3rd International Workshop on
Practical Problems of Programming in the Large -
Industrial Problems, Technology Transfer, Research Validation

July 4, 2006 at ECOOP in Nantes

Call for Contributions / Participation

PPPL 2006 is dedicated to problems related to technology transfer and the validation of research results. Both are related, as industry tends to adopt research results only, if some positive experience in sufficient scale can be shown. Technology transfer and result validation with programming in the large pose particular problems, because programming in the large by its nature can only partially be simulated in the laboratory. Ideas and experience reports with such activities are hence welcome.

This workshop is in the line of the PPPL 2004 and PPPL 2005 workshops. The first PPPL workshop, conducted at ECOOP 2004 in Oslo, brought interesting insights about the limits of generic domain-independent languages and tools as well as consequences for teaching of object-oriented software development. The second PPPL workshop at ECOOP 2005 in Glasgow had foci at component technology, technology transfer from academia to industry, and on the role of the software architect.

As for all PPPL workshops, we welcome statements of open problems with programming in the large in industry and "loyal opposition", that is reporting of negative results to learn from and challenging common believes. A specific goal of the PPPL workshop series is to give researchers and practitioners an opportunity to interact and possibly establish cooperation.

Hence, PPPL 2006 would especially encourage experience reports and proposals with respect to the following:

(a) *Technology Transfer*. For academic research to be impact software industry, research results must be made available to practitioners. This includes explanation of benefits but also costs, training, and possibly tool building. While academic environments often only provide for relatively small case studies, industrial decision makers are hesitant to bet a project's success on any method or tool that has not been applied successfully before to a project equally complex to their own. In addition, the rewarding systems are different in academia and in industry. Academic staff will seek for publication opportunities, while industry pays for timely and reliable delivery of business process support. How can we create cooperation in this situation and built trust into new results?

(b) *Validation of research results*. Since its roots in simulation and modelling, object-orientation has always been seen as a discipline striving for applicable technological results, rather than abstract beauty of abstract theories. This puts the extra burden on any researcher to prove that research ideas are not only valid from a formal point of view, but also related to and useful in practices. Hence, validation of theoretical constructs in practical work is needed. When looking on large systems, this becomes more and more difficult, because truly large systems are expensive and hard to simulate in a laboratory setting. PPPL 2006 is interested in approaches being tried successfully and non-successfully, both in academia and in industry.

(c) *Negative results in software engineering*. Motivated by Robert Glass' column the "loyal opposition" in the IEEE software magazine, we are generally interested in reports of experience with large object-oriented development projects, which challenges common software engineering believes (either academic views or anecdotal folklore). While most workshops, conferences and journals concentrate on positive results, i.e., success stories, we are would like to encourage participants to report on failures, problems and unexpected outcomes.

Programming in the large deals with high quantities of classes and objects. Relevant and current topics include Software Architecture, Component Software, Middleware, Platforms, Model-Driven-Architecture, but also Enterprise Application Integration, and others. The previous PPPL workshops indicated a strong interest in how to create win-win situations in academia/industry cooperation, necessary both for technology transfer and validation of research results. PPPL 2006 should explore this further and deepen the insights on mutual needs.

Ralf Reussner, Wolfgang Weck:
Practical Problems of Programming in the Large - Industrial Problems, Technology Transfer, Research Validation

2

Participants will discuss solutions to relevant problems as experienced by the industry. These discussions can be a good platform for future cooperation.

Possible topics include:

- Experience, positive or negative with technology transfer and cooperation of academia and industry
- Experience with the validation of research results in the area of programming in the large
- Negative results: what went wrong although it should have worked according to software engineering folklore
- Success-stories for component-based software engineering
- Keeping systems with large amounts of classes / objects / modules / components organised
- Refactoring, Software Evolution and Migration
- The Role of the Software-Architect (independent or employed) in the phases requirements engineering, software design and development
- Enterprise Application Integration

Most of the workshop's time will be devoted to actually discuss solutions to experience reports contributed by practitioners. Only part of the morning shall be used for the presentations.

Expected Results

We expect to put together a collection of clearly defined problem statements with relevance in practice and possible solutions. This includes also negative results, why particular research results have not been adopted.

Contributions

Researchers are requested to submit short position statement about their experience with the topics mentioned in the CfP, and which they expect to be both relevant and applicable to today's IT industry. We are especially interested in experience of academic-industrial collaboration projects, such as technology transfer and validation of research results. Reports about positive and negative experience are welcome.

Practitioners are requested to submit a short description of a current problem in the area of programming in the large, for which they are seeking a solution. Also, reports describing experience with academic cooperation are of high interest.

Each submission shall not exceed 4 to 5 pages. It is more important to summarize and exemplify the relevant issues than to provide depth in the argumentation.

Important Dates

March 31, 2006:	Submission of reports or papers
April 30, 2006:	Notification of acceptance
June 9, 2006:	Camera-ready version
July 3 or 4, 2006:	Workshop

Submission Guideline

Authors are invited to submit an experience report / research paper not exceeding 4-5 pages by March, 31 2006. Electronic submissions are required. Please send an email containing your submission in PDF to

pppl06@wolfgang-weck.ch

All accepted papers will be published in advance on the workshop website to be read prior to the workshop by all participants.

Compilations of the group discussions will be included in the Springer-LNCS published ECOOP workshop reader.

Further information: *www.wolfgang-weck.ch/pppl*

Organisers

Prof. Dr. Ralf Reussner
University of Karlsruhe
Faculty of Computer Science
Institute for Program Structures and Data Organization
Am Fasanengarten 5
D-76131 Karlsruhe
Germany
E-mail: reussner (at) ipd.uka.de
Web: www.ipd.uka.de

Dr. Wolfgang Weck
Independent Software Architect
Probusweg 9
CH-8057 Zürich
Switzerland
E-mail mail (at) wolfgang-weck.ch
Web: www.wolfgang-weck.ch