

Summary

The dissertation is about the use of the opportunity of 3D modelling geological settings for engineering geology zoning. The model area represents the map sheet 6 - 8 Kralupy nad Vltavou in scale 1:5 000, which is built by rocks (pre-Quaternary) and soils (Quaternary cover) divided into eleven engineering geology zones. The results of modelling are shown in the map appendices, which are engineering maps of the individual roof (surface) of zones, including the 3D section in the direction of x axis and also five of the 2D maps of roof of selected zones with the 3D schematic models. The integral part is the map of documentation points and their database on DVD. Three dimensional modelling presents a benefit mainly therefore the solutions, where are visible the spatial geological settings including the thickness individual layers, respectively zones. These display options can be practically used at designing underground buildings, e.g. tunnels, where would it mean shortening time the preparation of the project. Modelling of the zones also shows a possibility of distinction the mistakes at some archive hole. For example, the mistakes in descriptions can relate to confusion of Neogene's sand layer for Quaternary's sand. In the description of new geological survey, when using appendix no. 4, can be the confusion significantly affected. The digital form of processing archival data into the database and the projection maps sheet in Surfer software, besides other things presents the timesaving if necessary future land use (land planning).