

FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Query Ref Communicative Act Specification

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34 used in the FIPA specifications may be found in the FIPA Glossary.

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

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42 **1 Scope**

43 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> <ul style="list-style-type: none"> does not know which object or set of objects corresponds to the descriptor, and, believes that the other agent does know which object or set of objects corresponds to the descriptor.
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/>