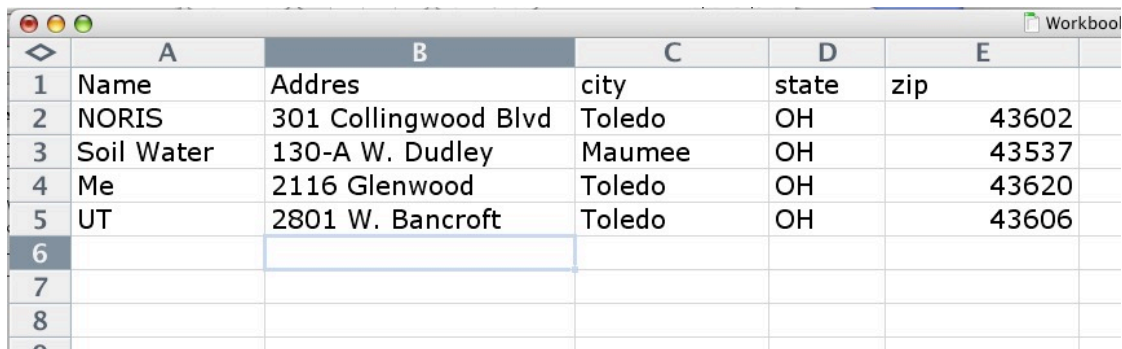# *Creating Shapefiles from Addresses. Step by Step.*

Creating a shapefile or geocoding from a list of addresses is a powerful and quick way of displaying data on a map. The processing is straightforward, there are several sticking points that you can avoid by following the instructions below. Step by step here is the way we geocode in ArcView.

1. Gather the addresses (obviously).

2. Place the addresses in to a spreadsheet. First sticking point, make sure that the top of each column has a name that is under 8 characters, has no spaces or other than ordinary characters like ? or >. You need to make at lease 5 columns, name, address, city, state, zip. Do not separate number from street. So, in the address column you will want 123 main st. All in that one column. You can add as many columns as you wish. This is a good weigh to add data to each of the geocoded points.


Note in the above image that the first row is the name of the column. This is very important, the first row will for each column be used as the field name when you convert to the dbf 4 format. This is why you don't want to use odd characters and you don't want your first address to occupy the first row of your data otherwise that first record will become the column names. Also, very important make sure that the column width is wide enough to accommodate the longest string of characters. Any really long address, make sure that you stretch the column enough so that the entire address is shown, otherwise your address will be truncated. Also, if you have a list of numbers, that you want to include, you must format those cells as numbers otherwise they may be converted to text data type in the dbf conversion. This is only true if you're adding data in addition to what is shown above. Do not worry about formating any cells in less you want to included another field other than the ones shown above.

3. You want to select the cells that will be included in your geocoding. This included selecting the row with the column names, such as addres

Again this is particular to the way Excel converts to dbf file format. By actively selecting the cells you want included and their names you will have more control of the output dbf file. Save the file as dbf 4 like below
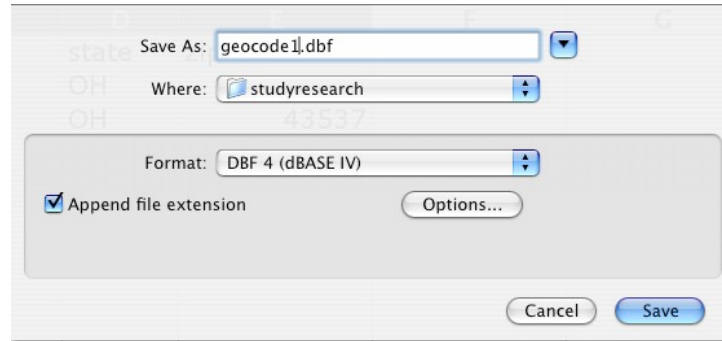
Ok, any of the warnings that you will lose formatting and are you sure. This will save a dbase IV formated table to include in your arcview project.
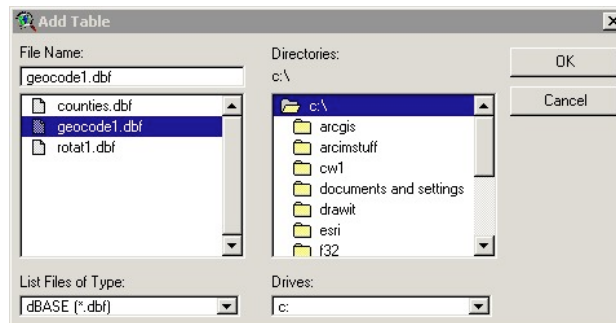
4. Import the table into ArcView. You will have a file that looks like this.

geocode1.dbf

You need to bring that table into your Arcview Project. You will Add a new table to your project, Go to the project pallet see below.
and ADD a table.
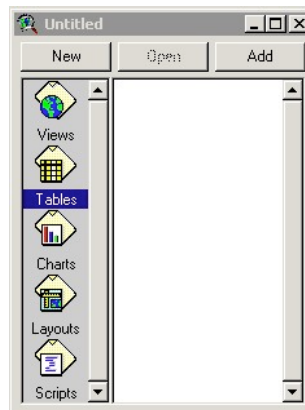
Choose the table you just made in excel.

The table you made should look similar to the one below note that the first row in your spread sheet is now the column heading for the dbf 4 table.

You are now ready to geocode the addresses.

5. Make sure that you have a street layer suitable for geocoding. The StreetMap 2000 layer is a good choice, however it is possible to use other data. You could for example you Tiger data for this, or any street data that is properly formated for use can be used to geocode.

6. Click on the View to construct the geocoded shapefile.

7. Click on View>Geocode Addresses, See below.
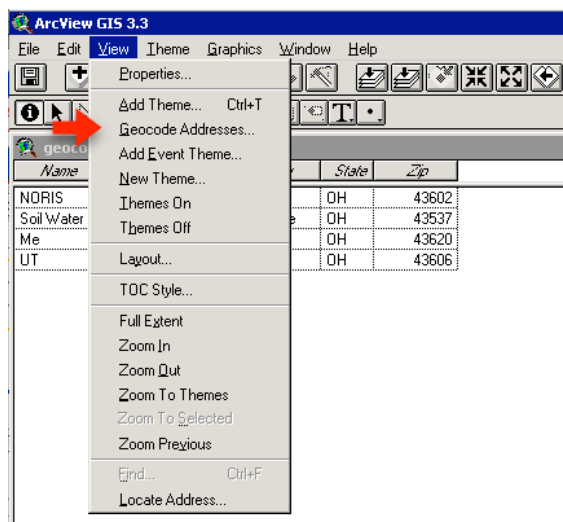
This will open up a dialog box that you will set up the geocode processing. Generally ArcView will fill in all the blanks. If you have only one dbf table it will choose that table, if you have more dbf tables open it will choose one for you. Make sure it is the correct table. Also make sure that it put the proper fields in the proper order so that Address field is used as the address field by ArcView. see below
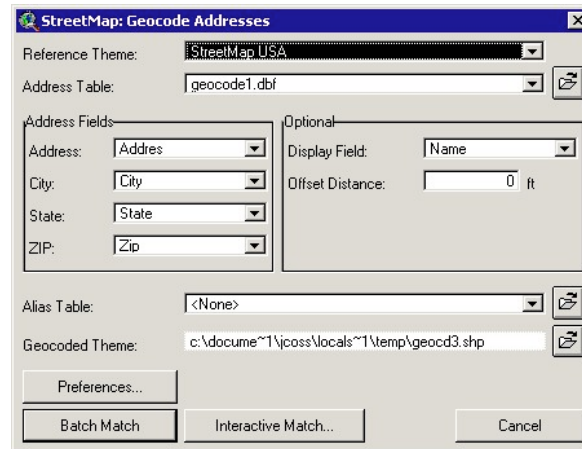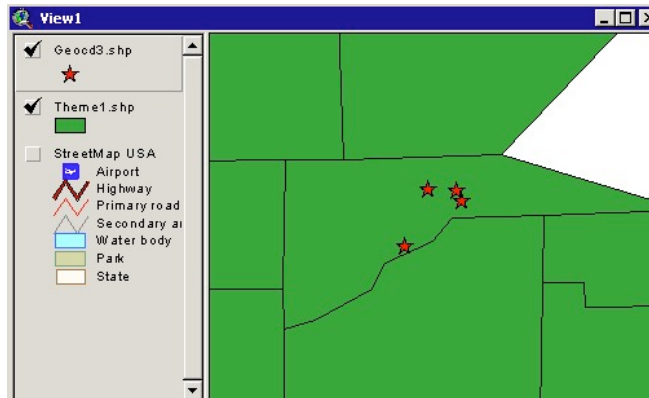
Reference theme is the street data that will direct the placement the points of the shapefiles. Address table is your dbf file. Address field are what you check to see that the field are being used in the proper order. If you have named your fields non standard names you may have to adjust them. If you forgot make the first row the column names or missed in selecting the first row in your spreadsheet the boxes in the address fields will have your first address in the field cells. You need to remake your dbf file. Now check where you are going to write your file in the box following the Geocoded theme. You must remember this location or put the file in a location that suits you. Finally, you can choose batch or interactive match. If you batch the software will try and finish it on its own. The next table you would see would be a report showing you how many records were successfully matched. If you are happy with the results you can choose done. If there are addresses not matched or only matched to zip code centroids you may interactively re-match. This will show each address and some possible locations. You choose the locations that most closely matches your address.
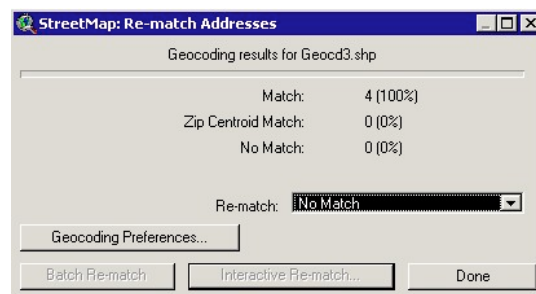
IF you choose instead to interactively match from the start you will be presented with this dialog box:
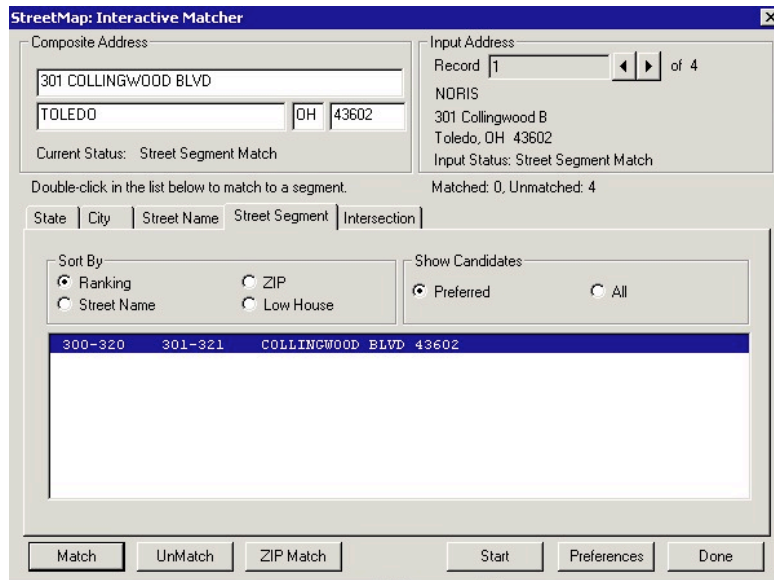
The above box will take you through each record, so this is only suggested on small data sets. You then can match the record to each of the suggested locations in the large box. When you are done press "Done" and the shape file will show you the percentage of success and you will again go through and rematch or press done. The resulting shapefile will be then added to your active view, the one with the street data in it.

Good luck.