FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Inform Communicative Act Specification

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Foreword

The Foundation for Intelligent Physical Agents (FIPA) is an international organization that is dedicated to promoting the industry of intelligent agents by openly developing specifications supporting interoperability among agents and agent-based applications. This occurs through open collaboration among its member organizations, which are companies and universities that are active in the field of agents. FIPA makes the results of its activities available to all interested parties and intends to contribute its results to the appropriate formal standards bodies.

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FIPA is a non-profit association registered in Geneva, Switzerland. As of January 2000, the 56 members of FIPA represented 17 countries worldwide. Further information about FIPA as an organization, membership information, FIPA specifications and upcoming meetings may be found at http://www.fipa.org/.

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1 Scope

This document specifies the Inform communicative act that is compliant to [FIPA00037] requirements.

2 Inform

Summary	The sender informs the receiver that a given proposition is true.
Content	A proposition.
Description	The sending agent: holds that some proposition is true, intends that the receiving agent also comes to believe that the proposition is true, and, does not already believe that the receiver has any knowledge of the truth of the proposition. The first two properties defined above are straightforward: the sending agent is sincere, and has (somehow) generated the intention that the receiver should know the proposition (perhaps it has been asked). The last property is concerned with the semantic soundness of the act. If an agent knows already that some state of the world holds (that the receiver knows proposition *p*), it cannot rationally adopt an intention to bring about that state of the world, that is, that the receiver comes to know *p* as a result of the *inform* act. Note that the property is not as strong as it perhaps appears. The sender is not required to establish whether the receiver knows *p*. It is only the case that, in the case that the sender already happens to know about the state of the receiver's beliefs, it should not adopt an intention to tell the receiver something it already knows. From the receiver's viewpoint, receiving an *inform* message entitles it to believe that: the sender believes the proposition that is the content of the message, and, the sender wishes the receiver to believe that proposition also. Whether or not the receiver does, indeed, adopt belief in the proposition will be a function of the receiver's trust in the sincerity and reliability of the sender.
Formal Model	$\langle i, \text{inform}(j, \quad) \rangle$ FP: $B_i \quad B_i(\text{Bif}_j \quad \text{Uif}_j)$ RE: B_j

Example	Agent i informs agent j that (it is true that) it is raining today.
	
	`(inform`
	`  :sender i`
	`  :receiver j`
	`  :content`
	`  "weather (today, raining)"`
	`  :language Prolog)`

3 References

[FIPA00037] FIPA Communicative Act Library Specification. Foundation for Intelligent Physical Agents, 2000. http://www.fipa.org/specs/fipa00037/