Knowledge Base Article

Subject: Geocode individual address using NYS DHSES online geocoding service
Software: ArcGIS Desktop: ArcInfo, 10.0, Windows 7
Ticket Number: 4134

Question

The following url (http://gisservices.dhses.ny.gov/arcgis/services) is being provided by the NYS Division of Homeland Security and Emergency Services for use as a geocoding service. How do I use it to geocode a single address using the Find (Binoculars) tool in ArcGIS?

Answer

An address can be geocoded interactively using the NYS DHSES online geocoding service and the Find tool in ArcMap. The instructions below provide the steps to complete this procedure.

1. In ArcMap select the Find (Binoculars) tool found on the Tools toolbar.
2. In the Find dialog switch to the Locations tab. Select the Browse button located next to the Choose Locator dropdown list.

![Figure 1](image_url)

3. In the Add Locator dialog window, expand the Look In: dropdown list at the top of the dialog and select GIS Servers. Double-click the Add ArcGIS Server option. See Figure 2.
4. In the Add ArcGIS Server dialog, make sure that the **Use GIS Services** option is selected and click **Next**.

5. Type in or copy and paste the URL for the NYS DHSES geocoding service into the **Internet/Server URL** field. See Figure 3. After that, select the **Finish** button.

6. **arcgis on gisservices.dhses.ny.gov** will be added to the list of available GIS Servers in the Add Locator dialog. Select the new server and click the **Add** button.

7. **NYS_Points_Streets** Geocode Service locator is displayed in the Add Locator dialog. Select **NYS_Points_Streets** and click the **Add** button.

8. The NYS_Points_Streets locator is now listed in the **Choose Locator** dropdown list in the Find dialog. See Figure 4.

9. Enter the street address you need to geocode into the **Single Line Input** field. **(Note:** If you entered previous addresses to search for, these listings are displayed in the second dropdown.) Select the **Find** button located in the upper right corner of the dialog or simply click **Enter**.
10. If candidate locations are found for the provided address, they are displayed at the bottom of the Find dialog, see Figure 5. If multiple candidate locations are found they will be sorted by the locator used and the match score.

A locator is a tool that performs address matching using a reference dataset, such as the NYS address points or NYS streets. At the time of writing, the NYS DHSES online geocoding service includes four individual locators:

- **AP_wAltName** – address points with alternative street names
- **AP_Muni_wAltName** - address points with municipality and alternative street names
- **SS_AltNm_Post** – street centerline addresses with alternative street names
- **Muni_AltNm_Pos** - municipality with alternative street names

Generally, the address point locators provide the most precise address location, followed by the street centerlines and then the municipality locator.

The score value represents how closely entered address matched address found in the reference dataset. Scores range from 0 to 100 with the higher the score the better the match.

By default the address candidates are sorted by locator and then by the score. It is recommended that you review the candidates in this order. Pay close attention to the Match_Addr field to make sure you find the best match possible.

11. Right click the appropriate candidate in the list. A menu of available options is displayed for the selected candidate location, including the Flash, Zoom To, Create Bookmark, Add Point, etc. options. Select one or more options from the menu. See Figure 5.
12. If you are not satisfied with the geocoding results, select the Options button and review the geocoding options. You can change such options such as spelling sensitivity, minimum candidate score, etc. for each of the four locators.

13. Once the address location is identified you can start a new search by pressing the New Search button or close the dialog window.

Note that the next time you need to geocode an address, you will not need to connect to the geocoding service to add the locator as ArcMap will remember it and make it available from the Choose a locator dropdown list. You can manage address locators (add, remove and set default) from the Address Locator Manager dialog accessed through the File > Add Data > Geocoding menu. If you need to permanently delete the connection to the geocoding service, it can be done in ArcCatalog by accessing the GIS Servers folder at the bottom of the Catalog Tree.