

GeoData@Stanford User Guide

Version 1.0

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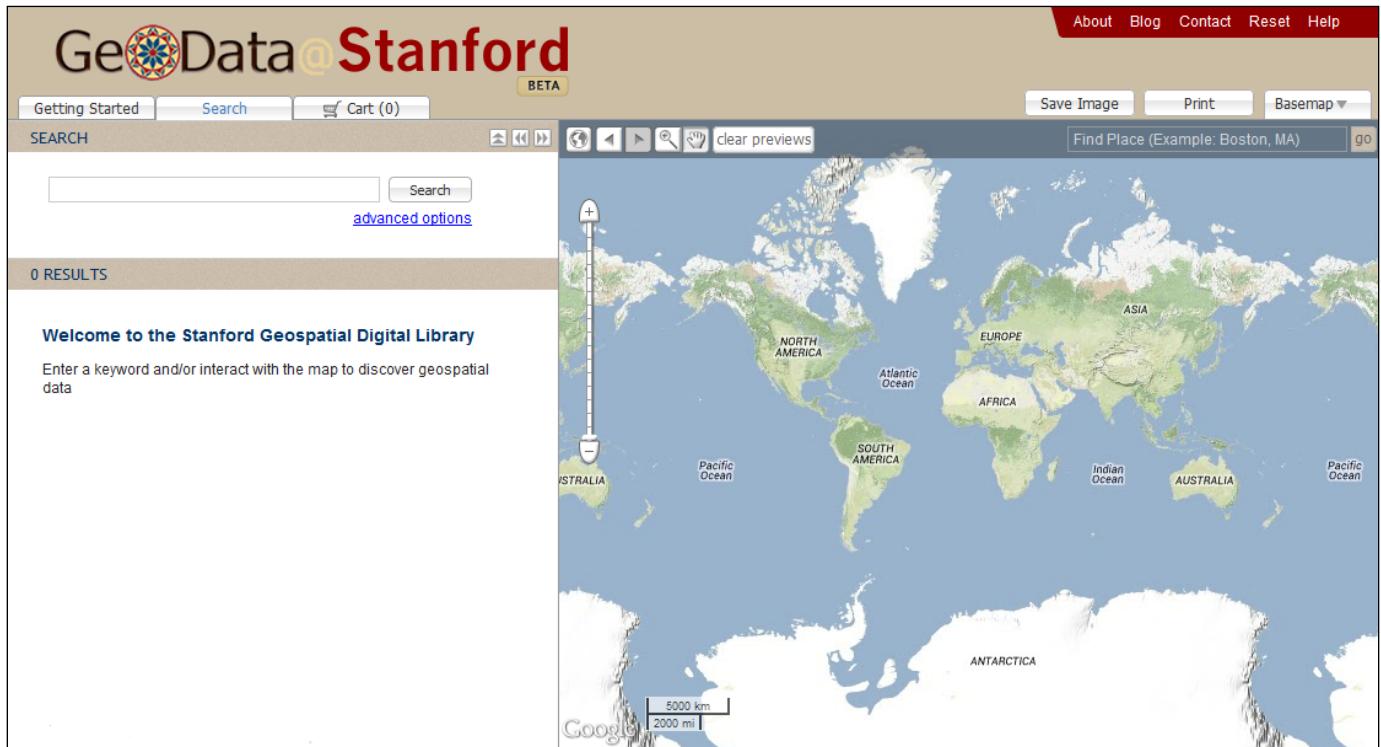
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1. Overview

The OpenGeoportal was collaboratively developed as an open source, federated web application to discover, preview, and retrieve geospatial data from different repositories. Several of the country's leading universities and a state agency have formed a partnership to make thousands of geospatial data layers available through a single, open source interface. The application also incorporates some new innovative search techniques. Partners include Tufts, Harvard, MIT, Princeton, MassGIS, Stanford and UC Berkeley. The single interface is skinnable and may have slight differences in appearance based on the institution hosting the application. Stanford's implementation of OpenGeoportal is called GeoData@Stanford.



2. Quick Start: Getting Started

By clicking the **Getting Started** tab, you can get some of the most important information quickly on how to interact with the map, search, preview, and download data.

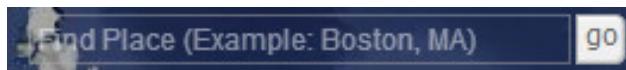


The screenshot shows the GeoData@Stanford website interface. A red arrow points to the "Getting Started" tab in the top navigation bar. The main content area displays a world map with various geographical features and labels. On the left, there is a sidebar with sections for "Welcome to the Stanford Geospatial Digital Library", "Search", "Interacting with the map", and "Preview". The "Search" section contains instructions and a list of tips. The "Interacting with the map" section also has a list of tips. The "Preview" section contains a list of instructions. At the bottom right of the map, there is a coordinate display: -140.87856, -15.28419.

3. Search

3.1. Working With The Map

A set of buttons that display above the map allows you to switch or manipulate the current view.



3.1.1. Find a Place

is used for a geospatial search. When you use the Find Place field, GeoData@Stanford provides a view of the location you entered and restricts the returned data records to those intersecting the spatial search area. Returned results are ranked according to a unique set of spatial algorithms.

3.1.2. Global Zoom



restores the highest level view available.

3.1.3. Back



backs you up to previously viewed map extents.

3.1.4. Forward



moves you through subsequent map extents.

3.1.5. Zoom in



switches the cursor to a magnifying glass icon which, when clicked, zooms in to the identified point on the map. Hold down the left-click to drag and draw a box over the area to zoom to.

3.1.6. Pan control



switches the cursor to a hand icon which, when the left click is held down, allows you to drag and pan the map.

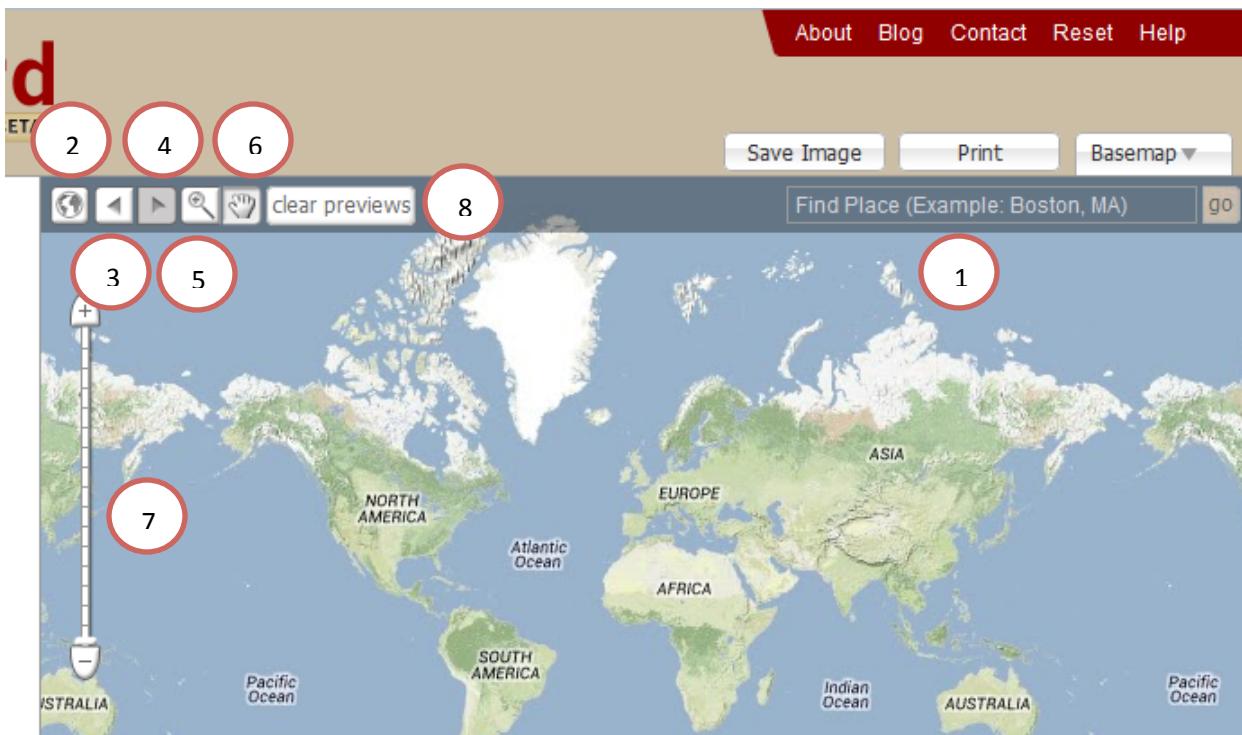
3.1.7. The Zoom Slider Bar

displays in the upper left portion of the map, allowing you to zoom in or zoom out by clicking the ends of the slider bar, or by dragging the slider up or down on the bar.

3.1.8. Clear previews



is used to deselect any results checked to preview and remove them from the map.



3.2. Two Types of Searches

In order to search for data, click on the **Search** tab.

A screenshot of the GeoData@Stanford search interface. The title 'GeoData@Stanford' is at the top with a 'BETA' badge. Below it are tabs for 'Getting Started' (highlighted), 'Search' (with a red box around it), and 'Cart (0)'. A search bar contains 'Search for data layers...' with a 'Search' button and a link to 'advanced options'. On the left, a sidebar says '0 RESULTS' and 'Welcome to the Stanford Geospatial Digital Library' with the instruction 'Enter a keyword and/or interact with the map to discover geospatial data'. On the right is a world map with a vertical zoom control.

There are two ways to locate, explore and download data. These two types of searches are 1) **Using the Map to Search** and 2) **Text Search**. The two methods can be used individually or combined (default) for more effective searching. A change in the map extent will initiate a search for data.

3.2.1. Using the Map to Search can be done in several ways:

The **Find Place** field is used for a geospatial search. When you use the Find Place field, GeoData@Stanford zooms to the location you entered and restricts the returned data records to those intersecting the resulting map extent.

For example, to search for data in the San Francisco area: 1. In the **Find Place** field, type **San Francisco, CA** and click "go". 2. In **Search Results**, you see all the data layers that are within or partially within the San Francisco area. By default they are ordered by a unique spatial relevance algorithm.

The screenshot shows the GeoData@Stanford website interface. At the top, there is a navigation bar with links for About, Blog, Contact, Reset, and Help. Below the navigation bar is a search bar labeled 'Find Place (Example: Boston, MA)' with a 'go' button. To the left of the search bar is a 'SEARCH' button. On the right side of the search bar are buttons for Save Image, Print, and Basemap. The main area of the page is divided into two sections: a search results table on the left and a map on the right. The search results table has a header row with columns for Type, Name, Rep, Access, and Preview. Below the header, there are 647 results listed, all of which are categorized under 'Relevancy'. The first few results include 'San Francisco, California 1891 (Raster I)', 'Twin Peaks Tunnel assessment map, S', 'Elevation contours San Francisco', 'Elevation contours San Francisco', 'Planimetric features San Francisco', 'Zoning San Francisco', 'Speed limits San Francisco', 'Fire and Emergency Response Districts', 'Fire Department Bureau of Prevention Di', 'Neighborhoods San Francisco 2004', 'Neighborhoods San Francisco Assoc. of', 'Shore and county lines for mainland Sar', 'Zip codes San Francisco', 'City Lots San Francisco 2004', and 'Assessor Blocks San Francisco 2005'. The map on the right shows the San Francisco area with various geographical features labeled, such as the Golden Gate Bridge, South Bay, and various parks. A red circle with the number '1' is drawn around the map area, and another red circle with the number '2' is drawn around the search results table area.

If you hover your mouse pointer over a data layer in the **Results** list, you can see its extent previewed in blue on the map.

The screenshot shows the GeoData@Stanford interface. On the left, a search results panel displays 634 results for 'Shore and county lines for mainland San Francisco'. The results list includes various types of data layers such as Raster I, Shapefiles, and KML files, with columns for Type, Name, Rep, Access, and Preview. On the right, a map of San Francisco is shown with a blue box highlighting the previewed extent of the selected data layer. The map also shows other features like the Golden Gate Bridge, Golden Gate Park, and various neighborhoods.

Drag and Draw a Box to perform a search similar to "Find Place". Using the Zoom In tool while clicking and dragging draws a box that zooms to the extent of the area of interest. By default GeoData@Stanford returns relevant results each time the displayed map extent changes.

In tool while clicking and dragging draws a box that zooms to the extent of the area of interest. By default GeoData@Stanford returns relevant results each time the displayed map extent changes.

For example, to search for data for the San Francisco area: 1. Drag and draw a box over **San Francisco, CA**. 2. In **Search Results**, you will see all the data layers that are within or partially within San Francisco.

The screenshot shows the GeoData@Stanford interface. On the left, a search results panel displays 675 results for 'San Francisco Peninsula, California 186'. The results list includes various types of data layers such as Raster I, Shapefiles, and KML files, with columns for Type, Name, Rep, Access, and Preview. On the right, a map of the San Francisco area is shown with a red box highlighting the previewed extent of the selected data layer. The map shows the city of San Francisco and surrounding areas like Marin City, Sausalito, and Alameda.

Also, panning or zooming in to a different area immediately initiates another search for the new area.

Try combining your spatial search with a text search to further refine your results.

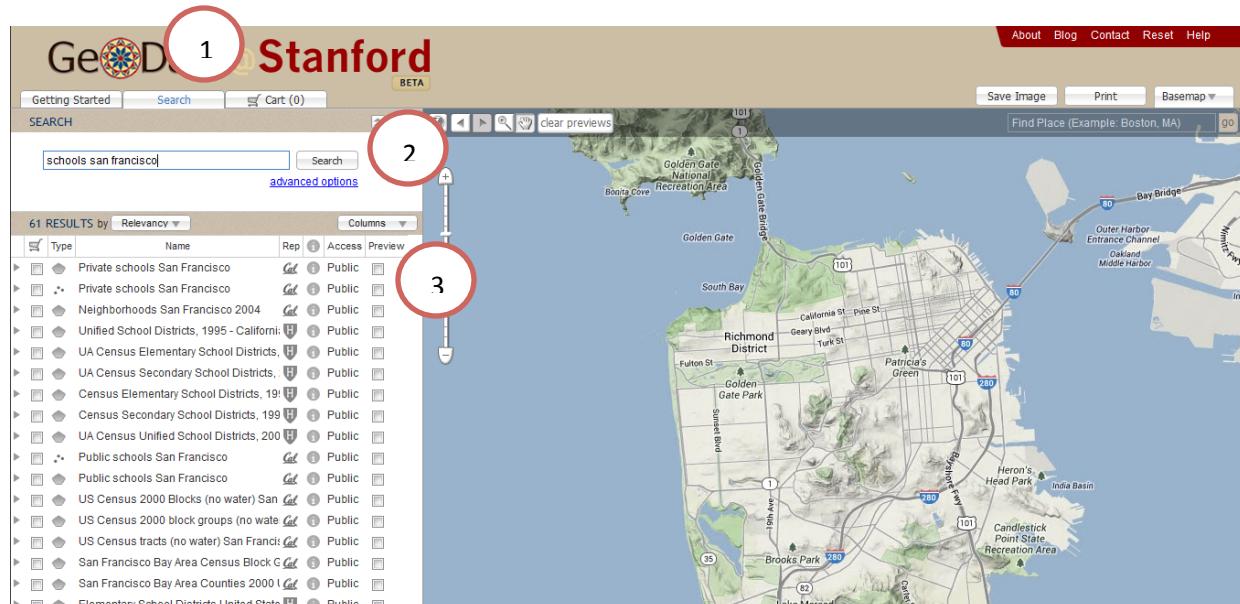
3.2.2. Text Search

allows you to type in search terms. There are **Basic** and **Advanced Search** options.

3.2.2.1. Basic Search

For a **Basic** search, you can type in a search term, such as **schools**, in the search field. You can also put a place name in the Search Text Key field, such as **schools San Francisco**. This search goes through the metadata to find these key terms. Remember, the search will return results which include either word in the metadata.

For example, you want to find schools in San Francisco. 1. Make sure the **Search** tab is selected. 2. Type **schools San Francisco** in the search text field and click on **Search**. 3. You see that the Search Results change to include those data layers with schools in San Francisco.



3.2.2.2. Advanced Search

If the Basic Search options are too general, use the **Advanced Search** options to further refine your search. To use the Advanced Search:

With the Search tab selected, click **Advanced Options**. The options for search are expanded.

The screenshot shows the GeoData Stamford search interface. At the top, there are tabs for "Getting Started", "Search", and "Cart (0)". Below these are buttons for "SEARCH", "clear previews", and a "BETA" button. A search bar contains the placeholder "Search for data layers...". Below the search bar is a red box around the "advanced options" link. The main area displays a table of search results with 9194 results, sorted by "Relevancy". The columns are "Type", "Name", "Rep", "Access", and "Preview". The results include entries like "DCW Landcover, Polygons", "DCW Physiographic Features, Lines", and "World Map Showing Routes of Exploratic". To the right of the table is a map of Asia.

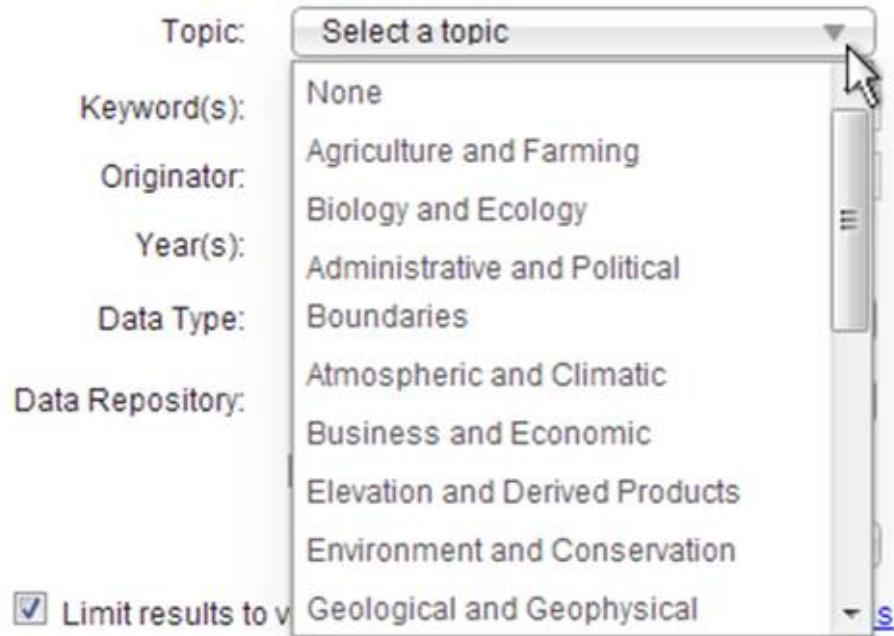
The additional options (defined below) allow you to further define your search criteria. You can specify any of the following:

This screenshot shows the "SEARCH" interface with various search filters highlighted by red circles numbered 1 through 8. The filters are:

1. Topic: A dropdown menu labeled "Select a topic".
2. Keyword(s): An input field for keywords.
3. Originator: An input field for originators.
4. Year(s): Input fields for start and end years.
5. Data Type: A dropdown menu labeled "Select data types".
6. Data Repository: A dropdown menu labeled "Select repositories".
7. Include Restricted Data: A checkbox labeled "Include Restricted Data".
8. Limit results to visible map area: A checked checkbox labeled "Limit results to visible map area".

Below the filters are "Clear" and "Search" buttons, and a link to "basic options".

3.2.2.2.1. Topic allows you to search for data that includes information related to a particular subject or data theme. Left click on the arrow in the Topic field to show the list of topics.



- **Agriculture and Farming**
The rearing of animals or cultivation of plants. For example, resources describing irrigation, aquaculture, herding, and pests and diseases affecting crops and livestock.
- **Biology and Ecology**
Naturally occurring flora and fauna. For example, resources describing wildlife, biological sciences, ecology, wilderness, sea life, wetlands, and habitats.
- **Administrative and Political Boundaries**
Administrative units within countries and borders between countries.
- **Atmospheric and Climatic**
Atmospheric processes and phenomena. For example, resources describing cloud cover, weather, atmospheric conditions, climate change, and precipitation.
- **Business and Economic**
Economic activities or employment. For example, resources describing labor, revenue, commerce, industry, tourism and ecotourism, forestry, fisheries, commercial or subsistence hunting, and exploration and exploitation of resources such as minerals, oil, and gas.
- **Elevation and Derived Products**
Height above or below sea level. For example, resources describing altitude, bathymetry, digital elevation models, slope, and products derived from this information.
- **Environment and Conservation**
Environmental resources, protection, and conservation. For example, resources describing pollution, waste storage and treatment,

- environmental impact assessments, environmental risks, and nature reserves.
- **Geological and Geophysical**
Earth sciences. For example, resources describing geophysical features and processes, minerals, the composition, structure and origin of the earth's rocks, earthquakes, volcanic activity, landslides, gravity information, soils, permafrost, hydrogeology, and erosion.
 - **Human Health and Disease**
Health services, human ecology, and safety. For example, resources describing human disease and illness, factors affecting health, hygiene, mental and physical health, substance abuse, and health services.
 - **Imagery and Base Maps**
Base maps. For example, resources describing land cover, topographic maps, and classified and unclassified images.
 - **Military**
Military bases, structures, and activities. For example, resources describing barracks, training grounds, military transportation, etc.
 - **Inland Water Resources**
Inland water features, drainage systems, and their characteristics. For example, resources describing rivers and glaciers, lakes, water use plans, dams, currents, floods, water quality, and hydrographic charts.
 - **Locations and Geodetic Networks**
Positional information and services. For example, resources describing addresses, geodetic networks, postal zones and services, control points, and place names.
 - **Oceans and Estuaries**
Features and characteristics of salt water bodies excluding inland waters. For example, resources describing tides, tidal waves, coastal information, and reefs.
 - **Cadastral**
Property maps. A cadastre commonly includes details of the ownership, the tenure, the precise location (some include GPS coordinates), the dimensions (and area), the cultivations if rural, and the value of individual parcels of land.
 - **Cultural, Society, and Demographics**
Characteristics of societies and cultures. For example, resources describing natural settlements, anthropology, archaeology, education, traditional beliefs, manners and customs, demographic data, crime and justice, recreational areas and activities, social impact assessments, and census information.
 - **Facilities and Structure**
Man-made construction. For example, resources describing buildings, museums, churches, factories, housing, monuments, and towers.
 - **Transportation Networks**
Means and aids for conveying people and goods. For example, resources describing roads, airports and airstrips, shipping routes, tunnels, nautical charts, vehicle or vessel location, aeronautical charts, and railways.

- **Utilities and Communication**

Energy, water and waste systems, and communications infrastructure and services. For example, resources describing hydroelectricity, geothermal, solar, and nuclear sources of energy, water purification and distribution, sewage collection and disposal, electricity and gas distribution, data communication, telecommunication, radio, and communication networks.

3.2.2.2.2. Keyword(s) - Keywords are words that serve as criteria, identifying relevant search results based on document metadata.

Keyword(s):

3.2.2.2.3. Originator - The originator is the office or agency providing the source data for the search result.

Originator:

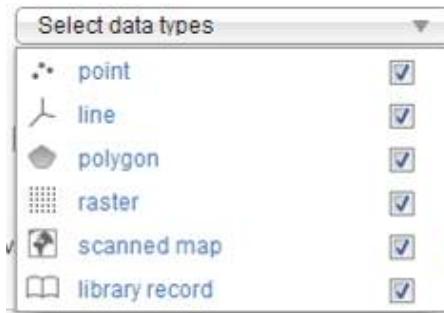
3.2.2.2.4. Year Range - The Year Range option allows you to specify a particular date range to search. Years should be entered in the YYYY format.

Year(s):

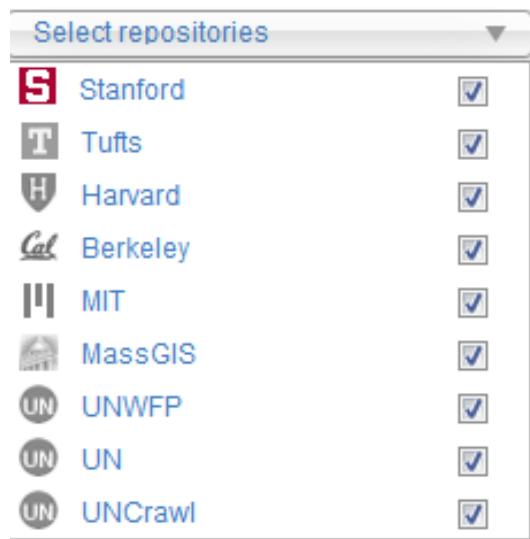
 to

3.2.2.2.5. Data Type - Data Type allows you to define the type of data you want to find, such as raster data, vector data, or scanned maps.

- **Raster** - Raster data represents a generally rectangular grid of pixels or points of color, viewable via a monitor, paper, or other display medium.
- **Vector** - Vector graphic formats points, lines, and polygons (shapes), which are all based on mathematical equations, to represent images in computer graphics.
- **Scanned Maps** - Scanned maps have coordinate system information in the margins that can be used to geo-reference the image without reference to any other data.



3.2.2.2.6. Repository - Click the **Select Repositories** dropdown. Use the checkboxes to include all or a select set of the data available from the contributing data repositories.



3.2.2.2.7. Inclusion of Restricted Data - A portion of the data provided by the data sources is protected from public view, and requires the user to login to view or download the restricted data. Generally speaking, individuals from each of the data repositories will have privileges to log in to data from their own institution. By checking this, results might be returned that you would be unable to preview or download through the portal.

[Include Restricted Data](#)

3.2.2.2.8. Results limited to just the visible map area- You can elect to have GeoData@Stanford restrict the search results to correspond to the map in one of two ways.

[Limit results to visible map area](#)

If you keep the **Limit the Visible Map Area checked**, the search results layers correspond only to features that intersect with the visible map extent.

If you uncheck **Limit the Visible Map Area**, the spatial component of the search will be removed. The search results will include layers from different parts of the world. Only the text search will be in effect.

3.3. Helpful Hints for Finding Data

- **Combine spatial and text searches** - For example, zoom in to San Francisco, CA and type "buildings" in the search box for an effective way to search for San Francisco buildings. An advantage to this type of search is that buildings layers for towns in the

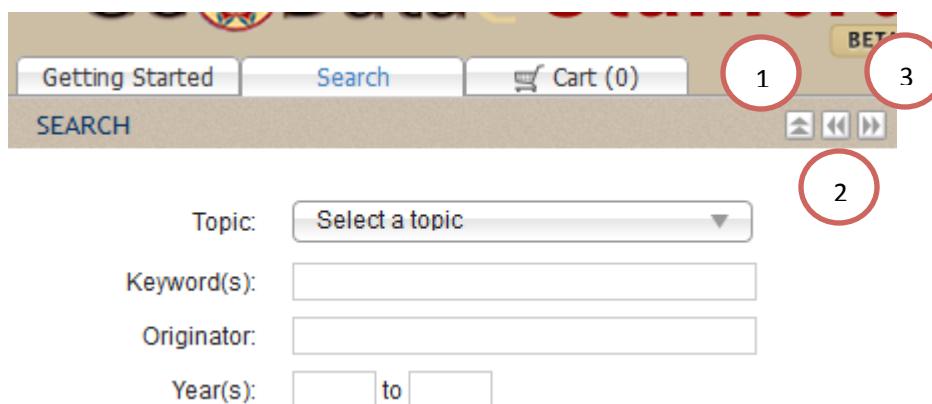
San Francisco area, but not a part of San Francisco proper will appear. Use the "Find a Place" search box for a quick way to zoom in to a location.

- **Use Multiple Terms to Refine Searches** - For example, search for **land cover** to find documents with both the words 'land' and 'cover' somewhere in the metadata, but not necessarily together.
- **Capitalization** - Searches on GeoData@Stanford are not case sensitive; e.g. "roads" returns the same results as "Roads".

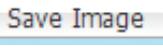
3.4. Search Tab Preferences

Elements on the **Search** tab can be adjusted to suit your preferences. Three buttons appear in the header of the Search tab have the following functions:

- 3.4.1. Collapse/Expand**  collapses or expands the portion of the Search tab where criteria are entered. Having this portion of the tab collapsed allows more search results to appear on the screen.
- 3.4.2. Collapse Left**  collapses the tabbed area of the interface completely, maximizing the map view. When the left side of the screen is collapsed, the button to expand right displays at the left edge of the screen. Using the expand right button will restore the interface to the default view.
- 3.4.3. Expand Right**  collapses the map area of the interface completely, maximizing the tabbed portion of the interface. When the right side of the screen is collapsed, using the expand left button will restore the interface to the default view.

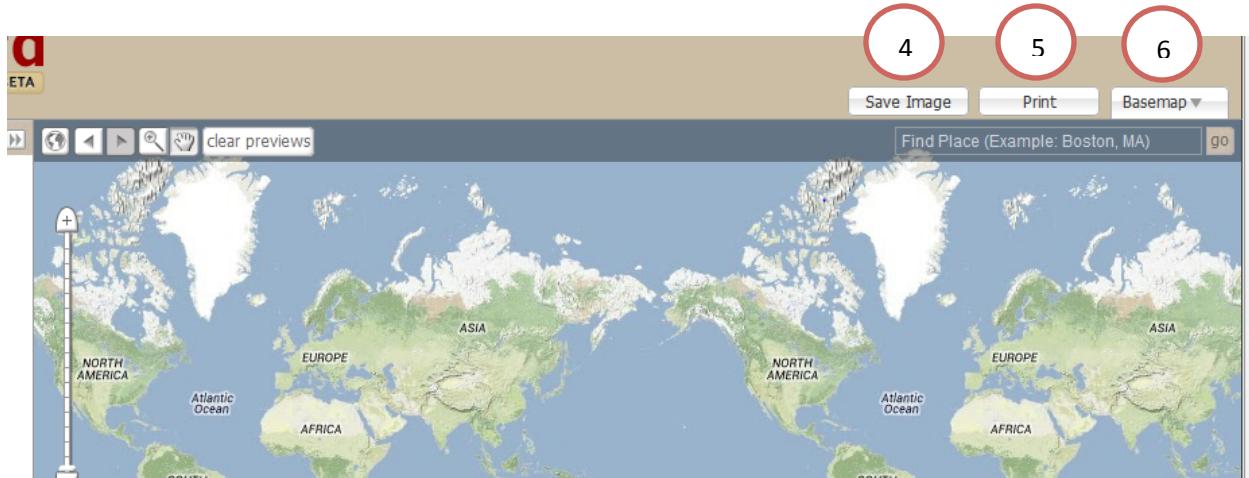


Above the map on the right, three buttons are displayed:

- 3.4.4. Save Image**  allows you to save a .png image of the datasets that are actively being previewed on your map within the current extent.
- 3.4.5. Print**  The Print button allows you to print the current map extent, including the previewed layers and basemap.

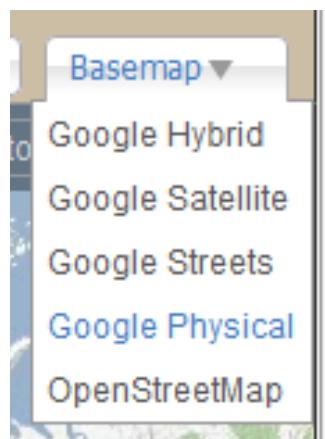
Tip - Consider using a PDF printer to avoid having to download a map, saving the map with a name and location of your choosing.

3.4.6. Basemap There are five options for the basemap you can use in GeoData@Stanford.



3.4.7. Basemap types when you hover your cursor over **Basemap**, your options for the basemap appear. The one selected is in **blue**.

- **Google Hybrid** - The Hybrid view shows a map depicting roads, parks, borders, and more, overlayed on satellite imagery.
- **Google Satellite** - The Satellite view shows aerial imagery of roads, parks, borders, and more.
- **Google Streets** - The Map view shows a map with a traditional depiction of roads, parks, borders, and more.
- **Google Physical** - This shows the topography and physical features of the land along with major roads.
- **Open Street Map** - This option is a free, editable source of geographic data, which is built similar to Wikipedia. OSM has mapped some parts of the world not easily available from other sources.



4. Practice Search

When you are finished defining your search criteria, click the **Search** button.
Results corresponding to the criteria you've entered display under **Search Results**.

Try a search. Let's get airport data for the United States. In 1) **Topics** choose **Transportation Networks**, 2) in **Keywords** type **airports**, 3) in **Year(s)** type **1990** and then 4) click **Search**.

The screenshot shows a search interface with the following parameters:

- Topic:** Transportation Networks (circled 1)
- Keyword(s):** airports (circled 2)
- Originator:** (empty field)
- Year(s):** 1990 to (empty field) (circled 3)
- Data Type:** Select data types
- Data Repository:** Select repositories
- Include Restricted Data:** (unchecked checkbox)
- Buttons:** Clear, Search (circled 4), basic options
- Checkboxes:** Limit results to visible map area (checked checkbox)

5. Search Results

Default columns that display for returned Search results are as follows:

Type	Name	Rep	i	Access	Preview
►	Public Use Airports	H	i	Public	<input type="checkbox"/>
►	USA (Public Use Airport Runways, 2001)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airports, 2005)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airports, 2003)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airports, 2006)	II	i	Public	<input type="checkbox"/>
►	USA (Airport Runways, 2008)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airports, 2004)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airports, 2002)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airport Runways, 2004)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airport Runways, 2003)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airport Runways, 2005)	II	i	Public	<input type="checkbox"/>
►	USA (Public Use Airport Runways, 2006)	II	i	Public	<input type="checkbox"/>
►	VMap1 Runways, Lines	H	i	Public	<input type="checkbox"/>
►	VMap1 Runways, Points	H	i	Public	<input type="checkbox"/>
►	VMap1 Airport Control Towers	H	i	Public	<input type="checkbox"/>
►	USA (Airports, 2008)	II	i	Public	<input type="checkbox"/>
►	DCW Aeronautical Facilities, Points	H	i	Public	<input type="checkbox"/>
►	Runways 250k Scale Ecuador 2012	T	i	Public	<input type="checkbox"/>

5.1. Show/Hide Preview Controls ➤ Expands/hides options to customize opacity, font size and color, adjusting how the data will preview on the map. Click on the arrow by the data layer to show controls. When you check the preview data checkbox (see Section 5.7), the preview controls are automatically expanded.

Type	Name	Rep	i	Access	Preview
▼	Public Use Airports	H	i	Public	<input type="checkbox"/>
	opacity: 100% ▾ pt size: 2px ▾	red			
►	USA (Public Use Airport Runways, 2001)	II	i	Public	<input type="checkbox"/>

5.2. Add to Cart - A checkbox used to save a result to the Cart. Simply check the box and the data layer will be placed in the cart. The cart is a temporary holding place to preview or download chosen results, which can be accessed by clicking the Cart tab.

426 RESULTS by Relevancy		Columns			
Type	Name	Rep	i	Access	Preview
<input checked="" type="checkbox"/>	Public Use Airports	H	i	Public	<input type="checkbox"/>
	opacity: 100% pt size: 2px	<input type="color" value="red"/>			
<input type="checkbox"/>	USA (Public Use Airport Runways, 2001)		i	Public	<input type="checkbox"/>

5.3. Data Type

- Raster - a generally rectangular grid of pixels
- Point - a vector graphic format using points
- Line - a vector graphic format using lines
- Polygon - a vector graphic format using polygons
- Scanned Map - a digital image of a physical map

5.4. Name - The document or data set name.

426 RESULTS by Relevancy		Columns			
Type	Name	Rep	i	Access	Preview
<input checked="" type="checkbox"/>	Public Use Airports	H	i	Public	<input type="checkbox"/>
	opacity: 100% pt size: 2px	<input type="color" value="red"/>			
<input type="checkbox"/>	USA (Public Use Airport Runways, 2001)		i	Public	<input type="checkbox"/>

5.5. Originator - The office or agency providing the source data for the search result.

426 RESULTS by Relevancy		Columns				
Type	Name	Originator	Rep	i	Access	Preview
<input checked="" type="checkbox"/>	Public Use Airports		H	i	Public	<input type="checkbox"/>
	opacity: 100% pt size: 2px	<input type="color" value="red"/>				
<input type="checkbox"/>	USA (Public Use Airport Runways, 2001)		i	Public	<input type="checkbox"/>	

5.6. i - Used to display metadata for the returned result. 1) Click on the *i* and 2) the **metadata** appears.

The screenshot shows a GIS application interface with two main windows. The top window displays a list of search results titled "426 RESULTS by Relevancy". One result, "Public Use Airports", has its checkbox checked and is highlighted with a red box and circled with a red number "1". To the right of the list are icons for "Columns", "Preview", and a login button. Below the list is a map showing a snowy landscape with a small airport icon. The bottom window is a "METADATA" panel for the selected "Public Use Airports" result. It has a red circle with a red number "2" around its title. The panel lists "Metadata:" items and then "Identification_Information:" which includes "Citation:" with details like "Originator: Bureau of Transportation Statistics, (comp.)" and "Title: Public Use Airports". There is also a "Geospatial_Data_Presentation_Form:vector digital data" section and a "Publisher: Bureau of Transportation Statistics".

5.7. Preview

- **Checkbox** - If the data is public, simply click the checkbox beside the result to preview the data on the map. The layer goes to the top of the list.
- **Login** [login](#) If the data is protected, click the login button to provide your credentials to access the data and preview it on the map.

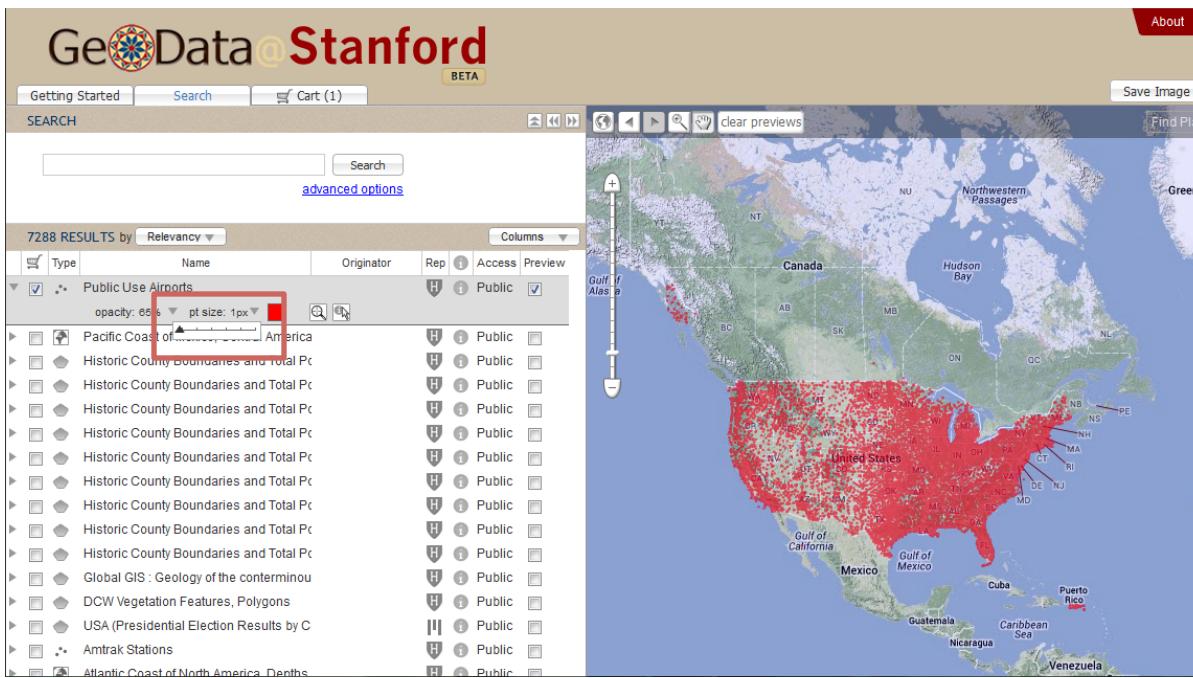
The screenshot shows the GeoData@Stanford interface. On the left, there is a search bar and a results table titled "7314 RESULTS by Relevancy". The table includes columns for Type, Name, Originator, Rep, Access, and Preview. A red polygon is overlaid on a map of North America, specifically covering the contiguous United States. The map also shows parts of Canada, Mexico, and the surrounding oceans.

Within Preview, there are several options for controlling how your features look and exploring their attribute data. They are **a. Opacity**, **b. Width**, **c. Color**, **d. Zoom to Geographic Extent of Layer**, and **e. Click a Previewed Feature on the Map to View its Attributes**.

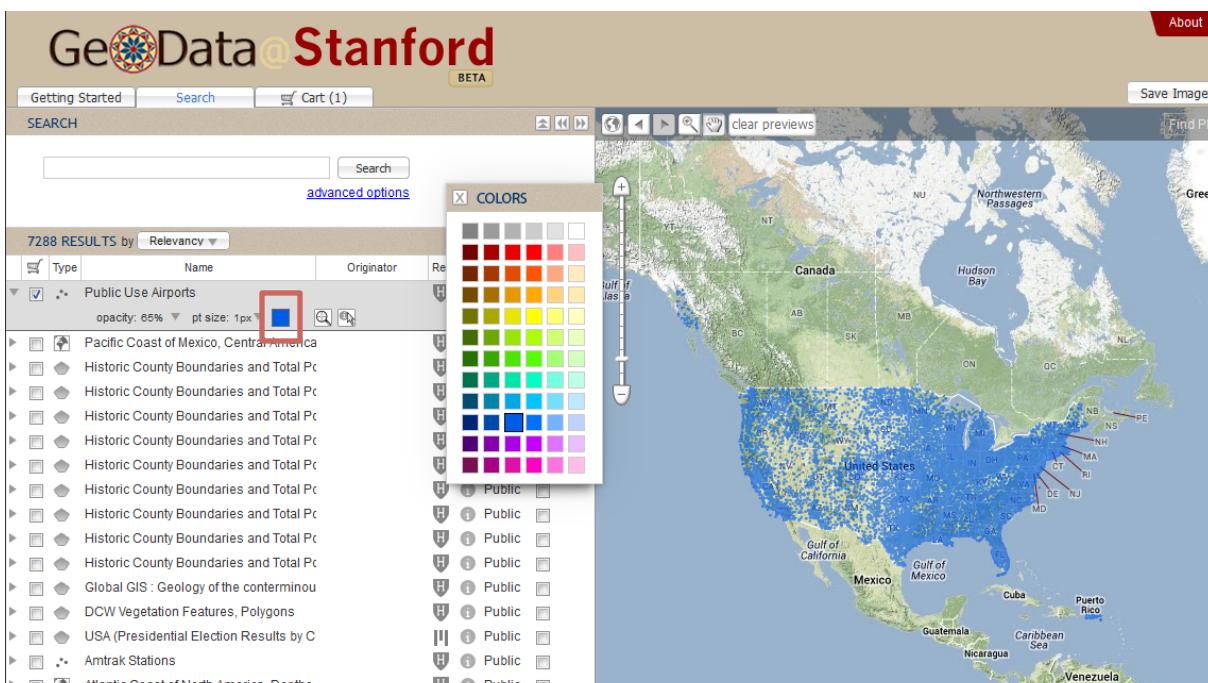
5.7.1. Opacity - controls the transparency of the data layer in the view. Hover your cursor over the control and a scale bar appears. Move the arrow up and down the scale to adjust the opacity of the layer.

This screenshot shows the same GeoData@Stanford interface as above, but with a specific interaction highlighted. A red box surrounds the "Preview" column for the "Public Use Airports" entry in the results table. Within this box, a small slider control is visible, labeled "opacity: 65% pt size: 2px". This slider allows users to adjust the transparency of the previewed feature directly from the list view.

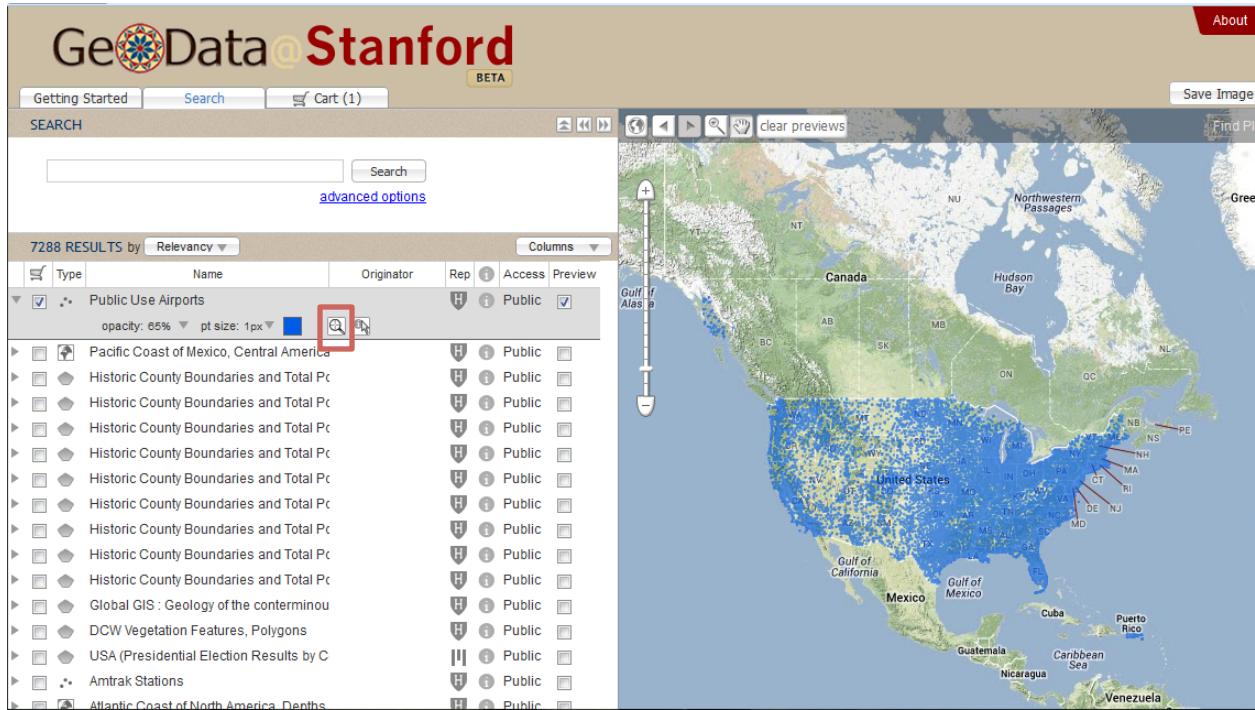
5.7.2. Size/Ln Width- This controls the size of points or the width of the lines (or borders for polygons) in the data layers. Move the arrow on the scale to adjust. Note this option is not available for raster data.



5.7.3. Color - Click on the color icon to bring up the color palette. Note this option is not available for raster data.

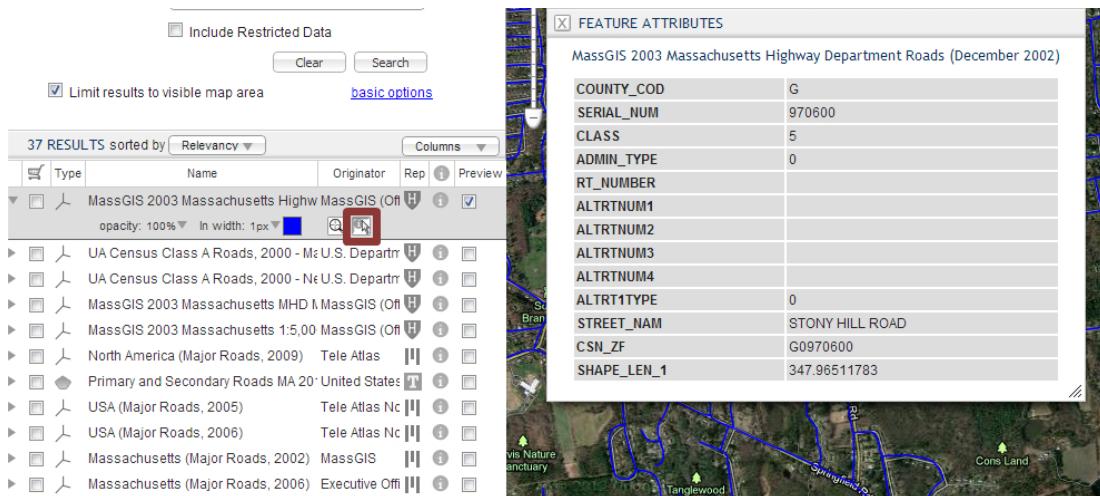


5.7.4. Zoom to Geographic Extent of Layer  Click on the magnifying glass to pan and zoom the map to the full extent of the layer.



The screenshot shows the GeoData@Stanford interface. The search bar at the top contains the query "Public Use Airports". The results table has columns for Type, Name, Originator, Rep, Access, and Preview. The "Preview" column contains small thumbnail images of the data layers. A red box highlights the magnifying glass icon in the preview for the first result, "Pacific Coast of Mexico, Central America". To the right is a map of North America with numerous blue dots representing airports, and a sidebar showing state abbreviations from BC to PE.

5.7.5. Click a Previewed Feature on the Map to View its Attributes  Clicking on this button turns your cursor into a crosshairs. Next, click on any feature to bring up attribute information.



The screenshot shows the GeoData@Stanford interface with a search query for "MassGIS 2003 Massachusetts Highway Department Roads". The results table shows 37 results sorted by relevance. A red box highlights the magnifying glass icon in the preview column for the first result. To the right is a map of Massachusetts with blue lines representing roads. A detailed "FEATURE ATTRIBUTES" dialog box is open, listing various road characteristics such as COUNTY_COD (G), SERIAL_NUM (970600), CLASS (5), ADMIN_TYPE (0), RT_NUMBER, ALTRTRNUM1, ALTRTRNUM2, ALTRTRNUM3, ALTRTRNUM4, ALTRRT1TYPE (0), STREET_NAM (STONY HILL ROAD), CSN_ZF (G0970600), and SHAPE_LEN_1 (347.96511783).

5.8. Sorting and Columns - Used to include or exclude data being displayed in the set of Search Results and to sort the results. Clicking the sort dropdown (default is **Relevancy**) will show a list of criteria to sort by. Only one option may be selected to sort the results. You can also sort by clicking on the column title. Clicking the column title a second time sorts by the column in reverse order.

Click on the **Columns** dropdown. Check and uncheck checkboxes to choose which columns are displayed in the search results.

The available columns and sort orders are:

- **Relevancy** - ranked by relevance.
- **Data Type** - grouped in this order: Library Record, Line, Point, Polygon, Raster, and Scanned Map
- **Name** - alphabetically, by the name of the document or data set
- **Originator** - alphabetically, by the name of the office or agency providing the source data
- **Publisher** - alphabetically, by the name of the agency that published the source data

- **Date** - chronologically, by publication date, with data having the most recent metadata first
- **Repository** - grouped by the university or state agency that contributed the data
- **Access** - whether or not the data layer is **Public** or **Restricted**.

5.9. Clear Previews - Used to deselect any results checked to preview and remove them from the map.

The screenshot shows a spatial search interface with the following components:

- Top Bar:** Includes "Getting Started", "Search", and "Cart (0)" buttons, and a "BETA" indicator.
- Search Bar:** Contains a search input field, a "Search" button, and a link to "advanced options".
- Results Summary:** Displays "797 RESULTS by Relevancy" and a "Columns" dropdown.
- Filter Bar:** Includes columns for "Type", "Name", "Originator", "Rep", "Access", and "Preview". The "Preview" column has a checked checkbox.
- Map Area:** Shows a map of the San Francisco Bay Area with several census blocks highlighted in blue. A red box highlights the "clear previews" button in the top right corner of the map area.

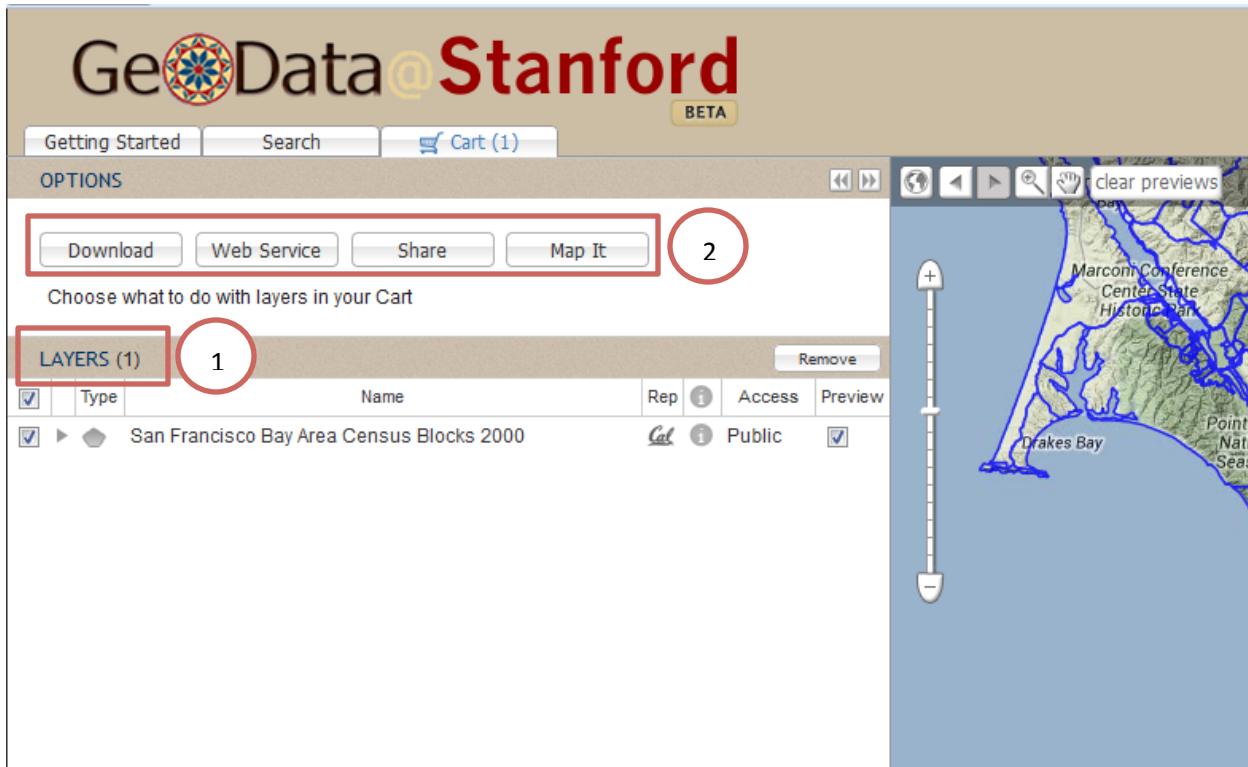
6. Cart

The Cart tab provides temporary storage for datasets and map images you have selected. From the cart, several actions are possible; downloading layers, creating web services (coming soon), sharing the contents of your cart, and opening layers in GeoCommons (coming soon). Hovering on each button will highlight which layers are available for that particular action. Additionally, you can preview the data in the cart the same way you preview data on the Search tab.

While in the Search tab, **check the layer** you want to download. The number of layers selected appears in the Cart tab. 2) Select the **Cart** tab.

The screenshot shows the Geodata@Stanford website interface. At the top, there is a navigation bar with links for About, Blog, Contact, Reset, and Help. Below the navigation bar, the title "Geodata@Stanford" is displayed, followed by a "Cart (1)" button. A red circle with the number "2" is drawn around this button. On the left side, there is a search bar with a "Search" button and a "advanced options" link. A red circle with the number "1" is drawn around the search bar. Below the search bar, there is a table listing various datasets. The table has columns for Name, Originator, Rep., Access, and Preview. The first dataset listed is "San Francisco Bay Area Census Blocks". A red circle with the number "2" is drawn around the "Access" column for this dataset. The main right side of the screen displays a map of the San Francisco Bay area, showing various geographical features and labeled locations like "Marconi Conference Center State Historic Park", "Point Reyes National Seashore", "Golden Gate", "San Francisco Bay", and "Oakland". There are also numerous blue lines representing different datasets overlaid on the map.

Once in the Cart tab, 1) you see the **layers selected** and 2) four buttons let you manage the contents of your cart: **Download**, **Web Service**, **Share** and **Map it**.

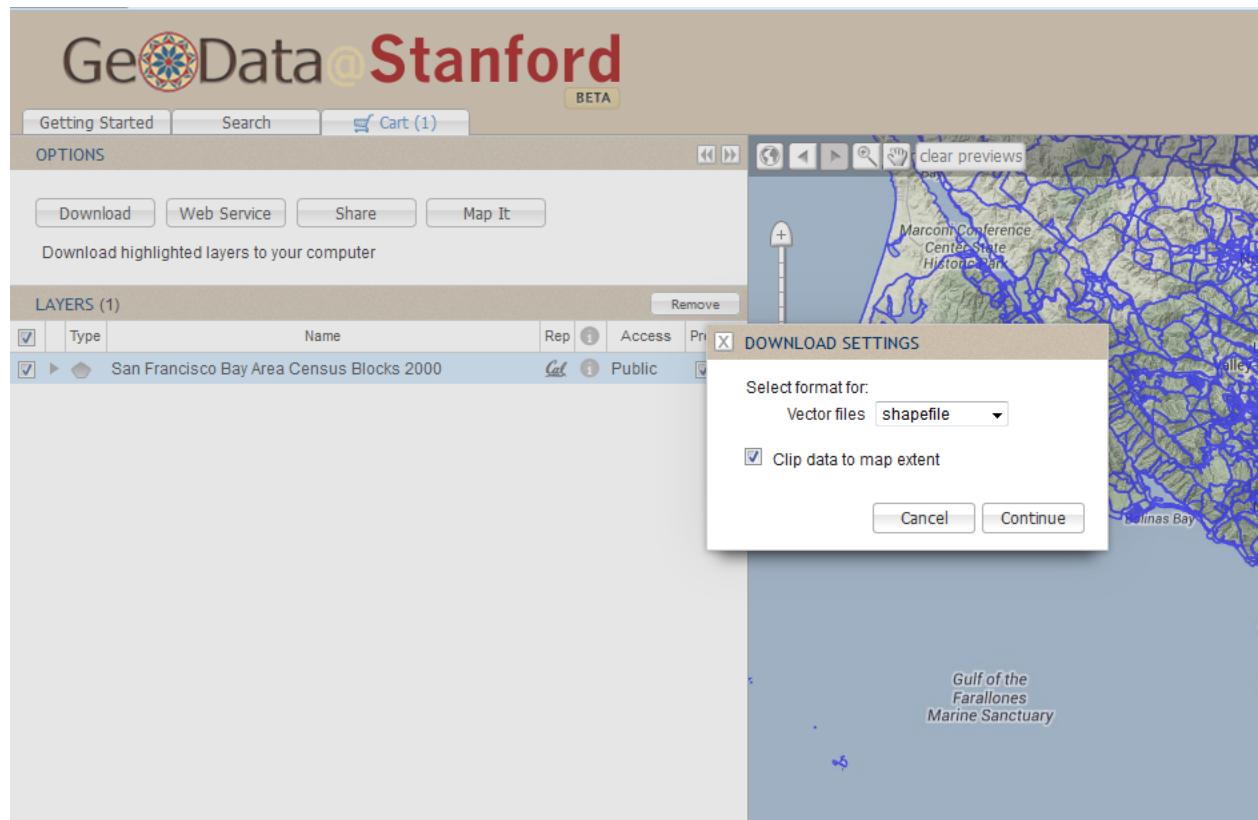


The four buttons are:

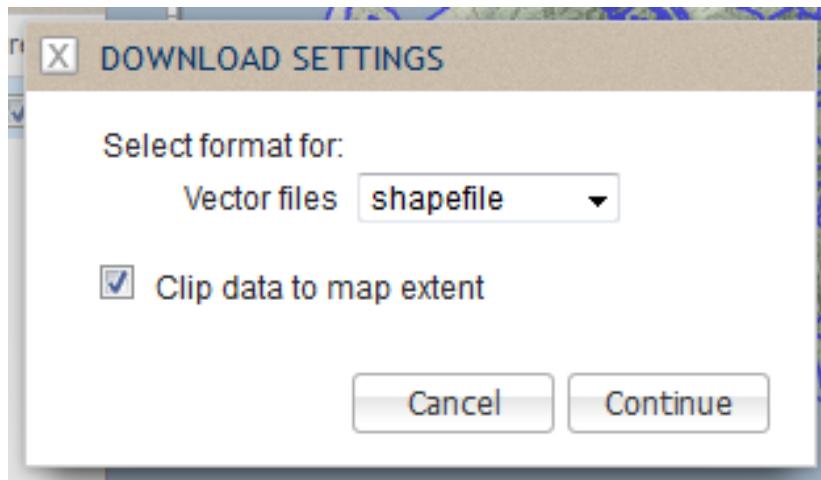
6.1. Download - Used to save selected data and maps to the location of your choice. When you choose to download items in your cart, you are given options on the format and map extent to include.

6.1.1. File Format - The file format dropdown defines how your selected items will be saved.

- **Shapefile** - A shapefile is a geospatial vector data format for geographic information systems. A table of records stores attributes for each feature in the shapefile.
- **KMZ** - Keyhole Markup Language (KML) is an XML schema for expressing geographic annotation and visualization within Internet-based, two-dimensional maps and three-dimensional Earth browsers, for example Google Earth, or any other 3D Earth browser. KMZ is a compressed KML file which does not have to be uncompressed to use.

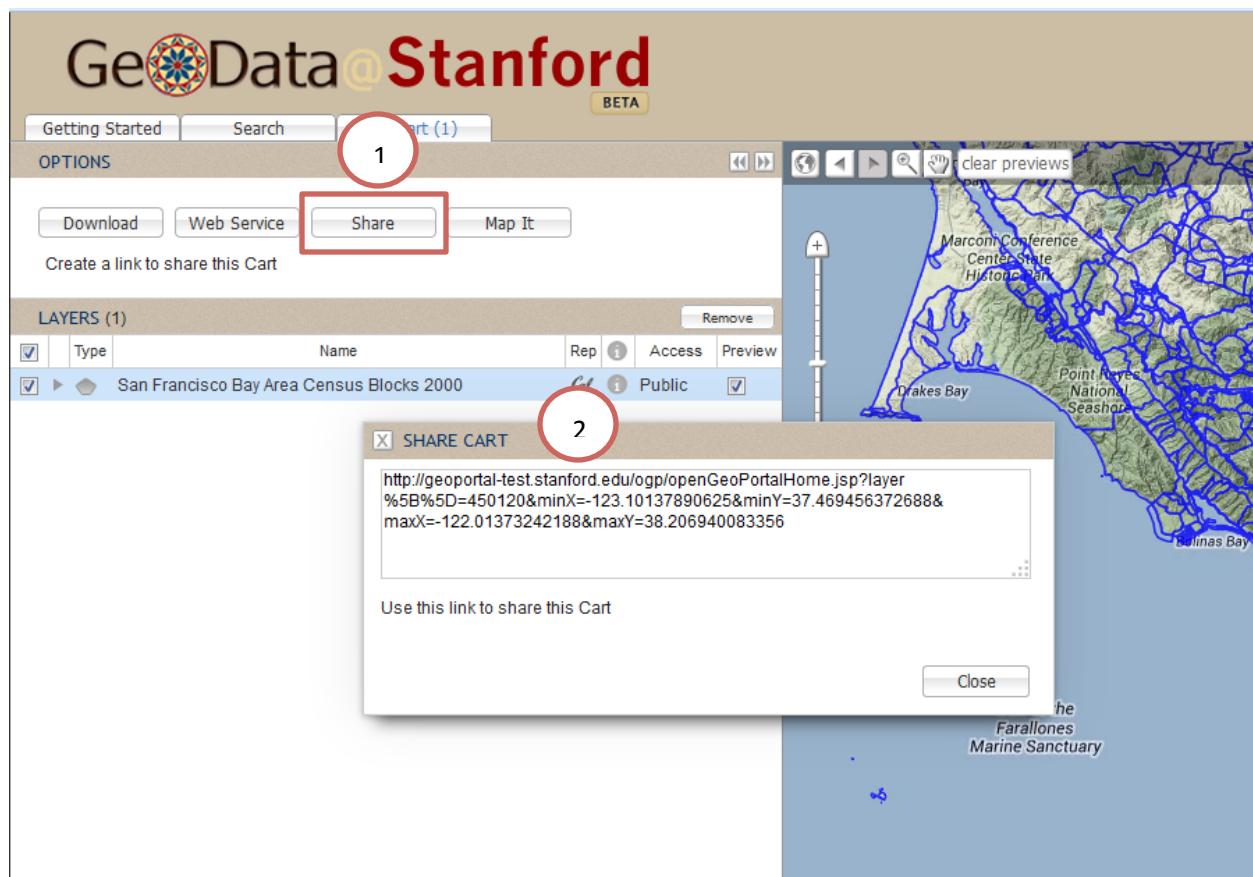


6.1.2. Clip to map extent - Clip to map extent limits the properties/attributes to only those shapes visible in the shapefile. This is an advised option for raster layers and large datasets.



6.2. Web Service (Coming Soon)- Create a WFS or WMS to stream layers into an application like ArcMap.

6.3. Share - 1 Click on the Share button. 2) You are provided with a **URL link** for your current map which you can copy and paste to share the map and associated data set with others.



6.4. Map it (Coming Soon)- opens the layer in GeoCommons to create maps.

7. GeoData@Stanford Interface

Several links are always visible on the GeoData@Stanford interface. They include five links on a menu bar on the upper right of the site:

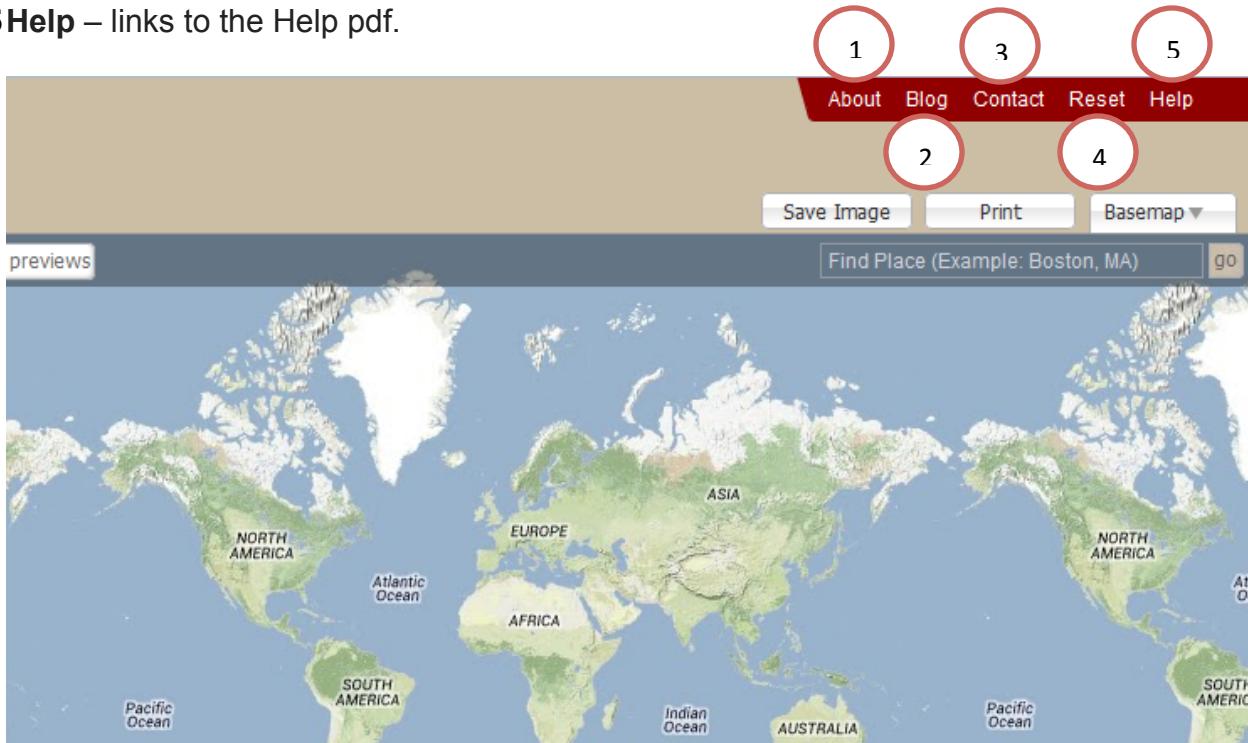
7.1 About – provides basic information about OpenGeoportal and GeoData@Stanford.

7.2 Blog – goes to the Branner Earth Sciences Library blog.

7.3 Contact – provides information for support and assistance.

7.4 Reset - restores GeoData@Stanford to its default state, erasing any previously entered search criteria and emptying your Cart.

7.5 Help – links to the Help pdf.



User Guide Originally developed by Tufts University UIT Training & Documentation Department
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