



Special Issue – The Reference Model of Open Distributed Processing: Foundations, Experiences and Applications

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Important Dates

- Intent to submit 1 Dec. 2010
- Paper submission 28 Feb. 2011
- Notification 31 May 2011
- Revised versions 31 July 2011
- Second round reviews 30 Sep. 2011
- Camera ready versions 31 Oct. 2011

Instructions for authors

Please consult the journal guidelines for submitting papers, available at

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Communicate your intention to submit a paper by emailing the guest editors before 1 December 2010 (this does not imply any formal obligation to submit).

Submit your work through the journal online system <http://ees.elsevier.com/csi>

In the submission process please select “SI:RM-ODP:Foundations/Experiences/Applic” in the “Article Type” step.

Aims and scope

The RM-ODP (Reference Model of Open Distributed Processing, www.rm-odp.net) is a joint standardization effort by ISO/IEC and ITU-T that defines a system of interrelated essential concepts necessary to understand and specify any open distributed systems. In particular, it provides a well-developed enterprise architecture framework for structuring the specifications of such systems.

The RM-ODP reference model is based on precise concepts derived from current distributed processing developments and, as far as possible, on the use of formal description techniques for specification of the architecture. Many RM-ODP concepts, possibly under different names, have been around for a long time and have been rigorously described and explained in exact philosophy (for example, in the works of Mario Bunge) and in systems thinking (for example, in the works of Friedrich Hayek). Some of these concepts—such as abstraction, composition or emergence—have recently been provided with a solid mathematical foundation in category theory.

The RM-ODP was published at the end of 1995 to provide a simple and elegant way to consider the specification, design, development and maintenance of large open distributed systems. Quite a few business systems have been understood and specified using the RM-ODP system of concepts. Since then, much has happened in the field of system and software model engineering, and in particular in the realm of Enterprise Computing. Several international standards were based on RM-ODP, such as the Trader, UML4ODP, and others; other standards were not so explicit, but might have used the RM-ODP concepts, raising the issue of standard interoperability.

Furthermore, the RM-ODP has taken on a new significance in the light of the Model-Driven Architecture (MDA[®]) initiative from the OMG[®], the wide-scale adoption of Service-Oriented Architectures (SOA) and the emerging concepts of Enterprise Architecture and Cloud Computing. Thus it seems important to look at the old and new objectives, the theoretical and practical achievements, the challenges ahead, the ongoing efforts, the work to be done, and the research and practical roadmap. It would be the objective of this special issue to contribute to such an assessment.

Thus, the *Computer Standards & Interfaces* journal invites original, high-quality submissions from academia and industry for its theme issue on “**RM-ODP: Foundations, Experiences and Applications**” to appear in Q4 2011, focusing on topics related to RM-ODP. In particular, we would like to put emphasis on experiences in projects that have been based on the RM-ODP ideas and architecture, on foundational and retrospective issues, and on new lines of research and application related to the Reference Model that allow to outline a roadmap addressing the key challenges in the areas of understanding and specifying business and IT systems. Industrial submissions, including short communications, are especially welcome.