

1. Record Nr.	UNINA9910145795203321
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Titolo	Constraint-Based Agents : An Architecture for Constraint-Based Modeling and Local-Search-Based Reasoning for Planning and Scheduling in Open and Dynamic Worlds // by Alexander Nareyek
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2001
ISBN	3-540-45746-1
Edizione	[1st ed. 2001.]
Descrizione fisica	1 online resource (XIV, 186 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 2062
Disciplina	006.3
Soggetti	Artificial intelligence System theory Computer programming Algorithms Computer networks Data structures (Computer science) Artificial Intelligence Systems Theory, Control Programming Techniques Algorithm Analysis and Problem Complexity Computer Communication Networks Data Structures and Information Theory
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 and index.
Nota di contenuto	Using Global Constraints for Local Search -- Structural Constraint Satisfaction -- The Planning Model -- Application -- Conclusion -- Future Work -- Internet Links -- The "Send More Money" Problem -- Choice Randomization -- Ensuring the Satisfaction of Structural Constraints.
Sommario/riassunto	Autonomous agents have become a vibrant research and development topic in recent years attracting activity and attention from various areas. The basic agent concept incorporates proactive autonomous units with goal-directed-behaviour and communication capabilities.

The book focuses on autonomous agents that can act in a goal directed manner under real time constraints and incomplete knowledge, being situated in a dynamic environment where resources may be restricted. To satisfy such complex requirements, the author improves, combines, and applies results from areas like planning, constraint programming, and local search. The formal framework developed is evaluated by application to the field of computer games, which fit the problem context very well since most of them are played in real time and provide a highly interactive environment where environmental situations are changing rapidly.

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