

Requirement specification

The focus of the thesis is to develop a tool for Unity that can be used to create intelligent and dynamic AIs. It is important to make this tool generic and intuitive, so that it can eventually be published on the Unity Asset Store and help other developers. The implementation is based on the idea of utility AI, possibly in combination with other known approaches for creating behaviour.

Requirements:

- **Creation of the graphical interface for utility AI.**
- **Providing a way to execute actions.**
- **Runtime debugging.**
- **Creation of an example use case.**
- **Documentation, Presentation, Video, Poster.**

Additional features:

- Integrating a tool for defining the sequence of the action (like FSM or BT).
- Creation of multiple examples use cases.
- Improving the tool visually or adding more features.
- Making an Asset for the Unity Asset Store out of it (with manual, videos, etc.)

The biggest challenge lies in creating the graphical interface, as I don't have any experience with Unity's UI Toolkit, which is needed for that. Also, the interface needs to be fully functional, intuitive, good looking and features like undo the last action, saving, displaying hints, etc. need to be implemented. To achieve the goal of making a good tool for creating AIs, it needs to be:

- Easy to get started with.
- Easy to iterate through different behaviours.
- Fast to create behaviours with.
- Able to support complex behaviour.
- Independent of the user's project.