

The FOSS GIS Stack

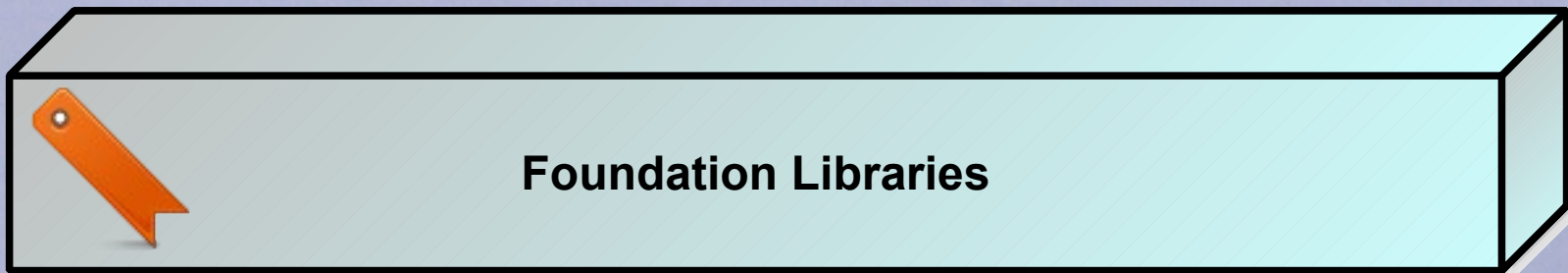
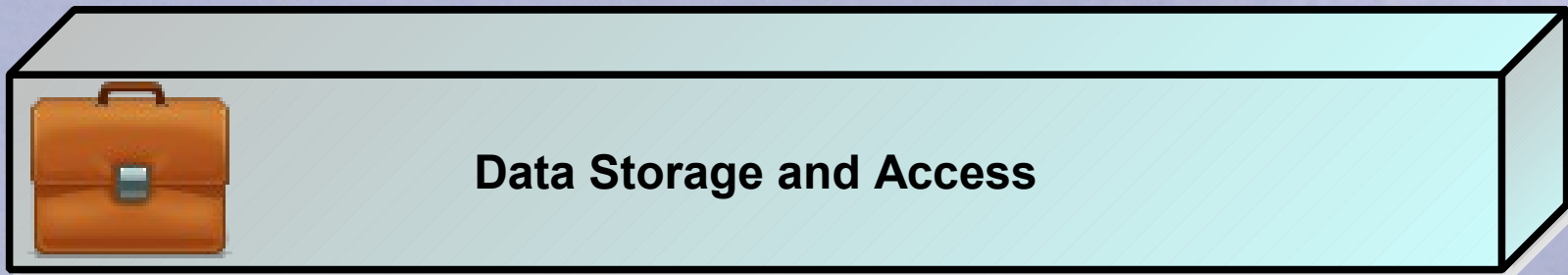


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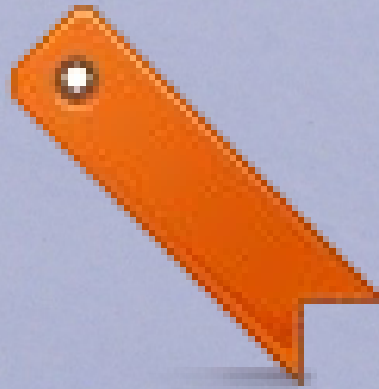
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FOSS GIS Stack



Foundation Libraries

- Provide low level GIS capabilities:
 - Read and write different data formats
 - Coordinate transformation capabilities
 - Data transformation capabilities
 - Geometry handling and computation



Data Storage and Access

- Move data from physical media to application
 - File based e.g. GDAL/OGR
 - Database hosted e.g. PostGIS, SpatialLite

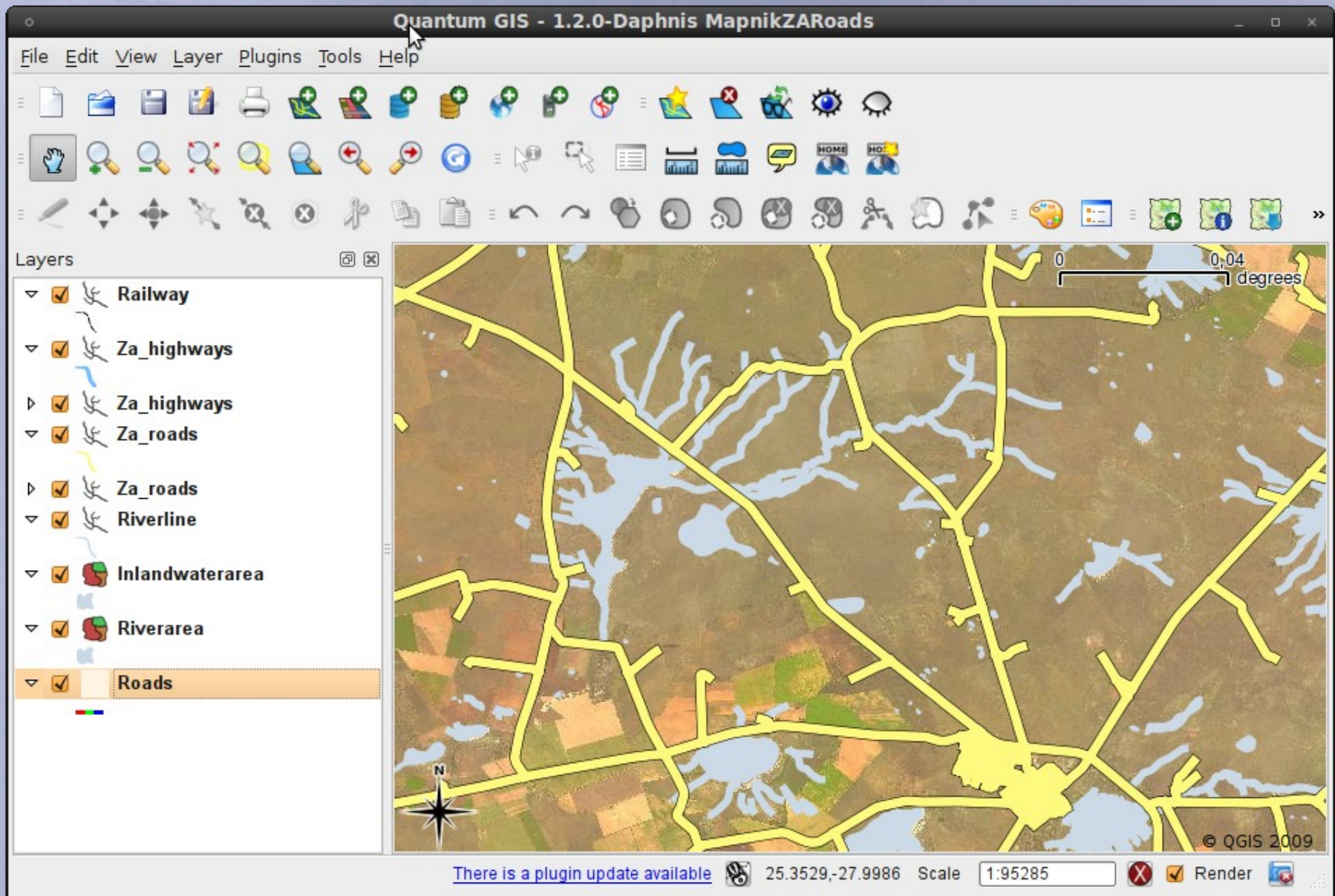


Desktop

- Traditional Desktop GIS Applications
 - Quantum GIS
 - uDig
 - GRASS
 - SAGA
 - gvSIG



QGIS Screenshot



Web GIS

- Providing GIS capabilities over the 'net'
 - Server-side
 - Mapserver
 - Geoserver
 - TileCache
 - MapGuide
 - Client-side
 - OpenLayers
 - pMapper



Services

- Provide 'glue' between disparate applications
 - WMS
 - WFS(-T)
 - WCS
 - CSW



Standards body called OGC defines these standard services

Language Tribes

- Open Source not Linux only
 - C/C++ tribe
 - Java tribe
 - Python, R Tribes
 - .Net & VB



Building an SDI

- FOSSGIS has high level applications for building an SDI
 - GeoNetworks



Open Data

- Whats the use of Free software without Free data?
 - Citizen mapping – taking over where our government and local government let us down
 - SA is quite good – CDSM vector data available for free
 - Open Street Map
 - Open Arial Map
 - Lots of free web services



Community & Support

- FOSSGIS is community based
 - OSGEO-Africa mailing list
 - Workshops
 - IRC Channel
 - Events e.g. FOSSGIS2008 in CT
- Commercial Support
 - Commercial support and training is available in SA
 - There are business and career opportunities



Conclusion

- You can do most everything you want in FOSS4G
- It is fun and a rising force
- There are opportunities to do real work with it and a real community
- There is an economic imperative – keep money in our local economy and build our own skills

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