

Automation of „contour method“ for cliff drawing

Abstract

This thesis deals with the design of automated creation of cartographic representation of rocks - specifically contour methods. Based on the study of the rules of this method and its use on analog maps, rules for its processing in digital cartography were designed and an algorithm for automated creation of this representation was designed and implemented. The algorithm is based on the design of the contour method described in the study *Topographic mapping of rock formations with the use of airborne laser scanning data* by J. Lysák (2016) and the output data of the study *Sandstone landscapes in GIS* by M. Tomková (2015). The algorithm was implemented in the form of *Python* scripts using the *arcpy* library. The thesis also includes testing the algorithm on data from sandstone areas in the Czech Republic.

key words: rocks formations, visualization of hypsography , digital cartography, contour method