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Titolo	Distributed Simulation : A Model Driven Engineering Approach / / by Okan Topçu, Umut Durak, Halit Ouztüzün, Levent Yilmaz
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Descrizione fisica	1 online resource (296 p.)
Collana	Simulation Foundations, Methods and Applications, , 2195-2817
Disciplina	003.3
Soggetti	Computer simulation Software engineering Computers Microprocessors Simulation and Modeling Software Engineering Models and Principles Processor Architectures
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I: Foundations -- Introduction -- Model Driven Engineering -- High Level Architecture -- Part II: Development Process -- Process Models -- Part III: Modeling and Design -- Conceptual Modeling -- Federation Architecture: Simulation Environment Design -- Federate Architecture: Simulation Member Design -- Scenario Management -- Part IV: Implementation and Execution -- Implementation, Integration and Testing -- Simulation Evolution and Modernization -- Part V: Future Outlook -- Synergies of MDE, Simulation, and Agent Technology.
Sommario/riassunto	This unique text/reference provides a comprehensive review of distributed simulation (DS) from the perspective of Model Driven Engineering (MDE), illustrating how MDE affects the overall lifecycle of the simulation development process. Numerous practical case studies are included to demonstrate the utility and applicability of the

methodology, many of which are developed from tools available to download from the public domain. Topics and features: Provides a thorough introduction to the fundamental concepts, principles and processes of modeling and simulation, MDE and high-level architecture Describes a road map for building a DS system in accordance with the MDE perspective, and a technical framework for the development of conceptual models Presents a focus on federate (simulation environment) architectures, detailing a practical approach to the design of federations (i.e., simulation member design) Discusses the main activities related to scenario management in DS, and explores the process of MDE-based implementation, integration and testing Reviews approaches to simulation evolution and modernization, including architecture-driven modernization for simulation modernization Examines the potential synergies between the agent, DS, and MDE methodologies, suggesting avenues for future research at the intersection of these three fields Distributed Simulation – A Model Driven Engineering Approach is an important resource for all researchers and practitioners involved in modeling and simulation, and software engineering, who may be interested in adopting MDE principles when developing complex DS systems.
