

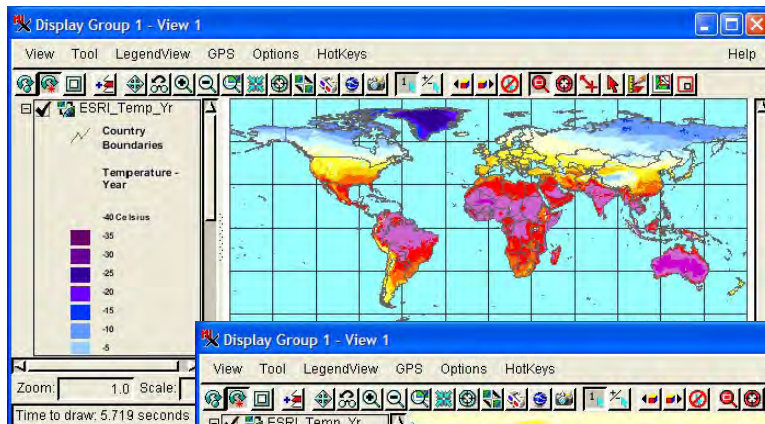
Spatial Display

Select ArcIMS Layers for Viewing



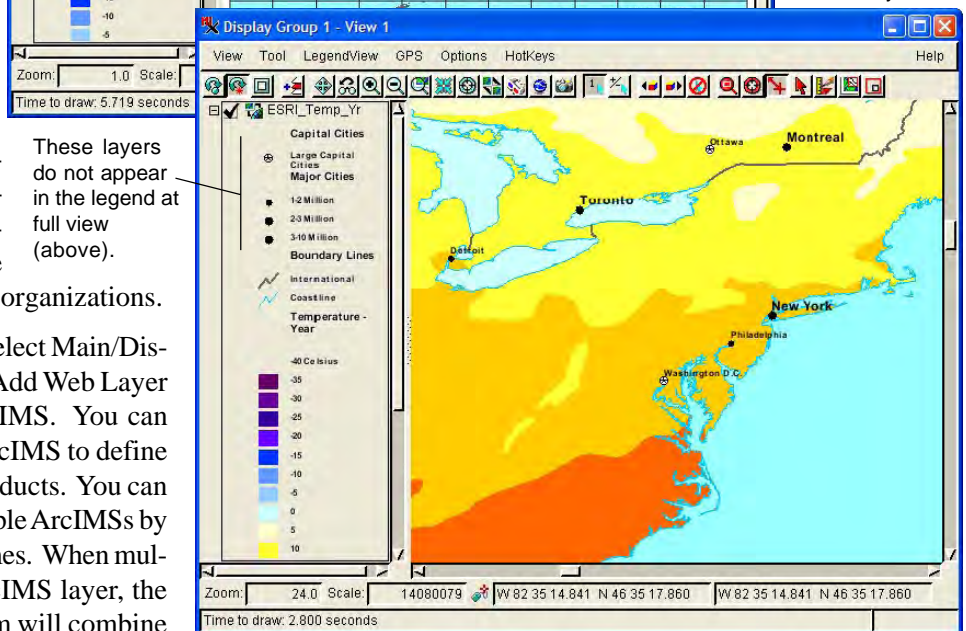
The TNT products can view combinations of map and image layers from ArcIMS (Arc Internet Map Server), Web Map Service (WMS) network sources, and your local, private geodata. The ArcIMS and WMS geodata layers can be accessed from the Internet or your local intranet. All Display tools, such as sketching, measuring, and GPS tracking, are available for use with ArcIMS images whether alone or in combination with local or WMS layer types. These same tools are available for use with ArcIMS layers in the free TNTAtlas product. The ability to use ArcIMS layers provides you access to an extensive collection of reference images published on the Internet by many organizations.

To begin viewing ArcIMS layers, simply select Main/Display from the TNT menubar, click on the Add Web Layer icon (shown above left), and choose ArcIMS. You can select one or more layers from a single ArcIMS to define each ArcIMS layer to view in the TNT products. You can create a display that uses layers from multiple ArcIMSSs by choosing to add ArcIMS layers multiple times. When multiple layers are selected to create one ArcIMS layer, the ArcIMS you are requesting the layers from will combine them and return a single, composited layer.



These layers do not appear in the legend at full view (above).

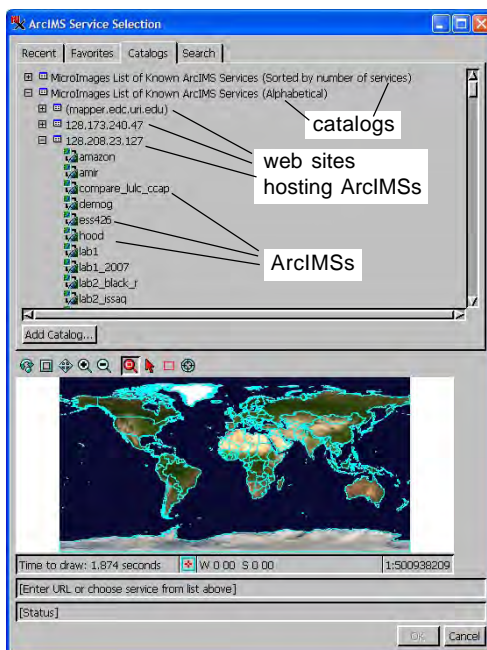
These ArcIMS layers have map scale visibility control, so new layers appear as you zoom in. Note that only the currently visible layers are shown in LegendView for ArcIMS layers.



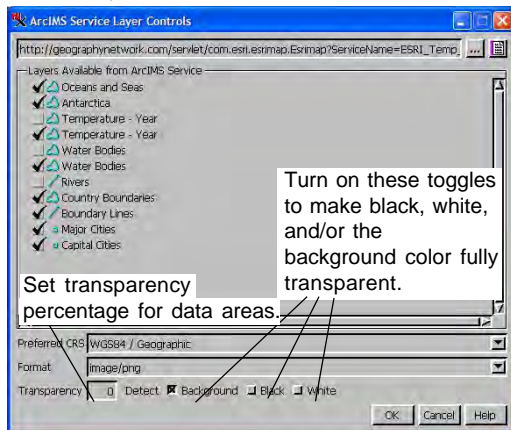
If you want to turn ArcIMS layers from a single service on/off individually in the Display process, you need to add them to your view as separate ArcIMS layers. Clicking on the Add Web Layer icon and choosing ArcIMS as soon as you open the Display process will open a new 2D Display with the ArcIMS layer you select. You can also use the Add Web Layer icon to add layers to an existing group or layout that includes WMS, other ArcIMS layers, and/or locally available geodata in any format supported by TNT products.

The procedures for selecting ArcIMS layers are basically the same as those for selecting WMS layers except the concept of groups is not supported—each layer is selected individually. If you know the URL for an ArcIMS site you want to get the location of network layers from, enter the URL, and continue on. If you are not familiar with ArcIMS services or are interested in reviewing and using the geodata published by the ArcIMS sites that MicroImages has located by scanning the Internet, click on the Catalogs tab. The United States Department of Agriculture (USDA) National Agriculture Imagery Program (NAIP) site is provided by default on the Favorites panel. You can also search for ArcIMS layers of interest using the features on the Search tab (see the Technical Guide entitled *Spatial Display: Searching MicroImages' Catalog of ArcIMS Layers*).

Selecting ArcIMS layers requires communication with the ArcIMS service to dis-



cover its capabilities, such as what layers and map projections are available. The list on the Catalogs panel is stored on your machine and communication with the web sites specified by these catalogs is not necessary when you first view the panel. Expanding a catalog to reveal its sites and ArcIMSs requires communication with the web site to obtain its list of ArcIMSs. Communication to discover the capabilities of an ArcIMS is initiated when you click on one of the ArcIMSs in the list. Just as when using your web browser to search the Internet for information or when selecting WMS layers, it is possible that your Internet connection is not functioning properly or that there are problems with the site you are trying to reach or the server it is operating. There is never a guarantee that a specific web page can be displayed. The same is true when choosing an ArcIMS. If an appropriate response is received, the OK button in the ArcIMS Selection window becomes active. Click on the OK button to see the layers available from the selected ArcIMS and continue the selection process. If the OK button does not become active, the



selected ArcIMS is not currently responding, and you should look elsewhere for layers to display or try again later.

When you select an ArcIMS from a catalog, its URL is shown in the field near the bottom of the window. Once a response is received from the service, the OK button becomes active.

Click the OK button to open the ArcIMS Service Layer Controls window, which provides a listing of all layers available from the selected ArcIMS. This ArcIMS Service Layer Controls window is the window that opens when you click on the ArcIMS layer icon in the Display Manager. When opened from the Display Manager, the ArcIMS Service Layer Controls window also has an Apply button so you can modify your choices and check the results in the View before electing to close the window. When you open the ArcIMS Service Layer Controls for an ArcIMS

layer already added to your view, you are changing the content of that layer, not adding a new one. The file name and extents for each ArcIMS layer are identified by a DataTip. The object type is also identified by the icon preceding the layer name as image, polygon, line, or point data.

Remember you are selecting one or more ArcIMS layers to comprise a single layer for display in the TNT products. You can select a single layer or multiple layers, which will be composited into a single layer. You can add ArcIMS layers to your own groups or layouts as shown at the right.

Your initial successful acquisition of the capabilities from an ArcIMS does not insure your continued communication with that server. Creating a view that uses only local geodata files and TNT objects is totally under the control of the TNT process and the local operating system. The layer buffers are all filled and only then does the composite view show. If a layer is not found, this is immediately known and you are prompted to locate it. But TNT display does not know when an ArcIMS layer will be available in its local buffer as this is under the control of the remote site publishing the layer using ArcIMS and your communication rate with that site. Communication rates are affected by many factors, such as hardware, priorities, connection speed, and are not under the control of local software, such as your TNT product. As a result, when all the local layers are buffered, your view with all the local layers will be shown and will later be redrawn when the ArcIMS layer is available. This uses a new multithreaded capability incorporated into the TNT Graphics Rendering Engine (GRE). Using this capability your viewing activity will not be stalled waiting for an ArcIMS layer that may never arrive, and you can use all the tools and actions as if the final view is complete.

