

Blount, Justin; Gelfond, Michael

Reasoning about the intentions of agents. (English) [Zbl 1356.68213](#)

Artikis, Alexander (ed.) et al., Logic programs, norms and action. Essays in honor of Marek J. Sergot on the occasion of his 60th birthday. Berlin: Springer (ISBN 978-3-642-29413-6/pbk). Lecture Notes in Computer Science 7360. Lecture Notes in Artificial Intelligence, 147-171 (2012).

Summary: In this paper, we further develop the formal theory of intentions suggested by *C. Baral* and *M. Gelfond* ["Reasoning about intended actions", in: Proceedings of the 20th national conference on artificial intelligence, AAAI'05. Palo Alto, CA: AAAI Press. 689–694 (2005)]. In this work the authors formalized the behavior of an agent intending to execute a sequence of actions. The resulting axioms for intentions written in knowledge representation language Answer Set Prolog allowed to easily express such properties of intentions as persistence and non-procrastination. This paper expands this work to allow reasoning with intentions in the presence of unexpected observations, and intentions to achieve goals. The theory is formulated in the extension of Answer Set Prolog, called CR-Prolog.

For the entire collection see [\[Zbl 1241.68007\]](#).

MSC:

- [68T27](#) Logic in artificial intelligence
- [68N17](#) Logic programming
- [68T30](#) Knowledge representation

Software:

[AgentSpeak](#); [Potassco](#); [Smodels](#)

Full Text: [DOI](#)