

This thesis presents a solution for generating structured description a 2D map of a room from a bird's eye view based on textual description in Czech. It focuses on identifying physical objects and their mutual relative positions in the description. It describes linguistic phenomena of the information extraction and their usage in the implementation. It shows how syntactic parsing can be used for this task. Then, it uses a genetic algorithm to find a feasible layout of the extracted objects with respect to spatial constraints constructed from the extracted information.