

**Grand Challenge 6**  
**Workshop on**  
***Dependable Systems Evolution***

In association with the [FM05 Formal Methods Conference](#)  
University of Newcastle upon Tyne, UK, 18 July 2005

Co-Chairs:

**Jonathan P. Bowen**

London South Bank University, UK

**Jim Woodcock**

The University of York, UK



**BCS**

Organizational help:

Paul Boca, BCS-FACS, UK



**FACS**

**Grand Challenge 6**  
**Workshop on**  
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Website: [www.fmnet.info/gc6/fm05](http://www.fmnet.info/gc6/fm05)

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***Additional Material***

1. Report on *Verified Software Repository* meeting, London, 21 December 2004.
2. BCS Membership Form.
3. BCS-FACS Membership Form.

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***Introduction***

- Grand Challenge GC6
  - *Dependable Software Evolution*
  - *Verifying Compiler*
- EPSRC VSR-net Network (2005-2008)
- Verified Software Repository
- Discussion session – Survey paper?



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**Morning – Chair: Jonathan P. Bowen**

- 9.05 Introduction
- 9.10 [Tony Hoare, Microsoft Research](#), Cambridge, UK  
*The Ideal of Verified Software*
- 9.40 [Rod Chapman, Praxis High Integrity Systems](#), UK  
*Can we SPARK it? Well we'd like to, but...*
- 10.10 [Cliff Jones](#), University of Newcastle upon Tyne, UK  
*Technical Challenges for Verification in Design*
- 10.40 Break
- 11.00 Next session

**Morning – Chair: Jonathan P. Bowen**

- 11.00 [Dines Bjørner](#), DTU, Denmark  
*Domain Engineering*
- 11.30 [Massimo Felici](#), University of Edinburgh, UK  
*Modelling Safety Case Evolution: Examples from the Air Traffic Management Domain*
- 12.00 [Patrice Chalin](#), Concordia University, Canada  
*Are Verifying Compiler Prototypes Matching User Expectations?*
- 12.30 Lunch
- 2.00 Afternoon session

**Afternoon – Chair: [Jim Woodcock](#)**

- 2.00 [Lawrence C. Paulson](#), University of Cambridge, UK  
*Integrating Interactive and Automatic Theorem Provers: Status and Prospects*
- 2.30 [Colin O'Halloran](#), [QinetiQ](#), UK  
*Ariane 5: Learning from Failure*
- 3.00 [David Crocker](#), [Escher Technologies](#), UK  
*Verifying Compilers for Financial Applications*
- 3.30 Break
- 3.50 Next session

**Afternoon – Chair: [Jim Woodcock](#)**

- 3.50 [Joseph Kiniry](#), University College Dublin, Ireland  
*Supporting Multiple Theories and Provers in ESC/Java2*
- 4.20 [Peter Sewell](#), University of Cambridge, UK  
*Specification and Testing using a General-purpose Proof Assistant: TCP, UDP and Sockets in HOL*
- 4.50 [Michael Butler](#), University of Southampton, UK  
*Refinement of an Automatic Refinement Checker*
- 5.20 Discussion
- 5.50 Close

**Discussion – Chair: [Jim Woodcock](#)**

- Grand Challenge GC6 plans
- EPSRC VSR-net Network plans
- Verified Software Repository plans
- Workshop – Survey paper?

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**Thanks!**

- Speakers
- Paul Boca
- FM05 organizers
- Audience!

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