We invite all interested to participate in the work and join the consortium!

Open Source Modelica Consortium

THE OPEN SOURCE MODELICA CONSORTIUM (OSMC) is a non-profit, non-governmental organization with the aim of developing and promoting the development and usage of the OpenModelica open source implementation of the Modelica modeling language and the OpenModelica associated open-source tools and libraries, collectively named the OpenModelica Environment, in the following referred to as OpenModelica. OpenModelica is available for commercial and non-commercial usage under the conditions of the OSMC Public License. It is the aim of OSMC, within the limitations of its available resources, to provide long-term support and maintenance of OpenModelica, to support its publication on the web, and to coordinate contributions to OpenModelica.

Some Future Directions

- Fall 2009. Continued high priority on better support for the Modelica standard libraries. Completion of MultiBody library and Fluid/Media library flattening support.
- Fall 2009. Change to standard GPL open source license option instead of OSMC-GPL license option.
- During 2010. Improved scalability – support for larger models and improved simulation efficiency.
- During 2010. Support for full Modelica 3.1 and certain Modelica 3.2 features.

Recent History

- Dec 2007. Creation of the Open Source Modelica Consortium, initially 7 organizational members.
- Feb 2008. OpenModelica Development Server operational.
- Feb 2008. OpenModelica 1.4.4 released.
- June 2008. Adrian Pop full-time as OSMC Technical Coordinator. Development accelerates.
- Dec 2008. MathCore joins OSMC and contributes 1 man-year of source code to the OpenModelica frontend.
- Dec 2008. Board decides to focus OpenModelica compiler development on full flattening support for the Modelica Standard Library during 2009.
- Jan 2009. OpenModelica 1.4.5 released.
- Feb 2009. First Annual OpenModelica Workshop in Linköping, Sweden.
- March 2009. OSMC has increased to 21 organizational members
- June 2009. Start of OPENPROD ITEA2 11 million €, 27-partner project including substantial OpenModelica development.
- Sept 2009. OpenModelica 1.5 released, including improved Modelica library flattening, new Java-interface, enhanced ModelicaML UML-Modelica profile prototype.

Current OSMC Organizational Members and OSMC Board

Companies and Institutes

ABB Corporate Research, Sweden

Bosch Rexroth AG, Germany

Siemens Turbo Machinery AB, Sweden

Creative Connections, Prague, Czech Republic

Equa Simulation AB, Sweden

IFP, Paris, France

MOSTforWATER, Belgium

MathCore Engineering AB, Sweden

Maplesoft, Canada

TLK Thermo, Germany

VTT, Finland

XRG Simulation, Germany

Universities

Linköping University, Sweden

Hamburg University of Technology/TuTech, Institute of Thermo-Fluid Dynamics, Germany

Technical University of Braunschweig, Institute of Thermodynamics, Germany

Université Laval, modelEAU group, Canada

Griffith University, Australia

University of Queensland, Australia

Politecnico di Milano, Italy

Mälardalen University, Sweden

Technical University Dresden, Germany

Board

Oliver Lenord, OSMC Chairman; Bosch-Rexroth, Germany

Per Sahlin, OSMC Vice Chairman; Equa Simulation AB, Sweden

Peter Fritzson, OSMC Director, Linköping University, Sweden

Juha Kortelainen, VTT, Finland

Alf Isaksson, ABB Corp. Research, Sweden

Francesco Casella, Politecnico di Milano, Italy

Jan Brugård, MathCore Engineering AB, Sweden
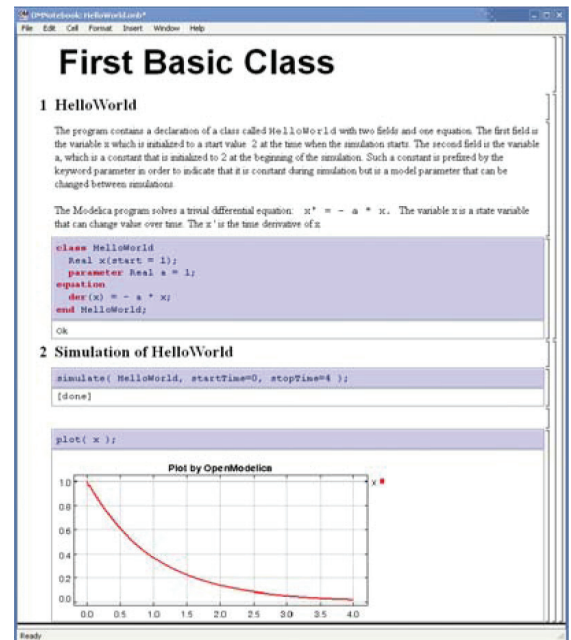
Gerhard Schmitz, Univ. Hamburg, Germany

MODELICA

OpenModelica – A Free Modelica Environment!

OPENMODELICA IS AN OPEN-SOURCE Modelica-based modeling and simulation environment intended for industrial and academic usage. Its long-term development is supported by a non-profit organization – the Open Source Modelica Consortium (OSMC).
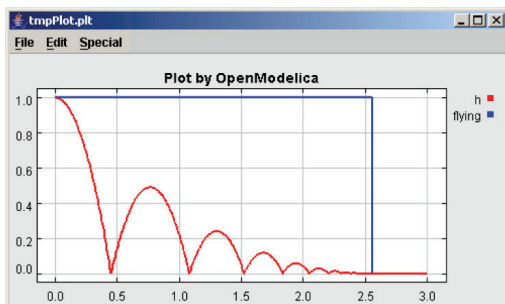
The following are some goals for the project:

- Development and long-term support of an open source industrial-strength Modelica modeling and simulation environment for industrial and academic usage.

- Creation of a complete reference implementation of Modelica in an extended version of Modelica itself. Promoting a model-centric approach to give the modeler increased control, including modeling of both hardware- and software components in complex systems.

- Improved implementation techniques, e.g. to enhance the performance of compiled Modelica code by generating code for parallel hardware.

- Research in areas such as language design, control system design, debugging support, embedded system modeling, new symbolic and numerical algorithms, etc.
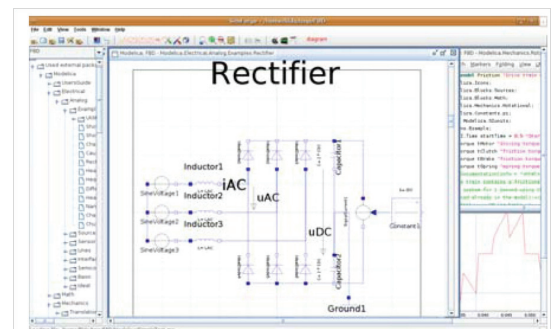
Parts of OpenModelica are already used in-house e.g. at ABB, in the released MathModelica product from MathCore Engineering AB, and being integrated in products from Bosch Rexroth, Equa Simulation AB, MOSTforWATER, VTT, TLK-Thermo, as well as being used at many universities.
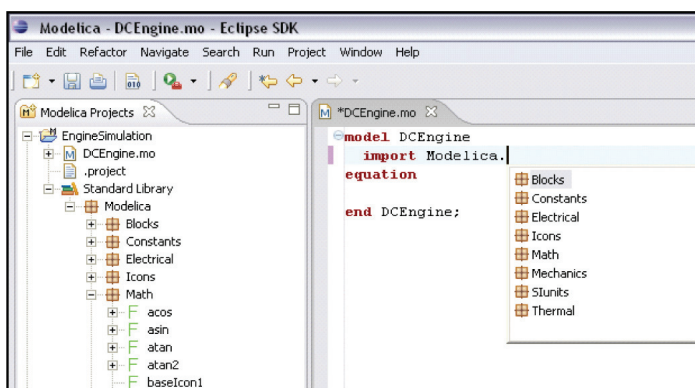

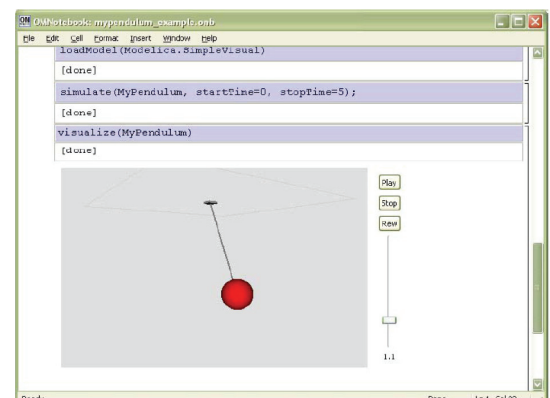*OMNotebook – Interactive Electronic Book*
DrModelica for Teaching

Bouncing Ball Hybrid Simulation

simForge Graphic Editor used with OpenModelica

OpenModelica Development
Environment with Eclipse MDT Plugin

3D Pendulum Multi-Body Simulation

www.OpenModelica.org

MODELICA