02291: System Integration

OCL Constraints and MUD Game Validation

The task of this exercise is to validate the design from last exercise with respect to the requirements from the first exercise.

OCL constraints

- Provide any necessary class invariants for classes in the detailed class design using OCL constraints.

- Specify the contract of non trivial operations in the class diagram using OCL constraints (pre:/post:).

MUD Game Validation

Choose one, at most two, non-trivial use cases. For each use case scenario (default as well as alternative and exceptional scenario) of the use case(s), provide a sequence diagram showing how this scenario can be realised with the design developed in the last exercise. The easiest way to create the sequence diagrams is to derive them from your model as shown in this document `http://www2.imm.dtu.dk/courses/02291/files/usecaserealization.pdf`. Don't forget to check that your protocol machines for required interfaces fit together with the life cycle state machines implementing the required interfaces.

Documenting the MUD game design

- Extend the report from last exercise with a section on the test of the MUD game. Thus the overall report should have the following structure:

    A title page

        Contains title of the report and authors

  1. Requirements

    1.1. Domain analysis

    1.2. Functional requirements

    1.3. Non-Functional requirements

    1.4. Acceptance test Fit tables

  2. Design

2.2. Rough System Design (contains the result of the CRC card session)

2.2. Component Design

2.3. **Detailed Class Design (OCL constraints)**

2.4. Behaviour Design

3. **Validation**

3.1. **Use Case Realisation**

- **Important:** Update your requirements and design documentation to include the knowledge gained from the feedback of exercise two and when doing the use case realizations. Mark those parts that have changed from the first report.

- The PDF version of the paper should be submitted through CampuNet

    – The filename needs to be of the form sxxxxx_3.pdf (i.e. the student number of one of the group members, followed by an underscore, followed by 3, the number of the exercise)