

The main object of this thesis is the reconstruction and visualization of multidimensional model with using geographic information systems. The thesis deals with issues associated with the above mentioned topic as well. The 3D reconstruction relates to the Mírové square in the Dobříš town, which was affected by the redevelopment in the second half of the 20th century. During creating the 3D model, there was an endeavour to capture the best appearance of the area before this change. The reconstruction, created mainly by ArcScene, was made by using historical photos, aerial photographs and other data. Two softwares are tested and compared during modelling of 3D buildings – Bentley Microstation and Google SketchUp. Fly-by animations and pictures are the thesis results, being confronted with historical photographs.