

A software tool visualizing the movement of entities on a graph is presented in this thesis. Such model is often used to abstract environment where the given set of entities must be reordered from an initial to a certain goal configuration in space. Software solvers of these problems usually produce suboptimal solutions in the textual form, which is generally hard to explore by a human. Thus, the visualization tool can be utilized by a researcher when analyzing the quality of such solutions. In order to visualize solutions, the presented tool handles a set of problems – embedding the graph into a plane, controlling the animation, capturing the output to images or video files, managing colors and validating movements in the solution. The thesis provides detailed information about the implementation of the tool including the choice of suitable algorithms, architecture and technologies.