Opensource softwares and tecnology, what's new?

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Main topics

- QGIS
- SAGA GIS
- Opensource softwares
QGIS – Main interface

The QGIS GUI is divided into six areas:
1. Menu Bar
2. Tool Bar
3. Map Legend
4. Map View
5. Map Overview
6. Status Bar
QGIS – Plug-in

Plugins ➔ Fetch Python Plugins...

QGIS Python Plugin Installer

<table>
<thead>
<tr>
<th>Status</th>
<th>Name</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>not installed</td>
<td>Zoom to Point</td>
<td>1.0</td>
<td>Zooms the map canvas to a coordinate you specify. You can specify</td>
</tr>
<tr>
<td>Installed</td>
<td>Plugin Installer</td>
<td>1.0</td>
<td>Downloads and installs QGIS python plugins</td>
</tr>
</tbody>
</table>

The plugins will be installed to ~/.qgis/python/plugins
# QGIS – Plug-in

The QGIS plug-in repository allows you to add and manage third-party repositories. Here are some examples of repositories and their URLs:

<table>
<thead>
<tr>
<th>Status</th>
<th>Name</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>connected</td>
<td>Carson Farmer's Repository</td>
<td><a href="http://www.ftools.ca/cfarmerQgisRepo.xml">http://www.ftools.ca/cfarmerQgisRepo.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>QGIS Contributed Repository</td>
<td><a href="http://pyqgis.org/repo/contributed">http://pyqgis.org/repo/contributed</a></td>
</tr>
<tr>
<td>connected</td>
<td>Barry Rowlingson's Repository</td>
<td><a href="http://www.maths.lancs.ac.uk/~rowlings/Qgis/Plugins/plugin">http://www.maths.lancs.ac.uk/~rowlings/Qgis/Plugins/plugin</a></td>
</tr>
<tr>
<td>connected</td>
<td>CatAIS Repository</td>
<td><a href="http://www.catais.org/qgis/plugins.xml">http://www.catais.org/qgis/plugins.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>QGIS Official Repository</td>
<td><a href="http://pyqgis.org/repo/official">http://pyqgis.org/repo/official</a></td>
</tr>
<tr>
<td>disabled</td>
<td>Martin Dobias' Sandbox</td>
<td><a href="http://mapserver.sk/~wonder/qgis/plugins-sandbox.xml">http://mapserver.sk/~wonder/qgis/plugins-sandbox.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>GIS-Lab Repository</td>
<td><a href="http://gis-lab.info/programs/qgis/qgis-repo.xml">http://gis-lab.info/programs/qgis/qgis-repo.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>Sourcepole Repository</td>
<td><a href="http://build.sourcepole.ch/qgis/plugins.xml">http://build.sourcepole.ch/qgis/plugins.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>Aaron Racicot's Repository</td>
<td><a href="http://qgisplugins.z-pulley.com">http://qgisplugins.z-pulley.com</a></td>
</tr>
<tr>
<td>connected</td>
<td>Marco Hugentobler's Repository</td>
<td><a href="http://karlinapp.ethz.ch/python_plugins/python_plugins.xml">http://karlinapp.ethz.ch/python_plugins/python_plugins.xml</a></td>
</tr>
<tr>
<td>connected</td>
<td>Volkan Kepoglu's Repository</td>
<td><a href="http://ggit.metu.edu.tr/~volkan/plugins.xml">http://ggit.metu.edu.tr/~volkan/plugins.xml</a></td>
</tr>
</tbody>
</table>

To add a third-party repository, you can use the button labeled “Add 3rd party repositories.”
QGIS – Plug-in

To enable/disable a plugin, click its checkbox or description

- **Add Delimited Text Layer**
  Loads and displays delimited text files containing x,y coordinates

- **Coordinate Capture**
  Capture mouse coordinates in different CRS

- **CopyrightLabel**
  Draws copyright information

- **Diagram Overlay**
  A plugin for placing diagrams on vector layers

- **Dxf2Shp Converter**

Plugin Directory: /home/cfarmer/apps/qgis/lib/qgis
QGIS – Live GPS tracking

View → Live GPS tracking

(a) Position coordinates
(b) GPS signal strength
(c) GPS polar window
QGIS – Live GPS tracking

Connection button

Type of connection

1. Automatic
2. Select a specific device
3. Use a remotely connected device
QGIS – Print composer

File → New print composer
<table>
<thead>
<tr>
<th>Icon</th>
<th>Purpose</th>
<th>Icon</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Icon" /></td>
<td>Load from template</td>
<td><img src="image2.png" alt="Icon" /></td>
<td>Save as template</td>
</tr>
<tr>
<td><img src="image3.png" alt="Icon" /></td>
<td>Export to an image format</td>
<td><img src="image4.png" alt="Icon" /></td>
<td>Export as PDF</td>
</tr>
<tr>
<td><img src="image5.png" alt="Icon" /></td>
<td>Export print composition to SVG</td>
<td><img src="image6.png" alt="Icon" /></td>
<td>Print or export as Postscript</td>
</tr>
<tr>
<td><img src="image7.png" alt="Icon" /></td>
<td>Zoom to full extend</td>
<td><img src="image8.png" alt="Icon" /></td>
<td>Zoom in</td>
</tr>
<tr>
<td><img src="image9.png" alt="Icon" /></td>
<td>Zoom out</td>
<td><img src="image10.png" alt="Icon" /></td>
<td>Refresh view</td>
</tr>
<tr>
<td><img src="image11.png" alt="Icon" /></td>
<td>Add new map from QGIS map canvas</td>
<td><img src="image12.png" alt="Icon" /></td>
<td>Add Image to print composition</td>
</tr>
<tr>
<td><img src="image13.png" alt="Icon" /></td>
<td>Add label to print composition</td>
<td><img src="image14.png" alt="Icon" /></td>
<td>Add new legend to print composition</td>
</tr>
<tr>
<td><img src="image15.png" alt="Icon" /></td>
<td>Add new scalebar to print composition</td>
<td><img src="image16.png" alt="Icon" /></td>
<td>Add basic shape to print composition</td>
</tr>
<tr>
<td><img src="image17.png" alt="Icon" /></td>
<td>Add arrow to print composition</td>
<td><img src="image18.png" alt="Icon" /></td>
<td>Add attribute table to print composition</td>
</tr>
<tr>
<td><img src="image19.png" alt="Icon" /></td>
<td>Select/Move item in print composition</td>
<td><img src="image20.png" alt="Icon" /></td>
<td>Move content within an item</td>
</tr>
<tr>
<td><img src="image21.png" alt="Icon" /></td>
<td>Group items of print composition</td>
<td><img src="image22.png" alt="Icon" /></td>
<td>Ungroup items of print composition</td>
</tr>
<tr>
<td><img src="image23.png" alt="Icon" /></td>
<td>Raise selected items</td>
<td><img src="image24.png" alt="Icon" /></td>
<td>Lower selected items</td>
</tr>
<tr>
<td><img src="image25.png" alt="Icon" /></td>
<td>Move selected items to top</td>
<td><img src="image26.png" alt="Icon" /></td>
<td>Move selected items to bottom</td>
</tr>
<tr>
<td><img src="image27.png" alt="Icon" /></td>
<td>Align selected items left</td>
<td><img src="image28.png" alt="Icon" /></td>
<td>Align selected items right</td>
</tr>
<tr>
<td><img src="image29.png" alt="Icon" /></td>
<td>Align selected items center</td>
<td><img src="image30.png" alt="Icon" /></td>
<td>Align selected items center vertical</td>
</tr>
<tr>
<td><img src="image31.png" alt="Icon" /></td>
<td>Align selected items top</td>
<td><img src="image32.png" alt="Icon" /></td>
<td>Align selected items bottom</td>
</tr>
</tbody>
</table>
QGIS – Print composer
QGIS – New plug-in

- Gdal tools (raster analysis)
- Geocode
- Google layers
- Open layers plug-in & Openlayers Overview
- Openstreetmap plugi-in
QGIS – Webserver

http://karlinapp.ethz.ch/qgis_wms/giscience2010/
Opensource softwares

Graphics/Drawing

1. Dia Replaces: Visio Professional ($559.95)

Like Visio, Dia is great for creating network diagrams, flowcharts, org charts and other simple relational graphics. It can save files in XML format or export to EPS, SVG, XFIG, WMF or PNG files. Operating System: Windows, Linux

2. Gimp Replaces: Photoshop CS5 ($699)

The "GNU Image Manipulation Program," lets you manipulate photographs much like you can with Photoshop. Features include a full suite of painting tools, sub-pixel sampling, full alpha channel support, layers and channels, advanced tool path, quick mask and much more. For the Windows version, you'll need to download Gimp-win. Operating System: Windows, Linux

3. Inkscape Replaces: Illustrator ($599), CorelDraw ($199)

This vector graphics program is powerful enough to meet the needs of professionals with many advanced SVG features (markers, clones, alpha blending, etc.) But it also offers a simple interface that makes it easy for novices to get started creating their own graphics or manipulating the free clip art available through the site. Operating System: Windows, Linux, OS X


PaintNet isn't quite as as powerful as Photoshop and The Gimp, but it's also not as complicated to use. It handles most photo-editing and re-touching tasks easily and supports layers, unlimited undo, special effects and many other features. Operating System: Windows
Opensource softwares

Office Productivity

1. LibreOffice Replaces: Microsoft Office ($499)

LibreOffice combines a word processor, spreadsheet, database and a graphics program with all of the features most people need. It also reads and saves in Microsoft Office formats, so no one will ever know you're not using Microsoft software. Operating System: Windows, Linux, OS X

2. Scribus Replaces: InDesign CS5 ($599), QuarkXPress ($899)

Most good desktop publishing programs cost a lot—but not Scribus. This app gives you professional-quality page layout features, including CMYK color separations, spot colors, ICC color management, and PDF creation. The interface is easy to use, and you can find a lot of help on the Web site. Operating System: Windows, Linux, OS X

3. NeoOffice Replaces: Microsoft Office ($499)

The NeoOffice team took OpenOffice.org and customized it for the Mac. As a result, it's faster and more stable and includes features like native OS X text highlighting. It's also available in mobile versions for the iPad, iPod, and iPhone. Operating System: OS X, iOS
Opensource softwares

Operating System


Designed primarily for enterprise users, Red Hat aims to give IT administrators maximum flexibility. One-year subscriptions with basic support start at $80 for the desktop version, or try Fedora for a nearly identical non-supported, free version.

2. **SUSE Replaces: Windows 7 Professional ($299.99)**

Like Red Hat, Novel makes SUSE primarily for enterprise customers, with support licenses starting at $50 for the basic desktop version. But you can get a similar program for free (without the support) from openSUSE.


One of the most user-friendly Linux variants, Ubuntu is particularly popular with home desktop users and netbook owners. The latest version offers new mobile syncing, communication and social networking features that suit the way people use their computers today.


Debian and Ubuntu are fairly similar; however, Debian has the reputation of catering to people who are more knowledgeable about Linux. It’s supported by an active community, and it gives users a lot of control and flexibility.
Opensource softwares

PDF Tools
1. PDFCreator Replaces: Adobe Acrobat Standard ($299)

Speech Recognition
1. Simon Replaces: Dragon Naturally Speaking Premium ($199.99)

Video Tools
1. Blender Replaces: AutoDesk Maya ($3,495)
2. Cinelerra Replaces: Adobe Premiere Pro CS5 ($799)
3. OpenShot Video Editor Replaces: Adobe Premiere Pro CS5 ($799)
4. Kdenlive Replaces: Adobe Premiere Pro CS5 ($799)
5. CineFX Replaces: Adobe Premiere Pro CS5 ($799)
6. Avidemux Replaces: Adobe Premiere Pro CS5 ($799)

Web Site Authoring
1. Kompozer Replaces: Adobe Dreamweaver ($399), Microsoft Expression Web ($149)
2. NVU Replaces: Adobe Dreamweaver ($399), Microsoft Expression Web ($149)
3. Bluefish Replaces: Adobe Dreamweaver ($399), Microsoft Expression Web ($149)
4. SeaMonkey Replaces: Adobe Dreamweaver ($399), Microsoft Expression Web ($149)
Thank you for your attention

QGIS website
http://www.qgis.org/index.php

Tutorial: "Development of Web GIS and Web Mapping Applications with QGIS mapserver"
http://karlinapp.ethz.ch/qgis_wms/giscience2010/

SAGA GIS website