

Geocoding Address Data Guide

Spring 2015 – Spatial Analysis Lab

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2. Geocoding in ArcMap
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Preparing Address Data in Excel

- Parse out the address data in multiple fields

| Name | Address |
|-----------------------|---|
| Constance Adams Platt | P.O. Box 60296, Florence, MA, 1062 |
| Anthony J Annear | 22 Webcowet Road, Arlington, MA, 2474 |
| Bill Arnold | 30 North Maple Street, Florence, MA, 1062 |

Incorrect

| Name | Street | City | State | Zip |
|------------------|-----------------------|-------------|-------|-------|
| Anthony J Annear | 22 Webcowet Road | Arlington | MA | 02474 |
| Bill Arnold | 30 North Maple Street | Florence | MA | 01062 |
| Joyce C August | 50 Old Wilson Road | Northampton | MA | 01060 |

Correct

- Addresses in a single field are more difficult to read and scan for errors. Additionally, you have more flexibility with sorting and editing values in multiple fields
- Many Zip Codes in the Northeast begin with 0 (zero), so be sure your data are formatted to include leading zeros. Typically, spreadsheet columns should be formatted as “text”, or you can modify the values in the GIS
- Addresses should start with a number followed by street name. Alternate addresses such as P.O. Boxes, Rural Routes (RR) addresses will not geocode
- If your data are formatted as one long address string, you can parse into multiple fields with the **Text to Columns** tool in Excel

Geocoding in ArcMap

- The default geocoding service built into ArcMap must be accessed with an ArcGIS Online Organization account. These accounts are not free to the public, however we have access to them as a part of our ArcGIS license agreement. To sign up for an account you can contact the SAL – SAL@smith.edu – once you have an account please contact the SAL in advance before geocoding a large number of addresses (1000 or more)

- Geocoding in ArcMap is very straightforward and easy:
 - Add your table with address attributes into the map
 - Right-click and go to **Geocode Addresses**
 - Sign-in with the ArcGIS Online account
 - Align the address fields with the spaces provided
 - Run the Geocoder
- Rematching unmatched addresses
 - Luckily for all of us there is a built-in Interactive Rematcher in ArcMap which allows you to identify the addresses that were not placed on the map and either manually match them with suggested addresses or export them back into excel to make changes there

Free Geocoding Alternatives

There are a few services that provide geocoding abilities for free

These services will allow you to upload a spreadsheet of data containing addresses and will return the same spreadsheet with Latitude and Longitude data included. These data can be rendered using the **Display XY** tool in ArcMap

The different services have varying limits on the amount of addresses that can be geocoded within a certain time frame – sometimes daily, sometimes overall. Here are the options we know of:

- Texas A&M Geoservices Geocoder:
 - <http://geoservices.tamu.edu/Services/Geocode/>
 - Unlimited free geocodes
- Geocoder.us
 - <http://geocoder.us/>
 - 50,000 free geocodes
- Google
 - <https://developers.google.com/maps/documentation/javascript/v2/services?csw=1>
 - 15,000 free geocodes
- If none of those work for you, try visiting this page put together by Texas A&M to see what other options are available: <http://geoservices.tamu.edu/Services/Geocode/OtherGeocoders/>

Resources:

Esri Geocoding Help:

<http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html#//002500000026000000.htm>

Visit the SAL during lab hours, found on our website:

www.smith.edu/gis

Contact the SAL to set up an appointment:

SAL@smith.edu