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| Soggetti                | Software engineering<br>Software Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Nota di contenuto       | Example Architectures -- Session 1:Example Architectures -- Reusable Framework for Telecontrol Protocols -- A Software Bus as a Platform for a Family of Distributed Embedded System Products -- A Three-Tier Design Approach for a Family of Large AC Drive Control Systems -- Modular Turbine Control Software: A Control Software Architecture for the ABB Gas Turbine Family -- Experiences with the Evolution of an Application Family Architecture -- Architectural Description -- Architectural Description -- Generic Architecture Descriptions for Product Lines -- A Model of Interaction in Concurrent and Distributed Systems -- An Integral Hierarchy and Diversity Model for Describing Product Family Architectures -- Koala, a Component Model for Consumer Electronics Product Software -- Architecture Recovery -- Architecture Recovery -- Recovery of Architectural Structure: A Case Study -- Reengineering C/C++ Source Code by Transforming State Machines -- An Experiment in Distributed Software Architecture Recovery -- Reverse Engineering to Recover and Describe a System's Architecture -- Can Legacy Systems Beget Product Lines? -- The Relation between the Product Line Development Entry Points and Reengineering -- Analysis of Software Architectures -- Session 4: Analysis of Software Architectures -- Diagnostic Software Architectures |

-- A Software Architecture Evaluation Model -- An Architectural Infrastructure for Product Families -- Assessment of Timing Properties of Family Products -- Development Process -- Session 5: Development Process -- Stakeholders in Software-System Family Architectures -- Handling Variant Requirements in Software Architectures for Product Families -- Architecture-Centric Software Development Based on Extended Design Spaces -- Architecting for Domain Variability -- Commonality Analysis: A Systematic Process for Defining Families -- Structuring Design Decisions for Evolution -- Structural Views, Structural Evolution, and Product Families -- Product Family and Reuse in Separate Market Driven Profit Centers -- ERW'97 Session Report: Reuse Adoption Experiences Across a Large Corporation.

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## Sommario/riassunto

This book originates from a workshop organised by ESPRIT project 20477, ARES in Las Palmas de Gran Canaria, Spain, February 1998. ARES is an acronym for Architectural Reasoning for Embedded Systems. Within this project we investigate techniques to deal with problems of software architecture of families of embedded systems. It is the second workshop organised by this project. Its predecessor was held in Las Navas de Marques, Spain, November 1996. The proceedings of the first workshop are only available in electronic format at "<http://www.dit.upm.es/~ares/>". The second workshop succeeded, even more than the first one, in gathering many of the most prominent people working in the area of software architecture for product families or product lines. This second workshop consisted of six sessions. The first session was meant to report the ARES results, according to the topics of the next five sessions. The remaining sessions dealt with different aspects of software architecture, focussed on applications for product families or product lines. Because there will be a separate book covering all ARES results, the first session is not included in this book. The workshop was chaired by Henk Obbink from Philips Research and Paul Clements from the Software Engineering Institute at Carnegie Mellon University. They prepared and presented an overall conclusion at the end of the workshop. This conclusion was used in the introduction to this book.

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