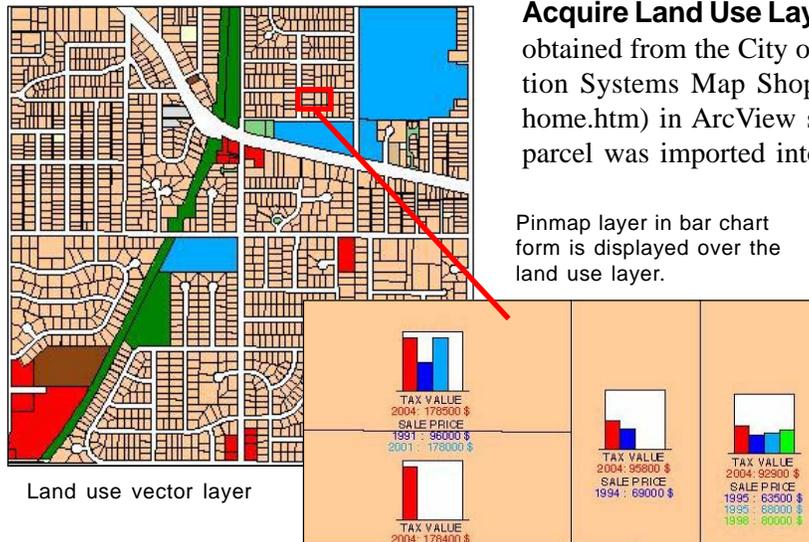


Pin Mapping for Urban Analysis

TNTmips has powerful pin mapping tools for visualization of point locations directly from database tables. These tools include various representation alternatives such as simple points, symbols, pie charts, or bar graphs. Any table that contains X and Y coordinate fields in each record can be used for pin mapping. When the database of interest does not have X and Y coordinate fields, TNTmips lets you easily modify existing vector data for pin mapping purposes. TNTmips also lets you create a point vector object from a database pinmap. In the example on this page, property prices in Grant township in Lancaster County, Nebraska are analyzed as a point vector object according to land use categories using a series of processes in TNTmips.

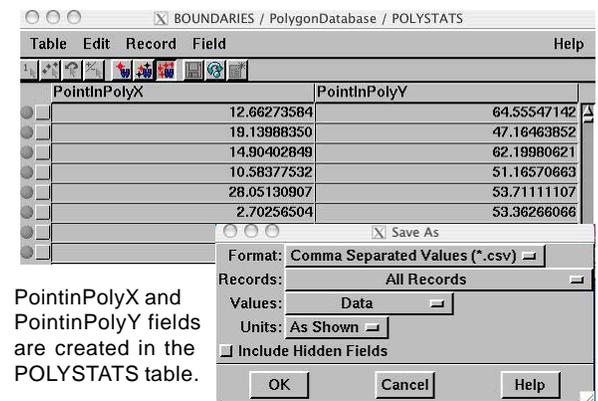


Acquire Land Use Layer: In this example, the land use of Grant township was obtained from the City of Lincoln and Lancaster County Geographic Information Systems Map Shop website (<http://lincoln.ne.gov/city/plan/its/gisweb/home.htm>) in ArcView shapefile format. The land use information for each parcel was imported into TNTmips using the Import process. The property information for each parcel was obtained from the Lincoln Property Viewer atlas.

Create X and Y coordinate fields to represent each parcel: The Standard Attributes process (Geometric/Attributes/Standard) provides an easy way to create X and Y fields with point coordinates representing each parcel polygon. When the Compute Point in Polygon button is toggled on, the process locates a point in each vector polygon and stores the X and Y point coordinates in two fields,

PointInPolyX and PointInPolyY, in the standard vector polygon attributes table (POLYSTATS). You can use these PointInPolyX and PointInPolyY fields as the source of XY coordinates to add a pinmap layer in the Display process. In the illustration above, the pinmap layer, which is visible at certain zoom levels, compares the different sale prices and 2004 tax assessment values associated with each property. More information on pin mapping can be found in the Technical Guide entitled *Pin Mapping Database Locations* and the *Pin Mapping* tutorial booklet.

Create Point Vector Object: TNTmips also lets you create vector points from vector polygons using the PointInPolyX and PointInPolyY fields. You can simply save PointInPolyX and PointInPolyY fields to create point data in CSV text format. Then you can import this CSV file as a vector point object using the Import process. This process creates a new point vector object. You can



PointInPolyX and PointInPolyY fields are created in the POLYSTATS table.



also create vector point elements from a database pinmap with the copy/paste functions of the Editor. You can copy elements from the pinmap layer and paste them into a new or existing vector object.

The representation of each parcel as a point provides you the flexibility to use various display tools such as theme mapping. The polygon attributes of the parcel layer can be transferred to the point vector object using Geometric/Attributes/Transfer Attributes. In the illustration at the left, the assessed value of each property is represented as point data, classified into five categories, and displayed over a land use vector layer.