

## **The Generalization of the Digital Terrain Model Based on the TIN**

### **Abstract**

This diploma thesis deals with the up to now way and the possibilities of the digital terrain model generalization based on the TIN (the triangulate irregular network). New suitable way of the generalization of the digital terrain model procured from laser scanning data is proposed on the base of the existing generalization methods designated for digital models. Laser scanning data is characterized by a high areal density so the basic requirement is computing speed, maintaining the terrain features, such as a ridge, valley, steep hill, saddle, depression ... and so on. The proposed algorithm is compared with the results of suggested algorithms and results from the generalization by the geographic software, such as Atlas DMT and ArcGIS.