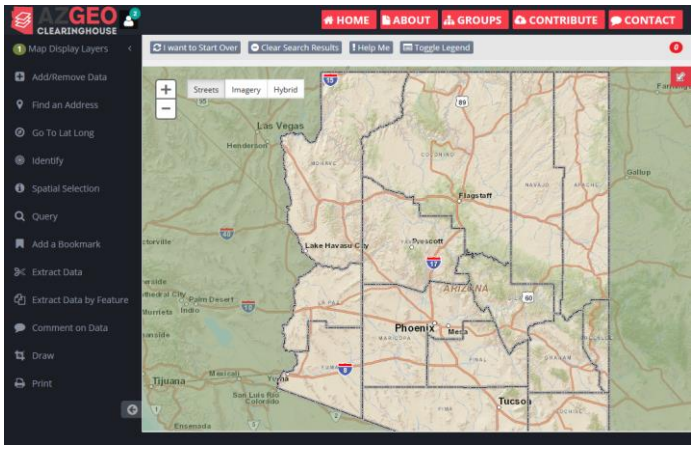
AZGEO Advanced Mapping Application

Help Documentation



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Introduction

Welcome to the AZGEO Advanced Mapping Application. This application has a large collection of map layers with a rich set of spatial analysis tools to help geospatial professionals discover and work with the data they need to do their jobs. The AZGEO Mapping applications were developed by the Arizona Strategic Enterprise Technology Office (ASET), the Arizona State Cartographer's Office and ASU's GIS Services.

Overview

This application has a large collection of map layers with a rich set of spatial analysis tools. This section provides a quick overview of the tools. For more specific instructions on how to use each tool, please refer to each tool's individual section.

When the application first opens there is one data service already loaded into the map (ASLD Administrative Boundaries). A data service often contains a number of data layers within it. In the case of the ASLD Administrative Boundaries, there are 15 data layers in the service, but only one data layer is drawing on the map (County Boundaries). You can determine which data are in the map by looking at the "Map Display Layers" section. To add data to or remove data from the map, click on the "Add/Remove Data" tool. To locate a place on the map (either by address or business name), click on the "Find an Address" tool. To identify something on the map, click on the "Identify" tool and then click somewhere on the map. To select things on the map (either by interacting with the map or searching the tabular information), click on either the "Spatial Selection" tool or the "Query" tool. To bookmark an area on the map so that you can go back to that area in the future, click on the "Add a Bookmark" tool. To extract data, click on the "Extract Data" or "Extract Data by Feature" tool. To send a comment about the data to the data owner, click on the "Comment on Data" tool. To add shapes or text to the map, click on the "Draw" tool. To print the map, click on the "Print" tool.

Use the "Contact Us" button on the right hand side of the map to contact us with any questions or comments.

Tools/Functions

Getting around the map

The AZGEO Advanced Mapping Application uses many of the same mapping functions utilized in other web maps. You can zoom in and out by using the + and – buttons on the top left portion of the map. Or, you can hold down the shift button and draw a box on part of the map to zoom to that specific area. By default a street map of Arizona is the background of the map, but you can easily change that by clicking on either the Imagery or Hybrid buttons.

Many people will select features (such as counties or cities) when they use this application. If at any time you want to clear all of your selections from the map, simply click the "Clear Search Results" button.

If you find that you have done so many things to the map that it would be easier to start from the beginning, click on the "I want to Start Over" button.

Data on the map (aka Map Display Layers and Legend)

When the application first opens there is one data service already loaded into the map (ASLD Administrative Boundaries). A data service often contains a number of data layers within it. In the case of the ASLD Administrative Boundaries, there are 15 data layers in the service, but only one data layer is drawing on the map (County Boundaries). You can determine which data are in the map by looking at the "Map Display Layers" section. To make data draw on the map simply click on the box next to the name of the thing you want to draw.

The legend explains how the data is symbolized on the map. The legend will show the symbology for the data layers which are currently being drawn on the map.

Adding and removing data

If the data that you want to see is not on the map, you can add data to the map by clicking on the "Add/Remove Data" tool. Once you click the "Add/Remove Data" button, you will get a window that allows you to add data in one of three different ways: add data services that are currently available in AZGEO, add data that is available as an external map service, or add data from a KMZ file. Once you add data using one of the three methods, it will appear in the Map Display Layers section of the application.

There are many data services in AZGEO. A list of data services available to you in the leftmost tab of the "Add/Remove Data" window. When you find a data service you want to add, click the "Add to Map" button. If you want to remove data from the map, you would click the "Remove From Map" button. The menu will stay open until you click the "X" in the top right corner of the window. Please note that there are some data services

that are only available to certain groups. The data services that appear in this window will differ for different people using the application (depending on which groups they belong to). To learn more about each data service, click on the data service name in the table.

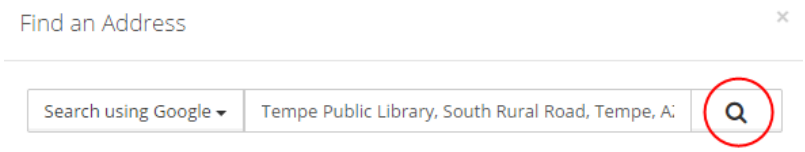
To add data from an external map service, use the middle tab. Type the address of the external map service you want to add and then click the "Add this Service to Map" button.

To add a kmz file to the map, use the right tab. When you click on the "Upload a KMZ file from your computer" button a new window will open and ask you to browse to the location of the file and click the "Upload the file" button. Once you click the "Upload the file" button you will get a message telling you the file is being converted and then the data will add to your map and the window will disappear.

The rightmost tab in the window will allow you to change the settings of how you view the table. If you change the Slideshow option to on, and then return to the "Choose AZGEO Data" tab then you will see more information for each of the data services and you can scroll through all of the available services.

Going to an address

To locate a place on the map (either by address or business name), click on the "Find an Address" tool. A window will pop up and you can type the address you want to find.



As you type the address the tool will start listing similar addresses and you can pick from the dropdown list. When you are finished typing your address click on the magnifying glass and the map will zoom to your selected location and place a red circle on the address.

Identifying things on the map

When you click the Identify button and then click somewhere on the map, a menu will pop up. The menu will tell you the available data layers which are drawing on your map and allow you to pick the layer that contains the element you want to identify. Once you have chosen the data layer from the drop-down menu, click the "Show My Results" button. A table showing the information for the feature will pop up.

Please note: you need to have your pop up blocker off for the table to open.

Selecting things on the map

You can identify or select things on the map either by interacting with the map or searching the tabular information. Each option is discussed below.

Spatial Selection

If you want to identify or select things by clicking on the map, use the "Spatial Selection" tool.

Identify Features on the Map - To identify something on the map, use the leftmost tab on the "Click on the Map" window.

Example: If you want to identify schools, then your "Select Layer" must be set to schools. (If you want to select libraries, then your "Select Layer" would be set to libraries.) Once you have selected the data layer that you want to identify, click the "Start Clicking on Map" button and the menu will disappear allowing you to click on features and see the associated tabular information in a table that pops up.

Please note that your pop up blocker must be turned off for the table to appear.

Select by Shape

To select features on the map by drawing a shape on the map, use the middle tab on the window.

Example: If you want to select all cities in a particular area, then set the "Select Layer" option to "City Boundaries". (If you want to select counties, then your "Select Layer" would be set to County Boundaries.) Next, you need to choose the type of shape you are going to draw. Once you select the type of shape you want to draw, the "Use Map to Search" window will disappear and you can draw your shape on the map. When you are finished drawing your shape, the "Use Map to Search" window will reappear and you will need to click on the "Get my Results" button. The window will then disappear, the map will show your selected features along with the shape you drew, and you will be able to see the tabular information for your selected features.

Please note that your pop up blocker must be turned off for the table to appear.

Buffer and Select

To select features on the map by drawing a shape on the map and buffering that shape, use the rightmost tab on the "Use Map to Search" window.

Example: If you want to select all schools in an area, then set the "Select Layer" option to schools. (If you want to select libraries, then your "Select Layer" would be set to libraries.) Next, you need to tell the computer how much to buffer the shape by and then choose the type of shape you are going to draw. Once you select the type of shape you want to draw, the "Use Map to Search" window will disappear and you can draw your shape on the map. When you are finished drawing your shape, the "Use Map to Search" window will reappear and you will need to click on the "Get my Results" button. The window will disappear, the map will show your selected

features along with the shape you drew and the buffered area, and you will be able to see the tabular information for your selected features.

Please note that your pop up blocker must be turned off for the table to appear.

Query

If you want to select a place by name, click the "Text Search" tool.

Quick Text Query – To search for a place based on information in the table (such as the name of a school or the city in which a school resides) use the leftmost tab on the "Search for Data" window.

Example: If you want to find a school by name, your "Select Layer" must be set to schools. Next, select the field in the table that would have the information you want to see (in this case it would be "Name"). Next type the name of the school that you want to select. If you want to find a particular school, you can select from the dropdown list that appears when you type. If you want to select all schools with a particular word in the name (e.g. Roosevelt) then just type the one word you want (e.g. "Roosevelt). Finally, click on the "Run this Query" button. The "Search for Data" window will disappear and any features that meet your selection criteria will be selected on the map and the tabular information will appear along the bottom of the application.

Please note that your pop up blocker must be turned off for the table to appear.

Search Multiple Fields in a Layer

Sometimes you want to select features based on multiple fields in the tabular data. For instance, you might want to find all of the public schools in Flagstaff. If you want to search for something based on more than one field in the table you would use the rightmost tab of the "Search for Data" window.

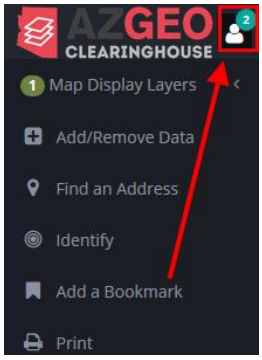
Example: If you want to find all public schools in Flagstaff, then the "Select Layer" should be set to schools. Next, select the field in the table that would have some of the information you want to see (in this case it would be "City"). Click on the operator you would like to use and select the value you want to select and then click the "Add to Query" button. This information will appear in step 5 of the window and you have set up half of the complex query. Next, you need to set up the second half of the query. Just set the field to the new field you want to use, select the operator and the value you want and click the "AND" or "OR" button. The statement in step 5 of the window is now complete and you can run your complex query by clicking on the "Run this Query" button. The "Search for Data" window will disappear and any features that meet your selection criteria will be selected on the map and the tabular information will appear.

Please note that your pop up blocker must be turned off for the table to appear.

Bookmarking an area on the map

To bookmark an area on the map so that you can go back to that area in the future, click the “Add a Bookmark” tool. This tool will allow you to add a bookmark that you can access at a future time. Simply give the bookmark a title, and then click the “Save this Map Area as a Bookmark” button.

To access bookmarks, click on the icon on the top left of the mapping application. A window will open which allows you to view all of the bookmarks (yours and shared). If you click on the “Zoom” button the map will zoom you to the area that was bookmarked. If you click the “Do More” button you can search for features within the bookmarked area or you can buffer the bookmarked area and search for features in that buffer. If you choose to search for features in a bookmarked area, you will need to interact with the “Use Map to Search” tools. Please see that section for explanations on how to use those tools.



Extract Data

The Extract Data tool will allow you to extract data from services on AZGEO based on an area that you draw on the map and save the extracted data to your own file (shapefile, geodatabase, dwg or dxf). Please note that only certain data services on AZGEO allow you to extract data.

Extract Data by Feature

The Extract Data by Feature tool will allow you to easily email either the data owner or AZGEO administrators with comments you have concerning certain data.

Comment on Data

The Comment on Data tool will allow you to extract data from services on AZGEO using a shape from an existing data layer and save the extracted data to your own file (shapefile, geodatabase, dwg or dxf). Please note that only certain data services on AZGEO allow you to extract data.

Drawing on the map

Click on the "Draw" button to open the menu which will allow you to add text or shapes to the map, Once you have chosen what you want to add, click on the "Click to add Markup to Map" button and click on the location on the map where you want to add your drawing. When you draw a shape on the map, that shape's length/perimeter and area will be displayed on the bottom right area of the map.

Printing the map

Click on the "Print" button to print the map to a digital file. You can select the print layout and the type of digital file you would like to print to (pdf, png8, png32, gif, jpg).

Please be sure to turn off your popup blocker before you print.

Viewing and working with tabular information

When you identify or select features on the map, the tabular information for those features will appear in a table in a new window. You can interact with the table in a variety of ways.

- To see how many records were selected, you can look at the number at the top right of the application or the number above the table.
- To change the number of records on a page, use the drop down menu at the top left area of the table.
- To filter the table (for instance only see the schools in Tempe), use the filter option. To remove the filter, simply delete what you wrote in the filter box.
- To filter individual fields, scroll to the bottom of the table and select a value.
- To sort on a field, use the arrows at the top of that field.
- To export a table, use the Export Excel button.
- You can select records within a table and see them highlight on the map
- To search near a selected record(s) in the table, use the "Search Near" button at the top of the table. You first need to select the record(s) that you want to search near. Then, click on the "Search Near" button, you will interact with the Buffer and Select tool. Please refer to that section for an explanation on how to use that tool.
- To search within a selected record(s) in the table, use the "Search In" button at the top of the table. Once you click on the "Search In" button, you will interact with the Select by Shape tools. . Please refer to that section for an explanation on how to use that tool.