

Using Hidden Layers

An atlas can be used to distribute a select set of geospatial data to your clients, who can then use the free TNTAtlas program (which you can include on the atlas media) to view the data and use it for decision-making and/or delineating target areas for your services. A single-layout atlas provides the simplest design, with clients using the zoom tools to navigate to the desired area and viewing scale. Designing such an atlas requires considerable care in the choice of geospatial layers to include, the ordering of the groups and layers, and in setting an appropriate visibility scale range for each layer or group (layers are automatically hidden at view scales outside the specified range). You may also want to set some layers to be hidden by default at all scales, to be turned on manually by the client when they choose. (See the tutorials entitled *Introduction to Designing Electronic Atlases* and *Constructing an Electronic Atlas* for overviews of atlas design.) The goal is to provide, at each viewing scale, relevant reference data without cluttering the view, so your clients can quickly and easily locate their target area and identify the significant features for analysis and decision-making.

Although a number of data layers in the atlas may be hidden at any particular scale of view, even these hidden layers can provide information to your clients, and you can design the atlas so that these layers can play a role in analysis and selection procedures as well.

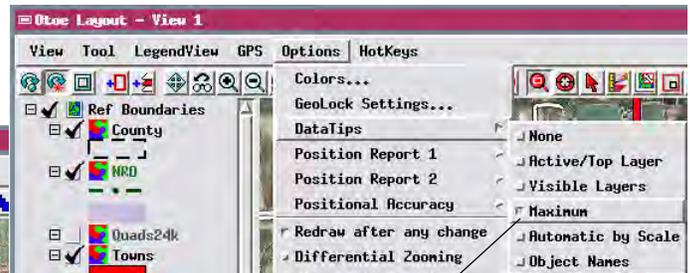
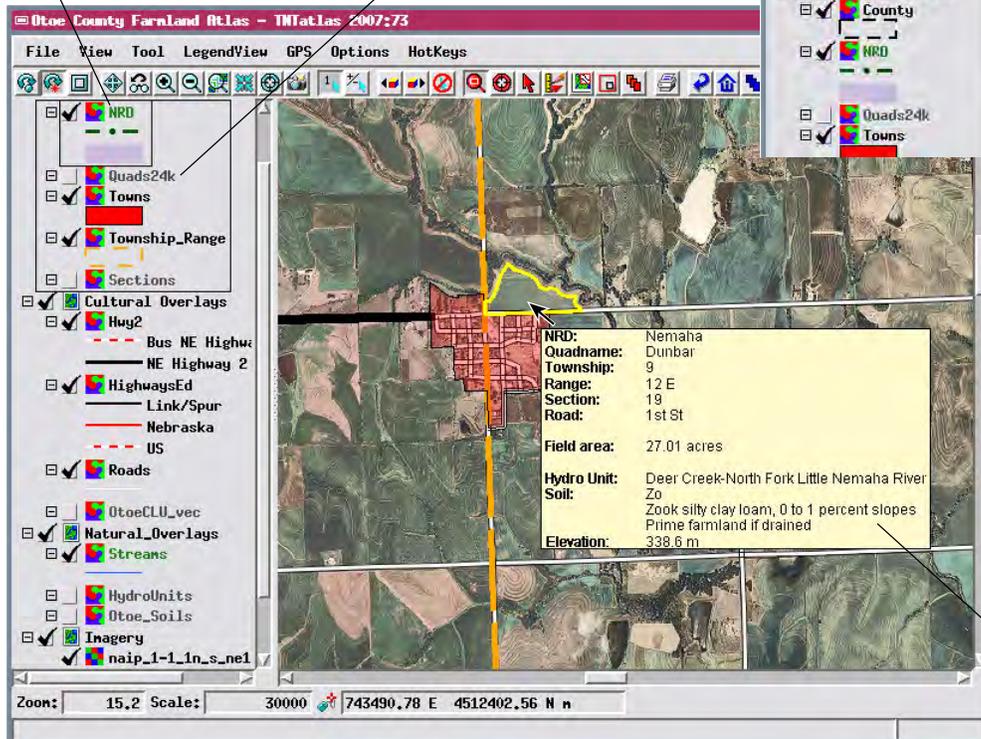
Hidden layers can provide location-specific attribute information (or cell values for raster layers) to the viewer by means of pop-in DataTips that appear when the mouse cursor pauses over the view. To design the atlas so that DataTip information is shown for hidden

as well as visible layers, you can set the default DataTip Options for the atlas layout to Maximum (as illustrated below), which allows up to 20 layer-entries in the DataTip. (The atlas user can set their own DataTip viewing options in TNTAtlas as well.) You can set up the DataTip for a layer to provide a single value for each element, use string expression fields to list multiple attributes, or use a Display Control script to create and present graphic information (see the Technical Guide entitled *Spatial Display: Designing Complex DataTips* for details).

Any geometric layer in the atlas can be set up so that particular elements (such as polygons) are temporarily highlighted in color when the cursor pauses over the element. Since highlighting works even when the layer is hidden, you can **hide a visually-complex layer** that might clutter the view, but allow the individual element at the cursor location to be revealed by highlighting. A highlighted polygon can also be marked (selected) using the Select tool and used to create a region for later use (see the *Spatial Display TechGuides* entitled *Regions from Polygons in Any Geometric Layer* and *Highlight and Mark Elements in Hidden Layers* for more information). Highlighting and marking work best in an atlas if highlighting is turned on for only one target geometric layer, and the atlas layout should be saved with this as the active layer (and with marking disabled for elements in all other geometric layers). Then when the atlas user highlights an element in this layer, their left-click automatically enables marking for that layer, allowing them to mark elements and create regions as desired.

Layers hidden at the current map scale are indicated in green.

Layers hidden by default at all scales are indicated in gray.



Choose Options / DataTip from the View window to set the Maximum option to enable presentation of DataTip information from hidden layers.

In this illustration of a sample farm land atlas, the farm field geometric layer (OtoeCLU_vec) is hidden, but a field polygon outline highlights in yellow in tandem with the appearance of the DataTip (which also automatically shows the area of the field in acres).

Much of the location-specific attribute information in this DataTip comes from layers that are hidden, including the section, farm field area, hydrologic unit, and soil attributes.