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# Software Configuration Management

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Selected Papers



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## Preface

The discipline of software configuration management (SCM) provides one of the best success stories in the field of software engineering. With the availability of over 100 commercial SCM systems that together form a billion-dollar marketplace, and the explicit recognition of SCM by such standards as the CMM and ISO-9000, the discipline has established itself as one of the essential cornerstones of software engineering.

While SCM is a well-established discipline, innovative software engineering approaches constitute new challenges that require support in the form of new or improved tools, techniques, and processes. These challenges emerge in component-based development, distributed systems, dynamically bound and re-configured systems, embedded systems, software architecture, Web-based systems, XML, engineering/product data management, system engineering, process support, concurrent and cooperative engineering, etc.

Since the first SCM workshop was held in 1988, the workshop series has provided a recurring forum for researchers and practitioners to present technical contributions, to exchange and discuss ideas, and to establish contacts for further cooperation. The current volume contains papers from two workshops which were both co-located with the International Conference on Software Engineering, but differed in their formats and goals.

SCM-10 was held as an ICSE workshop at Toronto, Canada in May 2001. It was deliberately decided to have an informal workshop in order to open a forum for discussing new practices, new challenges, and new boundaries for SCM. This was achieved by a blend of invited talks, talks on selected position papers, and lively discussions. Originally, informal proceedings were produced which were delivered to the workshop participants. Later on, 5 out of 22 submissions were selected for publication in this joint volume. All authors were asked to extend their contributions to full papers and to revise them thoroughly.

While the SCM-10 experiment proved very successful, the SCM community felt that it should go for a formal workshop once again. In fact, this would open up the opportunity to document current research and fertilize the development of this discipline. As a consequence, the follow-up workshop SCM-11 was held as a co-located event with ICSE at Portland, Oregon in May 2003. The Call for Papers received a lively response with 36 submissions, out of which 15 were accepted for publication (12 long and 3 short papers). These papers appear in the second part of this volume, ordered by topic. In addition to paper presentations, the workshop provided sufficient time for inspiring discussions.

The chairs of both workshops would like to acknowledge the invaluable contributions of all authors and speakers, the program committees, the organizers of the ICSE conferences, and Springer-Verlag.

May 2003

Bernhard Westfechtel  
André van der Hoek

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## **SCM Workshops**

SCM-1, Grassau, Germany (1988)  
SCM-2, Princeton, USA (1990)  
SCM-3, Trondheim, Norway (1991)  
SCM-4, Baltimore, USA (1993)  
SCM-5, Seattle, USA (1995)  
SCM-6, Berlin, Germany (1996)  
SCM-7, Boston, USA (1997)  
SCM-8, Brussels, Belgium (1998)  
SCM-9, Toulouse, France (1999)  
SCM-10, Toronto, Canada (2001)  
SCM-11, Portland, Oregon (2003)

# Table of Contents

## Best Papers of SCM 2001

|  |    |
|--|----|
| Defining and Supporting Concurrent Engineering Policies in SCM . . . . .   | 1  |
| <i>Jacky Estublier, Sergio García, and Germán Vega</i>   |    |
| Configuration Management in Component Based Product Populations . . . .  | 16 |
| <i>Rob van Ommering</i>  |    |
| Software Architecture and Software Configuration Management . . . . .  | 24 |
| <i>Bernhard Westfechtel and Reidar Conradi</i>   |    |
| Supporting Distributed Collaboration through Multidimensional Software<br>Configuration Management . . . . .                       | 40 |
| <i>Mark C. Chu-Carroll and James Wright</i>  |    |
| Software Configuration Management Related to the Management of<br>Distributed Systems and Service-Oriented Architectures . . . . . | 54 |
| <i>Vladimir Tosic, David Mennie, and Bernard Pagurek</i>   |    |

## Version Models I

|   |     |
|---|-----|
| Uniform Comparison of Configuration Management Data Models . . . . .                                      | 70  |
| <i>E. James Whitehead, Jr. and Dorrit Gordon</i>  |     |
| Towards Intelligent Support for Managing Evolution of Configurable<br>Software Product Families . . . . . | 86  |
| <i>Tero Kojo, Tomi Männistö, and Timo Soinen</i>  |     |
| Integrating Software Construction and Software Deployment . . . . .                                       | 102 |
| <i>Eelco Dolstra</i>  |     |

## Version Models II

|  |     |
|--|-----|
| Data Product Configuration Management and Versioning in Large-Scale<br>Production of Satellite Scientific Data . . . . . | 118 |
| <i>Bruce R. Barkstrom</i>  |     |
| Merging Collection Data Structures in a Content Management System . . . .  | 134 |
| <i>Axel Wienberg</i>   |     |
| Compatibility of XML Language Versions . . . . .   | 148 |
| <i>Daniel Dui and Wolfgang Emmerich</i>  |     |

## Architecture

- Using Federations for Flexible SCM Systems ..... 163  
*Jacky Estublier, Anh-Tuyet Le, and Jorge Villalobos*
- Dissecting Configuration Management Policies ..... 177  
*Ronald van der Lingen and André van der Hoek*

## Concurrency and Distribution

- Improving Conflict Detection in Optimistic Concurrency Control Models .. 191  
*Ciaran O'Reilly, Philip Morrow, and David Bustard*
- Data Topology and Process Patterns for Distributed Development..... 206  
*Darcy Wiborg Weber*

## Component-Based Systems

- Managing the Evolution of Distributed and Interrelated Components ..... 217  
*Sundararajan Sowrirajan and André van der Hoek*
- A Lightweight Infrastructure for Reconfiguring Applications ..... 231  
*Marco Castaldi, Antonio Carzaniga, Paola Inverardi,  
and Alexander L. Wolf*

## Education

- A Software Configuration Management Course..... 245  
*Ulf Asklund and Lars Bendix*

## New Applications

- Applications of Configuration Information to Security ..... 259  
*Dennis Heimbigner*
- Towards Software Configuration Management for Test-Driven  
Development ..... 267  
*Tammo Freese*

- Author Index** ..... 275