

Abstract

The main aim of the diploma thesis is the facilitation of the monitoring in short-term and long-term migration of population by using processed data of the mobile operator. The diploma thesis is focused on creating an algorithm that allows spatial correlation of positional data from the mobile operator with specific statistical data. In the first part, the reader is introduced to the theoretical background and to the current state of knowledge of the study issues. The methodological part presents the process of designing the tool. The initial phase of the algorithm corrects inadequate topology and the incorrect geometry of input data. The secondary part of the thesis is concerned about the necessary intersection of statistical territorial units and the mobile radio cell stations. During the design of the tool we focused on the user friendliness. The resulting data layers enable the addition of another statistical data or the development of geodatabases.