
CALL FOR PAPERS

Co-located with:



4th International Workshop on Exception Handling (WEH.08)

Website:

www.comp.lancs.ac.uk/computing/WEH.08/

FSE 16
16th Intl. Symposium
Foundations of Software
Engineering
November 14, 2008,
Atlanta, USA

Motivation. A number of recent field studies have identified that error handling design in industrial applications typically exhibits poor quality independently of the underlying programming language and application domain. As a consequence, it does not seem pragmatic to think that the core problems of exception handling reside exclusively on the design of contemporary programming languages. Also, many researchers have recently demonstrated that exceptions are a global design issue and, as such, they should be systematically treated across the software lifecycle. Not surprisingly, the interest in exception handling has been consistently growing in the software engineering community through the last years. The relevance of the topic becomes even more evident when we look at the number of recent work on exception handling in key software engineering areas, such as contemporary modularization techniques (e.g. aspect-oriented programming and feature-oriented programming), model-driven engineering, software evolution, refactoring, empirical studies, software product lines, ubiquitous computing, and formal methods. They are consistently appearing in the software engineering literature and scattered across relevant journal publications and the technical programs of top software engineering conferences.

Goals. This workshop will provide a forum for presenting and discussing research on exception handling in all areas of software development. The participants will work together to identify exception handling challenges in the whole software life cycle, methodological as well as technical issues, modelling techniques and linguistic mechanisms. In particular, we will be interested in discussing open research questions in the following contexts:

- exception handling during early development phases, such as requirements elicitation, specification and analysis;
- formal modelling, testing, validation and verification of exception handling;
- model transformations and refinements in the presence of exceptions;
- best practice in exception handling engineering;
- exception handling in open, dynamic and ubiquitous systems.

Based on the workshop submissions, the workshop aims to (i) debate the open issues on the interplay of exception handling and software engineering; (ii) bring the attention of the software engineering community to the importance of exception handling in contemporary software development; (iii) motivate the expansion of systematic practice and research of exception handling throughout the whole software lifecycle, and (iv) foster a collaborative environment for both practitioners and researchers interested in innovative exception handling techniques.

Topics of interest. The workshop is intended to cover a wide range of topics, including (but not limited to):

- Exceptions in software processes
- Empirical studies of exception handling engineering
- Exception documentation
- Exceptions in requirements and architectural design
- Design patterns and anti-patterns, architectural styles, and good programming practice cookbooks
- Static analysis and testing of exception handling
- Refactoring and evolution of exception handling code
- Exceptions and variability management
- Exception handling in formal system development
- Comparisons of innovative exception mechanisms and conventional ones
- Exception handling and contemporary modularization techniques (e.g. aspect-oriented programming)
- Exception handling and variability mechanisms
- Metrics and quality models for abnormal behaviour
- Exception handling and middleware design
- MDD for exceptions
- Exception handling in multi-agent systems
- Exception handling in service-oriented architectures
- Development of predictive models of defect rates

Workshop Format and Submissions. WEH.08 is a one-day workshop with a strong focus on discussions. Authors who plan to contribute with a paper are requested to submit a position paper through the workshop website. The submission must follow the FSE style guidelines. Papers should be submitted electronically via the workshop website. We are soliciting the submission of two categories of position papers: (i) traditional position papers (5-8 pages) related to workshop topics, and (ii) very short position papers (1-2 pages), where the authors describe their thoughts, lessons learned, or points of view with respect to one or more workshop topics. Moreover we **especially** encourage authors to present their experience and/or novel ideas on how to provide a modern software engineering treatment of exception handling (shorter format). The papers chosen for presentation should offer different or novel perspectives on the workshop topics and they must have a high potential for generating issues that will stimulate the discussions.

Important Dates

Submission Deadline: August 10, 2008

Notification of Acceptance: September 3, 2008

Camera-ready: September 20, 2008

Workshop: November 14, 2008

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Alessandro Garcia, Lancaster University, UK
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