

Spatial Display

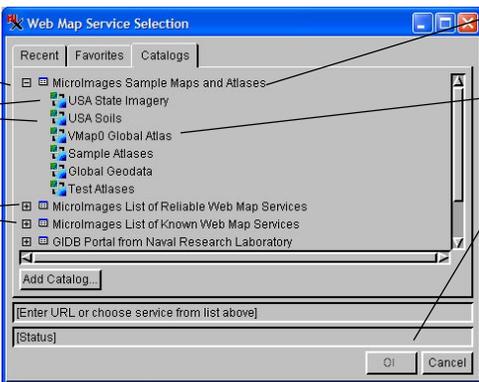
Locating and Managing WMS Layers

 There are two steps in the selection of Web Map Service (WMS) layers for display in the TNT products. In the first step you select the WMS. This selection uses the Web Map Service Selection window. In the second step you choose the layers you want to view from those offered by the selected WMS. This step uses the Web Map Service Layer Controls window. Both of these steps require communication between your computer and the WMS, which generally requires that an Internet connection be working for all parties. Certain WMSs, such as some provided by a TNTserver, may be available over a local intranet, or private network. Connectivity is the key to successful WMS layer display (see the Technical Guide entitled *Spatial Display: Select Layers for WMS Viewing*).

Web Map Service Selection

The Web Map Service Selection window has three tabbed panels: Recent, Favorites, and Catalogs. If you have not previously added a WMS layer, the Catalogs panel will be active.

Catalogs panel. A WMS catalog is an XML file that lists the WMSs available from one or more web servers. MicroImages provides a list of catalogs to assist you in location of WMS materials for your use as reference layers. Initially the Catalogs panel shows only a list of catalogs, which requires no communication with the WMSs included on this panel. You can pause the cursor over any of the catalogs to view its URL and an abstract if available. When a catalog is expanded (by clicking on the + to its left), your TNT product requests information about the catalog contents by sending the URL to the web site that is publishing that catalog. If a response is received, the WMSs in the selected catalog are listed. Clicking on one of these initiates a request for a variety of information from the selected WMS (for example, layers available, extents, formats, Coordinate Reference Systems supported, permission information). If this second response is received, the URL for the WMS is filled in at the bottom of the window along with its title, and the OK button becomes active so you can open the Web Map Service Layer Controls window and select the desired layer(s) for viewing.



before WMS selection

Catalog

WMS

Catalog

`http://www.microimages.com/ogc/fourservers.xml`
This catalog contains samples hosted (via TNTserver) on the MicroImages website.

When you hover over a WMS entry, its URL appears in a DataTip. Additional information is provided in the DataTip shown over the WMS name at the bottom of the window after it is selected (see below).

The OK button is not active until a WMS has been selected and a response that contains the WMS's capabilities has been received.

After a WMS is selected, its URL is automatically entered, the status line provides the name of the WMS, and the OK button is active.

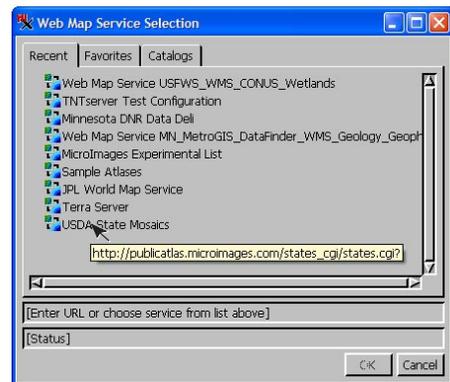
`http://publicatlas.microimages.com/sample.cgi/sample.cgi`

Sample Atlases

OK Cancel

Title: MicroImages Public Atlas TNTserver 2006-7-2
WMS version: 1.3.0
Maximum Width: 4000
Maximum Height: 2000
Access Constraints: none
Contact Information:
Person: Ron Soudine
Organization: MicroImages
Voice Phone: (402) 477-9562
Email: tech@microimages.com

Recent panel. After the first time you view a WMS layer, the WMS you selected from will be listed on the Recent tabbed panel, which keeps track of the last 30 WMSs selected. After viewing a WMS layer, the Recent panel rather than the Catalogs panel is initially shown when you choose to add another WMS layer. Clicking on an entry on this panel initiates a request for the capabilities of the selected WMS, which is the same as the second request mentioned for the Catalogs panel. Once a reply is received, the OK button becomes active so you can proceed with your WMS layer selection. The URL for each WMS is shown as the DataTip when you hover over its listing.



Recent

Web Map Service USFWS_WMS_CONJUS_Wetlands
TNTserver Test Configuration
Minnesota DNR Data Dell
Web Map Service MN_MetroGIS_DataFinder_WMS_Geology_Geogr
Sample Atlases
JPL World Map Service
Terra Server
USDA State Mosaics

`http://publicatlas.microimages.com/states.cgi/states.cgi?`

[Enter URL or choose service from list above]

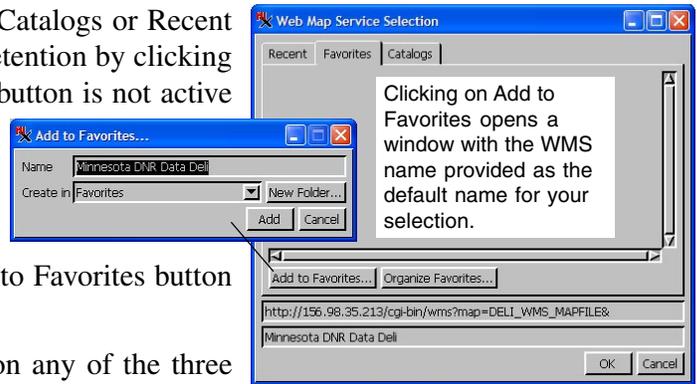
[Status]

OK Cancel

The Recent tabbed panel lists the WMSs you have visited most recently.

(over)

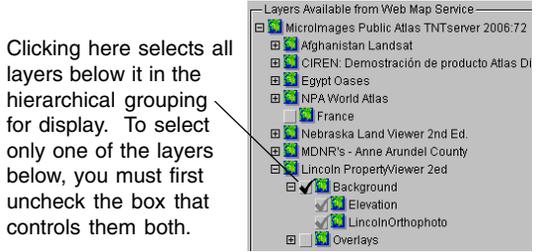
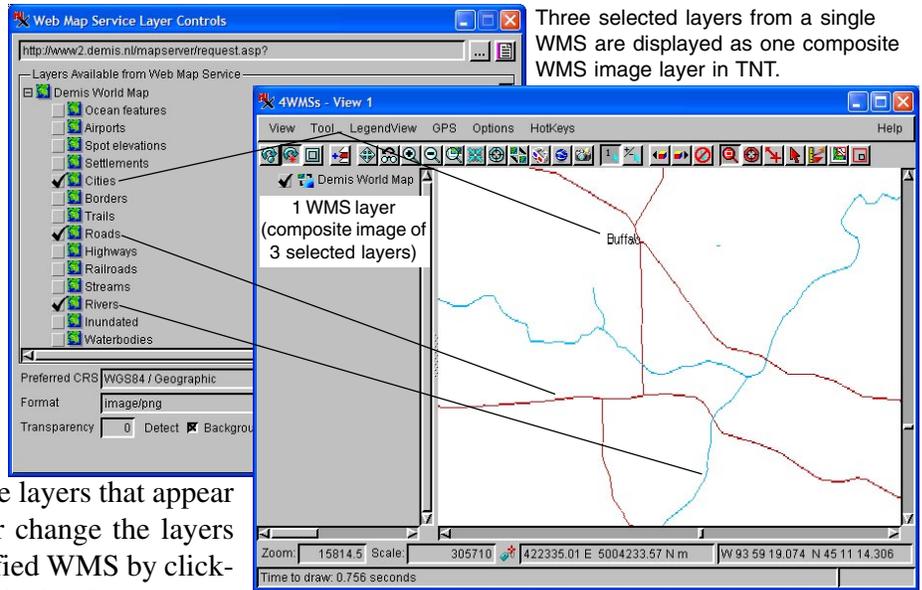
Favorites panel. Once a WMS is selected from either the Catalogs or Recent panel, it can be added to the Favorites panel for indefinite retention by clicking on the Favorites tab and the Add to Favorites button. This button is not active until a URL is present in the field below because you selected its WMS from the Recent or Catalogs panel and a response was received from that WMS. You can also enter or paste a URL in this field and press <enter> to initiate a capabilities request. When a response is received, the Add to Favorites button becomes active.



Shared fields and functions. Right-clicking on an entry on any of the three panels lets you remove it from that list. The two fields at the bottom are common to all three tabs. Thus, a WMS selected on the Catalogs or Recent tab can be added as a favorite from the Favorites panel without having to select the WMS again. You can also add a catalog to the list or enter the URL for a WMS directly at the bottom of the window. Regardless of which of the three panels you use to choose a WMS, the procedure is the same once you click on the OK button, which opens the Web Map Service Layer Controls.

Web Map Service Layer Controls

Clicking on the OK button in the Web Map Service Selection window opens the Web Map Service Layer Controls window with the layers available from the selected WMS listed. Choices in the Web Map Service Layer Controls window may or may not be expandable depending on how the layers are published by that WMS. To select a layer for display, it must be available and, thus, have a check box in front of it. Some layers may have a check box and be expandable. In such a case, checking the box will select for display all of the layers that appear by expanding the box. You can add to or change the layers selected for display from an already specified WMS by clicking on the Layer Controls icon in the Display Manager to open the Web Map Service Layer Controls, and then change the layers checked for viewing. At this point, you have the opportunity to update the view to reflect the changes without closing the Web Map Service Layer Controls window by clicking on the Apply button.



You can select as many layers as you want from the list of available layers provided. All of the layers selected will be combined into a single composite image for the WMS layer you are adding (see illustration above).

A single, new layer is added to the view that is composed of one or more layers from the selected WMS each time you click on the Add WMS icon in the Display Manager or the Editor Layer Manager. If more than one layer is chosen from the selected WMS in the Web Map Service Layer

Controls window, the WMS layer displayed in the TNT products is a composite image of those layers. In order to turn layers from the same WMS on/off individually in the view, each must be added as a separate WMS layer using the Add WMS button in the Display Manager.