

1. Record Nr.	UNINA9910132336303321
Autore	Micouin Patrice
Titolo	Model based systems engineering : fundamentals and methods / / Patrice Micouin
Pubbl/distr/stampa	London, England ; ; Hoboken, New Jersey : , : ISTE Ltd : , : John Wiley & Sons, Inc., , 2014 ©2014
ISBN	1-5231-3673-1 1-118-57943-7 1-118-57953-4
Descrizione fisica	1 online resource (308 p.)
Collana	Control, Systems and Industrial Engineering Series
Disciplina	620.0011
Soggetti	Systems engineering - Mathematical models
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	Cover page; Half-Title page; Title page; Copyright page; Contents; List of Figures and Tables; List of Figures; List of Tables; Acknowledgements; Foreword; Introduction: Goals of Property-Model Methodology; I.1. Introduction; I.2. Brief overview; I.3. Goals; I.4. Processes; I.4.1. Objectifying and exactifying the specifications; I.4.2. Designing error-free solutions; I.4.3. Providing error free specifications of sub-systems; I.4.4. Anticipating approval phases of physical units and their integration; I.5. Conclusion; PART 1: Fundamentals; 1: General Systems Theory; 1.1. Introduction 1.2. What is a system?1.3. Systems, subsystems and levels; 1.4. Concrete and abstract objects; 1.5. Properties; 1.5.1. Material and formal properties; 1.5.2. Accidental and essential properties, laws and types; 1.5.3. Dispositions, structural and behavioral properties; 1.5.4. Resulting and emerging properties; 1.6. States, event, process, behavior and fact; 1.7. Systems of interest; 2: Technological Systems; 2.1. Introduction; 2.2. Definition of technological systems; 2.2.1. Artificial autotelic and heterotelic systems; 2.2.2. Technical-empirical and technological systems 2.2.3. Purpose of a technological system2.3. Function, behavior and structure of a technological system; 2.4. Intended and concomitant

effects of a technological system; 2.5. Modes, mode switching and states; 2.5.1. Modes of operation; 2.5.2. Mode switching; 2.5.3. Operating states; 2.6. Errors, faults and failures; 2.7. "The human factor"; 3: Knowledge Systems; 3.1. Introduction; 3.2. Knowledge and its bearers; 3.3. Intersubjective knowledge; 3.4. Concepts, propositions and conceptual knowledge; 3.5. Objective and true knowledge; 3.6. Scientific and technological knowledge
 3.6.1. Fundamental sciences; 3.6.2. Applied sciences and technology; 3.6.3. Operative technological rules; 3.6.4. Substantive technological rules; 3.7. Knowledge and belief; 4: Semiotic Systems and Models; 4.1. Introduction; 4.2. Signs and systems of signs; 4.3. Nomological propositions and law statements; 4.4. Models, object models, theoretical models and simulation; 4.5. Representativeness of models and the expressiveness of languages; 4.5.1. Representativeness of models; 4.5.2. Expressiveness of a language; PART 2: Methods; 5: Engineering Processes; 5.1. Introduction
 5.2. Systems engineering process; 5.2.1. General framework; 5.2.2. Design process; 5.2.3. Safety assessment process; 5.2.4. Requirement and assumption validation; 5.2.5. Verification of the implementation regarding requirements; 5.2.6. Managing configurations; 5.2.7. Process (quality) assurance, certification and coordination with authorities; 6: Determining Requirements and Specification Models; 6.1. Introduction; 6.2. Specifications and requirements; 6.3. Text-based requirements and subjectivity; 6.4. Objectifying requirements and assumptions through property-based requirements
 6.4.1. Definition

Sommario/riassunto

This book is a contribution to the definition of a model based system engineering (MBSE) approach, designed to meet the objectives laid out by the INCOSE. After pointing out the complexity that jeopardizes a lot of system developments, the book examines fundamental aspects of systems under consideration. It goes on to address methodological issues and proposes a methodic approach of MBSE that provides, unlike current practices, systematic and integrated model-based engineering processes. An annex describes relevant features of the VHDL-AMS language supporting the methodological issues describe

2. Record Nr.	UNINA9910970470803321
Titolo	A Semantic Web primer / / Grigoris Antoniou ... [et al.]
Pubbl/distr/stampa	Cambridge, MA, : MIT Press, 2012
ISBN	9780262304689 0262304686 9780262305617 0262305615
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (287 p.)
Collana	Cooperative information systems
Altri autori (Persone)	AntoniouG (Grigoris)
Disciplina	025.04/27
Soggetti	Semantic Web Semantic integration (Computer systems)
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	Cover -- Title -- Copyright -- Contents -- List of Figures -- Series Foreword -- Chapter 1. The Semantic Web Vision -- 1.1 Introduction -- 1.2 Semantic Web Technologies -- 1.3 A Layered Approach -- 1.4 Book Overview -- 1.5 Summary -- Suggested Reading -- Chapter 2. Describing Web Resources: RDF -- 2.1 Introduction -- 2.2 RDF: Data Model -- 2.3 RDF Syntaxes -- 2.4 RDFS: Adding Semantics -- 2.5 RDF Schema: The Language -- 2.6 RDF and RDF Schema in RDF Schema -- 2.7 An Axiomatic Semantics for RDF and RDF Schema -- 2.8 A Direct Inference System for RDF and RDFS -- 2.9 Summary -- Suggested Reading -- Exercises and Projects -- Chapter 3. Querying the Semantic Web -- 3.1 SPARQL Infrastructure -- 3.2 Basics: Matching Patterns -- 3.3 Filters -- 3.4 Constructs for Dealing with an Open World -- 3.5 Organizing Result Sets -- 3.6 Other Forms of SPARQL Queries -- 3.7 Querying Schemas -- 3.8 Adding Information with SPARQL Update -- 3.9 The Follow Your Nose Principle -- 3.10 Summary -- Suggested Reading -- Exercises and Projects -- Chapter 4. Web Ontology Language: OWL2 -- 4.1 Introduction -- 4.2 Requirements for Ontology Languages -- 4.3 Compatibility of OWL2 with RDF/RDFS -- 4.4 The OWL Language -- 4.5 OWL2 Profiles -- 4.6 Summary -- Suggested Reading -- Exercises and Projects -- Chapter 5. Logic and Inference:

Rules -- 5.1 Introduction -- 5.2 Example of Monotonic Rules: Family Relationships -- 5.3 Monotonic Rules: Syntax -- 5.4 Monotonic Rules: Semantics -- 5.5 OWL2 RL: Description Logic Meets Rules -- 5.6 Rule Interchange Format: RIF -- 5.7 SemanticWeb Rules Language (SWRL) -- 5.8 Rules in SPARQL: SPIN -- 5.9 Nonmonotonic Rules: Motivation and Syntax -- 5.10 Example of Nonmonotonic Rules: Brokered Trade -- 5.11 Rule Markup Language (RuleML) -- 5.12 Summary -- Suggested Reading -- Exercises and Projects -- Chapter 6. Applications -- 6.1 GoodRelations. 6.2 BBC Artists -- 6.3 BBC World Cup 2010 Website -- 6.4 Government Data -- 6.5 New York Times -- 6.6 Sig.ma and Sindice -- 6.7 OpenCalais -- 6.8 Schema.org -- 6.9 Summary -- Chapter 7. Ontology Engineering -- 7.1 Introduction -- 7.2 Constructing Ontologies Manually -- 7.3 Reusing Existing Ontologies -- 7.4 Semiautomatic Ontology Acquisition -- 7.5 Ontology Mapping -- 7.6 Exposing Relational Databases -- 7.7 SemanticWeb Application Architecture -- Suggested Reading -- Exercises and Projects -- Chapter 8. Conclusion -- 8.1 Principles -- 8.2 Where Next? -- Appendix A. XML Basics -- Index.

Sommario/riassunto

A new edition of the widely used guide to the key ideas, languages, and technologies of the Semantic Web.
