

Searching Geodata Catalogs

In TNTgis you select geospatial data for viewing and analysis using the *Select objects* window (which may have varying names depending on the context). You can select local data by navigating your computer and network file system using the controls on the Browse, Favorites, and Recent tabbed panels, as described in the Technical Guide entitled *System: Select Objects for Use*. Alternatively, you can use the Catalog Search panel to select local or web data by searching based on geographic location and/or by text contained in the object, file, or folder name or the file or object description.

You can make geographic and text searches for local data using *geodata catalogs*, which you create, manage, and update in the Geodata Catalog Manager. Geodata catalogs record the extents, file path, object description, and other characteristics of the geospatial data in the folders you select. Consult the TechGuide entitled *System: Making and Managing Geodata Catalogs* for information on creating geodata catalogs.

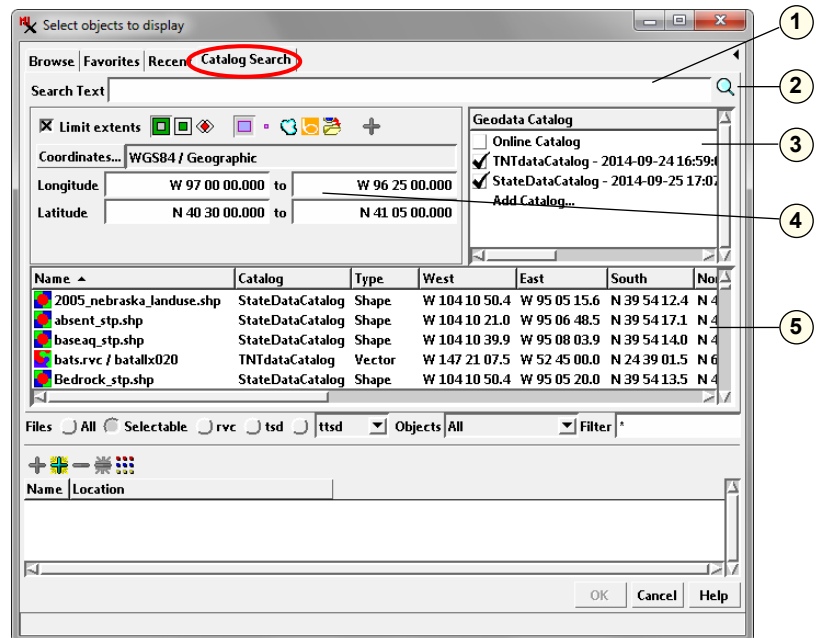
Catalog Search Panel

The Browse tabbed panel is active by default when you open the Select Objects window. Click on the Catalog Search tab to expose the Catalog Search panel, which is shown in the illustration above right. The upper portion of the panel includes a scrolled list of available geodata catalogs, controls for specifying a geographic search, a Search Text box, and a Search icon button for carrying out the search. Files and objects found by the search are shown in the list in the middle portion of the panel. The Files and Objects controls below the search list can be used to restrict the types of files and objects returned by the search. These controls, which are also available when you use the Browse, Favorites, and Recent panels, are documented in the TechGuide entitled *System: Select Objects for Use*.

Geodata Catalog List

The Geodata Catalog list includes an Online Catalog of Web Map Service (WMS) and ArcIMS layers, and entries for any catalogs of local geodata that you have created. Use the checkboxes to indicate which catalogs you wish to search. You can search multiple catalogs at the same time.

Clicking on the *Add Catalog* entry at the bottom of the list prompts you to select a catalog file that does not yet appear in the list; this should only be the case if you have received a set of geodata with catalog from another TNTmips installation (such as on an external hard drive or DVD). On Mac systems, which mount drives by name, such a geodata catalog can be added to the list and used directly. On Windows computers, which mount drives by drive letter, the geocatalog entries would only be valid if the drive letter at the new location is the same as that of the source data on the original computer.



Components of the Catalog Search Panel

- 1 Search Text box; enter text to search by folder/file/object name or description
- 2 Search icon button; press to execute the search.
- 3 Geodata Catalog list; check the catalog(s) you wish to search.
- 4 Controls for geographic search.
- 5 Search results list.

Search Text

To search by text, enter a search string in the Search Text field and press the Search icon button. The search finds any geodata object in which the search string is contained in the object name, file name, or the name of any folder in the filepath; or in the file or object description. Text searches can be used alone or in combination with geographic search constraints.

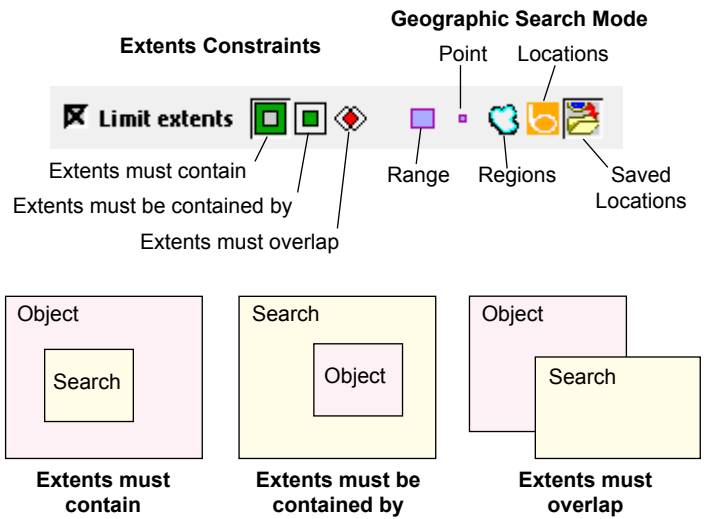
The search string can include text, wild card characters, and other pattern-matching syntax. You can set the type of pattern matching you can use in the Filter Mode section of the Settings menu, which is opened from the *Settings* icon button on the Browse tabbed panel. The *Simple* mode allows you to use simple wild card characters: “_” to match any single character and “*” to match any character string. The *Regular Expression* option allows you to use powerful regular expression syntax to match more complex text patterns. For more information see the TechGuide entitled *System: Select Objects for Use*.

Geographic Search

Controls in the box to the left of the Geodata Catalog list are used to set up geographic search criteria. Geographic searches test the geographic extents information stored for each object in the selected geocatalog(s) against the search location or

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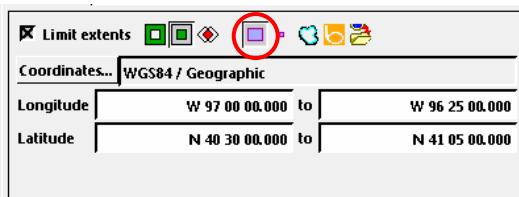
extents range information you specify. A set of three icon buttons determine how a cataloged object's extents are tested: (see illustration below): *Extents must contain*, *Extents must be contained by*, or *Extents must overlap*. When you use the Point search mode, the *Extents must contain* constraint is set automatically.



You can choose one of the five available geographic search modes using icon buttons on the geographic search panel's toolbar: *Range* (extents by coordinates), *Point* (point location coordinates), *Regions* (extents from a specified object), *Locations* (using the Bing Maps Service) or *Saved Locations*. Different controls appear in the panel below the toolbar depending on the geographic search mode you have selected. When you provide suitable criteria for the selected geographic search mode, the Limit Extents checkbox is turned on automatically to indicate that these criteria will be applied when you press the Search icon button. You can turn this checkbox off if necessary if you don't wish to apply the specified geographic criteria (to do a text search alone, for example).

Range

In the Range mode you define test extents by entering minimum and maximum map coordinates (Longitude and Latitude or Easting and Northing) in the numeric fields provided (see illustration below). The default reference system for coordinate entry is WGS84 / Geographic; press the Coordinates button to select a different reference system for the test extents.

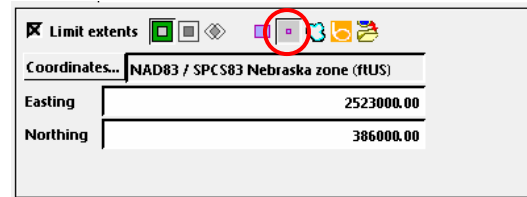


Range Controls

Point

In Point mode you define a test location by entering map coordinates for a point location (Longitude and Latitude or Easting and Northing) in the numeric fields provided (see illustration below). As with the Range mode, you can specify

any reference system for the coordinates using the Coordinates button. When you choose Point mode, the extents constraints choice is automatically set to *Extents must contain* and the other choices are disabled.

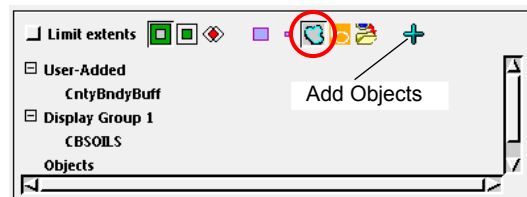


Point Controls

Regions

In Regions mode you can use any spatial object to define the test extents for a geographic search. In this mode the panel below the geographic toolbar shows a region manager control with expandable entries *User Added* and *Objects* (see illustration below). If you are selecting objects to add to an existing display, there is also an entry for each open View (such as *Display Group 1* in the illustration). If the View contains a layout, the view entry will include subentries for each group, each of which can be expanded to show the layers in the group.

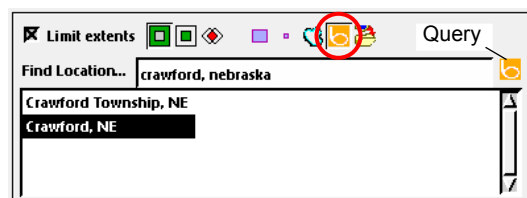
You can use the *Add Objects* icon button to select any available spatial object to use to define the test extents; any such objects are added to the control under the *Objects* entry. If you have defined any temporary regions in the current Display session (e.g., a region from marked polygons), these regions appear in the control under the *User Added* heading. You can highlight any individual object or display group in the region manager to select it to set the test extents.



Region Controls

Locations

Using the Locations mode you can specify test extents by submitting location names to the Bing Maps Service. Enter a location name in the Find Location... text box (see illustration below), then press the Enter key or press the Query icon button to the right of the field. Named locations found by the service are listed in the text box below the field (it may take a few seconds to complete this query). Pausing the mouse cursor over a result shows a DataTip with additional information and a graphic showing its location. Highlight any of the resulting location entries to use it to set the test extents.

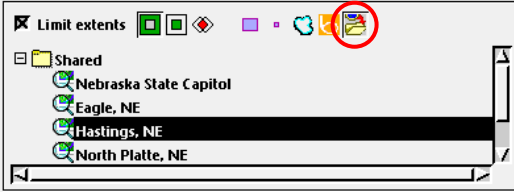


Location Controls

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Saved Locations

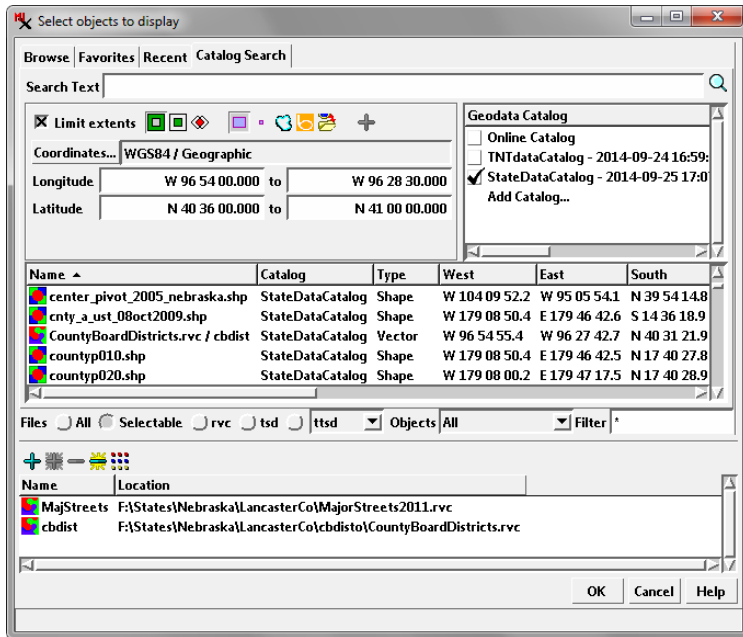
When you choose the Saved Locations mode, a *Shared* folder icon appears in the panel below the toolbar. Expand this folder to show a list of any locations you have previously saved in the Display interface using the Places pane in the View sidebar (see the TechGuide entitled *Set View Position with Places Panel*). Highlight any of the locations in the list to use it to set the test extents.



Saved Locations Controls

Search Results

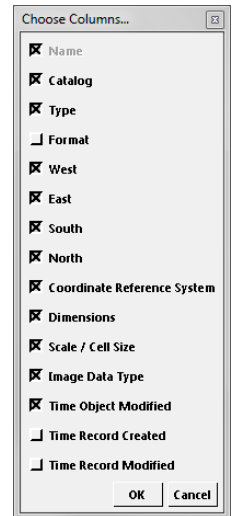
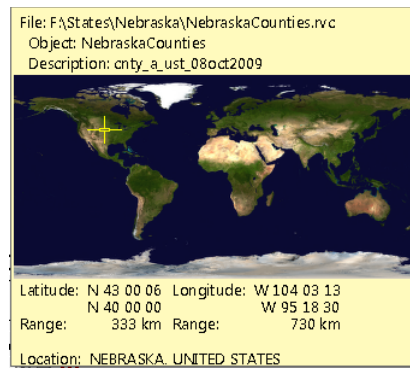
The results of a catalog search are shown in the scrolled list below the search controls (see illustration below). Columns in the list show the file or object name, the catalog name, the type of object, coordinates of the object's spatial extents, and other



information. Use the horizontal scroll bar to reveal columns that are not currently visible. You can drag a column heading to the left or right to change the order of the columns. Pausing the mouse cursor over the object name shows a DataTip with position and extents information and a graphic showing the location and extents of the object (see illustration below left).

Left-click on a column heading to sort the list alphabetically by the entries in that column; left-click again to reverse the sort order. Right-clicking on a column heading shows a pop-in menu with choices to Sort Ascending, Sort Descending, and Fit to Content (which changes the column width to fit the widest entry). The final menu choice, Choose Columns, opens the Choose Columns window, which lets you pick which information to include in the list (see illustration below right).

You can use the Files and Objects controls below the results list to further filter the results by file extension and object type, as described in the TechGuide entitled *System: Select Objects for Use*.



You can add an object from the search results list to the Selected list at the bottom of the window in several ways:

- 1) left-click on the object icon in the results list
- 2) double-click elsewhere on the entry in the results list
- 3) left-click on the results entry to highlight it and press the *Add* icon button on the Selected panel.

