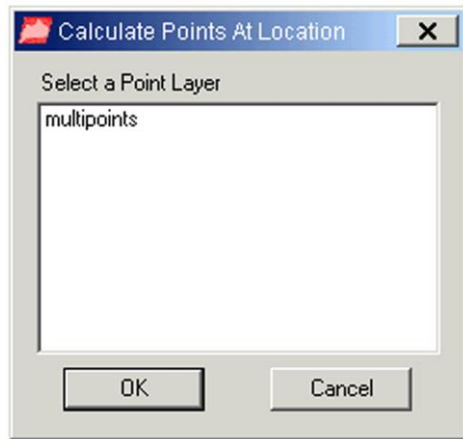
Calculate Points at Location (Data View only)



This tool allows the user to find out how many points are at each unique location and creates a legend based on that information. The **Calculate Points at Location** form displays each point layer in the active map. To use this tool, the user selects one of the layers from the list and clicks **OK**. (Figure 15)

Exercise for Calculate Points

Figure 15– Calculate Points window.



If you are using this document for the online training, please follow the steps in this golden box.

1. **Add the H:\CitrixTraining\exercises\lesson 8\multipoint** shape file and **Zoom to that layer's** extend. **Click** it on.

1. **Add** a shape file with coincident points and **Zoom to that layer's** extend. **Click** it on.

2. **Click** on the Calculate Number of Points tool and

select the multipoint shape file from the window. (Figure 15)

3. **Zoom** into one of points that have more than 4 points at one location and do an **Identify** on that point. You will see information about all the points at that location.

Polygon Map Series Tool (Data View only)



This tool creates and prints maps based on features selected from a polygon layer. It should be noted that this tool will only display polygon based layers from the active data frame. This tool was not designed to be used on layers with a large amount of polygons. **If this tool is used on a layer with more than 10,000 polygons ArcMap will lock up.**

Exercise for the Polygon Layer Map Series Tool

1. Click the **Polygon Layer Map Series Tool**. (Figure 16) The tab **Layer Information** is displayed first. On this tab, the user must select a layer from the list of polygon layers in the **Select the Layer** section. (like Municipalities) Next select a field from the **Select the Field** section. Next the user must select one or more values from the **Select the Field Value(s)** section. Click the **Next** button or select the **Map Templates** tab.

2. On the **Map Templates** tab (Figure 17), select one of the map templates from the section labeled **Select a Template**. After you have selected one of the existing templates from the **Select a Template** area click the **Next** button or select the **Default Settings** tab.

Figure 16 – Layer Information Tab.

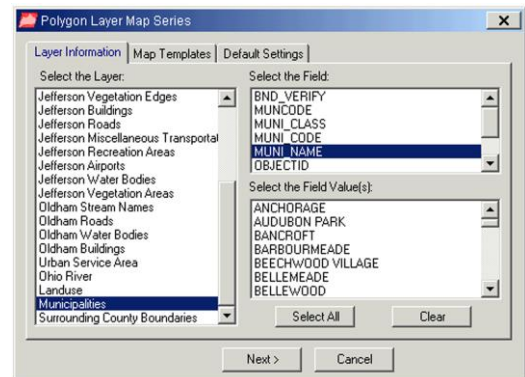


Figure 17 – Map Templates Tab.

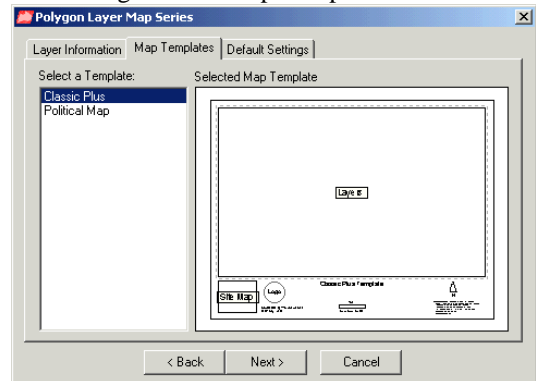
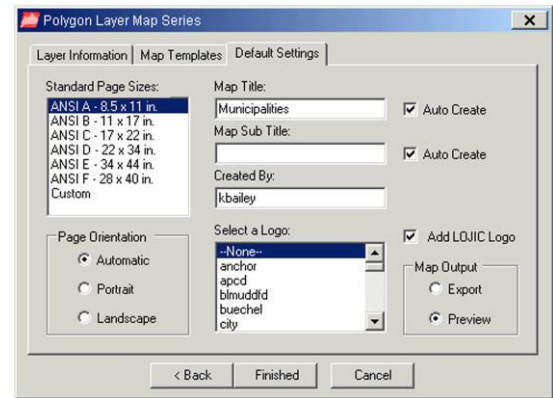


Figure 18 – Default Settings Tab.

- On the Default Setting tab (Figure 18), set the page size of the map by selecting one of the sizes displayed in the **Standard Page Sizes** section or select **Custom** at the bottom of the list of page sizes. If you have selected **Custom** you will need to type in the desired page size in the **Width** and **Height** input boxes. Next set the **Page Orientation** by selecting **Portrait**, **Landscape** or **Automatic**. The **Automatic** option will set the page orientation based on each polygon selected in Step 1. The default setting on the **Map Title** is to **Auto Create** the title by using the layer name that you selected in Step 1 as the first line of the title. The default setting of **Auto Create** on the **Map Sub Title** is to use the field value that you selected in Step 1 as the second line of the title. Both the **Map Title** and the **Map Sub Title** can be manually entered by checking off the **Auto Create** next to each input box. Then adding the appropriate text to the textbox. The next input box is the **Created By** option. The default for this option is to display the user name of the person logged onto the LOJIC database. This can be changed by replacing the text with the appropriate text. Next use the **Select a Logo** section to decide which logo to display on the map. Set the **Map Output** to **Export** or **Preview** the map. Click the **Finished** button.



Change Database Password (Data and Layout View)



This tool allows a user to change their Database (Oracle) Password. (Figure 19)

In the **Change Database Password** window, select the appropriate Oracle database (lojicora1), and enter a user name and current password. Enter in a new password twice. Once all the information is entered into the window, click the **OK** button to change the password or click **Cancel** to exit.



Figure 19 –Change Database Password window.

LOJIC Quick Map (Data and Layout View)



This tool sets up a map to an 8.5 x 11 inch, 11 x 17 inch, 22 x 34 inch, 28 x 40 inch, 34 x 44 inch layout, or a custom size layout. The custom option allows you to select any size to set the layout. Once the **LOJIC Quick Map** button is clicked, the LOJIC Quick Map (8.5x11) window appears. (Figure 20)

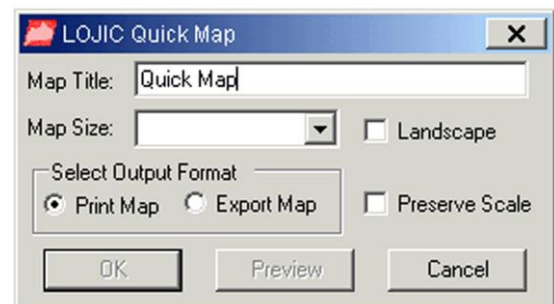


Figure 20 – LOJIC Quick Map window.

When a user selects Custom in the pulldown menu, the **Enter new page size** window appears. (Figure 21) A user enters the width in the first space and the height in the second space then clicks **Enter** from the keyboard. The size of the map will appear as part of the title in the LOJIC Quick Map window.

Figure 21 –Custom Page Size



The **Preview** button allows the user to view the layout. The **Preview** button will set up the size of the map and put the basic elements into the map. The user can add additional marginal elements to the map to fit specific needs. To do this, select **Cancel** to get out of the **Quick Map** tool, then select the layout view within ArcMap. The same map viewed in the Preview will be displayed. Add or delete the required elements. Print the map using the print tool directly from ArcMap instead of using the **LOJIC Quick Map** tool. Additional marginal elements will be lost if the **LOJIC Quick Map** tool is used. The orientation can be adjusted to landscape by selecting the **Landscape** checkbox. To print the layout, select the **OK** button. A user also has the option to click **Cancel** to stop map production. When the layout of the map is displayed, a user can change the scale of the map by changing the scale in the Standard toolbar provided by ArcMap.

Important: When a user selects the **OK** Button in the **LOJIC Quick Map** window, the **Print** window will appear. Within the Print window make sure that the **Proceed with printing, some clipping may occur** is selected in the **Map Larger than Printer Paper** section. If the **Map Larger than Printer Paper** section is grayed, go to **Setup** and make sure that the **Same as Printer** option is not checked in the **Map Size** Section. With all map sizes, go to **Setup**. When printing a standard size, select the printer page size within **Setup**. Select either **Portrait** or **Landscape**. Uncheck the **Scale map elements proportionally to changes in page size**. A user must also change the size in the **Printer Page Size** textbox to fit the size of the layout being printed. When printing an 8.5” x 11” or a 11” x 17” map, use the small printers for the maps. The larger formats need the large plotters. The **Printer Engine** should remain as **Window Printers**.

Exercise for LOJIC Quick Map:

1. Click **LOJIC Quick Map** button, Select 8.5” x 11” print size and click **Preview**.
2. Repeat for all page sizes and check on and off **Landscape** for all page sizes.
3. Select **Custom** and enter your own page size and click **Preview**.

Copy Text File to Layout (Layout View only)




This tool copies an ASCII text file into a layout. (All LOJIC designed map notes are ASCII text files). After choosing the tool draw a box at the location on the layout where you want the text file placed. Once you have chosen a location you will be prompted to select a .txt file.

Exercise for Copy Text File to Layout:

1. Activate the **Layout View**.

2. Click **Copy Text File to Layout** button.
3. With the cursor, draw a box at the desired location of the text file in the layout.
4. Select **I:\Design\TextElements\LOJIC_CopyrightBrief.txt** from the **Select Text File** window to add the property note.
5. Adjust the text file to make it fit the layout.

Calculate Polygon Area Tool (Data View only)

 This tool was written to allow the user to select multiple polygons within one or multiple layers in the TOC and calculate the area of the selected polygons in sq. feet, sq. yards, sq. miles, acres, sq. meters, sq. km. and hectares. This tool also has the option to label the selected polygons with its calculated area.

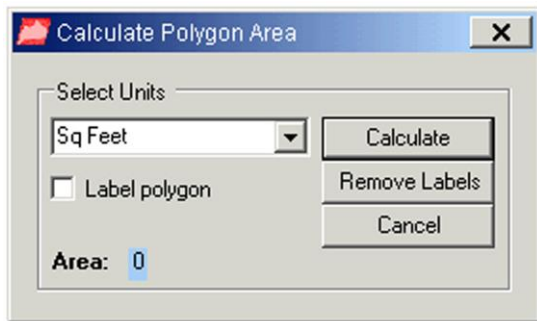


Figure 22 – Polygon Area window.

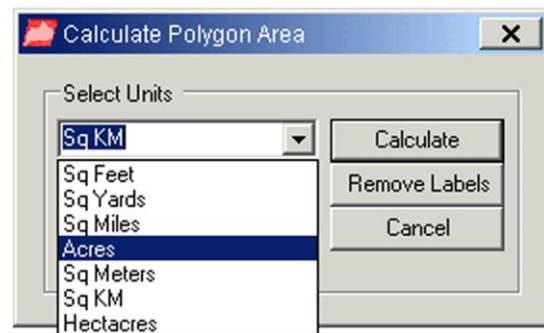


Figure 23 – Area units pulldown.

Exercise for Calculate Polygon Area Tool:

1. Set the Select layer to **Current Parcel Polygon** by right clicking on the layer in the Table of Contents, **click** on **Selection>Make This the Only Selectable Layer**.
2. Click on the **Find Address LOJIC** tool, enter an address and go to it.
3. Making sure the Current Parcel Polygon layer is viewable, **Select** a parcel using the Select Features tool and **click** on the **Calculate Polygon Area** tool (Figure 22). Then **click** the **Calculate** button. The area will appear in the window.
4. Select different units (Figure 23) and **click Calculate** to see the result.
5. **Click** on **Label polygon** and **click Calculate**. **Click** the **Remove Labels** button.