1. Record Nr. UNINA9910768173303321 Melnik Sergey Autore Titolo Generic Model Management: Concepts and Algorithms / / by Sergey Melnik Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2004 **ISBN** 1-280-30747-1 9786610307470 3-540-24684-3 Edizione [1st ed. 2004.] Descrizione fisica 1 online resource (XX, 244 p.) Collana Lecture Notes in Computer Science, , 0302-9743 ; ; 2967 Disciplina 005.1/1 Soggetti Software engineering Information storage and retrieval Database management Artificial intelligence Programming languages (Electronic computers) Software Engineering/Programming and Operating Systems Information Storage and Retrieval **Database Management** Software Engineering Artificial Intelligence Programming Languages, Compilers, Interpreters 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. Nota di contenuto A Programming Platform for Model Management -- 1. Introduction --2. Conceptual Structures and Operators -- 3. Implementation and Applications -- A Semantics for Model Management Operators -- 4. State-Based Semantics -- 5. Change Propagation Scenario -- 6. State-Based Semantics in Rondo -- Schema Matching -- 7. Similarity Flooding Algorithm -- 8. Filters -- 9. Evaluation and Tuning -- Model Management in Perspective -- 10. Related Work -- 11. Conclusions and Outlook -- A. User Study: Gathering Intended Match Results -- B.

Proofs of Simplification Theorems.

## Sommario/riassunto

Many challenging problems in information systems engineering involve the manipulation of complex metadata artifacts or models, such as database schema, interface specifications, or object diagrams, and mappings between models. Applications solving metadata manipulation problems are complex and hard to build. The goal of generic model management is to reduce the amount of programming needed to solve such problems by providing a database infrastructure in which a set of high-level algebraic operators are applied to models and mappings as a whole rather than to their individual building blocks. This book presents a systematic study of the concepts and algorithms for generic model management. The first prototype of a generic model management system is described, the algebraic operators are introduced and analyzed, and novel algorithms for implementing them are developed. Using the prototype system and the operators presented, solutions are developed for several practically relevant problems, such as change propagation and reintegration.