

Call For Papers



ARAMIS

First International Workshop on
AUTOMATED ENGINEERING OF AUTONOMIC AND
RUN-TIME EVOLVING SYSTEMS

<http://www.selab.isti.cnr.it/Aramis2008/>

co-located with:

ASE2008

the 23rd IEEE/ACM Int. Conference on Automated Software Engineering
L'Aquila - Italy

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Modern software-intensive systems are often large, continuously running applications, deployed on complex and geographically distributed environments. These systems are characterized by a high rate of changes and unexpected situations that must be dynamically and automatically handled. The evolutionary nature of modern software-intensive applications makes infeasible a standard approach to (functional and extra-functional) verification and validation. The focus must move from validating and removing faults from design time to validating and healing evolving systems at run-time.

The ARAMIS workshop will provide a forum for scientists and engineers in academia and industry to present and discuss their latest research. ARAMIS will focus on issues, challenges, and future perspectives of techniques for automated verification and validation of evolving systems, for automatic context management and for the engineering of self-healing solutions. Topics of interest include:

V&V of evolving systems

- challenges in automating v&v for evolving at run-time systems;
- types of evolution;
- the role of run-time modeling in v&v of evolving systems;
- v&v of Service Oriented Architectures;
- v&v of Self-* systems;
- adaptation of existing v&v techniques to evolving at run-time systems;
- relationship between compile-time and run-time adaptation reflection of system changes into the original model;
- on-line testing of evolving at run-time systems;
- monitoring at run-time;
- fault tolerance assurance in evolving at run-time systems

Automatic context management

- context Definition: meta-modeling and modeling, languages, ontologies, modeling tools.
- context Management: monitoring and changes detection.
- mechanism to adapt software systems to context changes.
- mechanisms for automated reasoning on context information.
- MDE techniques for the development and QoS validation of context-aware software systems.
- multi-dimensional (QoS) models to support software system adaptation to the context changes.

Engineering of self-healing solutions

- self-healing solutions for functional and non-functional faults
- architectures for self-healing solutions
- design for self-healing
- model-based approaches to self-healing
- automated debugging techniques

Submissions. Workshop submissions will be prepared using the ASE 2008 Submission Guidelines and must not exceed eight (8) pages. Informal proceedings, made electronically, will be available prior the workshop. We are planning to publish workshop proceedings by a leading publisher. The final details are still negotiated.

IMPORTANT DATES

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| Submission of Papers: | June 15, 2008 |
| Notification of Acceptance: | July 15, 2008 |
| Camera Ready Copy: | July 30, 2008 |
| Workshop: | September 16, 2008 |