

Using StreetMap in ArcMap – Composite Locator

Overview

StreetMap allows users to generate a point file with (U.S. Postal Service) USPS standardized addresses within the ArcView environment. You can do this in either ArcMap or ArcCatalog, but ArcMap is preferred. All data in the input table is retained. The output file is either a shape file or a geodatabase file format.

StreetMap comes with several address locators, which is what ArcView uses to process input addresses and generate an output point file. A composite locator based on StreetMap and ZIP code is available for users who have access to the M:\GISDATA folder at DHSS. If you do not have access to this folder, see the document “[Using Basic StreetMap in ArcMap – Standard Locator](#)”, which will step you through the ‘out of the box’ StreetMap geocoding.

The composite address locator, StreetMap_ZIP composite, steps through a series of address match levels, which provide more to less accurate point placement. First a match is attempted to a specific street segment. If an exact street match is not found, it will next attempt to match to either a ZIP code center (Kansas City or St Louis) or the center of the town (all other cities). Most addresses should have a point at the end of this process. The exception would be any abbreviated city names (KC instead of Kansas City) combined with incomplete or missing ZIP codes, or the use of “UNKNOWN” in several of the fields. You will be able to tell how well the point was placed by reviewing the loc_name column in the output file. If you have spent time going through the Best Practices document and cleaned up your address data, you shouldn’t have very many unplaced points.

Any database type that is supported by ArcGIS (Access, DBF, Excel) can be used as an input file for geocoding. The overall success rate is determined by the quality and completeness of the input addresses provided to the geocoder. ArcView does not support Office 2007 file formats, so remember to save your data to the older 97-2003 file type.

Before You Begin – Start with a clean input address file

Before beginning any geocoding process, you must have an electronic file containing complete address information.

- The most common file formats are Excel, Access, or Dbase (DBF version 4). Excel files derives its field names from the 1st row in each column of the worksheet, so make sure you have added these fields to your file.
- The input file should contain at a minimum: **Primary Address, City, State, Zip**
- Any other fields, such as patientID, county, type, comments etc can remain in the input table. This information will be transferred into the output table.
- The document “*Geocode_PreparingInputAddressData_BestPractices.doc*” provides more complete guidelines for data preparation and common problems with address data. Editing your input file before you start geocoding will increase the number of good matches.


Start Geocoding – ArcCatalog or ArcMap

You can geocode from either ArcMap or ArcCatalog. Geocoding from ArcCatalog is very simple. Just browse to the file you want to geocode, right click the file name, and select Geocode Addresses. However, geocoding within ArcMap is preferred because you have options for processing any unmatched records. Whether you start geocoding from ArcCatalog or from ArcMap, the prompts in the dialogs are the same.

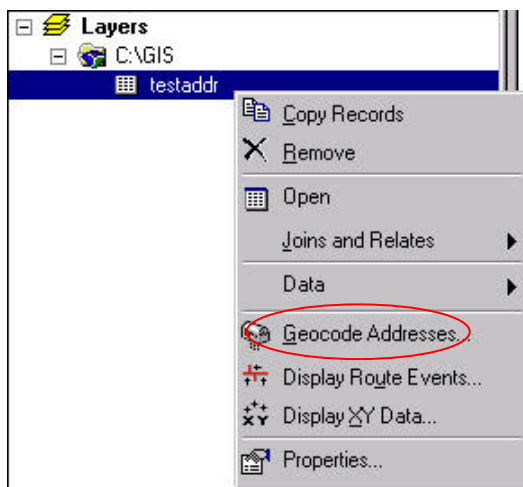


Open ArcMap. You can access ArcMap through the icon on the desktop or through the start menu: Start > Programs > ArcGIS > ArcMap

Load input table

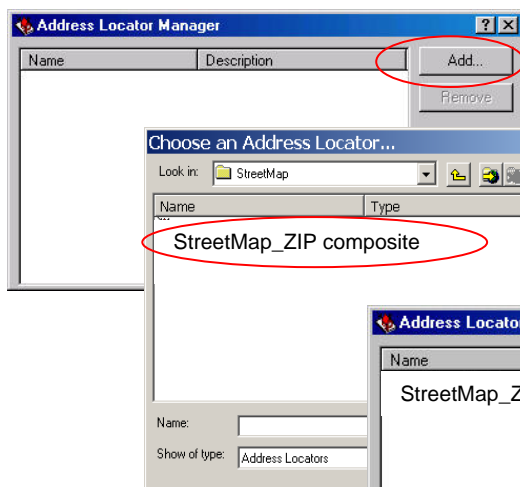
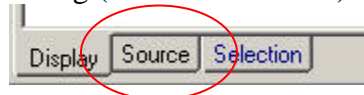
Add your table to your map, using the Add Data button  in ArcMap. Optionally, you can drag the table from ArcCatalog onto ArcMap.

Select table to be geocoded



Select the input table in ArcMap. Right click on the table and select Geocode Addresses.

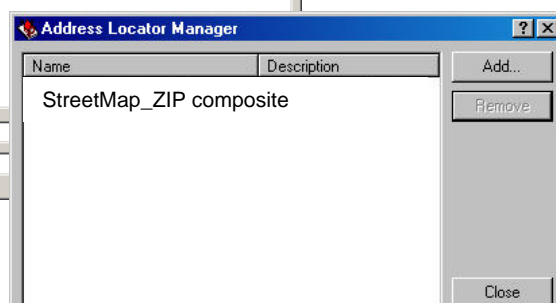
If you don't see your file, remember to select the Source tab, located at the bottom of your layer listing (Table of Contents).



Specify an Address Locator

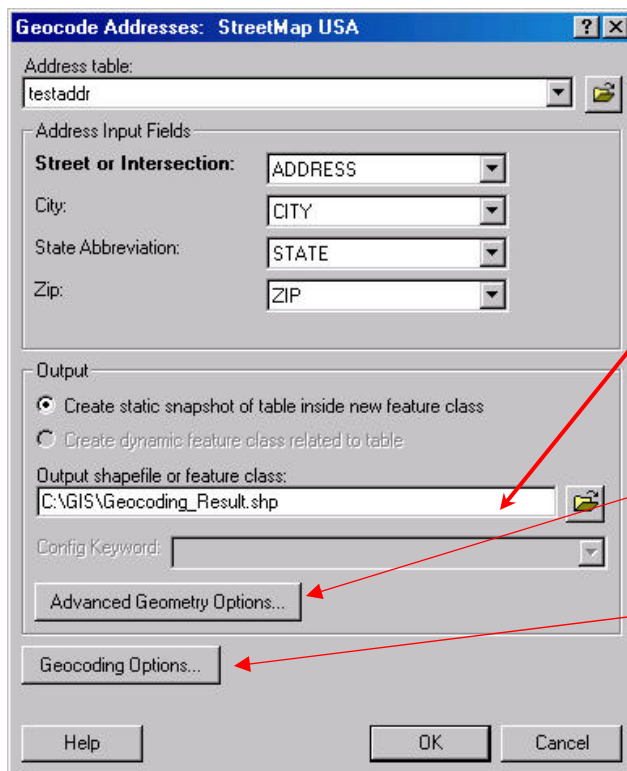
You specify an Address Locator file to use as a reference. By default, no locators are found in the Address Locator Manager.

Click Add to browse to the location of the StreetMap address.



Browse to M:\GISDATA\StreetMap
Select StreetMap_ZIP composite.
Click Close.

Verify Input Address Fields



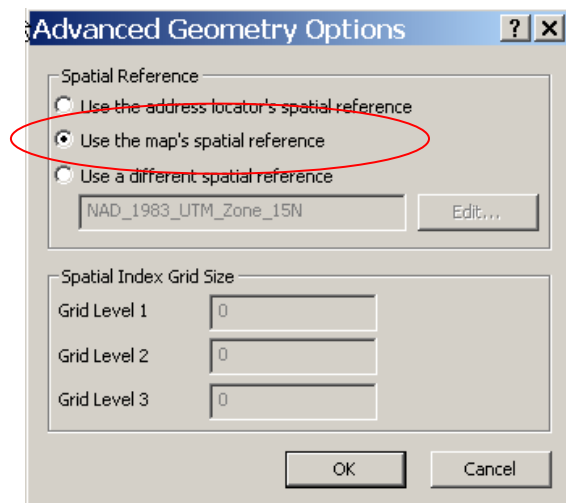
Depending on the names used in your input table, the dialog may or may not be filled out completely.

! Verify output location and file name. Don't accept a default file name and location. Keep track of what you named the file and what folder you put it in.

Change the coordinate system of the output shape file to match the other data layers.

You may also wish to alter the spelling sensitivities and the output options. You can do this by clicking Geocoding Options.

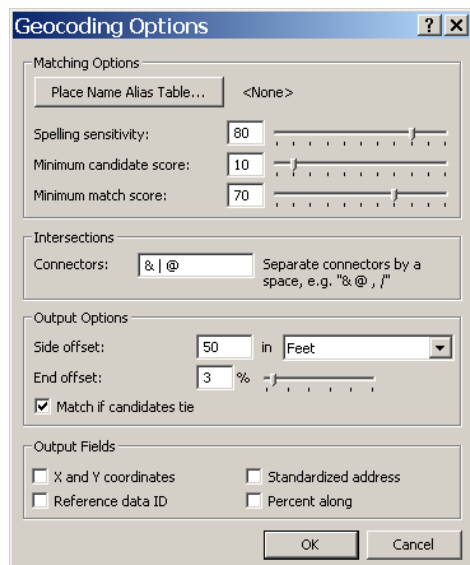
Change the Advanced Geometry Options



Change the Spatial Reference to Use the map's spatial reference.

Click OK.

You may also wish to alter the spelling sensitivities and the output options. You can do this by clicking Geocoding Options.



Decide if you want to change the Geocoding Options.

You can either key in a value or use the slider bar to lower the score. Lower spelling sensitivity should give you more matches.

The more you drop this number, the more likely you are to introduce matches that might not be good choices. (For example, you may have 123 Main St in Kennett MO, but you might drop your score low enough to match to 123 Main St in New Madrid.) Spelling sensitivity below 65 is not recommended.

You can also drop the minimum match. Don't drop this score below 55.

You should also change the Side offset to between 20 and 50 feet. If you do not provide an offset the point will fall in the middle of the street instead of one side or the other. Most street right of ways are at least between 30 and 60. Providing the offset is more likely to place the point closer to a structure.

An end offset of 3% provides a similar "correction" to the placement. Addresses at the very ends of the street (100 Main St) will be adjusted slightly to more likely fall within a property rather than in the street.

Once you have adjusted these, click OK to exit the Geocoding Options dialog.

When all your parameters are set, click OK in the Geocode Addresses dialog.



Depending on the number of records you are processing, the process will take anywhere from 1 minute (less than 100 records) to over an hour (thousands of records).

Review/Rematch Addresses

Any unmatched addresses can be rematched either automatically or interactively. If you want to try Match Automatically, you should alter the spelling sensitivity (this assumes you haven't already dropped the sensitivities). Otherwise, you will not gain any more matches. Spelling sensitivity below 65 is not recommended as you are likely to begin matching to candidates you shouldn't.

Review/Rematch Addresses

Statistics

Matched with score 80 - 100:	8 (73%)
Matched with score <80:	3 (27%)
Unmatched:	0 (0%)
Matched with candidates tied:	1 (9%)
Unmatched with candidates tied:	0 (0%)

Rematch Criteria

☒ Unmatched addresses

☐ Addresses with score <

☐ Addresses with candidates tied

☐ All addresses

☐ in this query

Geocoding Options...

Match Interactively **Match Automatically** **Done**

Click Done.

A point file will be added as a new layer in the layer list in ArcMap.

Open up the attribute table of the newly created file. Check the loc_name column to find out whether the point is placed to a specific road segment (loc_name = 'StreetMapUSALo' to the center of a city (loc_name = 'PopulatedPlace' or to the center of a ZIP code (loc_name = 'LocatetoZIPcol').

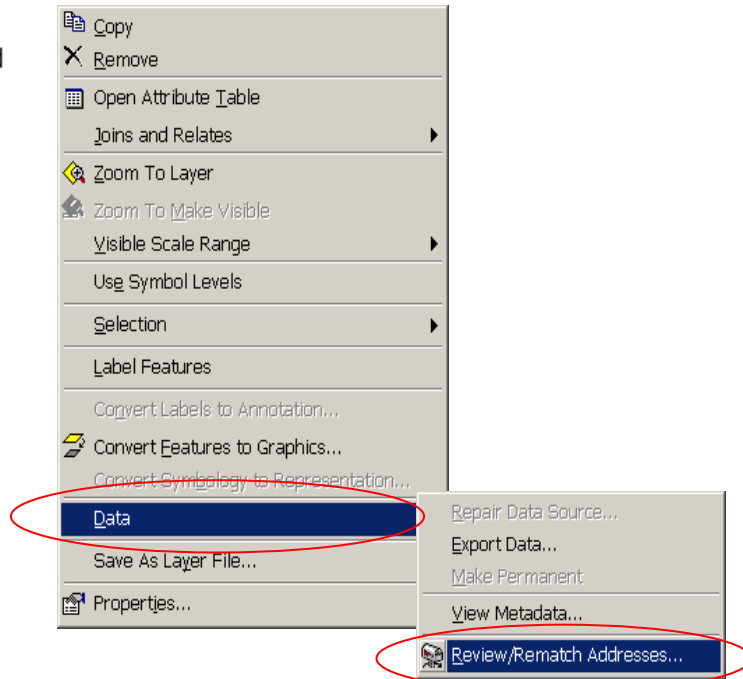
These attributes tell you how accurately the point is placed. Depending on the level of accuracy you want to achieve (and how complete your address records are), you may want to proceed to the next section on Advanced Techniques. Otherwise, your data is ready to use.

Advanced Techniques

Right click on the geocoding results point file, select Data > Review/Rematch Addresses:

Layers

- ☒ Geocoding Result: Geocoding_Result
- ☒ small town or village - unincorporated

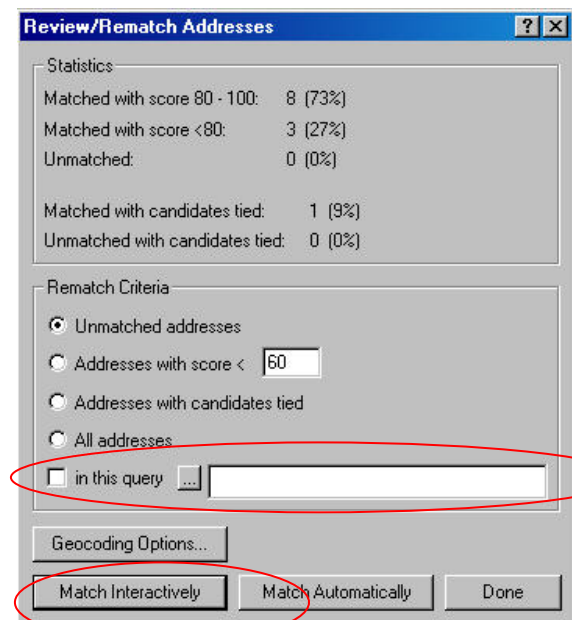


Matching Interactively – City Centers to StreetMap

If you have a full complete addresses, but have many matches that were only to the center of the city, you might choose to interactively review just the candidates who were matched to a city center.

In the Review/Rematch Addresses dialog, check the box “in this query” and then set the definition to "Loc_name" = 'PopulatedPlace'

This will open the Interactive Review dialog, filtering to only those addresses that had a match to the city centers.



Interactive Review

Shape	Loc_name	Status	Score	Side	Match_addr
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HOMESTOWN, MO
Point	PopulatedPlace	M	100		WARDELL, MO
Point	PopulatedPlace	M	100		CARDWELL, MO

Record: 1 Show: All Selected Records (of 20) Options

Locator: StreetMapUSAPI address: 5TH AND EASTWOOD city: CARUTHERSVILLE state: MO

Standardized address: Modify... | 5TH | | 63830

20 Candidates

Loc_name	Score	Side	LeftFrom	LeftTo	RightFrom	RightTo	PreDir	PreType	StreetName	StreetType	SufDir	LeftCity	RightCity
StreetMapUSAPI	49		0	0	0	0			15TH	ST		CARUTHERSVILLE	CARUTHERSVILLE
StreetMapUSAPI	49		0	0	0	0			15TH	ST		CARUTHERSVILLE	CARUTHERSVILLE
StreetMapUSAPI	49		0	0	0	0			15TH	ST		CARUTHERSVILLE	CARUTHERSVILLE
StreetMapUSAPI	49		0	0	0	0			15TH	ST		CARUTHERSVILLE	CARUTHERSVILLE

Geocoding Options... Zoom to: Candidates Original Extent Search Match Unmatch Close

In this example, the original match was made to the PopulatedPlace locator, which means the point was placed in the center of the town. However, the address of “5th and Eastwood” is complete (intersections are an acceptable form of address). The problem with this particular record is the use of the word “and”.

First, edit the address (circled below) changing “and” to either “&” or “@”. Both of these are acceptable syntax for an address based on an intersection.

Next, change the Locator from PopulatedPlace to StreetMapUSALo.

Now that the address format is corrected, you can look through the StreetMapUSALo, which provides segment by segment possible candidates. You will see that there is now a candidate

Interactive Review

Shape	Loc_name	Status	Score	Side	Match_addr
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HOMESTOWN, MO
Point	PopulatedPlace	M	100		WARDELL, MO
Point	PopulatedPlace	M	100		CARDWELL, MO

Record: 1 Show: All Selected Records (of 20) Options

Locator: StreetMapUSAPI address: 5TH & EASTWOOD city: CARUTHERSVILLE state: MO

Standardized address: Modify... | 5TH | | EASTWOOD | | CARUTHERSVILLE | MO | 63830

1 Candidate

Loc_name	Score	Side	PreDir1	PreType1	StreetName1	Type1	SufDir1	LeftCity1	RightCity1	State1	LeftZip1	RightZip1	PreDir2	PreType2
StreetMa...	65	E			5TH	ST		CARUTHERSVILLE	CARUTHERSVILLE	MO	63830	63830		

Geocoding Options... Zoom to: Candidates Original Extent Search Match Unmatch Close

available for matching.

Make sure the candidate is selected and click Match. The location of the point will be adjusted from the center of town (Caruthersville) to the more accurate placement at the intersection of 5th St at Eastwood.

Matching Interactively – Multiple Candidates

Some addresses, especially incomplete ones, may have more than one possible match candidate. In that case, a match might be made to the city center, rather than randomly matching to one of several choices. In this example, the record was matched to the center of the town because the address number, 801, did not appear in any of the segments with the street name Oates.

All the potential candidates will be shown below. The score for each candidate in this example is below the score of “80”, the default spelling sensitivity.

Interactive Review

FID	Shape	Loc_name	Status	Score	Side	Match_addr	ARC_address
4	Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO	5th and Eastwood
5	Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO	5th and Ferguson
14	Point	PopulatedPlace	M	100		HAYTI, MO	801 N. Oates
15	Point	PopulatedPlace	M	100		HAYTI, MO	Hayti Ballfield Complex
17	Point	PopulatedPlace	M	100		HOMESTOWN, MO	City Hall
18	Point	PopulatedPlace	M	100		WARDELL, MO	Wardell City Park
19	Point	PopulatedPlace	M	100		CARDWELL, MO	500 S. Main

Record: 3 Show: All Selected Records (of 20) Options

Locator: StreetMapUSAPI address: 801 N. OATES city: HAYTI state: MO

Standardized address: 801 | N | OATES | | HAYTI | MO | 63851

3 Candidates

Loc_name	Score	Side	LeftFrom	LeftTo	RightFrom	RightTo	PreDir	PreType	StreetName	StreetType	SufDir	LeftCity	RightCity
StreetMapUSAPI	57	R	1506	1706	1117	1505	N		OATES	DR		HAYTI	HAYTI
StreetMapUSAPI	54		0	0	0	0	N		OATES	DR		HAYTI	HAYTI
StreetMapUSAPI	50		0	0	0	0			OATES			HAYTI	HAYTI

Geocoding Options... Zoom to: Candidates Original Extent Search Match Unmatch Close

The input address was 801 N Oates. Notice the columns for LeftFrom, LeftTo, RightFrom, RightTo numbers. These are the address ranges for the nearest street segments to the address 810. This particular record was not matched because there is no 800 block for Oates.

You can choose to match to the nearest segment, the first candidate (1506 1706 1117 1505 N Oates Dr). Select any of the candidates and click Match.

Alternately, you can zoom to the candidates to preview these three options on the map before you decide.

It is very common to not have a particular address number available anywhere along a street name. If you don't like any of the choices, and matching to an address number way outside your range is not satisfactory to you, move on to another record. If you still have unmatched records, the next step is to interactive place them by clicking a point on the map.

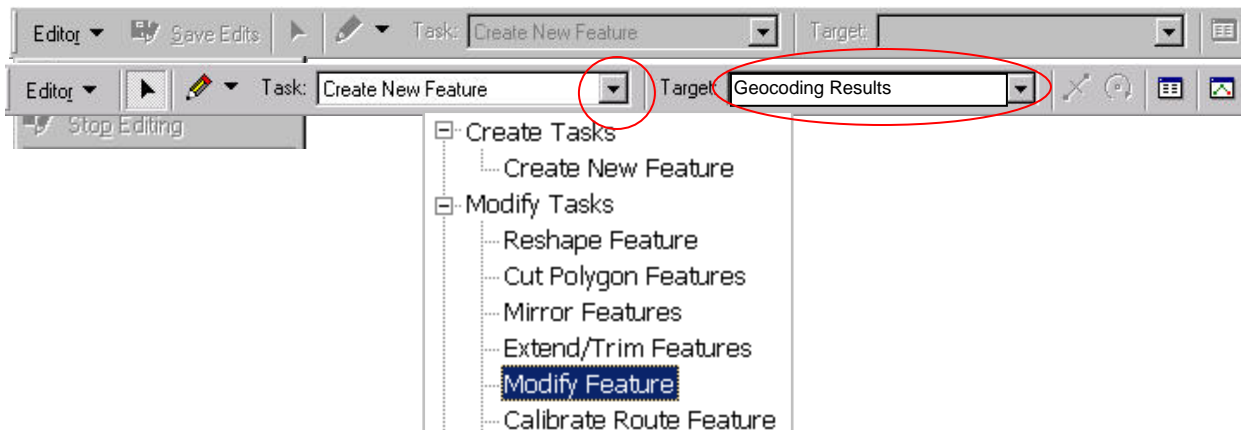
Unmatched Records - Matching Interactively by Pointing on the Map

If you have no candidates to choose from, you can match the last of the points by hand, provided you know approximately where they are on a map. (You will click on the map and the point will be placed where you click.) This assumes you have personal knowledge about a particular area, have other resources to provide additional information about a location or know that several of your addresses are really site names that you know are maybe available from some of the other data layers. If you have addresses that reference facility names like schools (“North Elementary School”) or hospitals (“Barnes Jewish North”), rather than a street address, it is a good idea to load a few more data layers. These are available in the M:GISDATA\Facility folder (schoolPublic.shp and hospitals.shp for these examples).

If you are in the Interactive Review dialog, close it.

Start an Edit session. Make sure your geocoded point file is in the folder you are editing.

Set the task on the Editor toolbar to Modify Feature and the target to the geocoded layer.



Open the attribute table of the geocoded points and select/highlight the record to be placed.

In the Status field, change the U to an M for the selected record.

Attributes of Geocoding Result: Geocoding_Result									
FID	Shape *	Status	Score	Match_addr	ARC_City	ARC_State	COUNTY	LOCATION	Address
0	Point	M	100	BUTTERFIELD, BARRY	Butterfield	BARRY	BARRY	Butterfield Community Center	602 Ash St.
1	Point	U	0		Monett	BARRY	BARRY	LaCobbe Special Assist Living	
2	Point	U	0		Monett	BARRY	BARRY	Monette Hospital (Private)	
3	Point	M	100	WASHBURN, BARRY	Washburn	BARRY	BARRY	Washburn Church of Christ	
4	Point	U	0		Monett	BARRY	BARRY	Church of Nazarene	201 S Highway 37
5	Point	M	100	LAMAR, BARTON	Lamar	BARTON	BARTON	Hall	11th and Broadway
6	Point	M	100	GOLDEN CITY, BARTON	Golden City	BARTON	BARTON	Community Cente	Depot Ave
7	Point	M	100	LAMAR, BARTON	Lamar	BARTON	BARTON	Senior Citizens Bldg	
8	Point	M	100	CAMDENTON, CAMDEN	Camdenton	CAMDEN	CAMDEN	Mid County Fire Dept	148 N Highway 5
9	Point	M	100	STOCKTON, CEDAR	Stockton	CEDAR	CEDAR	Assembly of God Church	1505 S. 3rd. Street
10	Point	M	100	CLEVER, CHRISTIAN	Clever	CHRISTIAN	CHRISTIAN	Clever City Hall	304 S Clarke Av
11	Point	M	100	OZARK, CHRISTIAN	Ozark	CHRISTIAN	CHRISTIAN	1st Baptist Church	1400 W Jackson
12	Point	M	100	BILLINGS, CHRISTIAN	Billings	CHRISTIAN	CHRISTIAN	Billings Community Center	119 SE Washington
13	Point	M	100	NIXA, CHRISTIAN	Nixa	CHRISTIAN	CHRISTIAN	Nixa Fire District	711 N. Main St.
14	Point	M	100	NIXA, CHRISTIAN	Nixa	CHRISTIAN	CHRISTIAN	Nixa Fire Station 4	301 S Nicolas Rd.
15	Point	M	100	OZARK, CHRISTIAN	Ozark	CHRISTIAN	CHRISTIAN	Countryside Christian Church	3350 W. Jackson St.
16	Point	U	0			CHRISTIAN	CHRISTIAN	James River Assembly	Hwy 65 & CC
17	Point	U	0		Union Hill	CHRISTIAN	CHRISTIAN	Union Hill Church of Christ	865 N. Nicolas Rd
18	Point	M	100	HIGHLANDVILLE, CHRISTIAN	Highlandville	CHRISTIAN	CHRISTIAN	Highlandville Fire Station	1162 Glossip Rd.
19	Point	M	74	LEASBURG, CRAWFORD	Leasburg	CRAWFORD	CRAWFORD	Leasburg 1st Baptist Church	378 Hwy H



Using the Sketch tool, click on the map at the desired position. The point you placed will become the location of the record you have selected. If you make a mistake, you can continue to click other locations.

Make sure you save your edits often! ArcMap does not keep any temporary files and you could lose a lot of work if you don't remember to do this for yourself.

If you need to find out more information about a site, especially if are looking for a business rather than an individual, don't forget the Internet is a great resource. Sites such as maps.google.com or melissadata.com are suggested. Melissa Data has an Address Lookup which is extremely useful: <http://www.melissadata.com/Lookups/addressverify.asp>. If you have only part of an address, it will show you information like all the street names in a ZIP code or all the available address ranges for a particular street name.

*Last Updated 11/14/2008
Tracy Schloss*

Matching Interactively

You might choose to interactively match some of the candidates if you weren't able to place the points even to the center of the city.

Review/Rematch Addresses

Statistics

Matched with score 80 - 100:	8 (73%)
Matched with score <80:	3 (27%)
Unmatched:	0 (0%)
Matched with candidates tied:	1 (9%)
Unmatched with candidates tied:	0 (0%)

Rematch Criteria

☒ Unmatched addresses

☐ Addresses with score <

☐ Addresses with candidates tied

☐ All addresses

☐ in this query

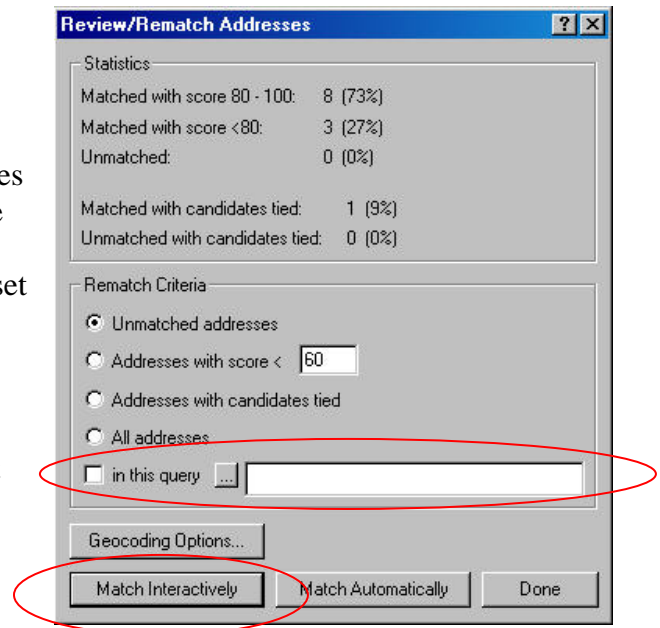
Geocoding Options

The dialog will likely already have “Unmatched addresses” as the selected choice in the Rematch Criteria section of the dialog.

Matching Interactively

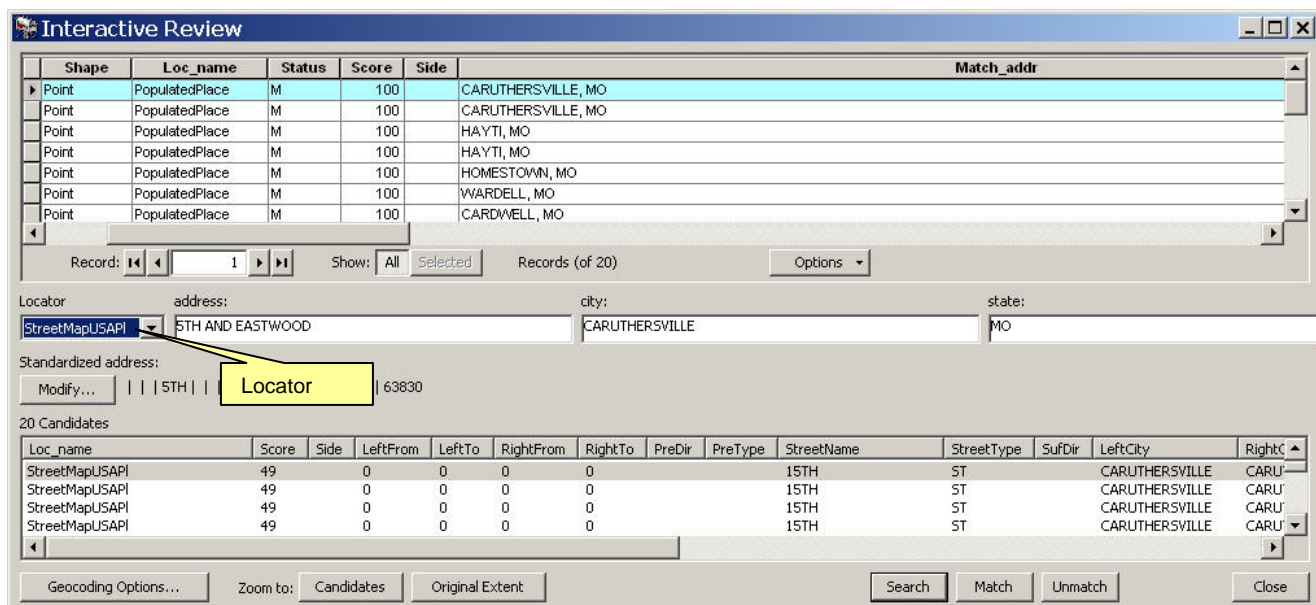
You might choose to interactively match some of the candidates if you have many complete addresses that only matched to the city center. If you choose to do this, you can change the Rematch Criteria to the option “in this query”, hit the ellipse (...) and set a definition of "Loc_name" = 'PopulatedPlace'

Interactive matching is the most time consuming part of geocoding, especially if you have not spent any time making sure your addresses are complete and clean as possible.



In this example, a match was made to the PopulatedPlace locator, which means the point is in the center of the town. However, the record does have a complete address of “5th and Eastwood”. One problem with this particular record is the use of the word “and”. So the 1st thing to try is to change it to either “&” or “@”. Both of these are acceptable for an address based on an intersection.

Next change the Locator from PopulatedPlace to StreetMapUSAPI.



Once the Locator is changed to StreetMapUSA and the address format changed, you will see that there is a candidate available for matching.

The screenshot shows the 'Interactive Review' window with a table of location candidates. The table has columns: Shape, Loc_name, Status, Score, Side, and Match_addr. The first candidate is highlighted in blue.

Shape	Loc_name	Status	Score	Side	Match_addr
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HAYTI, MO
Point	PopulatedPlace	M	100		HOMESTOWN, MO
Point	PopulatedPlace	M	100		YVARDELL, MO
Point	PopulatedPlace	M	100		CARDWELL, MO

Below the table, the 'Locator' is set to 'StreetMapUSA' and the 'address' is '5TH & EASTWOOD'. The 'city' is 'CARUTHERSVILLE' and the 'state' is 'MO'. The 'Standardized address' is '5TH & EASTWOOD | CARUTHERSVILLE | MO | 63830'. A '1 Candidate' table is shown below, with columns: Loc_name, Score, Side, PreDir1, PreType1, StreetName1, Type1, SufDir1, LeftCity1, RightCity1, State1, LeftZip1, RightZip1, PreDir2, PreType2. The candidate is 'StreetMa... 65 E 5TH ST CARUTHERSVILLE CARUTHERSVILLE MO 63830 63830'. At the bottom, the 'Match' button is circled in red.

Make sure the candidate is selected and click Match. The location of the point will be adjusted from the center of town (Caruthersville) to the more accurate placement at the intersection of 5th St at Eastwood.

Each address may have more than one candidate. In this example, the record was matched to the center of the town because the address number, 801, did not appear in any of the segments with the street name Oates.

All the potential candidates will be shown below. Notice that the score for each candidate in this example is below the score of “80”, which is the default spelling sensitivity.

The screenshot shows the 'Interactive Review' window. The top table lists records with columns: FID, Shape, Loc_name, Status, Score, Side, Match_addr, and ARC_addr. Record 14 is highlighted. Below this, the 'Records (of 20)' section shows the selected record details: Locator (StreetMapUSAPI), address (801 N. OATES), city (HAYTI), and state (MO). The 'Standardized address' is shown as '801 | N | | OATES | | | HAYTI | MO | 63851'. The '3 Candidates' section shows a table with columns: Loc_name, Score, Side, LeftFrom, LeftTo, RightFrom, RightTo, PreDir, PreType, StreetName, StreetType, SufDir, LeftCity, RightCity, and City. The first candidate is highlighted with a red circle around the 'RightCity' column.

FID	Shape	Loc_name	Status	Score	Side	Match_addr	ARC_addr
4	Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO	5th and Eastwood
5	Point	PopulatedPlace	M	100		CARUTHERSVILLE, MO	5th and Ferguson
14	Point	PopulatedPlace	M	100		HAYTI, MO	801 N. Oates
15	Point	PopulatedPlace	M	100		HAYTI, MO	Hayti Ballfield Complex
17	Point	PopulatedPlace	M	100		HOMESTOWN, MO	City Hall
18	Point	PopulatedPlace	M	100		WARDELL, MO	Wardell City Park
19	Point	PopulatedPlace	M	100		CARDWELL, MO	500 S. Main

Record: 3 Show: All Selected Records (of 20) Options

Locator: StreetMapUSAPI address: 801 N. OATES city: HAYTI state: MO

Standardized address: Modify... 801 | N | | OATES | | | HAYTI | MO | 63851

3 Candidates

Loc_name	Score	Side	LeftFrom	LeftTo	RightFrom	RightTo	PreDir	PreType	StreetName	StreetType	SufDir	LeftCity	RightCity	City
StreetMapUSAPI	57	R	1506	1706	1117	1505	N		OATES	DR		HAYTI	HAYTI	
StreetMapUSAPI	54		0	0	0	0	N		OATES	DR		HAYTI	HAYTI	
StreetMapUSAPI	50		0	0	0	0			OATES			HAYTI	HAYTI	

Geocoding Options... Zoom to: Candidates Original Extent Search Match Unmatch Close

The input address was 801 N Oates. Notice the LeftFrom, LeftTo, RightFrom, RightTo numbers. These are the address ranges for the nearest street segments to the address 810. This particular record was not matched because there is no 800 block for Oates.

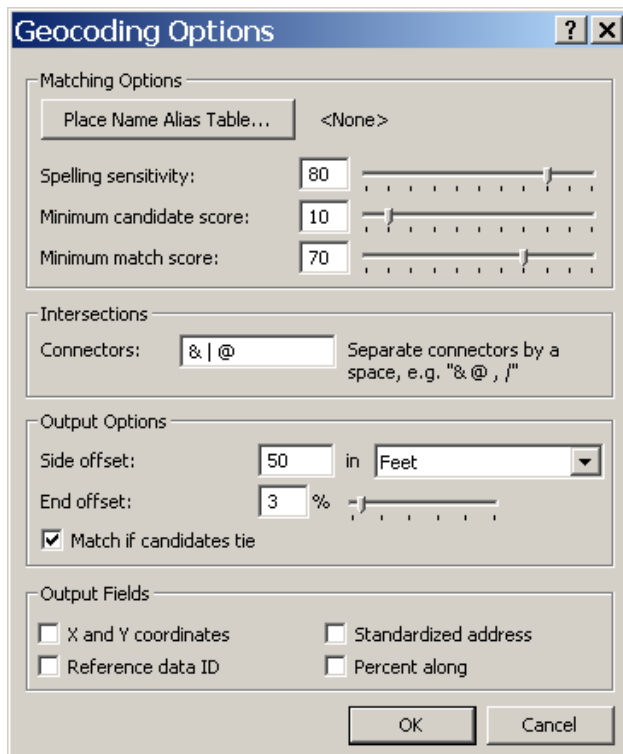
You can choose to match to the nearest segment, the 1st candidate (1506 1706 1117 1505 N Oates Dr).

Alternately, you can zoom to the candidates to view these 3 options on the map before you decide.

Changing the Sensitivity of the Geocoding Options.

If you don't have any candidates to choose from, you can lower the spelling sensitivity and

minimum match rate in the Geocoding Options dialog. This is located in the lower left of the Interactive Review dialog.



The Geocoding Options dialog box is divided into four sections: Matching Options, Intersections, Output Options, and Output Fields. The Matching Options section includes a 'Place Name Alias Table...' button set to '<None>', and three sliders for 'Spelling sensitivity' (set to 80), 'Minimum candidate score' (set to 10), and 'Minimum match score' (set to 70). The Intersections section has a 'Connectors' field with '& | @' and a note to 'Separate connectors by a space, e.g. "& @ , /"'. The Output Options section features 'Side offset' (50) in 'Feet', 'End offset' (3) in '%', and a checked 'Match if candidates tie' checkbox. The Output Fields section contains four unchecked checkboxes: 'X and Y coordinates', 'Standardized address', 'Reference data ID', and 'Percent along'. 'OK' and 'Cancel' buttons are at the bottom.

Section	Option	Value / Setting
Matching Options	Place Name Alias Table...	<None>
	Spelling sensitivity	80
	Minimum candidate score	10
	Minimum match score	70
Intersections	Connectors	& @
Output Options	Side offset	50
	Unit	Feet
	End offset	3 %
Output Options	Match if candidates tie	Checked
Output Fields	X and Y coordinates	Unchecked
	Standardized address	Unchecked
	Reference data ID	Unchecked
	Percent along	Unchecked

You can either key in a value or use the slider bar to lower the score. Lower spelling sensitivity should give you more candidates. The more you drop this number, the more likely you are to introduce candidates that might not be good choices. (For example, you may have 123 Main St in Kennett MO, but you might drop your score low enough to see 123 Main St in New Madrid as an option.) Make sure you scroll over to the right in the candidates list to confirm you haven't strayed too far.

Unmatched Records - Interactive Review Process

If you chose the basic StreetMap USA locator for your geocoding, rather than the composite geocoder in the M:\GISDATA\StreetMap, you will likely have many unmatched records.

You will know a candidate is unmatched because the Status is set to “U”.

The screenshot shows the 'Interactive Review' window. At the top, a table lists records with columns: FID, Shape, Status, Score, Side, X, and Y. Record 19 is highlighted in cyan, and its 'Status' cell contains 'U'. Below this table, there are navigation controls (Record: 4, Show: All, Selected, Records of 18, Options). The address section shows 'Address or Intersection: 500 S. MAIN', 'City: CARDWELL', 'State or Province: MO', and 'Postal Code: 63822'. The 'Standardized address' is '500 | S | | MAIN | | CARDWELL | MO | 63822'. Below this, a table titled '37 Candidates' lists various street segments with columns: Score, Side, X, Y, LeftFrom, LeftTo, RightFrom, RightTo, PreDir, PreType, StreetName, StreetType, SufDir, LeftCity, RightCity, and State. At the bottom, there are buttons for 'Geocoding Options...', 'Zoom to: Candidates', 'Original Extent', 'Search', 'Match', 'Unmatch', and 'Close'. The 'Match' button is circled in red.

FID	Shape	Status	Score	Side	X	Y
15	Point	U	0		0	0
17	Point	U	0		0	0
18	Point	U	0		0	0
19	Point	U	0		0	0
20	Point	U	0		0	0
23	Point	U	0		0	0
26	Point	U	0		0	0

Record: 4 Show: All Selected Records of 18 Options

Address or Intersection: 500 S. MAIN City: CARDWELL State or Province: MO Postal Code: 63822

Standardized address: 500 | S | | MAIN | | CARDWELL | MO | 63822

37 Candidates

Score	Side	X	Y	LeftFrom	LeftTo	RightFrom	RightTo	PreDir	PreType	StreetName	StreetType	SufDir	LeftCity	RightCity	State
52	L	...	3...	500	598	501	599	S		MAIN	ST		CAMPBELL	CAMPBELL	MO
34	L	...	3...	502	400	499	401	W		MAIN	ST		PARMA	PARMA	MO
34	L	...	3...	640	300	399	301	N		MAIN	ST		CAMPBELL	CAMPBELL	MO
27	L	...	3...	400	498	401	499	S		MAIN	ST		CAMPBELL	CAMPBELL	MO

Geocoding Options... Zoom to: Candidates Original Extent Search Match Unmatch Close

Records with a “U” status appear in the attribute table only, they don’t yet have a point on the map. Step through each record and review the candidate choices carefully. You may want to lower the spelling sensitivity in the geocoding options to see more candidate choices.

Once you have selected a matching candidate, click the Match button. The status will change from “U” to “M” (for matched).

If you still have unmatched records, the next step is to interactive place them by clicking a point on the map.

Unmatched Records - Matching Interactively by Pointing on the Map

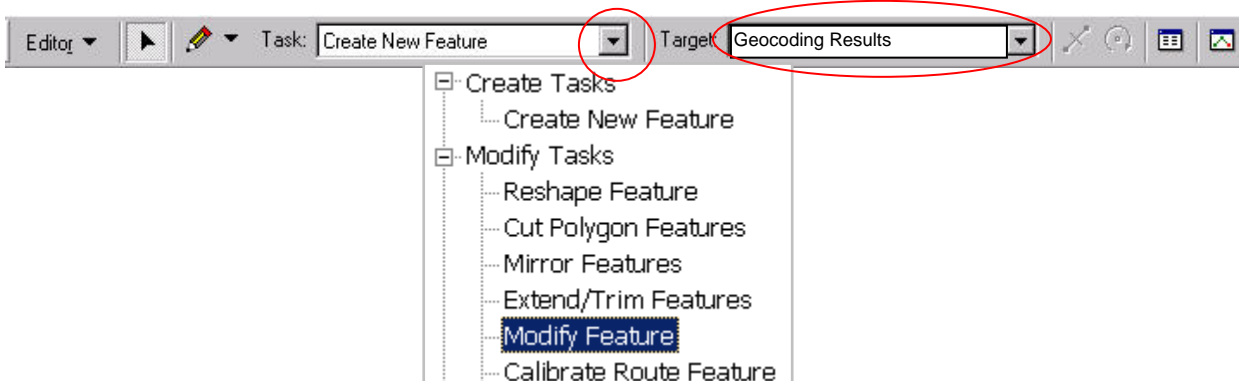
If you have no candidates to choose from, you can match the last of the points by hand, provided you can pinpoint them on a map. It is a good idea to load a few data layers like city limits, town points and major highways to give you some reference on your map. If you have facilities like schools (“North Elementary School”) or hospitals (“Barnes Jewish North”) it is a good idea to add these layers as well from the M:GISDATA\Facility folder (schoolPublic.shp and hospitals.shp for these examples).

First, exit out of the geocoding dialog you’ve been working in by clicking Close. The remaining points can be matched by clicking on a point on a map.

Start an Edit session.



Set the task on the Editor toolbar to Modify Feature and the target to the geocoded layer.



Open the attribute table of the geocoded points and select/highlight the record to be placed.

In the Status field, change the U to an M for the selected record.

FID	Shape	Status	Score	Match_addr	ARC_City	ARC_State	COUNTY	LOCATION	Address
0	Point	M	100	BUTTERFIELD, BARRY	Butterfield	BARRY	BARRY	Butterfield Community Center	602 Ash St.
1	Point	U	0			BARRY	BARRY	LaCobba Special Assist Living	
2	Point	U	0		Monett	BARRY	BARRY	Monette Hospital (Private)	
3	Point	M	100	WASHBURN, BARRY	Washburn	BARRY	BARRY	Washburn Church of Christ	
4	Point	U	0		Monett	BARRY	BARRY	Church of Nazarene	201 S Highway 37
5	Point	M	100	LAMAR, BARTON	Lamar	BARTON	BARTON	Hall	11th and Broadway
6	Point	M	100	GOLDEN CITY, BARTON	Golden City	BARTON	BARTON	Community Cente	Depot Ave
7	Point	M	100	LAMAR, BARTON	Lamar	BARTON	BARTON	Senior Citizens Bldg	
8	Point	M	100	CAMDENTON, CAMDEN	Camdenton	CAMDEN	CAMDEN	Mid County Fire Dept	148 N Highway 5
9	Point	M	100	STOCKTON, CEDAR	Stockton	CEDAR	CEDAR	Assembly of God Church	1505 S. 3rd. Street
10	Point	M	100	CLEVER, CHRISTIAN	Clever	CHRISTIAN	CHRISTIAN	Clever City Hall	304 S Clarke Av
11	Point	M	100	OZARK, CHRISTIAN	Ozark	CHRISTIAN	CHRISTIAN	1st Baptist Church	1400 W Jackson
12	Point	M	100	BILLINGS, CHRISTIAN	Billings	CHRISTIAN	CHRISTIAN	Billings Community Center	119 SE Washington
13	Point	M	100	NIXA, CHRISTIAN	Nixa	CHRISTIAN	CHRISTIAN	Nixa Fire District	711 N. Main St.
14	Point	M	100	NIXA, CHRISTIAN	Nixa	CHRISTIAN	CHRISTIAN	Nixa Fire Station 4	301 S Nicolas Rd.
15	Point	M	100	OZARK, CHRISTIAN	Ozark	CHRISTIAN	CHRISTIAN	Countryside Christian Church	3350 W. Jackson St.
16	Point	U	0			CHRISTIAN	CHRISTIAN	James River Assembly	Hwy 65 & CC
17	Point	U	0		Union Hill	CHRISTIAN	CHRISTIAN	Union Hill Church of Christ	865 N. Nicolas Rd
18	Point	M	100	HIGHLANDVILLE, CHRISTIAN	Highlandville	CHRISTIAN	CHRISTIAN	Highlandville Fire Station	1162 Glossip Rd.
19	Point	M	74	LEASBURG, CRAWFORD	Leesburg	CRAWFORD	CRAWFORD	Leesburg 1st Baptist Church	378 Hwy H

Place the point using the Sketch tool by clicking on the map at the desired position. The point you placed will become the location of the record you have selected.



The Internet is a great resource to find out additional information about a site, especially if are looking for a business rather than an individual and have only a partial address. Sites such as maps.google.com or melissadata.com are suggested.

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