Geophysical Research Abstracts
Vol. 15, EGU2013-10978, 2013
EGU General Assembly 2013

Processing and Visualization of Borehole data in GIS

Lucie Kondrova
Czech Geological Survey, Department of Information Systems, Czech Republic (lucie.kondrova@geology.cz)

Poster deals with the advances in the research on possibilities in the field of data modelling and visualization of borehole data and derived geological data and maps in geographic information systems (GIS). Borehole data naturally contains 3D information, describing the geological structure of an area of interest. This information is very valuable for assessing the deposits of groundwater, possibilities of underground storage of CO_2, for mining or civil engineering companies, or simply to better understand the geological subsurface environment. Therefore, it is strongly demanded by experts as well as the broad public to display the geological maps and models in 3D.
Focus of the poster is put on the storage of data in a geodatabase, possibilities of processing the data (interpretation, classification, creation of geological cross-sections), and visualization by means of widely-used GIS software. Data model is the key aspect for an effective use of data and its visualization. The intention is to use company and international community standards as much as possible, which makes the data interoperable in community and international data infrastructures.
Research works will continue further on sharing of the multidimensional data with the geological community across Europe or the whole world, which might lead to some additional modifications of the data model in terms of unification of terminology or data structure. Also, the INSPIRE directive establishing an infrastructure for spatial information in Europe will definitely change the data model a bit - when the final documents on data specifications for geological data are available (expected during the year of 2013), the current data model will have to be revised and modified.