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Autore	[Fruhworth, Thom]
Titolo	Essentials of Constraint Programming / by Thom Fruhwirth, Slim Abdennadher
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Nota di contenuto	Introduction -- Part I. Constraint Programming: Algorithm = Logic + Control; Preliminaries of Syntax and Semantics; Logic Programming; Constraint Logic Programming; Concurrent Constraint Logic Programming; Constraint Handling Rules -- Part II. Constraint Systems: Constraint Systems and Constraint Solvers; Boolean Algebra B; Rational Trees RT; Linear Polynomial Equations R; Finite Domains FD; Non-linear Equations I -- Part III. Applications: Market Overview; Optimal Sender Placement for Wireless Communication; The Munich Rent Advisor; University Course Timetabling -- Part IV. Appendix: Foundations from Logic; List of Figures; References; Index.
Sommario/riassunto	The book is a short, concise and complete presentation of constraint programming and reasoning. The use of constraints had its scientific and commercial breakthrough in the 1990s. Programming with constraints makes it possible to model and solve problems with uncertain, incomplete information and combinatorial problems, as they are abundant in industry and commerce, such as scheduling, planning, transportation, resource allocation, layout, design and analysis. The theoretically well-founded presentation includes application examples from real life. It introduces the common classes of constraint programming languages and constraint systems in a uniform way.

Constraint solving algorithms are specified and implemented in the constraint handling rules language (CHR). This book is ideally suited as a textbook for graduate students and as a resource for researchers and practitioners. The Internet support includes teaching material, software, latest news and online use and examples of the CHR language.

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