**“Flow Controller” Specification**

Flow Controller provides the following high-level capabilities, which are detailed in the sections below:

* Editor to define the flow system in a graphical way
* It recognizes the following flow system components (pre-defined)
  + Pipes
  + Valves (on-off)
  + Valves (n-ways)
  + Pumps
  + Flow Sensors
  + Fluid Reservoirs
  + Fluid Source
  + Fluid Sink
  + Fluid Concentration Analyser
* It further allows to define new flow system components which are characterised by specifics on the following attributes and behaviours
  + *To be defined later*
* Control of Fluid System by steering active flow system components (pumps, valves) based on state of Sensors and Reservoir State
* Visual editor to define the Control Rules for the Flow System
* Scripting & command line interface to issue specific commands related to the active behaviours of the flow system components
* Ability to integrate new flow system components and their behaviours through “plug-in”, i.e., provisioning of Java Classes which are recognized without re-compilation of the Flow Control system and by the running Flow Control System, i.e., no re-start required