

AUTOMATIC 3D SPATIAL DATA PREPARATION AND VISUALIZATION

Alžběta Brychtová

UP Olomouc

Abstract

Do you remember the first experience with anaglyphic glasses, the first film performance in 3D cinema, or the first flyby over New York's skyscrapers in Google Earth? These views led all of us to a sense of absolute wonder and enthusiasm. Because we live in the three-dimensional world since birth, the perception of 3D information is more natural and therefore easier. 3D visualization appears in many sectors of human activities - entertainment, architecture, education, science or civil defence. In the area of geoinformation the concept of 3D is nothing new. 3D visualization brings more engaging means of presentation of our work, and of course the great potential can be seen in wide possibilities of modelling and analyses with 3D data, which are valuable for decision support. The more detailed and accurate the input data we have, the more precise results of analyses and more reliable and convincing 3D scenes are. High precision data carries high financial and time purchase costs. The main aim of this research was to find out a methodical way how to limit this requirements and design an application which would allow automatic transfer of 2D to 3D geographic data on the base of attribute information and thus prepare high-quality data for spatial analyses. This application was developed as an extension for Arc GIS Desktop. Part of the research was to examine new options of analyses with 3D data in ArcGIS 10.

Autor nedodal plný text příspěvku.

Author did not supply full text of the paper/poster