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Titolo	Filosoficka' Fakulta University Karlovy = Facultas Philosophica Universitatis Carolinae Pragensis: Prace z Vedeckych ustavu / Poradaji G. Friedrich, V. Matesius a M. Weingart
Lingua di pubblicazione	Non definito
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Autore	Heckel Reiko
Titolo	Graph Transformation for Software Engineers : With Applications to Model-Based Development and Domain-Specific Language Engineering / / by Reiko Heckel, Gabriele Taentzer
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ISBN	3-030-43916-X
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Descrizione fisica	1 online resource (323 pages) : illustrations
Disciplina	005.1
Soggetti	Computer science Software engineering Theory of Computation Software Engineering
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Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I, Graph Transformation -- Graphs for Modeling and Specification -- Graph Transformation Concepts -- Beyond Individual Rules: Usage Scenarios and Control Structures -- Analysis and Improvement of Graph Transformation Systems -- Part II, Graph Transformation in Software Engineering -- Detecting Inconsistent Requirements in a Use Case-Driven Approach -- Service Specification and Matching -- Model-Based Testing -- Reverse Engineering: Inferring Visual Contracts from

	Java Programs -- Stochastic Analysis of Dynamic Software Architectures -- Advanced Modeling Language Definition: Integrating Meta-modeling with Graph Transformation -- Improving Models and Understanding Model Changes -- Translating and Synchronizing Models.
Sommario/riassunto	This book is an introduction to graph transformation as a foundation to model-based software engineering at the level of both individual systems and domain-specific modelling languages. The first part of the book presents the fundamentals in a precise, yet largely informal way. Besides serving as prerequisite for describing the applications in the second part, it also provides a comprehensive and systematic survey of the concepts, notations and techniques of graph transformation. The second part presents and discusses a range of applications to both model-based software engineering and domain-specific language engineering. The variety of these applications demonstrates how broadly graphs and graph transformations can be used to model, analyse and implement complex software systems and languages. This is the first textbook that explains the most commonly used concepts, notations, techniques and applications of graph transformation without focusing on one particular mathematical representation or implementation approach. Emphasising the research and engineering methodologies used, it will be a valuable resource for graduate students, practitioners and researchers in software engineering, foundations of programming and formal methods.