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Descrizione fisica	1 online resource (932 p.)
Altri autori (Persone)	TolkAndreas
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Note generali	Chapters 1-15 written by Andreas Tolk; chapters 16-32 written by various authors.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Challenges of combat modeling and distributed simulation -- Applicable codes of ethics -- The NATO code of best practice for command and control assessment -- Terms and application domains -- Scenario elements -- Modeling the environment -- Modeling movement -- Modeling sensing -- Modeling effects -- Modeling communications, command and control -- Challenges of distributed simulation -- Standards for distributed simulation -- Modeling and simulation development and preparation processes -- Validation and verification -- Integration of M&S solutions into the operational environment -- History of combat modeling and distributed simulation / M.L. Loper & C.D. Turnitsa -- Serious games, virtual worlds, and interactive digital worlds / R. Smith -- Mathematical applications for combat modeling / P.T. Hester & A. Collins -- Combat modeling with the high level architecture and base object models / M.D. Petty & P. Gustavson -- Test and training enabling architecture (TENA) / E.T.

Powell & J.R. Noseworthy -- Combat modeling using the DEVS formalism / I.-C. Moon & T.G. Kim -- GIS data for combat modeling / J. D. Lashlee, J.L. Bricio, R. Holcomb & W.T. Richards -- Modeling tactical data links / J. Sorroche -- Standards-based combat simulation initialization using the military scenario definition language (MSDL) / R. L. Wittman -- Multi-resolution combat modeling / M.D. Petty, R.W. Franceschini & J. Panagos -- New challenges : human, social, cultural, and behavioral modeling / S.K. Numrich & P.M. Picucci -- Agent-directed simulation for combat modeling and distributed simulation / G.K. Bharathy & I. Yilmaz -- Uncertainty representation and reasoning for combat models / P.C.G. Costa, H. Herencia-Zapana, K.B. Laskey -- Model-based data engineering for distributed simulations / S.Y. Diallo -- Federated simulation for system of systems engineering / R.H. Kewley & M.D. Wood -- The role of architecture frameworks in simulation models : the human view approach / H.A.H. Handley -- Multinational computer assisted exercises / E. Cayirci.

Sommario/riassunto

Explore the military and combat applications of modeling and simulation Engineering Principles of Combat Modeling and Distributed Simulation is the first book of its kind to address the three perspectives that simulation engineers must master for successful military and defense related modeling: the operational view (what needs to be modeled); the conceptual view (how to do combat modeling); and the technical view (how to conduct distributed simulation). Through methods from the fields of operations research, computer science, and engineering, readers are guided through the his