First Workshop on
Feature-Oriented Software Development (FOSD)

in conjunction with MODELS'09, GPCE'09, and SLE'09

Denver, Colorado, October 6th, 2009

— with a Keynote by Don Batory —

`http://www.fosd.de/2009`

Abstract

Feature orientation is an emerging paradigm of software development. It supports the largely automatic generation of large software systems from a set of units of functionality, so-called features. The key idea of *feature-oriented software development* (*FOSD*) is to emphasize the similarities of a family of software systems for a given application domain (e.g., database systems, banking software, text processing systems) with the goal of reusing software artifacts among the family members. Features distinguish different members of the family. A challenge in FOSD is that a feature does not map cleanly to an isolated module of code. Rather it may affect ("cut across") many components/documents of a software system. Research on FOSD has shown that the concept of features pervades all phases of the software life cycle and requires a proper treatment in terms of analysis, design, and programming techniques, methods, languages, and tools, as well as formalisms and theory.

Keynote

Don Batory. "On The Challenges and Importance of Features"

Goals

The main goal of the workshop is to foster and strengthen the collaboration between the researchers who work in the field of FOSD or in the related fields of software product lines, aspect-oriented software development, service-oriented architecture, and model-driven engineering. In particular, we expect the following results from the workshop:

- A list of the participants' interests and contact details will be posted on the workshop website.
- The papers and a summary of the discussions will be published in the ACM Digital Library.
- A research agenda will be established that guides further activities such as joint projects and publications.

Submission

We invite submissions of 4 to 8 pages long in ACM proceedings format. The papers will be reviewed by at least three members of the program committee and the organization committee. The authors will be notified about acceptance before the early registration deadline. Accepted papers will be posted on the website and published in the ACM Digital Library. If we receive a significant amount of submissions of high quality, we will organize a special issue in the journal Science of Computer Programming (Prof. Jan Bergstra, the editor-in-chief, has been informed already). In particular, we are looking for contributions in the following topics:

- Programming language and tool support for FOSD
- Domain engineering and/or application engineering
- Software product lines and program families
- Feature and variation modeling
- Formal methods and theory for FOSD
- Type systems and formal semantics of FOSD languages
- Feature composition, interaction, and refactoring
- Multi-dimensional separation of concerns and aspect-oriented software development
- Generative programming and automatic programming
- Design patterns, frameworks, and components
- Model-driven development and service-oriented architecture

Workshop Format

The workshop is scheduled as a full day workshop. Participants are expected to read the papers accepted beforehand to be able to contribute to lively discussions about approaches and ideas presented. The morning session will consist of a keynote by Don Batory, a leading researcher in FOSD, and short presentations of the most representative papers. Interesting discussion topics will be collected for the afternoon session. In the afternoon we will use the "Open Space" format in order to discuss topics of interest that might be related but not restricted to the papers presented in the morning. The results of the discussion groups will be presented in the last half hour of the workshop.

Important Dates

Paper submission:	August 1st, 2009
Notification:	September 1st, 2009
Workshop:	October 6th, 2009

Organizing Committee

- Sven Apel (University of Passau, DE)
- William R. Cook (University of Texas at Austin, US)
- Krzysztof Czarnecki (University of Waterloo, CA)
- Christian Kästner (University of Magdeburg, DE)
- Neil Loughran (SINTEF, NO)
- Oscar Nierstrasz (University of Berne, CH)

Program Committee

- Vander Alves (University of Brasilia, BR)
- David Benavides Cuevas (University of Seville, ES)
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- Iris Groher (University of Linz, AT)
- Kyo-Chul Kang (POSTECH, KR)
- Thomas Leich (Metop Research Institute, DE)
- Christian Lengauer (University of Passau, DE)
- Roberto Lopez-Herrejon (Bournemouth University, UK)
- Klaus Ostermann (University of Aarhus, DK)
- Susanne Patig (University of Berne, CH)
- Christian Prehofer (Nokia Research, FI)
- Olaf Spinczyk (University of Dortmund, DE)
- Christine Schwanninger (Siemens, DE)
- Salvador Trujillo (IKERLAN Research Centre, ES)