

FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Query Ref Communicative Act Specification

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37 specifications and upcoming meetings may be found at <http://www.fipa.org/>.

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1 Scope

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

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2 Query Ref

Summary	The action of asking another agent for the object referred to by an referential expression.
Content	A descriptor (a referential expression).
Description	<p><i>Query-ref</i> is the act of asking another agent to inform the requestor of the object identified by a descriptor. The sending agent is requesting the receiver to perform an <i>inform</i> act (see [FIPA00046]), containing the object that corresponds to the descriptor.</p> <p>The agent performing the <i>query-ref</i> act:</p> <p>does not know which object or set of objects corresponds to the descriptor, and,</p> <p>believes that the other agent does know which object or set of objects corresponds to the descriptor.</p>
Formal Model	<pre><i, query-ref(j, Ref x (x)) <i, request(j, <j, inform-ref(i, Ref x (x))>>) FP: Bref_i(Ref x (x)) Uref_i(Ref x (x)) B_i I_j Done(<j, inform-ref(i, Ref x (x))>) RE: Done(<i, Inform(j, Ref x (x) = r₁)> ... <i, Inform(j, Ref x (x) = r_k)>)</pre> <p>Note: <i>Ref x (x)</i> is one of the referential expressions: <i>x (x)</i>, <i>any x (x)</i> or <i>all x (x)</i>.</p>
Example	<p>Agent i asks agent j for its available services:</p> <pre>(query-ref :sender i :receiver j :content (all ?x (available-services j ?x)) ...)</pre> <p>j replies that it can reserve trains, planes and automobiles:</p> <pre>(inform :sender j :receiver i :content (= (all ?x (available-services j ?x)) (set (reserve-ticket train) (reserve-ticket plane) (reserve automobile))) ...)</pre>

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47 **3 References**

- 48 [FIPA00037] FIPA Communicative Act Library Specification. Foundation for Intelligent Physical Agents, 2000.
49 <http://www.fipa.org/specs/fipa00037/>
- 50 [FIPA00046] FIPA Inform Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000.
51 <http://www.fipa.org/specs/fipa00046/>