Locating and Using ArcIMS Layers

As with WMS layers, there are two steps in the selection of map and image layers from an ArcIMS (Arc Internet Map Server) service for display in the TNT products. In the first step you select the service publishing layers on the network using the ArcIMS Service Selection window. In the second step you choose the layers you want to view from those offered by the selected ArcIMS service. This step uses the ArcIMS Service Layer Controls window, which lets you control ArcIMS-specific parameters such as the layers selected and transparency. Both of these steps require communication between your computer and the ArcIMS service, which generally requires that an Internet or other network connection be working for all parties. Connectivity is the key to successful ArcIMS layer display (see the Technical Guide entitled Spatial Display: Select ArcIMS Layers for Viewing).

ArcIMS Service Selection

The ArcIMS Service Selection window has four tabbed panels: Recent, Favorites, Catalogs, and Search. If you have not previously added an ArcIMS layer, the Catalogs panel will be active by default.

Catalogs panel. An ArcIMS catalog is an XML file that lists the ArcIMSs available from one or more web servers. MicroImages provides a list of catalogs to assist you in location of ArcIMS materials for your use as reference layers. Initially the Catalogs panel shows only the list of known catalog names, which requires no web communication. You can pause the cursor over any of the catalogs on this list to view the URL pointing to its location and an abstract if available. The two catalogs on this list supplied by MicroImages both contain all ArcIMSs located by searching the web. One is sorted alphabetically and the other is sorted by the number of services provided by the ArcIMS server. When any catalog name is expanded (by clicking on the + to its left), your TNT product requests information to expand that catalog’s contents by querying the web site that is publishing that catalog. If a response is received, all the ArcIMS services indexed by the selected catalog located at the URL are listed. Clicking on one of these initiates a request for a variety of information from that specific ArcIMS service (for example: layers available, their geographic extents, Coordinate Reference Systems supported). If this second response is received, the URL for the ArcIMS is filled in at the bottom of the window along with its name, and the OK button becomes active so you can open the ArcIMS Service Layer Controls window and select the desired layer(s) from that ArcIMS service for addition to your view.

Recent panel. After you view an ArcIMS layer, that ArcIMS will be listed on the Recent tabbed panel (below left), which keeps track of the last 30 ArcIMS services you selected. After viewing an ArcIMS layer, the Recent panel rather than the Catalogs panel is initially shown when you choose to add another ArcIMS layer. Clicking on an entry on this panel initiates a request for the capabilities of the selected ArcIMS, 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 ArcIMS layer selection. The URL for each ArcIMS service is shown as the DataTip when you hover over its listing.
**Favorites panel.** The United States Department of Agriculture (USDA) National Agriculture Imagery Program (NAIP) site is provided by default on the Favorites panel. Other services can be added for indefinite retention by clicking on the Favorites tab and the Add to Favorites button once they are selected from any other panel. The Add to Favorites button is not active until a URL is present in the field below because you selected its ArcIMS from the Recent, Catalogs, or Search panel and a response was received from that ArcIMS. You can also type or paste a URL in this field and press <enter> to initiate a request for its service information. When a response is received from the ArcIMS service, the Add to Favorites button becomes active.

**Search panel.** For information on the Search panel see the TechGuide entitled *Spatial Display: Searching Micro-Images’ Catalog of ArcIMS Layers.*

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

**ArcIMS Service Layer Controls**
Clicking on the OK button in the ArcIMS Service Selection window opens the ArcIMS Service Layer Controls window listing the layers available from the selected ArcIMS service along with various display options. These display options include which colors to make transparent (the background color, white, and/or black) and the percentage of transparency to use for the image as a whole. You can add to or change the layers added to a view from an already specified ArcIMS service by clicking on the Layer Controls icon in the Display Manager to open the ArcIMS Service Layer Controls, and then change the layers checked for viewing. You also have the opportunity to update the view to reflect the changes without closing the ArcIMS Service Layer Controls window by clicking on the Apply button.

A single, new layer is added to your view that is composed of one or more layers from the selected ArcIMS service each time you click on the Add Web Layer icon and select ArcIMS in the Display Manager or the Editor Layer Manager. If more than one layer is chosen from the selected ArcIMS service in the ArcIMS Service Layer Controls window, the ArcIMS layer displayed in the TNT products is a composite image of those layers (see illustration above). In order to turn layers from the same ArcIMS on/off individually in the view, each must be added as a separate ArcIMS layer using the Add Web Layer button in the Display Manager. You can select as many layers as you want from the list of available layers provided for the currently selected ArcIMS service.