Unpacking GNAF
Quick Reference Guide

Geoscape

References

- G-NAF Product Description

Tools and Resources

- G-NAF dataset (PSV format)
- Relational database application

Overview

This document is provided as a simple guide to setting up G-NAF data in a database for the first time.

It is assumed you have a developed understanding of relational databases and using structured query language (SQL).

What is G-NAF?

G-NAF (Geocoded National Address File) is a trusted index of Australian address information. It contains the state, suburb, street, number and coordinate reference (or "geocode") for street addresses in Australia. G-NAF does not contain any personal information or details relating to an individual or business.

G-NAF is a large dataset. It contains nearly 14 million addresses.

A G-NAF release is provided with the following resources:

- **Documents** folder containing the G-NAF Product Description and current Release Notes.

- **Extras** folder containing example SQL scripts to assist in database creation.

- **Authority Code** folder of tables which contain common lookup values such as street types. There are 15 tables.

- **Standard** folder of tables comprising address data. These tables are grouped by their state/territory jurisdiction. Each of the 9 jurisdiction categories has 16 tables, therefore, a dataset of national coverage would require all 144 tables to be imported.
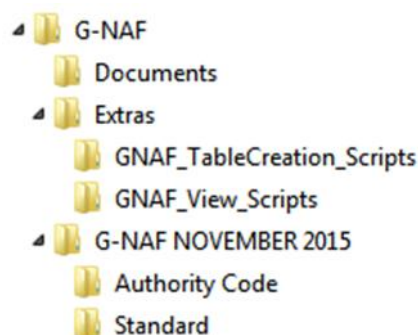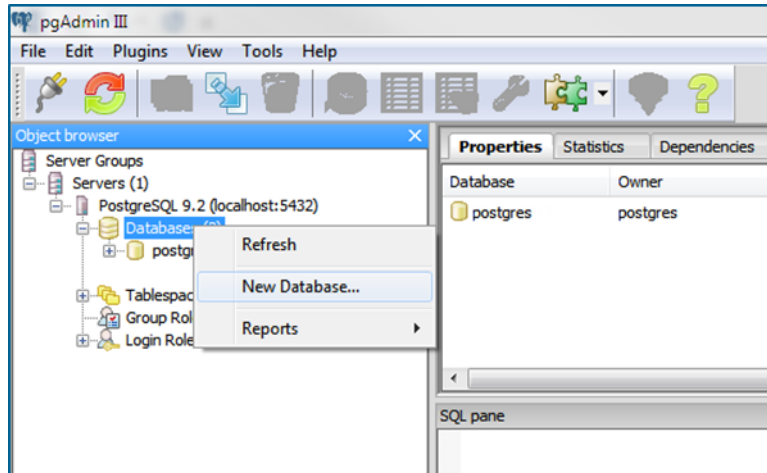
**Process Overview**
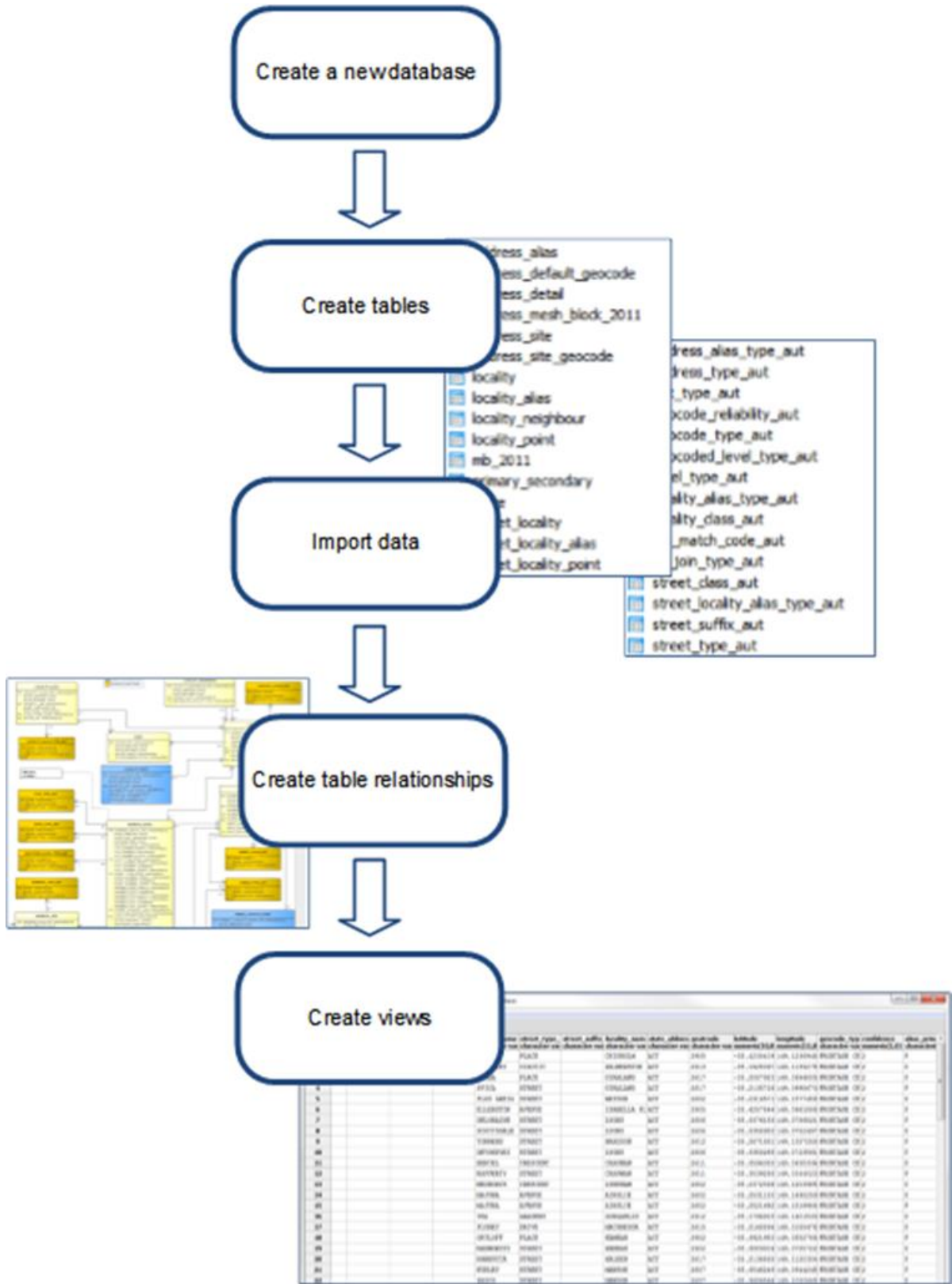
Process

Create a new database

Using your chosen database application, create a new database.

Create Tables

- You will need to create the necessary tables in your database.

- The tables can be created individually using the G-NAF data model provided in Appendix B of the Product Description as a guide.

- Alternatively, in the 'Extras\' folder provided with G-NAF data, an example table creation script is provided: create_tables_ansi.sql

- Running the provided script should create all the necessary tables with their associated properties for you.
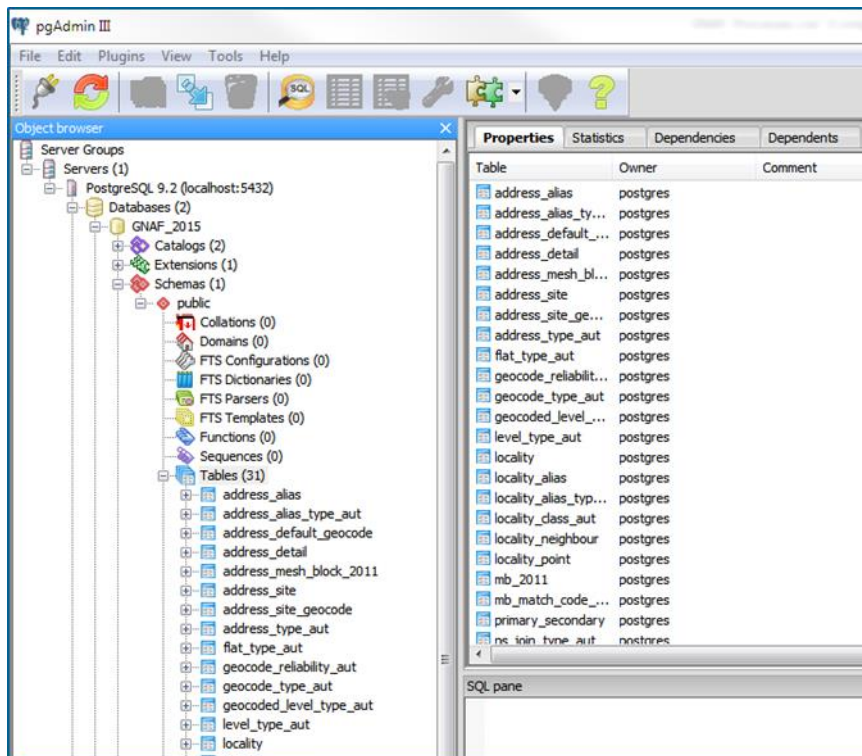
Import Data

- Using your database import utility, progressively import the G-NAF data into your database tables.

- Ensure you select the correct delimiter for the data ("|")

- Import all the Authority Code data from the 'Authority Code' directory. The following list shows the relationship between the database tables and their respective data file:

Database Table	Data File
ADDRESS_ALIAS_TYPE_AUT	Authority_Code_ADDRESS_ALIAS_TYPE_AUT_psv.psv
ADDRESS_TYPE_AUT	Authority_Code_ADDRESS_TYPE_AUT_psv.psv
FLAT_TYPE_AUT	Authority_Code_FLAT_TYPE_AUT_psv.psv
GEOCODE_RELIABILITY_AUT	Authority_Code_GEOCODE_RELIABILITY_AUT_psv.psv
GEOCODE_TYPE_AUT	Authority_Code_GEOCODE_TYPE_AUT_psv.psv
GEOCODED_LEVEL_TYPE_AUT	Authority_Code_GEOCODED_LEVEL_TYPE_AUT_psv.psv
LEVEL_TYPE_AUT	Authority_Code_LEVEL_TYPE_AUT_psv.psv
LOCALITY_ALIAS_TYPE_AUT	Authority_Code_LOCALITY_ALIAS_TYPE_AUT_psv.psv
LOCALITY_CLASS_AUT	Authority_Code_LOCALITY_CLASS_AUT_psv.psv
MB_MATCH_CODE_AUT	Authority_Code_MB_MATCH_CODE_AUT_psv.psv
PS_JOIN_TYPE_AUT	Authority_Code_PS_JOIN_TYPE_AUT_psv.psv
STREET_CLASS_AUT	Authority_Code_STREET_CLASS_AUT_psv.psv
STREET_TYPE_AUT	Authority_Code_STREET_TYPE_AUT_psv.psv
STREET_LOCALITY_ALIAS_TYPE_AUT	Authority_Code_STREET_LOCALITY_ALIAS_TYPE_AUT_psv.psv
STREET_SUFFIX_AUT	Authority_Code_STREET_SUFFIX_AUT_psv.psv

- Next, import the address data from the 'Standard' directory. This data is broken up into state/territory jurisdiction categories as indicated by the prefix on the file name. To create a national dataset, you will need to repeat your steps to append additional jurisdiction data to its corresponding table.

- The following shows the relationship of the address table to address data for the ACT:

Database Table	Data File
ADDRESS_ALIAS	ACT_ADDRESS_ALIAS_psv.psv
ADDRESS_DEFAULT_GEOCODE	ACT_ADDRESS_DEFAULT_GEOCODE_psv.psv
ADDRESS_DETAIL	ACT_ADDRESS_DETAIL_psv.psv
ADDRESS_MESH_BLOCK_2011	ACT_ADDRESS_MESH_BLOCK_2011_psv.psv
ADDRESS_SITE_GEOCODE	ACT_ADDRESS_SITE_GEOCODE_psv.psv
ADDRESS_SITE	ACT_ADDRESS_SITE_psv.psv
LOCALITY	ACT_LOCALITY_psv.psv
LOCALITY_ALIAS	ACT_LOCALITY_ALIAS_psv.psv

Database Table	Data File
`LOCALITY_NEIGHBOUR`	ACT_LOCALITY_NEIGHBOUR_psv.psv
`LOCALITY_POINT`	ACT_LOCALITY_POINT_psv.psv
`MB_2011`	ACT_MB_2011_psv.psv
`PRIMARY_SECONDARY`	ACT_PRIMARY_SECONDARY_psv.psv
`STATE`	ACT_STATE_psv.psv
`STREET_LOCALITY`	ACT_STREET_LOCALITY_psv.psv
`STREET_LOCALITY_ALIAS`	ACT_STREET_LOCALITY_ALIAS_psv.psv
`STREET_LOCALITY_POINT`	ACT_STREET_LOCALITY_POINT_psv.psv
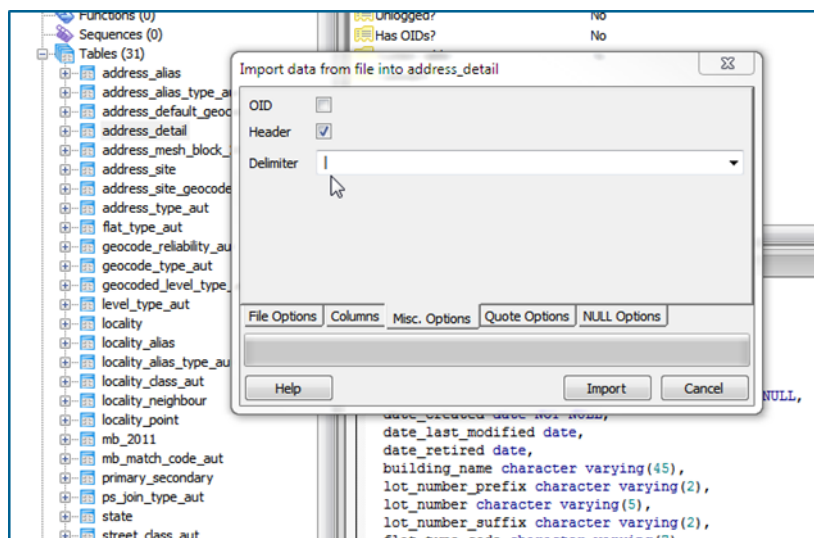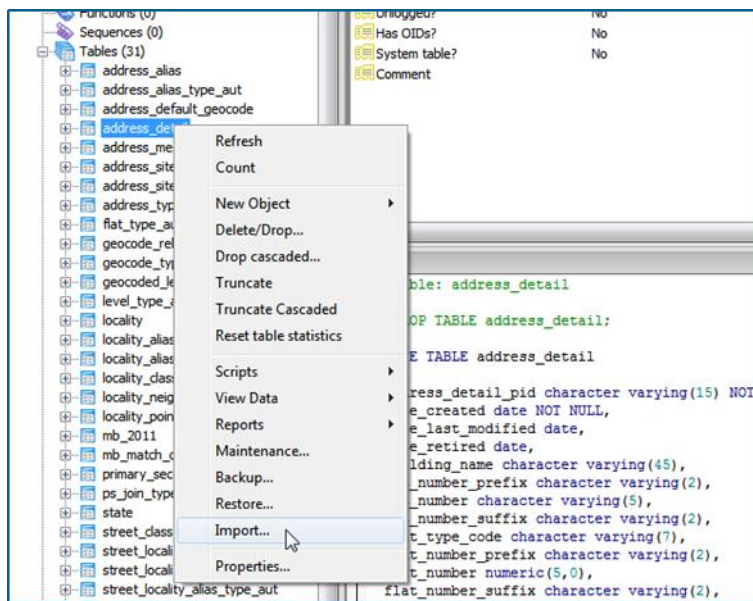
Create Table Relationships

- You will need to create the necessary primary and foreign key relationships and constraints between your database tables.

- A detailed G-NAF data model is provided in Appendix B of the Product Description.

- In the 'Extras\' folder provided with G-NAF data, an example script to create the relationships is provided: add_fk_constraints.sql

- Running the provided script should create all the necessary relationships for you.

Create Views

- You are now ready to create database views to explore the G-NAF data.

- In the 'Extras\' folder provided with G-NAF data, an example view script is provided: address_view.sql

- Running this script should create a view displaying a range of address information.

More Information

- For more information, refer to the G-NAF Product Description or contact a Geoscape partner (www.geoscape.com.au)