Continuous Evolution: Practices and Issues
(a Panel on the ICSM 2005 Theme)

Ned Chapin
InfoSci Inc., Box 7117
Menlo Park CA 94026-7117
NedChapin@acm.org

Abstract

This panel on the International Conference on Software Maintenance (ICSM 2005) conference theme brings together persons with different perspectives and experiences on aspects of that theme. Panelists and an indication of their positions on the panel topic are listed.

1. Sue Black

Dr. Sue Black is a Senior Lecturer in Computing in the Faculty of Business, Computing and Information Management, at the London South Bank University at 103 Borough Road in London SE1 0AA, UK. Email: blackse@lsbu.ac.uk. At the ICSM 2005, she is the Co-Chair of the program’s Industrial Track.

Doing continuous evolution requires information technology (IT) personnel equal to the task. Otherwise, the result is broken systems and costly work arounds. Universities could shift their focus in instruction to help provide employees with the needed skills.

2. Ned Chapin

Dr. Ned Chapin, an Information Systems Consultant whose affiliation is shown above, is the organizer of this panel at ICSM 2005 and serves as the Panel Chair.

3. Salil Durani

Mr. Salil Durani is the Director of IT Applications Operations at Siebel Systems, Inc., at 800 Concar Drive in San Mateo CA 94402, USA. Mr. Durani’s participation on the panel depends upon travel funding.

Siebel has regularly turned a profit and uses continuous evolution practices with all of its products, providing for its customers updated versions (new releases) every 60 days. Its IT practices have been rated independently as “world class.” Siebel copes with issues associated with continuous evolution and does it following defined repeatable managed IT practices.

4. Nicolas Gold

Dr. Nicolas Gold is a Lecturer in the Software Engineering Group in the Department of Computer Science at King’s College London, at Strand, London WC2R 2LS, UK. Email: nicolas@dcs.kcl.ac.uk.

Service-oriented architecture (SOA) has the potential to reduce heterogeneity and granularity difficulties in continuous evolution. Its use with web services offers promise but does not offset some trust and technological issues that could slow inter-organizational adoption.

5. Juan F. Ramil

Dr. Juan F. Ramil is a Lecturer in the Computing Department, Faculty of Maths and Computing, of the Open University, Walton Hall, Milton Keynes MK7 6AA, UK. Email: j.f.ramil@open.ac.uk

Continual evolution is discontinuous, feedback driven, and characterized by stages with transitions. Three evolution issues are how to predict stage transitions, how to use historical data systematically in evolution planning, and how to balance the major kinds of maintenance activity in evolution.

6. Marco Torchiano

Dr. Marco Torchiano is an Assistant Professor in the Computer and Control Department of the Politecnico di Torino, C.so Duca degli Abruzzi, 24, I-10129 Torino, Italy. Email: marco.torchiano@polito.it

Systems are composed of components, and those components tend to evolve independently. Coordinating the evolution of the components can be very complex, and when inadequately done and ill documented, result in impairing the system during its evolution.