

The Geographic Names Server User Guide

Search for any name, any feature, anywhere (just not the U.S. or Antarctica)

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The Geographic Names Server (GNS) Home Page

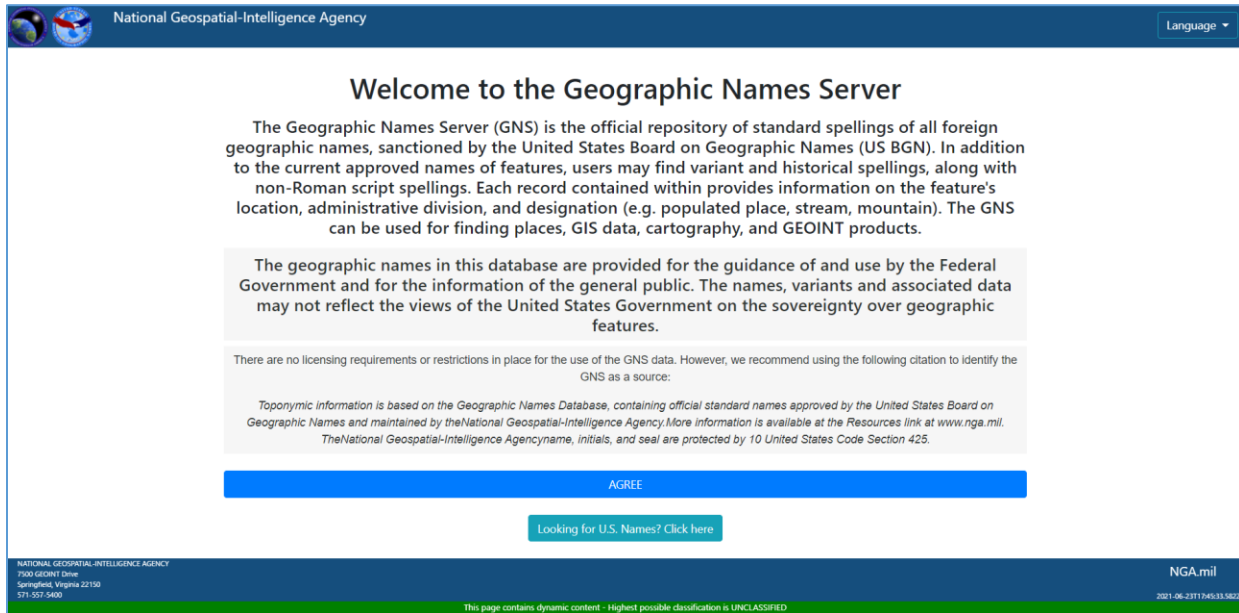


Figure 1: The GNS Welcome page

Before entering the GNS site, the user must first agree to the Terms of Service by clicking the blue “AGREE” button at the bottom of the page. The welcome page also specifies that the GNS does not include domestic or Antarctic names. There is an external link to the USGS, where users can find these names.



Figure 2: The GNS Homepage with important elements highlighted

Once the user clicks “AGREE” they are taken to the GNS Home Page, shown in Figure 2. This page contains an overview of the information offered by GNS. Text at the top of the page shows when the database was last updated, when it will next be updated, the total number of features and names (some features have multiple names) and the current metadata standards. This page also contains external

links to the USGS for US and Antarctic names. Additionally, the bottom of the home page contains external links to various US Government and international resources. The home page can be navigated through the expandable navigation menu on the left side of the screen, and other pages on the GNS website are located at the main menu on the top of the page. To search the entire GNS website, including the Home page, use the search bar on the top right. Next to the search bar is the Language dropdown, which will translate any page in the GNS to the selected language. The GNS can be translated to Arabic, French, Russian, Spanish, and Chinese. Note that country names will not be translated, and instead will remain in the English which comes from the GNDB data.

Perhaps the most important feature of the GNS homepage is the link to the Geographic Names Search Application.

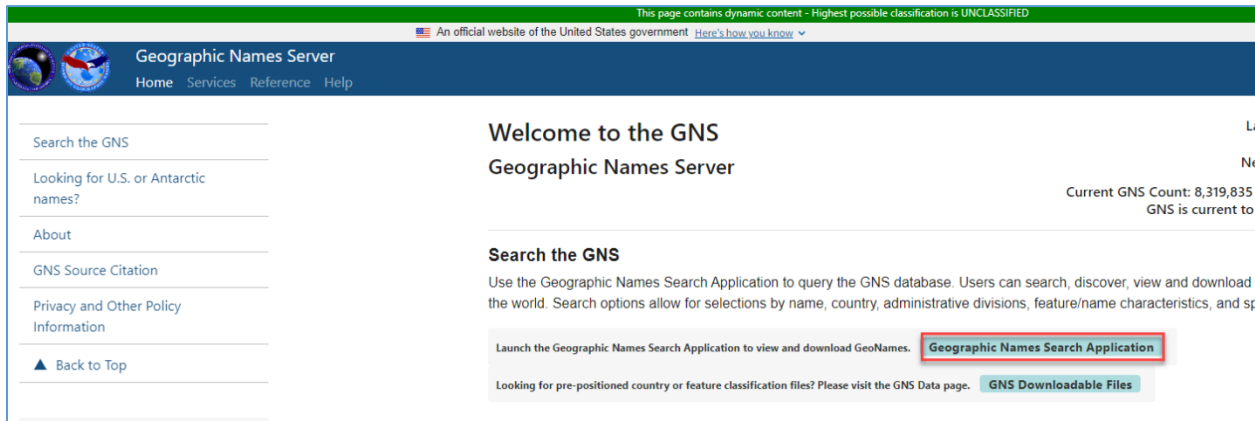


Figure 3: Link to the Geographic Names Search Application on the GNS Home page

Clicking the blue button opens the app so that a user may search the GeoNames Database. Documentation for this app can be found by clicking on the “?” button in the top right corner of the app home screen. Below the GNS Search Application link is a link to the GNS Downloadable files. More about this page can be found in the “Pre-positioned Downloadable Country Files” section of this document.

At the bottom of every page on the GNS site, there are several links to third party sources that may be useful to GNS users, as well as a privacy policy. These links are accessible in SC and TC environments. Contact information for the NGA, also listed at the bottom of every page, is SBU only. In NC, the banner identifies the GNS website as “An official website of the United States government.”

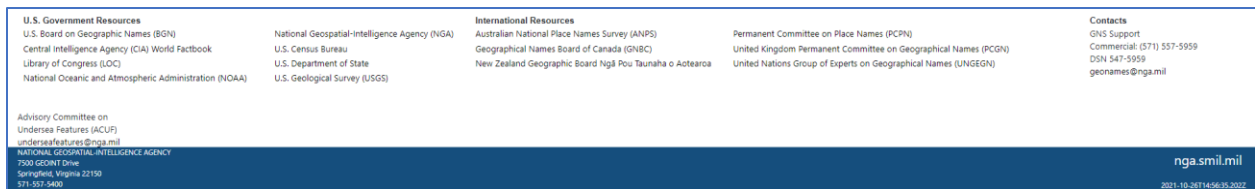


Figure 4: Third Party links and Contact Information for GNS Support

GNS Services

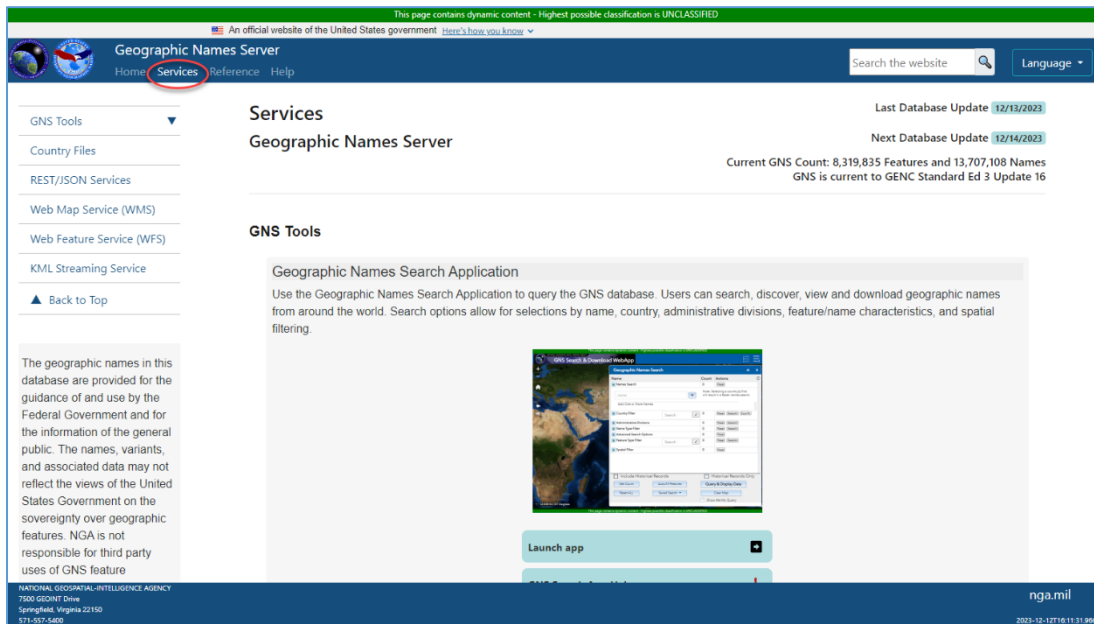


Figure 5: The GNS Services page

Figure 4 shows the Services page of the GNS. Navigation of this page is similar to the Home page described earlier in this document, however the contents are focused on various GNS tools. The following sections focus on tools detailed on the Services page.

Searchable GNS Codes

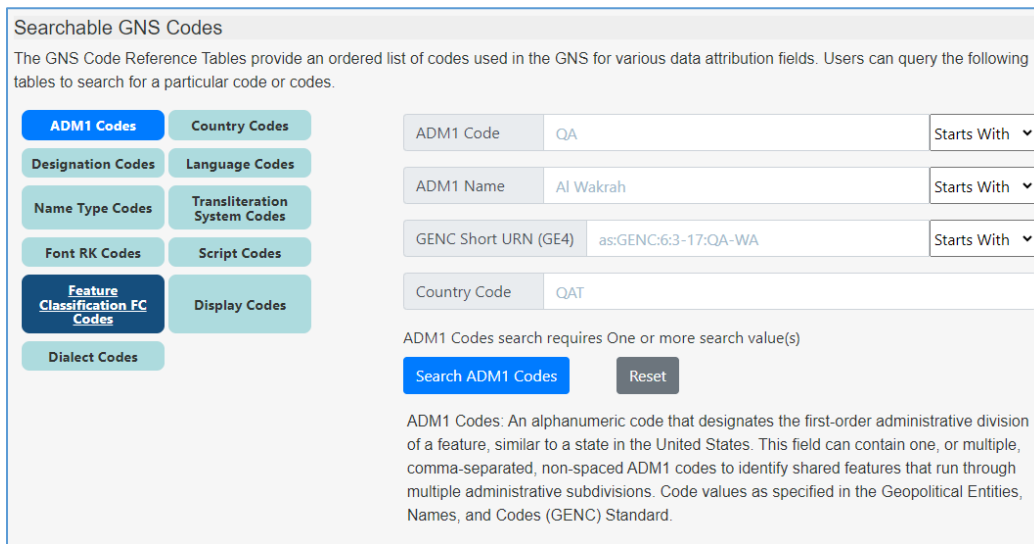


Figure 6: The Searchable GNS Codes tool

The Searchable GNS Codes tool allows users to search certain attributes in the GNS Database. First, click on a button on the left side of the screen to select the attribute to query. Once a code has been selected, a search field appears to their right. To execute the search, use the blue button under the text

boxes or press “Enter.” Leave both text boxes blank to generate a list of all values. If no records are returned by a search, the message “NO “[GNS Code]” records found.” Will display in the table.

Country_Code	First_Order_Administrative_Subdivision_Code	Name	GENC_Short_URN_based_Identifier
ABW	AW-000	Aruba (general)	N/A
AFG	AF-000	Afghanistan (general)	N/A
AFG	AF-BDS	Badakhshān	as:GENC:6:3-14:AF-BDS
AFG	AF-BDG	Bādghīs	as:GENC:6:3-14:AF-BDG
AFG	AF-BGL	Baghlān	as:GENC:6:3-14:AF-BGL
AFG	AF-BAL	Balkh	as:GENC:6:3-14:AF-BAL
AFG	AF-BAM	Bāmyān	as:GENC:6:3-14:AF-BAM
AFG	AF-DAY	Dāykundī	as:GENC:6:3-14:AF-DAY
AFG	AF-FRA	Farāh	as:GENC:6:3-14:AF-FRA

Figure 7: Lookup Table Search Results, generated by the Searchable GNS Codes tool


Generic Term Glossary

The generic term is the descriptive portion of a full name that references a common, often geomorphologic, feature such as Cerro (mountain), Arroyo (river), or Golfo (gulf). For example, in the geographic name “Golfo de Tehuantepec,” Golfo would be the generic term. Generic terms for names are collected in the GNS data and can be used to create generic term glossaries for cartographic products or other purposes. To begin building a Generic Term Glossary, click the blue button labelled “**Generic Term Glossary**” near the bottom of the tool description.

Generic Term Glossary

The generic term is the descriptive portion of a full name that references a common, often geomorphologic, feature such as *cerro* (mountain), *arroyo* (river), or *golfo* (gulf). For example, in the geographic name “Golfo de Tehuantepec,” *Golfo* would be the generic term. Generic terms for names are collected in the GNS data and can be used to create generic term glossaries for cartographic products or other purposes. Note: generic terms are generally not collected for populated place names or English-based generics. Use the tool below to generate a glossary of generic terms per country. Glossary items can be grouped and sorted by either the generic term itself, or the feature type (feature designation code).

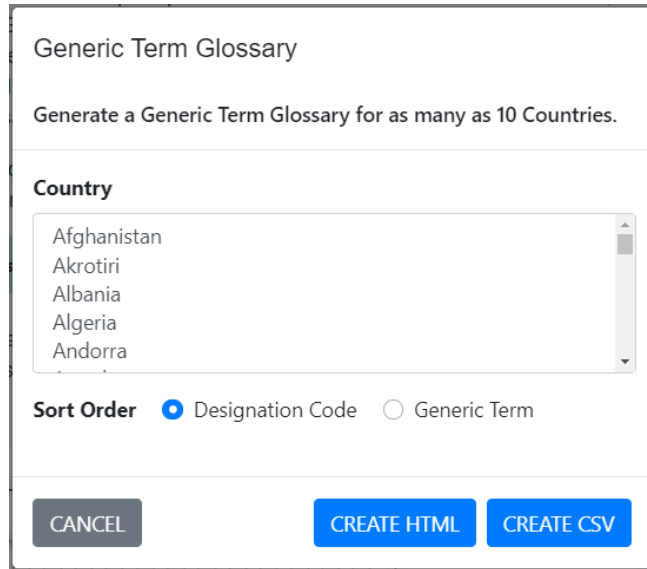
Note: To create a customized glossary, use the [Geographic Names Search](#) application to define your parameters and execute a query. Then, select the option to export the data and a generic term glossary customized to your query results will automatically be included in the resultant zip file.

Generic Term Glossary 

The geographic names in this database are provided for the guidance of and use by the Federal Government and for the information of the general public. The names, variants, and associated data may not reflect the views of the United States Government on the sovereignty over geographic features. NGA is not responsible for third party uses of GNS feature coordinates.

Figure 8: The Generic Term Glossary section

After the button is clicked, the user can select up to 10 countries for which to build a generic term glossary. The glossary can either be viewed as an HTML file, or be downloaded as a csv file.

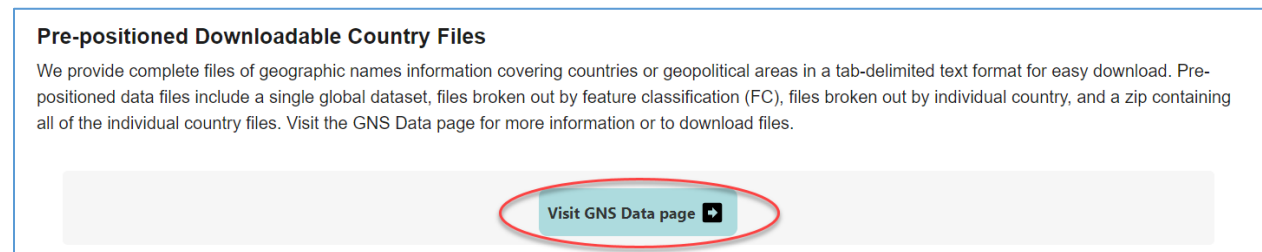


The screenshot shows a web form titled "Generic Term Glossary". Below the title is the instruction "Generate a Generic Term Glossary for as many as 10 Countries." There is a "Country" section with a scrollable list box containing "Afghanistan", "Akrotiri", "Albania", "Algeria", and "Andorra". Below the list box is a "Sort Order" section with two radio buttons: "Designation Code" (which is selected) and "Generic Term". At the bottom of the form are three buttons: "CANCEL", "CREATE HTML", and "CREATE CSV".

Figure 9: The Generic Term Glossary

Pre-positioned Downloadable Country Files

Click "Visit GNS Data Page" to open the Data page in a new tab.



The screenshot shows a section titled "Pre-positioned Downloadable Country Files". Below the title is a paragraph of text: "We provide complete files of geographic names information covering countries or geopolitical areas in a tab-delimited text format for easy download. Pre-positioned data files include a single global dataset, files broken out by feature classification (FC), files broken out by individual country, and a zip containing all of the individual country files. Visit the GNS Data page for more information or to download files." Below the text is a light gray button with the text "Visit GNS Data page" and a small square icon with a plus sign. The button is circled in red.

Figure 10: The Pre-positioned Downloadable Country Files section

The pre-positioned downloadable country files page provides ready-to-download zipped folders for every country in the data base, as well as several thematic feature classes. Each zipped folder contains feature class files, a generic term glossary for features included in that country, and a disclaimer for how the data are to be used. For every feature class published on this page, there is an RSS link for that feature class. RSS links can be copied and added to a mail application such as Outlook so that the user can be notified every time that specific feature class is updated. The data page also tracks history of updated files and downloads. Click "History" on the top menu of the Data page shows daily runs, run type, and which files have been updated.

Converting Country Files to GIS-readable Format

The country files can be converted to a UTF-8 CSV file that can be imported into GIS programs such as ArcGIS Pro. To do so:

1. Open Excel
2. From the File Menu / Ribbon Tab, select Open
3. Select the Browse button to open the familiar file opening dialog:

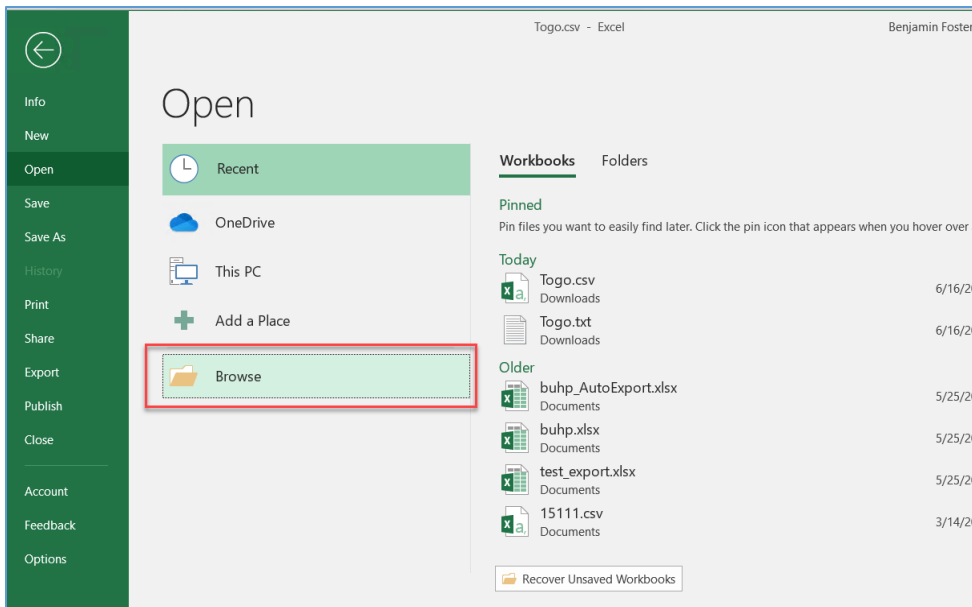


Figure 11: The MS Excel Open File Menu

4. Unless your settings have changed or you saved the country data file elsewhere, navigate to the Downloads folder. You will need to indicate that the file type is not the default Excel Workbook (.xlsx) but a Text File. Choose the appropriate item from the selection list (e.g., Albania.txt). At this point you will see the extracted .txt file.

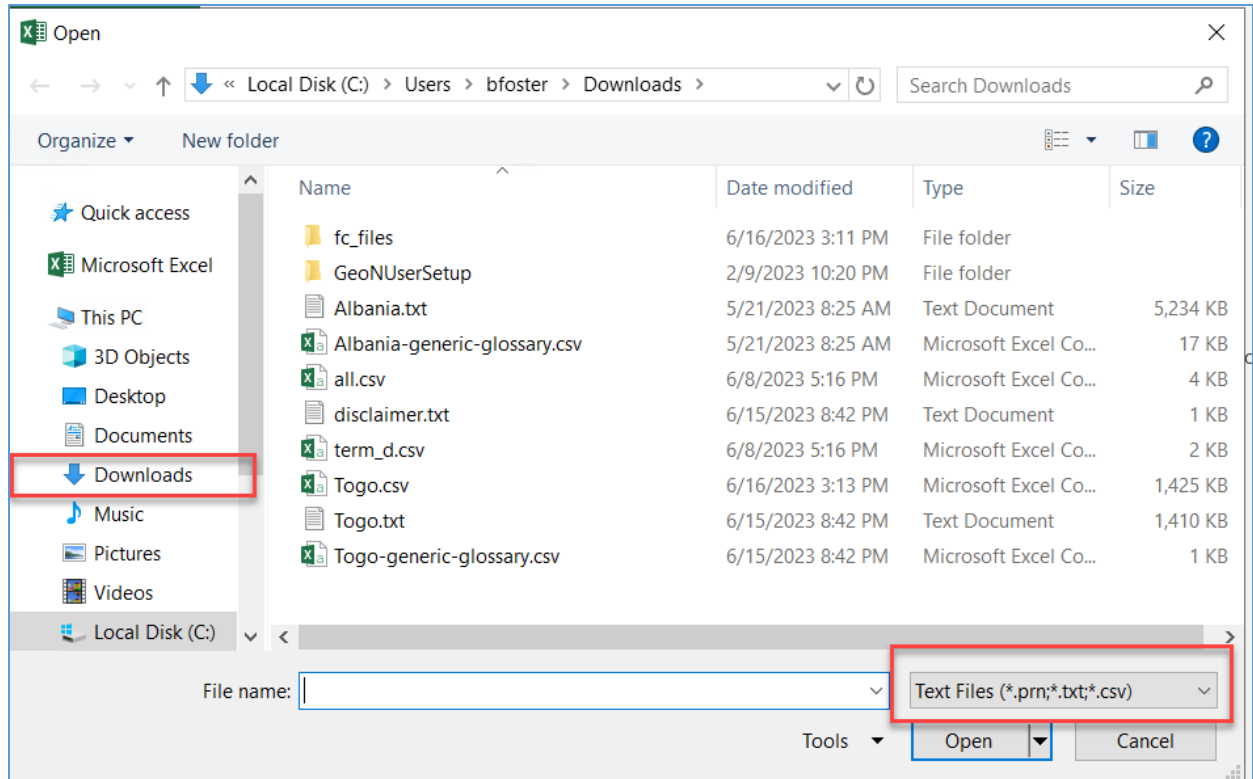


Figure 12: The File Dialog

5. The import wizard will prompt you for some information, like whether the columns are determined by a delimiter (tab, comma, etc.) or a fixed width (e.g., 10 spaces between each value on a line). The file will be tab delimited, so select **Delimited** and check the **Tab** checkbox.
6. Next, save the file **as a .csv file**. In the file dialog, make sure to select CSV UTF-8 (Comma delimited) from the now-familiar selection list

Opening in ArcGIS Pro

1. Open the ArcGIS Pro project, expand the home folder under **Folders** in the **Catalog** panel, and verify the csv file is displayed (you may need to right-click the home folder and select **Refresh** from the contextual menu to get it to display).
2. Right-click the csv file, select **Export** from the contextual menu, and then select **Table to Point Feature Class** to open the conversion tool.

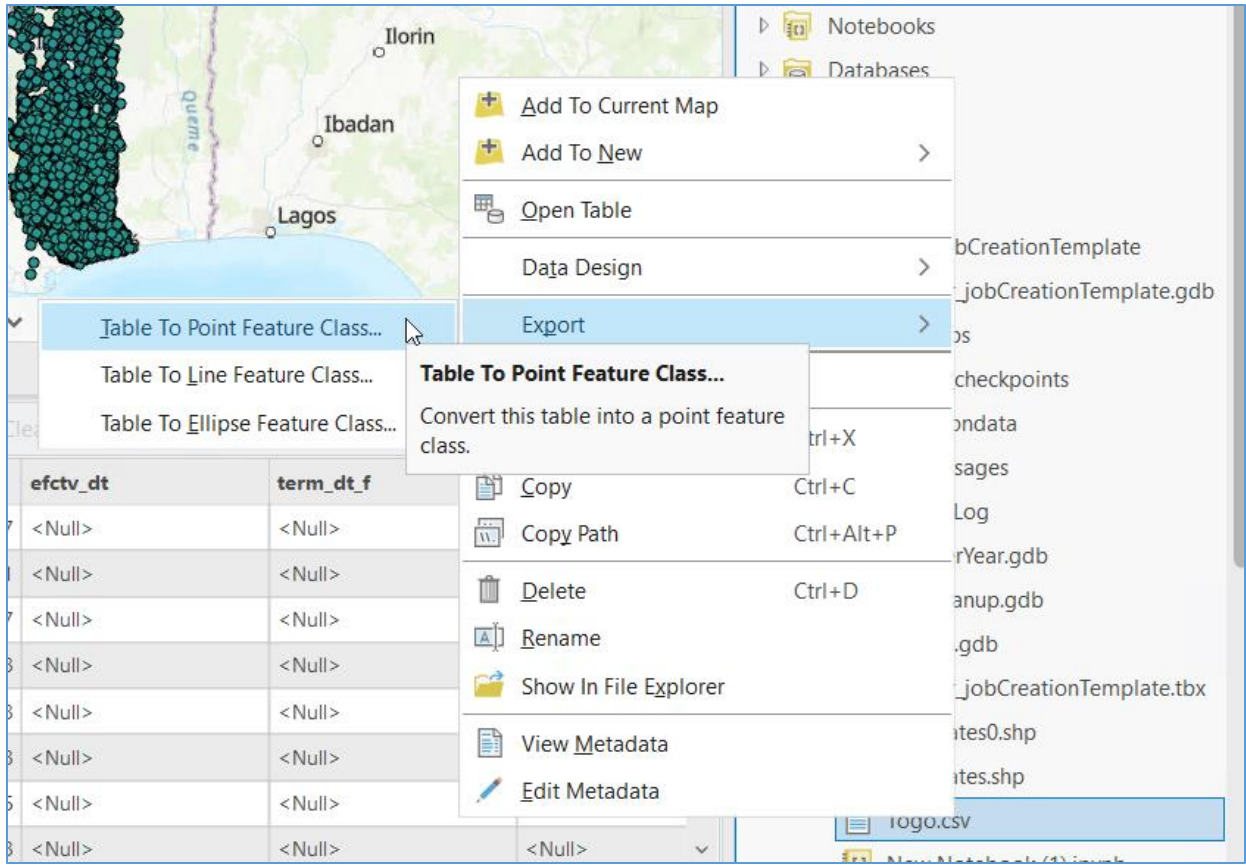


Figure 13: Exporting the Data

1. Verify the parameters are correct (long_dd & lat_dd should be the X and Y fields, unless you have changed them), name the output table (or decide that the default is satisfactory), and select **Run**

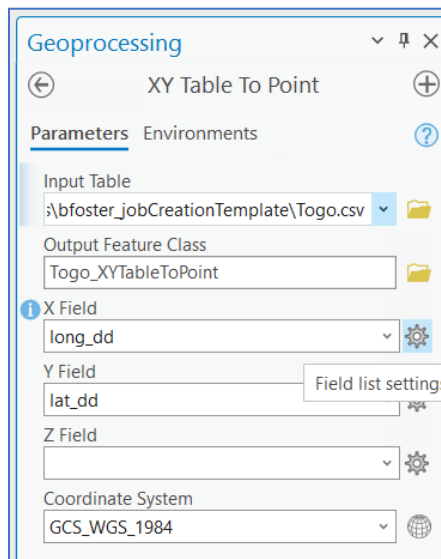


Figure 14: Adding to the Map

- The table will appear in the project's home workspace, which will have a home symbol next to it in the Catalog pane, and appear in the map.

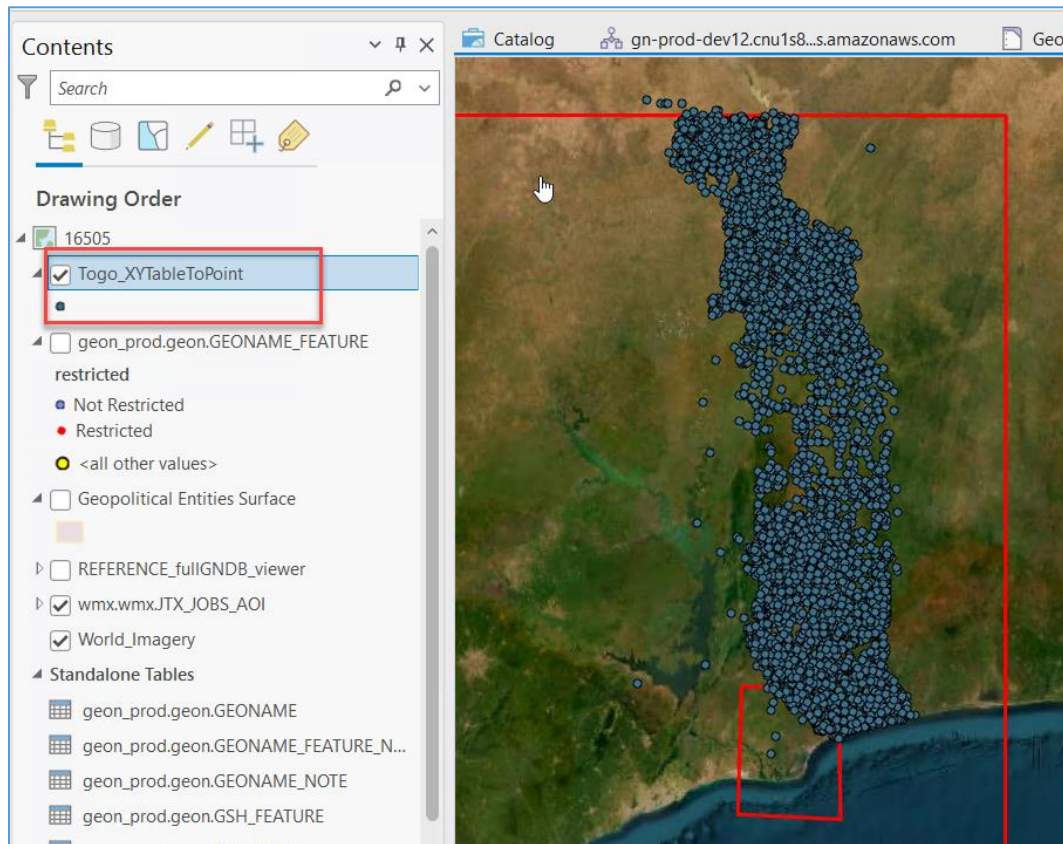


Figure 15: Country Data for Togo

REST / JSON Services

These links provide access to the REST Services Directory. To copy these links, click the clipboard icon to the right of the links to copy, and then paste them into another browser tab or window. To go directly to the link, click the arrow icon to the right of the link (the link will open in a new tab). These links take the user to the ArcGIS REST Services Directory. More information on ArcGIS REST Services can be found [here](#).

Web Map Service and Web Feature Service

To copy these links, click the clipboard icon to the right of the links to copy, and then paste them into another browser tab or window. The map service is the way that you make maps available to the web using ArcGIS. You'll make the map in ArcMap, then publish the map as a service to your ArcGIS Server site. Internet or intranet users can then use the map service in web applications, ArcGIS Desktop, ArcGIS Online, and other client applications. More information about map services can be found [here](#), and more information about feature services can be found [here](#).

KML Streaming Services

The KML Streaming Service link generates custom KML files based on the output of GIS_OUTPUT table. Using this link, the user can name the document and generate the KML file. The GIS_OUTPUT table is currently the only layer that can be added to this KML file. Users can also control how layers are displayed in the KML output; layers can be either vectors or images.

GNS Reference

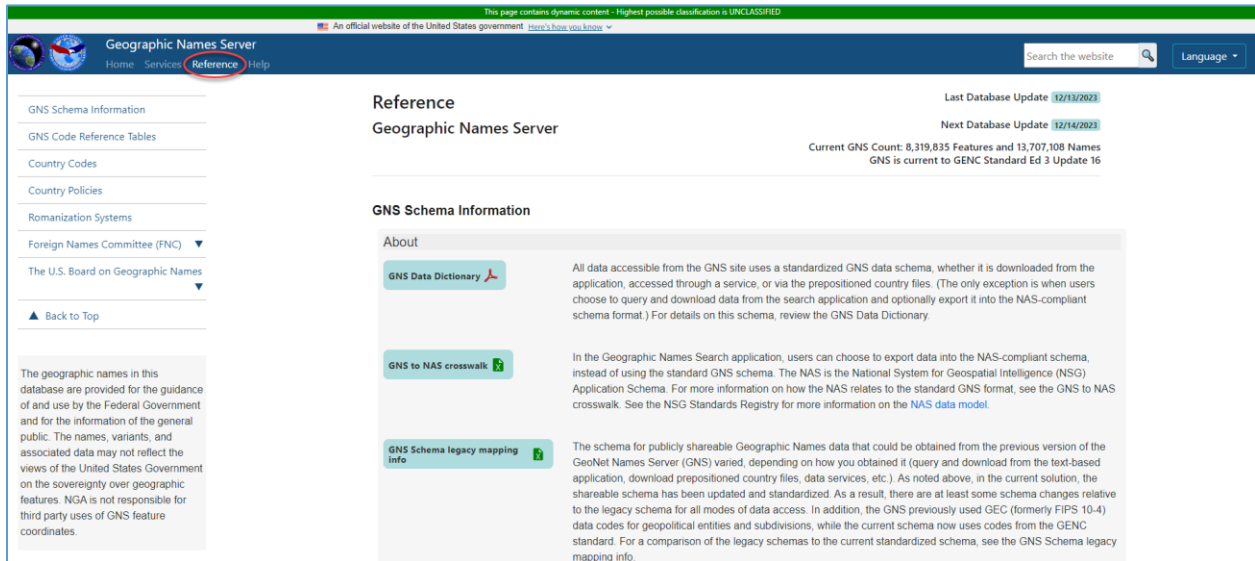


Figure 16: The GNS Reference page

GNS Code Reference Tables

The GNS Code Reference Tables provide an ordered list of codes used in the GNS for various data attribution fields. Users can download complete tables for individual codes or click the “Download ALL” button to download a zip file containing all files.

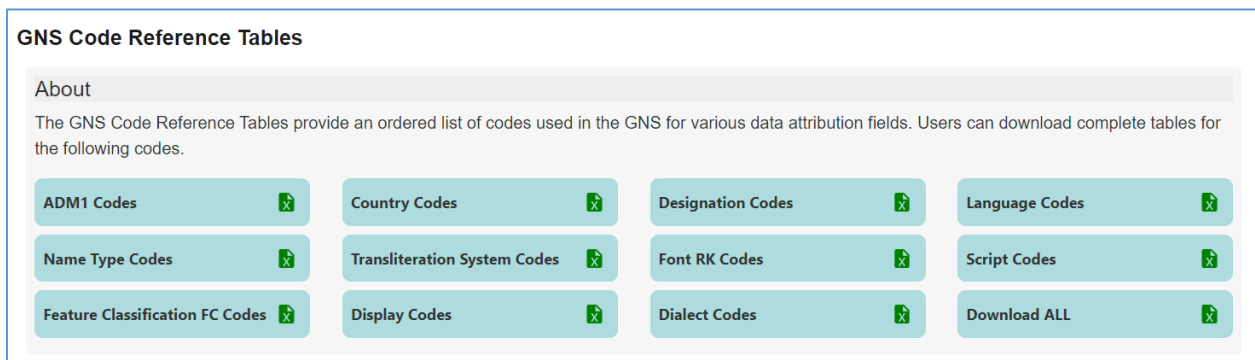


Figure 17: The GNS Code Reference Table

Country Codes

Codes for geopolitical entities used in the GNS are based on the Geopolitical Entities, Names, and Codes (GENC) Standard, the U.S. Government profile of ISO 3166 "Codes for the representation of names of countries and their subdivisions." GENC provides a list of the basic geopolitical entities in the world, together with the administrative subdivisions that comprise each entity. A crosswalk workbook of GEC codes to GENC codes is available for GENC ED3U17.

Foreign Names Committee (FNC)

The GNS Database is the official repository of foreign place-name decisions approved by the US Board of Geographic Names. FNC meeting minutes and meeting agenda can be found on the GNS Reference page. Users may access the dropdown menu and select the meeting to view meeting minutes. Policies developed by the FNC are also available on the Reference page.

The Advisory Committee on Undersea Features (ACUF) Name Proposal Form

The Advisory Committee on Undersea Features (ACUF) welcomes proposals for new undersea feature names. Forms to submit a new name are available on the GNS "References" page in a variety of formats: Excel, PDF, and online form. To fill out the online form, enter the proposed name, location, and whether the feature is in the ocean or sea. Then, continue to step through the form to provide additional information. To submit this form, a "point" feature is required, while lines and polygons are optional. Note that the location for the proposed feature should be entered in decimal degrees, and the minimum depth of the feature may not exceed the maximum depth. Users may also attach a file to this form, or indicate that the supporting file(s) exceed size requirements. In this case, NGA may reach out for further communication. In the "Location" tab of the form, users can see on a map where their proposed feature is located with other undersea features. Note that the "Show Location on Map" dialog may be slow to load, depending on the network from which it is accessed. Location must be specified in decimal degrees. Users may convert degrees, minutes, and seconds into decimal degrees using the converter in the "Location" tab of the form. Users may type a visual or audio CAPTCHA to submit.

UNITED STATES BOARD ON GEOGRAPHIC NAMES UNDERSEA FEATURE NAME PROPOSAL							
Name	Location	Description	Chart	Reason	Discovery	Documentation	Contact Info
Proposed Name: ●	<input type="text" value="Proposed Name"/>						
Location Description: ●	<input type="text" value="Location Description (provide exact spatial details on 'Location' tab)"/>						
Name of ocean or sea: ●	<input type="text" value="Name of ocean or sea"/>						

Figure 18: The ACUF Name Proposal online form

GNS Help

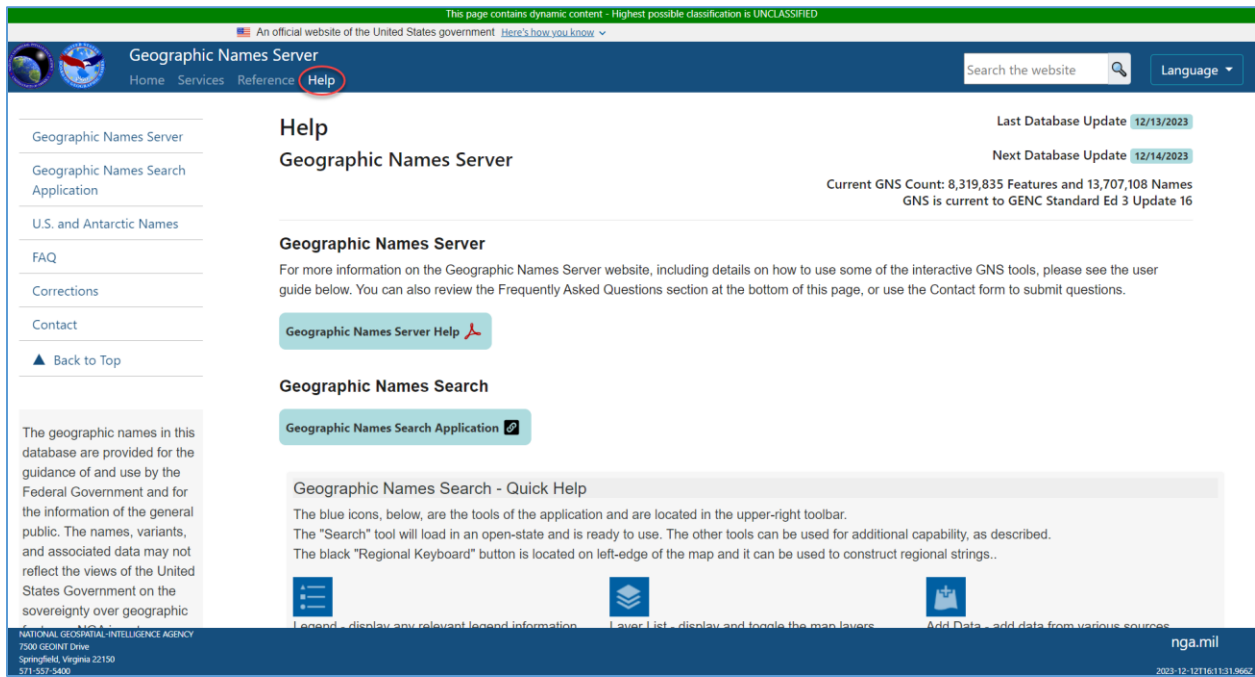


Figure 19: The GNS Help page

Help Videos

The “Quick Help” section of the GNS contains a link to how-to videos for using the GNS search application including Fuzzy Search, the ACUF name proposal form, and the GNS Regional Keyboard. These screen recording videos provide a more interactive instruction on how to use these features.

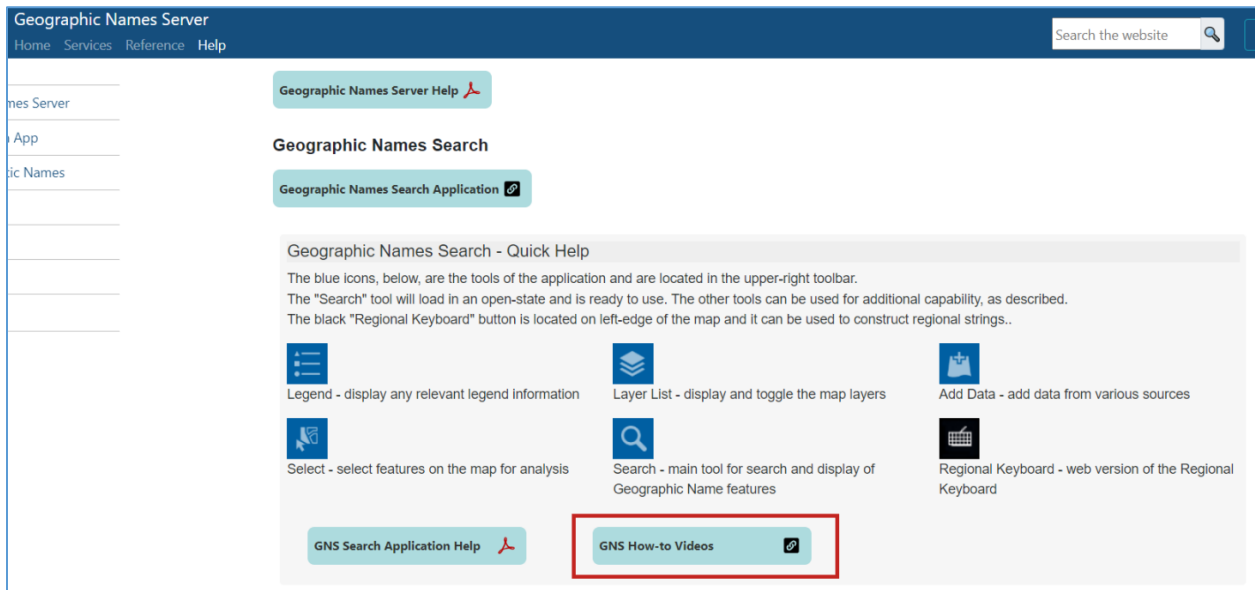


Figure 20: Link to Help videos

Data Correction and Contact Form

In the “Help” section of the GNS, there is a Data Correction Form near the bottom of the screen. Should users notice a problem with the data, this form can be used to bring the problem to the attention of the GeoNames team. Users may include supplemental files as attachments when they submit this form. The file size limit for this form is 50MB, and cannot be an executable file such as .exe. Should the user provide a file attachment with the data correction form, they will receive an email to the location of their attachment.

The screenshot shows a web form titled "Data Correction Form". At the top, it says "Please provide the following information and we will contact you as soon as we can." Below this are three input fields: "Name" with the placeholder "Please enter your name...", "Email" with "Please enter your email.", and "Description" with "Please give us a description of the data that needs correction...". There is a section for file uploads: "(Optional) Attach a file to your submission" with a "Choose file (bmp, jpg, png, zip)" button and a "Browse" button. At the bottom, there are radio buttons for "Visual Captcha" (selected) and "Audio Captcha". To the right of the radio buttons is a box containing a captcha image of the number "385949" and a "Continue" button. A "CANCEL" button is located on the left side of the form.

Figure 21: The GNS Data Correction Form.

The GNS Search Bar

The search bar appears on all pages in the top right corner. Entering text in the search bar highlights all instances of the word in the website, and displays relevant files than can be accessed directly from the search results window. To close the search and start a new one, the text from the first search must be cleared from the search bar before a new one can be entered.

The screenshot shows a "Search Results" window for the search term "Aruba". The window has a "CLOSE" button in the top right corner. The results are grouped into three categories: "CSV Documents (3)", "XLS Documents (2)", and "PDF Documents (3)". Each category lists several files with their full paths and a plus icon to the left of each path, indicating they can be expanded. The files listed are:

- CSV Documents:
 - GNSSearch/GNSDocs/luts/Geopolitical_Entity_Country_Codes.csv
 - GNSSearch/GNSDocs/luts/Primary_Administrative_ADM1_Codes.csv
 - GNSSearch/GNSDocs/luts/First_Order_Administrative_ADM1_Codes.csv
- XLS Documents:
 - GNSSearch/GNSDocs/pdfdocs/gec/GENC_ED3U11_GEC_XWALK.xlsx
 - GNSSearch/GNSDocs/pdfdocs/gec/GEC_31DEC2014.xlsx
- PDF Documents:
 - GNSSearch/GNSDocs/policies/Netherlands_Country_Policy_webversion_Sep2016.pdf
 - GNSSearch/GNSDocs/pdfdocs/fnc/Abbreviations_List_Mar_2019.pdf
 - GNSSearch/GNSDocs/pdfdocs/gec/GEOPOLITICAL_CODES.pdf

 There is a "CLOSE" button at the bottom left of the window.

Figure 22: The Search Results window. The example shown here uses “Aruba” as a search term.