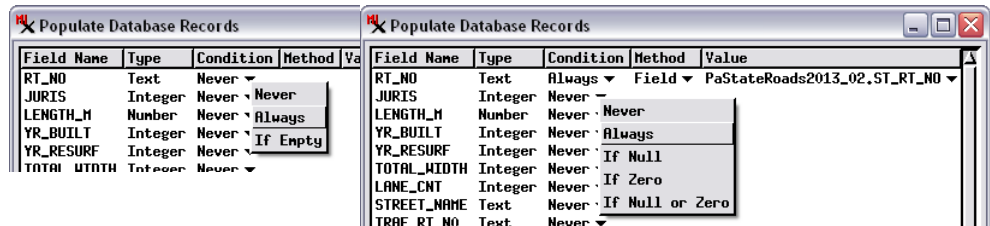# Populate Database Records

TNTmips provides a procedure for geometric objects (vector, shape, and CAD) that allows you to populate fields in a set of database table records using designated fixed values or values copied from fields in other tables. In order to use existing field values, the table in which you are populating records must have records directly attached to geometric elements, and the source table must be another table in the same element database and must have records directly or indirectly attached to elements. This procedure can be applied to fields in existing records or when new records are created for marked or active (last marked) elements in a View. Any type of numeric or string field can be populated by this procedure. Unlike computed and string expression fields, whose displayed values are read or computed dynamically from the source fields, the populate database records procedure writes actual values into the specified fields and records, and you can manually edit these values later if necessary.

To use the Populate Database Records operation, open a tabular view of the target database table. To populate fields in existing records, choose Record / Populate Existing Records. To populate fields when you create a new record or records for the active or marked elements in the View, choose Record / New, then either *Attached to active element* or *Attached to marked elements* (see illustration in the upper right corner of this page). The Populate Database Records window (illustrated below) then opens. The Field Name and Type columns in this window list the name and data type of all fields in the table. The Condition column contains a menu-controlled entry for each database field that sets the conditions under which a new value should be set for the field. The default setting *Never* means that no new values will be written to the field, while the *Always* setting means that a new value will be written to the field regardless of the existing value in the field. The other Condition options let you populate the field with new

values depending on the existing value. For text fields you can choose *If Empty*; for numeric fields you can choose *If Null*, *If Zero*, or *If Null or Zero*. If you are creating new records and do not wish to populate fields, simply leave the Condition column set to *Never* for all fields and press OK on the Populate Database Records window. (over)

You can use options on the Record menu in database table windows to populate fields in the table's records. To populate fields in existing records, choose Populate Existing Records. The Populate Database Records window (illustrated below) also appears when you have marked related/attached geometric elements in a View, choose Record / New, and then choose *Attached to active element* or *Attached to marked elements* from the submenu.

NOTE: for geometric element tables with one-to-one attachment type (one record per element and one element per record), the operation to create a new record attached to marked elements automatically creates a separate record for each marked element. The Populate Database Records dialog can be used to populate specified fields in the new records from tables with records attached or related to these elements.
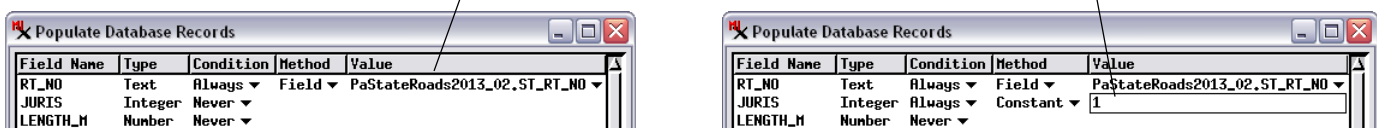
To begin to populate values for a field, left-click on its entry in the Condition column to pop up a menu. Choose *Always* to replace any existing value or choose one of the conditional entries (for text fields: *If Empty*; for numeric fields: *If Null*, *If Zero*, or *If Null or Zero*).

Continue by left-clicking on the field's entry in the Method column to pop up a menu.

Choosing *Field* from Method menu opens the Select Table/Field window so you can choose a related table and field as the source for the values for the current field. The selected table.field reference is shown in the Value field in the Populate Database Records window.
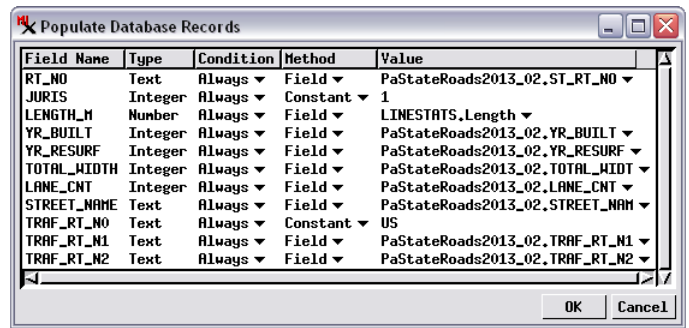
Choosing Constant from the Method menu creates an editable field in the Value column, where you can enter the desired numeric value or text string for the field.

Setting the Condition menu for a field to a value other than *Never* activates the field's entry in the Method column. The menu for this entry lets you choose either *Field* (to populate the field with values from another database field) or *Constant* (to write a fixed value to each field). Choosing the *Field* option opens the Select Table / Field window so you can make your selection for the source table and field; choosing *Constant* creates an editable field in the Value column where you can enter the desired value (see illustrations at the bottom of the previous page).

When populating fields using values from another table, for best results the source and target fields should have the same data type. If they have different data types, the Populate Database Records operation automatically converts the data, within limits. For example if the source is a string field containing numeric characters and the target is a numeric field, the source strings are converted to numeric values in the target field; however, any non-numeric characters in the source field are stripped out in the conversion. A source numeric value is automatically converted to a string if necessary, but there is currently no control over the formatting of the string (e.g., number of decimal places written to the string).

When you populate records with associated elements marked in the View, and the marked set does not include all of the elements, the lower part of the Populate Database Records window

Populate Database Records window with all fields set to be processed regardless of existing values in the fields (*Always* setting in the Condition column).

allows you to choose which set of records to process. The Apply To panel provides options *All records*, *Records attached to marked elements*, and *Records attached to active element*. The number of records for each option is shown in parentheses (see illustration to the right). If all associated elements are marked, the operation is automatically applied to all records.

If some (but not all) associated elements are marked in the View, the Populate Database Records window allows you to choose which set of records to process.