



# AST 2009: Fourth International Workshop on Automation of Software Test

<http://ast2009.com/>

## CALL-FOR-PAPERS

Special Theme: Testing Web Services  
Special Session: Business and Industry Case Studies

Vancouver, Canada, 18-19 May 2009

part of ICSE 2009 (<http://www.cs.uoregon.edu/events/icse2009/home/>)

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18-19 May 2009

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Please see workshop website for  
more details and the workshop  
Program Committee.

In software development practice, testing accounts for as much as 50% of the total development effort. It is therefore imperative to reduce the cost and improve the effectiveness of software testing by automating the testing process. In the past decades, a great amount of research effort has been spent on automatic test case generation, automatic test oracles, etc. Test automation is also becoming an important part of software testing practice.

The workshop is the successor of the first three AST workshops held at ICSE 2006-2008. It will provide researchers and practitioners a forum for exchanging ideas, experiences, understanding of the problems, visions for the future, and promising solutions to the problems. The workshop will also provide a platform for researchers and developers of testing tools to work together to identify the problems in the theory and practice of software test automation and to set an agenda and lay the foundation for future development.

### TOPICS OF INTEREST

The workshop focuses on bridging the gap between the theories and practice of software test automation. The topics of interest include, but are not limited to, the following.

- 1) *Methodology*: Software test automation in the context of various software development methodologies, such as in model-driven, component-based, agile, test-driven, product lines, service-oriented, agent-oriented, and aspect-oriented methodologies, and in evolutionary development.
- 2) *Technology*: Automation of test techniques and methods used in test-related activities, support for software testing methods, and applications to specific types of software in different application domains.
- 3) *Software testing tools and environments*: Issues in the development, operation, maintenance and evolution of software testing tools and environments.
- 4) *Experiments, empirical studies and experience reports and vision of the future of software test automation*.

### SPECIAL THEME: Testing Web Services

This year the workshop has a special theme on *testing web services*.

Testing Web Services introduces new challenges to software practitioners due to the dynamic and loosely-coupled nature of service-oriented systems. Web Services are typically dynamically discovered, composed and reconfigured. Furthermore, Web service providers are usually third parties and not in-house developers. Traditional testing techniques need to be adjusted and novel testing methodologies need to be investigated so that they can be applied to testing Web services. The need for automated testing is even more imperative in testing Web services due to the highly adaptive and dynamic operation conditions of Web services. Test cases need to be generated automatically; just-in-time testing needs to be performed to verify Web service conformance; integration testing is needed for the verification of compositions of services.

Submissions on this topic are especially invited, but papers on other topics are also welcome.

### INDUSTRIAL CASE STUDIES

There will also be an "Industrial Case Studies" session at the workshop, with shorter presentations reporting the real state of the practice in automation of software testing. Test practitioners who are especially encouraged to contribute their experiences and insights on test automation in this session. Submissions to this session do not have to conform to the main theme of the workshop.

Topics for this session include, but are not limited to, the following: new tools, new best practices, process innovations related to test automation, gaps in existing vendor toolsets, ideas and visions for near-term research work. Submissions in this category may be either a short paper (2-4 pages) or a slide presentation (15 slides maximum). Short papers will be included in the conference proceedings; slide presentations will be published only on the AST 2009 website.

### SUBMISSIONS

Three types of submissions are invited: *regular papers*, *short case study papers*, and *case study presentations*.

Regular papers must be no more than 8 pages and report research and/or practical experience in the area of software test automation.

Case study papers must be no more than 4 pages and case study presentations must be no more than 15 slides. Case study papers and presentations must report on practical applications of test automation.

All papers submitted to the workshop must be unpublished original work and must not have been submitted anywhere else for publication. The paper submissions must be in English and conform to the **IEEE Proceedings Format** in either PDF or postscript format. Presentations must be printed two slides per page and submitted in either PDF or postscript format. All submissions must be made through online upload to the workshop paper submission website.

All submissions will be reviewed by three PC members, but using different criteria. Regular papers will be judged on the basis of their clarity, relevance, originality, and contribution. Case study papers and presentations will be judged on the basis of their clarity, relevance, and interest to the workshop participants.

### PUBLICATION OF PAPERS

The accepted workshop papers including both regular and case study papers will be published in the ICSE'09 conference proceedings in ACM and IEEE Digital Libraries. ICSE papers and Workshop papers will be published in two separate volumes. Workshop attendees will receive a memory stick with both proceedings volumes on it.

Authors of accepted papers are required to register for the workshop and present the paper at the workshop in order for the paper to be included in the proceedings and ACM and IEEE Digital Libraries.