

# Introducing Quantum GIS



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# What is QGIS?



**A Free, Open Source Desktop GIS application**



**A set of developer libraries for building geospatial-aware applications**



**A community of developers, documentors, translators, users**

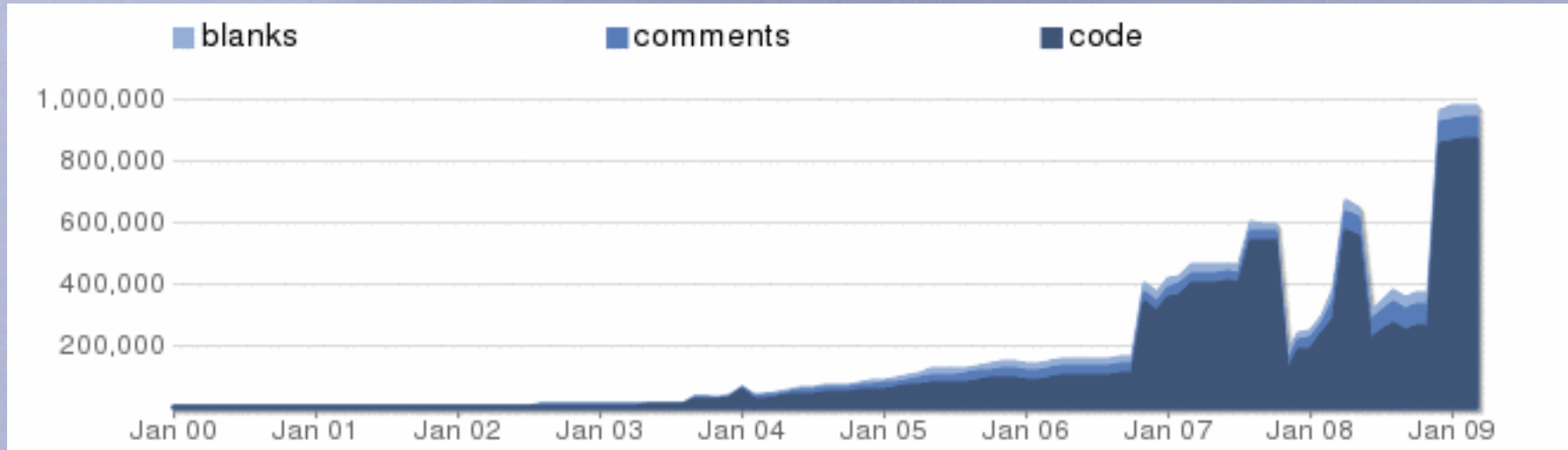


# Free Software?

- Two meanings of **Free**:
  - Liberty
  - No cost
- **Liberty** : freedom to view and augment the codebase and to redistribute those changes
- **No Cost**: it is allowed to charge for Free software though it is unusual.
- QGIS is completely free in both senses of the word



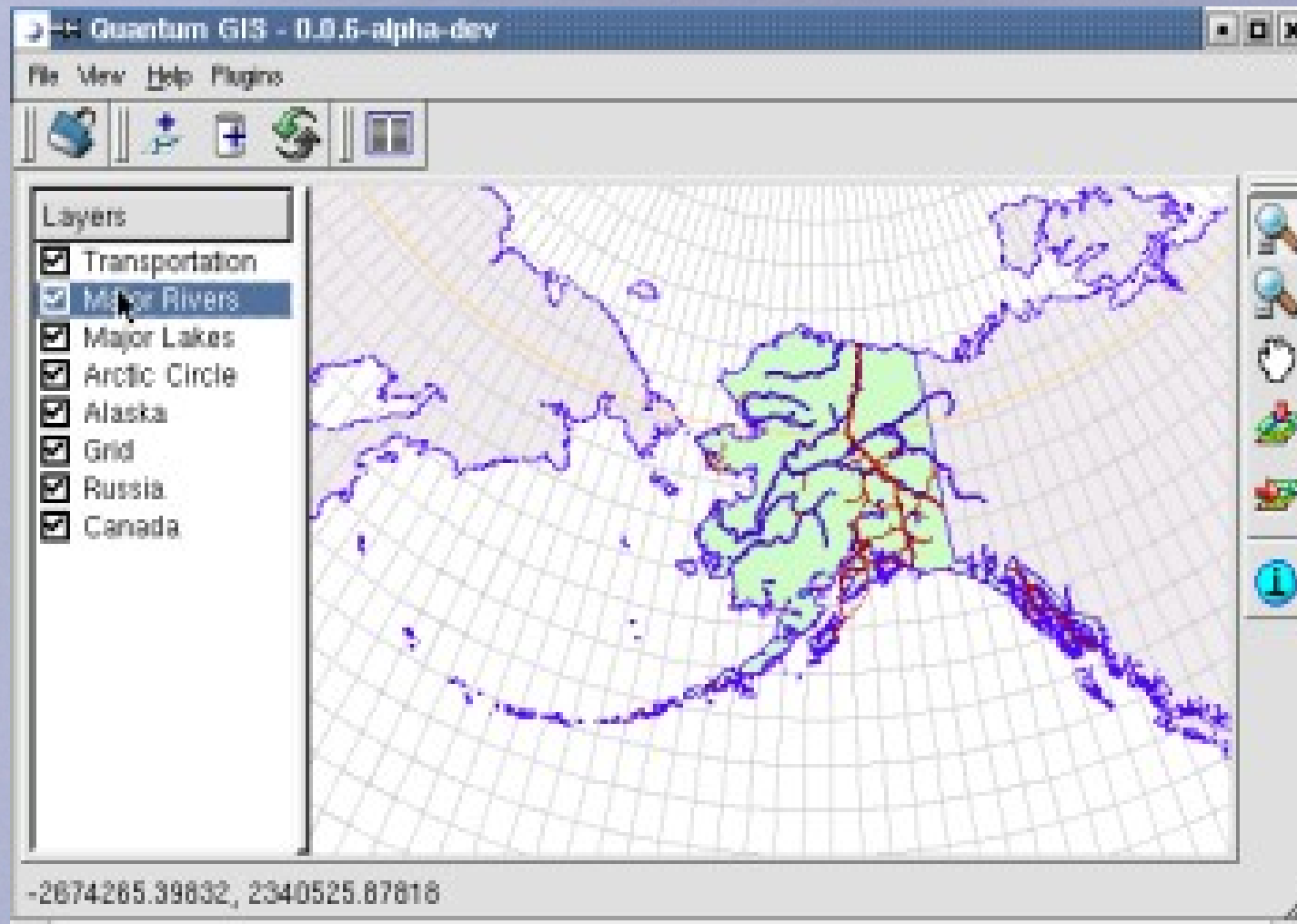
# Intellectual Property



- **38** Committers over the life of the project
- **124,496** lines of code
- Of which **38,203** are comments
- **657,692** lines of translations



# In the beginning...2002




# Release early, release often

Version	Codename	Release date
0.0.1-alpha		July 2002
0.0.3-alpha		August 10, 2002
0.0.4-alpha		August 15, 2002
0.0.5-alpha		October 5, 2002
0.0.6		November 24, 2002
0.0.7		November 30, 2002
0.0.8		December 11, 2002
0.0.9		January 25, 2003
0.0.10		May 13, 2003
0.0.11		June 10, 2003
0.0.12		June 10, 2003
0.0.13		December 8, 2003
0.1pre1		February 14, 2004
0.1	Moroz	February 25, 2004
0.2	Pumpkin	April 26, 2004
0.3	Madison	May 28, 2004
0.4	Baby	July 4, 2004
0.5	Bandit	October 5, 2004
0.6	Simon	December 19, 2004
0.7	Seamus	
0.7.3		October 11, 2005
0.8		January 7, 2007
0.8.1	"Titan"	June 15, 2007
0.9.0		October 26, 2007
0.9.1	"Ganymede"	January 6, 2008
0.10	"Io"	May 3, 2008
0.11.0	"Metis"	July 21, 2008
<b>1.0.0 (stable)</b>	<b>"Kore"</b>	<b>January 5, 2009</b>
1.1.0 (development)	"Pan"	May 12, 2009
1.2.0 (development)	"Daphnis"	September 1, 2009
1.3.0 (development)	"Mimas"	September 20, 2009

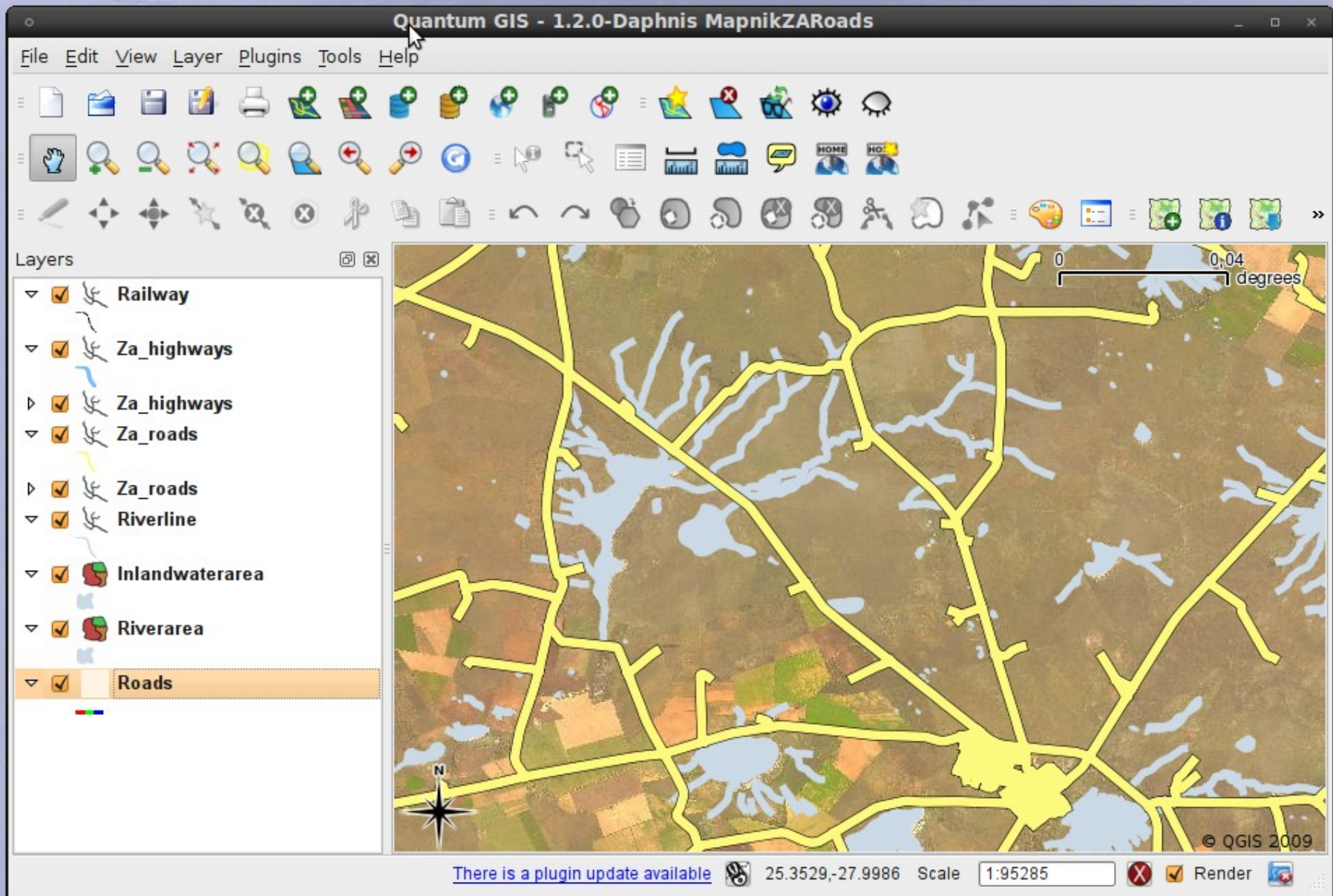


# Version 1.0 Features

- Load numerous **vector** and **raster** formats (e.g. Shp, mif, gml, PostGIS, Gtiff, ECW, SID, img, etc, etc.)
- OGC Client for **WMS**, **WFS** 
- **GRASS** Frontend
- **Python** language bindings with rich **plugin** ecosystem
- **Stable API** and Frozen User Interface



# QGIS 7 years later...

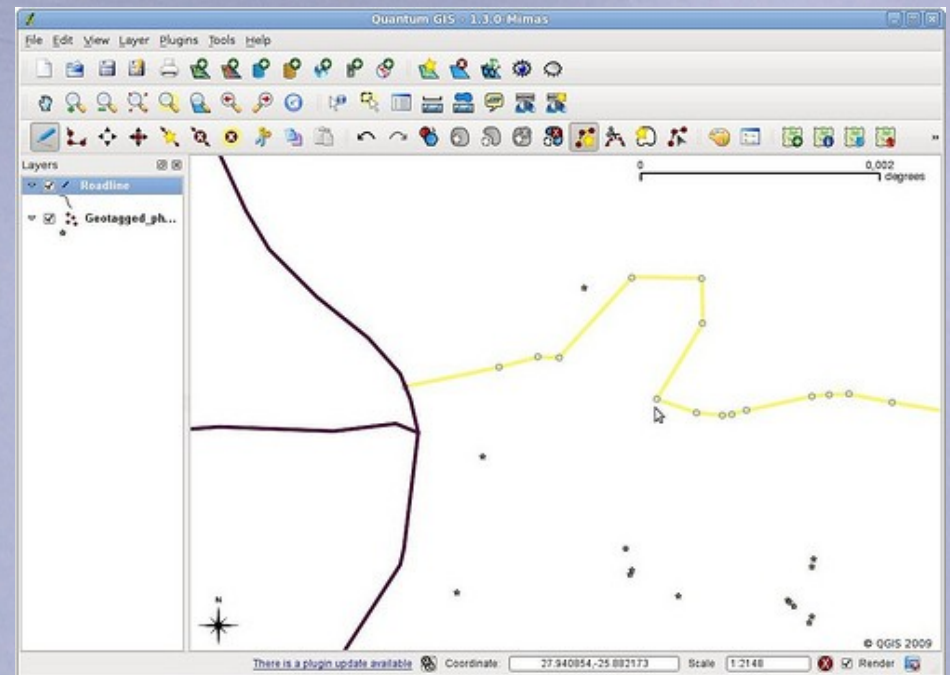
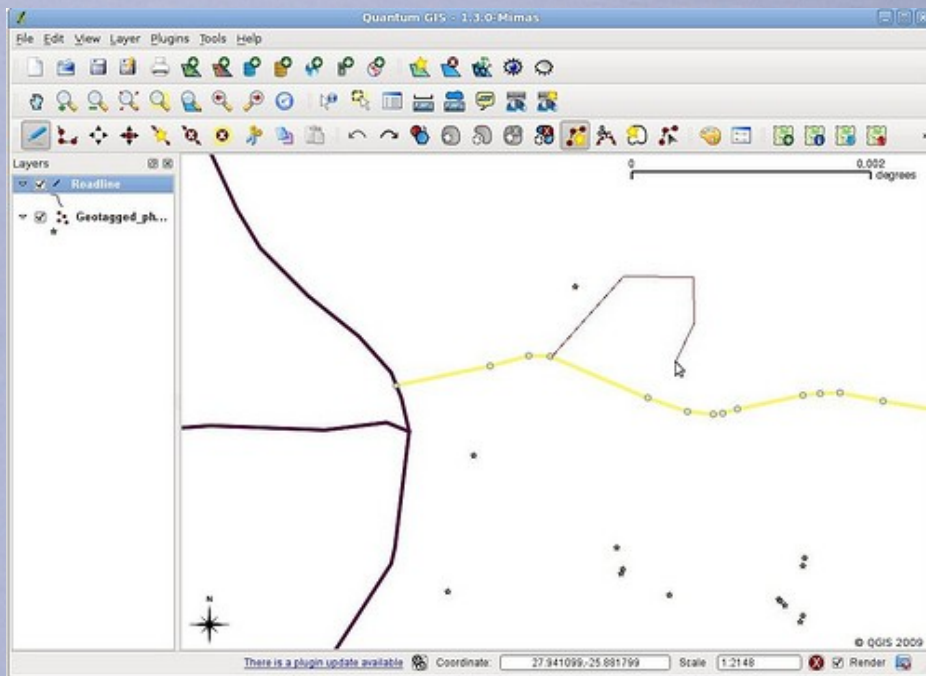


# 1.3 Features

- Advanced vector editing
- Open Street Map integration
- Analysis library
- Hundreds of plugin based tools



# 1.3 Editing



# Community

- QGIS is not just software – its a community
- Community has grown over 7 years
- Developers, contributors, documentors, translators, bug reporters, and **users**
- Estimated userbase 50 000 (thumbsuck)



# Case Study 1

- QGIS is being used in education
- High quality resources provide a foundation for learners to learn about GIS
- Tutorials, Screencasts, Sample Data
- Sponsored by the Office of the Premier, Eastern Cape, South Africa

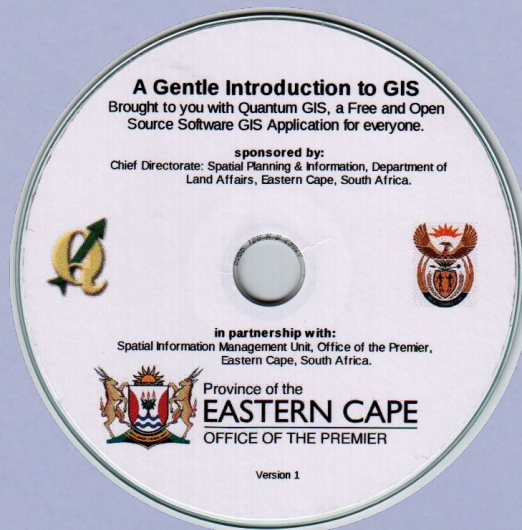


Province of the  
**EASTERN CAPE**  
OFFICE OF THE PREMIER



# Case Study 1

- Target CD for lowest common platform
- Interactive videos lead users step-by-step through common GIS tasks
- All content released under open license (GPLD)
- Global interest and uptake of the resource



# Case Study 2

- Canton Solothurn, Switzerland
- Replaced proprietary GIS stack with FOSS GIS
- Combine QGIS, GRASS, PostgreSQL, Mapserver and others
- Cater for all provincial GIS needs e.g. Cadastral management, street furniture, police dispatch



# Case Study 2

- Business approach:
  - Reduce dependency on Proprietary vendors
  - Repurpose portion of license fees that would have been spent on proprietary GIS to sponsor the development of critical features in FOSS GIS
  - Contribute sponsored changes back to FOSS projects
  - Used open nature of source base to facilitate in-house customisation

”A rising tide raises all ships”



# Proprietary Parrallels

## Proprietary

- Oracle
- Oracle Spatial
- ArcServer
- ArcView

## FOSS

- PostgreSQL
- PostGIS
- Mapserver, GeoServer
- QGIS, GRASS



# 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 mailing lists
  - Workshops
  - IRC Channel
  - Events e.g. FOSSGIS2008 in CT
- Commercial Support
  - Commercial support and training is available in SA and worldwide
  - There are business and career opportunities



# Resources

The screenshot shows a web browser window with the address bar at <http://qgis.org/>. The page title is "Welcome to the Quantum GIS Project". The browser's tab bar shows several open tabs, including "linfiniti.com", "/branches - ...", "SourceForge.n...", "Quantum GIS", "Internet Archi...", "(Untitled)", and "Welcome to t...".

The website header features the Quantum GIS logo (a green stylized 'Q' with a leaf) and the text "Quantum GIS". A search bar is located in the top right corner with the placeholder text "search...". Below the header is a navigation menu with links for "QGIS Wiki", "QGIS Blog", "QGIS Forum", and "QGIS Bugs".

The main content area has a dark blue background with the text "Quantum GIS Version 1.0.0" and the slogan "Kore". A text box on the left side of this area reads: "The Quantum GIS project will hold a QGIS Developer Meeting in Hannover, Germany from March 19-22, 2009. Find all information to participate and sponsor the meeting at the [QGIS Hackfest](#) webpage."

On the left side of the page, there is a "Main Menu" section with a list of links: Home, About QGIS, Community, Documentation, Download, Commercial Support, Sponsorship, and Advanced Search. Below this is a "Support QGIS!" section with a "Make A Donation" button.

The main content area has a section titled "Welcome to the Quantum GIS Project" with the following text:

Quantum GIS (QGIS) is a user friendly Open Source Geographic Information System (GIS) licensed under the GNU General Public License. QGIS is an official project of the Open Source Geospatial Foundation (OSGeo). It runs on Linux, Unix, Mac OSX, and Windows and supports numerous vector, raster, and database formats and functionalities.

Quantum GIS provides a continuously growing number of capabilities provided by core functions and plugins. You can visualize, manage, edit, analyse data, and compose printable maps. Get a first impression with some screenshots and a more detailed feature list.

Quantum GIS is a volunteer driven project. We welcome contributions from in the form of code contributions, bug fixes, bug reports, contributed documentation, advocacy and supporting other users on our [mailing lists](#) and the [QGIS Forum](#). If you are interested in actively supporting the project, you can find more information under the development menu and on the [QGIS Wiki](#). We also welcome financial contributions in the form of sponsoring and funding.

# Conclusion

- You can do most everything you need in FOSS GIS
- It is fun and a rising force
- GIS is ready to do real work
- There is an economic imperative – circulate money in our local economies and build local skills
- Reduce dependence on proprietary vendors and inject capital into projects that have broad reaching benefits



# Contact



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