WORKSHOP ANNOUNCEMENT

Software Product-Line Conference (SPLC2) Workshop

"Model Driven Architecture and Product Line engineering"

August 19th 2002,

San Diego, CA, USA

Submission deadline June 21st

Organizors

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Workshop overview

Model Driven Architecture (MDA)[www.omg.org/mda/presentations.htm], the new OMG initiative [1],[3], defines an approach to IT system specification that separates the specification of system functionality from the specification of the implementation of that functionality on a specific technology platform. MDA addresses the complete life cycle of specifying, designing, deploying, integrating and managing IT applications placing models at the center of the development.

This new approach will play a key role for the product line engineering. Indeed, MDA will provide a basic technical approach and basic tool and mechanisms supports [4] to tackle the representation of variations.

As explained by D'Souza in [5], MDA addresses three main conceptual dimensions of variations: *vertical* – different level of abstraction of the same subject of a system, from physical data, logical data models, middleware, applications specifications, component assemblies, business process models, business goals and strategies ; *horizontal* – different subject areas or views that are not, of themselves, more or less abstract than others, whether business (like marketing, engineering, and sales, …) or technology (like performance, security, fault tolerance, …) ; *variant* – different systems, legacy, ongoing and upcoming, as-is, as-was and as-could-be, including variants that arise within a family of related systems configured to different needs. This is technically similar to "horizontal" variation, but is more concerned with configurations, variants, evolution and evolution-focused architectural rules and modeling standards.

As detailed in [4] by Desfray, MDA will provide the technical framework and basic mechanisms in order to support in a case tool the modeling of all the variation dimensions. The use of the standard formalism UML will help to establish a solid technical proposition to stabilize the technology underlying a product line engineering [2].

We strongly believe that MDA will play a key role in the emergence of product line engineering tool set. Furthermore, as MDA is an initiative of the standardization organism OMG, the analysis of how MDA can provide the technological bases of a product line engineering, will put on the light which specificities of a product line approach could become a standard.

Goals and focus

The goal of this workshop is to make an analysis of Model Driven Architecture as a technological proposition underlying a product line engineering.

The analysis will bring answers to the following questions:

- Why MDA could be a good technological approach for underlying a product line engineering ?
- What are the characteristics of MDA interesting for a product line approach ?
- How MDA can bring an answer to product line issues such as : variability modeling, traceability, derivation supports, platforms configurations, …

- What is missing in MDA in order to address all the technical issues behind a product line engineering ?
- Which MDA mechanisms could be used to handle product line engineering issues ?
- Which issues and solutions could be standardized thru MDA for the product line engineering ?
- What extensions could be proposed to the MDA tool provider in order to support a product line engineering ?

References

[1] *"Model Driven Architecture"*, Soley R., and OMG Staff Strategy Group, white paper, November 27, 2000, http:www.omg.org/mda/presentations.htm

[2] *"Building product lines for software intensive systems: the SPLIT method",* Michel Coriat, Jean Jourdan & Fabien Boisbourdin, First Software Product Line Conference, August 28–31, 2000, Denver, Colorado.

[3] *"Model Driven Architecture"*, Architecture Board ORMSC, July 9, 2001, document number ormsc/2001-07-01, www.omg.org/mda/presentations.htm

[4] *"When a major software industry trend meets our toolset, implemented since 1994"*, Desfray Ph., "MDA - http:www.objecteering.com

[5] *"Model-Driven Architecture and Integration: Opportunities, and Challenges"*, Dsouza D, version 1.1, http:www.omg.org/mda/presentations.htm

[6] *"From Object Composition to Model Transformation with MDA"*, Bézivin Jean, University of Nantes, France, http:www.omg.org/mda/presentations.htm

Important dates

Workshop date: August 19th 2002
Submission date: June 21st
Date of acceptance: June 28st
Full paper: July 12th

Workshop Organizers

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For more details

http://www.sei.cmu.edu/plp/conf/SPLC.html

Proposed Agenda

This will be a full day workshop. During the morning, selected participants will present a brief description of their work on MDA and product line engineering. The presentations will emphasize how MDA brings some answers to issues raised by product line approach. The presentations will be followed by brief questions and answer sessions. At the end of the morning a number of interesting issues raised during the presentations will be listed and used to define breakout groups.

The afternoon will be dedicated to breakout groups. For each group a chairman will be selected. The groups will discuss the issues and will present a synthesis at the end of the workshop.

We plan to collect the papers in a proceedings that as a first step will be published as a ESI public technical report. We will study the possibility of producing LNCS volume depending on the paper quality.

Requirements for attendance

Attendance will be limited to ~25 participants by invitation only. Participants must submit a short (2-4

pages) position paper. Accepted papers should be extended to a full paper (3000 to 5000 words).

Submission details

Position papers must be submitted by June 21st. Submissions should be created in Microsoft Word (.doc, .pdf) and sent by email to jean.jourdan@thalesgroup.com. Papers should follow the LNCS format (www.springer.de/comp/lncs/authors.html). Papers should contain: title of paper, names and affiliations of all authors, primary contact information (name, address, phone number, fax number and email address). Acceptance date is June 28st. Full version of accepted papers are due by July 12th.