

Introduction to PostGis : data management and geoprocessing

Author

Andrea De Bono, UNEP GRID-Geneva, *Switzerland*

PostGIS is an open source, freely available, and fairly OGC compliant spatial database add-on for the PostgreSQL relational database server. It adds spatial functions such as distance, area, union, intersection, and specialty geometry data types to the database, allowing advanced spatial processing and querying.

Objectives

introduce the participant in the world of geodatabases by using a very powerful tool: PostGIS. The workshop will furnish to the participant basic notions allowing:

- create a geodatabase
- Load geodata and work with geometry and attributes
- Querying data and examples of geoprocessing
- View results in QGIS

Program

1. Introduction to PostGis
 - ▶ What is a Spatial Database ?
 - ▶ Spatial Column Types
 - ▶ Spatial Indexes and Bounding Boxes
 - ▶ Spatial Functions
 - ▶ What is PostGIS ?

- ▶ A brief history of PostGIS – Successive versions
 - ▶ Who uses PostGIS ?
 - ▶ What applications support PostGIS ?
2. A few words about the installation
 3. Creating a Spatial Database (using template /by command line)
 4. Loading spatial data
 - ▶ Import export (shp2pgsql, load a sql)
 - ▶ Spatially enable an existing dataset
 5. View data using QGIS, (ArcMap)
 - ▶ Add layers, style editor.
 6. Examples of simple queries
 7. Dumping data and databases
 8. PostGis functions overview

Audience

Beginner

Prerequisites

Basic GIS notions

Language

English or French