

Free and Open Source Desktop GIS Projects and Software – An Analysis

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Over the past 10 years the world of free and open source geospatial software has experienced a boost. For instance, the website FreeGIS.org lists now about 330 GIS related projects and the website opensourcegis.org about 250. Besides the advent of new software projects, of free data initiatives, and the growth of established projects, a new organization known as the OSGeo Foundation has been established to offer a point of contact for current and future GIS software users and developers. This presentation aims at giving an overview on existing free and open source desktop GIS projects, including those that are member projects of the OSGeo (i.e. GRASS, gvSIG and QGIS) but also non-OSGeo projects (uDig, OpenJUMP, MapWindow etc.).

The talk starts off by defining what I consider as desktop GIS. Afterwards the major desktop GIS projects are presented (see also: www.spatialserver.net/osgis). I will then try to compare the functionality of the different desktop GIS, and also compare the characteristics of the free GIS software projects with those of proprietary software, addressing characteristics such as development drivers, user focus and development models. While this comparison will highlight several strengths of open source GIS (e.g. free-of-cost software, easy customization, supportive community, etc.) it is also necessary to discuss some management challenges that free software projects may face; in particular if they are volunteer projects. Among those challenges are for instance the search for volunteers and the setup of a development road map. This discussion part will be based on my experiences with the OpenJUMP project.

Biography

Stefan Steinger is a postdoctoral fellow at the Department of Geography, University of Calgary, Canada. He received an undergraduate diploma in cartography and did his MSc in geodesy with a focus on geographic data analysis and global geodynamics. Afterwards he continued with PhD studies in GIScience and Geography at the University of Zurich (Switzerland) in

2004. His PhD research and his current research project focus on methods and algorithms for automated data and map generalization. Since his time in Zurich Stefan is actively involved in the JUMP Pilot Project, which maintains and develops the free and open source GIS OpenJUMP.