

The project Pogamut 2 provides a possibility of fast prototyping of agent behaviours in a complex environment of the Unreal Tournament 2004 computer game. A fuzzy rule based system was introduced to be used beside the POSH rule based system, which was already a part of the project. Aiming to find out how exactly is it possible to add such system and what possibilities or complications it brings, this thesis presents the theoretical presumptions, their application, a design of an architecture, its partial implementation and an example of agent controlled by the implemented fuzzy system. The agent's functionality was proved by several experiments. This thesis should also be a basement for further work, such as full implementation of presented architecture, adding an user interface integrated within Pogamut IDE, and for wider possibilities of experimenting with the fuzzy agents.