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SDL 2005: Model Driven

12th International SDL Forum
Grimstad, Norway, June 20-23, 2005
Proceedings

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Preface

This volume contains the papers presented at the 12th SDL Forum, Grimstad, Norway.

The SDL Forum was first held in 1982, and then every two years from 1985. Initially the Forum was concerned only with the Specification and Description Language that was first standardized in the 1976 Orange Book of the International Telecommunication Union (ITU). Since then, many developments took place and the language has undergone several changes.

However, the main underlying paradigm has survived, and it is the reason for the success of the Specification and Description Language in many projects. This paradigm is based on the following important principles of distributed applications:

- Communication:** large systems tend to be described using smaller parts that communicate with each other;
- State:** the systems are described on the basis of an explicit notion of state;
- State change:** the behavior of the system is described in terms of (local) changes of the state.

The original language is not the only representative for this kind of paradigm, so the scope of the SDL Forum was extended quite soon after the first few events to also include other ITU standardized languages of the same family, such as MSC, ASN.1 and TTCN. This led to the current scope of System Design Languages covering all stages of the development process including in particular SDL, MSC, UML, ASN.1, eODL, TTCN, and URN. The focus is clearly on the advantages to users, and how to get from these languages the same advantage given by the ITU Specification and Description Language: code generation from high-level specifications.

Not only have the languages and the scope of the SDL Forum evolved, but for the first time the Programme Committee for SDL2005 decided to have short papers as well as the normal full papers with a strong scientific background for full presentation and publication. The rationale is that the SDL Forum is targeted at a mixture of participants from research to industrial engineering backgrounds, and the inclusion of the short papers allows more issues to be presented and discussed while still maintaining normal conference standards for full papers. The short papers are of essentially three kinds:

Application reports. The SDL Forum has a tradition of publishing application papers, and users need such reports to benefit from the experience of other users, in particular where the reports contain quantitative results on cost effectiveness. Typically such reports do not contain advances in techniques or technology that justify presentation as full papers.

Tool reports. Similarly, reports on new tools or new releases of tools are of interest, without requiring the paper to describe a major advance – though it may be an advance in use or technology for the particular tool.

Position papers. These are papers that raise legitimate issues that need discussion, and the paper is a contribution to the discussion but from its content it could not be considered on the same basis as a fully investigated research paper.

No doubt the concept of short papers will be further developed for future events.

One important facet of the SDL Forum is the concentration on real-world examples mentioned above, which is also present in the SDL design contest: following a ‘*tradition*’ started in 2002, the 12th SDL Forum hosted an SDL design competition sponsored by SAFIRE SDL with cash prizes for the winning designs.¹

As editors of this volume, we have read through all the papers and are pleased with the interesting and varied selection taken by the Programme Committee. You will find all aspects of System Design Languages covered in this volume, ranging from state-of-the-art research results to modern application examples.

April 2005

Andreas Prinz and Rick Reed

SDL Forum Society

The SDL Forum Society is a not-for-profit organization that in addition to running the SDL Forum:

- runs the SAM (SDL and MSC) workshop every 2 years between SDL Forum years;
- is a body recognized by ITU-T as co-developing the Z.100 to Z.109 and Z.120 to Z.129 standards;
- promotes the ITU-T System Design Languages.

For more information on the SDL Forum Society, see www.sdl-forum.org.

¹ The descriptions of the winning entries are to be found at the SOLINET web pages.

Organization

Each SDL Forum is organized by the SDL Forum Society with the help of local organizers. The Organizing Committee consists of the Board of the SDL Forum Society plus the local organizers and others as needed depending on the actual event. For SDL 2005 the local organizers from Agder University College need to be thanked for their effort to ensure that everything was in place for the presentation of the papers in this volume.

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- Grimstad Kommune
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- Xactium Ltd.
- PragmaDev
- Telelogic

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