1. Record Nr. UNINA9910143634603321 Autore Fensel Dieter Titolo Problem-Solving Methods: Understanding, Description, Development, and Reuse / / by Dieter Fensel Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2000 **ISBN** 3-540-44936-1 Edizione [1st ed. 2000.] Descrizione fisica 1 online resource (XII, 160 p.) Collana Lecture Notes in Artificial Intelligence;; 1791 006.3/3 Disciplina Soggetti Artificial intelligence Software engineering Artificial Intelligence Software Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto What Are Problem-Solving Methods -- Making Assumptions for Efficiency Reasons -- What Are Problem-Solving Methods -- Making Assumptions for Efficiency Reasons -- An Empirical Survey of Assumptions -- How to Describe Problem-Solving Methods -- A Four Component Architecture for Knowledge-Based Systems -- Logics for Knowledge-Based Systems: MLPM and MCL -- A Verification Framework for Knowledge-Based Systems -- How to Develop and Reuse Problem-Solving Methods -- Methods for Context Explication and Adaptation --Organizing a Library of Problem-Solving Methods -- Conclusions and Future Work -- Conclusions and Future Work. Sommario/riassunto Researchers in Artificial Intelligence have traditionally been classified into two categories: the "neaties" and the "scruffies". According to the scruffies, the neaties concentrate on building elegant formal frameworks, whose properties are beautifully expressed by means of definitions, lemmas, and theorems, but which are of little or no use when tackling real-world problems. The scruffies are described (by the neaties) as those researchers who build superficially impressive systems that may perform extremely well on one particular case study. but whose properties and underlying theories are hidden in their

implementation, if they exist at all. As a life-long, non-card-carrying

scruffy, I was naturally a bit suspicious when I first started collaborating with Dieter Fensel, whose work bears all the formal hallmarks of a true neaty. Even more alarming, his primary research goal was to provide sound, formal foundations to the area of knowledge-based systems, a traditional stronghold of the scruffies - one of whom had famously declared it "an art", thus attempting to place it outside the range of the neaties (and to a large extent succeeding in doing so).