How to Geocode in ArcMap

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Adding Data and Selecting an Address Locator

1. Make sure your data table is saved as .xlsx, .csv or .dbf.
2. Add your data table to ArcMap using the Add Data button ( ).
3. Right click on the table and select Geocode Addresses. The “Choose an Address Locator to use...” dialog box opens.
4. Click the Add button.
Address locators for the United States and Canada are installed on GIS lab computers and can be downloaded ([https://ist.mit.edu/arcgis](https://ist.mit.edu/arcgis)) from the same site where you downloaded ArcGIS (MIT certificates required). Instructions for using these locators are below. Locators for Europe are on CDs in the GIS lab ([http://library.mit.edu/item/002074235](http://library.mit.edu/item/002074235)). Stop by the GIS lab during open help hours or email us ([gishelp@mit.edu](mailto:gishelp@mit.edu)) if you need help using the European address locators.

5. Navigate to address locators you just downloaded or if you are working on a GIS lab computer, to streetmap_na/data in ESRI Data & Maps folder on the desktop.

Select the appropriate address locator and click Add:

**Composite_CAN:**
- For geocoding in Canada
- The address is first passed through Street_Addresses_CAN.loc and if it does not find a match, it is passed through Postal_CAN.loc.
- Input fields: Address, Municipality, Province, and Postal.

**Composite_NA:**
- For Geocoding in North America.
- The address is first passed through Composite_US.loc. If it does not find match, it is passed through Composite_CAN.loc.
- Input fields: Address, City, State, Postal, and Country. The file must contain a field with country names or abbreviations (US, CAN).

**Composite_US:**
- For geocoding in the United States.
- The address is first passed through Street_Addresses_US.loc and if it does not find a match, it is passed through Postal_US.loc.
- Input fields: Address, City, State, and Zip Code.

**Postal_CAN:**
- For geocoding in Canada if you only have a postal code.
- Input field: Fsa. Addresses will be matched to the 3-digit FSA centroid location. If the input is a 6-digit postal code, only the first 3 digits will be used for geocoding.

**Postal_US:**
- For geocoding in the United States when you only have a Zip Code.
- Input field: Zip Code.

**Street_Addresses_CAN:**
- For geocoding in Canada when you have a street address or intersection address.
- Input fields: street or intersection, municipality, province, and postal.

**Street_Addresses_US:**
- For geocoding in the United States when you have a street address or intersection address.
- Input fields: Street or Intersection, City, State, and Zip Code.

Note: If you are using an address locator and do not have all the fields (ex. address, city, state, but no zip code) and are not getting any matching results, you may have to change the settings of the locator. See the section below called “Troubleshooting when there are few or no matching addresses”
Geocoding

1. The address locator you chose will appear in the address locator box. Make sure it is selected and click Ok.

2. The Geocode Addresses box will open. In the Address Input Fields section, select one of the following options:
   a. **Single Field**—The complete input address, such as 303 Peachtree St NE, Atlanta GA 30308, is stored in one field in the address table.
   b. **Multiple Fields**—Each input address is broken down into multiple fields, such as Address, City, State, and ZIP Code for a general United States address.

3. Click the drop-down arrow to select each column in your data table that corresponds to each field.

4. Click the folder icon and navigate to the location where you want to save the output shape file.

5. Click OK to start geocoding. You will see the progress window. A point shapefile will automatically be added to your map when you click Rematch or Close. If all addresses were geocoded, click Close. To see which addresses were not matched, click Rematch.
Rematching Addresses

1. If you closed the progress window, but want to Rematch address, you can access the Interactive Rematch through the Geocoding toolbar.
   a. Right click anywhere in a blank space in the top toolbar of ArcMap. Select the Geocoding toolbar.
   b. Select your geocoding results layer in the table of contents.
   c. Click the Review/Rematch Addresses icon in the geocoding toolbar.

2. Click on the drop down arrow to display different subsets of addresses.
3. For addresses that were not matched, you can select a match from the list (if one is listed), type in a different address, or select a location on the map. Click Close when you are finished.

You have now finished geocoding your addresses. For more information on Geocoding, see ESRI ArcMap help.
Troubleshooting when there are few or no matching addresses

1. Check to make sure your input columns are in the correct format.
   a. Check that all Zip Code numbers are displayed. Sometimes leading zeros are removed automatically by Excel. Save the Zip Code as “text” or “zip code” format.
   b. Make sure there are no random characters or spaces in name of each column and within the data in the columns.
   c. Use a 2-character abbreviation for State or the full name.
2. Save the table in .xlsx format.
3. Close the original data table before geocoding.
4. Lower the sensitivity of the Geocoding tool. This can be found under “Geocoding Options” in the “Geocode Addresses” dialog box.
5. If you do not have complete addresses (no state or zip code for example), adjust the address locator settings.
   a. Open ArcCatalog
   b. Navigate to the address locator you want to use.
   c. Right click and select Properties.
   d. Expand Geocoding Options and change “Match with no zones” to “Yes”
   e. Click Ok and try geocoding again.