



Joint Secretary JVGC) and Open Source software tools (Prof. Venkatesh Raghavan, Director, OSGeo). The afternoon session included actual installation of Open Source software tools and demonstrations including Vietnamese language localisation (Dr. Go YONEZAWA, Kyoto University and Mr. Ninsawat SARAWUT, Osaka City University) Participants were presented with the Osaka City University (OCU) FOSS4G toolkit CD including GIS/RS and Web-GIS software for self-learning.

The post-workshop meeting for establishing the Vietnam after the workshop that was attended by more than 40 participants and members decided to establish the Vietnam OSGeo Chapter. Mr. Dao Van TUYET, Institute of Information Technology, VAST-HCMC was nominated as the Vietnam OSGeo Chapter representative and Dr. Ho Dinh Duan, Institute of Physics, VAST-HCMC was nominated as one of the coordinators of the Vietnam OSGeo Chapter. The proposal for establishment of OSGeo Vietnam Chapter is being prepared by the chapter representative and will be finalised in January, 2007. The highlight of the workshop along with the news about the proposed Vietnam OSGeo Chapter was broadcast on Ho Chin Minh television news on 8th November, 2006. This was per-

haps the first official television news program in the world wherein OSGeo was specifically mentioned several times (http://wgrass.media.osaka-cu.ac.jp/gisideas06/foss4g_ws_on_hcmctv.swf).

The OSGeo booth was operated on all the three days (9-11 November, 2006). The poster session was preceded by lightning-talk on proposed activities of OSGeo Vietnam by Mr. Do Long Van. Details about activities of OSGeo were also presented in the Technical Session by Prof. Venkatesh Raghavan (<http://wgrass.media.osaka-cu.ac.jp/gisideas06/viewabstract.php?id=166>). The OSGeo Booth at GIS-IDEAS 2006 included attracted attention of almost all the symposium participants. Brochure and posters explaining the activities of OSGeo and various OSGeo projects were made available at the booth.

*Dr. Ho Dinh Duan
Institute of Physics
VAST – HCMC, Vietnam*

*Prof. Venkatesh RAGHAVAN
Graduate School of Creative Cities
Osaka City University, Japan*

Quantum GIS

What's New in 0.8

by Gary E. Sherman

Introduction

Version 0.8 of Quantum GIS (QGIS) is nearing release. Many of you may be wondering why its been so long in coming. At 0.8, we converted the QGIS code base to use Qt 4.x. This was a major overhaul and took longer than anticipated. With that job behind us, we look forward to more frequent incremental releases in the future.

In addition to the port to Qt 4.x, version 0.8 adds a number of new features and enhancements.

New Features and Enhancements

New features in QGIS 0.8 include:

- WMS support
- Improved vector and attribute editing
- Improved measure tools with area measuring
- Attribute searching
- New legend structure
- Refactoring of API to allow the use of QGIS libraries in mapping applications
- Improved MapServer export tool

- Vector layer transparency and antialiasing
- GRASS support in all platforms
- Enhanced GRASS support and toolbox commands
- Enhanced vector editing, including copy, cut, paste, snapping and vertex editing
- Shapefile/OGR layer editing

Based on an informal poll on <http://qgis.org>, it appears that people are most interested in the GRASS tools, WMS, MapServer export, and enhanced editing.

GRASS Tools

More tools have been added to the QGIS GRASS toolbox and the interoperability has been enhanced. For those unfamiliar with the QGIS/GRASS integration, the GRASS plugin allows you to:

- Create new GRASS vector layers
- Easily import GDAL/OGR supported layers into GRASS
- Perform many processing operations, including union, intersection, subtraction, buffering, feature extraction, network analysis, create slope and aspect maps, raster to vector conversion, and layer export to other formats.
- GRASS shell gives you access to all GRASS functions from within QGIS
- Edit vector layers and attributes
- Layer browser

Figure 1 shows the new GRASS browser that allows you to view layers and detailed information about each. From the browser, you can add a layer to the map and also copy, rename, or delete a layer.

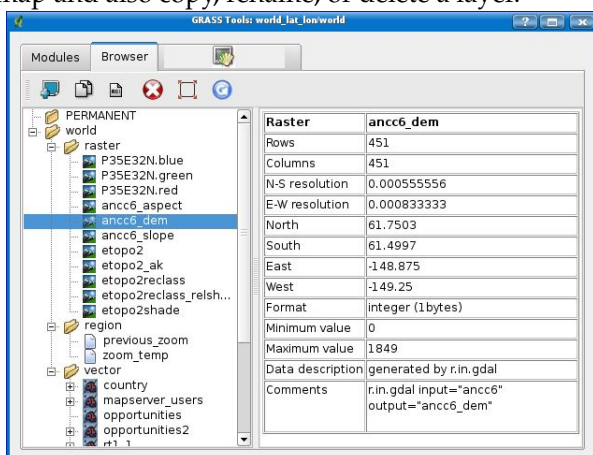


Figure 1: GRASS Browser

The GRASS shell gives you full access to all command line features of GRASS. This allows you to run GRASS commands that aren't implemented in the toolbox.

WMS

WMS support has been added for 0.8. This allows you to add layers from web mapping servers and view them along with your other vector and raster data in QGIS. A default set of servers is provided to help those new to WMS. Figure 2 shows the Server Connections dialog with the QGIS WMS layers displayed and ready to be added to the map canvas.

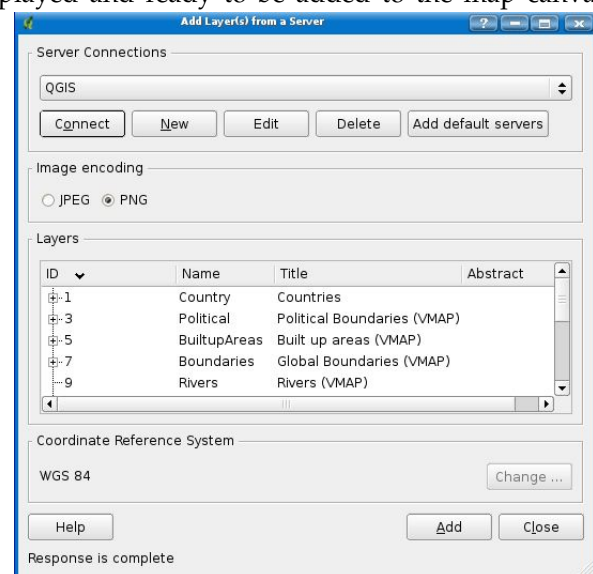


Figure 2: WMS Server Dialog Showing Layers from the QGIS Server

The WMS implementation also supports identifying vector features and a number of image formats.

MapServer Export

The MapServer export tool has been completely revamped at 0.8 and provides full support for class rendering, rasters, projections, and pretty much all the things that were missing in the original version.

The export tool now operates on a saved QGIS project rather than the currently loaded layer set. In addition, it is a standalone binary, allowing you to run it outside QGIS to export a set of project files.

Under the hood, the export tool uses a Python script (`ms_export.py`) to do the work with a GUI interface to collect the required inputs. You can use the Python script without the GUI, allowing you to script the export of a large number of QGIS project files.

Figure 3 shows the GUI front-end for the MapServer export tool. All inputs are optional except for the name of the map file

to create and the QGIS project file to export.

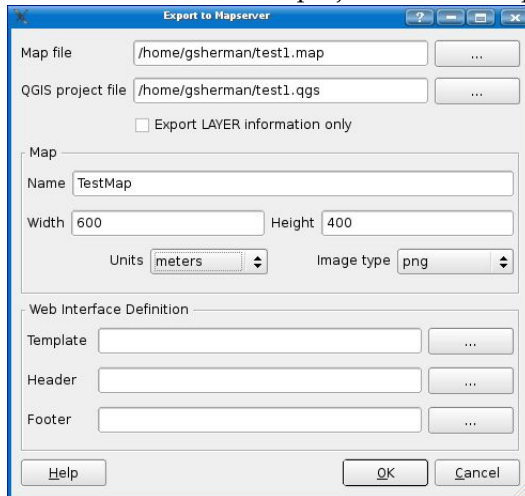


Figure 3: GUI for MapServer Export Tool

To use the script without the GUI, you need to provide all the inputs expected by `ms_export.py`. This can be done with a driver script and an example is included in your QGIS install at `./share/qgis/python/test_export.py`.

The MapServer export tool doesn't currently support fonts, label properties, point symbols, and custom line or polygon symbols. Of course the map file can be easily customized in your favorite text editor after export.

Enhanced Editing

While the QGIS/GRASS plugin already provides advanced editing capability, editing has been significantly improved for shapefiles and PostGIS layers at 0.8. You can now copy/cut/paste features between these layers. Vertex editing, including snapping has been added as well.

Other Highlights

Another new feature is the ability to search the attribute table. Figure 4 shows the new Attribute Table dialog with the search controls at the bottom of the dialog. You can search by any field in the attribute table. The Advanced search provides a complete query builder to facilitate complex searches.

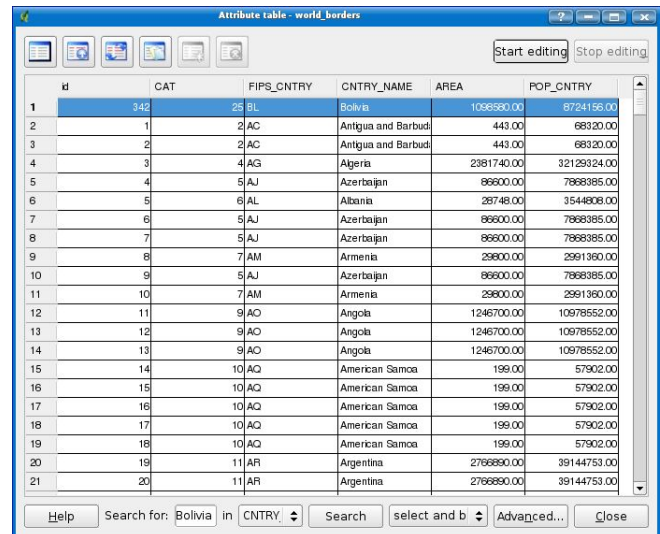


Figure 4: Attribute Searching in QGIS 0.8

The measuring tools have been enhanced and now support the measurement of area in addition to distance.

Native GRASS support is provided for all QGIS platforms, including Windows. This means you don't need Cygwin to run GRASS.

WFS support is included in the 0.8 code base but it is not built by default since it is considered to be potentially unstable. Those of you compiling QGIS from source will have the option to include WFS support.

What's Ahead

There are some exciting developments underway within the QGIS project. Foremost among these is the implementation of Python bindings for the QGIS libraries. This will allow developers to easily develop custom mapping applications in Python and PyQt4. Additional refactoring of the QGIS libraries has already been done and will be merged into the code base after the 0.8 release.

At 0.9 a mature API will be available for developing your own mapping applications in either C++ or Python. We also anticipate the ability to automate QGIS tasks as well as develop plugins using Python.

The remainder of the work leading up to QGIS 1.0 will concentrate on stabilizing and maturing existing functionality, as well as adding new features such as raster image catalogs, improved labeling, and additional data providers.

Gary E. Sherman
Quantum GIS
<http://qgis.org>
sherman AT mrcc com