

User Stories

 Author: Jakob

Overview

For our project, there are three deliverables:

- PDDL domain, problem and AP files for some **examples** of grid problems
- A **research report** on the representation of grid problems in PDDL, using our examples to discuss broad approaches and methodologies for PDDL coders
- Some small CLI **programs, plugins or macros** for the automation of certain parts of PDDL programming relevant to grid problems

The first two deliverables are essential. The final deliverable is considered a stretch goal, to be approached once we've made some examples and learned about the general issues encountered when representing grid problems. If we achieve the final deliverable, it'll become a point of discussion in the research report.

We consider user stories for each deliverable separately.

Grid Problem Examples

For this deliverable, we consider two types of users: **planners**, who are using Planimation to simply understand and visualize an existing domain, and PDDL **developers**, who are extending domain and AP files to add new functionality, or forking domain and AP files to apply them to a new, related domain.

- As a **planner**, I want to see my problem clearly layed out, so that I can understand the AI-generated solutions better.
- As a **planner**, I want the domain constructed in such a way that it's easy to write problem files for, so that I do not need to spend a lot of energy trying to encode my problem.
- As a **developer**, I want domain and AP files which have been constructed in a way that is easy to interpret, so that I know where to introduce new elements or modify existing ones.
- As a **developer**, I want comments within my domain and AP files in addition to external documentation, so that I don't need to do much interpretative work.

Research Report

We consider one type of user: **readers**, who are reading the report to learn about our experiences and find out about methodologies and problems with representing grid problems in PDDL.

- As a **reader**, I want to read clearly-worded and well structured text, so that I can follow the narrative of the report easily and I don't feel like my time is being wasted on it.
- As a **reader**, I want to see a variety of diagrams and code examples, so that I can understand this inherently visual domain in a number of framings

Automations and Macros

For this deliverable we consider one type of user: **power-planners**, who are writing PDDL domain, problem or AP files for grid problems, and want to overcome their frustrations with PDDL representation with a boost from an external program.

- As a **power-planner**, I want to automate the frustrating parts of PDDL programming so that I can focus on the high-level details of my project, rather than the unintuitive and laborious low-level representation.

- As a **power-planner**, I want my toolkit to be quick and easy to use, so that I don't need to wrangle complex new tools and distract from solving the actual problem
- As a **power-planner**, I want my toolkit to be useful in a way that is wide-reaching and not specific to any particular grid problem, so that I can keep on applying the same tools in different contexts.