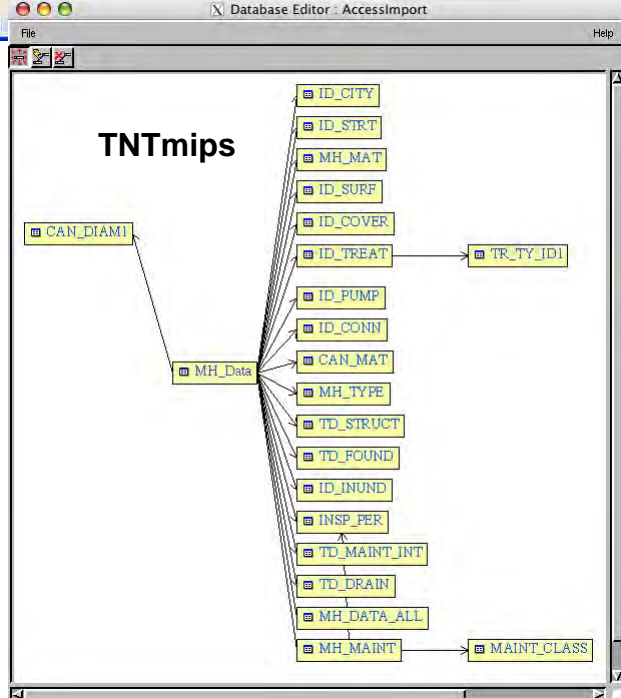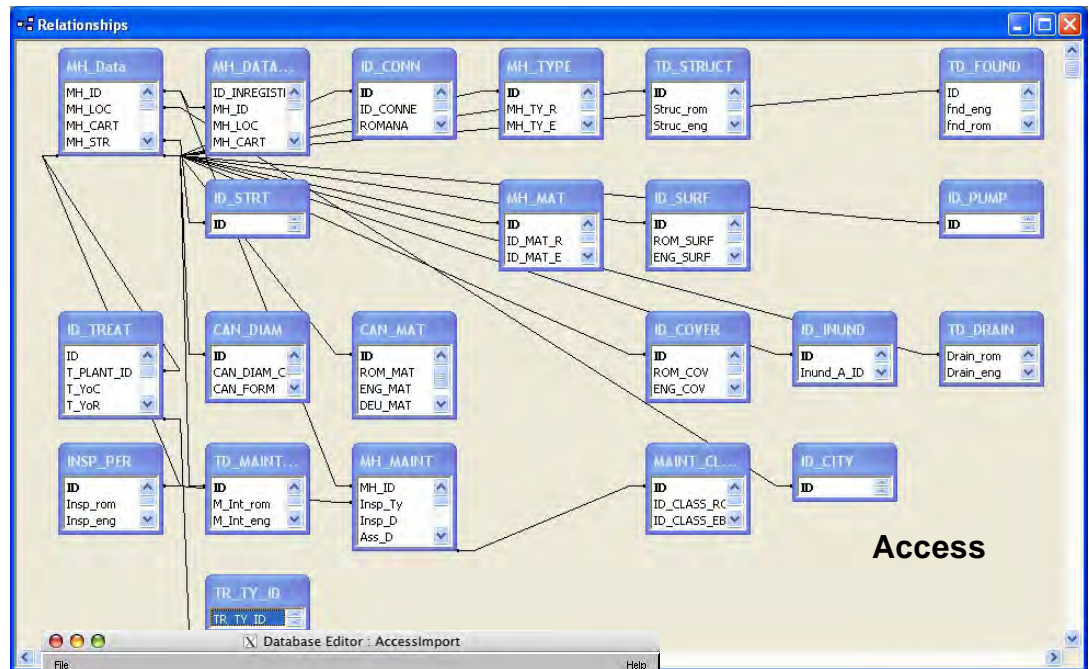# Duplicate Microsoft Access Relationships

Relational databases associated with spatial data and geodata provide the foundation for powerful selection and styling queries for viewing and analysis. Relational databases contain fields that point to fields in other tables to determine the element/record association rather than having every record in every table directly attached to the associated elements.

Setting up the proper relationships for your tables can be time consuming if you have a large number of tables. These relationships can be made in TNTmips or some other database software. Relationships established in Microsoft Access are maintained when the Access database is imported or linked to by the TNT products. You do not need to do anything during import for these relationships to be maintained—it is automatic.

Once you have imported or linked to your database tables, they can be used directly for pin mapping if the records contain geographic coordinates, but most frequently you want to associate the records with elements in a geometric object. Getting elements associated with records in all tables after import involves just setting up attachments for the records in one table. The best choice for this table depends on the database structure. Often the geometric object to which you imported the database will have another table with direct attachments that you can relate your new tables to. If so, you need only select the foreign key field in the original table to have all relationships established. For example, if you have a vector that presents state or county outlines with a directly attached table that identifies them by name and an imported relational database that also has a table with state or county names, you can relate your imported database using these fields without having to establish attachments to individual polygons.

Database table relationships can be viewed in Microsoft Access (Tools/Relationships from the menu bar) and the TNT products (Edit Relations from the Make Table/Form icon in the element database row in the layer controls window). The view in Access is more complicated because the fields in each table are also shown in the relationship diagram and the connecting lines run between the two associated fields or the top or bottom of the list if the field is not showing in the table window. The TNT products show the table name and direction of the relationship (arrow points from table that references the primary key in another table to the table with the primary key).