1. Record Nr. UNINA9910483385103321

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Titolo	Understanding Planning Tasks : Domain Complexity and Heuristic Decomposition / / by Malte Helmert
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2008
ISBN	3-540-77723-7
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (XIV, 270 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 4929
Altri autori (Persone)	HelmertMalte
Disciplina	006.3
Soggetti	Artificial intelligence Algorithms Computers Mathematical statistics Artificial Intelligence Algorithm Analysis and Problem Complexity Computation by Abstract Devices Probability and Statistics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Revised version of Malte Helmert's doctoral thesis, Solving planning tasks in theory and practice, written ... at Albert-Ludwigs-Universitat Freiburg, Germany, in 2006"p. [4] of cover.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Planning Benchmarks -- The Role of Benchmarks -- Defining Planning Domains -- The Benchmark Suite -- Transportation and Route Planning -- IPC Domains: Transportation and Route Planning -- IPC Domains: Others -- Conclusions -- Fast Downward -- Solving Planning Tasks Hierarchically -- Translation -- Knowledge Compilation -- Search -- Experiments -- Discussion.
Sommario/riassunto	Action planning has always played a central role in Artificial Intelligence. Given a description of the current situation, a description of possible actions and a description of the goals to be achieved, the task is to identify a sequence of actions, i.e., a plan that transforms the current situation into one that satisfies the goal description. This monograph is a revised version of Malte Helmert's doctoral thesis, Solving Planning Tasks in Theory and Practice, written under the

supervision of Professor Bernhard Nebel as thesis advisor at Albert-Ludwigs-Universität Freiburg, Germany, in 2006. The book contains an exhaustive analysis of the computational complexity of the benchmark problems that have been used in the past decade, namely the standard benchmark domains of the International Planning Competitions (IPC). At the same time, it contributes to the practice of solving planning tasks by presenting a powerful new approach to heuristic planning. The author also provides an in-depth analysis of so-called routing and transportation problems. All in all, this book will contribute significantly to advancing the state of the art in automatic planning.