

Introduction to Open Source GIS

Sussex Linux User Group

Presentation Structure

- What's GIS
- Where can I use it?
- Where can I get digital maps?
- Can you show me an example?

Geographic Information System

What is GIS?

“Geographic information systems (GIS) or geospatial information systems is a set of tools that captures, stores, analyzes, manages, and presents data that are linked to location(s). In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology.”

[Wikipedia](#)

In layman's term:
GIS is map and YES,
THE EARTH IS FLAT



antiqueprints.com

Data Type

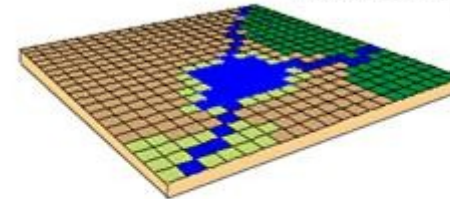
Main formats:

- Vector
- Raster

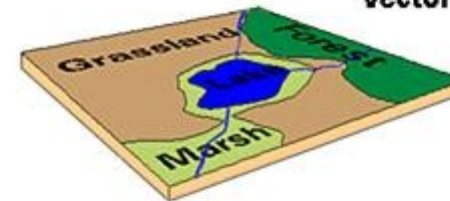
Other derivatives:

- Database
- Image

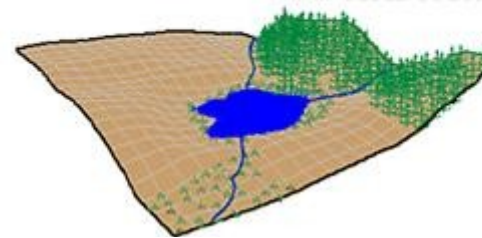
Raster / Image



Vector



Real World



Desktop GIS



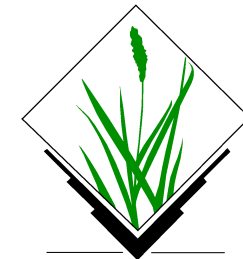
Software applications to view, edit, analyse GIS information.

Good for:

- Intense processing
- Modelling, statistical analysis, etc
- Handling large geo-databases

Some example desktop projects include:

- GRASS GIS
- Quantum GIS
- SAGA GIS
- MapWindow GIS
- uDig
- gvSIG (also on smart phones)
- JUMP GIS / OpenJUMP



Web Mapping

Useful:

- To share maps
- present information
- basic analysis and search

Some examples of webmapping projects:

- MapServer
- GeoServer
- Mapnik
- MapGuide Open Source
- OpenLayers

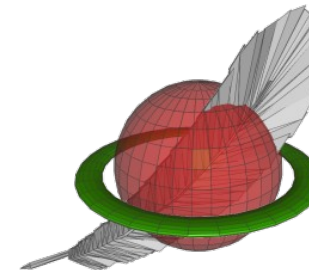


Spatial Database

A database with geographic references!

Examples:

- PostGIS (Postgresq extension)
- mysql Spatial
- Spatialite



Free Data



OpenStreetMap: It's Wikipedia....but with maps!



<http://news.bbc.co.uk/1/hi/8517057.stm>

Ordnance Survey

OpenData initiative

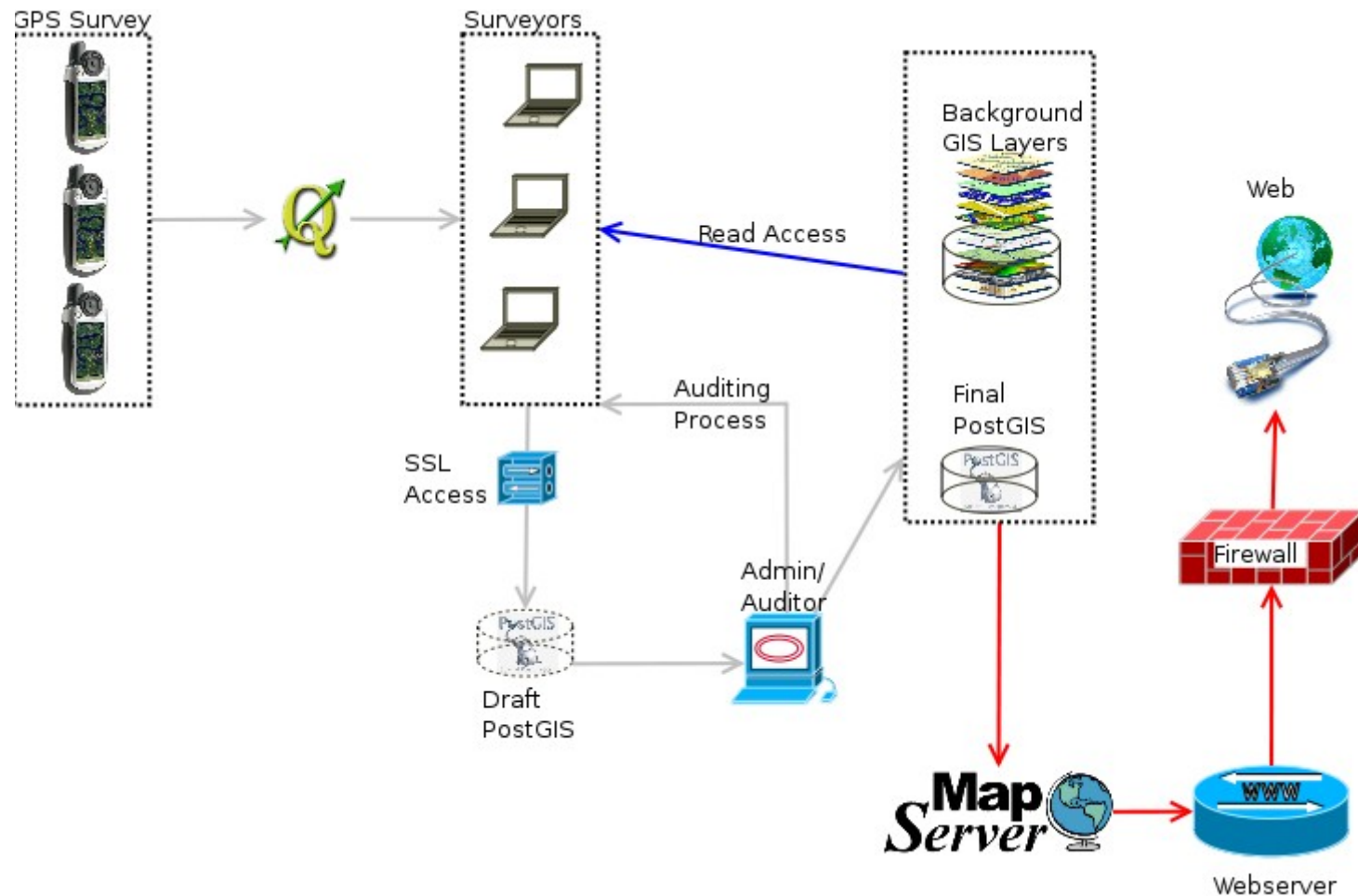
<http://www.ordnancesurvey.co.uk/oswebsite/opendata/index.html>



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Some Examples

Rainforest Foundation



Example

Wadi Hanifah Flood Mapping