Record Nr. UNINA9910145795503321 Autore Schumacher Michael Titolo Objective Coordination in Multi-Agent System Engineering: Design and Implementation / / by Michael Schumacher Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2001 **ISBN** 3-540-44933-7 Edizione [1st ed. 2001.] Descrizione fisica 1 online resource (XIV, 154 p.) Collana Lecture Notes in Artificial Intelligence;; 2039 Disciplina 005.11 Soggetti Computer programming Software engineering Computer architecture Artificial intelligence Computer networks **Programming Techniques** Software Engineering/Programming and Operating Systems Computer System Implementation Artificial Intelligence Computer Communication Networks Software Engineering 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 Positioning -- Multi-Agent Systems -- Coordination Models and Languages -- ECM and Its Instances -- The ECM Coordination Model --The STL Coordination Language -- The STL++ Coordination Language -- The Agent & Co Coordination Language -- Case Studies in STL++ --Collective Robotics Simulation -- Trading System Simulation --Conclusion. Sommario/riassunto Based on a suitably defined coordination model distinguishing between objective (inter-agent) coordination and subjective (intra-agent) coordination, this book addresses the engineering of multi-agent systems and thus contributes to closing the gap between research and applications in agent technology. After reviewing the state of the art,

the author introduces the general coordination model ECM and the corresponding object-oriented coordination language STL++. The practicability of ECM/STL++ is illustrated by the simulation of a particular collective robotics application and the automation of an ecommerce trading system. Situated at the intersection of behavior-based artificial intelligence and concurrent and distributed systems, this monograph is of relevance to the agent R&D community approaching agent technology from the distributed artificial intelligence point of view as well as for the distributed systems community.