1st Workshop on Meta-Modelling and Corresponding Tools (WoMM'05)

March 7—8, 2005, Essen (Germany)

Both, enterprise modelling and software engineering require the use of modelling languages. Applying these languages will usually depend on the deployment of corresponding modelling tools. However, general purpose modelling languages, such as the UML, often fail to satisfy specific modelling needs. While special purpose modelling languages may fill this gap, it will usually be no option to develop corresponding modelling tools from scratch. Meta-modelling tools can be a solution to this challenge. So far the exchange of ideas and experience between prospective tool users and tool developers has been rather limited.

This was the motivation for the 1st Workshop on Meta-Modelling and Corresponding Tools (WoMM'05) on March 7-8 2005 (ttp://www.wi-inf.uni-essen.de/FGFrank/WoMM). The workshop, which was held in cooperation with SIG-MoBIS, took place at the Essen Campus of the University Duisburg-Essen. It was organized by Jürgen Jung and Lutz Kirchner. Within a double-blind review process, the program committee selected 11 abstracts for being presented at the workshop. The program was supplemented by six tool presentations. About 40 participants from seven European countries – including researchers and practitioners - spent two days of intensive exchange on current topics and future challenges of meta-modelling tools.

Various approaches to the design of meta-modelling tools were presented. They included general-purpose tools that allow for creating tools for almost arbitrary modelling languages - e.g. ConceptBase (Manfred Jeusfeld, Tilburg University). Other approaches aim at the support of specific modelling purposes, e. g. data modelling, only - e. g. H2 (Jörg Becker et. al., University of Münster). With respect to architecture, tools were presented that feature the use of meta models. In this case, the tool user provides a meta model of his language. This will then serve as schema for the modelling tool to be created. Other approaches make use of graphs or programming languages for specifying a modelling language.

To foster the comparison of the tools, the developers had been provided with a catalogue of archetypical concepts of modelling language in advance (cf. [JuKi05]). These archetypical concepts had to be implemented using the developer's meta-modelling tool. Support for comparing meta-modelling tools was also the subject of a presentation by Lutz Kirchner, who proposed a framework to guide tool evaluation and comparison. The presentations included the following meta-modelling tools: ADONIS (BOC), ConceptBase (RWTH Aachen, Tilburg University), Cubetto (Semture), MetaEdit+ (MetaCase) and Metis (Troux Technologies AS). While some tools contribute to a very productive creation of modelling tools, they vary to a large extent in terms of functionality, convenience of use and purpose.

All participants agreed that meta-modelling is very attractive from an academic point-of-view. Firstly, there is need to develop a coherent interpretation of the term *meta-modelling*, which apparently does not exist at present time. This might be caused by the fact that there is no clear borderline between language definition and language application. Also, there is still a high demand for research on the conceptual foundation of meta-modelling tools. This includes the architecture as well as integration issues. As far as the practical application of meta-modelling tools is concerned, most participants saw mainly two areas: support of domain-specific modelling languages as well as of corresponding analysis and transformation tasks; support of method engineering, e. g. for project management.

[JuKi05] Jung, J.; Kirchner, L.: Meta-Modelling Tasks– Prototypical Language Features. Chair of Information Systems and Enterprise Modelling, University Duisburg-Essen, 2005

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XML for Business Process Management (XML4BPM'05)

March 1, 2005, Karlsruhe (Germany)

XML4BPM is a series of workshops organized by the GI Working Group *Business Process Management with Event-Driven Process Chains* within the GI SIG-MoBIS. It is addressing XML technologies and their application in the context of business process management. The 2005 workshop was held in conjunction with the 11th Conference Business, Technology, and Web (BTW 2005) in Karlsruhe, Germany. Among others, the workshop included topics such as XML-based reference models and model-driven development for BPM, Application of Web Services and Semantic Web technologies for BPM, Inter-organizational document exchange (e.g. XML-EDI, xCBL, etc.), and Economic impact of XML-based standardization of BPM. In total six papers were selected by the program committee to be presented at the workshop.

Sonia Lippe, Ulrike Greiner, and Alistair Barros of SAP Research presented a survey on the state of the art in modelling cross-organisational business processes. The authors define modelling requirements that were derived from analysing various collaborative business scenarios. Based on these requirements they evaluate and measure relevant work in modelling of cross-organisational business processes, thereby identifying strengths and weaknesses of the different approaches. In a further paper, Jan Mendling, Gustaf Neumann, and Markus Nüttgens analyzed Event-Driven Process Chains (EPCs) against workflow patterns. Building on this analysis, three extensions to EPCs are proposed in order to provide for full workflow pattern support. Benjamin A. Schmit and Schahram Dustdar from TU Vienna proposed a model-driven approach for Web Services which introduces a separate design layer dedicated to transactions. The authors show that their systematic modelling approach is able to introduce transactions in the design without increasing the complexity of the basic UML diagram.

Christopher Durst, Frank Ihmig, Matthias Biel, Martin Daffertshofer, and Heiko Zimmermann presented a discussion paper on ChameleonLab, a system that handles new and future proof substrates for cryobanking. In the further discussion paper Lucinéia Heloisa Thom, Cirano Iochpe, and Bernhard Mitschang presented an approach to improve the quality of workflow models via business process patterns. Dominik Vanderhaeghen, Sven Zang, Anja Hofer, and Otmar Adam presented a discussion paper on XML-based transformation of business process models as an enabler for collaborative business process management.

Program Committee

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XML4BPM 2006 will be held in conjunction with Multi Conference 'Wirtschaftsinformatik' in February 2006 in Passau, Germany. The call for papers reflects the fact that challenges related to integration are becoming a key issue of research on BPM. On the one hand, there are several interchange formats available to facilitate the exchange of business process models between various tools and applications. These formats are well suited to serve as input to model-driven approaches for engineering of process-aware applications. XML transformations of process models are required to support these approaches in practice. On the other hand, web service technology and semantic web applications have a huge potential for run-time integration of process-aware applications and enterprise applications.

XML4BPM 2006 is dedicated to these two trends. Papers on ongoing and completed research, state of the art surveys, and reports on practical application of XML technologies in business process management and modelling are welcome. The workshop aims to identify current research directions as well as industry trends. Submissions are appreciated until 10 October 2005. For further information, please refer to

http://www.mkwi06.de/

Jan Mendling, WU Vienna

Markus Nüttgens, University of Hamburg