



Proceedings of the  
8th International Workshop on  
OCL Concepts and Tools (OCL 2008)  
at MoDELS 2008

Preface

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## Preface

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**Abstract:** This document reports on the 8th OCL workshop held at the MODELS conference in 2008. The workshop focussed on how to evaluate, compare and select the right OCL tools for a given purpose and how to deal with the expressiveness and complexity of OCL. The workshop included sessions with paper presentations as well as a special tool demo session.

**Keywords:** OCL, UML, Modeling Language, Constraint

In recent years, MDA and associated MDE methodologies, approaches and languages (like QVT) emphasized the role that the Object Constraint Language (OCL) has to play in MDE development. Moreover, the modeling community is continuously pushing forward the OCL, far beyond its initial requirements as a precise modeling language complementing UML descriptions. Now, OCL is used in quite different applications domains (e.g., domain-specific languages and web semantics) and for various purposes (e.g., model verification and validation, code-generation, test-driven development, and transformations). To be successful, all these new OCL applications, extensions and usages require new OCL tools that support them.

This workshop aimed to look specifically at how to develop, apply, evaluate and compare all kinds of OCL-related tools. The workshop brought together OCL practitioners and OCL tool builders (from both academy and industry) in order to evaluate today's state-of-the-practice. In particular, the workshop focused the discussion on how to evaluate, compare and select the right OCL tools for a given purpose, how to deal with the expressiveness and complexity of the language and how to tackle its ambiguous or underdefined issues from a practical point of view. The workshop discussed new OCL tools and patterns, libraries, and algorithms that may facilitate development and reuse. In addition, all other aspects that may improve the adoption and support of OCL or its usability were considered. As a result, the workshop contributed to consolidate and expand the role of OCL in the modeling community by discussing approaches for research and development that could potentially drive the building of new OCL tools.

All submitted papers were reviewed by three industrial or academic members from the Program Committee:

- David H. Akehurst, Thales, UK
- Thomas Baar, Tech@Spree, Germany

- Jean Bézivin, University of Nantes, France
- Behzad Bordbar, University of Manchester, UK
- Achim Brucker, SAP, Germany
- Dan Chiorean, University of Cluj, Romania
- Tony Clark, Ceteva, UK
- Birgit Demuth, Technical University of Dresden, Germany
- Remco Dijkman, Eindhoven University of Technology, The Netherlands
- Robert France, University of Fort Collins, USA
- Heinrich Hussmann, University of Munich, Germany
- Richard Mitchell, Inferdata, UK
- Mark Richters, Astrium Space Transportation, Germany
- Shane Sendall, IBM, Switzerland
- Burkhard Wolff, University of Paris-Sud (Orsay), France
- Steffen Zschaler, Lancaster University, UK

The workshop triggered a series of interesting discussion threads, most of which may guide future work on OCL related tools. First of all, several questions and remarks related to whether OCL tools should be extended with OCL specific algorithms (analyses, optimizations, ...) or whether one should translate OCL into other languages for those purposes. For example, in the context of the performance evaluation of Clavel et al., several attendees proposed to leverage existing work on query optimization from the database domain. Others were convinced that several applications required optimizations that could only be realized within the evaluator of an OCL tool itself. In the end, it remained an open issue whether it would be most promising to focus on *bridging technological spaces* or on *improving the OCL/modeling space*, perhaps by reusing (probably specializing) expertise from other spaces.

In another discussion thread, one questioned whether or not the OCL community was mature enough to focus on performance. In this case, Jouault demonstrated that the semantics of the OCL collection operations was clear enough to reason about correctness while internally changing the mutability of collections for performance reasons. The participants agreed that one should not extend the OCL with performance specific language constructs: the language should stimulate conceptual modeling, and a modeler should not have a particular tool in mind. Obviously, it may be much easier for tool builders to expect from users that a particular style of specification is used. However, tool builders should go further and rewrite specifications that focus on non-technical issues into more technical OCL specifications that are ready for efficient execution.

Finally, the participants expressed concerns about communication channels to the authors of the OCL standard. More specifically, the community wants a light-weight communication channel to discuss problems about the standard. Summarizing such problems solely in scientific articles may be insufficient and sometimes even inappropriate.

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