

Software Modeling in Physical Systems

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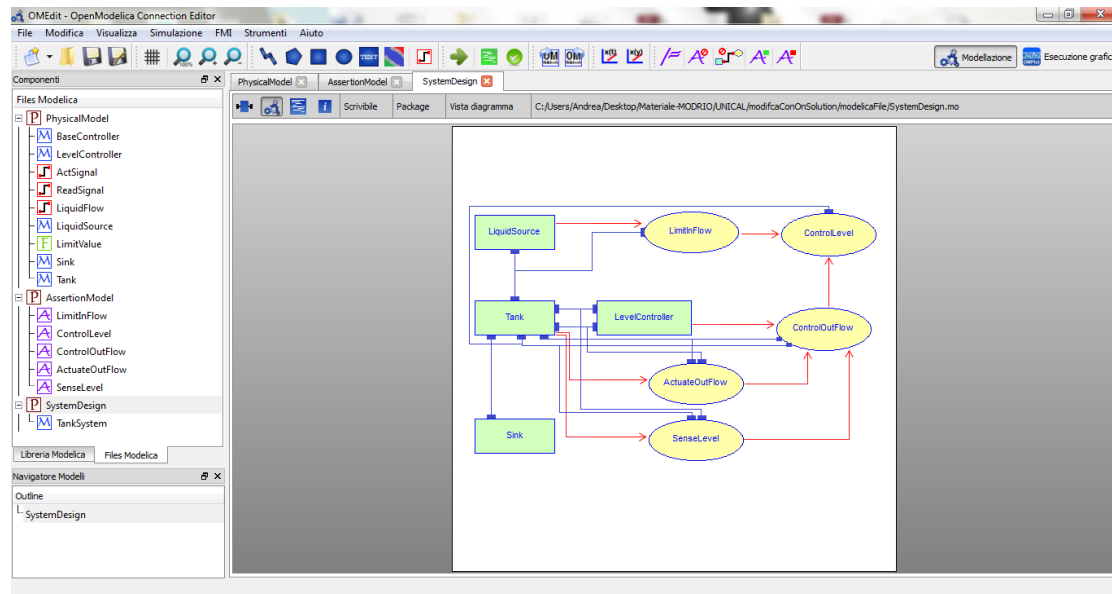
PELAB – Programming Environment Lab, Institutionen för Datavetenskap

www.openmodelica.org

PELAB, together with the Open Source Modelica Consortium (an international open source effort supported by 38 organizations, see www.openmodelica.org) develops OpenModelica, an open-source Modelica-based modeling and simulation environment intended for industrial and academic usage. OpenModelica, includes the OpenModelica Compiler (OMC) of the Modelica language, a language aimed at intuitively modeling physical systems.

An extension of Modelica for expressing requirements is being developed. It includes a new type of relationship between Modelica components, introducing a new level of complexity to Modelica models. In order to simplify the design and visualization of such models we propose to implement different views for displaying and hiding the requirement level of the models. The goal of the thesis is to develop an interface for visualizing the new extensions as well as for hiding them from view when necessary.

The figures below give an idea of the graphical extensions that would need to be added :



A dedicated toolbar for assertion modeling:

