ITEA Office
High Tech Campus 69 - 3
5656 AG Eindhoven
The Netherlands
T + 31 88 003 6136
E info@itea3.org
W www.itea3.org

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D7.5.2 Research-oriented talk about the principles and benefits of the ModelWriter-ITEA approach and tooling

ModelWriter

Text & Model-Synchronized Document Engineering Platform

Project number: ITEA 2 13028
Work Package: WP7 - Standardization, Dissemination and Exploitation
Task: T7.5 – Community Forum & Open Source Campaign

Edited by:

Ferhat Erata <ferhat@unitbilisim.com> (UNIT)
Moharram Challenger <Moharram.challenger@unitbilisim.com> (UNIT)

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1. Introduction

1.1. Role of the deliverable

This document reports the research-oriented talk about ModelWriter, ITEA approach and tooling in a scientific conference.

1.2. Structure of the document

This document is organized as follows:

- Chapter 1 introduces the document.
- Chapter 2 reports the event and presentation
- Chapter 3 concludes the report

2. The Event: ASTEN Workshop 2014

The research-oriented talk is realized at the 1st International Workshop on Advanced Topics in Software Engineering (ATSEN) with the theme: Model-Driven Software Development (MDSE). The event took place at the Istanbul Kültür University (Atakoy Campus), Önder Öztunali Hall on 7 Nov, 2014.

ATSEN workshops provide a forum to discuss current advanced methods, tools, and techniques in Software Engineering. ATSEN 2014 workshop hosted several invited speakers from different universities and companies to share state-of-the-art and state-of-the practice of software engineering among researchers and practitioners. Workshop was open to all researchers and practitioners who have experience in Software Engineering discipline.

The vision of ATSEN workshops is that it will result in the development of a Software Engineering community with the academia and industry as key players. These workshops will bring together researchers and practitioners from different countries to discuss advanced techniques, methods, and tools in Software Engineering discipline. Workshops will invoke discussion about problems, challenges, and experiences on the use of advanced software engineering techniques. These discussions will help to create strong connections between academia and industry for joint international and national software-intensive projects.

ATSEN 2014's theme was Model Driven Software Development (MDSD). MDSD focuses on the use of models in the software development life cycle (SDLC). Models are considered equal to code and they are not just artefacts for documentation. By using model transformations, models are finally transformed into source code. MDSD increases the quality of products, and productivity. There are many applications of MDSD such as Model Driven Development (MDD) of Multi-agent Systems and MDD of Composite Content Applications.

List of the speakers, their topics, and their affiliations are as follows:

- Etienne Juliot, Obeo Vice President,
  Model-Driven Software Development 2.0
- Bedir Tekinerdoğan, Bilkent University,
  Model-Driven Design for Mapping Parallel Applications to Parallel Computing Platforms
- Vahid Garousi, University of Calgary and Atilim University,
  UML-Driven Software Performance Engineering
- Fevzi Belli, Paderborn University and Izmir Institute Of Technology,
  A Holistic Approach to Modeling, Analysis and Testing
- Ali Hikmet Doğru, Middle East Technical University,
  End User Development: An Experience in Bridging Research with Industry
- Hasan Sözer, Özyeğin University,
  Improving Models for Model-Based Testing Using Exploratory Testing
- Cemal Yilmaz, Sabanci University,
  Combinatorial Interaction Testing
- Ferhat Erata, Unit Information Technologies R&D Ltd.,
  Model-Driven Development of Composite Content Applications
- Moharram Challenger, Ege University and UNIT Information Technologies R&D Director,
  Model-Driven Development of Multi-Agent Systems

The workshop program was:

09:00, Workshop Registration

09:45, Opening Speeches

10:15, Model Driven Software Development 2.0, Etienne Juliot OBEO

11:15, Coffee Break

11:30, Model-Driven Design for Mapping Parallel Applications to Parallel Computing Platforms, Bedir Tekinerdoğan Bilkent University

12:15, UML-Driven Software Performance Engineering, Vahid Garousi Atilim University

13:00, Lunch Break (Lunch Break)

14:15, A Holistic Approach to Modeling, Analysis and Testing, Fevzi Belli, Paderborn University and Izmir Institute of Technology

14:45, End User Development: An Experience in Bridging Research with Industry, Ali Hikmet Doğru, Middle East Technical University

15:15, Improving Models for Model-Based Testing Using Exploratory Testing, Hasan Sözer Özyeğin University

15:45, Coffee Break

16:00, Combinatorial Interaction Testing, Cemal Yılmaz Sabancı University

16:45, Model-Driven Development of Composite Content Applications, Ferhat Erata Unit Information Technologies R&D LTD.

17:15, Model-Driven Development of Multi-Agent Systems, Moharram Challenger Ege University

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At this workshop, three partners of ModelWriter has presentations as speakers namely: Etienne Juliet, Ferhat Erata, and Moharram Challenger from Obeo and UNIT companies. Their presentations addressed Model Driven Development (as the theme of the workshop) from different perspectives such as tooling, technology, applications, and underlying frameworks.

As part of their presentations, they have discussed the ModelWriter as an innovative technology targeting project. The main goals of the project are discussed and the principles and benefits are presented. In addition, the following main work packages of ModelWriter are discussed with the workshop participants:

UC Code	Requirements derived from
WP2	Semantic Parsing and Generation of Documents and Documents Components
WP3	Model to/from Knowledge Base (synchronization mechanism)
WP4	Knowledge Base Design and Implementation

Also, the use cases planned in the ModelWriter are presented (which are listed below).

UC Code	Requirements derived from
UC-FR-01	Synchronization between Models and Documentation
UC-FR-02	Enterprise Architecture
UC-FR-03	Synchronization of regulation documentation with a design rule repository
UC-FR-04	Production of a context specific design document
UC-TR-01	Production of a proposal in response to an IPA Invitation To Tender
UC-TR-02	Collaborative production of a proposal for an IPA project
UC-TR-03	Synchronization of ReqIF/Clafer models with requirement specifications
UC-TR-04	Requirement Engineering for System Modelling
UC-TR-05	Synchronous Business Process Design with Use Cases
UC-BE-01	Requirements IT
UC-BE-02	Automated Test Generation

During the presentations, the ITEA approach is also discussed. To this end, the business value and marketing of the project is discussed. Considering dissemination plan, some research aspects of the project are described which can be published in the later phases of the project.

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3. Conclusion

In ATSEN workshop with the theme of MDSE, three partners of ModelWriter has presentations and as part of their presentations some research aspects of the project has been discussed. During these discussion probable challenges are discussed with the academicians participated in the workshop.

References

N/A

Appendixes

N/A