Fifth Australasian Workshop on Software and System Architectures

In conjunction with
Australian Software Engineering Conference (ASWEC 2004)
Melbourne, Australia
April 13 and 14, 2004

Motivation
A current trend in software architecture is to make use of the benefits of software components (i.e., software units with well defined requires and provides interfaces which contractually specify component deployment and inter-component dependencies and interactions). One of the expected benefits from a linkage of software architecture and components is the use of contractual interfaces specifications which allow the inference of global system properties (e.g., quality attributes) from local component properties and architectural interaction patterns. However, practice has shown that this linkage is not as straightforward as it seems and, therefore, further investigations are needed to overcome the respective problems.

The aim of the 2004 Australasian Workshop on Software and System Architectures is to bring together practitioners and researchers to discuss ideas, exchange experiences and explore future directions in the area of software architectures and component-based software engineering. In particular, the workshop encourages submissions reporting industrial experiences (positive and negative) when using software components for architecting, configuring, or reengineering software and system architectures.

Following the success of the first four workshops held in Melbourne and Sydney in past years, we again plan to have a two day programme, starting early afternoon on April 13, 2004.

Topics
Authors are encouraged to address any aspects of software architecture and components in their contributions. Suggested topics of interest include, but are not limited to:

- Common patterns of component interaction in system and software architectures
- Languages and tools for architectural design supporting
  - the specification of component integration,
  - the description and analysis of component interactions, such as patterns, protocols, and channels,
  - the specification and analysis of non-functional properties (i.e. quality attributes) of architectures and components (e.g., quality of service, security, timing, and reliability),
  - the definition of interfaces to components, and
  - the prediction of architectural properties.
- Traceability between architectural descriptions and concrete implementations on industrial middleware platforms (such as .NET/COM+, EJB, or CORBA)
- Middleware extensions with enriched component interfaces
- Methods for the construction of systems with assured properties (e.g., security, timing, and reliability)
- Architectural notations suitable for specifying architectures and/or architectural styles

Submissions and Participation
In order to get a suitable number of participants, participation at the workshop is by invitation only, mainly based on acceptance of a position statement/paper submitted prior to the event. Submissions can be extended abstracts (up to 4 pages) or full papers (up to 12 pages). All submissions will be fully peer-reviewed by at least two members of the Program Committee and/or other experts working in the field. Based on the quality and originality, the best submissions will be presented at the workshop. It is expected that at least one author of each accepted paper will register for the workshop. To make the discussion effective, workshop attendance will be limited to 15 to 30 people.

In order to maximize interactions between participants and enable discussions, but also giving participants the opportunity to present their areas of interest, this event will contain both sessions with paper presentations as well as discussion sessions. Depending on the number of participants, we also plan to organize a workshop dinner on Tuesday April 13 (not included in the workshop fees) to give the participants the opportunity to discuss topics of interest in further detail outside scheduled workshop sessions.

Submissions should not exceed 4 pages (for extended abstracts) or 12 pages (for full papers) and must have a cover page including the paper title, abstract, names and affiliations of authors, postal contact addresses, email addresses, and telephone numbers. In addition, we ask the authors to include a list of critical questions and/or some, perhaps provocative, statements at the end of their submission which will assist the organizers to define topics for discussion in advance. Submissions should be sent in an electronic format (PDF or PostScript) to awsa2004@it.swin.edu.au and preferably prepared prepared in IEEE Proceedings format (formatting instructions available from computer.org).

All accepted position statements will be made available to the participants at the workshop’s web-site prior to the event. The proceedings containing all accepted submissions will be published by Swinburne University Press. Furthermore, we are currently investigating avenues for further publication of selected papers.

For further information about the workshop, please refer to the workshop home page at http://mercury.it.swin.edu.au/ctg/AWSA04/ or contact Jean-Guy Schneider.

**Important Dates**

- **Paper submission:** February 15, 2004 *(extended)*
- **Notification of acceptance:** February 29, 2004
- **Camera ready copy:** March 22, 2004
- **Workshop:** April 13 and 14, 2004

**Workshop Organizers**

- **Jean-Guy Schneider**
  School of Information Technology, Swinburne University of Technology, Melbourne, Australia
- **Ian Gorton**
  Pacific Northwest National Laboratory, Richland, WA, USA
- **John Grundy**
  Departments of Electrical Engineering & Computer Science, University of Auckland, New Zealand
- **Anna Liu**
  Microsoft Pty Ltd, Sydney, Australia
- **Jun Han**
  School of Information Technology, Swinburne University of Technology, Melbourne, Australia

**Program Committee:**

- **Shiping Chen**, CSIRO, North Ryde NSW, Australia
- **Jonathon Gray**, School of Information Technologies, The University of Sydney, Australia
- **John Hosking**, Department of Computer Science, University of Auckland, New Zealand
- **C. Peng Lam**, School of Computer and Information Science, Edith Cowan University, Australia
- **Chris Ling**, School of Computer Science and Software Engineering, Monash University, Australia
- **Markus Lumpe**, Department of Computer Science, Iowa State University, USA
- **A. S. M. Sajeev**, School of Mathematics, Statistics & Computer Science, University of New England, Australia
- **Ralf Reussner**, Department of Computing Science, University of Oldenburg, Germany
- **Wolfgang Weck**, Oberon Microsystems, Zurich, Switzerland

**Previous Events:**
For information about previous Australasian Workshop on Software and System Architectures, please refer to the following web-sites:

- AWSA 2000: http://mercury.it.swin.edu.au/ctg/awsa00/