Programming Multi-Agent Systems in AgentSpeak using Jason
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DESCRIPTION

Jason is an Open Source interpreter for an extended version of AgentSpeak – a logic-based agent-oriented programming language – written in Java™. It enables users to build complex multi-agent systems that are capable of operating in environments previously considered too unpredictable for computers to handle. Jason is easily customisable and is suitable for the implementation of reactive planning systems according to the Belief-Desire-Intention (BDI) architecture.

Programming Multi-Agent Systems in AgentSpeak using Jason provides a brief introduction to multi-agent systems and the BDI agent architecture on which AgentSpeak is based. The authors explain Jason’s AgentSpeak variant and provide a comprehensive, practical guide to using Jason to program multi-agent systems. Some of the examples include diagrams generated using an agent-oriented software engineering methodology particularly suited for implementation using BDI-based programming languages. The authors also give guidance on good programming style with AgentSpeak.

Programming Multi-Agent Systems in AgentSpeak using Jason

• Describes and explains in detail the AgentSpeak extension interpreted by Jason and shows how to create multi-agent systems using the Jason platform.

• Reinforces learning with examples, problems, and illustrations.

• Includes two case studies which demonstrate the use of Jason in practice.

• Features an accompanying website that provides further learning resources including sample code, exercises, and slides.
This essential guide to AgentSpeak and Jason will be invaluable to senior undergraduate and postgraduate students studying multi-agent systems. The book will also be of interest to software engineers, designers, developers, and programmers interested in multi-agent systems.

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