Call for Papers
SCAM 2005

Fifth IEEE International Workshop on Source Code Analysis and Manipulation

30th September and 1st October 2005,
Danubius Grand Hotel, Budapest, Hungary,

There will be special issue of The Science of Computer Programming Journal featuring
extended versions of selected papers from SCAM 2005

Co-located with
Twenty first IEEE International Conference on Software Maintenance, (ICSM 2005)

Contents

Deadline Extension
Abstract due: 29th April 2005; Full paper due: 6th May

1 SCAM merchandise

The SCAM workshop has proudly produced imaginative and useful branded take away items as part of the workshop attendees package. There is already some evidence that these are becoming collectible items. In 2001 there was a SCAM Mug, which computed slices when filled. In 2002 in Montréal there was a bi-lingual biro and a tee-shirt. In 2003 in Amsterdam attendees were given an attractive AmstarSCAM glass. In 2004 in Chicago there was a blueSCAM thermal mug with a Saxophone logo for the "S" of SCAM. In 2005 in Budapest, attendees will be rewarded with a tasteful porcelain Danubius mug, in which the SCAM logo appears discretely as the waters of the Danube. Here is a picture of the mug

2 Journal Special Issue

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 Science of Computer Programming Journal.

3 Resources from the Workshop

This section will contain resources and outputs from the workshop

4 Location

Danubius Grand Hotel, Budapest, Hungary

5 Keynote Speaker

The SCAM 2005 keyntoe talk will be given by Eelco Visser, Institute of Information and Computing Sciences, Utrecht University, Netherlands

6 Paper Submission Information

Papers should be submitted electronically. The electronic portal for web submission is at http://cyber.rcost.unisannio.it/ scam2005papers

If you find that this link does nto work. Try this alternative:-

http://193.206.108.137/ scam2005papers/

Papers should not be longer than 10 pages in IEEE Computer Society Press Proceedings Author Guidelines.

For LaTeX users, style files are available. You can down load these by following this link to IEEE LaTeXstyle files.

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 Science of Computer Programming Journal.

Important Dates

Deadline for submission	:	**Abstract due: 29th April 2005; Full paper due: 6th May**
Notification	:	**10th June 2005**
Camera Ready Due	:	**15th July 2005**
Workshop	:	**30th September and 1st October 2005**

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 empahsis 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

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8 Technical Program

In keeping with the spirit and format of a workshop, SCAM will have a highly discursive nature, with 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.

Early versions of papers and links to speakers will appear here shortly. In the meantime, here is a draft programme:-

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 9:00-10:00  Welcome (9:00-9:15) and Keynote (9:15-10:00)

10:00-10:30  Break

10:30-12:30  Session 1 - Slicing

Dave Binkley, Mark Harman
        "Forward slices are smaller than backward slices"

Hyoung Seok Hong, Insup Lee, Oleg Sokolsky
        "Abstract Slicing: A New Approach to Program Slicing Based on
        Abstract Interpretation and Model Checking"

Attila Szegedi, Tibor Gyim?thy
        "Dynamic Slicing of Java Bytecode Programs"
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Dave Binkley, Sebastian Danicic, Tibor Gyim?thy, Mark Harman,
  ?kos Kiss, Bogdan Korel
        "Minimal Slicing and the Relationships Between Forms
        of Slicing"


12:30-14:00  Lunch


14:00-15:30  Session 2 - Concept Location


Silvia Breu
        "Extending Dynamic Aspect Mining with Static Information"


Beat Fluri, Harald C. Gall, Martin Pinzger
        "Fine-Grained Analysis of Change Couplings"


Jeremy Singer
        "Concept Assignment as a Debugging Technique for Code Generators"


15:30-16:00  Break


16:00-17:30  Session 3 - Program Transformations I


Hongyu Zhang, Jeremy S. Bradbury, James R. Cordy, Juergen Dingel
        "Implementation and Verification of Implicit-Invocation
        Systems Using Source Transformation"


Markus Schordan, Daniel Quinlan
        "Specifying Transformation Sequences as Computation on Program
        Fragments with an Abstract Attribute Grammar"


Nerina Bermudo, Andreas Krall
        "Control Flow Graph Reconstruction for Reverse Compilation of
        Assembly Language Programs with Delayed Instructions"


Saturday  Oct 1st
====================

 9:00-10:30 Session 4 - Pointer Analysis


Aiwu Shi, Gleb Naumovich
        "Static Analysis for  Computing Escapability and Mutability
        for Java Components"


Richard Jones
        "A Fast Analysis for Thread-Local Garbage Collection with
        Dynamic Class Loading"


Marcio Buss, Stephen A. Edwards, Bin Yao, Daniel Waddington
        "Pointer Analysis for Source-to-Source Transformations"


10:30-11:00 Break


11:00-12:00 Session 5 - Empirical Studies


Michael English, Jim Buckley, Tony Cahill, Kristian Lynch
        "Measuring the Impact of Friends on the Internal Attributes of
        Software Systems"


Steve Counsell, Stephen Swift, Allan Tucker, Emilia Mendes
        "Object-oriented cohesion as a  surrogate of software
        comprehension: an empirical study"
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12:00-14:00 Lunch

14:00-15:30 Session 6 - Program Transformations II

Shannon Xu, Thomas Dean
        "Transforming Embedded Java Code of JSP Pages into Custom Tags"

Bernadette Power, Geoff W. Hamilton
        "Declassification: Transforming Java Programs to Remove
        Intermediate Classes"

Paul Anderson
        "The Performance Penalty of XML for Program Intermediate
        Representations"

15:30-16:30 Concluding remarks

Discussion and Open Issues
        Steering Committee Elections
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9 Registration

Registration is available at the ICSM registration page.

10 Accepted Papers

A list of accepted papers, together with their full text as submitted and pointers to the authors home page (where available) and email addresses will be posted here. This information is provided to maximize the chances for useful interactions at the workshop.

11 Workshop social event

In keeping with tradition, there will be a SCAM social event. This is a great opportunity to make new acquaintances and to renew older ones.

This year the social event will be located on a party ship. The ship will have a 1 hour trip outside Budapest, then it will cruise inside Budapest for 2 hours. Service will include a reception, and the bar will be open for the participants. What a great way to see Budapest and to meet the rest of the community.

The social event is included in the registration fee. We are able to do this because of the generous sponsorship extended to the workshop from the sponsors listed on the home page.

The tour starts on September 30th, 2005 at 19:00, boarding starts at 18:30. The ship departs from and arrives back at a dock named Bringó at the Margaret Island.

See you there.

12 SCAM Committees

12.1 Chairs

General Chair
Paolo Tonella, Centro per la Ricerca Scientifica e Tecnologica, Istituto Trentino di Cultura, Italy
Program Chairs
Jens Krinke, Fachbereich Elektrotechnik und Informationstechnik, FernUniversität in Hagen, Germany and
Giulio Antoniol, Research Centre on Software Technology, Università degli Studi del Sannio, Italy
Local Arrangements Chair
Akos Kiss, Institute of Informatics, University of Szeged, Hungary
Publicity Chair
Mark Harman, Department of Computer Science, King's College London, 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
Massimiliano Di Penta, Research Centre on Software Technology, Università degli Studi del Sannio, Italy

Publications Chair
TBA

Industry Chair
TBA

12.2   Steering Committee

Current members of the Steering committee:
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)
Liz Burd, Department of Computer Science, University of Durham, UK   (2003 – 2006)
Leon Moonen, Software Evolution Research Laboratory, Technische Universiteit Delft, Netherlands   (2003 – 2006)
Tom Dean, Department of Electrical and Computer Engineering, Queen's University, Canada   (2004 – 2007)
Mark Harman, Department of Computer Science, King's College London, UK   (Chair, 2001 – 2004, Re-elected 2004 – 2007)
Past members of the Steering Committee:
Dave Binkley, Computer Science Department, Loyola College in Maryland, USA   (2001 – 2004)
Andrea De Lucia, Dipartimento di Matematica e Informatica, Università di Salerno, Italy   (2001 – 2003)
Keith Gallagher, Computer Science Department, Loyola College in Maryland, USA   (2001 – 2003)
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)

12.3   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
Jim Cordy, School of Computing, Queen's University, Canada
Steve Counsell, School of Computer Science and Information Systems, Birkbeck College, UK
Sebastian Danicic, Department of Mathematical and Computing Sciences, Goldsmiths College, UK
Tom Dean, Department of Electrical and Computer Engineering, Queen's University, Canada
Andrea De Lucia, Dipartimento di Matematica e Informatica, Università di Salerno, Italy
Massimiliano Di Penta, Research Centre on Software Technology, Università degli Studi del Sannio, Italy
Keith Gallagher, Computer Science Department, Loyola College in Maryland, USA
Roberto Giacobazzi, Dipartimento di Informatica, Università degli Studi di Verona, Italy
Michael Godfrey, Computer Science Department, University of Waterloo, Canada
Tibor Gyimóthy, Institute of Informatics, University of Szeged, Hungary
Mark Harman, Department of Computer Science, King's College London, UK
Akos Kiss, Institute of Informatics, University of Szeged, Hungary
Bogdan Korel, Department of Computer Science, Illinois Institute of Technology, USA
Rainer Koschke, Universität Bremen, Germany
Rene Krikhaar, Philips Medical Systems, Netherlands
Jens Krinke, Fachbereich Elektrotechnik und Informationstechnik, FernUniversität in Hagen, Germany
Ralf Lämmel, Free University of Amsterdam and Centrum voor Wiskunde en Informatica, Netherlands
Ettore Merlo, Département de génie informatique, École Polytechnque de Montréal, Canada
Leon Moonen, Software Evolution Research Laboratory, Technische Universiteit Delft, Netherlands
Maxim Mossienko, IT Research Institute, St. Petersburg State University, Russia
Malcolm Munro, Department of Computer Science, University of Durham, UK
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

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

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

13 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).

14 History of SCAM

The first SCAM workshop (SCAM 2001) was held in Florence, on November 10th 2001, co-located with ICSM 2001, WESS 2001and WSE 2001. 30 papers were submitted, of which 21 were accepted for publication. 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. 23 papers were submitted, of which 17 were accepted for publication. 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.

The SCAM 2002 Proceedings are published by the IEEE and there is a special issue of The Journal of Automated Software Engineering featuring extended versions of selected papers from the SCAM 2002 workshop.

The third SCAM workshop (SCAM 2003) was held in Amsterdam, on September 26th and 27th, co-located with ICSM 2003, STEP 2003, ELIZA 2003, VISSOFT 2003and WSE 2003. 43 papers were submitted, of which 21 were accepted for publication.

The workshop maintained the discussion-based emphasis, with short paper presentations of 15 minutes and long discussion slots. Due to the large number of paper submissions in 2003, the organisers moved from the one-day format of previous years, to a one-and-a-half day format. Some resources and outputs from the workshop are available on the SCAM 2003 website. 52 people attended the workshop.

The SCAM 2003 Proceedings are published by the IEEE and there will be a special issue of The Software Quality Journal featuring extended versions of selected papers from the SCAM 2003 workshop.

The fourth SCAM workshop (SCAM 2004) was held in Chicago, on the 15th and 16th of September 2004, co-located with ICSM 2004, Metrics 2004, WSE 2004and WESS 2004. 39 papers were submitted, of which 16 were accepted for publication.

The format was maintained, but extended to two full days to facilitate discussion and interaction. In particular, all attendees were encourage to write ideas on plastic slides, rather than merely contributing verbally. These slides were collected and scanned for the website. The slides, and other resources and outputs (including papers and talks presented at the workshop) are available on the SCAM 2004website. 43 people attended the workshop.

In addition to support from IEEE, the workshop was also sponsored by RainCode, The VASTT group and Loyola College, Maryland which greatly helped to reduce the registration fee.

The SCAM 2004 Proceedings are published by the IEEE and there will be a special issue of The Journal of Systems and Software featuring extended versions of selected papers from the SCAM 2004 workshop.

15 Enquiries about the workshop

If you have any enquiries about the workshop (other than submission of paper, which should go to the Program Chairs, Jens Krinke and toniol), please contact the general chair, Paolo Tonella.