



ICSE98 in



## **PSMT - Workshop on**

# **Precise Semantics for Software Modeling Techniques**

in Kyoto, Japan, April 20th.

**in conjunction with International Conference on Software Engineering (ICSE) 1998**

---

The review process is finished now. From thirteen submitted papers have been accepted seven. The proceedings will be available from the organizers (mid of April, send an email). They have the following contents (no particular ordering):

- M. Broy, D. Coleman, T. S. E. Maibaum, B. Rumpe: Introduction and Overview
- I. Bider, M. Khomyakov, E. Pushchinsky: Logic of Change: Semantics of Object Systems with Active Relations
- R. Diaconescu, K. Futatsugi: Logical Semantics for CafeOBJ
- Martin Gogolla, Francesco Parisi Presicce: State Diagrams in UML: A Formal Semantics using Graph Transformations
- Tom Mens, Patrick Steyaert, Carine Lucas: Giving Precise Semantics to Reuse and Evolution in UML
- Gunnar Övergaard: A Formal Approach to Relationships in The Unified Modeling Language
- L. J. Steggles and P. Kosiuczenko: A Formal Model for SDL Specifications based on Timed Rewriting Logic
- Roel Wieringa, Jan Broersen: A Minimal Transition System Semantics for Lightweight Class- and Behavior Diagrams

To reference a paper, the following bibentry can be used:

```
@proceedings{TUM-I9803,  
  author = {...},  
  title = {...},  
  booktitle = {{Proceedings PSMT'98 Workshop  
    on Precise Semantics  
    for Modeling Techniques}},  
  year = {1997},  
  month = apr,  
  publisher = {Technische Universitaet Muenchen,  
    TUM-I9803},  
  editor = {Manfred Broy and Derek Coleman and  
    Tom S. E. Maibaum and Bernhard Rumpe}  
}
```

The workshop is open for everyone who registers for it. For registration, please see ICSE registration page.

---

## *(Call for Papers:)*

### **Workshop themes:**

Currently there is an ongoing standardization process for syntactical representations of object-oriented modeling techniques (MT) initiated by the OMG. A standardization of MT does not only involve a precise syntax, but a precise semantics as well. This is essential for an unambiguous understanding of system specifications given by MT, especially when using diagrammatic and iconic languages, as it is very common in software engineering.

A precise semantics allows us to detect inconsistencies and inaccuracies both in MT themselves (metareasoning about the MT used), and in specifications written using these MT (reasoning about the defined system), as well as to compare different MT in a more precise way and improving the notation. Furthermore, it enables precise characterisation of interoperability between different MT. From an engineering perspective, it also allows us to use a notation in a more standardized way, thus leading to better and less ambiguous understanding, supporting true reuse of specifications and designs, and a more accurate definition of context conditions or (code) generators. Also requirements decisions can be traced more precisely to produced code. Based on a precise semantics of modeling techniques tool support beyond graphic editors becomes possible. Even the integration of tools and the combination of methods is then more feasible as it is today.

The aim of this workshop is to bring together researchers, requirements engineers, software engineers and tool builders, for substantial discussions on the following topics:

### **Topics**

The scope of the workshop includes in particular, but is not limited to:

- Methods using formalized diagrammatic/iconic MT
- How can precise semantics improve the development process
- Precise semantics for diagrammatic/iconic MT

- Integration of semantics for a heterogeneous set of MT
- Formal development and refinement concepts for diagrammatic/iconic MT
- Comparison of existing semantic models
- Ways to achieve precision of syntax and semantics
- Tool support
- Standardizing MT

### **Organizers:**

*Bernhard Rumpe,  
Department of Computer Science  
Technische Universitaet Muenchen,  
Arcisstr. 21  
80290 Munich,  
Germany,  
email: rumpe@forsoft.de  
fax: ++49-89-289-28183  
tel: ++49-89-289-28129*

- Manfred Broy, T. University, Munich, Germany
- Derek Coleman, Kings College, London, UK
- Tom S. E. Maibaum, Imperial College, London, UK

### **Program comittee:**

- Manfred Broy, T. University, Munich, Germany
- Derek Coleman, Kings College, London, UK
- Desmond D' Souza, ICON Computing, USA
- Robert France, Florida Atlantic University, Florida, USA
- Tom S. E. Maibaum, Imperial College, London, UK
- Øystein Haugen, Ericsson AS, Oslo, Norway
- Bernhard Rumpe, T. University, Munich, Germany
- Bran Selic, ObjecTime Limited, Canada

### **Important Dates:**

- Deadline for submission: December 10th, 1997
- Notification of acceptance: January 20th, 1998
- Final copy due: March 1st, 1998

### **Further Information:**

<http://www.forsoft.de/~rumpe/icse98-ws/> via email to Bernhard Rumpe, or to other organizers.

### **Submissions/Proceedings:**

Workshop submissions should be a full paper of about 14-18 pages and highlight the main contributions of the authors. All submissions will be reviewed and judged by the program committee according to

criteria including novelty and interest of ideas, OR potential interest by the community in an overview of relevant work by a group. The most interesting papers will be selected and their authors may present them in about 20 minutes.

Papers presented at the workshop will be published as a technical report by the Munich University of Technology and will be available at the workshop. Afterwards a selection of the best papers will be published in a special issue of an international journal.

Workshop submissions are expected to contain affiliations of the authors, an abstract and keywords, and must be sent as standard PostScript file (format A4) electronically to Bernhard Rumpe. An extra ASCII file, again containing title, authors' affiliations, abstract and keywords should be added.

---

[ ICSE'98 Home Page , ASCII-version of CfP]

Bernhard Rumpe, 10-20-97