

Tool-based Support for Organization-specific Enterprise Architecture Management

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Enterprise architecture (EA) management is a commonly accepted instrument for modern organizations to deal with today's challenging environment. Effectively designed an organization-specific EA management function can improve the overall agility of an organization. The design of such management function is a challenging task, in which the different process steps, information flows, and roles that constitute such function have to be shaped and aligned. The complexity of the management subject EA and the high number of involved stakeholders further aggravate the creation of a consistent but organization-specific EA management, and call for tool support during the *design phase*. In this phase, the designer selects the goals to be pursued, the concerns to be addressed, and the roles to be involved. Based on this selection, the user is supplied with re-usable and practice-proven building blocks that can be integrated into a tailored EA management function for the using organization. Different sources for such building blocks exist, namely the EA management pattern catalog [1] or TOGAF [5], although the latter does not explicitly state such blocks.

After the organization-specific EA management function has been defined, it must be enacted in the organization. For the *conduction phase*, i.e. for managing the EA, the tool must provide support by initializing the corresponding processes and process steps, informing the relevant stakeholders, and ensuring that their information demands are fulfilled. For the latter, the tool must support the generation of EA views that correspond to well-defined viewpoints [1, 3]. These viewpoints prescribe which architectural information is conveyed to which stakeholder. Building on the prefabricates of [2], where a tool for flexibly visualizing EAs is presented, we subsequently outline the core idea behind an EA management design tool that further allows to enact the designed process, sketch realization ideas, and give an outlook on future developments.

Approach Central idea behind the design tool is the understanding that re-usable building blocks for an EA management function may be extracted from different EA management approaches in literature as well as observed in practical cases. These building blocks are then aligned to a common terminology and their underlying organizational contexts as well as their pursued management goals are elicited. Thereby, the different possibly competing building blocks are interlinked into a *nexus* (cf. Figure 1) that backs the design tool.

Implementation While EA management is a collaborative function, the design phase can be considered a single user task. The design tool should hence

be implemented as standalone application, e.g. based on the Eclipse Rich Client Platform [4]. Aforementioned platform may especially be useful, as it supports the development of graphical modeling tools via the graphical modeling framework (GMF) and the eclipse modeling framework (EMF).

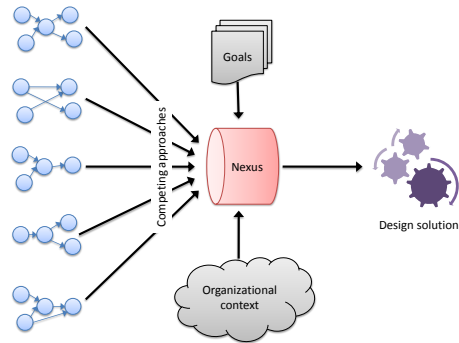


Fig. 1. Building block nexus backing the design tool

Outlook Building block-based modeling of EA management processes is in many ways different from typical process modeling. The above tool can therefore greatly benefit from using a modeling language appropriate for this purpose, i.e. a language especially supporting the composition of process building blocks. Further challenges arise from integrating the process with other building blocks, e.g. the viewpoints. In each integration, consistency must be verified and minor user-specific adaptations should be supported.

References

1. S. Buckl, A. M. Ernst, J. Lankes, and F. Matthes. Enterprise Architecture Management Pattern Catalog (Version 1.0, February 2008). Technical report, Chair for Informatics 19 (sebis), Technische Universität München, Munich, Germany, 2008.
2. S. Buckl, A. M. Ernst, J. Lankes, F. Matthes, C. Schweda, and A. Wittenburg. Generating visualizations of enterprise architectures using model transformation (extended version). *Enterprise Modelling and Information Systems Architectures – An International Journal*, 2(2):3–13, 2007.
3. S. Kurpjuweit and R. Winter. Viewpoint-based meta model engineering. In M. Reichert, S. Strecker, and K. Turowski, editors, *Enterprise Modelling and Information Systems Architectures – Concepts and Applications , Proceedings of the 2nd International Workshop on Enterprise Modelling and Information Systems Architectures (EMISA ’07), St. Goar, Germany, October 8-9, 2007*, LNI, pages 143–161, Bonn, Germany, 2007. Gesellschaft für Informatik.
4. The Eclipse Foundation. Rich client platform. http://wiki.eclipse.org/index.php/Rich_Client_Platform (cited 2010-03-18), 2010.
5. The Open Group. TOGAF ”Enterprise Edition” Version 9. <http://www.togaf.org> (cited 2010-02-25), 2009.