

Goal of this bachelor thesis was to take advantage of common features of some board games to create a universal application, in which these games can be played. We focused on games played on a map consisting of individual square tiles. Players can rotate, move and add these tiles and therefore change the playing board. Players move on paths, which connect sides of tiles. Users should be able to input rules of any game of this type into this universal application and consequently play this game in the application. Inputting the rules should be easy even for users not capable of programming. We decided that users will input the rules into separate files. For them, we designed a structure which describes the rules of the game and describes tiles that make up the board. Files with rules are in the JSON file format, which is easily readable by humans and also suitable for computer processing. We made a program which can load these game rules and based on them create a graphical user interface in which the game can be played. The program enforces following of the rules, highlights possible moves and evaluates who had won.