

Volume 1 | No. 1 October 2005





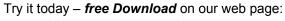
The third generation of this advanced In the third generation a real explosion of modeling tool doesn't just convince with its innovations was added: Flexible interfaces high flexibility and stability, but also offers enable the perfect integration into a worldwide unique solution for team existing software architectures, orientated modeling with its intelligent scaleable servers offer control, safety and integration of а configuration flexibility. Not only management system. versioning of the models is unique, but also the possibility Yet it still retains its original core: a of merging different versions in language independent modeling one new model. tool. The modeling language used has Through this real no limitations. If it is the extension of teamwork is now simple languages, the simplification of possible. complex languages the development of entirely Naturally these new modeling languages: functions are By the view creation, the complemented by use of multilingual intelligent access controls, *models* and the integrated which aren't orientated on the consistency check, the program, but on the model modeling is not only more and so allow restricted access fun, but also the flexibility enables a far for single model elements. more effective and efficient modeling.

For universities and businesses

Business modeling made easy – with the Cubetto®Toolset you have a high-performance tool for your practice projects

You want to teach your students in the use of a modeling language and are searching for a flexible tool to aid your teaching – Select the Cubetto®Toolset

Incidentally: Within the scope of research and teaching the full version of the Cubetto[®] Toolset is *free* for schools and universities



http://www.semture.de/

Any questions? We help you personally: +49 (0) 351 871-8474 • greiffenberg@semture.de





Table of Contents 1

Table of Contents

Editorial Preface	02	
Jan Mendling, Gustaf Neumann, Markus Nüttgens	03	Yet Another Event-driven Process Chain - Modelling Workflow Patterns with yEPCs
Nicolas Cuntz, Ekkart Kindler	14	On the Semantics of EPCs - Efficient Calculation and Simulation
Steven Kelly, Matti Rossi, Juha- Pekka Tolvanen	25	What is Needed in a MetaCASE Environment?
Håvard D. Jørgensen, Frank Lillehagen, Dag Karlsen	36	Collaborative Modelling and Metamodelling with the Enterprise Knowledge Architecture
Benjamin A. Schmit, Schahram Dustdar	46	Model-driven Development of Web Service Transactions
Conference Reports	56	1st Workshop on Meta-Modelling and Corresponding Tools
		XML for Business Process Management
Imprint	58	
Editorial Board	59	
Guidelines for Authors	60	

2 Editorial Preface

Editorial Preface

Enterprise modelling has been at the core of 'Wirtschaftsinformatik', the German version of Information Systems, for long. Research on enterprise modelling includes the design of modelling languages and corresponding methods, as well as their application, e. g. for developing and analysing reference models. In addition to conceptual models in Software Engineering, enterprise models may comprise abstractions that do not primarily serve to support software development. Instead, they can include models to foster organisational or strategic analysis - usually in conjunction with the analysis and design of supporting information systems. A pivotal idea of enterprise models is to integrate various perspectives on an organisation, thereby promoting a tight integration of business processes and information systems as well as reducing communication barriers between business people and IT professionals. The community that works on enterprise modelling comprises mainly researchers from Information Systems, but covers also the interface areas to its neighbouring disciplines Computer Science and Business and Administration.

The Special Interest Group on Modelling Business Information Systems (SIG-MoBIS) within the German Informatics Society (GI) is a community of about 500 researchers and practitioners. It is dedicated to promote research on various aspects of enterprise modelling and information systems architectures. For this purpose, it serves as a forum to spirit the exchange of ideas and experience between academia and practice. Originally, the activities of SIG-MoBIS were restricted to German speaking countries. Regular workshops were held in German only, the community's newsletter ('Rundbrief') was published in German, too. Last year, we decided to open our activities to an international audience. This is mainly for two reasons. Firstly, from a scientific viewpoint, it is hardly acceptable to stop the exchange of ideas at language barriers. Secondly, during the last years, enterprise modelling has gained awareness on an international scale. Therefore, we decided to replace the previous newsletter with an international journal. Considering the large number of journals in Information Systems, this might be regarded as a redundant effort. However, despite the plethora of journals, there is hardly a journal with this specific focus that appreciates constructive ('design-oriented') research methods. In Information Systems as it is common in the US, the main focus is on empirical research methods, which are deployed to test hypotheses on the development,

introduction and effects of information systems in organisations.

We believe that design-oriented research is an important supplement - and often a preferable alternative - to the dominating paradigm in Information Systems. Therefore, the journal Enterprise Modelling and Information Systems Architectures is intended to provide a forum for those who prefer a design-oriented approach. As the official journal of the SIG-MoBIS, it is dedicated to promote the study and application of languages and methods for enterprise modelling - bridging the gap between theoretical foundations and real world requirements. The journal is not only aimed at researchers and students in Information Systems and Computer Science, but also at information systems professionals in industry, commerce and public administration who are interested in innovative and inspiring concepts.

The journal's editorial board consists of scholars and practitioners who are renowned experts on various aspects of developing, analysing and deploying enterprise models. Besides Information Systems, they cover various fields of Computer Science. Currently, the majority of the board members are from Germany – reflecting the relatively high popularity of enterprise modelling in this country. We hope, however, to change this ratio over time.

The journal's first issue features five articles that have been selected as outstanding papers from the workshops Meta-Modelling and Corresponding Tools (WoMM'05), XML for Business Process Management (XML4BPM'05) and Event Driven Process Chains (EPC'04). The article 'What is needed in a MetaCASE Environment' by Steven Kelly et al. focuses on requirements for meta-modelling tools. The paper contributed by Håvard D. Jørgensen et al., 'Collaborative Modelling and Metamodelling with the Enterprise Knowledge Architecture', presents a meta-modelling framework that emphasizes the use of views to represent different levels of abstraction. Two papers, by Jan Mendling et al. and Nicolas Kuntz and Ekkart Kindler, are addressing Event Driven Process Chains. Benjamin A. Schmit and Schahram Dustdar present an approach to the model-driven development of Web transactions.

I hope you enjoy reading our new journal. Any comments both on articles as well as on the journal itself are appreciated.

Ulrich Frank