



## *IFRA Track 4.1*

# Message Format

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# Technical Specification



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# 1 IFRA Track Standard Documentation

## 1.1 Document Status and Copyright.

This is the Approved Specification of the IFRA Track 4.1. (NOTE: version 4.0 was not officially published).

Information in this document is made available for the public good, may be used by third parties and may be reproduced and distributed, in whole and in part, provided acknowledgement is made to IFRA and provided it is accepted that IFRA rejects any liability for any loss of revenue, business or goodwill or indirect, special, consequential, incidental or punitive damages or expense arising from use of the information.

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## 1.2 Purpose and Audience

This document describes the XML message format of the IFRA Track 4.1 standard.

The intended audience for this document is primarily user and vendor organizations who seek to implement the IFRA Track standard in their workflows, advertising systems, or software products. Those assessing the conformance of vendor products to the standard may also use the document.

Comments on this specification should be addressed to [ifratrack@ifra.com](mailto:ifratrack@ifra.com).

## 1.3 Accompanying documents

An overview and an introduction to the IFRA Track standard including technical architecture, use of XML Schemas etc is available in [1]. A specification of the IFRA Track object model [2] is also available.

Descriptions of the earlier version IFRA Track 3.0 published as IFRA Special Reports [3] includes sections that provide industrial background, scope and context. These sections are still valid for the new version 4.1.

[1] IFRA Track 4.1 Overview, 2008

[2] IFRA Track 4.1 Object Classes, 2008

[3] IFRA Track 3.0, Special Report 6.21.3, 2002

## 1.4 Definitions of key words used in the specification

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are used as described in IETF RFC 2119. (S. Bradner. *Key words for use in RFCs to Indicate Requirement Levels*. Internet Engineering Task Force (IETF), Request for Comments: 2119, March 1997, <http://www.ietf.org/rfc/rfc2119.txt>)

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When any of these words do not appear in upper case as above, then they are being used with their usual English language sense and meaning.

## 1.5 Document Revision History

See list of a revisions at the end of this document.

## 1.6 Acknowledgements

IFRA Track 4.1 and this document is a product of IFRA. It is based on a proposal from PRIME NETWORK ([www.prime-network.com](http://www.prime-network.com)), an association of suppliers of newspaper production systems.

IFRA Track 4.1 is heavily based on earlier versions of the standard, and IFRA thanks all contributors that have participated in the development of IFRA Track since its origin back in 1994.

Primary authorship and editing of this document was performed by:

- Roman Schönbacher (ABB)
- Susanne Knöpfel (ABB)
- Andreas Dau (EAE)
- Ulf Wingstedt (CNet Svenska)

IFRA also thanks the AdsML Consortium ([www.adsmml.org](http://www.adsmml.org)) whose technical approach and documentation model have served as inspiration for IFRA Track.

## 1.7 Known Issues

*None.*

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# 2 Introduction

## 2.1 Function

The IFRA Track Message Format (IMF) specification provides the definitions of standard message format. The message format is defined independent of the protocol used to transfer the XML document.

The IMF is an XML container of objects from the IFRA Track object model, or extensions of those objects.

## 2.2 Technology

The IFRA Track standard is based on the exchange of messages in the form of XML documents. The IFRA Track Message Format uses standard XML technology to implement the message format.

The IFRA Track Message Format is defined as an XML Schema:

IfraTrack-4.1-MessageFormat-AS.xsd

# 3 Messages structures

## 3.1 Message Root <Imf>

The IMF message structure is based on the XML root element <Imf> defined as a `imf:ImfType`. The root element contains one message header and one message body.

### 3.1.1 Type: `imf:ImfType`

The `imf:ImfType` contains the structure of the IMF messages.

#### XML elements of the `imf:ImfType`:

<i>xml element name</i>	<i>type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
Head	<code>imf:HeadType</code>	Head of the message		1-1
Body	<code>imf:BodyType</code>	Body of the message		1-1

## 3.2 Message head

### 3.2.1 Type: `imf:HeadType`

The message head identifies a message by the sender, the used versions of IFRA Track and interface metadata, etc.

#### XML elements of the `imf:HeadType`:

<i>xml element name</i>	<i>Type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
<code>IfraTrackVersion</code>	<code>VersionType</code>	The version element indicates which version of IFRA Track the IMF message adheres to.	4.1.0	1-1
<code>Interface</code>	<code>InterfaceDescriptionType</code>	Metadata describing the interface.		1-1
<code>Source</code>	<code>isd:SourceType</code>	The source element contains information on the application, which generated the IMF message.		1-1

<i>xml element name</i>	<i>Type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
Time	DateTime	The timestamp is the local time of the system sending the message. The time stamp describes when the object updates in the message body occurred. If messages are sent over different time zones an optional time zone can be specified also.	1997-10-06T00:11:00+02:00	1-1
MessageID	String	The message id is a string that the sender of the message may use to identify the message in case of a reply.	174925	0-1
Meta	imf:MetaType	The meta tag is optional and can be used to add any non-standard information to the message, like a comment.		0-n

### 3.2.2 Type: imf:InterfaceDescriptionType

The InterfaceDescriptionType includes a set of mandatory elements that must be used to describe the interface used by the current IMF message.

#### XML elements of the imf:InterfaceDescriptionType:

<i>xml element name</i>	<i>Type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
ID	String	A unique identifier for the interface		1-1
Name	String	An informal name of the interface		1-1
Version	String	Version of the interface expressed as three digits separated by dots.	4.3.1	1-1
Supplier	String	Name of the supplier of the interface		1-1

### 3.2.3 Type: imf:MetaType

The Meta tag is optional and can be used to add any non-standard information to the message, like a comment.

A name attribute in the Meta tag should be included to describe the information.

The content of the XML element is of the type “String” and contains the information itself.

**XML attributes of the imf:MetaType:**

<i>xml attribute name</i>	<i>type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
name	String	Name of the information	Fruit	1-1

### 3.3 Message body

#### 3.3.1 Type: imf:BodyType

The message body contains zero, one or more objects. See the IFRA Track object model in [2] for details about the objects.

**XML elements of the imf:BodyType:**

<i>xml element name</i>	<i>type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
isd:Object	isd:Abstract Object	Objects can be added to the message body.		0-n
MessageReply	imf:MessageReplyType	Reply of the message Example the data in the message body are not correct (objects are not specified, etc.)		1-1

Choice:

#### 3.3.2 Type: imf:MessageReplyType

Reply to a message to inform the sender for example of message data errors.

**XML elements of the imf:MessageReplyType:**

<i>xml element name</i>	<i>type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
MessageID	String	Message ID of message which caused the reply		1-1
Type	String	Type of the message reply Examples could be: error, warning	error	1-1
Number	String	Number of the “error”, “warning”	120	0-1

<i>xml element name</i>	<i>type</i>	<i>description</i>	<i>example</i>	<i>Ap</i>
ReplyText	String	Free text describe the reply message		1-1

# 4 REVISION INDEX

Rev.	Page (P) Section (S)	Description	Involved companies	Date Dept./Initials
A	All	First approved version.	EAE, ABB, CNet, IFRA	2008-12-01/UW