1. Record Nr.	UNINA9910143859703321
Titolo	Component-Based Software Quality : Methods and Techniques / / edited by Alejandra Cechich, Mario Piattini, Antonio Vallecillo
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2003
ISBN	3-540-45064-5
Edizione	[1st ed. 2003.]
Descrizione fisica	1 online resource (X, 410 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2693
Disciplina	005.3
Soggetti	Computer industry
	Software engineering
	Management information systems
	Computer science
	The Computer Industry
	Software Engineering
	Management of Computing and Information Systems
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	Assessing Component-Based Systems -- Assessing Component-Based Systems -- I COTS Selection -- COTS-Based Requirements Engineering -- Domain-Based COTS-Product Selection Method -- STACE: Social Technical Approach to COTS Software Evaluation -- SCARLET: Integrated Process and Tool Support for Selecting Software Components -- II Testing and Certification -- Component-Based Software: An Overview of Testing -- Setting a Framework for Trusted Component Trading -- Component Integration through Built-in Contract Testing -- III Software Component Quality Models -- Quality Characteristics for Software Components: Hierarchy and Quality Guides -- Driving Component-Based Software Development through Quality Modelling -- Towards a Quality Model for the Selection of ERP Systems -- Maturing Architectures and Components in Software Product Lines -- IV Formal Approaches to Quality Assessment -- Assessment of High Integrity Software Components for Completeness, Consistency, Fault-Tolerance, and Reliability -- Reasoning about Software Architectures

with Contractually Specified Components -- Reuse of Formal Verification Efforts of Incomplete Models at the Requirements Specification Stage -- V CBSD Management -- Risk Management of COTS Based Systems Development -- A Metrics-Guided Framework for Cost and Quality Management of Component-Based Software.

Sommario/riassunto	Component-based software development, CBSD, is no longer just one more new paradigm in software engineering, but is effectively used in development and practice. So far, however, most of the efforts from the software engineering community have concentrated on the functional aspects of CBSD, leaving aside the treatment of the quality issues and extra-functional properties of software components and component-based systems. This book is the first one focusing on quality issues of components and component-based systems. The 16 revised chapters presented were carefully reviewed and selected for inclusion in the book; together with an introductory survey, they give a coherent and competent survey of the state of the art in the area. The book is organized in topical parts on COTS selection, testing and certification, software component quality models, formal models to quality assessment, and CBSD management.