QUATIC 2007
6th International Conference on the Quality of Information and Communications Technology

Table of Contents

Message from the Conference Chairs .............................................. viii
QUATIC 2007 Steering Committee ...................................................... x
QUATIC 2007 International Program Committee ................................. xii
SEDES 2007 Workshop .................................................................. xiv

Invited Papers

A Vision for International Standardization in Software and Systems Engineering ............... 3
François Coallier

An SEI Process Improvement Path to Software Quality ...................................................... 12
Philip Miller

Regular Papers

Session on Software Product Quality

Tool Support for ISO 14598 Based Code Quality Assessments ................................. 21
H. Gruber, C. Körner, R. Plösch, and S. Schiffer

A Practical Model for Measuring Maintainability ......................................................... 30
Ilja Heitlager, Tobias Kuipers, and Joost Visser

Towards Paradigm-Independent Software Assessment ................................................ 40
Sérgio Bryton and Fernando Brito e Abreu

Session on Software Methodologies and Quality Assurance

Updating OO-Method Function Points ..................................................... 55
Giovanni Giachetti, Beatriz Marín, Nelly Condori-Fernández, and Juan Carlos Molina
Testing Aspect Oriented Programs: An Approach Based on the Coverage of the Interactions among Advices and Methods ............................................. 65
Mario Luca Bernardi and Giuseppe Antonio Di Lucca

Modeling the Experimental Software Engineering Process .......................... 77
Miguel Goulão and Fernando Brito e Abreu

Session on Software Process Improvement Methods

Problems and Pitfalls in a CMMI Level 3 to Level 4 Migration Process ............... 91
Adriano Takara, Aletéia Xavier Bettin, and Carlos Miguel Tobar Toledo

A Comparative Study of SPI Approaches with ProPAM ................................ 100
Paula Ventura Martins and Alberto Rodrigues da Silva

MPS Model-Based Software Acquisition Process Improvement in Brazil ............ 110
Kival Chaves Weber, Eratóstenes Edson Ramalho de Araújo, Danilo Scalet, Edmêa Leonor Pereira de Andrade, Ana Regina Cavalcanti da Rocha, and Mariano Angel Montoni

Session on Middleware and Service Architectures

A Scalable Quality of Service Middleware System with Passive Monitoring Agents over Wireless Video Transmission ..................................................... 123
Tomi Räty, Johannes Oikarinen, and Markus Sihvonen

Quality Assurance in perfSONAR Release Management ................................. 131
Jeff W. Boote, Andreas Hanemann, Loukik Kudarimoti, Panagiotis Louridas, Luis Marta, Michalis Michael, Nicolas Simar, and Illis Tsompanidis

Session on Quality in the Web

A Probabilistic Approach to Web Portal’s Data Quality Evaluation .................... 143
Angélica Caro, Coral Calero, Emilia Mendes, and Mario Piattini

Towards the Support of Contextual Information to a Measurement and Evaluation Framework ................................................................. 154
Hernán Molina and Luis Olsina

Session on Software Process Improvement in Action

A Nationwide Program for Software Process Improvement in Brazil ............... 167
Ana Regina Cavalcanti da Rocha, Mariano Montoni, Kival Chaves Weber, and Eratóstenes Edson Ramalho de Araújo
Lessons Learned and Results from Applying Data-Driven Cost Estimation to Industrial Data Sets
J. Heidrich, A. Trendowicz, J. Münch, Y. Ishigai, K. Yokoyama, N. Kikuchi, and T. Kawaguchi

Implementing Software Process Improvement Initiatives in Small and Medium-Size Enterprises in Brazil
Gleison Santos, Mariano Montoni, Jucel Vasconcellos, Sávio Figueiredo, Reinaldo Cabral, Cristina Cerdeiral, Anne Elise Katsurayama, Peter Lupo, David Zanetti, and Ana Regina Rocha

Short Papers
SEDES 2007 Workshop

Model Driven Development of Software Product Lines
Alexandre Bragança and Ricardo J. Machado

Offline Execution in Workflow-Enabled Web Applications
Edgar Gonçalves and António Menezes Leitão

Automatic Generation of User Interfaces from Domain and Use Case Models
António Miguel Rosado da Cruz and João Pascoal de Faria

Validation of Reactive Software from Scenario-Based Models
Óscar Ribeiro and João M. Fernandes

Model-Driven Software Development for Pervasive Information Systems Implementation
José Eduardo Fernandes, Ricardo J. Machado, and João Álvaro Carvalho

Automated Information Systems Generation for Process-Oriented Organizations
Francisco J. Duarte, Ricardo J. Machado, and João M. Fernandes

Author Index