Software Requirements Detailed Specifications

Water Management System

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| S.No | Module Name |  | Date | Created By | Reviewed By |
| 1 | Process Library Creation | Tabulating the domain processes to achieve use cases | 14/3/2020 | Radhika |  |
| Agreeing upon a format to represent the process library |
| The process parser module |
| 2 | Structural Component Creation |  |  |  |  |
| 3 | Process Retrieval Module |  |  |  |  |
| 4 | Quantity Constraints Handler |  |  |  |  |

**Spec 1 Process Identification**

**Spec1.1Tabulating the Domain Processes to achieve the usecases**

Output Artifact : A Document with detailed Process description

Must do : Finalize the processes for the usecases defined in the usecase document

Must do : The associated roles may be noted down but elaboration would be done on Spec 2.1

Comments: The Spec 1.2 can be refined further to add a spec for each process that we add

**Spec 1.2 Agreeing upon a format for representing the process library**

Output Artifact: A sample process description (Behavioral Constitute Type as in ref[Heller &Co]

Must do: Select the file format which is suitable for use in terms of expressability, ease of porting and maintenance

Must do: Define the format for the chosen document based

1. Expressability – All the required constructs of a process
2. Ease of Parsing
3. Availability of parsers
4. Easy to Scale

**Spec 1.3 The process parser module**

Output Artifact: Design document and Code

Must do: A process parser module which reads the process file and stores the various components of the component in the computer

Must do: A design of a data structure to store multiple processes

Must do: A domain independent parser

Must do: The parser must not change when new processes are added

Must do: Must not change when new concepts are added

**Spec 2Structural Components**

**Spec 2.1 To list all concepts and concept relationships**

Artifact: A document tabulating all related concepts, attributes, structural properties for each process

Must do: Identify concepts for each process in Spec 1.1 and their properties. Whether something goes as a concept or its property needs to be thoroughly analysed

**Spec 2.2 To design a concept editor**

Artifact: Design document and code

Must do: An editor that allows a domain expert to add suitable concepts, attributes and the structural relationships

Must do: Easy to load designed concepts and append or delete concepts

Spec2.3 A structural component query Module

**Spec 3 Situation Representation**

**Spec 3.1 A situation representation**

Artifact: A document on method to represent the situation to be modified during forward and backward expansion

Spec 4 Process Retrieval for Forward Expansion

Spec 5 Process Instantiation

Spec 6 Process Retrieval for Backward Expansion

Spec 7 Quantity Constraints Handling