



Call for Participation
SCAM 2003

*Third IEEE International Workshop on Source Code Analysis and
Manipulation*

26th and 27th September 2003,
Radisson SAS Hotel Amsterdam
Rusland 17
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,

Co-located with

Nineteenth IEEE International Conference on Software Maintenance, (ICSM 2003)
Fifth IEEE Workshop on Web Site Evolution, (WSE 2003)
Second Annual "DesignFest" on Visualizing Software for Understanding and Analysis, (VISSOFT 2003)
Software Technology and Engineering Practice 2003, (STEP 2003)
First International Workshop on Evolution of Large-scale Industrial Software Applications, (ELIZA 2003)

Sponsored by Institute of Electrical and Electronics Engineers (IEEE)
Netherlands Organisation for Scientific Research (NWO)
Royal Netherlands Academy Arts and Sciences (KNAW)

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1 Workshop social event

There will be a workshop dinner in a micro-brewery (opposite the Trippenhuis):

De Bekeerde Suster
Kloveniersburgwal 6-8
1012 CT Amsterdam
Tel: 020-423 01 12

The website (in dutch) for the micro-brewery is <http://www.beiaardgroep.nl/brouwerij/>.

2 Special Issue of SQJ

All papers accepted for inclusion in the workshop will appear in the proceedings which will be published by the IEEE Computer Society Press.

In addition, authors of selected papers will be invited to submit extended version of their papers for a special issue of The Software Quality Journal.

3 Resources from the Workshop

A collection of papers (full text) and slides presentwed at the workshop can be found in the accepted papers section (10).

A group photo is available here.

4 Location

Radisson SAS Hotel Amsterdam
Rusland 17
1012 CK Amsterdam
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email: reservations.amsterdam@radissonsas.com
web: <http://www.radissonsas.com>

5 Keynote Speaker

The 2003 keynote speaker will be Chris Verhoef.

Managing multi-billion dollar IT budgets using source code analysis

Abstract We present a quantitative approach for IT portfolio management. This is an approach that CMM level 1 organizations can use to obtain a corporate wide impression of the state of their total IT portfolio, how IT costs spent today project into the budgets of tomorrow, how to assess important risks residing in an IT portfolio, and to explore what-if scenarios for future IT investments. Our quantitative approach enables assessments of proposals from business units, risk calculations, cost comparisons, estimations of TCO of entire IT portfolios, and more. Our approach has been applied to several organizations with annual multibillion dollar IT budgets each, and has been instrumental for executives in coming to grips with the largest production factor in their organizations: information technology.

6 Paper Submission Information

Paper submission is now closed. This year 43 papers were submitted to SCAM.

Important Dates

Deadline for submission	:	25th April 2003
Notification	:	16th June 2003
Camera Ready Due	:	16th July 2003
Workshop	:	26th and 27th September 2003

7 About SCAM

7.1 Aims

The aim of this workshop is to bring together researchers and practitioners working on theory, techniques and applications which concern analysis and/or manipulation of the source code of computer systems. While much attention in the wider software engineering community is properly directed towards other aspects of systems development and evolution, such as specification, design and requirements engineering, it is the source code that contains the only precise description of the behaviour of the system. The analysis and manipulation of source code thus remains a pressing concern.

7.2 Topics Covered

Topics include, but are not limited to: program transformation, abstract interpretation, program slicing, source level software metrics, decompilation, source level testing and verification, source level optimisation and program comprehension. However, the emphasis of the workshop is on the analysis and manipulation techniques *themselves*.

7.3 Definition of 'Source Code'

For the purpose of clarity 'source code' is taken to mean any fully executable description of a software system. It is therefore so-construed as to include machine code, very high level languages and executable graphical representations of systems. The term 'analysis' is taken to mean any automated or semi automated procedure which takes source code and yields insight into its meaning. The term 'manipulation' is taken to mean any automated or semi-automated procedure which takes and returns source code.

7.4 Important Dates

Important Dates

Deadline for submission	:	25th April 2003
Notification	:	16th June 2003
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Workshop	:	26th and 27th September 2003

8 Technical Program

In keeping with the spirit and format of a workshop, SCAM will have a highly discursive nature, with four theme-based discussion tracks and a keynote presentation, aimed at structuring and stimulating discussion.

Authors will have a 15 minute slot to present their work. This is 10 minutes (maximum) for talking with 5 minutes (minimum) for questions. Authors are encouraged not to attempt to present the details of their paper in this time. Rather, respecting the discussion-centered goal of SCAM, authors are encouraged to use a **few** slides to present points, claims, issues and topics for discussion and to use their time allocation to attempt to set the agenda for the ensuing discussions.

Each session has a specifically allocated discussion time at the end of the presentations to allow for this.

The full program for the workshop is available as word document, PDF document and Postscript document.

Please note that due to the exceptional number of submissions, the workshop has been **extended to start on Friday 26th September at 3pm**. The workshops finishes on Saturday 27th September at 5.30pm.

This section will give the allocation of papers to sessions.

Papers accepted for the workshop are listed in Section 10.

9 Registration

Registration for SCAM is through the ICSM registration page.

10 Accepted Papers

This page, where authors have permitted it, contains full texts of the papers in postscript or PDF format. This information is provided to maximise the chances for useful interactions at the workshop. (Incidentally, there is no significance in the order in which these papers appear on this page.)

1. Barrier Slicing and Chopping
slides from talk
Jens Krinke, Fakultät für Mathematik und Informatik, Universität Passau, Germany
2. Online Cycle Detection and Difference Propagation for Pointer Analysis
slides from talk
David Pearce, Paul Kelly, Chris Hankin, Department of Computer Science, Imperial College, UK.
3. Slicing the SCAM Mug: A Case Study in Semantic Slicing
slides from talk
Martin Ward, Software Technology Research Lab, Department of Computer Science, DeMontfort University and Software Migrations Ltd, UK
4. Checking Program Profiles
slides from talk
Patrick Moseley, Saumya Debray, Gregory Andrews, Department of Computer Science, University of Arizona, USA.
5. XOGastan: XML-Oriented gcc AST Analysis and Transformations
slides from talk
Giulio Antoniol, Massimiliano Di Penta, Research Centre on Software Technology, Università degli Studi del Sannio, Gianluca Masone, Umberto Villano, Università degli Studi del Sannio, Italy.
6. Static Slicing of Reactive Programs
slides from talk
Aditya Kulkarni, Ramesh S., IIT, Bombay, India.
7. Design and Implementation of Bytecode-based Java Slicing System
slides from talk
Fumiaki Umemori, Kenji Konda, Reishi Yokomori, Katsuro Inoue, Software Engineering Laboratory, Osaka University, Japan.
8. Detection of Redundant Code using R2D2
slides from talk
Antonio Leitao, INESC-ID/Technical University of Lisbon
9. Towards managing environment dependence during legacy systems maintenance and renovation
slides from talk
Maxim Mossienko, Oleg Khaschansky, Dmitriy Antonov, Oleg Smirnov, Anton Gubanov, St. Petersburg State University, Russia.
10. The Java System Dependence Graph
slides from talk
Neil Walkinshaw, Murray Wood, Marc Roper, Department of Computer and Information Sciences, University of Strathclyde, UK
11. Applying Meyer's Taxonomy to Object-Oriented Software Systems
slides from talk
Michael English, Jim Buckley, University of Limerick, Ireland.
12. Power Law Distributions in Class Relationships
slides from talk
Richard Wheeldon, Steve Counsell, School of Computer Science and Information Systems, Birkbeck College, UK
13. Improving the Static Analysis of Loops by Dynamic Partitioning Techniques
slides from talk
Matthieu Martel, CEA
14. Interprocedural Static Slicing of Binary Executables
slides from talk
Akos Kiss, Judit Jász, Gábor Lehotai, Tibor Gyimóthy, Department of Informatics, University of Szeged, Hungary
15. Denotational Semantics of CPP
slides from talk
Jean-Marie Favre, Software Engineering Tools and Environments, University of Grenoble, France
16. Turning Dynamic Typing into Static Typing by Program Specialization
slides from talk
Karina Olmos, Eelco Visser, Institute of Information and Computing Sciences, Utrecht University, Netherlands

17. Unique Renaming of Java Using Source Transformation
slides from talk
Xinping Guo, Jim Cordy, Tom Dean, Queen's University, Canada.
18. Parse-Tree Annotations Meet Re-Engineering Concerns
slides from talk
Jan Kort, University of Amsterdam, Netherlands, Ralf Lämmel, Free University of Amsterdam and Centrum voor Wiskunde en Informatica, Netherlands
19. Design of the CodeBoost Transformation System for Domain-Specific Optimisation of C++ Programs
slides from talk
Otto Skrove Bagge, Karl Trygve Kalleberg, Magne Haveraaen, Department of Informatics, University of Bergen, Norway
Eelco Visser, Institute of Information and Computing Sciences, Utrecht University, Netherlands
20. Results from a Large-Scale Study of Performance Optimization Techniques for Source Code Analyses Based on Graph Reachability Algorithms
slides from talk
Dave Binkley, Computer Science Department, Loyola College in Maryland, USA
Mark Harman, Department of Information Systems and Computing, Brunel University, UK

11 SCAM Committees

11.1 Chairs

General Chair

Liz Burd, Department of Computer Science, University of Durham, UK

Program Chairs

Dave Binkley, Computer Science Department, Loyola College in Maryland, USA and

Paolo Tonella, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Italy

Local Arrangements Chair

Leon Moonen, Software Evolution Research Laboratory, Technische Universiteit Delft, Netherlands

Publicity Chair

Mark Harman, Department of Information Systems and Computing, Brunel University, UK and

Jianjun Zhao, Department of Computer Science and Engineering, Fukuoka Institute of Technology, Japan

Finance Chair

Dave Binkley, Computer Science Department, Loyola College in Maryland, USA

Electronic Submission Chair

Silvio Stefanucci, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Publications Chair

Andrea De Lucia, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Industry Chair

Ira Baxter, Semantic Designs, USA and

Michael Van De Vanter, Sun Microsystems Labs, USA

11.2 Steering Committee

Current members of the Steering committee:

Dave Binkley, Computer Science Department, Loyola College in Maryland, USA (2001 – 2004)

Mark Harman, Department of Information Systems and Computing, Brunel University, UK (2001 – 2004)

Andrea De Lucia, Research Centre on Software Technology, Università degli Studi del Sannio, Italy (2001 – 2003)

Keith Gallagher, Computer Science Department, Loyola College in Maryland, USA (2001 – 2003)

Jim Cordy, School of Computing, Queen's University, Canada (2002 – 2005)

Paolo Tonella, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Italy (2002 – 2005)

Past members of the Steering Committee:

Gerardo Canfora, Research Centre on Software Technology, Università degli Studi del Sannio, Italy (2001 – 2002)

Malcolm Munro, Department of Computer Science, University of Durham, UK (2001 – 2002)

11.3 Program Committee

Paul Anderson, Grammatech, USA

Giulio Antoniol, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Françoise Balmas, Université Paris 8, Laboratoire d'Intelligence Artificielle, France

Ira Baxter, Semantic Designs, USA

Dave Binkley, Computer Science Department, Loyola College in Maryland, USA

Liz Burd, Department of Computer Science, University of Durham, UK

Gerardo Canfora, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Aniello Cimitile, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Pascal Costanza, Institut für Informatik III, Universität Bonn, Germany

Jim Cordy, School of Computing, Queen's University, Canada

Tom Dean, Department of Electrical and Computer Engineering, Queen's University, Canada

Andrea De Lucia, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Anna Rita Fasolino, Dipartimento di Informatica e Sistemistica, University of Naples, Italy

Keith Gallagher, Computer Science Department, Loyola College in Maryland, USA

Sudipto Ghosh, Computer Science Department, Colorado State University, USA

Michael Godfrey, Computer Science Department, University of Waterloo, Canada

Tibor Gyimóthy, Department of Informatics, University of Szeged, Hungary

Mark Harman, Department of Information Systems and Computing, Brunel University, UK

Rob Hierons, Department of Information Systems and Computing, Brunel University, UK

Mariam Kamkar, Department of Computer and Information Science, Linköping University, Sweden

Kostas Kontagiannis, Department of Electrical and Computer Engineering, University of Waterloo, Canada

Bogdan Korel, Department of Computer Science, Illinois Institute of Technology, USA

Rainer Koschke, University of Stuttgart, Germany

Jens Krinke, Fakultät für Mathematik und Informatik, Universität Passau, Germany

Panos Linos, Department of Computer Science and Software Engineering, Butler University, USA

Andrew Malton, Computer Science Department, University of Waterloo, Canada

Hausi Müller, Department of Computer Science, University of Victoria, Canada

Malcolm Munro, Department of Computer Science, University of Durham, UK

Filippo Ricca, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Italy

Jurgen Rilling, Department of Computer Science, Concordia University, Canada

Sibylle Schupp, Department of Computer Science, Rensselaer Polytechnic Institute, USA

Paolo Tonella, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Italy

Arie Van Deursen, Centrum voor Wiskunde en Informatica, Netherlands

Michael Van De Vanter, Sun Microsystems Labs, USA

Chris Verhoef, Department of Mathematics and Computer Science, Free University of Amsterdam, Holland

Giuseppe Visaggio, Dipartimento di Informatica, Università degli Studi di Bari, Italy

Martin Ward, Software Technology Research Lab, Department of Computer Science, DeMontfort University and Software Migrations Ltd, UK

Hongji Yang, Software Technology Research Lab, Department of Computer Science, DeMontfort University, UK

Jianjun Zhao, Department of Computer Science and Engineering, Fukuoka Institute of Technology, Japan

12 Printable Call for Papers

A single sheet call is available in postscript and PDF. This document also contains the information authors will need regarding submission of papers (Section 6) and important dates (Section 7.4).

13 History of SCAM

The first SCAM workshop (SCAM 2001) was held in Florence, on November 10th 2001, co-located with ICSM 2001, WESS 2001 and WSE 2001. The workshop was a one day event with the emphasis on discussion. 40 people attended the workshop.

The SCAM 2001 Proceedings are published by the IEEE and there is a special issue of the journal Information and Software Technology featuring extended versions of selected papers from SCAM 2001.

The second SCAM workshop (SCAM 2002) was held in Montréal, on October 1st 2002 with ICSM 2002, WESS 2002, DBMR 2002, and WSE 2002. The workshop maintained the discussion-based emphasis. Some resources and outputs from the workshop are available on the SCAM 2002 website. 43 people attended the workshop. There will be a special issue of The Journal of Automated Software Engineering featuring extended versions of selected papers from the SCAM 2002 workshop.

14 Enquiries about the workshop

If you have any enquiries about the workshop (other than submission of paper, which should go to the program Chair, Dave Binkley and Paolo Tonella), please contact the general chair, Liz Burd.