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Titolo	Deductive Software Verification – The KeY Book : From Theory to Practice // edited by Wolfgang Ahrendt, Bernhard Beckert, Richard Bubel, Reiner Hähnle, Peter H. Schmitt, Mattias Ulbrich
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Descrizione fisica	1 online resource (XXXII, 702 p. 110 illus.)
Collana	Programming and Software Engineering ; ; 10001
Disciplina	005.14
Soggetti	Software engineering Computer logic Mathematical logic Programming languages (Electronic computers) Artificial intelligence Software Engineering Logics and Meanings of Programs Mathematical Logic and Formal Languages Programming Languages, Compilers, Interpreters Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foundations -- Specification and Verification -- From Verification to Analysis -- The KeY System in Action -- Case Studies.
Sommario/riassunto	Static analysis of software with deductive methods is a highly dynamic field of research on the verge of becoming a mainstream technology in software engineering. It consists of a large portfolio of - mostly fully automated - analyses: formal verification, test generation, security analysis, visualization, and debugging. All of them are realized in the state-of-art deductive verification framework KeY. This book is the definitive guide to KeY that lets you explore the full potential of deductive software verification in practice. It contains the complete theory behind KeY for active researchers who want to understand it in depth or use it in their own work. But the book also features fully self-

contained chapters on the Java Modeling Language and on Using KeY that require nothing else than familiarity with Java. All other chapters are accessible for graduate students (M.Sc. level and beyond). The KeY framework is free and open software, downloadable from the book companion website which contains also all code examples mentioned in this book.

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