Informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz[1] lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Dr. Thorsten Berger
IT University of Copenhagen

Variability Modeling in the Real - An Empirical Journey from Software Product Lines to Software Ecosystems

Mo. 29.4. 2013, 17:00, 60 Minuten
Johannes Kepler Universität Linz, Raum *S 218 (Science Park 3)*

Abstract:
Variability modeling is one of the key disciplines in software product line engineering. Since the introduction of feature models more than twenty years ago, many variability modeling languages have been proposed both in academia and industry, followed by hundreds of publications on techniques that build upon these theoretical foundations. Surprisingly, there are few empirical studies about the actual use of such languages. What variability modeling concepts are used in practice? Are real-world variability models similar to those considered in research? In what technical and organizational contexts are variability models applicable? We present an empirical study on variability modeling that analyzes concepts and semantics of real-world variability modeling languages, and their use in large-scale models. We extend our empirical discourse to the emerging field of software ecosystems, which manage huge variability among and within their software assets. Our studied systems comprise eleven highly configurable software systems, two ecosystems with closed platforms, and three software ecosystems relying on open platforms. We provide empirical data on the use of variability modeling in practice. We confirm that the flagship concepts of feature modeling are used in practice, but also that more advanced concepts are needed to scale models and configurators. Our datasets can be used for benchmarking and for deriving realistic assumptions about scale, structure, content, and complexity of real-world models.

[1] Der Fachbereich (http://informatik.jku.at) besteht aus folgenden Instituten:
Anwendungsorientierte Wissensverarbeitung (FAW), Bioinformatik, Computational Perception, Computer-Architektur, Computergrafik, Formale Modelle und Verifikation, Informationsverarbeitung und Mikroprozessortechnik (FIM), Integrierte Schaltungen, Pervasive Computing, Systems Engineering and Automation, Systemsoftware, Telekooperation

About the Speaker:

Thorsten Berger is a postdoctoral fellow in the Process and System Models group at the IT University of Copenhagen in Denmark. Before coming to the IT University, he was a PhD student at the University of Leipzig in Germany and a visiting scholar at the University of Waterloo in Canada. His dissertation was supported by a PhD scholarship from the German National Academic Foundation, awarded for outstanding academic achievements, and by grants from the German Academic Exchange Service. He has also participated in national and international research projects funded by the German Federal Ministry of Education and Research, and the European Union's Seventh Framework Programme. His primary research interests are in model-driven development, variability modeling for software product lines and software ecosystems, and variability-aware static analyses of source code and build systems.

a.Univ.-Prof. Mag. Dr. Paul Grünbacher
Institute for Systems Engineering and Automation

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