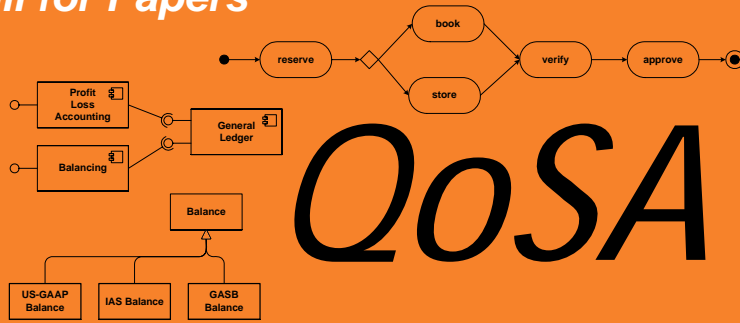# QoSA

Models & Architectures

Fourth International Conference on the
**Quality of Software-Architectures
(QoSA 2008)
"Models and Architectures"**

October 14-17, 2008
University of Karlsruhe (TH), Germany
http://qosa.ipd.uka.de
qosa@ipd.uka.de

in conjunction with CBSE 2008 and
CBHPC 2008 as Federated Events on

**COMP | 20
ARCH | 08**

**General Chair:
Ralf Reussner**
Universität Karlsruhe (TH)

http://comparch2008.ipd.uka.de/

Program Commitee Chairs:

Frantisek Plasil
Charles University, CZ

Steffen Becker
University of Karlsruhe /
FZI, GER

Papers due: ~~February 11th~~ March 10th, 2008
(up to 15 pages LNCS style)

- Accepted contributions will be published
as Springer LNCS -

Lecture Notes in Computer Science
LNCS   LNAI   LNBI

Motivation

Today, a system's software architecture cannot be seen simply as a means to an end, the end being the implemented system. Although the ultimate measure of the quality of the software architecture lies in the implemented system, in how well it satisfies the requirements and constraints of the project and whether it can be maintained and evolved successfully, the quality of a system's software architecture is one of the critical factors in its overall system quality - encompassing both functional and extra-functional properties. In order to treat design as an engineering discipline rather than an art, we need the ability to address the quality of the software architecture directly, not simply as it is reflected in the implemented system.

This is a specific goal of QoSA - to deal with software architecture in general and simultaneously focus on its quality characteristics by addressing the problems of:

- designing software architectures of good quality,
- defining, measuring, evaluating architecture quality, and
- managing architecture quality, tying it upstream to requirements and downstream to implementation, and preserving architecture quality throughout the lifetime of the system.

Cross-cutting these problems is the question of the nature of software architecture. Software architecture organizes a system, partitioning it into elements and defining relationships among the elements. For this we often use multiple views, each with a different organizing principle.

But software architecture must also support properties that are emergent and cannot be ascribed to particular elements. For this we often use the language of quality attributes. Quality attributes cover both internal properties, exhibited only in the development process (e.g. maintainability, portability, testability, etc.), and external properties, exhibited in the executing system (e.g. performance, resource consumption, availability, etc.). Quality attributes cover properties that are emergent, that have a pervasive impact, that are difficult to reverse, and that interact, thereby precluding or constraining other properties. Thus, QoSA also aims to investigate quality attributes in the context of the problems of the design, evaluation, and management of software architecture.

This years QoSA's main topic is on "Models and Architectures". Modelling software architectures for documentation purposes as well as manual analysis is an established practice. Due to the continuous maturation of model-driven software development methods and tools, software architecture models also become subject to automated model transformations. Their target is either to generate high quality software implementations or to automatically derive analysis models for predicting architectural quality characteristics like performance or reliability.

Please refer to the web site for paper submission information and important dates.

Conference Topics

Topics of interest include, but are not limited to:

- Architecture Design and Implementation
- Component Design and Implementation
- Architecture Evaluation
- Architecture Management

Please refer to the web site for more detailed conference topic information

Venue

QoSA 2008 will be located in Germany and hosted by the University of Karlsruhe (TH). It will run jointly with CBSE 2008 and COMPFRAME 2008 as the Federated Events on Component-Based Software Engineering and Software Architecture (CompArch 2008).

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