Call for Participation in the
Workshop on ODP for Enterprise Computing
(WODPEC 2005)

ABOUT THE WORKSHOP

Six years after its final adoption as ITU-T Recommendation and ISO/IEC International Standard, the Reference Model of Open Distributed Processing (RM-ODP) is increasingly relevant, mainly because the size and complexity of current IT systems is challenging most of the current software engineering methods and tools. These methods and tools were not conceived for use with large, open and distributed systems, which are precisely the systems that the RM-ODP addresses. As a result, we are now witnessing many major companies and organizations investigating RM-ODP as a promising alternative for specifying their IT systems, and for structuring their large-scale distributed software designs.

There are however some issues that may hamper the widespread adoption of ODP by these companies. One of them is the fact that the Reference Model does not prescribe any specific notation for representing its concepts and viewpoint languages, which really hinders the development of commercial tools for writing and analysing ODP system specifications.

The wide adoption of UML by industry, the number of available UML tools, and the increasing interest for model-driven development and the MDA initiative, motivated ISO/IEC and ITU-T to launch a joint project in 2004, which aims to define the use of UML for ODP system specifications (ITU-T Rec. X.906 | ISO/IEC 19793). Thus, ODP modellers could use the UML notation for expressing their ODP specifications in a standard graphical way, and UML modellers could use the RM-ODP concepts and mechanisms to structure their UML system specifications. In addition, modelling tool suppliers will be able to develop UML-based tools capable of expressing RM-ODP viewpoint specifications.

However, the use of UML as the language and notation of choice for ODP system modelling is not straightforward. For instance, the object models followed by UML and ODP do not match completely (e.g., UML is class-based, whilst ODP is object-based; their behavioural models are different; etc.). In addition, the loose semantics of UML may represent an impediment to achieving the precise specification and analysis of ODP systems and the development of tools, and some ODP concepts are difficult to map into UML (e.g., policy and accountability concepts). On the contrary, the simplicity and elegance of RM-ODP contrasts with the complexity and semantic vagueness of UML. Thus, clarification and simplification of UML semantics may be based on the RM-ODP in this context. Furthermore, using ODP for business modelling may provide an excellent basis for establishing technology- and tool-independent communication mechanisms between business and IT stakeholders.

A second issue is the fact that some UML modellers are used to other design methodologies and architectural practices (e.g., RUP, IEEE Std. 1471, the "4+1" views model, the Zachman's framework, etc.) that define different sets of viewpoints on a system. The continuing relevance of RM-ODP in the context of these software architectural practices, and their relationship to RM-ODP needs to be determined in order to accomplish the degree of interoperability required.

Finally, the precise role played in this picture by model driven architectures (MDA), service oriented architectures (SOA), component-based architectures (CBA), event driven architectures (EDA) and other architectural approaches is still unclear—although the RM-ODP might well serve as a coordinating framework for them all.

SCOPE

This Workshop will provide a discussion forum where researchers, practitioners, system modelers, tool developers and representatives of standardization bodies can meet and exchange experiences, problems and ideas related to the use of UML for ODP system specifications, and its relationship with other architectural practices and approaches (e.g., MDA, SOA, CBA, EDA) in the realm of Enterprise Distributed Computing.

The duration of the workshop is one day and this workshop will be held on **September 19, 2005**.

TOPICS

Topics of interest include, but are not limited to:

- UML and RM-ODP
  - specification of systems using approaches based on UML and the RM-ODP;
  - current issues, limitations and problems of using UML to represent ODP concepts;
  - Representation of specific concepts of ODP viewpoint languages in UML, for example:
    - policy concepts (obligations, permissions, authorizations, prohibitions);
    - accountability concepts (commitments, prescriptions, evaluations, declarations and delegations);
    - multiparty synchronous interactions.
  - impact of UML 2.0 on the specification of RM-ODP concepts;
  - use of UML and ODP for specific application domains (finance, telecomms, health care, aerospace, etc.).
- UML Profiles for RM-ODP
  - formal semantics for subsets of UML or UML Profiles to support the specification of RM-ODP concepts;
  - foundations of RM-ODP based on exact philosophy of science (such as that discussed by Bunge, Hayek and others);
  - definition of UML Profiles for ODP viewpoints and for extensions and refinements of the RM-ODP for particular application domains.
- Architectural practices/approaches and RM-ODP
  - use of MDA concepts and mechanisms for ODP system specifications;
  - use of other modelling languages for ODP system specification and implementation;
  - relationship and integration of RM-ODP with other architectural practices (e.g., IEEE Std. 1471, RUP) and architectural approaches (e.g., SOA, CBA, or EDA).
- Tooling
  - requirements for supporting tools or tool chains (currently in use or under development);
  - use of existing tools for ODP system specifications.
- Case studies and experiences
  - knowledge gained from experiences with graphical notations for large distributed system specifications;
  - application of the RM-ODP for large-scale software projects;
  - identification of potential problems for, and benefits from, the industrial adoption of the UML for ODP system specification.

SUBMISSION GUIDELINES

To enable lively and productive discussions, attendance will be limited to 25 participants and submission of a paper or a position statement is required. All submissions will be formally peer reviewed. Submissions should be 4 to 8 pages long in IEEE Computer Society format and include the author's name, affiliation and contact details. They should be submitted by e-mail as postscript or PDF files before **June 13, 2005**, to the Workshop Chairs (wodpec2005@lcc.uma.es).

Authors will be notified of acceptance by **July 11, 2005**. At least one author of accepted papers should participate in the Workshop. Workshop proceedings will be published on the conference CD-ROM, and all accepted papers will appear in the IEEE Digital Library.

WORKSHOP CHAIRS

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Akira Tanaka	Hitachi (Japan)
Sandy Tyndale-Biscoe	Open-IT (UK)
Antonio Vallecillo	University of Málaga (Spain)

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IMPORTANT DATES

Workshop papers due:	**13 June 2005**
Author notification:	**11 July 2005**
Final papers due:	**15 August 2005**
Workshop date:	**19 September 2005**

Further information about the Workshop is available at

http://www.lcc.uma.es/~av/wodpec2005