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SPECIAL ISSUE

“Software Engineering in Argentina: Present and Future Trends”

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Presentation

This Special Issue is devoted to Software Engineering, and contains extensions of a selection of papers derived from presentations at the 10th edition of the Argentine Symposium on Software Engineering (ASSE 2009), which took place on August 27-28 2009 within the framework of the 38th Argentine Conference on Informatics (JAIIO 2009, August 24-28 at Mar del Plata, Argentina), whose organiser is the Argentine Society for Informatics (SADIO).

The 10th Argentine Symposium on Software Engineering (ASSE 2009) brought together researchers, developers, and practitioners to discuss new ideas, problems and experiences in the field of Software Engineering. ASSE 2009 sought original works in the wide spectrum of software engineering, from academic research to industrial and business applications with significant impact and lessons learned from application development. The symposium featured invited talks, paper and poster sessions, and panels presenting both mature work and new ideas in research and applications.

First, the paper by Rodriguez, Crasso, Zunino and Campo, *An analysis of frequent ways of making undiscoverable Web Service descriptions*, presents a catalog of frequent bad practices in the creation of Web Service descriptions that attempt against their chances of being discovered, along with novel practical solutions to them. Empirical evaluations that corroborated the benefits of the proposed solutions are discussed. As posted by authors, these anti-patterns will help service publishers avoid common discoverability problems and improve existing service descriptions.

Next, the paper by Argañaraz, Funes and Dasso, *An MDA Approach to Business Process Model Transformations*, discuss a Model Driven Architecture approach for the definition of transformations for business process models. These transformations are based on the use of two platform independent workflow universal languages –UML 2.0 Activity Diagrams and BPMN– and a platform specific language, the XPDL language. The first two languages are used in the definition of a horizontal transformation, while BPMN and XPDL are used in the definition of a vertical transformation. Also the use of the QVT language as model transformation language is discussed. The paper includes the description of a practical case as an example.

Following, the paper by Irazábal, Pons and Neil, *Model transformation as a mechanism for the implementation of domain specific transformation languages*, proposes an original development process in which the key notions are models and model transformations. The notion of domain specific transformation language is introduced by means of a User-Centered viewpoint, aiming to achieve transformations easier to write and understand, as well as intuitive code. A novel way to define the transformation language semantics is also included. Authors illustrate the proposal through an example in the database domain.

Finally, the paper by Roldan, Carignano, Gonnet and Leone, *A model for capturing the software architecture design process of mobile systems*, introduces a model to capture and manage the products of a software architecture design process is proposed placing the focus on mobility concerns. The problem of defining the fundamental architectural building blocks and methods for modeling software architectures in dynamic mobile environments is presented, focusing in the lack of tools for documenting the evolution of the products generated during the design of software architectures. An operational approach based on a generic versioning administration scheme is adopted. Indeed, the proposal constitutes a means of documenting the design process, by capturing each executed operation when the design is carried out, and maintaining the design history. Authors explained how this capture of this information enables the tracing of such a design process and its resulting products. A case study of a mobile sales system and a prototype to validate the presented approach are also included.

All the papers above complement earlier work by the same authors, and thus provide more detailed information on the different discussed problems. In this way, different viewpoint, challenges and future trends

concerning high relevant topics on Software Engineering are included, with the final goal of providing a bird eye perspective of the current state of the art regarding Argentine research lines in Software Engineering.

We thank authors and members of the Editorial Board for the work that makes this volume possible. We also thank to Electronic Journal SADIO for providing us an appropriate framework and support for publishing this Special Issue.

Maria Paula González and Andres Flores Mir