FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Accept Proposal 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/.

Contents

1 Scope

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

2 Accept Proposal

Summary	The action of accepting a previously submitted proposal to perform an action.
Content	A tuple, consisting of an action expression denoting the action to be done, and a proposition giving the conditions of the agreement.
Description	*Accept-proposal* is a general-purpose acceptance of a proposal that was previously submitted typically through a *propose* act (see [FIPA00051]). The agent sending the acceptance informs the receiver that it intends that (at some point in the future) the receiving agent will perform the action, once the given precondition is, or becomes, true. The proposition given as part of the acceptance indicates the preconditions that the agent is attaching to the acceptance. A typical use of this is to finalise the details of a deal in some protocol. For example, a previous offer to "hold a meeting anytime on Tuesday" might be accepted with an additional condition that the time of the meeting is 11.00. Note for future extension: an agent may intend that an action becomes done without necessarily intending the precondition. For example, during negotiation about a given task, the negotiating parties may not unequivocally intend their opening bids: agent a may bid a price p as a precondition, but be prepared to accept price p'.
Formal Model	$\langle i, \text{accept-proposal}(j, \langle j, act\rangle, \phi)\rangle \equiv$ $\langle i, \text{inform}(j, \text{Ii Done}(\langle j, act\rangle, \phi))\rangle$ FP: $\text{Bi}\ \alpha \wedge \neg \text{Bi}\ (\text{Bifj}\ \alpha \vee \text{Uifj}\ \alpha)$ RE: $\text{Bj}\ \alpha$ Where: $\alpha = \text{Ii Done}(\langle j, act\rangle, \phi)$

Example	Agent i informs j that it accepts an offer from j to stream a given multimedia title to channel 19 when the customer is ready. Agent i will *inform* (see [FIPA00046]) j of this fact when appropriate:
	
	`(accept-proposal`
	`  :sender i`
	`  :receiver j`
	`  :in-reply-to bid089`
	`  :content`
	`  ((action j (stream-content movie1234 19))`
	`  (B j (ready customer78)))`
	`  :language FIPA-SL)`

3 References

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

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

[FIPA00051] FIPA Propose Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000. http://www.fipa.org/specs/fipa00051/