1. Record Nr. UNINA9910820444003321

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| Autore | Zeigler Bernard P. <1940-> |
| Titolo | Modeling & simulation-based data engineering : introducing pragmatics into ontologies for net-centric information exchange / / Bernard Ziegler, Phillip Hammonds |
| Pubbl/distr/stampa | Boston ; ; Amsterdam, : Elsevier/Academic Press, c2007 |
| ISBN | 1-281-05692-8<br>9786611056926<br>0-08-055054-1 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (448 p.) |
| Altri autori (Persone) | HammondsPhillip |
| Disciplina | 004.60113 |
| Soggetti | Data transmission systems - Design - Computer simulation<br>Downloading of data |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | UML and XML Combined: Strengths and LimitationsOpen Knowledge Base Connectivity Ontology; Semantic Web Ontologies and Environments; Summary; References; Appendix A: Review of OKBC Knowledge Specification (based on13); Chapter 3: Formulating Pragmatic Frames and Ontologies: Geospatial Sensor Data; Geospatial Imagery Sensors Background; Pragmatic Frame for Downstream Image Processing; Sensor Model; Pragmatic Frame Principles: Maxims for Effective Conversations; Summary; References; Part II: System Entity StructureConcepts and Operations; Chapter 4: Introduction to the System Entity Structure<br>VariablesAspects; Specializations; Interaction between Aspects and Specializations; Interaction among Specializations; multiAspects; Variables and Range Specifications; Range Restrictions; Computed Values and Formulas; Summary; References; Chapter 5: System Entity Structure Axioms: Interpretations and Applications; Relational Specification of the SES; Application of Uniformity; Satisfaction of the Axioms; Unique Path Labeling; Pruning Process: Brief Introduction; System Entity Structure with multiAspects; Inheritance; Summary; Problems; References |

Chapter 6: System Entity Structure: Computational RepresentationsCreating an Instance of Class sesRelation; Representing the SES as a DOM; Specifying the SES as an XML File; Creating a DOM from an SES XML File; Writing from a DOM for an SES into a DTD; Testing an SES for Validity; Schema Representation of SES; Schema Validation of SES; Natural Language Specification of an SES; Summary; References; Appendix A: Syntax for Natural Language Specification of an SES; Chapter 7: Mappings: Transformations and Restructurings; Tree Operations: Eliminating Specialization and Aspect Labels Restructuring of multiAspectsRestructuring Variables and Specializations; Partitioning Continuous Ranges Using Specializations; Converting between Variables and Aspects; Increasing Specialization Specificity; Summary; Chapter 8: Pruned Entity Structures and XML Schema Instances; Pruned Entity Structures; Pruning an SES with multiAspects; Prunable Entity Structures; The conformsTo Relation; When Is Pruning Complete?; Pruning Using SES/JAVA Tools; Validation and Completion State of PES; Summary; Reference; Chapter 9: Constrained Pruning; Constraints on Specialization Selections Rule-based Approach

Sommario/riassunto

Data Engineering has become a necessary and critical activity for business, engineering, and scientific organizations as the move to service oriented architecture and web services moves into full swing. Notably, the US Department of Defense is mandating that all of its agencies and contractors assume a defining presence on the Net-centric Global Information Grid. This book provides the first practical approach to data engineering and modeling, which supports interoperabililty with consumers of the data in a service- oriented architectures (SOAs). Although XML (eXtensible Modeling Language) is