

Title: CampusGIS-3D, setup of a deegree3 WPVS

Authors: Dipl.-Geogr. Christian Willmes

Affiliation: Geographisches Institut Universität zu Köln

Keywords: WPVS, deegree3, 3D geodata visualization, 3D SDI

In this presentation a web based visualization of 3D building models of the University of Cologne Campus using deegree3 WPVS is explained. Some considerations about the reasons for using a deegree3 WPVS setup providing static rendered views of 3D geodata and reasons for using an open standards and open source software based approach, to ensure lowest hurdles to access the application from any modern computer platform and operating system, including mobile devices with a web browser, will be lined out.

The process of modeling CityGML LoD1 up to LoD3 3D building models of University of Cologne Campus will be explained. The LoD2 and LoD3 buildings are modeled using the open source software Blender and the free for use software Google Sketchup and the web based Google Building Maker tool. To convert these building models into CityGML, a software tool chain including open source, free for use and proprietary as well as some custom implemented software, to convert the building models from its modeling software based formats into CityGML format and then into the deegree3 WPVS backend is explained in detail. Furthermore, the implementation of a Web-GUI based on the open source jQuery JavaScript framework, to interact with the WPVS interface, will be described and presented.

This presentation will have a strong focus on the practical setup of a deegree3 WPVS and is because of this interesting for all deegree users who may plan to setup a deegree3 WPVS in the future.

Finally an outlook on further development of the CampusGIS-3D (www.campusgis.de/3D) with the use of deegree based web services will be given.