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                       Lucena, Franco Zambonelli, Andrea Omicini, Jaelson Castro

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   Disciplina   005.1

   Soggetti   Artificial intelligence
                       Software engineering
                       Computer networks
                       Computer programming
                       Application software
                       User interfaces (Computer systems)
                       Artificial Intelligence
                       Software Engineering
                       Computer Communication Networks
                       Programming Techniques
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   Nota di bibliografia   Includes bibliographical references at the end of each chapters and
                          index.

   Nota di contenuto   Software Engineering Foundations -- Taming Agents and Objects in
                       Software Engineering -- The Role of Roles in Designing Effective Agent
                       Organizations -- Requirements Engineering and Software Architecture
                       -- Requirements Engineering for Large-Scale Multi-agent Systems --
                       Requirements Traceability in Agent Oriented Development -- The
                       Reflective Blackboard Pattern: Architecting Large Multi-agent Systems
                       -- Coordination and Mobility -- A Declarative Approach to Agent-
                       Centered Context-Aware Computing in Ad Hoc Wireless Environments
                       -- Engineering Mobility in Large Multi Agent Systems: A Case Study in

Urban Traffic Management -- Sustainable Information Ecosystems -- Reuse -- Achieving the Promise of Reuse with Agent Components -- Application-Specific Reuse of Agent Roles -- Assisting the Development of Aspect-Based Multi-agent Systems Using the Smartweaver Approach -- Dependability -- Dynamic and Adaptive Replication for Large-Scale Reliable Multi-agent Systems -- Achieving Software Robustness via Large-Scale Multiagent Systems -- Empirical Studies and Applications -- What Can Cellular Automata Tell Us about the Behavior of Large Multi-agent Systems? -- The RETSINA MAS, a Case Study -- Secure Multi-agent Coordination in a Network Monitoring System -- Towards Monitored Data Consistency and Business Processing Based on Declarative Software Agents1.

| Sommario/riassunto | Nowadays, engineering large-scale software systems means dealing with complex systems composed of pervasive software components that move around and adapt to nondeterministic and open environments, like the Internet, in order to achieve systems design goals through the coordination of autonomously distributed services. The agent metaphor, in particular software agents and multi-agent systems (MAS), constitutes a promising approach for covering most of the software development life cycle, from conceptual modeling and requirements specification to architectural definition, design, and implementation. This book presents 17 carefully reviewed papers arranged in order to provide a coherent survey of how to exploit agent properties and MAS issues in today's software systems. The book offers the following topical sections: - software engineering foundations - requirements engineering and software architecture - coordination and mobility - reuse -dependability -empirical studies and applications. |