

Table of Contents

Research Topics and Future Trends	1
<i>Jan Bosch, Henk Obbink, and Alessandro Maccari</i>	

Key Notes

Testing Variabilities in Use Case Models	6
<i>Erik Kamsties, Klaus Pohl, Sacha Reis, and Andreas Reuys</i>	
Exploring the Context of Product Line Adoption	19
<i>Stan Bühne, Gary Chastek, Timo Käkölä, Peter Knauber, Linda Northrop, and Steffen Thiel</i>	
A Quantitative Model of the Value of Architecture in Product Line Adoption	32
<i>Klaus Schmid</i>	

Variation Mechanisms

Multi-view Variation Modeling for Scenario Analysis	44
<i>Pierre America, Eelco Rommes, and Henk Obbink</i>	
A Meta-model for Representing Variability in Product Family Development	66
<i>Felix Bachmann, Michael Goedicke, Julio Leite, Robert Nord, Klaus Pohl, Balasubramaniam Ramesh, and Alexander Vilbig</i>	
Variability Dependencies in Product Family Engineering	81
<i>Michel Jaring and Jan Bosch</i>	
Managing Component Variability within Embedded Software Product Lines via Transformational Code Generation	98
<i>Ian McRitchie, T. John Brown, and Ivor T.A. Spence</i>	
Evolving a Product Family in a Changing Context	111
<i>Jan Gerben Wijnstra</i>	
Towards a UML Profile for Software Product Lines	129
<i>Tewfik Ziad, Loïc Hérouët, and Jean-Marc Jézéquel</i>	

Requirements Analysis and Management

Applying System Families Concepts to Requirements Engineering Process Definition	140
<i>Amador Durán, David Benavides, and Jesus Bermejo</i>	

Elicitation of Use Cases for Product Lines 152
*Alessandro Fantechi, Stefania Gnesi, Isabel John, Giuseppe Lami,
and Jörg Dörr*

RequiLine: A Requirements Engineering Tool for Software Product Lines 168
Thomas von der Maßen and Horst Lichter

PLUTO: A Test Methodology for Product Families 181
Antonia Bertolino and Stefania Gnesi

A Requirement-Based Approach to Test Product Families 198
Clémentine Nebut, Franck Fleurey, Yves Le Traon, and Jean-Marc Jézéquel

Theorem Proving for Product Line Model Verification 211
Mike Mannion and Javier Camara

Product Derivation

A Koala-Based Approach for Modelling
and Deploying Configurable Software Product Families 225
Timo Asikainen, Timo Soininen, and Tomi Männistö

Feature Binding Analysis for Product Line Component Development 250
Jaejoon Lee and Kyo C. Kang

Patterns in Product Family Architecture Design 261
Svein Hallsteinsen, Tor Erlend Fægri, and Magne Syrstad

Differencing and Merging within an Evolving Product Line Architecture 269
*Ping Chen, Matt Critchlow, Akash Garg, Chris Van der Westhuizen,
and André van der Hoek*

A Relational Architecture Description Language for Software Families 282
T. John Brown, Ivor T.A. Spence, and Peter Kilpatrick

Transition to Family Development

Planning and Managing Product Line Evolution 296
Louis J.M. Tabora

A Cost Model for Software Product Lines 310
*Günter Böckle, Paul Clements, John D. McGregor, Dirk Muthig,
and Klaus Schmid*

Salion's Experience with a *Reactive* Software Product Line Approach 317
Ross Buhrdorf, Dale Churchett, and Charles W. Krueger

Towards a Taxonomy for Software Product Lines	323
<i>Charles W. Krueger</i>	

Architecture Recovery for Product Families	332
<i>Martin Pinzger, Harald Gall, Jean-Francois Girard, Jens Knodel, Claudio Riva, Wim Pasman, Chris Broerse, and Jan Gerben Wijnstra</i>	

Industrial Experience

Software Product Family Evaluation	352
<i>Frank van der Linden, Jan Bosch, Erik Kamsties, Kari Käsälä, Lech Krzanik, and Henk Obbink</i>	

Design for Quality	370
<i>Joachim Bayer</i>	

Economics of Software Product Lines	381
<i>Dale R. Peterson</i>	

A Case Study of Two Configurable Software Product Families	403
<i>Mikko Raatikainen, Timo Soininen, Tomi Männistö, and Antti Mattila</i>	

Software Architecture Helpdesk	422
<i>Anssi Karhinen, Juha Kuusela, and Marco Sandrini</i>	

Evolution

Different Aspects of Product Family Adoption	429
<i>Parastoo Mohagheghi and Reidar Conradi</i>	

Dynamic Software Reconfiguration in Software Product Families	435
<i>Hassan Gomaa and Mohamed Hussein</i>	

Architecture True Prototyping of Product Lines Using Personal Computer Networks	445
<i>Fons de Lange and Jeffrey Kang</i>	

Decisions and Derivation

Making Variability Decisions during Architecture Design	454
<i>Len Bass, Felix Bachmann, and Mark Klein</i>	

Decision Model and Flexible Component Definition Based on XML Technology	466
<i>Jason Xabier Mansell and David Sellier</i>	

A Product Derivation Framework for Software Product Families	473
<i>Sybrein Deelstra, Marco Sinnema, and Jan Bosch</i>	

Author Index	485
-------------------------------	-----