# FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

# FIPA Inform If Communicative Act Specification

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## Foreword

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38 **Contents**

42

# 1 Scope

This document specifies the Inform If communicative act that is compliant to [FIPA00037] requirements.

## 46 **2 Inform If**

| Summary | A macro action for the agent of the action to inform the recipient whether or not a proposition is true. |
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| **Content** | A proposition. |
| **Description** | The *inform-if* macro act is an abbreviation for informing whether or not a given proposition is believed. The agent which enacts an *inform-if* macro-act will actually perform a standard *inform* act (see [FIPA00046]). The content of the inform act will depend on the informing agent's beliefs. To *inform-if* on some closed proposition  :<br><br>if the agent believes the proposition, it will inform the other agent that  , and,<br><br>if it believes the negation of the proposition, it informs that  is false (i.e.  ).<br><br>Under other circumstances, it may not be possible for the agent to perform this plan. For example, if it has no knowledge of  , or will not permit the other party to know (that it believes)  , it will send a *refuse* message (see [FIPA00055]). |
| **Formal Model** | `<i, inform-if(j,  )>`<br>`  <i, inform(j,  )>\|<i, inform(j,   )>`<br>`    FP: Bif`$_i$`      B`$_i$` (Bif`$_j$`    Uif`$_j$` )`<br>`    RE: Bif`$_j$`<br><br>*Inform-if* represents two possible courses of action: *i* informs *j* that  , or *i* informs *j* that not  . |
| **Example** | Agent i requests j to inform it whether Lannion is in Normandy.<br><br>`(request`<br>`  :sender i`<br>`  :receiver j`<br>`  :content`<br>`    (inform-if`<br>`      :sender j`<br>`      :receiver i`<br>`      :content`<br>`        "in( lannion, normandy )"`<br>`      :language Prolog)`<br>`  :language FIPA-SL)`<br><br>Agent j replies that it is not:<br><br>`(inform`<br>`  :sender j`<br>`  :receiver i`<br>`  :content`<br>`    "\+ in( lannion, normandy )"`<br>`  :language Prolog)` |

47

48

## 48    3    References

49    [FIPA00037]     FIPA Communicative Act Library Specification. Foundation for Intelligent Physical Agents, 2000.
50                 `http://www.fipa.org/specs/fipa00037/`
51    [FIPA00046]     FIPA Inform Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000.
52                 `http://www.fipa.org/specs/fipa00046/`
53    [FIPA00055]     FIPA Refuse Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000.
54                 `http://www.fipa.org/specs/fipa00055/`