FACS FACTS

The Newsletter of the BCS Special Interest Group in

Formal Aspects of Computing Science.

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Editorial

The FACS newsletter welcomes short articles, especially on industrial niche applications. Send any contributions to Tim Denvir, t-denvir@dircon.co.uk

FACS news.

AGM

The AGM will be held on 20th February 2002 in the Board Room of the Technopark Building at the Southbank University 1500 to 1730h. The most important item on the agenda will be the election of a new chairman. We have a willing nominee for this post at last, Professor Jonathan Bowen of South Bank University.

FACS events

The FACS event in December 2001 did not get off the ground. However, a Refinement Workshop associated with BCS FACS is going to be held within FME 2002, 20-24 July in Copenhagen. More details of the refinement workshop can be found at

http://www.cs.ukc.ac.uk/people/staff/eab2/refine/floc.html

Refinement is one of the cornerstones of a formal approach to software engineering.

Refinement is the process of developing a more detailed design or implementation from an abstract specification through a sequence of mathematically-based steps that maintain correctness with respect to the original specification.

The aim of this BCS FACS refinement workshop is to bring together people who are interested in the development of more concrete designs or executable programs from abstract specifications using formal notations, tool support for formal software development, and practical experience with formal refinement methodologies.

Two types of contribution are elicited: tutorial or survey papers in addition to technical contributions.

Submissions will be reviewed for relevance to the workshop, and informal proceedings will be available at the workshop to participants. The organisers will also produce a special issue of the journal Formal Aspects of Computing. This will consist of a selection of papers from the workshop, which would be refereed in the usual fashion.

Key Dates

The Refinement workshop will take place on July 20th and 21st, and is one of a number of workshops run by FLoC prior to a number of conferences, including Formal Methods Europe, which takes place during the period 22nd-24th of July.

1st April, 2002 - paper submission

1st May, 2002 - author notification

1st June, 2002 - final papers due

FME

FME 2002, "Formal Methods: Getting IT Right" will be held 20-24 July 2002 in conjunction with the third Federated Logic Conference (FLoC'02) in Copenhagen, Denmark. A call for tool demonstrations is still open and is announced below. See http://floc02.diku.dk/FME/ for full details.

FORTEST Network

Rob Hierons writes: the Formal Methods and Testing (FORTEST) network recently held its inaugural workshop at Brunel University, UK. This network will investigate the relationships between formal methods and software testing. In particular, it will investigate how these areas complement each other. This is one of the most exciting areas of testing research and one that has led to a number of significant results. Further, the benefit to testing can be used as an additional argument in favour of using Formal Methods. However, while results in this area have had a fundamental impact on some

application domains, they have largely failed to feed through to mainstream practice. It is intended that FORTEST will help rectify this.

FORTEST will consider a wide range of problems of interest to the formal methods and testing communities. Examples include, but are not limited to: automating (black-box) test generation on the basis of a formal specification; producing tests likely (or guaranteed) to detect certain types of fault; the relationship between testing and refinement; combining static and dynamic analysis; and methods for reasoning about test effectiveness.

FORTEST will hold approximately four workshops a year (the next should be held at Brunel University on Tuesday March 26th). It will also fund the management of a mailing list and a web site. The mailing list is already in use but the web site is in the process of being developed. The founders of FORTEST include a range of academics from the formal methods and software testing communities and industrialists representing a number of application domains such as consumer electronics; automotive systems; tools; and safety-critical systems.

FORTEST is intended to be inclusive rather than exclusive; the expectation is that it will grow both in membership and scope. If you are interested in joining FORTEST, being included in its mailing list or in learning more about it, please email its organiser Rob Hierons at rob.hierons@brunel.ac.uk.

Virtual Library formal methods pages

Jonathan Bowen writes: Please note that the Virtual Library formal methods pages have moved from Oxford University to South Bank University under: www.afm.sbu.ac.uk

Please update your links accordingly. New possible links are always welcome, but please bear in mind that this is a part-time unpaid occupation!

Obituary

Many people in the formal methods and software engineering communities will remember John Dawes. He was secretary of VDM Europe from 1988 to 1990. VDM Europe was reincarnated as FME in 1991/2. John wrote "The VDM-SL Reference Guide" published by Pitman in 1991, a book much used by the VDM community. He also made significant contributions to standardisation work on Ada and on PCTE. Prior to his book on the VDM specification language, John wrote "The Professional Programmers Guide to Ada" published by Pitman in 1988, equally concise and accessible.

I am very sorry to report that John died peacefully at his home on Saturday 19th January 2002. John had retired early some years ago on account of a growth that attacked his liver. After several visits to hospital in the latter part of last year, this illness eventually overcame all efforts to keep it at bay.

In addition to the formal methods committee work, John and I were both at ICL in the early 1970s and we were also undergraduates together studying mathematics at Trinity College, Cambridge from 1959 to 1962. John was a very able mathematician and more recently returned to his interest in the subject by doing Open University courses. It has been a shock to learn of his end.

Tim Denvir

Books, Journals

Book Announcements

- Lectures on Formal Methods and Performance Analysis -- First EEF/Euro Summer School on Trends in Computer Science. Editors: Ed Brinksma, Holger Hermanns & Joost-Pieter Katoen (Formal Methods and Tools Group, University of Twente) Springer-Verlag Volume: LNCS 2090 (Tutorial), 431 pp. Price: DM 92, ISBN: 3-540-42479-2 Order info: www.springer.de/cgi-bin/search_book.pl?isbn=3-540-42479-2 LNCS online: link.springer.de/link/service/series/0558/tocs/t2090.htm

- Concurrency Verification: Introduction to Compositional and Noncompositional Methods by Willem-Paul de Roever, Frank S. de Boer, Ulrich Hannemann, Jozef Hooman, Yassine Lakhnech, Mannes Poel, and Job Zwiers. Cambridge Tracts in Theoretical Computer Science 54, Cambridge University Press, www.cambridge.org , ISBN 0-521-80608-9

- "Les Réseaux de Petri - Modèles Fondamentaux", ISBN 2-7462-0250-6, M. Diaz Co-ordinateur, HERMES Sciences Publications, 2001. Ce premier volume introduit les principaux modèles des RdP, à la fois dans leur sémantique comportementale, temporelle et stochastique. Contact: http://www.laas.fr/lrdp/

Some Forthcoming Events

These notices are divided between calls for papers, calls for participation and calls for workshops, affiliated events etc. Note that calls for taking part in exhibitions are often included with calls for participation. More listings can be found at http://www.fmeurope.org/events.html .

Calls for Papers

Note the call for papers to REFINE 2002 at FME 2002 below. Papers should be submitted in Postscript or PDF format by e-mail to reach John Derrick jd1@ukc.ac.uk by 1st April, 2002.

The following is a selection from a large number of calls that have been received.

Title	Submission date	Details
		URL
AOSD 2002 – FOAL	1 March 2002	Foundations Of Aspect-Oriented Languages (FOAL), Workshop at AOSD 2002
		http://www.cs.wustl.edu/~cytron/FOAL/
ASIA-PEPM 2002	1st March 2002	ACM SIGPLAN Asian Symposium on Partial Evaluation and Semantics-Based Program Manipulation, Aizu, Japan, September 12-14 2002 (co-located with 6th Intl. Symp. on Functional and Logic Programming)
		http://www.comp.nus.edu.sg/asia-pepm02,
COMPSAC 2002	19 February 2002	COMPSAC 2002, Oxford, 26-29 August 2002.
		http://www.cse.dmu.ac.uk/COMPSAC/

Title	Submission date	Details
		URL
CONCUR 2002	June 3, 2002	Tool Day, Brno, Czech Republic, 24 August 2002
		http://www.fi.muni.cz/concur2002/
ETAPS 2003		The European Joint Conferences on Theory and Practice of Software takes place in Europe each spring. The sixth meeting, ETAPS 2003 will take place in Warsaw, Poland, from 5 to 13 April 2003, hosted by Warsaw University.
		http://www.mimuw.edu.pl/etaps03/
FME 2002	June 21st 2002	FME 2002 Call For Tool Demonstrations 22-24 July 2002
		http://floc02.diku.dk/FME/ , email: pmu@systematic.dk
FMICS 02	April 21, 2002	7th International Workshop on Formal Methods for Industrial Critical Systems (FMICS 02), University of Málaga (Spain), July 12-13, 2002, Colocated with the 29th ICALP conference
		http://www.inrialpes.fr/vasy/fmics/workshop-7
GT-VMT '02		International Workshop on Graph Transformation and Visual Modeling Techniques, Barcelona, Spain, October 11-12, 2002, a satellite event of the First International Conference on Graph Transformation (ICGT 2002)
		http://www2.cs.fau.de/GTVMT02/
ICALP'02	29 March 2002	ICALP'02 Workshop on Formal Methods and Component Interaction 12-13 July 2002, Malaga, Spain
		http://www.di.unipi.it/~brogi/fmci.html
ICGT 2002	April 1, 2002	1st International Conference on Graph Transformation, Barcelona (Spain), October 7-12, 2002
		http://www.lsi.upc.es/icgt2002
ITRS '02	April 7 2002	Workshop on Intersection Types and Related Systems, Copenhagen, Denmark, Friday, July 26 2002
		http://www.doc.ic.ac.uk/~itrs02/
REFINE 2002	1 April 2002	REFINE 2002 - BCS FACS - An FME sponsored workshop. July 20th and 21st 2002, Copenhagen, Denmark
		http://www.cs.ukc.ac.uk/people/staff/eab2/refine/floc.html ; http://floc02.diku.dk/FME/ for FME and FloC.
WCGP'02	16 February 2002	IFIP WG2.1 Working Conference on Generic Programming Organised in conjunction with MPC'02 July 8 - 13, 2002 Dagstuhl, Germany
		http://www.generic-programming.nl/wcgp/cfp.html
WoLLIC'2002	February 22, 2002	9th Workshop on Logic, Language, Information and Computation, July 30 to August 2, 2002, Rio de Janeiro, Brazil
		http://www.cin.ufpe.br/~wollic/wollic2002/

Calls for Participation

Where no registration date is given, this is either not clear from the announcement to hand, or on site registration is available.

Title	Registration date	Details
		URL
AFP4	17 May 2002 for early discount	School on advanced functional programming, Oxford, 19-24 August 2002.
		http://www.functional-programming.org/afp/
Calculemus	1 July 2002	The Calculemus Autumn School 23 September - 4 October 2002 in Pisa
		http://www.eurice.de/calculemus-school
CAV 2002		14th International Conference on Computer Aided Verification, Copenhagen, Denmark, July, 27-31, 2002
		http://floc02.diku.dk/CAV
ETAPS 2002 satellite event: Workshop on Theory and Practice of Timed Systems		ETAPS 2002 satellite event: Workshop on Theory and Practice of Timed Systems, April 6-7, 2002, Grenoble, France
		http://www-verimag.imag.fr/~maler Contact: Oded.Maler@imag.fr
ETAPS 2003		Call for workshop proposals: the European Joint Conferences on Theory and Practice of Software takes place in Europe each spring. The sixth meeting, ETAPS 2003 will take place in Warsaw, Poland, from 5 to 13 April 2003, hosted by Warsaw University.
		http://www.mimuw.edu.pl/etaps03/
FME 2002		Formal Methods Europe: "Formal Methods: Getting IT Right". International Symposium and Tutorials, 20-24 July 2002, held in conjunction with the third Federated Logic Conference (FLoC'02) in Copenhagen, Denmark.
		http://floc02.diku.dk/FME/
FMOODS 2002	February 20 2002 (early registration)	IFIP TC6/WG6.1 Fifth International Conference on Formal Methods for Open Object-Based Distributed Systems 20-22 March 2002, University of Twente, the Netherlands
		www.fmoods.org ; email: mailto:fmoods@cs.utwente.nl
Lipari SWEng		Lipari Software Engineering Summer School Lipari, Sicily, 30.6.-13.7. 2002
		http://lipari.cs.unict.it/lipari/index.htm

Title	Registration date	Details
		URL
ROOM4		The Fourth Workshop on Rigorous Object-Oriented Methods ROOM 4, King's College London, UK, March 21-22, 2002
		http://www.dcs.kcl.ac.uk/events/ROOM4

Some New/updated Products

Name	Details	URL
CPN Tools	First release	http://www.daimi.au.dk/CPNtools/
CZT	Proposal: Community Z Tools Project (CZT).	Contact: Andrew Martin apm@comlab.ox.ac.uk
DOVE	Release: the Design Oriented Verification and Evaluation (DOVE) tool extends the High Order Logic (HOL) of the Isabelle theorem prover.	http://www.dsto.defence.gov.au/esrl/itd/dove
NuSMV	NuSMV model checker version 2.0.1 NuSMV is a reimplementation and extension of SMV, the model checker based on BDDs	http://nusmv.irst.itc.it
PNK	New version of the Petri Net Kernel implemented in Java	http://www.informatik.hu-berlin.de/top/pnk Contact: mailto:mweber@informatik.hu-berlin.de
VDM-SL Toolbox; VDM++ Toolbox	New beta release of the IFAD VDM-SL Toolbox (Version 3.7.2) and the IFAD VDM++ Toolbox (Version 6.7.19).	http://www.ifad.dk/Products/VDMTools/betareleases.htm

Some Posts

Large numbers of posts are announced on various email lists, but most of them become out of date very soon after the announcement. Anyone really keen to find a position in formal methods or related activities should subscribe to the FSDM (fsdm@svrc.uq.edu.au or http://www.csee.uq.edu.au/~fsdm/) and/or Petri net (http://mailman.daimi.au.dk/mailman/listinfo/petrinets) mail lists. Also, more listings can be found at http://www.fmeurope.org/positions.html .

Post	Contact
The MathScheme group in the Department of Computing and Software at McMaster University invites applications for a postdoctoral research fellowship. MathScheme is a project to develop a new approach to mechanized mathematics that integrates and generalizes computer algebra and computer theorem proving.	http://imps.mcmaster.ca/mathscheme/ Contact: Dr. William M. Farmer wmfarmer@mcmaster.ca
The Department of Information Technology at Uppsala University, Sweden, seeks at least one postdoc and one PhD student for projects in theory of concurrency.	Department home page: http://www.it.uu.se Applications with a CV should be sent by email to Prof. Joachim Parrow, joachim@docs.kth.se , no later than 15 March 2002.
Stony Brook University, USA, invite applications for a senior researcher position funded by a DoD University Research Initiative (URI) award in the area of Critical Infrastructure Protection and High Confidence Software (CIP/SW).	http://seclab.cs.sunysb.edu/seclab/onrsearch.html
Job Opportunities in Formal Verification at Intel, in Austin, Texas and Portland, Oregon.	Interested candidates should send their CV, (preferably in both plain ASCII text and Postscript), to either/both: Flemming.L.Andersen@intel.com FV Manager, Texas Development Center (512) 314-0394 or Tom.Schubert@intel.com FV Manager, DPG Oregon (503) 712-3522

FME News

FME held its AGM at Southbank University on 19th October 2001. The deadline for the submission of papers to FME 2002 has passed and arrangements for the event are well in hand. Various workshops are to take place, including the workshop on refinement associated with FACS. Other workshops are expected on Action Semantics and VDM, and possibilities for workshops on Z and B are being investigated. Plans are being made to hold FME 2003 in Italy.

Subgroups have been formed to address Education, Marketing, and the Scope of FME, but their work is as yet in early days.

The FME web site http://www.fmeurope.org/ has been developed further. It has pages listing events and positions among other useful information. It was proposed to establish a link between FME and the Formal Aspects of Computing Journal (FACJ), similar to that between FACJ and FACS.

BCS News

Nothing new to report this time.

FACS Coordinates

FACS Officers

Chairman	To be filled	
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Newsletter Contributions

Send them by email in an attached file in MS Word or Rich Text Format to Tim Denvir, coordinates above. Short items such as news of a new product can be embedded directly in the message if you prefer.