

OpenModelica OCAML Code Generator

Contact: Peter Fritzson (petfr@ida.liu.se, tel: 0708-281484)

or Adrian Pop (adrpo@ida.liu.se)

PELAB – Programming Environment Lab, Institutionen för Datavetenskap

www.openmodelica.org

At PELAB, together with the Open Source Modelica Consortium (an international open source effort supported by 28 organizations, see 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 last stage of the compiler, the C-code generator, has very recently been rewritten into a text-template-language based code generator, in order to get a smaller, easier-to-understand and to modify code generator. Moreover, a C# code generator is being finalized, partly based on the abovementioned C-code generator.

The goal of this master thesis project is to create one more code generator using the existing C code generators as inspiration. This code generator should generate code for the functional language OCAML.

The OCAML language is extremely efficient in symbolic processing, thus giving an expected performance boost for the MetaModelica constructs.

