

# TDL Compiler Case Study

Thomas Aschauer

## Abstract

The Unified Modeling Language has established as the standard language for the specification, design, and documentation of software systems. For some application domains, such as for the development of object-oriented application frameworks, the UML does not support specific requirements. As an extension to the basic language, the UML-F Profile for Framework Architectures supports the annotation of design patterns in framework design diagrams. Framework developers can explicitly document their design decisions, which help users to better understand the framework. In this thesis the author presents an updated UML-F profile compatible to UML 2 and its implementation in a state-of-the-art modeling tool. This enables framework developers to easily annotate design patterns in structure diagrams, to manage them, and to visualize the annotated patterns in two different notations. Two case studies show the applicability of this approach. In the first case study, a small user interface support framework is documented. In the second case study, the tool is used to document the plug-in interface of a compiler for real-time specifications.