FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Confirm Communicative Act Specification

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Foreword

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1 Scope

This document specifies the Confirm communicative act which is compliant to [FIPA00037] requirements.

2 Confirm

Summary	The sender informs the receiver that a given proposition is true, where the receiver is known to be uncertain about the proposition.
Content	A proposition.
Description	The sending agent: • believes that some proposition is true, • intends that the receiving agent also comes to believe that the proposition is true, and, • believes that the receiver is uncertain of the truth of the proposition. The first two properties defined above are straightforward: the sending agent is sincere[1], and has (somehow) generated the intention that the receiver should know the proposition (perhaps it has been asked). The last pre-condition determines when the agent should use *confirm* versus *inform* (see [FIPA00046]) versus *disconfirm* (see [FIPA00044]): *confirm* is used precisely when the other agent is already known to be uncertain about the proposition (rather than uncertain about the negation of the proposition). From the receiver's viewpoint, receiving a *confirm* 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, change its mental attitude to one of belief in the proposition will be a function of the receiver's trust in the sincerity and reliability of the sender.
Formal Model	$\langle i,$ confirm(j, ϕ)$\rangle$ FP: $B_i\phi \wedge B_i U_j \phi$ RE: $B_j\phi$
Example	Agent i confirms to agent j that it is, in fact, true that it is snowing today. (confirm :sender i :receiver j :content "weather(today, snowing)" :language Prolog)

[1] Arguably there are situations where an agent might not want to be sincere, for example to protect confidential information. We consider these cases to be beyond the current scope of this specification.

3 References

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

[FIPA00044] FIPA Disconfirm Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000. http://www.fipa.org/specs/fipa00044/

[FIPA00046] FIPA Inform Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000. http://www.fipa.org/specs/fipa00046/