University of Tsukuba
筑波大学

Division of
Spatial Information Science
Graduate School of Life and Environmental Sciences

SiS

Opensource softwares and tecnology, what's new?

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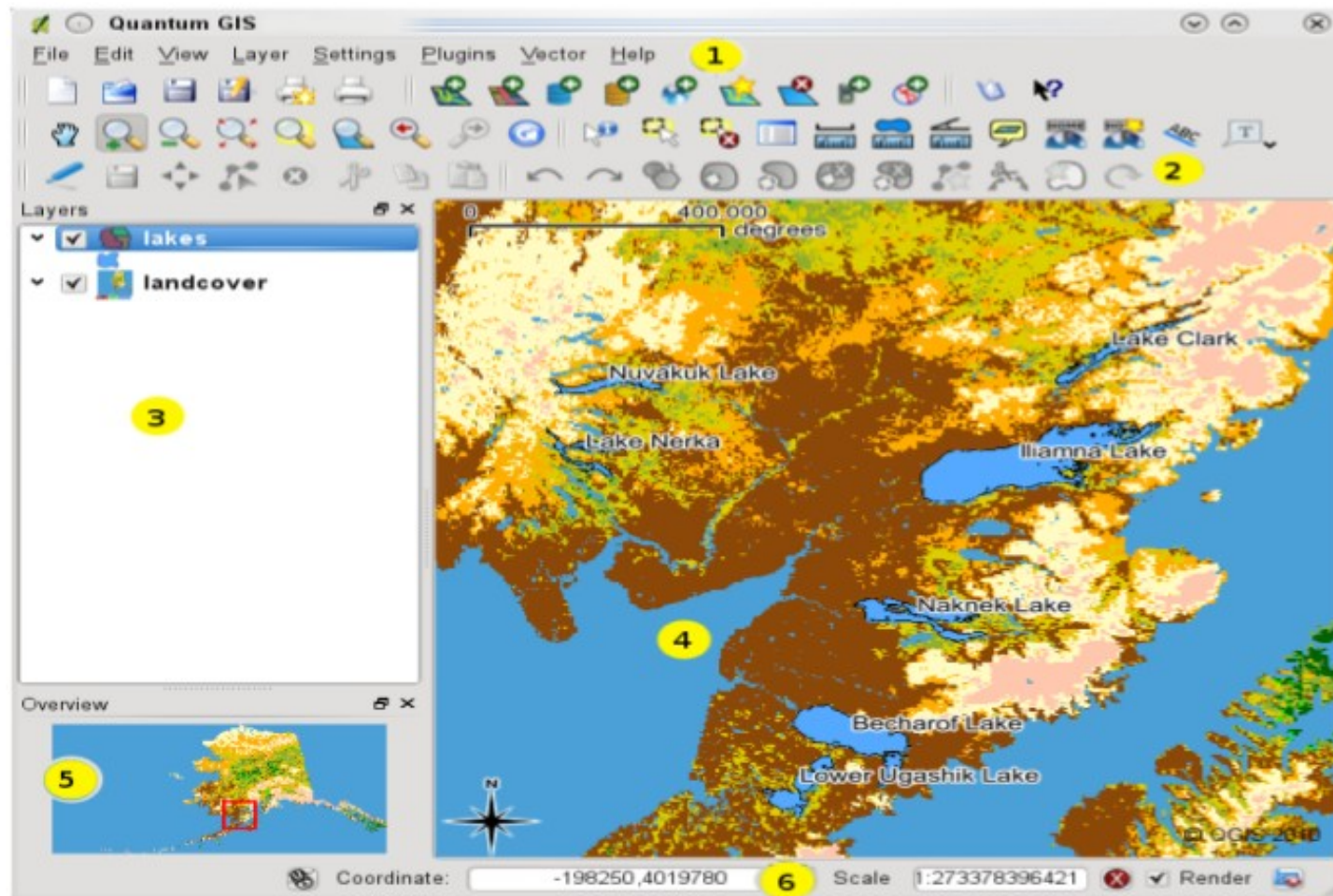
10th February 2011

Main topics

- QGIS

- SAGA GIS

- Opensource softwares

QGIS – Main interface

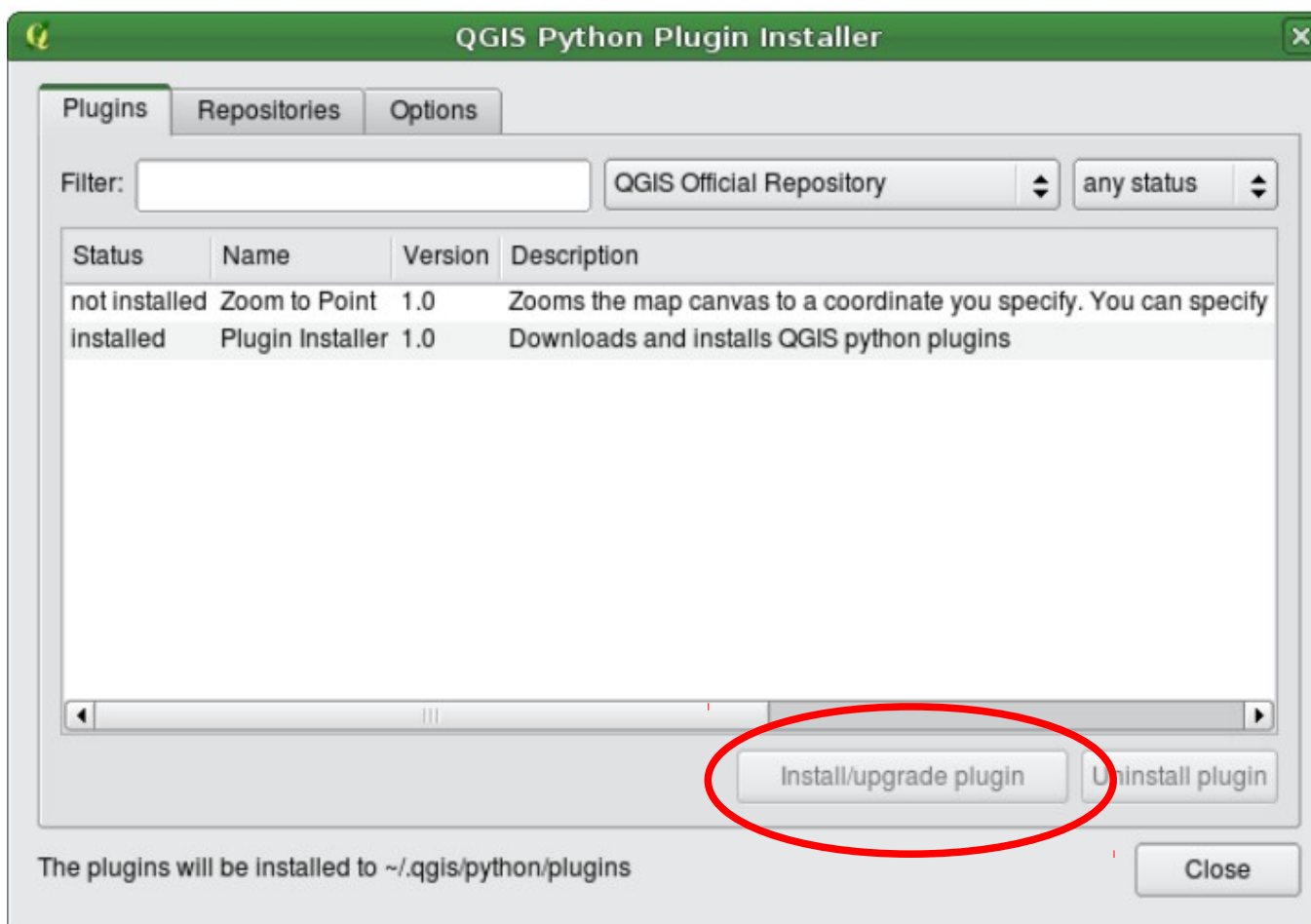The QGIS GUI is divided into six areas:

1. Menu Bar
2. Tool Bar
3. Map Legend

4. Map View
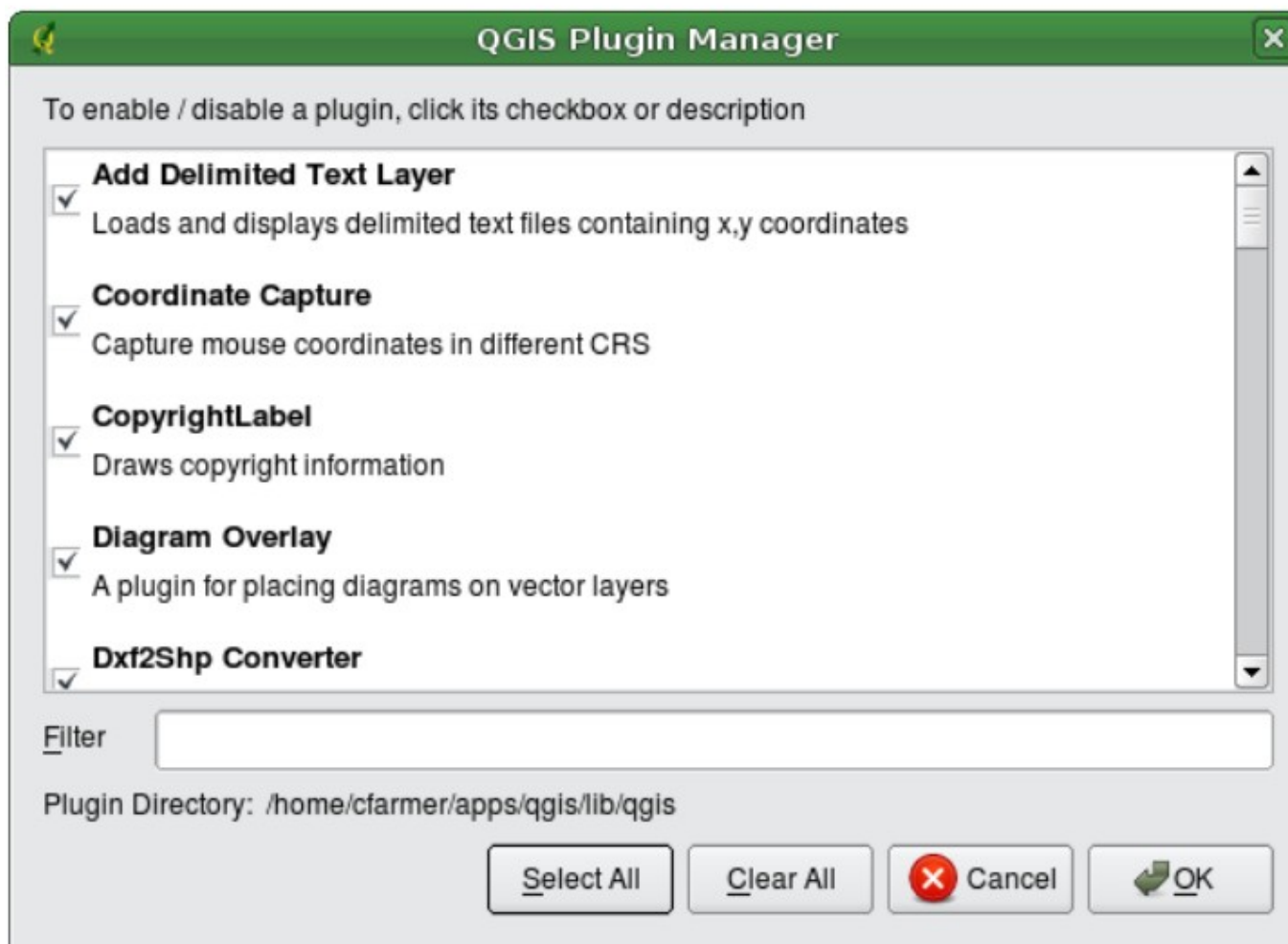5. Map Overview
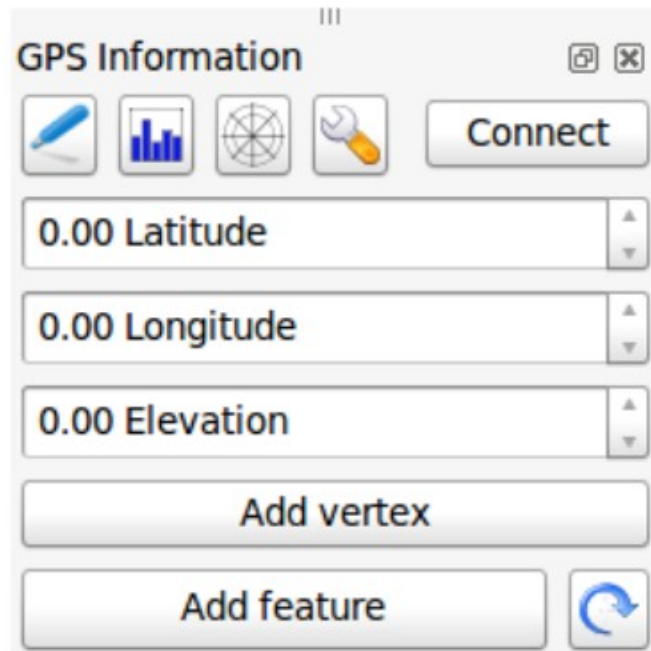6. Status Bar
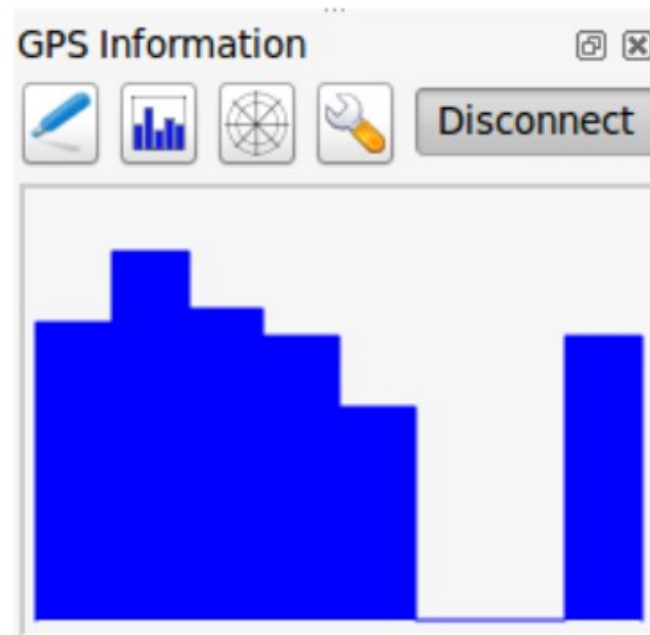
QGIS – Plug-in
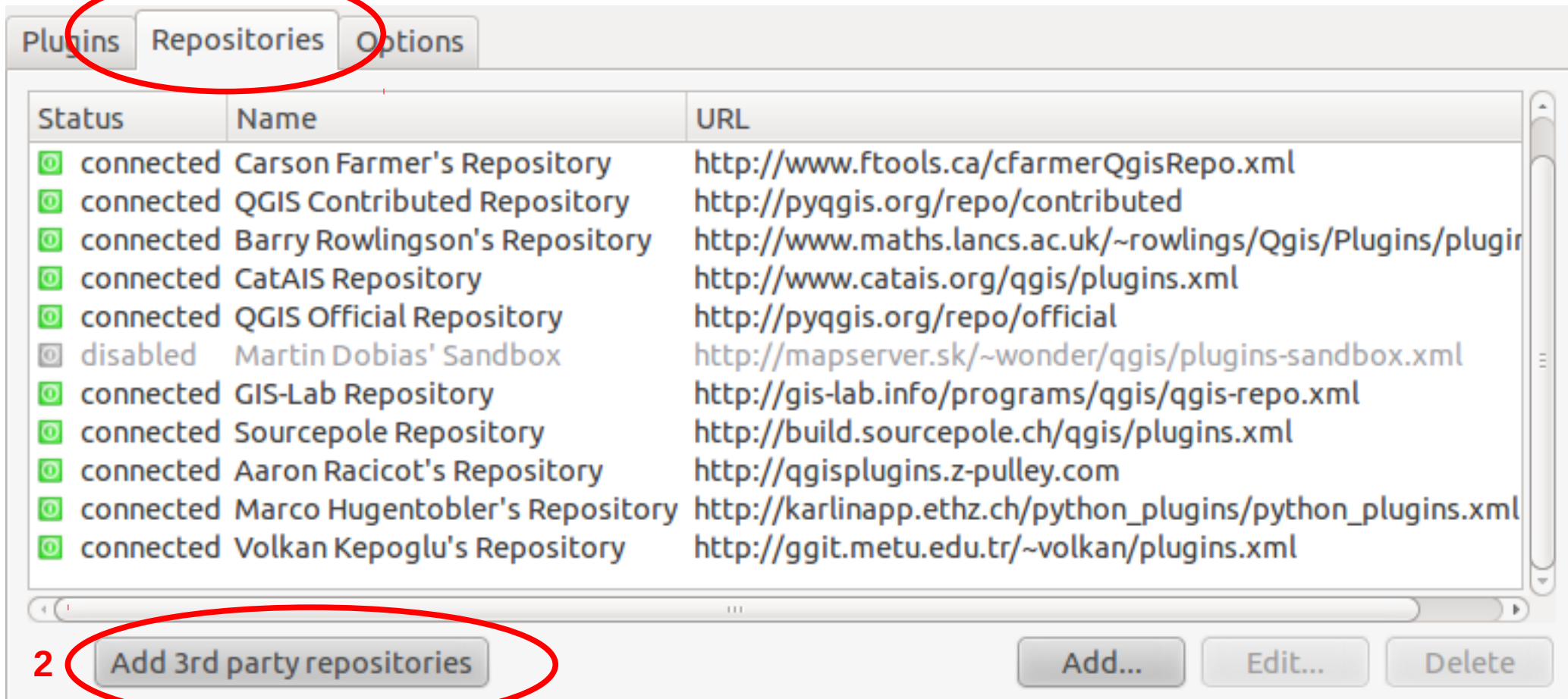
QGIS – Plug-in

QGIS – Plug-in

QGIS – Live GPS tracking

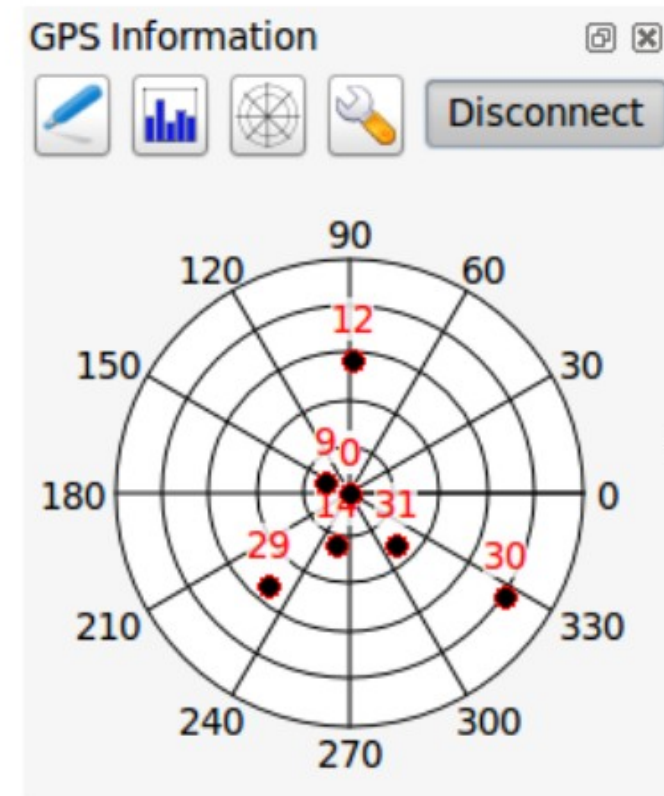View →Live GPS tracking

(a) Position coordinates

(b) GPS signal strenght

(c) GPS polar window

QGIS – Live GPS tracking

GPS Information

GPS connection

1. Autodetect
2. Use path / port below

Path to serial device

/dev/ttyS0

3. Connection to gpsd

Host: localhost

Port: 2947

Device:

☑ **GPS cursor size**

Small   Large

GPS digitizing

☐ Auto-add vertices

GPS map recenter

○ always

◉ when leaving extents

○ never

Track

Color

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
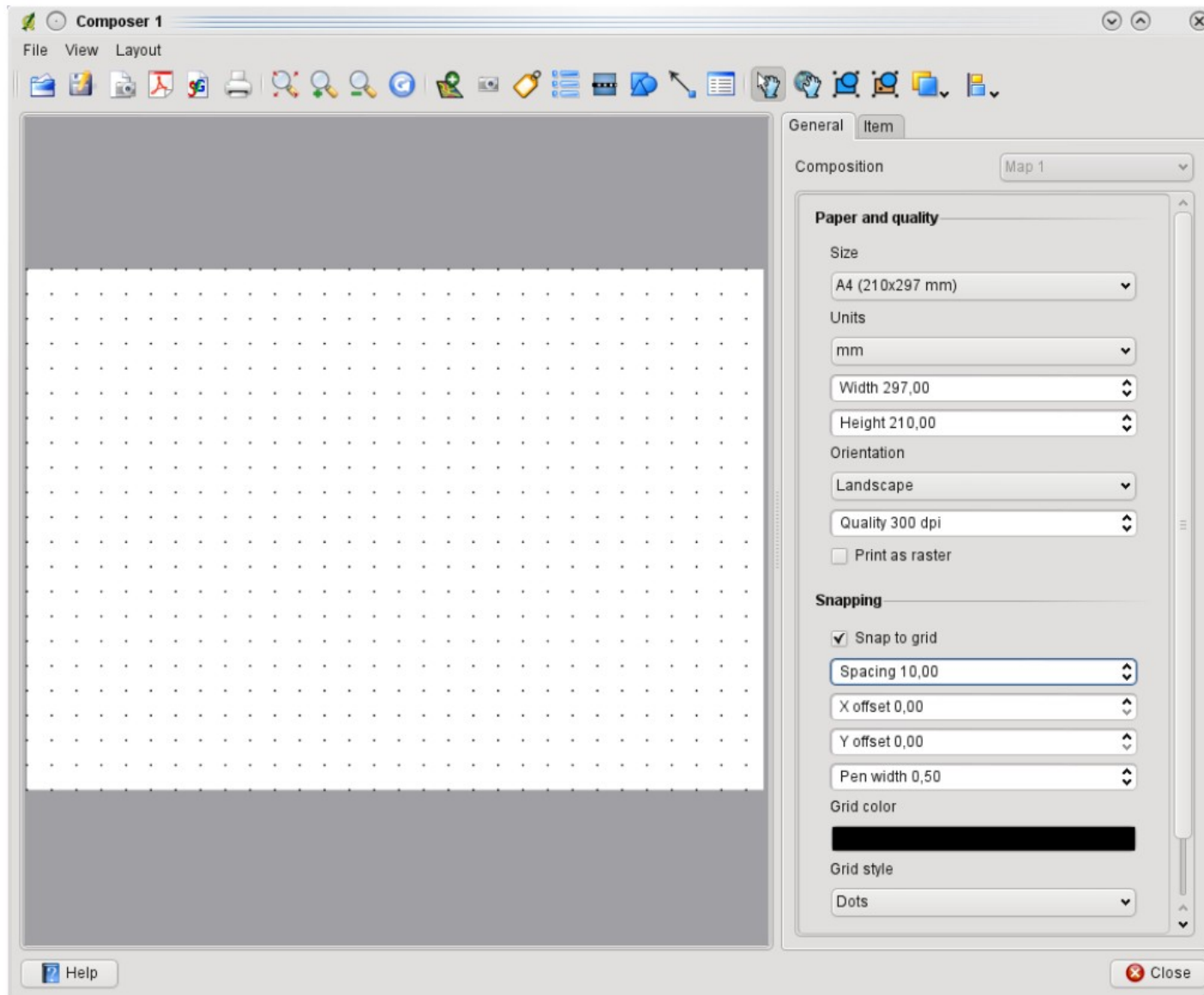
Icon	Purpose	Icon	Purpose
	Load from template		Save as template
	Export to an image format		Export as PDF
	Export print composition to SVG		Print or export as Postscript
	Zoom to full extend		Zoom in
	Zoom out		Refresh view
	Add new map from QGIS map canvas		Add Image to print composition
	Add label to print composition		Add new legend to print composition
	Add new scalebar to print composition		Add basic shape to print composition
	Add arrow to print composition		Add attribute table to print composition
	Select/Move item in print composition		Move content within an item
	Group items of print composition		Ungroup items of print composition
	Raise selected items		Lower selected items
	Move selected items to top		Move selected items to bottom
	Align selected items left		Align selected items right
	Align selected items center		Align selected items center vertical
	Align selected items top		Align selected items bottom

QGIS – Print composer
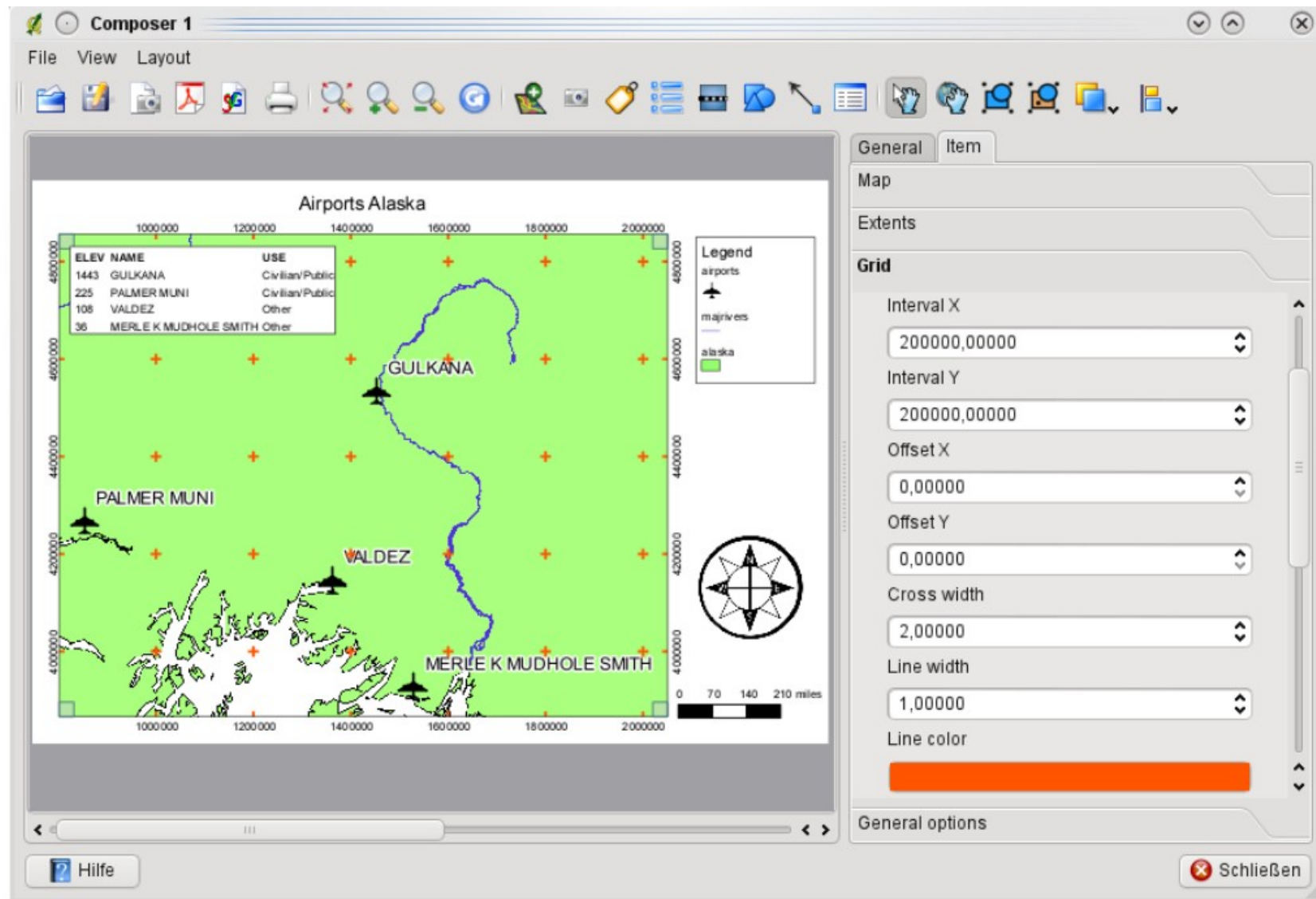
QGIS – New plug-in

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

QGIS – Webserver
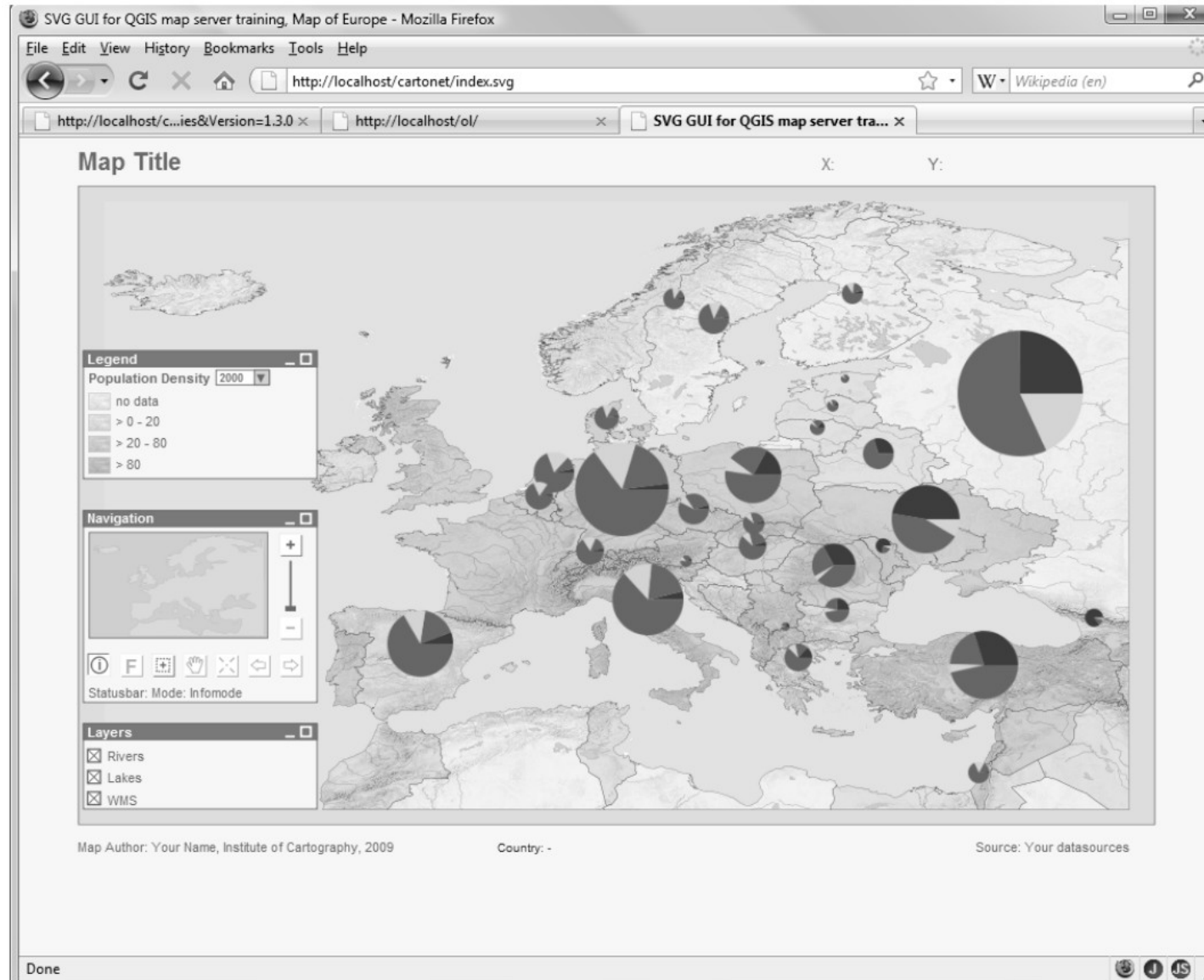
SAGA GIS
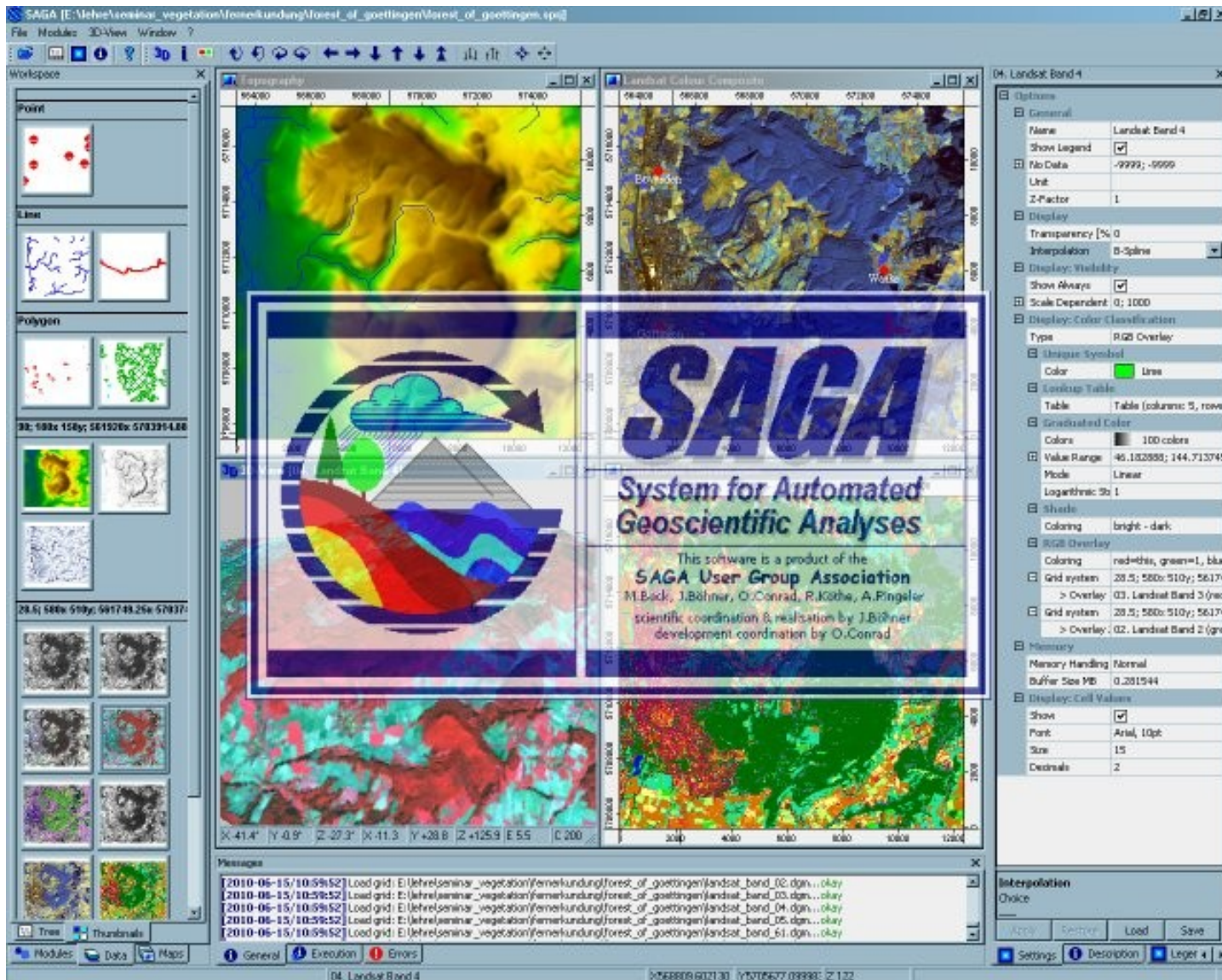
Opensource softwares

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

4. Paint.Net Replaces: Photoshop ($699)

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

1. Red Hat Replaces: Windows 7 Professional ($299.99)

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.

3.Ubuntu Replaces: Windows 7 Professional ($299.99)

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.

4.Debian Replaces: Windows 7 Professional ($299.99)

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)

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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
http://www.saga-gis.org/en/index.html