FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Query If Communicative Act Specification

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1 Scope

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

2 Query If

Summary	The action of asking another agent whether or not a given proposition is true.
Content	A proposition.
Description	*Query-if* is the act of asking another agent whether (it believes that) a given proposition is true. The sending agent is requesting the receiver to *inform* (see [FIPA00046]) it of the truth of the proposition. The agent performing the *query-if* act: • has no knowledge of the truth value of the proposition, and, • believes that the other agent does know the truth of the proposition.
Formal Model	$\langle i$, query-if(j, ϕ) $\equiv$ $\langle i$, request(j, $\langle j$, inform-if(i, ϕ)$\rangle\rangle$ FP: $\neg Bif_i\phi \wedge \neg Uif_i\phi \wedge \neg B_i\ I_j$ Done(<j, inform-if(i, ϕ)>) RE: Done(<j, inform(i, ϕ)>|<j, inform(i, $\neg\phi$)>)
Example	Agent i asks agent j if j is registered with domain server d1: (query-if :sender i :receiver j :content (registered (server d1) (agent j)) :reply-with r09 …) Agent j replies that it is not: (inform :sender j :receiver i :content (not (registered (server d1) (agent j))) :in-reply-to r09)

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/