

**Huntbach, Matthew M.; Ringwood, Graem A.**

**Agent-oriented programming. From Prolog to guarded definite clauses.** (English)

Zbl 1044.68002

Lecture Notes in Computer Science 1630. Lecture Notes in Artificial Intelligence. Berlin: Springer (ISBN 3-540-66683-4/pbk). xiv, 386 p. (1999).

Publisher's description: The authors present a systematic development of the concurrent object-oriented agent programming language Guarded Definite Clauses (GDC). In contrast to other languages used in agent programming, like Java, Telescript, and Agent-TCL, this language is derived from the artificial intelligence programming tradition and emphasizes AI applications. The first part of the book is devoted to the principled evolution of the paradigm GDC; during the course of this evolution, the reader can also learn a lot about the history and the dramatically changing fortune, booms, and busts, of AI. In the second part, the paradigm is evaluated for application in various fields including parallel distributed search, distributed constraint solving, meta-interpretation, partial evaluation, and robotics and multi-agent systems. The book is written for students and professionals in agent programming or in AI programming in general.

**MSC:**

- 68-02 Research exposition (monographs, survey articles) pertaining to computer science
- 68T01 General topics in artificial intelligence
- 68T20 Problem solving in the context of artificial intelligence (heuristics, search strategies, etc.)
- 68T40 Artificial intelligence for robotics
- 68N17 Logic programming
- 68N15 Theory of programming languages
- 68N19 Other programming paradigms (object-oriented, sequential, concurrent, automatic, etc.)
- 68M14 Distributed systems

**Software:**

Oz

**Full Text:** [Link](#)