

# Modelica Simulation Debugger in Eclipse Plugin

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At PELAB, together with the Open Source Modelica Consortium (an international open source effort supported by 28 organizations, see [www.openmodelica.org](http://www.openmodelica.org)) the OpenModelica environment including the OpenModelica Compiler (OMC) of the Modelica language including MetaModelica extensions is developed. The development is open source under the OSMC-PL and GNU V3 licenses.

Currently OMC compiles Modelica/MetaModelica into C-code via several optimizing steps. The development is supported by an Eclipse plug-in MDT (Modelica Development Tooling), also including a basic debugger, currently only supporting the MetaModelica extended subset of Modelica.

The goal of this master thesis project is to extend the current MetaModelica debugger to support the full Modelica algorithmic language as well as some aspects of the simulation modeling language, and integrate this in the bootstrapped OpenModelica compiler.

The master thesis project requires some knowledge of compiler construction, as well as some experience and interest in advanced programming. The work includes close cooperation with OpenModelica developers at PELAB.

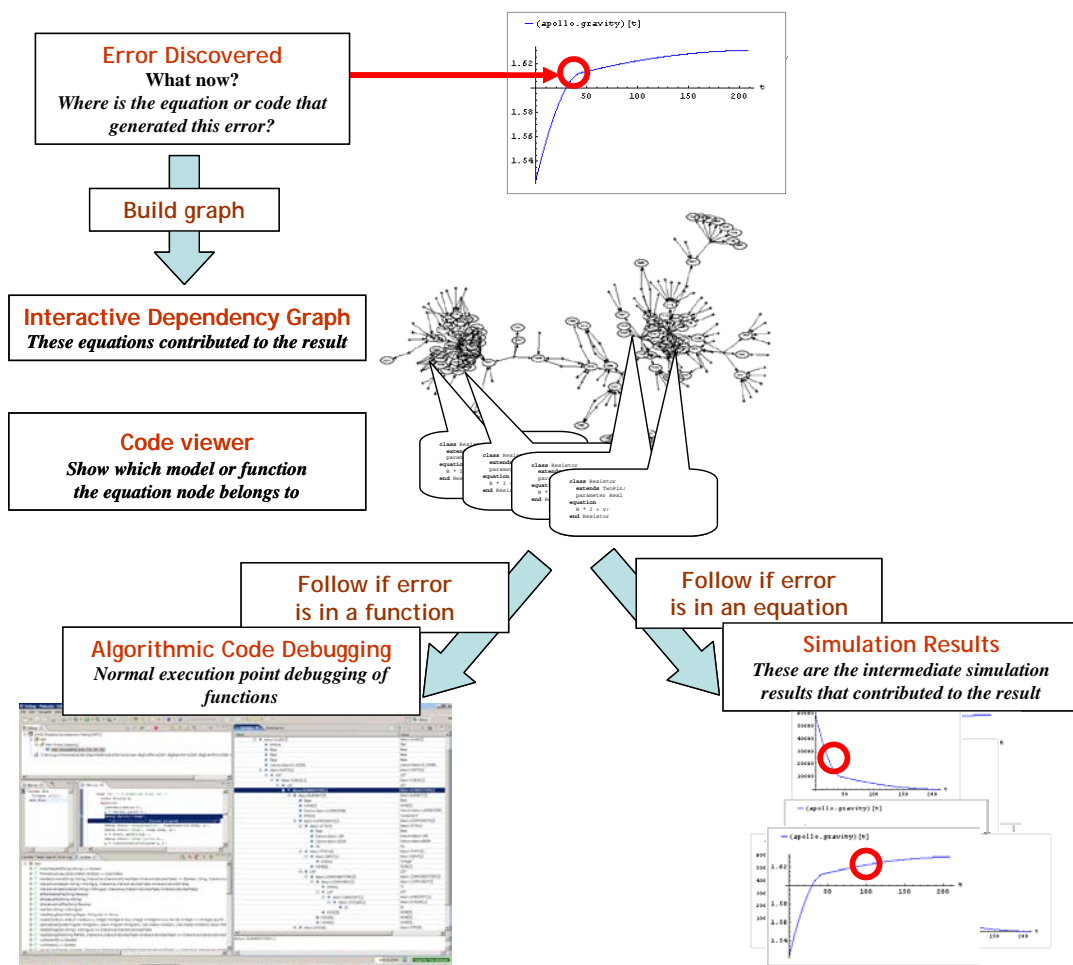


Figure 1. Debugging approach overview.