

1. Record Nr.	UNINA9910483486303321
Titolo	Component-Based Software Engineering : 12th International Symposium, CBSE 2009 East Stroudsburg, PA, USA, June 24-26, 2009 Proceedings // edited by Grace A. Lewis, Iman Poernomo, Christine Hofmeister
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	3-642-02414-9
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (X, 275 p.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 5582
Classificazione	DAT 315f SS 4800
Altri autori (Persone)	LewisGrace A Poernomolman Hafiz <1976-> HofmeisterChristine
Disciplina	005.1
Soggetti	Software engineering Computer programming Compilers (Computer programs) Computers Computer science Software Engineering Programming Techniques Compilers and Interpreters Hardware Performance and Reliability Computer Science Logic and Foundations of Programming
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Component Models: Taxonomies and Applications -- On Component Identification Approaches – Classification, State of the Art, and Comparison -- Domain-Specific Software Component Models -- A Model-Driven Engineering Framework for Component Models Interoperability -- Component Integration: Patterns and Profiling -- Process Patterns for Component-Based Software Development -- Selecting Fault Tolerant Styles for Third-Party Components with Model

Checking Support -- Extracting Behavior Specification of Components in Legacy Applications -- Towards Dynamic Component Isolation in a Service Oriented Platform -- Communication and Composition -- Control Encapsulation: A Calculus for Exogenous Composition of Software Components -- Component Specification Using Event Classes -- Integrating Functional and Architectural Views of Reactive Systems -- Extra-Functional Analysis -- Integration of Extra-Functional Properties in Component Models -- Modelling Layered Component Execution Environments for Performance Prediction -- Component-Based Real-Time Operating System for Embedded Applications -- Components within the Development Life Cycle -- Services + Components = Data Intensive Scientific Workflow Applications with MeDICi -- Ensuring Consistency between Designs, Documentation, Formal Specifications, and Implementations -- Unit Testing of Software Components with Inter-component Dependencies.

Sommario/riassunto

The 2009 Symposium on Component-Based Software Engineering (CBSE 2009) was the 12th in a series of successful events that have grown into the main forum for industrial and academic experts to discuss component technology. Component-based software engineering (CBSE) has emerged as the underlying technology for the assembly of flexible software systems. In essence, CBSE is about composing computational building blocks to construct larger building blocks that fulfill client needs. Most software engineers are involved in some form of component-based development. Nonetheless, the implications of CBSE adoption are wide-reaching and its challenges grow in tandem with its uptake, continuing to inspire our scientific speculation. Component-based development necessarily involves elements of software architecture, modular software design, software verification, testing, configuration and deployment. This year's submissions represent a cross-section of CBSE research that touches upon all these aspects. The theoretical foundations of component specification, composition, analysis, and verification continue to pose research challenges. What exactly constitutes an adequate semantics for communication and composition so that bigger things can be built from smaller things? How can formal approaches facilitate predictable assembly through better analysis? We have grouped the proceedings into two sub-themes that deal with these issues: component models and communication and composition. At the same time, the world is changing.
