

Database

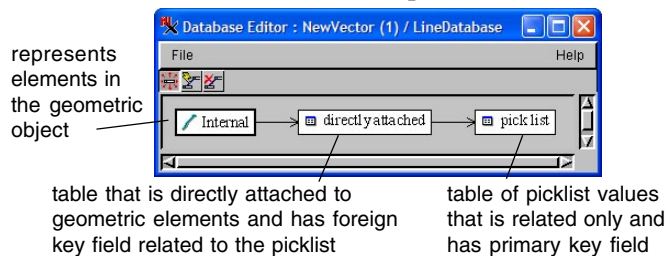
Creating a Picklist from a Table or Text

You can set up the necessary tables and relationships to use picklists when you design a relational attribute structure for your geometric objects in TNTmips. It takes some planning and understanding of foreign and primary key relationships to make efficient use of picklists when you set up your own TNT relational attribute structure. However, picklists are easy to use for assigning attributes whether you design them into your attribute structure or add them as needed or derive them from existing string fields using the picklist wizard.

See the TechGuide entitled *Database: Picklist Relational Structure* and the *Managing Geoattributes* tutorial booklet for additional information on relational database structure and attachment types in the TNT products.

This TechGuide addresses creating picklists from existing text files or database tables not already associated with your geometric object. There are a number of other TechGuides concerned with picklists that may better suit your needs. The TechGuide entitled *Database: Wizard to Create a New Picklist* describes the features and use of the picklist wizard. *Database: Create a Picklist for a Shapefile* discusses how to get a picklist for use in assigning or changing attributes for shapefiles that are being used in their native format.

The simplest possible database structure that uses a picklist has two tables as shown below: one with records that are directly attached to your geometric elements and the other that is a related-only, picklist table providing the values for these records. The picklist table is the related-only table, and the directly-attached table obtains the values for one of its fields from the picklist.



Create Picklist Table by Import or Copy

A picklist can be created from the values available in a text file or independent database table (i.e., a table not associated with the geometric elements in the desired object). The first step is to get the picklist table with the values you want to use into the desired vector, shape, or CAD database. The methods used require knowledge of

the structure and linkage of relational databases. These methods are applicable for creating picklists for new objects that have no elements and for objects with existing elements without assigned attributes.

The approach for adding a picklist to your new object depends on whether the attribute values to be used are in text or database table format.

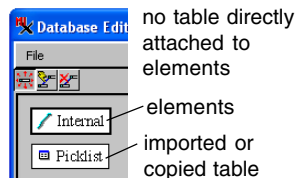
Import. Use the TNT Import process to create a new picklist table in the desired database if the values are in a text file format.

See the *Import a Database Table from DB-TEXT* exercise in the *Importing Geodata* tutorial booklet.

Copy or Add Table. Use the File/Copy Table menu selection from the Database Editor window or Add Table from the right mouse button menu in the Display Manager.

See the *Adding Tables* exercise in the *Managing Relational Databases* tutorial booklet.

Be sure to open the Table Properties window for your new table and set the attachment type on the Table tabbed panel to Related Only. This table attachment type is required for a picklist table. A related-only attachment type is automatically set if the table is imported. You must also make sure that the field you want to provide the picklist is designated as a primary key field.



Create the Directly Attached Attribute Table

Your newly created picklist table must be related to an attribute table to be used as a picklist. You create this new attribute table using the **same New Table wizard** used throughout TNTmips to create any table directly linked to geometric elements. This table is the table that has the string field with values to be assigned from the picklist when the geometric elements are created or edited in the associated object.

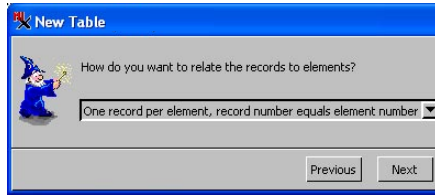
The New Table wizard can be opened from the Database Editor window or from the right mouse button menu at the database level in the Display Manager. Either method will open the New Table wizard to the first panel where you can create a



User Defined table (see the TechGuide entitled *Database Table Creation Wizard*). Enter a name and description for this attribute table in the next wizard panel. In the next panel you set how to relate the records



in your new attribute table to the geometric elements they are linked to as illustrated. If your geometric elements are



in a vector or shape object, choose *One record per element, element number equals record number*. If your geometric elements are in a CAD object, select *One record per element, one element per record*. The TechGuide entitled *Database: Picklist Relational Structure* provides more information about acceptable attachment types.

The New Table Properties window automatically opens once attribute table setup is complete. Use it to add the fields you want in the directly-attached attribute table. Include the string field that will be connected to, and populated from, the values and styles in your picklist. The New Table Properties window automatically switches from the Table to the Field tabbed panel after you add the first field. Use the *Relate to key* option menu on this panel to connect the selected foreign key string field to the primary key string field you created in the picklist table. It is this connection, or relationship, that can open this picklist and make its values and associated styles available for one-click selection in your editing and display activities.

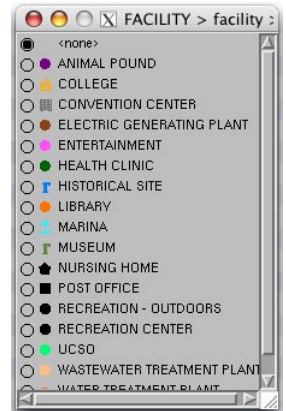
Creating Multiple Picklists

More than one string field in your directly-attached attribute table can be a foreign key field and connect to a picklist table. You can use the import/copy procedures outlined above if the picklist values already exist in electronic form. Since you are creating an additional picklist

table, you already have the directly-attached attribute table. You simply add another string field to it and set up the connection as described above. Add a new string field to the directly-attached table by opening its Properties window and clicking on the Add Field button. You connect this new field using methods described above with the second (or third...) picklist table's primary key selected on the *Relate to key* option menu. Use the picklist wizard to create a new picklist table if you do not have the values for the new picklist in electronic form (see the TechGuide entitled *Database: Wizard to Create a New Picklist*).

Adding Styles to a Picklist Table

Styles can be added to each value in a picklist table using the Setup Picklist button in the Table Properties window. You can add or edit styles for any field that already has a picklist. You can also add or edit styles in additional steps after the picklist table is created using the picklist wizard (see the TechGuide entitled *Database: Wizard to Create a New Picklist*). Alternatively, you can use the procedures for setting up styles that start from the Layer Controls for the geometric object you want to style. Both approaches to setting up styles and assigning them to specific attributes use the same interface. Both of these procedures create a style assignment table. This style assignment table must be selected for the Style field option menu on the appropriate element panel of the Layer Controls to be used for drawing elements. Both procedures automatically add the style assignment table they create to this Style option menu.



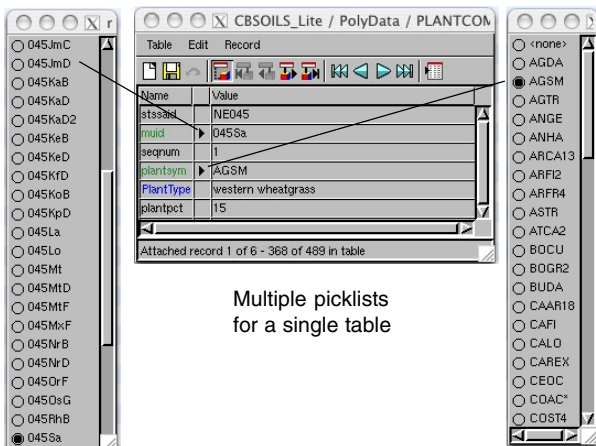
See the *Creating and Editing Styles* tutorial booklet.

Editing Picklist Tables

You can easily edit a picklist at any time. Open the Table Properties window for the directly-attached attribute table. Click on the Setup Picklist button to open the Edit Picklist window. Edit existing values or add more values to the picklist table. You can also access the windows and tools that create and/or assign the styles to be used for each existing or new picklist value from this window.

You can also use the standard table editing procedures to add fields or change existing field values in your picklist. Simply use the picklist table itself rather than the picklist.

See the *Modifying an Existing Table* exercise in the *Managing Relational Databases* booklet.



Multiple picklists for a single table