

Contents

| | |
|---------------------------|----|
| Introduction | xv |
|---------------------------|----|

Section I: Belief-Desire-Intention

| | |
|--|----|
| The Belief-Desire-Intention Model of Agency | 1 |
| Mike Georgeff, Barney Pell, Martha Pollack, Milind Tambe, and Mike Wooldridge | |
| BDI Models and Systems: Bridging the Gap | 11 |
| Michael Mora, José Lopes, Rosa Viccari, and Helder Coelho | |
| Information-Passing and Belief Revision in Multi-Agent Systems | 29 |
| Rogier van Eijk, Frank de Boer, Wiebe van der Hoek, and John-Jules Ch. Meyer | |
| On the Relationship Between BDI Logics and Standard Logics of Concurrency | 47 |
| Klaus Schild | |
| Intention Reconsideration Reconsidered | 63 |
| Mike Wooldridge and Simon Parsons | |
| Making Shared Plans More Concise and Easier to Reason About | 81 |
| Luke Hunsberger | |

Section II: Theories

| | |
|---|-----|
| Autonomous Norm Acceptance | 99 |
| Rosaria Conte, Cristiano Castelfranchi, and Frank Dignum | |
| Moral Sentiments in Multi-agent Systems | 113 |
| Ana Bazzan, Rafael Bordini, and John Campbell | |
| Social Structure in Artificial Agent Societies: Implications for Autonomous Problem-Solving Agents | 133 |
| Sascha Ossowski and Ana García-Serrano | |
| The Bases of Effective Coordination in Decentralized Multi-agent Systems .. | 149 |
| Sudhir Rustogi and Munindar Singh | |
| A Model Checking Algorithm for Multi-agent Systems | 163 |
| Massimo Benerecetti, Fausto Giunchiglia, and Luciano Serafini | |
| Compositional Verification of Multi-agent Systems in Temporal Multi-Epistemic Logic | 177 |
| Joeri Engelfriet, Catholijn Jonker, and Jan Treur | |
| Emergent Mental Attitudes in Layered Agents | 195 |
| Christoph Jung | |

Section III: Architectures

| | |
|---|-----|
| The Right Agent (Architecture) to Do the Right Thing | 211 |
| Jörg P. Müller | |

| | |
|---|-----|
| Representing Abstract Agent Architectures | 227 |
| Michael Fisher | |
| HEIR – A Non-hierarchical Hybrid Architecture for Intelligent Robots | 243 |
| Maurizio Piaggio | |
| A-Teams: An Agent Architecture for Optimization and Decision Support | 261 |
| John Rachlin, Richard Goodwin, Sesh Murthy, Rama Akkiraju, Fred Wu, Santhosh Kumaran, and Raja Das | |
| Goal Satisfaction in Large Scale Agent-Systems: A Transportation Example . | 277 |
| Onn Shehory, Sarit Kraus, and Osher Yadgar | |
| Task Decomposition and Dynamic Role Assignment for Real-Time Strategic Teamwork | 293 |
| P. Stone and M. Veloso | |

Section IV: Languages

| | |
|---|-----|
| Agent Languages and Their Relationship to Other Programming Paradigms 309 | |
| John-Jules Ch. Meyer | |
| A Survey of Agent-Oriented Methodologies | 317 |
| Carlos Iglesias, Mercedes Garrijo, and José Gonzalez | |
| The Agentis Agent Interaction Model | 331 |
| David Kinny | |
| Content-Based Routing as the Basis for Intra-agent Communication | 345 |
| Nikolaos Skarneas and Keith Clark | |
| Agent Communication Language: Toward a Semantics Based on Success, Satisfaction, and Recursion | 363 |
| Brahim Chaib-draa and Daniel Vanderveken | |
| Control Structures of Rule-Based Agent Languages | 381 |
| Koen Hindriks, Frank de Boer, Wiebe van der Hoek, and John-Jules Ch. Meyer | |
| A Reactive Approach for Solving Constraint Satisfaction Problems | 397 |
| Arnaud Dury, Florence Le Ber, and Vincent Chevrier | |
| Increasing Resource Utilization and Task Performance by Agent Cloning ... | 413 |
| Onn Shehory, Katia Sycara, Prasad Chalasani, and Somesh Jha | |
| A Classification Schema to Volumes 1 to 5 of the <i>Intelligent Agents Series</i> | 427 |
| Mike Wooldridge and Jörg P. Müller | |
| Index | 443 |



<http://www.springer.com/978-3-540-65713-2>

Intelligent Agents V: Agents Theories, Architectures,
and Languages

5th International Workshop, ATAL'98, Paris, France, July
4-7, 1998, Proceedings

Müller, J.; Singh, M.P.; Rao, A.S. (Eds.)

1999, XXIV, 464 p., Softcover

ISBN: 978-3-540-65713-2