Geocoding with ArcGIS for Desktop: ArcGIS Online Locator

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.

At some point in working with GIS, you will be asked to analyze data that only comes from a table of addresses. This is both quick and easy through a process called geocoding. Geocoding is performed through the use of a locator. There are many locators that have been created and you can even create your own. However, this task sheet will show you how to geocode addresses using the ArcGIS Online Locator. This requires an ArcGIS Online account, including trial accounts.

1. Prepare the Data

   a. For this example, you will be using tutorial data that is provided by Esri within the Data & Maps DVD. If you do not have access to the Esri tutorial data follow the link to download address table from our site at [www.extension.iastate.edu/communities/gis/quicktasksheets/data](http://www.extension.iastate.edu/communities/gis/quicktasksheets/data) In a web browser click on the publication number PM2082-14k.

   b. 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.*

   c. Open a blank ArcMap Document.

   d. Add the table named `place_aliases` using the following path Geocoding > Atlanta.gdb to the ArcMap document.

   e. 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.

2. Using ArcGIS Online

   a. To geocode this table of addresses, right-click on `place_aliases` in the Table of Contents and select Geocode Addresses.

   b. You will see that World Geocode Service (ArcGIS Online) is the default locator. Click OK.

   c. The ArcGIS Sign In window will appear. Since we are using ArcGIS Online, you must have an ArcGIS Global account. If you don't have an account you can sign up...
for a trial account using task sheet publication number PM2082-13h as reference. Warning: Geocoding using ArcGIS Online will use Online credits. Make sure you have enough credits to cover the amount of addresses you need to geocode.

d. After signing in, you will see the Geocode Addresses window. ArcGIS has matched the fields in our table to the fields given in the window. Choose your output location and click OK.

e. You will see a window that shows your geocoding results as matched, tied, or unmatched. Matched means the address was successfully matched to an address in the address locator and will be displayed on the map. Tied means more than one address matches the address listed in the table and unmatched means no address was matched to the address in the table. Click Close. You will now see your matched locations on the map.

3. Reviewing Data

a. If you have an unmatched or tied address result you can review and edit results by right-clicking on the shapefile that was created during the geocoding process select Data and choose Review/Rematch Addresses.

b. If you see a record with status U for Unmatched, click on the record 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. The Candidate details panel shows you the same attributes as the Candidates panel but displays only one record at a time so it is easier to read.

d. Click on the candidate that most closely matches your unmatched address and click Match. This will match the address you selected to the candidate you chose and the point will be added to your map.

Hints:

- In the drop-down menu at the top of the Interactive Rematch window, you can choose to only view Unmatched addresses.
- After you have matched a few addresses, click Refresh to remove those addresses from your Unmatched list.
- Be careful of the Score listed for the candidates. It is very possible that the highest scoring candidate is NOT the correct address.

Contact:

Josh Obrecht, GISP jobrecht@iastate.edu, 515-294-6990. Bailey Hanson bahanson@iastate.edu, 515-520-1436 or Professor Christopher J. Seeger, ASLA, GISP cjeeger@iastate.edu, 515-509-0651 for more information about the Geospatial Technology Program. This task sheet and more are available at www.extension.iastate.edu/communities/gis