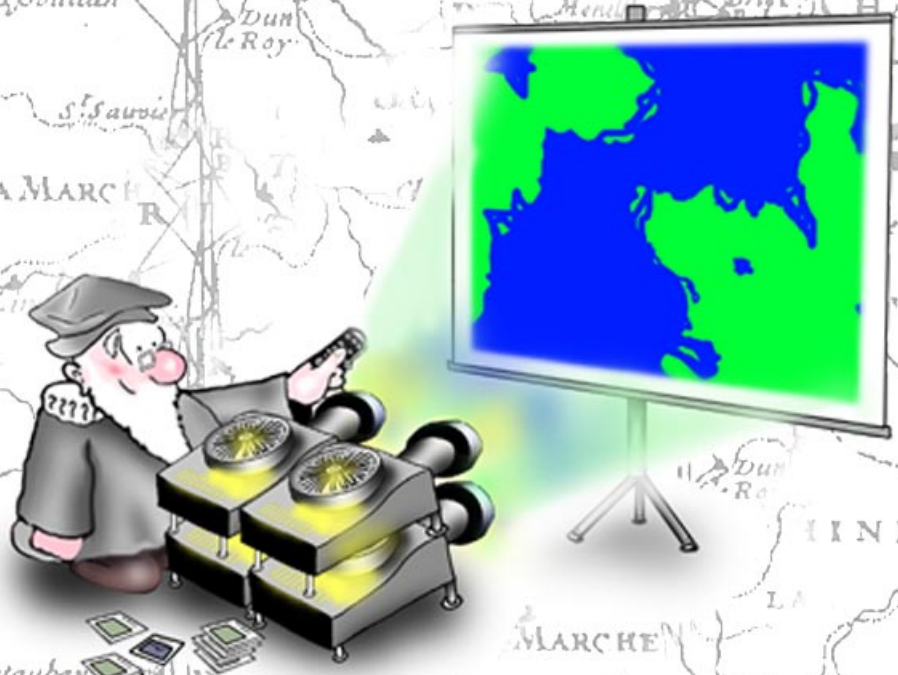
TNTatlas

# Tutorial

# Using TNTatlas®



with

# TNTatlas®

# Before Getting Started

TNTatlas® is a free product available from MicroImages for viewing hierarchical atlases prepared in TNTmips® with HyperIndex® Linker or for single layout atlases. You can also view single files in any of the many formats supported for direct use by the TNT products. TNTatlas, like the other TNT products, runs with MicroImages X Server (MI/X) with Windows and X11 from XQuartz on the Mac. TNTatlas largely uses TNTmips' Display code; many of the changes made in Display automatically appear in TNTatlas.

**Prerequisite Skills** This booklet assumes you have completed the exercises in *Displaying Geospatial Data* and *TNT Product Concepts*. Those exercises introduce essential skills and basic techniques that are not covered again here. Please consult these booklets for any review you need.

**Sample Data** The exercises in this booklet use sample data distributed with the TNT products. If you do not have access to a TNT products DVD, you can download the data from MicroImages' web site. The exercises in this booklet use the Project Files in the TNTATLAS directory of DATA and the TNTatlas file (.atl) also found there. A read-write copy of sample data on your hard drive is not required since atlases can be run with the data on DVD. Making a copy on your hard drive will generally speed access, however.

**More Documentation** This booklet is intended only as an introduction to using TNTatlas. There are additional booklets that discuss the design (*Designing Electronic Atlases*) and construction (*Constructing an Electronic Atlas*) of TNTatlases that you may wish to consult.

**TNTmips Pro, TNTmips Basic, and TNTmips Free** TNTmips comes in three versions: TNTmips Pro, TNTmips Basic, and TNTmips Free. If you did not purchase the professional version (which requires a software license key), you are using TNTmips Free or TNTmips Basic, which limit the size of your project materials. All exercises in this booklet can be completed in TNTmips Free using the sample geodata provided.

*Merri P. Skrdla, Ph.D., 15 December 2011*
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It may be difficult to identify the important points in some illustrations without a color copy of this booklet. You can print or read this booklet in color from MicroImages' web site. The web site is also your source of the newest tutorial booklets on other topics. You can download an installation guide, sample data, and the latest version of TNTmips Free.

***http://www.microimages.com***

# Welcome to TNTatlas

TNTatlas provides a means for limited or widespread distribution of atlases. The recipient of an atlas on CD/DVD has everything required to view the atlas. MicroImages requires no payment for the distribution of data and software in this fashion. Once the viewing software (TNTatlas) has been installed, it can be used to view any atlas or object in TNTmips' RVC format. TNTatlas can also be run directly from the CD/DVD that contains the atlas data. Although TNTmips is required to construct an atlas using HyperIndex Linker, anyone using TNTmips, TNTedit, TNTview, or TNTatlas can access the atlases created (depending on permissions). Any of these products, except TNTatlas, can be used to create a single layout atlas. Single layout atlases can be viewed in all of the products including TNTatlas.

One example of widespread distribution of an atlas is the street atlas of Istanbul on CD (in Turkish) inserted in a popular magazine with a distribution of about 30,000. The atlas was so popular that it was also distributed with a second issue of the same magazine. Precision agriculture consulting provides a good example of limited atlas distributions in which only a single copy of an atlas is given out to the individual farmer so that he or she may view all the imagery, vectors, and other data collected for the land they farm. In either case, the recipient of the atlas can be viewing the associated data within minutes of inserting the CD/DVD in their computer.

Three additional booklets address different aspects of working with atlases including assistance with atlas design (*Designing Electronic Atlases*), atlas assembly (*Constructing an Electronic Atlas*), and the scope of projects that can be undertaken (*MERLIN: Enterprise-wide Geospatial Analysis*). This booklet is intended for people using TNTatlas who were not involved in the design of the atlas and may be unfamiliar with TNTmips.

STEPS

☑ copy the files in the TNTATLAS data collection to your local drive

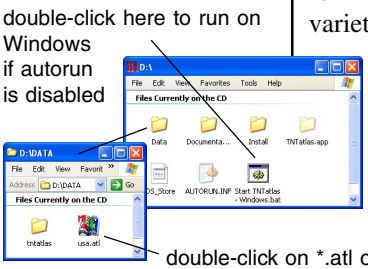
The exercises on pages 4–7 show you how to open an atlas and navigate in a variety of ways. Page 8 describes layer visibility, while page 9 discusses viewing attributes. Page 10 demonstrates web links by attribute. Page 11 provides more tips for viewing single layout atlases. Pages 12–14 describe customizing your TNTatlas interface and adding and using Macro Scripts and Tool Scripts. Pages 15–16 provide an introduction to the features of the GeoToolbox and regions. Page 18 discusses using TNTatlas as a viewer for files in other formats and page 18 describes interface features not already presented. Page 19 describes using multiple views in TNTatlas.

# Launching a TNTatlas from CD/DVD

TNTatlas can be used by anyone with a Windows or Mac computer and CD/DVD drive. You can substitute the Internet (to download the program and data) for a DVD drive.

If the atlas is configured to autorun from the DVD and autorun is enabled on your machine, you will first see the MicroImages splash screen and then TNTatlas will open.

If TNTatlas is configured to run directly from the DVD and autorun is not enabled, look for a batch file in the root directory or a *.atl file in the root or data directory.




TNTatlas is used to refer to the program that runs atlases constructed in TNTmips and to atlases that are constructed in TNTmips. Your most likely source of the program and/or an atlas if you do not run the professional TNT products is on CD or DVD.

The initial actions required when you insert a CD/DVD that contains a TNTatlas depends on how the atlas designer chose to set it up and whether Autorun is enabled on your PC. Autorun is never enabled on the Mac.

The atlas may be set up to run directly from the DVD or you may have to install the TNTatlas software and choose to open the atlas that is also on the DVD. The person that created the atlas on DVD also determines which platforms the atlas can run on by what software they place on the DVD. If you acquire an atlas DVD that does not support your platform, you can download TNTatlas for your platform from MicroImages' web site (www.microimages.com/products/tntatlas/index.htm), install from the downloaded file, and open the atlas from the DVD regardless of the platform you are running on. TNTatlas uses the same data without conversion on both Windows and Mac computers.

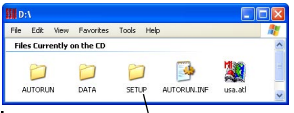
If the DVD you acquired supports running the atlas without having to first install the software, it may or may not also include the setup program for TNTatlas and, if included, it is up to you whether you want to install it. Once the TNTatlas software is installed, you can also use TNTatlas as a viewer for individual objects in Project Files or files in a variety of formats supported for direct use in the TNT products (e.g. shapefiles, TIFF, JPEG2000). You can also use the TNTatlas program that runs from the DVD for this purpose.

# Installing and Opening

If you have acquired an atlas on DVD that is not configured to run directly from this medium, the first step in running TNTatlas is to install it. Placing the disc in your DVD drive on a Windows machine with autorun enabled should launch the installation program. It could also launch an Adobe Acrobat or html document with buttons that let you choose between installation and other functions.

Installation is a simple procedure. You just read the screens that come up and click on the Next or Continue button until you are done with installation and you click Finish. You do not have to reboot your machine for installation to be completed, as you do with many products.

During TNTatlas installation, an association is established between the file, which has a .atl extension, that specifies the atlas home page and the program that launches TNTatlas so that double clicking on any .atl file will open TNTatlas with the home page specified by that file. You can also launch TNTatlas by double-clicking on its icon in the installed location or choosing it from the MicroImages group on the Start menu (Windows only). If launched in this manner, you need to use the File menu to open an atlas (.atl, Open Atlas) or an object in RVC format or other formats supported for direct display (Open Object). If you received an atlas on DVD, the .atl should be at the root level of the disc or in the data directory.




If the DVD does not autorun and is configured to install TNTatlas, look in the setup folder and double-click on setup.exe (Windows) or *.dmg (Mac) to begin TNTatlas installation.

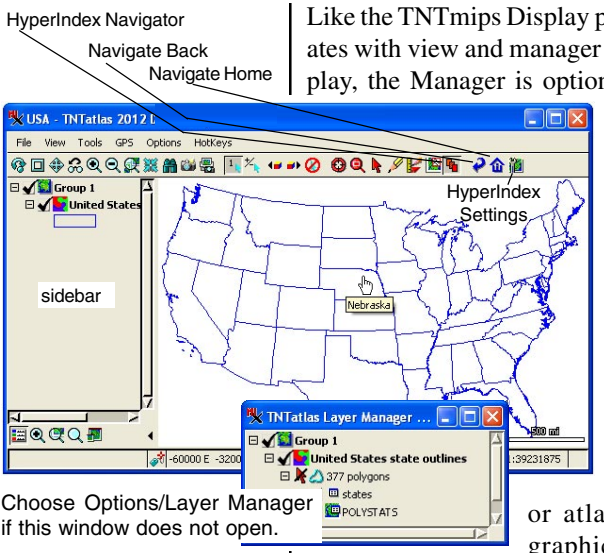
You are instructed here to open an atlas that is provided as part of the sample data for the tutorial booklets. You should, of course, also open the atlas that came on your CD/DVD if that is how you acquired TNTatlas.

When you open a TNTatlas, you may initially get a blank TNTatlas window or you may get a window with an introductory image until the actual atlas data loads.

STEPS

- ☑ install TNTatlas from whatever source you acquired it
- ☑ launch TNTatlas
- ☑ choose File / Open Atlas from the TNTatlas window and select USA.ATL, which is in the TNTATLAS folder you copied

# TNTatlas Components




Choose Options/Layer Manager if this window does not open.

STEPS

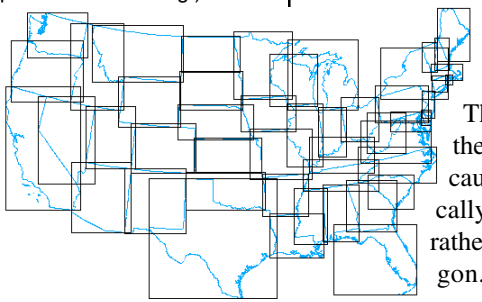
- ☑ note that when you pause the cursor over a state, a DataTip with the state name appears
- ☑ in the view window, click on the HyperIndex /Settings icon and choose Show link aeas
- ☑ note the cursor changes shape when over a link area
- ☑ now toggle off the Show link areas option

(continue to the exercise on p. 11 without exiting.)

Like the TNTmips Display process, TNTatlas operates with view and manager windows. Unlike Display, the Manager is optional in TNTatlas unless you want to view attribute tables. The three HyperIndex icons at the right of the toolbar appear when the HyperIndex Navigator tool is toggled on. Open the Layer Manager from the Options menu (view window).

A HyperIndex stack, or atlas, is a collection of graphically and geographically related objects that uses the HyperIndex Navigator tool for point and click retrieval of objects from the hierarchical links established with HyperIndex Linker. An atlas can also be a single layout that uses map scale controlled visibility to reveal and hide different layers as you zoom in and out. In this case, you use the zoom tools, not the HyperIndex navigation tool, to discover the breadth of information presented in the atlas.

The area of the parent object that contains a link to the next level in a stack is called a link area. You can choose to show or hide the outlines of these areas. If you click where link areas overlap, the HyperIndex Link Selection window opens to let you choose which link you want to follow. The link areas in this example are the min/max boxes for each state because the links were created automatically using georeference information rather than individually for each polygon.



# Navigating Down

Many objects can be linked to the same parent object. In the atlas used for this exercise, the county maps for each of the states have been linked to the parent object (contiguous states of the USA). When you click on a state, its county map is displayed. As mentioned on the previous page, your links may occupy the entire area represented by the min/max box of the object you are linking to. It may also be an individual vector element, such as each state polygon. In this latter case, there is no area of overlap between link areas. Note that the cursor shape changes from the left arrow to a hand shape when you are over a link area.

Clicking on the Navigate Home button always takes you to the level of the atlas you started at. The Navigate Back button takes you one level up in the hierarchy of the atlas to the layout that had the link you used. You have only navigated down one level in this exercise, so the Navigate Back and Navigate Home buttons will bring up the same object.

When you click on a location that is covered by multiple link areas, a window opens that lists the descriptions for all the link areas that overlap where you clicked. You then choose the link you want to follow or cancel the navigation. You can elect to have this window open if there is just a single link by turning on the Verify Selection toggle button on the HyperIndex Settings menu from the corresponding icon in the view window. Generally, it is a nuisance to have to click [OK] each time you navigate, but you may decide with some atlases, particularly if you are not connected to the Internet (and the atlas contains web links) or are running on a slower machine, that you want to see the description of the link before displaying the object.

**Vocabulary:** The **Home Level** is the first level of a stack. In a published atlas, the Home Level is often a graphic that introduces the purpose of the atlas. You can begin where you want when viewing a stack in TNTatlas by choosing Open Object rather than Open Atlas, which always opens the Home Level when you begin navigating.

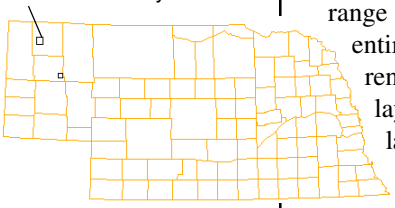
STEPS

- ☑ with the HyperIndex Navigator tool selected
- ☑ click in the middle of Nebraska
- ☑ pause the cursor over several counties noting the county names provided by DataTip
- ☑ right-click on the up-and-left arrow, note the choices, and select one
- ☑ click on the Navigate Home button either in the HyperIndex Navigator window or on the view window toolbar
- ☑ click on the eastern border of Nebraska, then choose *Nebraska county outlines* from the HyperIndex Link Selection window, and click [OK]

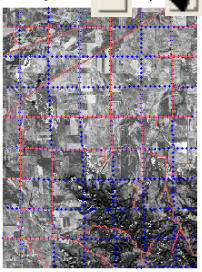
# Layer Visibility

STEPS

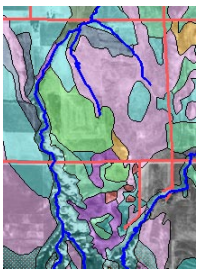
- ☑ turn on link areas (see p. 6 if necessary)
- ☑ click on the link area in Dawes county



- ☑ expand Group 1
- ☑ click on the Show / Hide indicator for ROADS and note the presence of the new layer

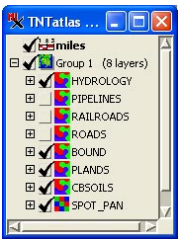


- ☑ click on the Show Zoom icon at the bottom of the sidebar, set Zoom to View Scale and enter 42000 in the scale field, and press<enter>

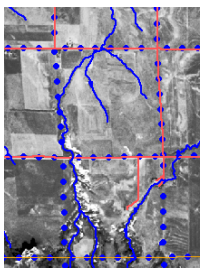


- ☑ change the scale to 55000 and press <enter>

Three conditions may cause a layer to not be currently visible: the Show / Hide indicator is set to hide and/or the layer has map scale controlled visibility and the current scale is outside the visible range and/or you are zoomed in such that the entire layer is outside the extents of the current view. You can see if there are any hidden layers by expanding the group it is in so the layers are listed. The Show / Hide checkbox is immediately to the left of the layer name. Many atlases, particularly single layout atlases, have so many layers that showing them all at once is not practical. The atlas designer has to make the decision about which layers to make visible initially. If you are interested in any of the other layers, you can turn them on.



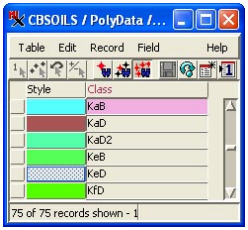

Map scale controlled visibility turns layers on and off as you zoom in and out. Low resolution images can be replaced by higher resolution images as you zoom in, or satellite imagery may replace a scanned map. Vector objects can show different levels of detail. With map scale controlled visibility, a layer can always be on, it can either appear or disappear when the specified scale is reached, or it can be visible only within a designated scale range. The Zoom scale field in the sidebar reports the number to the right of the colon in the map scale at the bottom right of the view (for example, 24,000 for 1:24,000). To see the soil map in this exercise, you have to zoom in to 1:42,000 or greater. You cannot change the visible map scale for layers in TNTatlas. Assigning map scale controlled visibility is also up to the atlas designer.

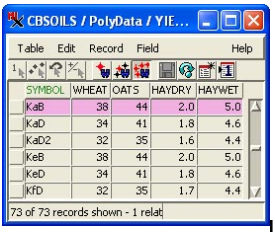


# Viewing Database Information

TNTatlas provides you the same access to database information available in TNTmips. You can view attributes of selected elements and use attributes to select elements. You can use attributes to select elements while the HyperIndex Navigator tool is active, but you must switch to the Select tool or the GeoToolbox to select elements with the mouse.

The Select tool on the view window toolbar lets you select individual elements. In addition to individual element selection, the GeoToolbox lets you draw geometric and irregular shapes for use in selection. You can make measurements using these same shapes or create a sketch layer or region from them (these features are described in the *Sketching and Measuring* and *Interactive Region Analysis* booklets).




If you select elements without first opening a database table, the first table associated with the element type selected opens automatically. For many vector objects, this table may be the element ID table, which is not likely to provide information of interest to you. You need to take the positive actions described in this exercise to open the table you want to view. Unless you are already familiar with the data in the atlas you are viewing, finding the information you want to see is an exploration process. You show details on groups and layers, then reveal the list of tables and decide which to open.

STEPS

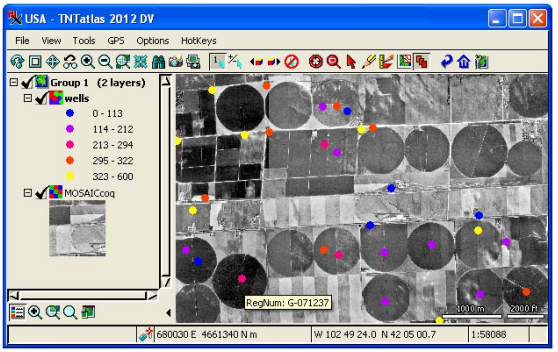
- ☑ change the entry in the scale field to 42000, and press <enter>
- ☑ find the CBSOILS layer in the TNTatlas Layer Manager window, expand it, then expand the polygons
- ☑ click on the Show or Hide Table checkbox for the CLASS and YIELD tables
- ☑ click on the Select icon button on the view window toolbar
- ☑ click on a number of soil polygons in the view window noting the records selected
- ☑ click on a Select Record checkbox in the YIELD table then on the Exclusive icon button in the YIELD table's toolbar (note the view will pan if the active element is not visible)
- ☑ look at the polygon row for CBSOILS in the TNTatlas Layer Manager window and note how many polygons are selected 
- ☑ repeat steps 6 and 7 for a different soil type
- ☑ click on the HyperIndex Navigator tool

# Web Links By Attribute

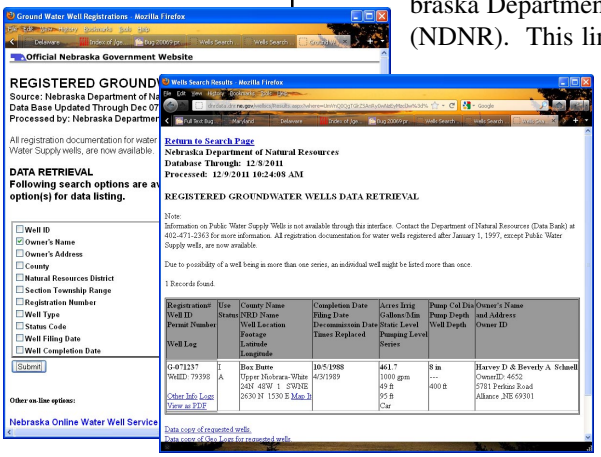
STEPS

- ☑ click on the Navigate Back icon then on the other link area (in Box Butte County)
- ☑ make sure you are configured to connect to the Internet although you need not have launched your browser
- ☑ with the Hyper-Index Navigator tool still selected, click on one of the points
- ☑ un-check Owner's Name and check Registration Number, then click Submit
- ☑ hover over the point you clicked on and enter the number shown in the DataTip, then click Submit

Point-and-click object retrieval in TNTatlas replaces the current view window contents with the object retrieved. Any object type, including complex layouts that include many different objects and scale bars, legends, or other enhancements, can be retrieved as was demonstrated in the previous two exercises. When the link is to an external file type that is not supported for direct display or to a web site, a separate window opens for that application, and the current view remains unchanged.



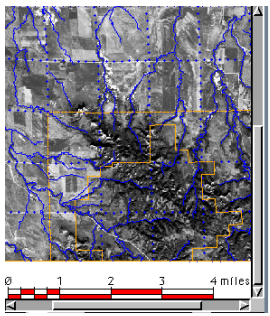

The layout for this exercise shows a resampled mosaic of Digital Ortho Quarter Quads (DOQQs) for a portion of Box Butte County as the base for a sample of registered ground water wells in the area. The well points are theme mapped by pumping capacity. Each of the points has a link to the groundwater wells data maintained by the Nebraska Department of Natural Resources (NDNR). This link used to take you directly to the information for the well you clicked on. Changes in the NDNR web site now require you to choose what information you want to enter and that you then enter that information in order to view their information for a particular well.



# Viewing Single Layout Atlases

The HyperIndex Navigator tool has no function with single layout atlases unless there are links to web sites or other file types. You reveal the depths of the atlas with the zoom and pan tools. The hot keys presented at the bottom of the page 18 are also useful. Single layout atlases rarely have all the layers shown at one time. The earlier exercise on *Layer Visibility* describes different methods of making layers draw without specifically using the zoom box.

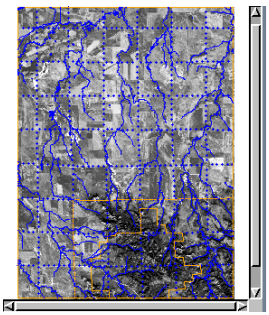
The Zoom Box is used to select an area you want to zoom up on and is proportional to your view area (unless you have differential zooming turned on). There is an Options / View Settings toggle that lets you set whether the tool is spring loaded (zooms when you release the mouse) or right-mouse button activated. In the latter case, the Zoom Box remains on the original image where it was drawn, so that its position and size can be adjusted, until you click the right mouse button. Set this toggle in whichever position you prefer.




Most single layout atlases are far more complex than the layout used in this exercise, which you should recognize as part of the larger USA atlas. This layout, however, will serve to demonstrate approaches to use with single layout atlases. If you see a layer listed that you want to view but you don't think it is drawn, first check if it is hidden. If not, try zooming to the layer extents. If the layer has map scale controlled visibility, it may be visible at this scale. If the layer has been assembled from many pieces, for example all the TIGER data in the state, it will not likely be visible when you zoom to its extents so zoom in within the extents. Finding a layer of interest may take some thought.

STEPS

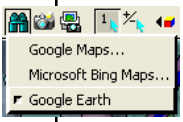
- ☑ choose File / Open Object and select SPOTAND OVERLAYS from the CB_SPOT Project File
- ☑ click on the Zoom Box tool, position the cursor at the upper left of the raster, draw out a box that encompasses at least two grid squares in each direction, then release the mouse (right click if needed)
- ☑ click on the Full icon button
- ☑ choose Options / View Settings and toggle on the last button (Use right mouse button to perform zoom or pan)
- ☑ repeat step 2 except reposition and resize the box after its initial drawing, then click the right mouse button
- ☑ click on the Zoom to Active Group icon in the view window
- ☑ expand Group 1 in the Legend, right-click on SPOT_PAN in the Layer Manager and choose Zoom to Extents



# Synchronize Atlas View with Google Earth

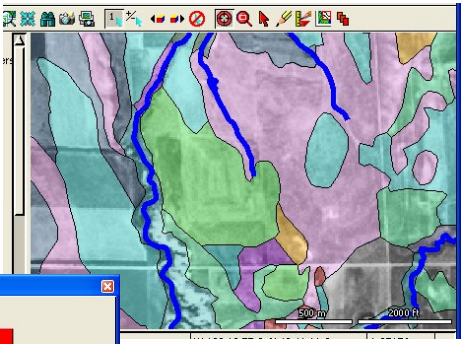
STEPS

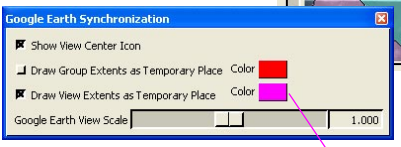
- ☑ connect to the Internet
- ☑ click on the Synchronize External GeoViewer icon
- ☑ turn on the Google Earth toggle
- ☑ turn on the Draw View Extents as Temporary Place option in the Google Earth Synchronization window



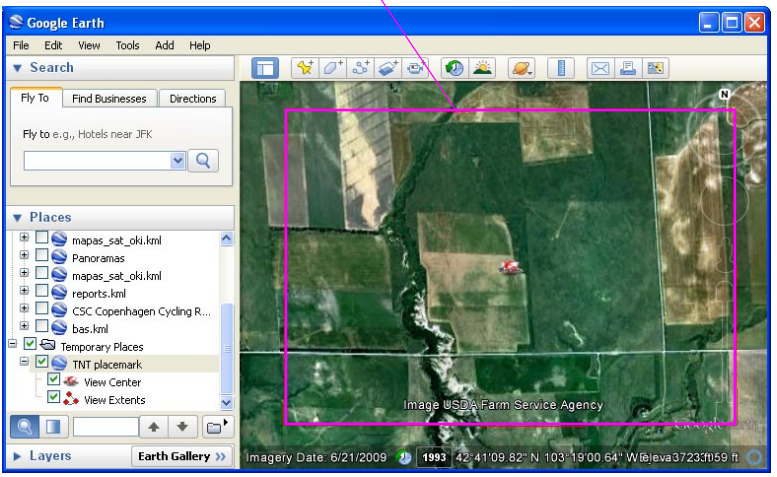

You can open a view that includes the extents of your current TNTatlas view in Google Maps, Microsoft Bing Maps, or Google Earth. For the first two choices, you need to reselect synchronization from the icon again to update position and zoom changes. Google Earth will automatically follow these changes but will ask if you want to reload the KML file generated by TNT, which indicates your new location and/or zoom level. You can turn this prompting off by clicking on the Always button.

Google Earth synchronization provides additional options to show the centerpoint of your view, show view and group outlines, and/or to change the relative zoom from your view to that shown in Google Earth. Google Maps also shows the center point of your view.



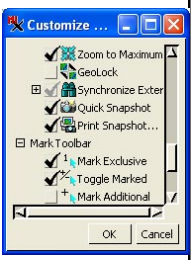



The outline shown in Google Earth indicates the area shown in your TNTatlas view window.



# Customization of TNTatlas Interface

Another option available to the atlas designer is customizing the interface to provide only the tools he or she thinks you will need. Thus, it is possible that you may have received an atlas that does not have all the buttons illustrated on the preceding pages. The atlas designer also controls whether or not you can customize the interface. The Hidden Features choice on the Options menu presents all available icon buttons and menu choices. Not all choices are on by default. If you are using TNTatlas downloaded from MicroImages' web site, you will have the ability to customize the interface. The features you select are part of the TNTatlas program, not the atlas itself and will be retained if you run the same program and open a different atlas.

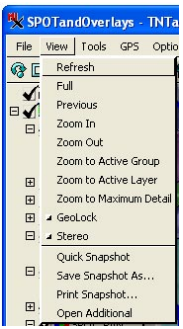



TNTmips' display process, which is incorporated in TNTatlas, has many tools and features that the novice or casual TNTatlas user will not utilize. Such features may have been removed from the interface to simplify its use or you can remove the tools and options you do not use if customization is allowed.

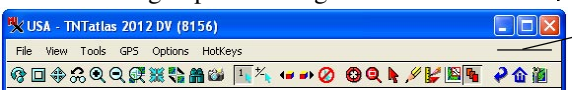
The Customize window is divided into Toolbar and Menubar sections. All toolbar icons are listed before the menubar selections. All user interface customization settings are stored in the customui.usr file. These settings can be transferred to subsequent installations of the TNT products if you choose the transfer settings option during installation.

STEPS

- ☑ choose Options / Hidden Features in the view window
- ☑ scroll through the choices noting what is on and what is off
- ☑ make any changes desired




All View menu choices are shown above. All choices that have corresponding icons have been removed from the View menu below.




These are the atlas specific navigation icons

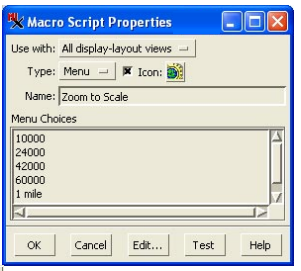
The toolbar shown above is the default configuration.
The toolbar below has all available icons turned on.

Drawing Actions | View Actions | Marking Modes | Marking Actions | Tool Selection

# Adding and Using Custom Tools

STEPS

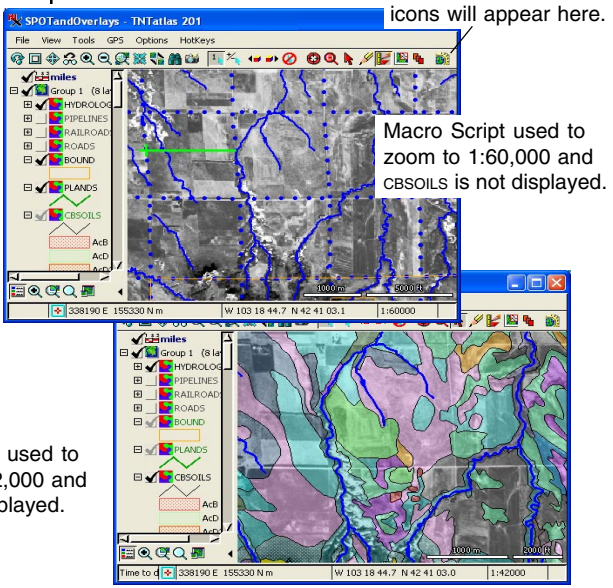
- ☑ with the SPOT AND OVERLAYS layout open, choose Options / Macro Scripts (View window)
- ☑ click on the Add icon and select ZOOMTO.SML
- ☑ enter *Zoom to Scale* in the Name field
- ☑ click in the Menu Choices text box and type in the entries shown, then click [OK] in both windows
- ☑ click on the new icon to the left of the HyperIndex Settings icon on the toolbar and select 60000
- ☑ click on the same icon and select 42000, then note the difference in scale and what is displayed



In addition to adding and removing menu items and icons, you can add specific functionality to your atlas, or it may have been added by your atlas's designer. If Macro or Tool Scripts were added by your atlas's designer, they will come and go as you Navigate through the atlas (unless it is a single layout atlas) because they are associated with specific layouts. Look for icons to appear to the left of the HyperIndex Settings icon.

Macro and Tool Scripts that you add will only be available in the current TNTatlas session if you are running from DVD. If you have installed TNTatlas, these scripts will be available the next time you open TNTatlas provided you did not choose the *This layout only* option in the Script Properties window.

**Note:** Some Macro and Tool Scripts only make sense for a particular layout in an atlas, such as the script added here. If you zoomed to either of these scales at the USA or Nebraska level, you would likely see nothing but your background color.




Macro and Tool Script icons will appear here.

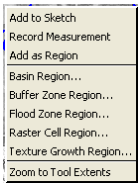
Macro Script used to zoom to 1:60,000 and CBSOILS is not displayed.

Macro Script used to zoom to 1:42,000 and CBSOILS is displayed.

# Introduction to the GeoToolbox

The GeoToolbox integrates sketching, measuring, selection, and region operations. Input for any of these functions can come from the mouse, an X-Y digitizer, or a GPS unit or log. You can get the measurements for a polygon you draw as a region then add it to a sketch just by switching tabbed panels in the GeoToolbox and using the right mouse button menu. Elements added to sketches can have attributes and you will be prompted for the attribute value for each element you add if you choose to use attributes. A simple Select tool is provided on the View window toolbar, but the GeoToolbox provides area selection as well as single element selection. A simple Annotate tool is also provided on the View window toolbar.

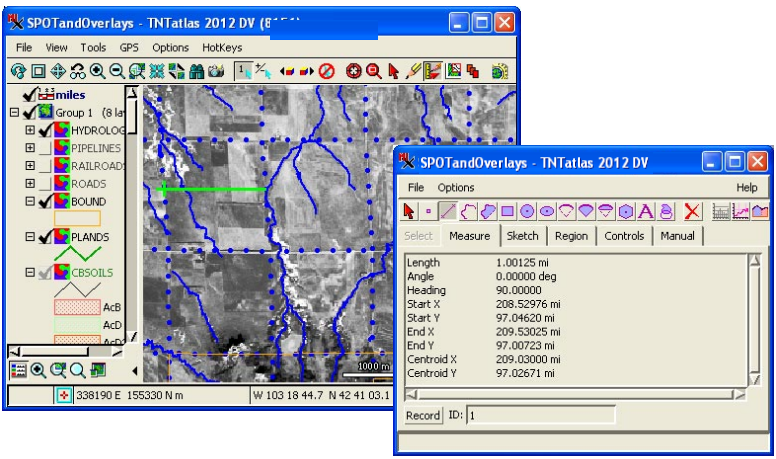
There are two line drawing modes that are used with the line and polygon tools: draw and stretch. In the draw mode, the line is drawn as you drag the mouse. In the stretch mode, the line can be adjusted as you drag the mouse and the next vertex is added where you release the mouse button. Your preference for drawing is set on the Controls tabbed panel. The Ruler tool behaves like drawing a line in stretch mode.




STEPS

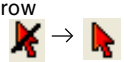
- ☑ with the SPOTAND OVERLAYS layout open, zoom back to 1:60,000
- ☑ click on the GeoToolbox icon
- ☑ click on the Ruler icon
- ☑ click on one of the dotted lines, then hold and drag to an adjacent dotted line
- ☑ click on the Measure tab and see how close to 1 mile you got (change units from the Options menu in the GeoToolbox)
- ☑ right click over the image and note the available choices (the middle panel tells you the kinds of regions you can generate from the line drawn)

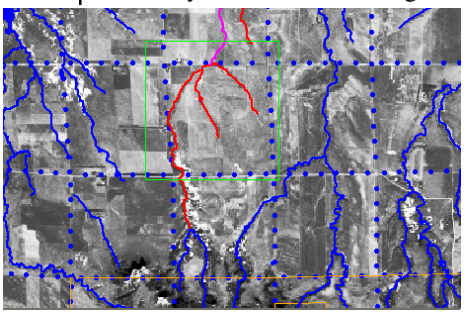
Keep this layout open through the exercise on page 17.

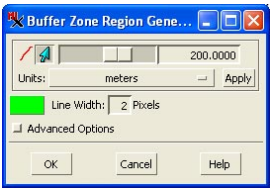


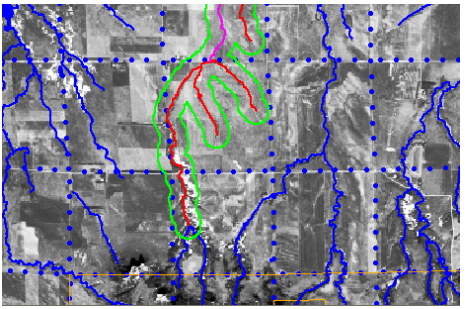
# Making a Buffer Zone Region

STEPS

- ☑ expand the HYDROLOGY layer in Group 1 (Layer Manager) and turn on selection for lines by clicking on the arrow 
- ☑ draw a rectangle that contains a few of the hydrology lines, then right-click and choose Select Elements
- ☑ right-click on the lines row in the Layer Manager, and choose Buffer Zone Region
- ☑ click on Apply to see a preview of the buffer zone region at the default width
- ☑ change the buffer zone width to 200 meters, and click Apply again
- ☑ click on OK
- ☑ switch to the Region tabbed panel in the GeoToolbox and note that the region generated is named the same as the object it was generated from and it is once again shown in the TNTatlas window
- ☑ click on Group 1 in the Layer Manager to make it the active group then click on the Sketch tab and try your hand at sketching





You have the option of generating regions from shapes you draw or from selected elements. When you right-click over the image in the TNTatlas window in this exercise, the region is generated for the element you have drawn using the GeoToolbox. In this case, right-clicking over the image after you have selected the elements and choosing Buffer Zone Region would buffer around the rectangle you drew rather than around the selected elements. The region options are not on the right mouse button menu for an element type unless you have selected elements of that type in that layer.

The GeoToolbox provides many additional powerful tools for your use. You should take the time to discover more of its functionality. For more information on the GeoToolbox, consult the *Sketching and Measuring* and *Interactive Region Analysis* booklets.

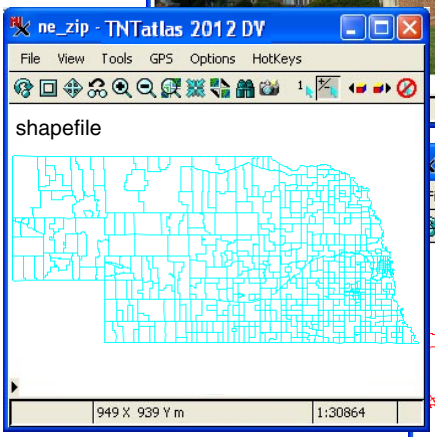
# Using TNTatlas as a Viewer

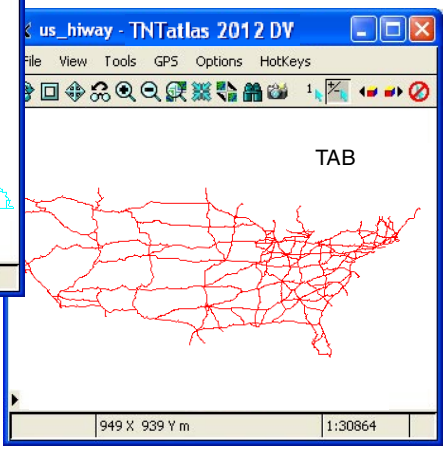
Although TNTatlas is much more than a viewer, it can be used to view data in a variety of formats in addition to the TNT products Project File format. You can directly view rasters in TIFF/GeoTIFF, JP2, MrSID, and ECW (Enhanced Compressed Wavelet from ER Mapper) formats. You can also directly display data in ESRI's shapefile format and MapInfo's TAB format. Shapefiles are displayed as shape objects and TAB files as CAD objects. A number of other formats are also supported for direct display*. You can even display an Oracle Spatial layer in TNTatlas if someone had previously created a link to the layer in TNTmips, TNTedit, or TNTview.

STEPS

- ☑ choose File / Open Object
- ☑ select any TIFF, JP2, MrSID, ECW, shapefile, or TAB file you have*
- ☑ if you do not have data in any of these file formats,

choose a TIFF file from the import folder with the data on a TNT products DVD or from MicroImages' web site.




You can view any of the supported formats using the same methods you use to open a single layout atlas or any other object in MicroImages' Project File format.

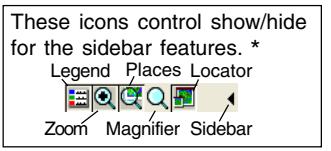
* See the Tech Guide entitled *System: Direct Use of Geodata Files* for additional formats

# TNTatlas Miscellaneous Features

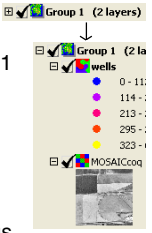
STEPS

- ☑ choose File / Open Object and select WELLS_AND_DOQQ from the WELLS Project File
- ☑ click on the + to the left of Group 1 in the Legend
- ☑ note the appearance of the layer names and their legends
- ☑ click on the minus (-) to the left of the MOSAICCOQ layer name (note that only the legend for that layer is hidden)
- ☑ right click on the wells layer name in the Legend and choose View Metadata
- ☑ read the metadata, then choose File / Close in the Metadata Viewer window
- ☑ move the cursor to the right of the vertical scroll bar in the Legend, but not over the view itself; the cursor should become a double-arrow, then click and drag to resize the Legend
- ☑ choose View Histogram from the RMBM for the MOSAICCOQ layer, and note the information presented
- ☑ try other selections on the RMBM

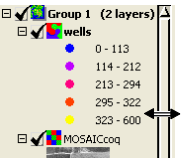
* See the collection of 2012 Technical Guides about the Sidebar and its functions.



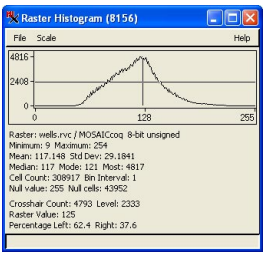

The sidebar appears at the left of the view window and can be turned on/off and resized. The gadgets for the sidebar are controlled by the icons near the bottom. The information in the Legend can be expanded and collapsed. It is a matter of personal preference whether you want the legend information in the view window or you want the Layer Manager or neither. However, you need the Layer Manager window to view dabase information.




You will find a variety of right mouse button functions at the group and layer levels in the Legend. Clicking the right mouse button on the group name lets you choose to open the group settings, hide/show layers in the main and locator view, and zoom to extents among many other functions. The right mouse button menu (RMBM) for the layers lets you zoom to various levels of detail, and open the Mark by Query window. These functions and more are available from the RMBM for each layer in the TNTatlas Layer Manager including the options to view raster histograms, layer extents, metadata, and to turn DataTips on/off if they have been set up by the designer. For vector, shape, CAD, and TIN layers you can also zoom to the active or selected elements.




A number of hot keys are available to make changing view position and zoom easier. The view window must have focus for these to be active: redraw at full view, 0; set zoom to 1X–4X, 1–4; recenter at cursor location <space>, zoom in, +; zoom out, -.



# Multiple Views

The designer of an atlas you have acquired may have set the atlas to open with multiple views of the same data open. You can also choose to open additional views of any atlas. Once you have multiple views open, you can turn on/off different layers and/or groups in the layout in different view windows. You can also display different views at different scales.

You may want to consider using the GeoLock feature if you have multiple views open. This feature lets you move the view in all of the open windows by changing the position and or the zoom in any one of the windows. The position of the cursor in any one of the windows is also shown in the others by a yellow crosshair. The icon for GeoLocking is one of the hidden features in TNTatlas (see p. 13) but can also be turned on using the GeoLock toggle on the View menu. You set whether you want to use relative zoom or extents or both to determine how other views are adjusted by choosing GeoLock Settings from the Options menu. When you are working with multiple views you may also want to use the Multi-View Locator. See the Technical Guides entitled *Geolock with Relative Zoom* and *Multi-View Locator Tool* for more information.

STEPS

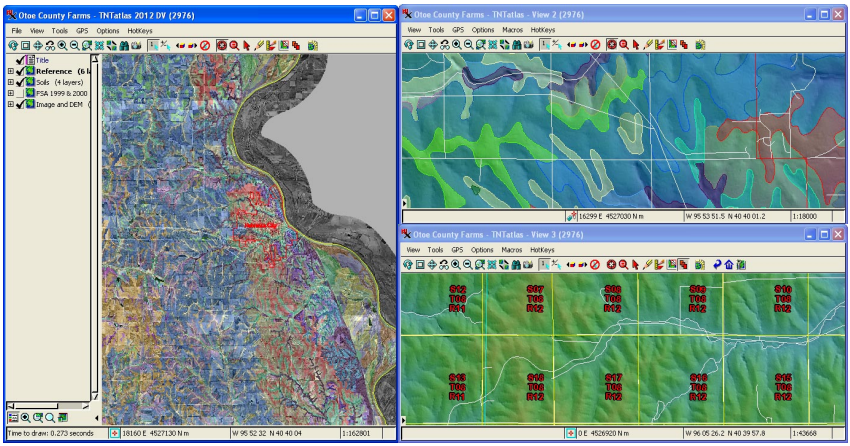
- ☑ choose View/Open Additional in the TNTatlas View window
- ☑ check that GeoLock is toggled on on both View menus
- ☑ turn different layers on/off for different views and compare them
- ☑ open Geolock Settings (Options/GeoLock Settings), change the Relative Scale to 5, click OK then Refresh

A gray check indicates that a group or layer is hidden in one or more views.

A black check indicates that a group or layer is visible in all views.

No check indicates that the group/layer is hidden in all views.

Right-click on a Show/Hide checkbox to see which views a group or layer is visible in and to make changes.



# Advanced Software for Geospatial Analysis

MicroImages, Inc. publishes a complete line of professional software for advanced geospatial data visualization, analysis, and publishing. Contact us or visit our web site for detailed product information.

***TNTmips Pro*** TNTmips Pro is a professional system for fully integrated GIS, image analysis, CAD, TIN, desktop cartography, and geospatial database management.

***TNTmips Basic*** TNTmips Basic is a low-cost version of TNTmips for small projects.

***TNTmips Free*** TNTmips Free is a free version of TNTmips for students and professionals with small projects. You can download TNTmips Free from MicroImages' web site.

***TNTedit*** TNTedit provides interactive tools to create, georeference, and edit vector, image, CAD, TIN, and relational database project materials in a wide variety of formats.

***TNTview*** TNTview has the same powerful display features as TNTmips and is perfect for those who do not need the technical processing and preparation features of TNTmips.

***TNTatlas*** TNTatlas lets you publish and distribute your spatial project materials on CD or DVD at low cost. TNTatlas CDs/DVDs can be used on any popular computing platform.

***TNTserver*** TNTserver lets you publish TNTatlases on the Internet or on your intranet. Navigate through geodata atlases with your web browser and the Web Map Service compliant TNTmap JavaScript and dynamic HTML client.

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