## **Export**

## **Export Geometric Objects to PostGIS**

The PostgreSQL relational database system includes PostGIS spatial extensions that allow it to store geographic features as well as their associated attributes. You can use the Export process in the TNT products to export vector or CAD objects in your TNT Project Files to PostGIS (PostgreSQL spatial) database tables.

Each spatial object is stored in PostgreSQL as a separate table with one record for each spatial element. A special geometry column in each table stores the spatial coordinate information for its element, while conventional data columns hold associated attributes. A

PostGIS table can store any one of the types of spatial element found in TNT vector objects (point, line, or polygon), but there can be only one of these element types in an object per table. Therefore, when you export a vector object you are prompted to choose a single element type to export to

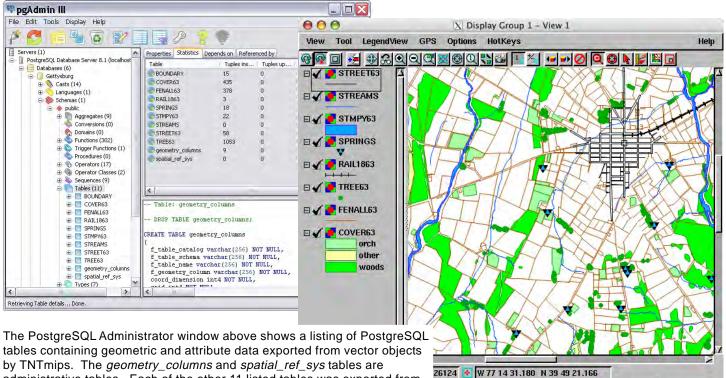
that spatial table. You also can select a single associated attribute table to provide the essential attributes to be stored in the same PostGIS table. PostgreSQL provides no explicit mechanism for storing style information, so no display styles are exported.

If the TNT geometric object you export includes a number of related attribute tables, you can use the PostgreSQL Database export to separately export these additional tables to the same PostgreSQL database to which you exported the spatial object. Keyfield designations and relationships are not set automatically by the export, so you will need to set these manually in PostgreSQL after the tables are exported. Alternatively, you could use the TNT Database Editor to preprocess the attribute information for the vector or CAD object prior to export so that all of the desired attributes are included in a single database table that you can then select for export with the elements to PostGIS.

| Name                  | Extension      | Description          |  |
|-----------------------|----------------|----------------------|--|
| POSTGIS               |                | PostGIS Spatial data |  |
| POSTGRESC             |                | PostgreSQL Database  |  |
| SIMPLE-ARR            | AY             | Simple array         |  |
| – Objects to I        | Export ———     |                      |  |
| Select Objects Remove |                | Remove All           |  |
| GettysburgP           | kGIS.rvc / COV | /ER63                |  |
|                       | Export Para    | mators               |  |

The PostGIS export prompts you to choose the element type and one associated attribute table to export, then provides a dialog to allow you to log in to the PostgreSQL database.

| 000         | X Database | Login     |
|-------------|------------|-----------|
| Host        | 10.0.0.109 | 1         |
| Port Number | 5432       |           |
| User Name   | rsmith     |           |
| Password    | ****       |           |
| Database    | Gettysburg | 🗾 Query   |
| Schema      | public     | ▼ Query   |
|             |            | OK Cancel |



tables containing geometric and attribute data exported from vector objects by TNTmips. The *geometry\_columns* and *spatial\_ref\_sys* tables are administrative tables. Each of the other 11 listed tables was exported from a single TNT vector object. The View to the right displays some of these PostgreSQL spatial (PostGIS) tables after linking and restyling in TNTmips.