

CentropeMAP and CentropeSTATISTICS – building a common geodata infrastructure for the growing cross- border Centrope region

Manfred Schrenk and Clemens Beyer, CEIT ALANOVA gemeinnützige GmbH

Key words: Centrope region, cross-border-database, geodata, socio-economic statistical data, web map services, GIS, GDI, interoperability, public planning association PGO (a co-operation of the three Austrian federal provinces Lower Austria, Burgenland and Vienna), statistic offices of the regions and countries (Czech Republic, Slovakia, Hungary and Austria)

Centrope is the name of the cross-border region around the boundary quadrangle between the Czech Republic, Slovakia, Hungary and Austria. For a common development of this region, cross-border access to adjusted and standardized spatial data sets is essential. The aim of CentropeMAP is to provide an interface for geodata stored in four different countries. The project was initiated in the year 2003 introducing a base map of the region on behalf of the public planning association PGO, a co-operation of the three Austrian federal provinces Lower Austria, Burgenland and Vienna. In the beginning, data exchange took place only offline by distributing CD-ROMs among the project partners. The CentropeMAP map server client went on air in the year 2005. Since this time the user receives maps showing data from servers all over the region together in the same view. Having established and permanently improved the online CentropeMAP portal since 2006, there will be very soon an important extension: CentropeSTATISTICS which will also include statistic data for the whole region. Again, datasets come from local authorities and are put together in the same table. These data can be queried, exported, aggregated, and even visualised via the CentropeMAP portal. This paper has a short look at the history of CentropeMAP, but mainly deals with the current status of the project and its future challenges.

In the first step (2008/2009) of CentropeSTATISTICS the tables and datasets are stored centrally at the CentropeMAP server. There is no problem of realising distributed data storage from the technical point of view, however, the administrative structures in the four countries are still too different from each other so that distributed data storage still remains a dream of the future.

Regular meetings (approximately twice a year) with representatives from the statistic offices of the regions and countries help to ensure that all efforts are put on a solid, official ground. In an upcoming phase of CentropeSTATISTICS also spatial planning experts will be invited to these workshops to help specify the data demand. A prototype version is already running, the first release available for the public was published at the beginning of 2009.

The CentropeMAP project is hosted on a Linux operated server. Geodata on the server are stored either as shapefiles or in a PostgreSQL geodatabase with PostGIS extension. The map application is powered by two open source software pieces: UMN Mapserver and the Mapbender Client, a PHP and Javascript web browser interface.

The CentropeSTATISTICS extension is a PHP and Javascript application that interacts with Mapbender and is developed by CEIT Alanova. Thematic maps are created using Styled Layer Descriptor (SLD), an XML standard defined by the Open Geospatial Consortium (OGC) to define the appearance of map layers. The statistic data is linked with an XML generator which allows the user to create choroplethic thematic maps on the fly.