RAM-SE’07
4th ECOOP Workshop on
Reflection, AOP and Meta-Data for Software Evolution
Berlin, Germany, 31st July 2007
http://homes.dico.unimi.it/RAM-SE07.html

Call for Contributions

Workshop Description
Software evolution and adaptation is a research area in continuous evolution, and offering stimulating challenges for both academic and industrial researchers. The evolution of software systems, to face unexpected situations or just for improving their features, relies on software engineering techniques and methodologies. Nowadays a similar approach is not applicable in all situations e.g., for evolving nonstopping systems or systems whose code is not available.

Features of reflection such as transparency, separation of concerns, and extensibility seem to be perfect tools to aid the dynamic evolution of running systems. Aspect-oriented programming can simplify code instrumentation whereas techniques that rely on meta-data can be used to inspect the system and to extract the necessary data for designing the heuristic that the reflective and aspect-oriented mechanism use for managing the evolution.

We feel the necessity to investigate the benefits brought by the use of these techniques on the evolution of object-oriented software systems. In particular we would determine how these techniques can be integrated together with more traditional approaches to evolve a system and the benefits we get from their use.

This workshop can be a good meeting-point for people working in the software evolution area, and an occasion to present reflective, aspect-oriented and data mining based solutions to evolutionary problems, and new ideas straddling these areas.

Workshop Topics
Particularly interesting for this workshop are works that focus on the application of reflective, aspect-oriented and data-mining techniques to the evolution of software systems. In particular, they include but are not limited to:

- aspect-oriented middleware and environments for software evolution;
- adaptive software components and evolution as component composition;
- evolution planning and deployment through aspect-oriented and reflective approaches;
- aspect interference and composition for software evolution;
- feature- and subject-oriented adaptation;
- unanticipated software evolution supported by AOSD or reflective techniques;
- MOF, code annotations and other meta-data facilities for software evolution;
- metrics and other evaluation mechanisms to evaluate the impact of software evolution techniques;
- AOP and reflection based design patterns for software evolution;
- early aspect evolution, i.e., to design evolution by evolving the design information or the application in its early stages of development;
- techniques for refactoring into AOSD and getting the separation of concerns.

To ensure lively discussion at the workshop, the organizing committee will choose the contributions on the basis of topic similarity that will permit the beginning of new collaborations. To grant an easy dissemination of the proposed ideas and to favorite an ideas interchange among the participants, accepted contributions will be made available in advance over the Web.

Workshop Format
The workshop is a full day meeting. Part of the workshop will be devoted to contribution of papers, and part will be devoted to panels and (we hope) to interchange of ideas between participants.

The workshop has to provide a discussion forum about the evolution of the sector and has to permit new collaborations to be established with other researchers. The workshop will be particularly useful for young researchers who will be able to compare their ideas with other people working on the field.