

Supervisor assessment of Master's Thesis

Student: Pomikálek Jiří, Bc.
Title: Agent Approach to Air Traffic Control (id 22732)
Supervisor: Chudý Peter, doc. Ing., Ph.D. MBA, DCGM FIT BUT

1. Assignment comments

The aim of the thesis was to design and implement an agent system for air traffic control simulations. The non-trivial nature of the task originates from the scripting complexity of behavioral models used in agent/multi-agent systems. The ability to formulate realistic air traffic scenarios with meaningful operational constraints requires a deeper understanding of agent systems and associated air traffic modeling and simulation. The work contributes to the currently researched topics in human behavior modeling under the framework of the National Centre of Competence in Aeronautics and Space. Based on the previous conditions I consider the overall difficulty to be above average.

2. Literature usage

The author researched a portfolio of topic relevant references and performed a tailored search on flight operations, air traffic control simulation, agent systems and aircraft modeling. The author successfully mastered the utilization of published resources to design an agent system for the air traffic control simulation.

3. Assignment activity, consultation, communication

The author demonstrated a high level of commitment in achieving excellent results. The author attended scheduled meetings regularly, was well prepared and contributed meaningfully to the meeting discussions. The author was able to draw individual conclusions and transforming them into operational concepts. Communication with the author was conclusive and punctual.

4. Assignment finalisation

Both, the text of the thesis and the implementation part have been finished in advance of the deadline and the content has been examined. Minor adjustments to the author's ideas originating from the meeting discussions and periodic reviews have been included into the thesis.

5. Publications, awards

Unknown

6. Total assessment

very good (B)

The student's overall performance and his motivation were throughout the entire work on the thesis exceptional. Achieved results make the designed agent system for the air traffic control simulation a good starting point for further studies on air traffic modeling. The amount of demonstrated knowledge, enthusiasm and focus needed for successfully accomplishing the thesis was beyond the average expectations. I recommend the thesis for a defense. Suggested grade as based on the above mentioned: **Very good (B)**.

In Brno 29 June 2020

Chudý Peter, doc. Ing., Ph.D. MBA
supervisor