How to Geocode in ArcGIS Desktop

Training

Prepare the Excel Spreadsheet

Microsoft Excel spreadsheets are common resources to geocode in ArcMap. The Excel spreadsheet should be formatted and cleaned prior to geocoding, in order to maximize the geocoding match percentage.

The following format, or similar, is recommended before proceeding to geocode:

| FIELD NAME	FIELD TYPE	FIELD SPECS	DESCRIPTION
Name	Text	255	Name of the point location
Address1	**Text**	**255**	**Street number and street name**
Address2	Text	255	Secondary info. (i.e. – Building, Suite, Unit)
City	Text	255	City of the point location
State	Text	255	State of the point location
ZIP	**Text**	**255**	**ZIP code of the point location**

Note: **Bold** fields are minimally required fields for geocoding.

Batch Geocoding

1. Open ArcMap
2. In ArcMap, Click the Add Data button to navigate to the spreadsheet to be geocoded
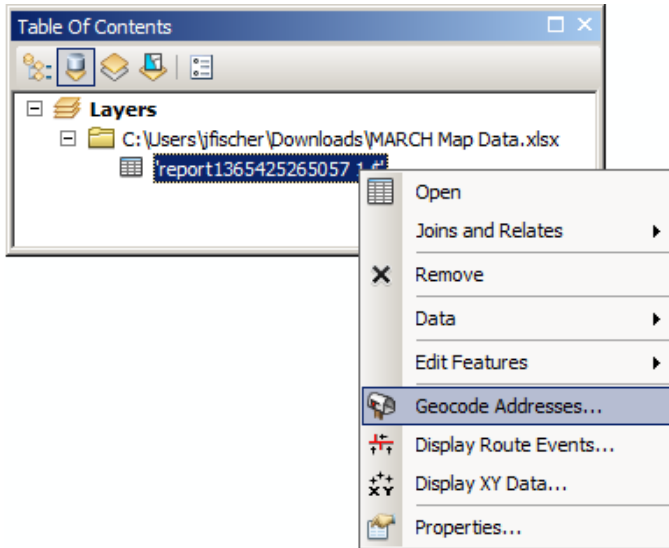

3. Navigate to the location of the Excel spreadsheet worksheet to be geocoded, Select the worksheet and Click Add
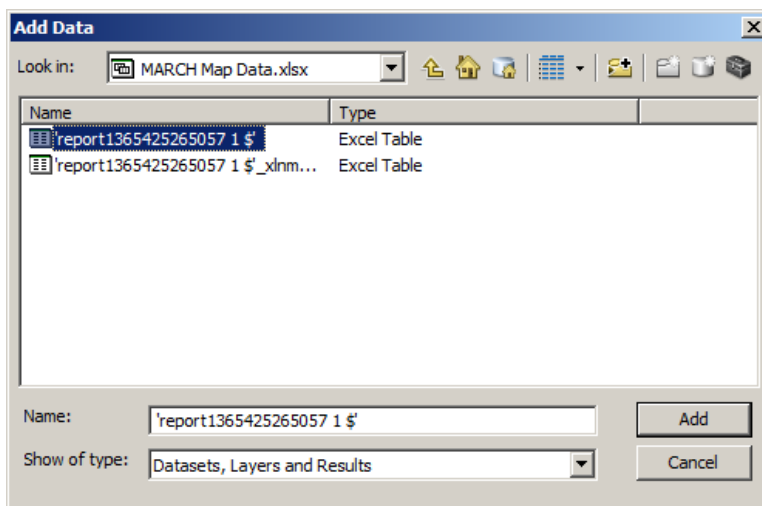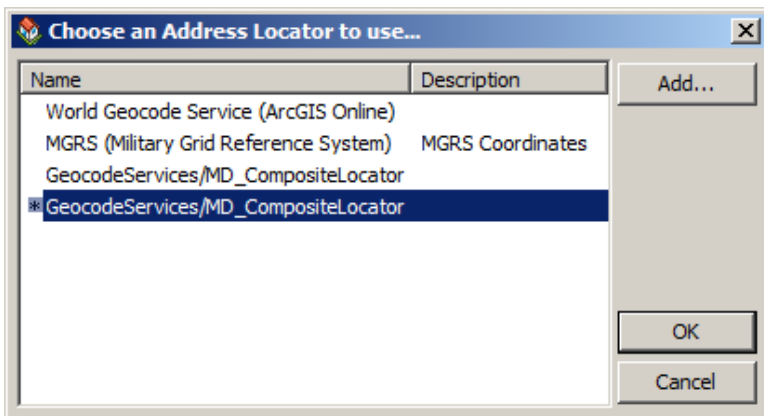

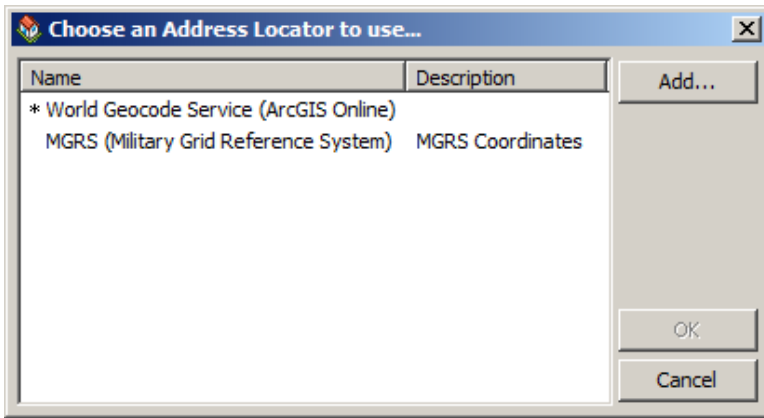4. Click the List By Source button at the top of the Table of Contents to access the worksheet added in ArcMap
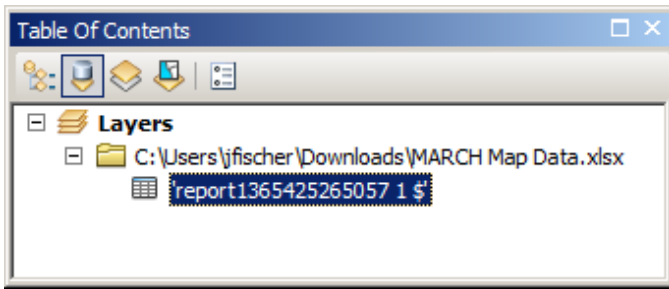
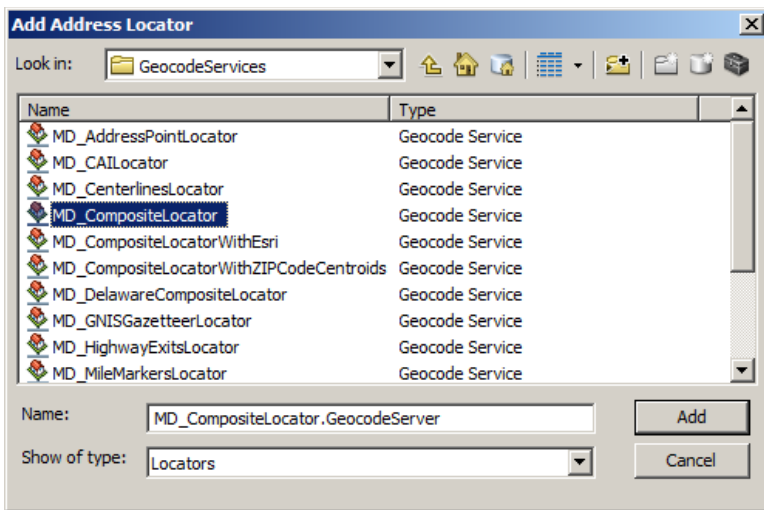5.   Right Click the worksheet and Select Geocode Addresses…

6a. If the geocoder is already in the list, Click the desired geocoder, Click OK and proceed to Step 10.

6b. If the geocoder is not available in the list, Click Add…

7b. Navigate to the desired geocoder, Select it and Click Add

Note: For access to the MD iMAP geocoder, make sure a GIS Server connection has been made to the MD iMAP Server. If a GIS Server connection has not been made to the MD iMAP Server, please use the "How To Add MD iMAP 2.0 Web Services in ArcGIS Desktop" for instructions on how to make this connection.

8b. The selected geocoder will now appear in the Choose an Address Locator to use… window list. Select the desired geocoder and Click OK
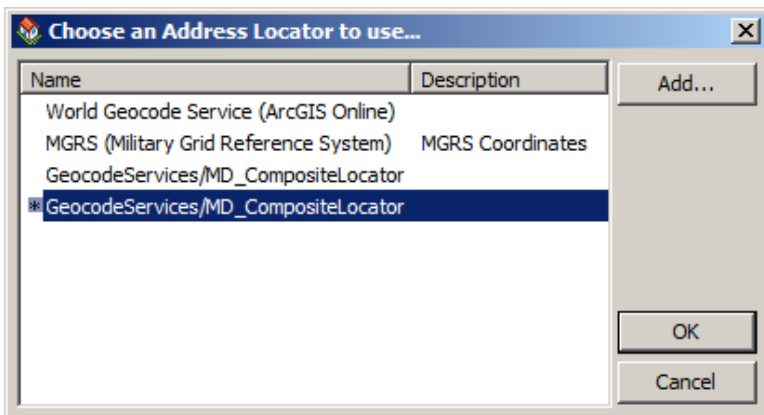
9b. Once a GIS Server connection is established, navigate to GIS Servers (imap on geodata.md.gov) > Geocode Services > MD_CompositeLocator

Note: The following steps are specific to the MD_CompositeLocator from MD iMAP. Other geocoders will have different specifics and input requirements. Please find support for other geocoders at http://www.esri.com

10. Enter the appropriate information in the Geocode Address form. Use the dropdowns to match the input fields with the worksheet fields.

*Note: Instructions on how best to format table syntax when using the composite locator are available in the "How to Use the Maryland Composite Locator in ArcGIS Desktop" document. This is especially useful for address fields consisting of mile markers, place names, highway exits and intersections.*

11. Click the folder to the right of "Output shapefile or feature class:" and navigate to the output location for the geocoding results
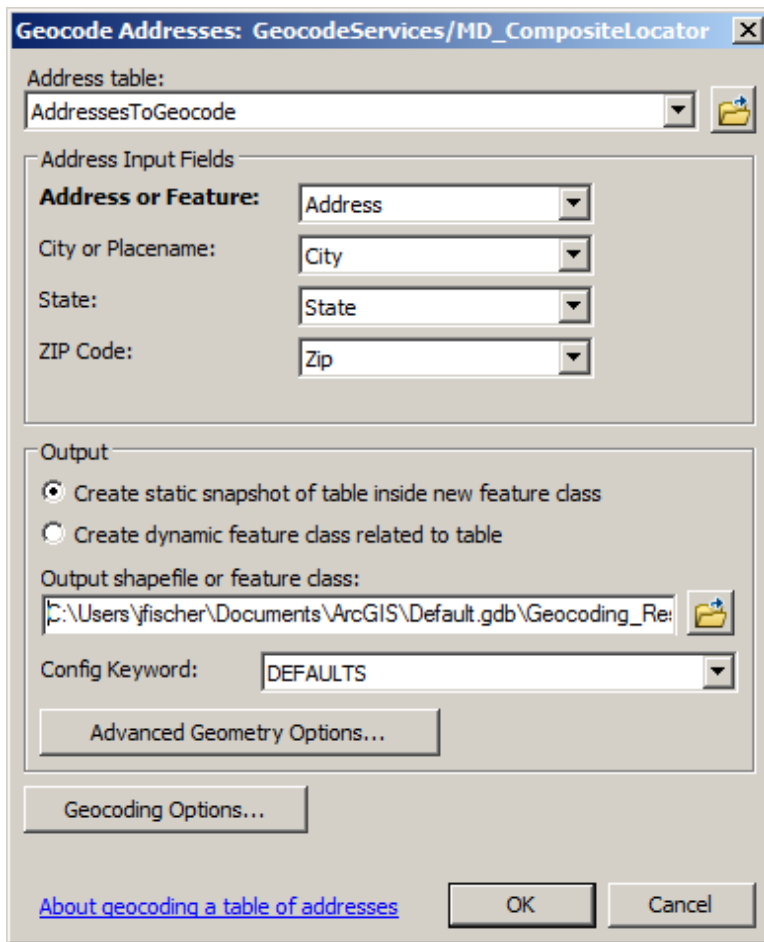
12a. If the output geocoding results are being saved as a shapefile, set the "Save as type:" dropdown to Shapefile, provide a name for the shapefile and Click Save and proceed to Step 15
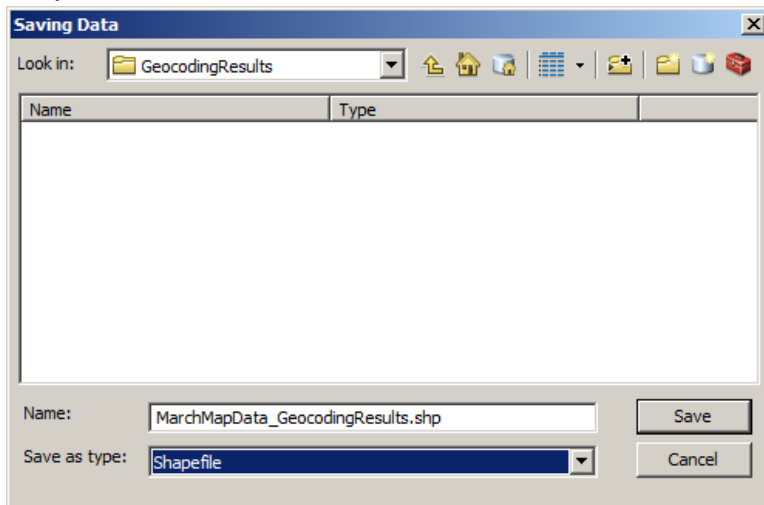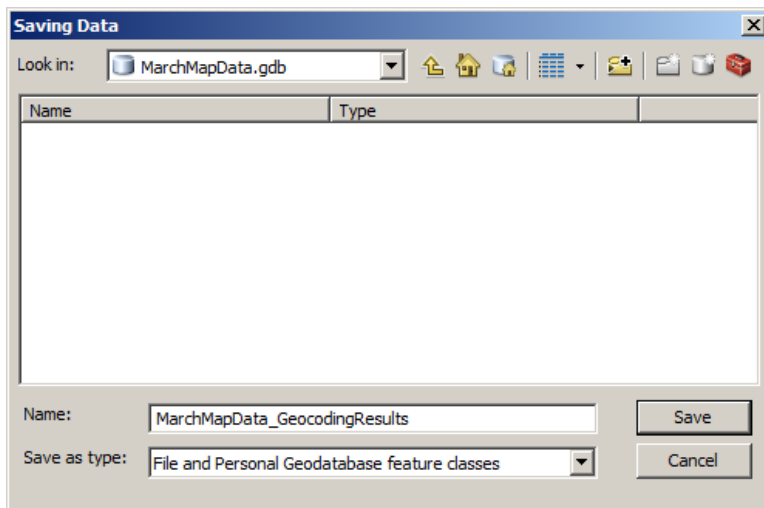

12b. If the output geocoding results are being saved as a feature class, set the "Save as type:" dropdown to File and Personal Geodoatabase feature classes and Click the New File Geodatabase button
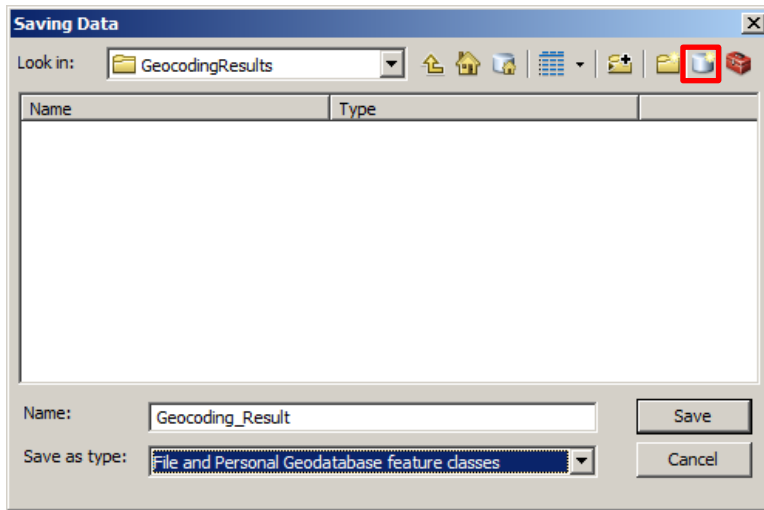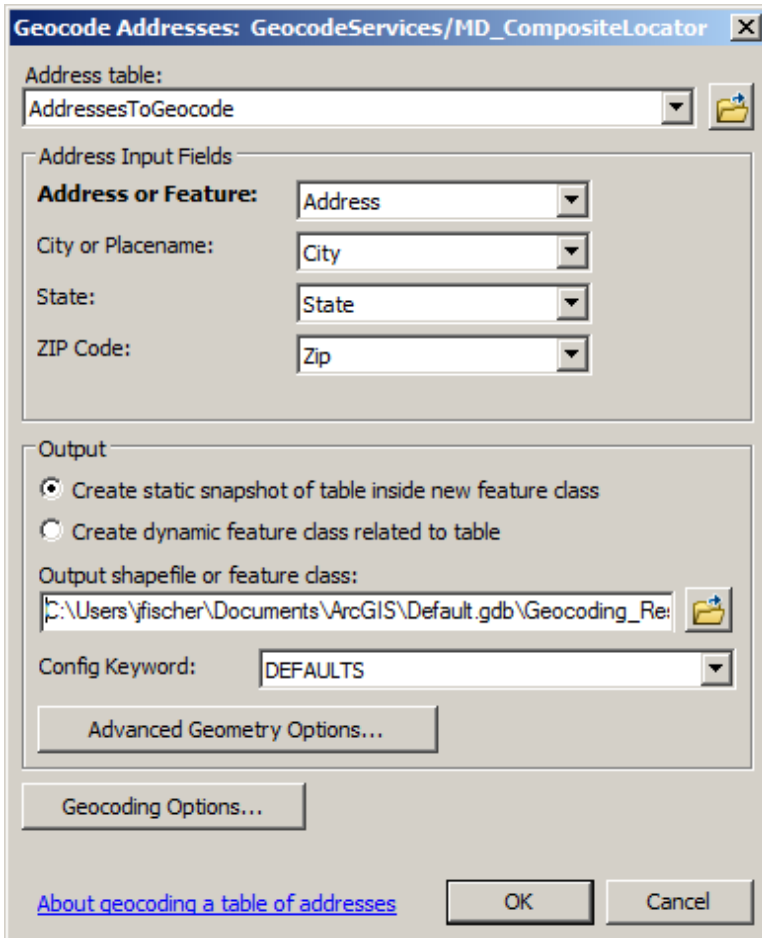
13b. Rename the file geodatabase and Double Click the file geodatabase
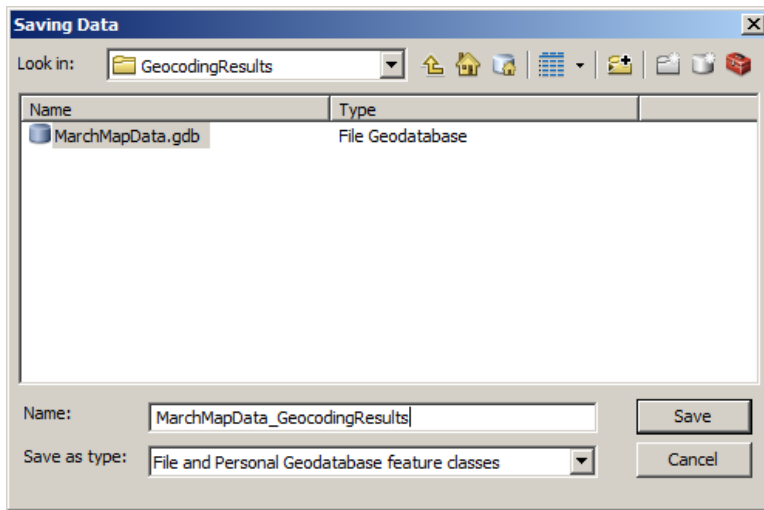
14b. Provide a name for the feature class and Click Save

15. Click Advanced Geometry Options

Note: Make sure the Spatial Reference is set appropriately. The default of the composite locator is "WGS 1984 Web Mercator (auxiliary sphere). For much of the geocoding in Maryland "NAD_1983_StatePlane_Maryland_FIPS_1900_Feet" or "NAD 1983 StatePlane Maryland FIPS 1900 (Meters)" might be preferred.
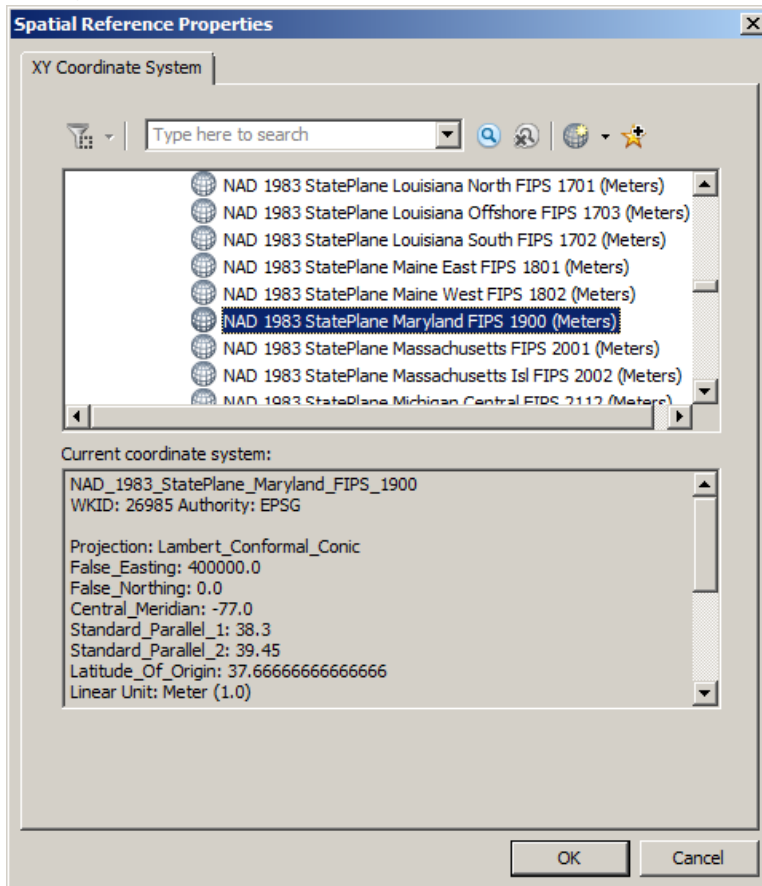
16a. If the Spatial Reference is already set to the desired spatial reference, Click OK and proceed to Step 19
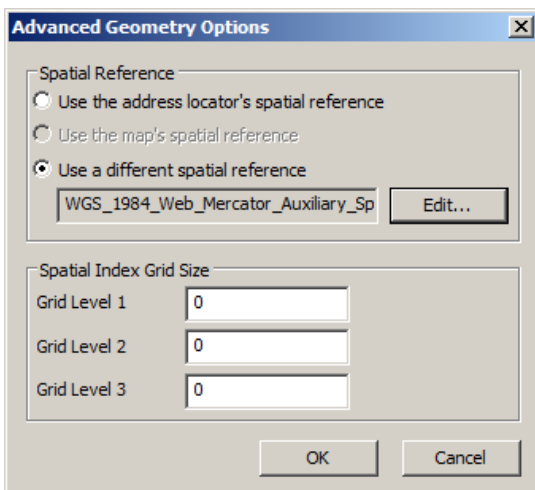
16b. To set the Spatial Reference manually, Select the radio button "Use a different spatial reference" and Click Edit
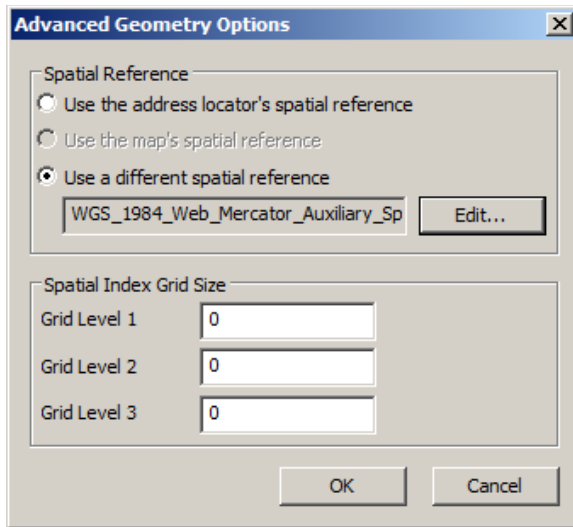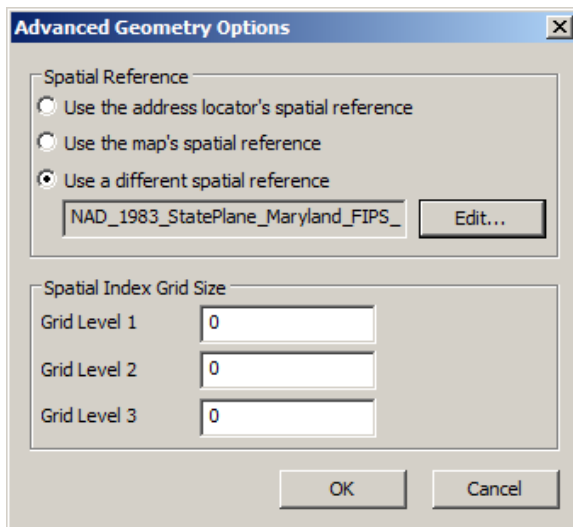

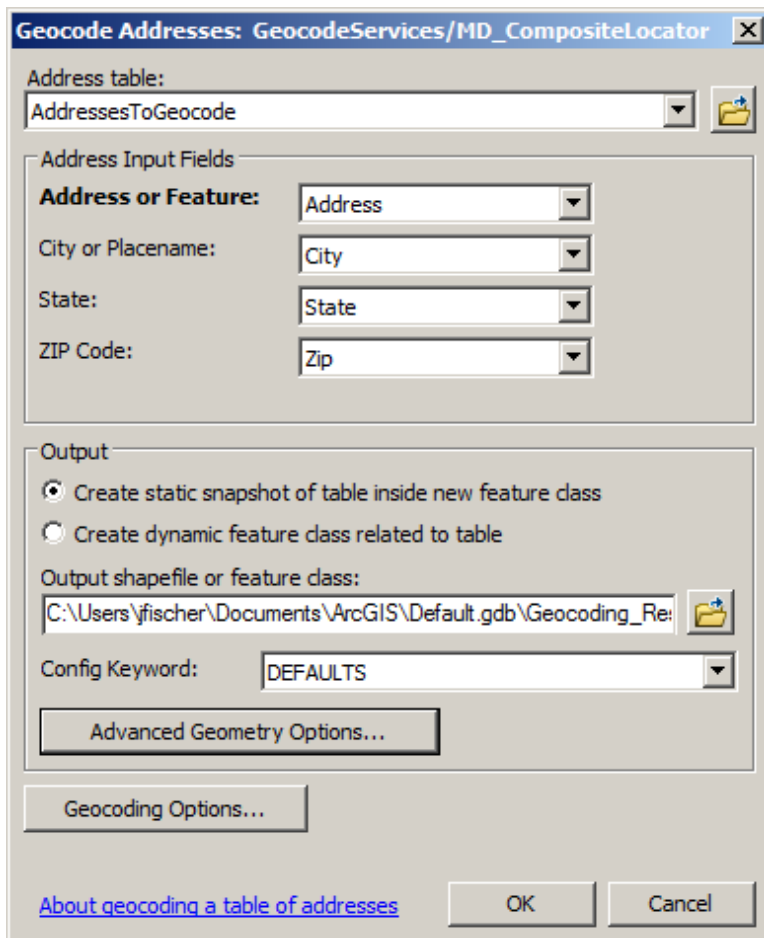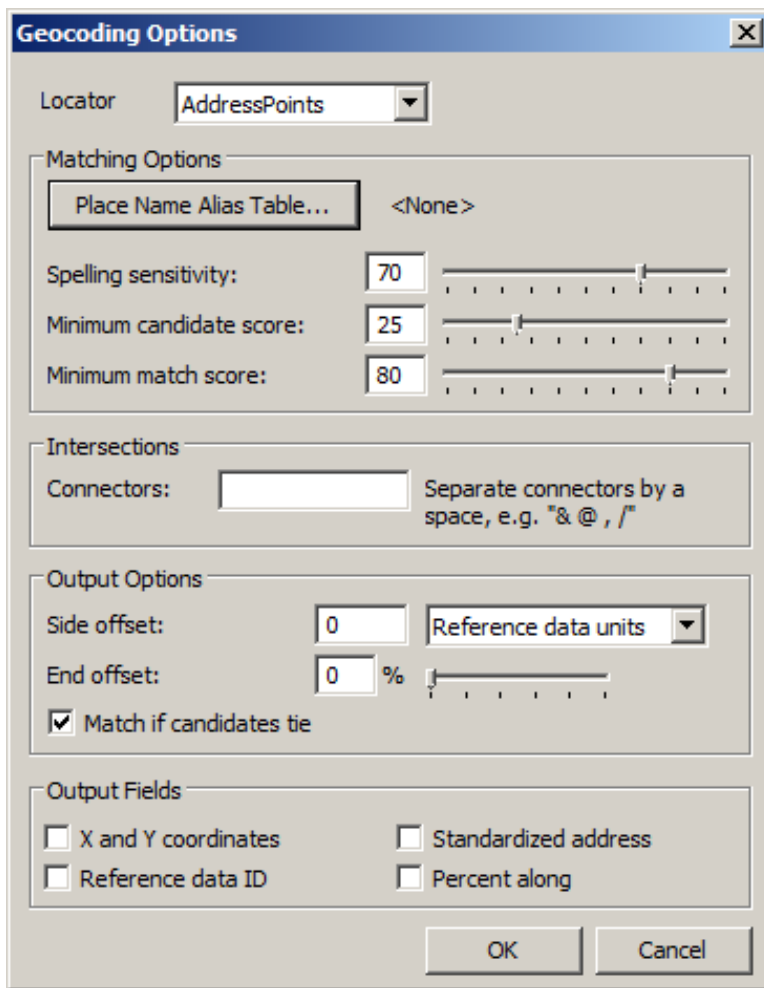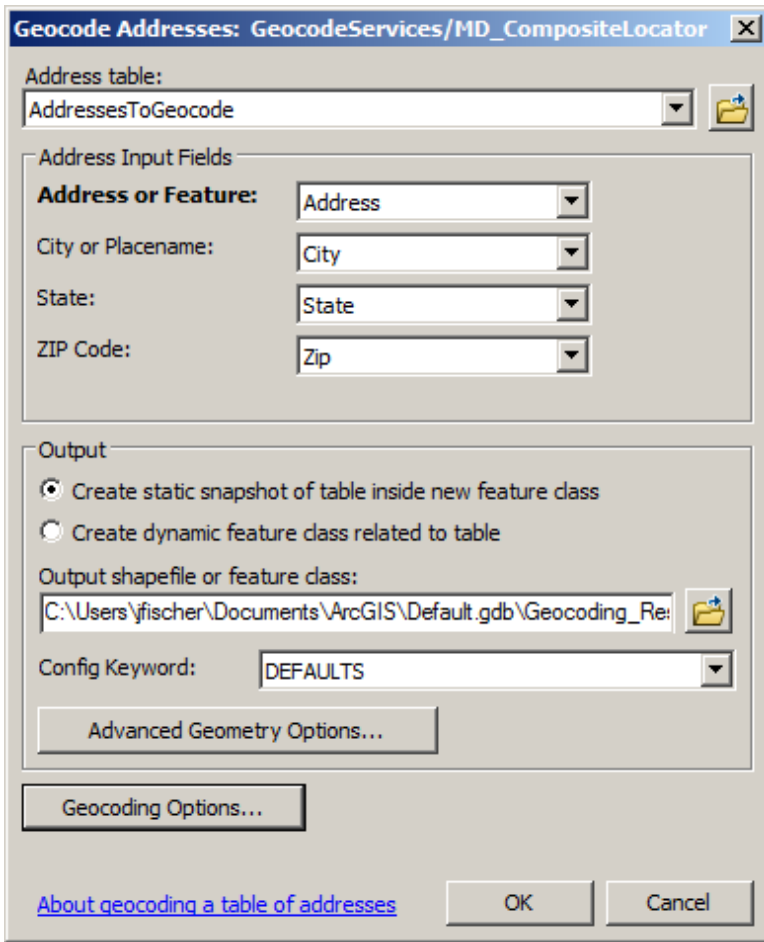17b. Navigate to the desired spatial reference, Select it and Click OK

18b. Click OK

19. Click Geocoding Options

20. Recommended settings are to uncheck "Match if candidates tie" under Output Options, if not already unchecked and the remainder of the settings remain as the default settings and Click OK

Geocoding Options

Locator   AddressPoints

Matching Options

Place Name Alias Table...   <None>

Spelling sensitivity: 70

Minimum candidate score: 25

Minimum match score: 80

Intersections

Connectors: Separate connectors by a space, e.g. "& @ , /"

Output Options

Side offset: 0   Reference data units

End offset: 0 %

☑ Match if candidates tie

Output Fields

☐ X and Y coordinates   ☐ Standardized address

☐ Reference data ID   ☐ Percent along

OK   Cancel

21. Click OK to run the geocoding process

Note: A screen will appear to indicate how long the geocode will take to complete, the progress and the final tally of what matched and what was unmatched. Rarely will you get 100% for matching, so Rematch will need to be employed to get the percentage match to 100%.

22. Click Close