

IWSAC'05
Second International Workshop on Software Aspects of Context
Ghita Kouadri Mostéfaoui and Patrick Brézillon

In conjunction with the IEEE International Conference on Pervasive Services (ICPS2005)
July 11-14, 2005, Santorini, Greece

Context is now a dimension that can not be ignored in a number of domains. Several domains, such as Logics, Linguistics, Artificial Intelligence, Medicine, etc. already tackle the problem of making explicit, modeling and using context in real-world applications (see <http://www-poleia.lip6.fr/~brezil/> for different presentations). In the area of software, we have seen the recent development of "context-aware applications" and ubiquitous computing. However, the view of context is limited to what sensors see. They do not consider the relationships between context and information, knowledge, reasoning, and users.

Thus, our objective in this workshop was to address topics such as: Software aspects of Context acquisition tools and techniques, Object-oriented techniques applied to user modeling and context modeling, Software frameworks for Context-aware applications, design patterns applied to context-aware applications and context in security issues. The main questions we would like to debate during this half-day workshop are around: How to model in an efficient way context using software engineering tools? How to change our viewpoint on context-based software? Is the explicit use of software engineering techniques the way to open the door to new challenges in Computer Science? We finally retain four papers.

The first paper is written by Boris Dragovic and Jon Crowcroft. They present an approach to modeling the world based on natural notions of container and containment and show how it enables explicit reasoning about and acting upon context-implied effects on target entities, data objects in particular. They also outline a practical use of the model through its application in a system for autonomic context-aware information security and privacy protection.

Anca Rarau et al. propose a software framework for building context-aware applications. The adaptation mechanism proposed by the framework successfully manages the conflictive situations without requiring the explicit description of the situations.

Christos K. Georgiadis et al. discuss context-based humanized and authorized personalization in mobile commerce applications. They focus on how the various customization and authorization concepts influence specific user interface design elements, namely content, presentation, connection, communication, community and commerce. Adapting an appropriate context-sensitive model for authorizations, the overall flexibility of the established personalization mechanisms is preserved without compromising the stability of the required security precautions.

The fourth paper is authored by Davy Preuveneers and Yolande Berbers. They propose a context-driven composition infrastructure to create an instantiation of a pervasive service customized to the preferences of the user and to the capabilities of his device. They implement services as a composition of components. This enables them to compose a service implementation targeted at a specific device while still being able to adapt it at run-time to respond to changing working conditions.

However, discussion during the half-day workshop would allow clarify some important paths to follow or challenges to attack.

We wish to thank the organizers of ICPS2005 for making IWSAC'05 a reality. We especially thank Yiannis Cotronis for his support and assistance.

IWSAC'05 Workshop Organization

Chairs

Ghita Kouadri Mostéfaoui, University of Fribourg, Switzerland

Patrick Brézillon, University Paris 6, France

Program Committee

Christian Becker (University of Stuttgart, Germany)

Zakaria Maamar (Zayed University, U.A.E)

Soraya Kouadri Mostéfaoui (University of Fribourg, Switzerland)

Lukas Ruf (ETHZ, Switzerland)

Anind K. Dey (Carnegie Mellon University, USA)

Jacques Pasquier-Rocha (University of Fribourg, Switzerland)

Djamel Djenouri (CERIST, Algeria)

Lyes Khelladi (CERIST, Algeria)

Mohamed Khedr (Arab Academy of Science, Egypt)

Avelino Gonzalez (University of Central Florida, USA)

Lotzi Boloni (University of Central Florida, USA)

Djamal Benslimane (Université Claude Bernard Lyon 1, France)

Alexandre Bergel (University of Berne, Switzerland)

Renata Araujo (Universidade Federal do Estado do Rio de Janeiro, Brazil)