

Enterprise Modelling and Information Systems Architectures

An International Journal

Volume 3 | No. 1 July 2008





ARCHIMATE®: THE OPEN MODELLING AND ANALYSIS METHOD FOR ENTERPRISE ARCHITECTURE

ArchiMate® is the upcoming international open standard for modelling and analysis of enterprise architecture. ArchiMate® maintained by The Open Group®. The concepts and domains recommended by ArchiMate® give a sufficiently broad and uniform coverage of enterprise architecture.

ArchiMate® has been adopted by major end-user organisations, tool vendors and consultancy partners. ArchiMate® has thus obtained significant momentum to become the unified modelling language for enterprise architecture!

For more information please contact www.archimate.org. Choose ArchiMate® as your independent open modelling and analysis method for enterprise architecture!

Table of Contents

Editorial Preface	02	
J.A.P. Hoogervorst, J.L.G. Dietz	03	Enterprise Architecture in Enterprise Engineering
Stephan Aier, Christian Riege, Robert Winter	14	Classification of Enterprise Architecture Scenarios – An Exploratory Analysis
Wojciech Ganczarski, Robert Winter	24	On the Interplay of Organizational Architecture and Software Architecture
Ralph Foorthuis, Sjaak Brinkkemper	36	Best Practices for Business and Systems Analysis in Projects Conforming to Enterprise Architecture
Frank Wolff	48	An Evaluation Framework for Enterprise Architecture Modelling
Upcoming Events	62	
Call for Papers	64	
Imprint	66	
Editorial Board	67	
Guidelines for Authors	68	

Editorial Preface

Dear reader,

The field of Enterprise Architecture is gaining momentum. In several workshops and conferences, increasing attention is paid to this field. As a field of research, it brings together aspects from the field of management sciences, organisational sciences, information science, and computing science.

This special issue on Enterprise Architecture brings together five papers covering several core aspects of the field, ranging from conceptual foundations to the practical role of enterprise architecture in projects and software development. In their paper "*The role of Enterprise Architecture in Enterprise Engineering*", Jan Dietz and Jan Hoogervorst take a fundamental look at the potential role of enterprise architecture in enterprise engineering and transformation. An exploratory analysis of usage scenarios of enterprise architecture in the context of enterprise transformations is provided by Stephan Aier, Christian Riege, Robert Winter in their paper "*Classification of Enterprise Architecture Scenarios – An Exploratory Analysis*".

Several models are produced and handled when creating and using enterprise architectures. In his paper, "Evaluation of enterprise architecture modelling", Frank Wolff studies the effectiveness, balancing costs, and quality of these architecture models.

Enterprise architectures have a directing role to play towards projects implementing enterprise transformation, as well as software architectures for the applications supporting the business processes. In "*Best Practices for Business and Systems Analysis in Projects Conforming to Enterprise Architecture*", Ralph Foorhuis and Sjaak Brinkkemper discuss aspects of the relationship between enterprise architectures and projects adding towards the realisation of the architecture. In their paper "*On the Interplay of Organizational Architecture and Software Architecture*", Wojciech Ganczarski and Robert Winter bridge the gap between the organisational aspect of enterprise architecture and the underlying software architectures.

When we look at the commonality of many of these papers, we observe that the use of *models* is central to this field:

- models representing conceptual foundations for reasoning about the elements of an enterprise architecture,
- models representing high-level designs of (aspects of) an enterprise, and

- models representing regulations, guidelines, or principles, limiting the design space of architects.

In many engineering-related fields, modelling is a prime instrument, and the maturity of these fields can perhaps be judged by the establishment of standardised ways of working. In software engineering, the advent of UML [1] and the Unified Process [2] proved to be important milestones. In enterprise architecture, we could be on the verge of a similar breakthrough, with an increasingly clear understanding of the role of enterprise architecture [3], the rapidly growing support for The Open Group's TOGAF [4] as a standardised method in favour of proprietary, vendor-specific solutions, and the increasing usage of ArchiMate [5] (now also under the aegis of The Open Group) as a modelling language for enterprise architecture. Of course, neither of these is perfect, but the popularity of such open methods is a sure sign of a maturing field and they provide a common ground for further research into this exciting area.

Erik Proper and Marc Lankhorst

References

- [1] OMG. *UML 2.1.2 Superstructure Specification - Final Adopted Specification*. Technical Report formal/07-11-02, November 2007. <http://www.omg.org/uml>
- [2] P. Kruchten. *The Rational Unified Process: An Introduction*. Addison Wesley, Reading, Massachusetts, USA, 2nd edition, 2000. ISBN-10: 0201707101
- [3] M. Op 't Land, H.A. Proper, M. Waage, J. Cloo, and C. Steghuis. *Enterprise Architecture – Creating Value by Informed Governance*. Springer, Berlin, Germany, 2008. Forthcoming.
- [4] The Open Group. *The Open Group Architecture Framework (TOGAF) Version 8.1.1, Enterprise Edition*, 2007. <http://www.togaf.org>
- [5] M.M. Lankhorst et al. *Enterprise Architecture at Work: Modelling, Communication and Analysis*. Springer, Berlin, Germany, 2005. ISBN-10: 3540243712