

## Geocoding with ArcGIS for Desktop: Esri Data & Maps Locator

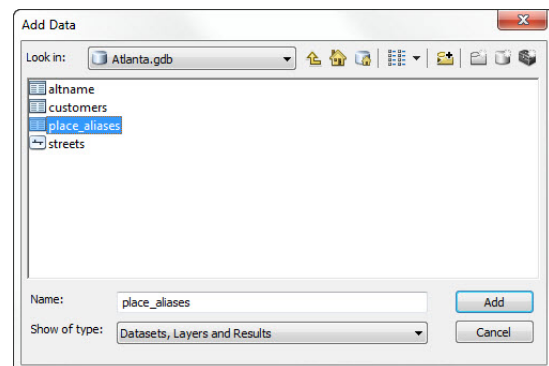
ArcGIS 10.1, 10.2

Welcome to the Essential ArcGIS Task Sheet Series. This series supplements the Iowa State University GIS Geospatial Technology Training Program short course series, “Essential ArcGIS Tutorial Series.” The task sheets are designed to provide quick, easy instructions for performing specific tasks in GIS.

Geocoding is the process of converting addresses or other identifiers (cities, postal codes) to x, y coordinates on a map. This task is pretty easy and straight forward when using a robust locator. This task sheet will cover geocoding in ArcGIS for Desktop using the address locator provided in the Data & Maps DVD that comes with an ArcGIS software subscription. You must have access to the data and tools provided in the Data & Maps DVD to follow this task sheet.

### 1. Prepare the Data

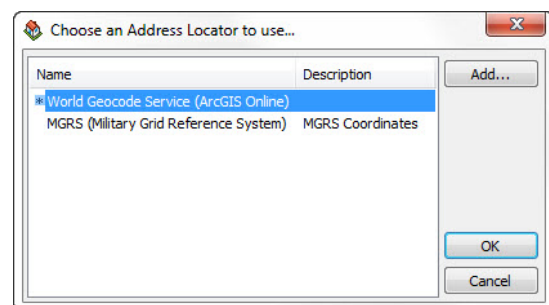
- For this example, you will be using tutorial data that is provided by Esri within the Data & Maps DVD. You can download the address table used in this task sheet at [www.extension.iastate.edu/communities/gis/quicktasksheets/data](http://www.extension.iastate.edu/communities/gis/quicktasksheets/data) but you will not have access to the address locator. In a web browser click on the publication number **PM2082-14I**. *Note: this will not include the address locator provided by Esri.*
- When the download is complete, you will need to unzip the folder or copy the files from the zipped folder to a different folder or directory in order to access the files. *Note: Ignore this step if you are working from the data provided by the Data & Maps DVD.*
- Open a blank ArcMap Document.
- Add the table named **place\_aliases** using the following path **v10.1\_TutorialData > Geocoding > Atlanta.gdb** to the ArcMap document.
- Right-click on **place\_aliases** in the **Table of Contents** and select **Open**. You will see that the table has columns for **Address, City, State, and Zip**. To get the best results, all of these columns are needed. Close the table.



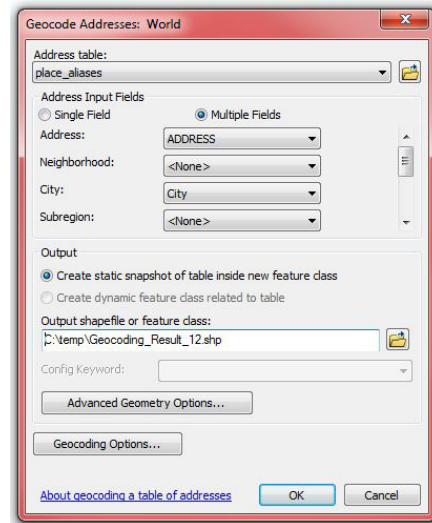
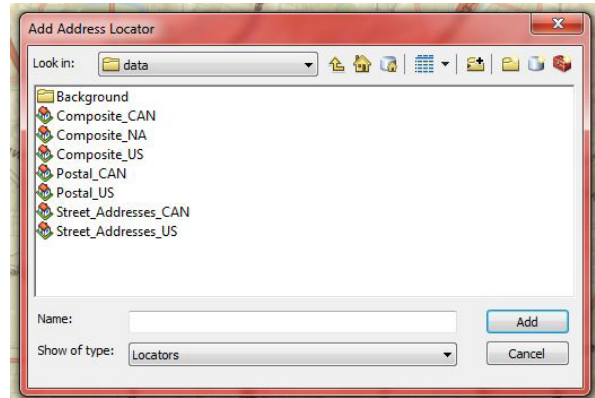
OBJECTID*	NAME	ADDRESS	City	State	ZIP
1	Children's Museum of Atlanta	34 Peachtree Street NW	Atlanta	GA	30303
2	APEX Museum	135 Auburn Avenue NE	Atlanta	GA	30303
3	Public Library	455 Beverly Rd NE	Atlanta	GA	30309
4	Atlanta Market	241 16th St NW	Atlanta	GA	30318
5	Children's Hospital	35 Butler Street SE	Atlanta	GA	30303

### 2. Using the Data & Maps Locator

- If you will be using the locator provided in the Data & Maps DVD, you should also download the **streetmap\_na** folder.
- Right-click on **place\_aliases** and choose **Geocode Addresses**.
- You will see that **World Geocode Service (ArcGIS Online)** is the default locator. Click **Add**.

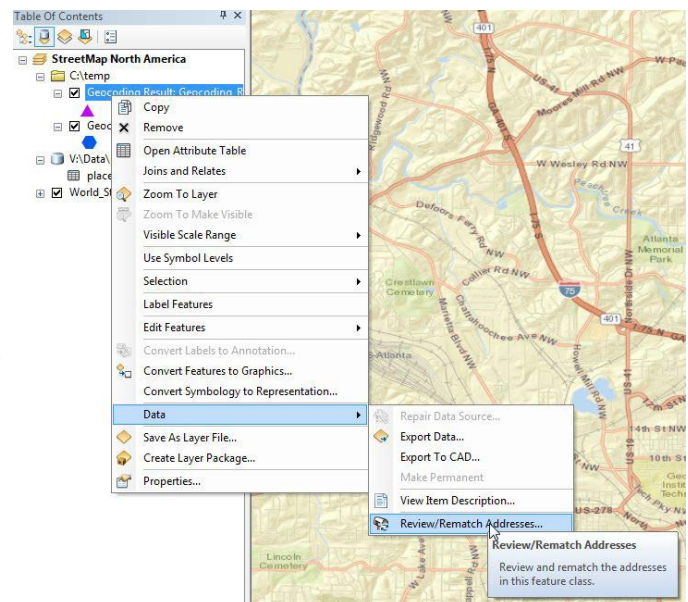


- d. Follow this path to location of the locator: **streetmap\_na > data**. You will see multiple address locators that you can use. For this example, select **Street\_Addresses\_US** and click **Add**.
- e. You will see that locator you just added is now selected. Click **OK**.
- f. The **Geocode Addresses** window will appear. ArcGIS has identified that the fields in our table match the particular fields given in the window. Choose your output location and click **OK**.
- g. You will see a window that shows the percentage of your results that were matched, tied, or unmatched. In this case, one record went unmatched. Click **Close**.
- h. You will now see your matched locations in the map. There is one address that was not matched by the locator and therefore will not be displayed on the map. You will need to match this address manually in order to get it to display on the map.



### 3. Reviewing Data and Matching Unmatched Results

- a. Right-click on the shapefile that was created during the geocoding process select **Data** and choose **Review/Rematch Addresses**.
- b. Click on the record with status **U** for **Unmatched** to select it.
- c. The candidates discovered for the address you selected are displayed on the **Candidates** panel. You can examine the list of candidates and choose the one that you think matches your original address the best.
- d. Click on the candidate that most closely matches your unmatched address and click **Match**. This will match the address to the candidate and the address point will be added to the map.



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