

Welcome to the 7th Domain-Specific Modeling Workshop – DSM'07

Preface

Domain-Specific Modeling (DSM) raises the abstraction level of system development beyond programming by specifying the solution directly using domain concepts. In many cases, final products can be generated automatically from these high-level specifications. This automation is possible because both the language and generators need fit the requirements of only one company and domain. Industrial experiences from applying DSM consistently show it to be 5-10 times faster than current practices, including current UML-based implementations of MDA. As Booch et al. have stated, "the full value of MDA is only achieved when the modeling concepts map directly to domain concepts rather than computer technology concepts." For example, DSM for cell phone software would have concepts like "Soft key button", "SMS" and "Ring tone", and generators to create calls to the corresponding code components.

Continued investigation is still needed in order to further advance the acceptance and viability of domain-specific modeling. This workshop, which is in its seventh incarnation at OOPSLA 2007, features research and position papers describing new ideas at either a practical or theoretical level. On the practical side, several papers in these proceedings describe application of modeling techniques within a specific domain. The program contains also demonstrations of DSM tools.

We have organized the 25 papers in these proceedings to emphasize general areas of interest into which the papers loosely fit. In addition to *Specific Examples*, authors from both industry and academia present research ideas that initiate and forward the technical underpinnings of domain-specific modeling. The areas of *Classification and Understanding*; *Flexibility, Reuse and Automation*; and *Theoretical Foundations*; roughly categorize related papers, though as you will see, many papers are cross-cutting in their analysis and reporting. As a whole the body of work highlights the importance of metamodeling, which significantly eases the implementation of domain-specific languages and provides support for experimenting with the modeling language as it is built (thus, metamodel-based language definition also assists in the task of constructing generators that reduce the burden of tool creation and maintenance).

We hope that you will enjoy this record of the workshop and find the information within these proceedings valuable toward your understanding of the current state-of-the-art in domain-specific modeling.

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7th WORKSHOP ON DOMAIN-SPECIFIC MODELING

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