Abstract

The main aim of this thesis is to propose a novel method for generalization of 3D building models with respect to topology in 3D space. The first part gives an overview over spatial data structures and methods for generalization of 3D objects. The second part presents the methodology composed of volumetric model reconstruction, topology validation and simplification of geometry based on mathematical morphology approach to build multi scale model. Method is then implemented and experimental results are presented. In conclusion results are discussed and possible improvements are suggested.