



INTERNATIONAL OLYMPIC COMMITTEE

ODF/INT012-R3-v4.5 APP (IH)

# Olympic Data Feed Sochi 2014

## **ODF Ice Hockey Data Dictionary**

12 December 2013  
Technology and Information Department  
© International Olympic Committee

**License**

The document accompanying this license and the information contained therein (the Document), whether in a paper or electronic format, is made available to you subject to the terms stated below. By using and/or copying all or part of the Document, you (the licensee) agree that you will comply with the following terms and conditions.

1. You may, on a non-exclusive basis, use the Document only on the condition that you abide by the terms of this license. Subject to this condition and other terms and restrictions contained herein, the Document and the information contained therein may be used (i) to further develop the standards described in the Document for use in relation with the Olympic and Paralympic Games and/or (ii) to develop similar standards for other events than the Olympic and Paralympic Games (both (i) and (ii) are hereinafter designated as the Permitted Use, and works further developing these standards for the Olympic and Paralympic Games or developing similar standards for other events are hereinafter referred to as Derivative Works), and copies of the Document or of Derivative Works may be made and distributed for the purpose of the Permitted Use, PROVIDED THAT the COPYRIGHT and references to the IOC appearing in the Document and the TERMS OF THIS LICENSE are included on ALL such COPIES, and further PROVIDED THAT you do not charge any fee or any other monetary compensation for the distribution of the Document to others. The copyright and other intellectual property rights in the Document remain vested in the IOC and the IOC remains entitled to assert his copyright or other intellectual property rights in the Document against any person or entity who does not comply with the terms of this License.

2. A copy of any Derivative Work shall be provided to the IOC free of charge. Moreover, the IOC is granted a worldwide, perpetual, unrestricted, royalty-free non-exclusive license to use any Derivative Work for the further development of the standards made by or for the IOC in relation to the Olympic and Paralympic Games (these standards and the documents describing them are hereinafter referred to as Further Standards) and to make or have made all kinds of exploitation of the Further Standards, with the right to grant sub-licenses.

3. Except if reproduced in the Document, the use of the name and trademarks of the IOC is strictly prohibited, including, without limitation, for advertising, publicity, or in relation to products or services and their names. Any use of the name or trademarks of the IOC, whether registered or not, shall require the specific written prior permission of the IOC.

4. NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE REGARDING THE ACCURACY, ADEQUACY, COMPLETENESS, RELIABILITY OR USEFULNESS OF ANY INFORMATION CONTAINED IN THE DOCUMENT. The Document and the information contained herein are provided on an "as is" basis. THE IOC DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF NON-INFRINGEMENT OF PROPRIETARY RIGHTS, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE IOC BE LIABLE TO ANYONE FOR DAMAGES OF ANY KIND ARISING FROM OR RELATING TO YOUR ACQUISITION, USE, DUPLICATION, DISTRIBUTION, OR EXPLOITATION OF THE DOCUMENT OR ANY PORTION THEREOF, INCLUDING BUT NOT LIMITED TO, COMPENSATORY DAMAGES, LOST PROFITS, LOST DATA OR ANY FORM OF SPECIAL, INCIDENTAL, DIRECT, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES, WHETHER BASED ON BREACH OF CONTRACT OR WARRANTY, TORT OR OTHERWISE. THE IOC FURTHER DISCLAIMS ANY LIABILITY FOR ANY DAMAGE CAUSED WHEN THE DOCUMENT IS USED IN A DERIVATIVE WORK. The IOC further disclaims any liability regarding the existence or inexistence of any intellectual property or other rights that might be claimed by third parties with respect to the implementation or use of the technology or information described in the Document.

The same conditions as those described in this Section shall apply mutatis mutandis to the license granted to the IOC on the Derivative Works in Section 2 above.

5. This License is perpetual subject to your conformance to its terms and conditions. The IOC may terminate this License immediately upon your breach of any of its terms and, upon such termination you will cease all use, duplication, distribution, and/or exploitation in any manner of the Document.

6. This License is governed by the laws of Switzerland. You agree that any disputes arising from or relating to this License will be resolved in the courts of Lausanne, Switzerland.

**IF YOU DO NOT AGREE TO THESE TERMS YOU MUST CEASE ALL USE OF THE DOCUMENT NOW.**





# Table of content

<b>Table of content</b>	<b>4</b>
<b>1 Introduction</b>	<b>7</b>
1.1 This document.....	7
1.2 Objective .....	7
1.3 Main Audience.....	7
1.4 Glossary .....	7
1.5 Related Documents.....	9
<b>2 Overall Perspective</b>	<b>10</b>
2.1 Objective .....	10
2.2 End to End data flow .....	10
<b>3 Messages</b>	<b>11</b>
3.1 Applicable Messages .....	11
3.2 Messages .....	13
<b>3.2.1 List of participants by discipline / List of participants by discipline Update .....</b>	<b>13</b>
3.2.1.1 Description .....	13
3.2.1.2 Header Values .....	13
3.2.1.2.1 PiT Header.....	13
3.2.1.3 Trigger and Frequency.....	14
3.2.1.3.1 PiT Triggers .....	14
3.2.1.4 Message Structure .....	15
3.2.1.5 Message Values.....	17
3.2.1.6 Message Sort.....	20
<b>3.2.2 List of teams / List of teams update.....</b>	<b>21</b>
3.2.2.1 Description .....	21
3.2.2.2 Header Values .....	21
3.2.2.2.1 PiT Header.....	21
3.2.2.3 Trigger and Frequency.....	22
3.2.2.3.1 PiT Triggers .....	22
3.2.2.4 Message Structure .....	23
3.2.2.5 Message Values.....	24
3.2.2.6 Message Sort.....	26
<b>3.2.3 Start List.....</b>	<b>27</b>
3.2.3.1 Description .....	27
3.2.3.2 Header Values .....	27
3.2.3.2.1 PiT Header.....	27
3.2.3.3 Trigger and Frequency.....	28
3.2.3.3.1 PiT Triggers .....	28
3.2.3.4 Message Structure .....	29
3.2.3.5 Message Values.....	31



3.2.3.6	Message Sort	35
<b>3.2.4</b>	<b>Event Unit Results</b>	<b>36</b>
3.2.4.1	Description	36
3.2.4.2	Header Values	36
3.2.4.2.1	PiT Header	36
3.2.4.2.2	RT Header	37
3.2.4.3	Trigger and Frequency	38
3.2.4.3.1	PiT Triggers	38
3.2.4.3.2	RT Triggers	38
3.2.4.4	Message Structure	39
3.2.4.5	Message Values	42
3.2.4.6	Message Sort	59
<b>3.2.5</b>	<b>Pool Standings</b>	<b>60</b>
3.2.5.1	Description	60
3.2.5.2	Header Values	60
3.2.5.2.1	PiT Header	60
3.2.5.3	Trigger and Frequency	61
3.2.5.3.1	PiT Triggers	61
3.2.5.4	Message Structure	62
3.2.5.5	Message Values	63
3.2.5.6	Message Sort	66
<b>3.2.6</b>	<b>Event Final Ranking</b>	<b>67</b>
3.2.6.1	Description	67
3.2.6.2	Header Values	67
3.2.6.2.1	PiT Header	67
3.2.6.3	Trigger and Frequency	68
3.2.6.3.1	PiT Triggers	68
3.2.6.4	Message Structure	69
3.2.6.5	Message Values	70
3.2.6.6	Message Sort	72
<b>3.2.7</b>	<b>Statistics</b>	<b>73</b>
3.2.7.1	Description	73
3.2.7.2	Header Values	73
3.2.7.2.1	PiT Header	73
3.2.7.3	Trigger and Frequency	74
3.2.7.3.1	PiT Triggers	74
3.2.7.4	Message Structure	75
3.2.7.5	Message Values	77
3.2.7.6	Message Sort	99
<b>3.2.8</b>	<b>Event's Medallists</b>	<b>100</b>
3.2.8.1	Description	100
3.2.8.2	Header Values	100
3.2.8.2.1	PiT Header	100
3.2.8.3	Trigger and Frequency	101
3.2.8.3.1	PiT Triggers	101
3.2.8.4	Message Structure	102
3.2.8.5	Message Values	103



3.2.8.6	Message Sort	103
<b>3.2.9</b>	<b>Brackets</b>	<b>104</b>
3.2.9.1	Description	104
3.2.9.2	Header Values	104
3.2.9.2.1	PiT Header	104
3.2.9.3	Trigger and Frequency	105
3.2.9.3.1	PiT Triggers	105
3.2.9.4	Message Structure	106
3.2.9.5	Message Values	108
3.2.9.6	Message Sort	110
<b>4</b>	<b>Messages Sequence</b>	<b>113</b>
<b>5</b>	<b>Codes</b>	<b>114</b>
5.1	Global Codes	114
5.2	Ice Hockey Codes	115
<b>6</b>	<b>General definitions</b>	<b>120</b>
6.1	ODF Message Structure	120
6.1.1	<i>ODF Declaration</i>	120
6.1.2	<i>ODF Header</i>	120
6.1.3	<i>ODF Body</i>	122
6.2	ODF Data Types and Formats	125
6.2.1	<i>Rules for rounding numbers</i>	126
6.2.2	<i>Measures format</i>	127
6.2.3	<i>Rules for measures conversion</i>	127
6.3	ODF Message Update	128
<b>7</b>	<b>DOCUMENT CONTROL</b>	<b>130</b>
7.1	File Reference	130
7.2	Version history	130
7.3	Change Log	130



# 1 Introduction

## 1.1 This document

This document includes the ODF Ice Hockey Data Dictionary. This document refines the messages described in the ODF General Messages Interface Document specifically for Ice Hockey, as well as defines the codes used in these messages.

## 1.2 Objective

The objective of this document is to provide a complete and formal definition of the ODF Ice Hockey Data Dictionary, with the intention that the information message producer and the message consumer can successfully interchange the information as the Ice Hockey competition is run.

## 1.3 Main Audience

The main audience of this document is the IOC as the ODF promoter, ODF users such as the World News Press Agencies, Rights Holding Broadcasters and International Sports Federations.

## 1.4 Glossary

The following abbreviations are used in this document

Acronym	Description
<b>IF or International Federation</b>	The international governing body of an Olympic Sport as recognized by the IOC
<b>IOC</b>	International Olympic Committee
<b>IPC</b>	International Paralympic Committee
<b>NOC</b>	National Olympic Committee recognized as such by the IOC
<b>NPC</b>	National Paralympic Committee as recognized by the IPC
<b>ODF</b>	Olympic Data Feed
<b>ODF Light</b>	It is a type of ODF message that includes extensions to standard ODF messages in order to resolve references between messages and common codes. These extensions facilitate the message processing for ODF customers
<b>ODF-PiT</b>	Olympic Data Feed Point in Time, messages that are generated at certain point during competition
<b>ODF-RT</b>	Olympic Data Feed Real Time, messages that are generated when available
<b>OPNS</b>	Olympic and Paralympic News Service
<b>RSC</b>	Results System Codes, determine uniquely one unit of the competition, specifying the discipline, gender, event, phase and unit.
<b>Sport</b>	is administered by an international federation and can be composed of one or more disciplines



WNPA	World News Press Agencies
------	---------------------------





## 1.5 Related Documents

Document Reference	Document Title	Document Description
ODF/INT001	ODF Message Transmission Document	This document describes the technical standards to be used to transfer ODF messages between the message generators and the final ODF users
ODF/COD001	ODF Common Codes Document	This document describes the ODF codes used across the rest of the ODF documents
ODF/INT004	ODF General Messages Interface Document	This document describes the ODF general messages



## 2 Overall Perspective

### 2.1 Objective

The objective of this document is to focus on the formal definition of the ODF Ice Hockey Data Dictionary.

### 2.2 End to End data flow

In the following chapters, for each ODF message the general description, header values, triggers and frequency, structure, values and sort of the message will be defined.



## 3 Messages

### 3.1 Applicable Messages

The following table is a full list of all ODF messages and describes the list of messages used in this sport.

- The column “Message type” indicates the DocumentType that identifies a message
- The column “Message name” is the message name identified by the message type
- The column “Feed” identifies the message feed (PiT for Point in Time messages, RT for Real Time messages and PDF for PDF messages)
- The column “Message extended in this document” indicates whether a particular message has extended definition in regards to those that are general for all sports. If one message has extended definition, it should be considered both, the extensions as well as the general rules for one message that is used in the case of the sport. However, if one particular message is not extended, then it should follow the general definition rules.

Message Type	Message Name	Feed	Message extended
DT_SCHEDULE	Competition schedule	PiT	
DT_SCHEDULE_UPDATE	Competition schedule update	PiT	
<a href="#">DT_PARTIC / DT_PARTIC_UPDATE</a>	<a href="#">List of participants by discipline / List of participants by discipline Update</a>	<a href="#">PiT</a>	<a href="#">X</a>
<a href="#">DT_PARTIC_TEAMS / DT_PARTIC_TEAMS_UPDATE</a>	<a href="#">List of teams / List of teams update</a>	<a href="#">PiT</a>	<a href="#">X</a>
DT_MEDALS	Medal standings	PiT	
DT_MEDALLISTS_DAY	Medallists of the day	PiT	
DT_GLOBAL_GM	Global good morning	PiT	
DT_GLOBAL_GN	Global good night	PiT	
<a href="#">DT_START_LIST</a>	<a href="#">Start List</a>	<a href="#">PiT</a>	<a href="#">X</a>
<a href="#">DT_RESULT</a>	<a href="#">Event Unit Results</a>	<a href="#">PiT/RT</a>	<a href="#">X</a>
<a href="#">DT_POOL_STANDING</a>	<a href="#">Pool Standings</a>	<a href="#">PiT</a>	<a href="#">X</a>
<a href="#">DT_RANKING</a>	<a href="#">Event Final Ranking</a>	<a href="#">PiT</a>	<a href="#">X</a>
<a href="#">DT_STATS</a>	<a href="#">Statistics</a>	<a href="#">PiT</a>	<a href="#">X</a>
<a href="#">DT_MEDALLISTS</a>	<a href="#">Event's Medallists</a>	<a href="#">PiT</a>	<a href="#">X</a>
DT_MEDALLISTS_DISCIPLINE	Medallists by discipline	PiT	
DT_COMMUNICATION	Official Communication	PiT	
<a href="#">DT_BRACKETS</a>	<a href="#">Brackets</a>	<a href="#">PiT</a>	<a href="#">X</a>
DT_GM	Discipline/venue good morning	PiT	
DT_GN	Discipline/venue good night	PiT	
DT_SERIAL	List of Current PiT Serial	PiT	
DT_RT_KA	RT Discipline/Venue keep alive	RT	
DT_PDF	PDF Message	PDF	
DT_PDF_GM	PDF Discipline/Venue good morning	PDF	

[List of participants by discipline / List of participants by discipline Update](#)



Message Type	Message Name	Feed	Message extended
DT_PDF_GN	PDF Discipline/Venue good night	PDF	
DT_PDF_SERIAL	List of Current PDF Serial	PDF	
DT_RT_GM	RT Discipline/venue good morning	RT	
DT_RT_GN	RT Discipline/venue good night	RT	



## 3.2 Messages

### 3.2.1 List of participants by discipline / List of participants by discipline Update

#### 3.2.1.1 Description

A participant is considered as an individual competitor (type athlete, participating or not in the current games) or as an official in one or several disciplines or as a competitor being part of a team (team member).

Although the participant participates in more than one event or more than one discipline, this message just contains all the information for the discipline of the message, although listing the information of all the events for that discipline.

This message includes historical athletes that do not participate in the current competition. Historical athletes will not be registered to any event.

It is important to point out that all the sport messages that make references to athletes (start list, event unit results, etc.) will always match the athlete ID with the athlete ID as it is being sent in the List of athletes by discipline message. The historical athletes will be used to match historical athlete information as it is in the records message when sending the previous record information and this previous record was an historical record not being broken in the current competition.

This message also includes the historical team members of the historical teams' messages. It could happen these historical athletes would appear in this message just for this reason (being part of historical teams).

List of participants by discipline (DT\_PARTIC) is a bulk message, provided for each discipline. It is a complete participant information message for one particular discipline. The arrival of this message resets all the previous participants' information for one particular discipline. This message can include a list of current athletes, officials, coaches, guides, technical officials, Reserves and historical athletes.

List of participants by discipline update (DT\_PARTIC\_UPDATE) is an update message. It is not a complete list of participants' information by discipline message, only the participant data being modified, i.e. if some data of one participant changes, the element Participant for it with all its children and attributes must be sent.

The key of the information updated consists of the following attribute: Participant @Code. Therefore, any new or updated Participant Discipline-Event will be identified by all these attributes.

#### 3.2.1.2 Header Values

##### 3.2.1.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DD0000000	DD is defined according to CC @Discipline
DocumentType	DT_PARTIC /	List of participants by discipline message



Attribute	Value	Comment
	DT_PARTIC_UPDATE	
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information
Venue	<a href="#">CC @VenueCode</a>	Venue where the message is generated.

### 3.2.1.3 Trigger and Frequency

#### 3.2.1.3.1 PiT Triggers

The DT\_PARTIC message is sent as a bulk message one month before the Games.

It is sent several times up to the date from what only DT\_PARTIC\_UPDATE messages are sent.

The DT\_PARTIC\_UPDATE message is triggered when there is a modification in a DT\_PARTIC bulk message sent before.



### 3.2.1.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Competition					
	Code				
	Participant (1,N)				
		Code			
		Parent			
		Status			
		GivenName			
		FamilyName			
		PrintName			
		PrintInitialName			
		TVName			
		TVInitialName			
		Gender			
		Organisation			
		BirthDate			
		Height			
		Weight			
		PlaceofBirth			
		CountryofBirth			
		PlaceofResidence			
		CountryofResidence			
		Nationality			
		MainFunctionId			
		Current			
		OlympicSolidarity			
		ModificationIndicator			
		Discipline			
			Code		
			InternationalFederationId		
			RegisteredEvent (0,N)		

List of participants by discipline /  
List of participants by discipline  
Update



ODF/INT012-R3-v4.5 APP (IH)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				<i>Gender</i>	
				<i>Event</i>	
				<i>Bib</i>	
				<i>Class</i>	
				<i>Guide</i>	
				EventEntry (0,N)	
					<b>Code</b>
					<b>Type</b>
					<b>Pos</b>
					<i>Value</i>
		OfficialFunction (0,N)			
			<i>FunctionId</i>		





3.2.1.5 Message Values

**Competition**

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

**Participant**

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	<p>Participant's ID.</p> <p>It identifies an athlete or an official and the holding participant's valid information for one particular period of time.</p> <p>It is used to link other messages to the participant's information.</p> <p>Participant's information (example @Organisation) will not be the latest for the athlete/official, unless the @Code attribute is the same as the @Parent attribute. However, this information could be the one being valid in the particular moment of a start list, event unit results, etc.</p> <p>When the participant is an historical one, then this ID will start with "A" when it is an Athlete, "C" when Coach and "O" when Official.</p>
Parent	M	S(20) with no leading zeroes	<p>Participant's parent ID, which is used to link to the latest valid information for one participant. @Parent attribute should be linked to the latest participant's information, by retrieving that Athlete/Official whose @Code attribute is the same as @Parent.</p> <p>The participant containing @Code attribute being the same as the @Parent attribute will be the one with the latest information for the participant. The @Parent attribute will only be different from @Code in the case that critical personal information has changed from previous competitions. The typical examples are Organisation (for change of country) or Name (particularly for women changing their name at marriage). Further to be clear, @Parent and @Code can only be different if Current = "false".</p>
Status	O	<a href="#">CC @AccreditationStatus</a>	<p>Participant's accreditation status this attribute is Mandatory in the case of @Current="true" and it is optional in the case that @Current="false".</p> <p>To delete a participant, a specific value of the Status attribute is used.</p>
GivenName	O	S(25)	Given name in WNPA format (mixed case)



Attribute	M/O	Value	Comments
FamilyName	M	S(25)	Family name in WNPA format (mixed case)
PrintName	M	S(35)	Print name (family name in upper case + given name in mixed case)
PrintInitialName	M	S(18)	Print Initial name (for the given name it is sent just the initial, without dot)
TVName	M	S(35)	TV name
TVInitialName	M	S(18)	TV initial name
Gender	M	<a href="#">CC @PersonGender</a>	Participant's gender
Organisation	M	<a href="#">CC @Organisation</a>	Organisation ID
BirthDate	O	YYYYMMDD	Date of birth. This information could be not known at the very beginning, but it will be completed for all participants after successive updates
Height	O	N(3) 999	Height in centimetres. It will be included if this information is available. This information is not needed in the case of officials/referees.
Weight	O	N(3) 999	Weight in kilograms. It will be included if this information is available. This information is not needed in the case of officials/referees.
PlaceofBirth	O	S(75)	Place of Birth
CountryofBirth	O	<a href="#">CC @Country</a>	Country ID of Birth
PlaceofResidence	O	S(75)	Place of Residence
CountryofResidence	O	<a href="#">CC @Country</a>	Country ID of Residence
Nationality	O	<a href="#">CC @Country</a>	Participant's nationality.  Although this attribute is optional, in very exceptional situations it will not be known, and for this reason not ready to be sent.
MainFunctionId	O	<a href="#">CC @Function</a>	Main function In the Case of Current="true" this attribute is Mandatory.
Current	M	boolean	It defines if a participant is participating in the games (true) or is a Historical participant (false).
OlympicSolidarity	O	Y or N	Flag to indicating if the participant participates in the Olympic Movement program.
ModificationIndicator	M	N, U	Attribute is mandatory in the DT_PARTIC_UPDATE message only  N-New participant (in the case that this information comes as a late entry) U-Update participant  If ModificationIndicator='N', then include new participant to the previous bulk-loaded list of



Attribute	M/O	Value	Comments
			<p>participants</p> <p>If ModificationIndicator='U', then update the participant to the previous bulk-loaded list of participants</p> <p>To delete a participant, a specific value of the Status attribute is used.</p>

**Participant /Discipline**

Although any participating athlete will be assigned at least one discipline, it could be more. Any accredited official will be assigned at least one discipline, but it could be more. If an athlete or official is assigned to more than one discipline, it will be included in the participant message of both disciplines.

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Discipline</a>	It is the discipline code used to fill the OdfBody @DocumentCode attribute.
InternationalFederationId	O	S(16)	Competitor's federation number for the corresponding discipline (include if the discipline assigns international federation codes to athletes).

**Participant /Discipline /RegisteredEvent**

Any accredited athlete will be assigned to one or more events. There is one exception: in some sports, substitutes may be accredited without any associated event.

Historical athletes are not register to any event.

Attribute	M/O	Value	Comments
Gender	M	<a href="#">CC @DisciplineGender</a>	Discipline Gender Code
Event	M	<a href="#">CC @Event</a>	Event ID
Bib	O	S(2)	<p>Jersey number.</p> <p>Although this attribute is optional, it will be updated and informed as soon as this information is known.</p> <p>Example: 8, 10 ...</p>
Class	O	<a href="#">CC @SportClass</a>	<p>Code to identify the handicap class in the case of events with handicapped athletes (e.g: paralympic games).</p> <p>This attribute is optional because is not used in other type of events without handicapped athletes. Send only in the Case of Current="true".</p>
Guide	O	S(20) with no leading zeroes	<p>ID to identify the official acting of guide in the case of events with handicapped athletes (e.g.: paralympic games)</p> <p>This attribute is optional because is not used in other type of events without handicapped athletes. Send only in the Case of Current="true".</p>

**Participant /Discipline /RegisteredEvent /EventEntry**

Send if there are specific athlete's event entries.

Type	Code	Pos	Value	Description
------	------	-----	-------	-------------



Type	Code	Pos	Value	Description
E_ENTRY	E_POSITION		<a href="#">CC @Position</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Position in the team
	E_HAND		<a href="#">CC @Hand</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Hand of the player
	E_CLUB_NAME		Text	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send the club's name.
	E_IRM		<a href="#">CC @IRM</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Athlete's status in the team (used when the athlete has been disqualified)

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
E_ENTRY/ E_POSITION	Position in the team	When available
E_ENTRY/ E_HAND	Hand of the player	When available
E_ENTRY/ E_CLUB_NAME	Send the club's name.	When available
E_ENTRY/ E_IRM	Athlete's status in the team (Disqualified)	If applies (this information only will be sent in the update message)

**Participant /OfficialFunction**

Send if the official has optional functions. Do not send, otherwise.

Attribute	M/O	Value	Comments
FunctionId	M	<a href="#">CC @Function</a>	Additional officials' function code

**3.2.1.6 Message Sort**

The message is sorted by Participant @Code



## 3.2.2 List of teams / List of teams update

### 3.2.2.1 Description

DT\_PARTIC\_TEAMS contains the list of teams related to the current competition.

A team is a type of competitor, being a group of two or more individual athletes participating together in one event. Pairs (tennis, figure skating, etc.) are also defined as team of two competitors. One team participates in one event of one discipline. When one team participates in multiple events, there will be one team for each event for the same group. Also when the same organisation participates in the same event twice, there will be different teams.

A historical team is defined as a group of athletes (team members) competing in the past in a competition event for an organisation. The historical team members appearing in this message will be listed in the list of historical athletes' messages. The list of historical teams just associates historical team members with the corresponding historical teams. Historical teams will not be registered to any event.

For equestrian one athlete and one horse are not considered a team, the horse is an attribute of the athlete.

List of teams (DT\_PARTIC\_TEAMS) is a bulk message by discipline. The list is always complete. The arrival of this message resets all the previous participant teams' information for that discipline. It is assumed that all teams appearing in this list are valid, in the meaning that they are participating or they could participate in one event.

List of teams update (DT\_PARTIC\_TEAMS\_UPDATE) is an update message. It is not a complete list of teams' information message. It only contains the team data being modified.

The key of the information updated consists of the following attribute: Team @Code. Therefore, any new or updated Team Discipline-Event will be identified by all these attributes.

### 3.2.2.2 Header Values

#### 3.2.2.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DD0000000	DD is defined according to CC @Discipline
DocumentType	DT_PARTIC_TEAMS_UPDATE / DT_PARTIC_TEAMS	List of participant teams message
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where



Attribute	Value	Comment
		the message was produced.
LogicalDate	Date	<p>Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).</p> <p>The end of the logical day is defined by default at 03:00 a.m.</p> <p>For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.</p> <p>Logical Date is expressed in the local time zone where the message was produced</p>
Serial	Numeric	<p>Sequence number for ODF-PiT messages.</p> <p>Serial starts with 1 each day session at every different venue.</p> <p>In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information</p>
Venue	<a href="#">CC @VenueCode</a>	Venue where the message is generated.

### 3.2.2.3 Trigger and Frequency

#### 3.2.2.3.1 PiT Triggers

The DT\_PARTIC\_TEAMS message is sent as a bulk message one month before the Games.

It is sent several times up to the date from what only DT\_PARTIC\_TEAMS\_UPDATE messages are sent.

The DT\_PARTIC\_TEAMS\_UPDATE message is triggered when there is a modification in a DT\_PARTIC\_TEAMS bulk message sent before.



### 3.2.2.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
<b>Competition</b>					
	<i>Code</i>				
	Team (1,N)				
		<i>Code</i>			
		<i>Organisation</i>			
		<i>Number</i>			
		<i>Name</i>			
		<i>Gender</i>			
		<i>Current</i>			
		<i>ModificationIndicator</i>			
		Composition (0,1)			
			Athlete (1,N)		
				<i>Code</i>	
				<i>Order</i>	
		TeamOfficials (0,1)			
			Official (1,N)		
				<i>Code</i>	
				<i>Function</i>	
		Discipline (0,1)			
			<i>Code</i>		
			<i>InternationalFederationId</i>		
			RegisteredEvent (0,1)		
				<i>Event</i>	
				<i>Gender</i>	
				EventEntry (0,N)	
					<b>Code</b>
					<b>Type</b>
					<b>Pos</b>
					<i>Value</i>



### 3.2.2.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Team

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Team's ID (example ATM001ESP01, 393553)  When the Team is an historical one, then this ID starts with "T".
Organisation	M	<a href="#">CC @Organisation</a>	Team organisation's ID
Number	O	N(2)	Team's number.  If there is not more than one team for one organisation participating in one event, it is 1. Otherwise, it will be incremental, 1 for the first organisation's team, 2 for the second organisation's team, etc.  Required in the case of current teams.
Name	O	S(73)	Team's name. Send the Description of the code CC@Organisation. It will be Optional in the case of List of Team Update when the @ModificationIndicator=D
Gender	M	<a href="#">CC @DisciplineGender</a>	Discipline Gender Code of the Team
Current	M	boolean	It defines if a team is participating in the games (true) or it is a Historical team (false)
ModificationIndicator	M	N, U, D	Attribute is mandatory in the DT_PARTIC_TEAMS_UPDATE message only  N-New team (in the case that this information comes as a late entry) U-Update team D-Delete team  If ModificationIndicator='N', then include new team to the previous bulk-loaded list of teams  If ModificationIndicator='U', then update the team to the previous bulk-loaded list of teams  If ModificationIndicator='D', then delete the team to the previous bulk-loaded list of teams

#### Team /Composition /Athlete

In the case of current teams the number of athletes is 2 or more.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID of the listed team's member.





Attribute	M/O	Value	Comments
			Therefore, he/she makes part of the team's composition.
Order	O	Numeric	Team member order

**Team /TeamOfficials /Official**

Send if there are specific team's officials.

Not apply to historical teams.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Official's ID of the listed team's official. Therefore, he/she makes part of the team's officials. You should be able to find further information about the official in the list of officials' message according to its @Code.
Function	M	<a href="#">CC @Function</a>	Official's function for the team.

**Team /Discipline**

Each team is assigned just to one discipline.

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Discipline</a>	It must be the discipline code used to fill the OdfBody @DocumentCode attribute
InternationalFederationId	O	S(16)	Federation number for the corresponding discipline (include if the discipline assigns international federation codes to teams)

**Team /Discipline /RegisteredEvent**

Each team is assigned at least to one event, except for a historical team, which will not be registered to any event.

Attribute	M/O	Value	Comments
Event	M	<a href="#">CC @Event</a>	Event ID
Gender	M	<a href="#">CC @DisciplineGender</a>	Discipline Gender Code

**Team /Discipline /RegisteredEvent /EventEntry**

Send if there are specific team's event entries.

Type	Code	Pos	Value	Description
E_ENTRY	E_GROUP		Text	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Team's Group

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
E_ENTRY/ E_GROUP	Team's Group	As soon as this information is known.



### 3.2.2.6 Message Sort

The message is sorted by Team @Code.



### 3.2.3 Start List

#### 3.2.3.1 Description

The Start List is a message containing the list of competitors for one particular event unit .

#### 3.2.3.2 Header Values

##### 3.2.3.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEPUU	DD according to CC @Discipline G according to CC @DisciplineGender EEE according to CC @Event P according to CC @Phase UU according to CC @Unit
DocumentType	DT_START_LIST	Start List message
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information



### 3.2.3.3 Trigger and Frequency

#### 3.2.3.3.1 PiT Triggers

Please, follow the general definition, taking also into account the following:

- The message should be triggered as soon as the competitors are known.
- Then it should be triggered when the team members are known.



### 3.2.3.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
<b>Competition</b>						
	<i>Code</i>					
	UnitInfos (0,1)					
		UnitDateTime (0,1)				
			<i>StartDate</i>			
		UnitInfo (0,N)				
			<b>Type</b>			
			<b>Code</b>			
			<b>Pos</b>			
			<i>Value</i>			
	Officials (0,1)					
		Official (1,N)				
			<i>Code</i>			
			<i>Function</i>			
			<i>Order</i>			
	Start (0,N)					
		<i>StartOrder</i>				
		<i>SortOrder</i>				
		Competitor				
			<i>Code</i>			
			<i>Type</i>			
			<i>Bib</i>			
			Coaches (0,1)			
				Coach (1,N)		
					<i>Code</i>	
					<i>Function</i>	
					<i>Order</i>	
			EventUnitEntry (0,N)			
				<b>Type</b>		
				<b>Code</b>		



ODF/INT012-R3-v4.5 APP (IH)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
				<i>Pos</i>		
				<i>Value</i>		
			Composition (0,1)			
				Athlete (1,N)		
					<i>Code</i>	
					<i>Order</i>	
					<i>Bib</i>	
					EventUnitEntry (0,N)	
						<i>Type</i>
						<i>Code</i>
						<i>Pos</i>
						<i>Value</i>



### 3.2.3.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### UnitInfos /UnitDateTime

Scheduled start date and time.

Attribute	M/O	Value	Comments
StartDate	M	DateTime	Actual start date and time. For multiday units, the start time is on the first day.

#### UnitInfos /UnitInfo

Unit info item associated to the event unit.

Type	Code	Pos	Value	Description
UI_IH	IH_GAME_NUMBER		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code. For @Pos: Do not send anything. For @Value: Send the game number.

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
UI_IH/ IH_GAME_NUMBER	Game Number	Send the game number of the unit, as soon as known.

#### Officials /Official

Official associated to the event unit.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Key of the official, to uniquely identify this element
Function	M	<a href="#">CC @Function</a>	Send according to the codes, the referees and the linesmen
Order	M	Numeric	Send by order, referee 1, referee 2 (if applicable), linesmen 1, linesmen 2, Goal Judge 1, Goal Judge 2

#### Start

This element is optional (due to the information availability, the information related to the event unit can be sent before the competitors information).

Attribute	M/O	Value	Comments
StartOrder	M	Numeric	Send 1 for home team, send 2 for away team
SortOrder	M	Numeric	Same @StartOrder

#### Start /Competitor

Competitor participating in the event unit



Start /Competitor /Composition is optional for a similar reason: knowing the teams participating in one event unit, it is not known yet the team members participating.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Competitor's ID
Type	M	T,A	T for team A for athlete
Bib	O	S(2)	Jersey number.  Although this attribute is optional, it will be updated and informed as soon as this information is known.  Example: 8, 10 ...

**Start /Competitor /Coaches /Coach**

Competitor's coach.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Official ID for the official code
Function	M	<a href="#">CC @Function</a>	Coach function
Order	M	Numeric	Send 1 if just one coach, sequential number if more than one

**Start /Competitor /EventUnitEntry**

Type	Code	Pos	Value	Description
EU_ENTRY	IH_HOME		N/A	For @Type: Send proposed type For @Code: Send proposed code just for the competitor that is the home team For @Pos: Do not send anything For @Value: Do not send anything
	IH_AWAY		N/A	For @Type: Send proposed type For @Code: Send proposed code just for the competitor that is the away team For @Pos: Do not send anything For @Value: Do not send anything
	IH_UNIFORM		Text	For @Type: Send proposed type For @Code: Send the proposed code For @Pos: Do not send anything For @Value: Team Uniform colour

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
EU_ENTRY/ IH_HOME	Home team	It must be sent in the case of the





Type/Code	Description	Expected
		home team, and not sent for the away team
EU_ENTRY/ IH_AWAY	Away team	It must be sent for the away team, and not sent for the home team
EU_ENTRY/ IH_UNIFORM	Team Uniform colour	Always

**Start /Competitor /Composition /Athlete**

Athlete or team member's extended information.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID, corresponding to either a team member or an individual athlete
Order	M	N(3) 990	In game-roster - Send order according to Start @Bib - Send suspended players at the end  In line-up: -Send goalkeepers first (according to their @Bib), if they appear in the line-up - Send then rest of positions according to their assignment - Within an assignment, send first defence, and then forwards - For the same assignment and position, order finally by @Bib - Then, the rest of the players sorted according to the roster, and without assignment (the players without assignment should not be considered as part of the line-up).
Bib	M	S(2)	Jersey number

**Start /Competitor /Composition /Athlete /EventUnitEntry**

Team member or individual athlete's event unit entry.

Type	Code	Pos	Value	Description
EU_ENTRY	IH_POSITION		<a href="#">CC</a> <a href="#">@Position</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Position in the team
	IH_ASSIGNMENT		<a href="#">CC</a> <a href="#">@Assignment</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Non-goalkeeper line or goalkeeper in the line-up
	IH_SUSPENDED		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos:



Type	Code	Pos	Value	Description
				Do not send anything For @Value: Suspended indicator. Send Y in case the athlete is suspended
	IH_NOT_DRESSED		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Player not dressed indicator. Send Y in case the athlete is not dressed
	IH_STARTING		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Indicator of starting players. Send Y in case the athlete is starting
	IH_CAPTAIN		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Captain indicator. Send Y in case the athlete is the captain
	IH_ASS_CAPTAIN		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Assistant captain indicator. Send Y in case the athlete is the assistant captain

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
EU_ENTRY/ IH_POSITION	Position in the team	Send always
EU_ENTRY/ IH_ASSIGNMENT	Non-goalkeeper line or goalkeeper in the line-up	Send this information just in the line-up form of the message, for those players appearing in the line-up
EU_ENTRY/ IH_SUSPENDED	Suspended players	Send just for those suspended players
EU_ENTRY/ IH_NOT_DRESSED	Player not dressed	Send for the player, if not dressed.
EU_ENTRY/ IH_STARTING	Starting player	Send the code just for the starting players (when this information is



Type/Code	Description	Expected
		known)
EU_ENTRY/ IH _CAPTAIN	Captain	Send the code just for the captain (when this information is known)
EU_ENTRY/ IH _ASS_CAPTAIN	Assistant captain	Send the code just for the assistant captain (when this information is known)

### 3.2.3.6 Message Sort

The message is sorted by the Start@SortOrder attribute.



### 3.2.4 Event Unit Results

#### 3.2.4.1 Description

The Event Unit Results is a message containing the results of the competitors in one (individual or team) event unit.

The Event Unit Results is a mandatory message for all sports. The definition includes as much generic information as possible due to the fact that each discipline and event has its own format for the results information (example: score of a match, time in a race, distance in a throw...).

#### 3.2.4.2 Header Values

##### 3.2.4.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEPUU	DD according to CC @Discipline G according to CC @DisciplineGender EEE according to CC @Event P according to CC @Phase UU according to CC @Unit
DocumentType	DT_RESULT	Event Unit Results message
ResultStatus	<a href="#">CC</a> <a href="#">@ResultStatus</a>	It indicates whether the result is official or unofficial (or intermediate, interim, partial). "OFFICIAL" / "UNOFFICIAL" / "INTERMEDIATE" / "INTERIM"/ "PARTIAL"
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced



Attribute	Value	Comment
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
DocumentSubtype	N/A	Not used in Ice Hockey
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information

### 3.2.4.2.2 RT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEPUU	DD according to CC @Discipline G according to CC @DisciplineGender EEE according to CC @Event P according to CC @Phase UU according to CC @Unit
DocumentType	DT_RT_RESULT	Event Unit Real Time Results message
ResultStatus	<a href="#">CC</a> <a href="#">@ResultStatus</a>	It indicates whether the result is live update or live full (or live Mandatory, Live Last). "LIVE_UPDATE" / "LIVE_FULL" / "LIVE_MANDATORY" / "LIVE_LAST"
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
RTSerial	Numeric	Incremental and unique sequence number for ODF-RT messages.
Serial	Numeric	Sequence number for ODF-PiT messages.



Attribute	Value	Comment
		Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information

### 3.2.4.3 Trigger and Frequency

#### 3.2.4.3.1 PiT Triggers

The general rule is that this message is sent as when the event unit finishes and the message becomes unofficial, and also afterwards when the message becomes official (when the event unit becomes official). The official/unofficial status can be seen in ODF headers (ResultStatus attribute).

Trigger also after any major change.

Take also into account the following:

After each period, the message should be sent for intermediate results:

- ResultStatus in the headers will have the value "INTERMEDIATE"
- In this case, the element Result will contain the result at the moment after the period, as it can also be determined in the Period element (the period can be seen in Period @Code).

Then proceed with unofficial and official results, as expected.

#### 3.2.4.3.2 RT Triggers

The following is the trigger for this message in ODF-RT:

- For ResultStatus=LIVE\_UPDATE
  - T1: Trigger at the beginning of one period.
  - T2: Trigger after one new or modified action.
  - T3: Trigger on stoppage of play.
  - T4: Trigger at the end of one period.
  - T5: Trigger at the end of the match.
- For ResultStatus=LIVE\_FULL  
Send as it will be defined for each RT transmission in the parameters of the DT\_RT\_GM message.
- For ResultStatus=LIVE\_MANDATORY  
It is sent when a correction in the previous messages has been done.
- For ResultStatus=LIVE\_LAST  
Send as the last message (that indicates that no new messages are expected for the given ODF unique key, unless something unexpected, that needs correction of previous messages data, happens while the transmission is still open (Good night message has not been sent)).



### 3.2.4.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
<b>Competition</b>							
	<i>Code</i>						
	UnitInfos (0,1)						
		UnitDateTime (0,1)					
			<b>StartDate</b>				
			<i>EndDate</i>				
		UnitInfo (0,N)					
			<b>Type</b>				
			<b>Code</b>				
			<b>Pos</b>				
			<i>Value</i>				
	Periods (0,1)						
		Period (1,N)					
			<b>Code</b>				
			<i>HomeScore</i>				
			<i>AwayScore</i>				
			<i>HomePeriodScore</i>				
			<i>AwayPeriodScore</i>				
			ExtendedPeriods (0,1)				
				ExtendedPeriod (1,N)			
					<b>Code</b>		
					<b>Type</b>		
					<b>Pos</b>		
					<i>Value</i>		
	UnitActions (0,1)						
		UnitAction (1,N)					
			<b>Code</b>				
			<b>Type</b>				
			<b>Pos</b>				
			<i>Value</i>				



ODF/INT012-R3-v4.5 APP (IH)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
			Status				
			Time				
			ExtendedAction (0,N)				
				<b>Code</b>			
				<b>Type</b>			
				<b>Pos</b>			
				Value			
			Competitor (0,N)				
				<b>Code</b>			
				Type			
				Order			
				Composition (0,1)			
					Athlete (1,N)		
						<b>Code</b>	
						Order	
						Role	
	Result (1,N)						
		Result					
		IRM					
		WLT					
		SortOrder					
		ResultType					
		Competitor (1,N)					
			<b>Code</b>				
			Type				
			Stats (0,1)				
				Stat (1,N)			
					<b>Type</b>		
					<b>Code</b>		
					<b>Pos</b>		
					Value		
			Composition				
				Athlete (1,N)			
					<b>Code</b>		





ODF/INT012-R3-v4.5 APP (IH)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
					<i>Order</i>		
					<i>Bib</i>		
					<i>Stats (0,1)</i>		
						<i>Stat (1,N)</i>	
							<i>Type</i>
							<i>Code</i>
							<i>Pos</i>
							<i>Value</i>



### 3.2.4.5 Message Values

#### Competition

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	<a href="#">CC</a> <a href="#">@Competition</a>	Unique ID for competition	N	When available

#### UnitInfos /UnitDateTime

Actual start –and/or end- dates and times.

This element is just for PiT.

Attribute	M/O	Value	Comments	RT Only	RT Trigger
StartDate	O	DateTime	Actual start date-time. For multi-day units, the start date-time is on the first day.  Not needed for Real Time.	N	Not needed for Real Time
EndDate	O	DateTime	Actual end date-time. Not needed for Real Time.	N	Not needed for Real Time

#### UnitInfos /UnitInfo

Unit info item associated to the event unit.

Type	Code	Pos	Value	Description
UI_GENERAL	IH_ATTENDANCE		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of spectators
	IH_CURRENT_PERIOD		<a href="#">CC</a> <a href="#">@Period</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Code of the current period

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected	RT Only	RT Trigger
UI_GENERAL/ IH_ATTENDANCE	Number of spectators	Send just if this information is available	N	N/A
UI_GENERAL/ IH_CURRENT_PERIOD	Code of the current period	Always	Y	T1

#### Periods /Period

Period in which the event unit message arrives.



Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	Numeric Or GWS Or OT	Numeric, beginning from 1, to indicate the period (key of Period element), or GWS for game winning shot or OT for Overtime.	N	When available T1, T4
HomeScore	M	Numeric	Home competitor score up to the end of the @Code period.	N	When available
AwayScore	M	Numeric	Away competitor score up to the end of the @Code period.	N	When available
HomePeriodScore	M	Numeric	Home competitor score achieved in the @Code period (as isolated period).	N	When available
AwayPeriodScore	M	Numeric	Away competitor score achieved in the @Code period (as isolated period).	N	When available

**Periods /Period /ExtendedPeriods /ExtendedPeriod**  
ExtendedPeriod information.

Type	Code	Pos	Value	Description
EP_IH	IH_GWS_HOME_RESULT		Numeric	<p>For @Type: Send proposed type</p> <p>For @Code: Send proposed code</p> <p>For @Pos: Do not send anything</p> <p>For @Value: Home result for a GWS period. This is not the home score.</p> <p>For example, in a GWS, if the home team scores 4 times and win the GWS, the home score will be 1, and the IH_GWS_HOME_RESULT will be 4. If the team loses, the home score will be 0 and IH_GWS_HOME_RESULT will be 4.</p>
	IH_GWS_AWAY_RESULT		Numeric	<p>For @Type: Send proposed type</p> <p>For @Code: Send proposed code</p> <p>For @Pos: Do not send anything</p> <p>For @Value: Away result for a GWS period. This is not the away score.</p> <p>For example, in a GWS, if the away team scores 4 times and win the GWS, the home score will be 1, and the IH_GWS_AWAY_RESULT will be 4. If the team loses, the away score will be 0 and IH_GWS_AWAY_RESULT will be 4.</p>

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected	RT Only	RT Trigger
EP_IH/	Home result for a GWS period.	Send always for	N	N/A



Type/Code	Description	Expected	RT Only	RT Trigger
IH_GWS_HOME_RESULT		Period/@Code = GWS		
EP_IH/ IH_GWS_AWAY_RESULT	Away result for a GWS period.	Send always for Period/@Code = GWS	N	N/A

**UnitActions /UnitAction**

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	<a href="#">CC @Period</a>	Send one period code.	N	When available T1, T2, T4
Type	M	AC_IH	Type (categorization) of the UnitAction	N	When available
Pos	M	Numeric	Unique sequential number for all the actions of the period, from 1 to n (from the first action of the period to the last one).	N	When available
Value	M	<a href="#">CC @Action</a>	Send one action code.	N	When available
Status	M	N, U, D	Actions' status, used to control all the modifications. It indicates if the action is new (N), update (U) or delete (D). When used in DT_RT_RESULT with ResultStatus LIVE_FULL, LIVE_MANDATORY and LIVE_LAST or DT_RESULT Status will always be "N"	N	When available
Time	M	MM:SS 00:00	Time in minutes and seconds in which the action occurred Example (02:05)	N	When available

**UnitActions /UnitAction /ExtendedAction**

ExtendedAction information.

Type	Code	Pos	Value	Description
EA_IH	IH_TIME		MM:SS 00:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Time when the action takes place. First period starts at "00:00", second period at "20:00", third period at "40:00", and OT (if necessary) at "60:00".  If Period GWS is after a 5-minute overtime, time will be "65:00", if it is after a 10-minute overtime, "70:00", if it is after a 20-minute overtime, "80:00".
	IH_ET		MM:SS 00:00	For @Type: Send proposed type



Type	Code	Pos	Value	Description
				For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty end time. First period starts at "00:00", second period at "20:00", third period at "40:00", and OT (if necessary) at 60:00
	IH_ET_PERIOD		<a href="#">CC @Period</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty end time period. Send only if the end time period is different from the penalty time period. (e.g: Penalty time = 19:50 and End Time = 21:50. Then IH_ET_PERIOD = P2)
	IH_RES		S(7) 000:000	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Result of game after action, first home team, then away team
	IH_PTY_PIM		Text	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty in minutes (e.g.: "2", "2+10"). Do not send for value "0".
	IH_PTY_TYPE_PS		S(1) (Y/N)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send just in case of penalty: Y if the penalty shot.N if it is another type of penalty.
	IH_PTY_TEAM		S(1) (Y/N)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send just in case of penalty.



Type	Code	Pos	Value	Description
				Y if it is a team penalty. N if it is another type of penalty.
	IH_PTY_SERVING_PLAYER		S(20) with no leading zeroes	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send the ID of the player serving the penalty, in a team penalty for example. It can be the same or different than the player receiving the penalty.
	IH_PTY_DESC		<a href="#">CC @PenaltyDesc</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty description Select one of CC @PenaltyDesc
	IH_PTY_SHOT_DESC		<a href="#">CC @PenaltyShot</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty shot description Select one of CC @PenaltyShot
	IH_GOAL_TYPE		<a href="#">CC @GoalType</a>	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Type of goal Select one of CC @GoalType
	IH_GOAL_UNASSISTED		S(1) (Y/N)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goal unassisted indicator Send Y if the goal is unassisted, otherwise N.
	IH_GWS_NUMBER		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value:



Type	Code	Pos	Value	Description
				Send the shot number in case of GWS.
	IH_LAST_GWS		S(1) (Y/N)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send Y if the unit action is the last GWS shot during the current GWS period. Else send N.
	IH_PTY_TYPE_AG		S(1) (Y/N)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send just in case of penalty: Y if the penalty leads to an Awarded Goal. N if it is another type of penalty.

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected	RT Only	RT Trigger
EA_IH/ IH_TIME	Time when the action takes place	Send always except for UnitAction @Code=GWS	N	T2
EA_IH/ IH_ET	Penalty end time	Send always for UnitAction @Value=P	N	T2
EA_IH/ IH_ET_PERIOD	Penalty end time period.	Send only if end time period is different from penalty time period.	N	T2
EA_IH/ IH_RES	Result of game after action	Send always for UnitActions when there is a change in the score	N	T2
EA_IH/ IH_PTY_PIM	Penalty in minutes	Send always for UnitAction @Value=P. Do not send for value "0".	N	T2
EA_IH/ IH_PTY_TYPE_PS	Y if it is a penalty shot. N for other type of penalty	Send always for UnitAction @Value=P and if the penalty is a Penalty Shot.	N	T2
EA_IH/ IH_PTY_TEAM	Y if it is a team penalty. N for other type of penalty.	Send always for UnitAction @Value=P	N	T2
EA_IH/ IH_PTY_SERVING_PLAYER	Send the ID of the player serving the penalty.	Send always for UnitAction @Value=P	N	T2
EA_IH/ IH_PTY_DESC	Penalty description	Send always for UnitAction @Value=P	N	T2
EA_IH/ IH_PTY_SHOT_DESC	Penalty shot description	Send always for UnitAction	N	T2



Type/Code	Description	Expected	RT Only	RT Trigger
		@Value=PTY		
EA_IH/ IH_GOAL_TYPE	Type of goal	Send always for UnitAction @Value=G	N	T2
EA_IH/ IH_GOAL_UNASSISTED	If the goal is unassisted	Send for UnitAction @Value=G. If applicable	N	T2
EA_IH/ IH_GWS_NUMBER	Shot number for GWS	Send always for UnitAction @Value=GWS	N	T2
EA_IH/ IH_LAST_GWS	Last GWS shot for the current GWS period(Y/N)	Send always for UnitAction @Value=GWS	N	T2
EA_IH/ IH_PTY_TYPE_AG	Y if it is an awarded goal. N for other type of penalty	Send always for UnitAction @Value=P and if the penalty is an Awarded Goal.	N	T2

**UnitActions /UnitAction /Competitor**

Competitor participating in the UnitAction. Used when the the UnitAction is related to a competitor.

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	S(20) with no leading zeroes	Competitor's ID	N	When available
Type	M	T,A	T for team A for athlete	N	When available
Order	M	Numeric	Order in which the competitor should appear for the action, if there is more than one competitor	N	When available

**UnitActions /UnitAction /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	S(20) with no leading zeroes	Athlete's ID ( individual athlete or team member) related to the action	N	When available
Order	M	Numeric	Order in which either the single athlete or the team member (depending on Competitor @Type) should appear for the action, if there is more than one element of this kind associated to the action	N	When available
Role	O	<a href="#">CC</a> <a href="#">@ActionRole</a>	Role of the player in the action, according to the available codes. It is specified in the codes sections which roles should be used for which actions.	N	When available

**Result**

For each Event Unit Results message, there must be at least one competitor being awarded with a result in the event unit.

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Result	O	Numeric	Score for the team competitor for the	N	Only if





Attribute	M/O	Value	Comments	RT Only	RT Trigger
		or "X"	particular game  If @ResultType is Forfeit of the two teams, the Result should be '*', to indicate the both teams lost by '5 - 0'. However, if @ResultType is Forfeit for just one of the teams, Result will be numeric, as if it were Score		necessary T4,T5
IRM	O	<a href="#">CC @IRM</a>	The invalid rank mark, in case it is assigned.	N	Only if necessary
WLT	O	<a href="#">CC @WLT</a>	Code to indicate whether the team competitor won, lost or tied the game. In the case of Forfeit, the team will be shown as losing the game (it could be both losing, if both teams Forfeit).	N	Only if necessary T5
SortOrder	M	Numeric	Used to sort all the results of an event unit  For Real Time this attribute is optional. Do not inform when the ResultType is empty.  Also for Real Time, any sort order change from the initial start list order for any competitor will be provided in this attribute regardless the competitor is ranked or not (this includes ranked, none-ranked and IRM athletes/team).	N	Only if necessary
ResultType	O	<a href="#">CC @ResultType</a>	Result type, either Score or Forfeit for the corresponding event unit.	N	Only if necessary T4,T5

**Result /Competitor**

Competitor related to the result of one event unit.

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	S(20) with no leading zeroes.	Competitor's ID	N	Only if necessary
Type	M	T,A	T for team A for athlete	N	Only if necessary

**Result /Competitor /Stats /Stat**

Type	Code	Pos	Value	Description
ST_IH	IH_G	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of goals
	IH_G_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code:



Type	Code	Pos	Value	Description
				Send proposed code For @Pos: TOT (for total) For @Value: Number of goals in the whole tournament
	IH_A	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of assists
	IH_A_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of assists in the tournament
	IH_SOG	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Shots on goal for one particular @Pos Period, or total
	IH_SVS	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Saves for one particular @Pos Period, or total
	IH_SVP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Percentage of saves of total SOG
	IH_MP	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of penalties for one particular @Pos Period, or total
	IH_PIM	Numeric	Numeric	For @Type:



Type	Code	Pos	Value	Description
		Or OT or GWS Or TOT		Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Penalties in minutes for one particular @Pos Period, or total
	IH_SHG	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Shorthanded goals for one particular @Pos Period, or total
	IH_PKP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Penalty killing percentage for one particular @Pos Period, or total
	IH_TPP	Numeric Or OT or GWS Or TOT	MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Time of power play in minutes and seconds for one particular @Pos Period, or total  MM=minutes, SS=seconds
	IH_PPG	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Power play goals.
	IH_PPP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Power play eff. as percentage.
	IH_PTS	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code



Type	Code	Pos	Value	Description
				For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Points
	IH_FO_WON	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs won
	IH_FO_LOST	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs lost
	IH_FO_NET	Numeric Or OT or GWS Or TOT	N(3) 990 Or -N(3) -990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs net
	IH_FOP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs won as percentage
	IH_PIM_TOURN	TOT	Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Penalties in minutes in the tournament
	IH_PTS_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Points in the tournament

For the table above, we have the following additional/summary information:



Type/Code	Description	Expected	RT Only	RT Trigger
ST_IH/ IH_G	Number of goals	Always	N	T2
ST_IH/ IH_G_TOURN	Number of goals, for the whole tournament	Always	N	T2
ST_IH/ IH_A	Number of assists, for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_A_TOURN	Number of assists, for the whole tournament.	Always	N	T2
ST_IH/ IH_SOG	Shots on goal, for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_SVS	Saves for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_SVP	Saves percentage for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_MP	Number of penalties for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_PIM	Penalties in minutes for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_SHG	Shorthanded goals for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_PKP	Penalty killing percentage for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_TPP	Time of power play in minutes and seconds for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_PPG	Power play goals for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_PPP	Power play eff. as percentage for one particular @Pos Period, or total.	Always	N	T2
ST_IH/ IH_PTS	Points	Always	N	T2
ST_IH/ IH_FO_WON	Face-offs won	Always	N	T2
ST_IH/ IH_FO_LOST	Face-offs lost	Always	N	T2
ST_IH/ IH_FO_NET	Face-offs net	Always	N	T2
ST_IH/ IH_FOP	Face-offs won as percentage	Always	N	T2
ST_IH/ IH_PIM_TOURN	Penalties in minutes, for the whole tournament.	Always	N	T2
ST_IH/ IH_PTS_TOURN	Points, for the whole tournament.	Always	N	T2

**Result /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments	RT Only	RT Trigger
Code	M	S(20) with no leading zeroes	Athlete's ID. Can belong to a team member or an individual athlete.	N	Only if necessary
Order	M	Numeric	Order attribute used to sort team members in a team (if Competitor @Type="T") or 1 if Competitor @Type="A".	N	Only if necessary



Attribute	M/O	Value	Comments	RT Only	RT Trigger
Bib	M	Numeric	Shirt Number for the athlete.	N	Only if necessary

**Result /Competitor /Composition /Athlete /Stats /Stat**

Type	Code	Pos	Value	Description
ST_IH	IH_GF	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of goals
	IH_GF_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of goals "for" in the whole tournament
	IH_GA	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of goals against
	IH_GA_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of goals against in the whole tournament
	IH_A	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of assists
	IH_A_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of assists in the tournament
	IH_SOG	Numeric Or OT	N(3) 990	For @Type: Send proposed type



Type	Code	Pos	Value	Description
		or GWS Or TOT		For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Shots on goal for one particular @Pos Period, or total
	IH_MP	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Number of penalties for one particular @Pos Period, or total
	IH_PIM	Numeric Or OT or GWS Or TOT	Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Penalties in minutes for one particular @Pos Period, or total
	IH_NET	Numeric Or OT or GWS Or TOT	(-)N(3) (-)990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Net result of positive and negative participation for one particular @Pos Period, or total
	IH_TOI	Numeric Or OT or GWS Or TOT	MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Time on ice in minutes and seconds for one particular @Pos Period, or total  MM=minutes, SS=seconds
	IH_SHIFTS	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of shifts in total
	IH_ATOI	TOT	MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code



Type	Code	Pos	Value	Description
				For @Pos: TOT (for total) For @Value: Average time on ice in minutes and seconds in total  MM=minutes, SS=seconds
	IH_MIP	Numeric Or OT or GWS Or TOT	MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Total minutes in play, where MMM is minutes and SS is seconds
	IH_SOGG	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Shots on goal (against goalkeeper)
	IH_SOGG_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code for For @Pos: TOT (for total) For @Value: Shots on goal (against goalkeeper) for the whole tournament.
	IH_SVS	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Saves for one particular @Pos Period, or total
	IH_SVS_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Number of saves for the whole tournament.
	IH_SVP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Percentage of saves from shots on goal (SOG)





Type	Code	Pos	Value	Description
	IH_PTS	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Points
	IH_FO_WON	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs won
	IH_FO_LOST	Numeric Or OT or GWS Or TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs lost
	IH_FO_NET	Numeric Or OT or GWS Or TOT	N(3) 990 Or -N(3) -990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs net
	IH_FOP	Numeric Or OT or GWS Or TOT	N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Period (numeric or OT or GWS) or TOT (for total) For @Value: Face-offs won as percentage
	IH_PIM_TOURN	TOT	Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Penalties in minutes in the tournament
	IH_PTS_TOURN	TOT	N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: TOT (for total) For @Value: Points in the tournament



For the table above, we have the following additional/summary information:

Type/Code	Description	Expected	RT Only	RT Trigger
ST_IH/ IH_GF	Number of goals, for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_GF_TOURN	Number of goals, for the whole tournament	Always	N	T2
ST_IH/ IH_GA	Number of goals against, for one particular @Pos Period, or total	Always if applies for this player	N	T2
ST_IH/ IH_GA_TOURN	Number of goals against in the whole tournament	Always if applies for this player	N	T2
ST_IH/ IH_A	Number of assists, for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_A_TOURN	Number of assists, for the whole tournament.	Always	N	T2
ST_IH/ IH_SOG	Shots on goal, for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_MP	Penalties in minutes for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_PIM	Penalties in minutes for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_NET	Net result of positive and negative participation for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_TOI	Time on ice in minutes and seconds for one particular @Pos Period, or total	Always	N	T2
ST_IH/ IH_SHIFTS	Number of shifts in total	Always	N	T2
ST_IH/ IH_ATOI	Average time on ice in minutes and seconds in total	Always	N	T2
ST_IH/ IH_MIP	Total minutes in play, where MMM is minutes and SS is seconds for one particular @Pos Period, or total	Always if applies for this player	N	T2
ST_IH/ IH_SOGG	Shots on goal (against goalkeeper) for one particular @Pos Period, or total	Always if applies for this player	N	T2
ST_IH/ IH_SOGG_TOURN	Shots on goal (against goalkeeper) for the whole tournament.	Always if applies for this player	N	T2
ST_IH/ IH_SVS	Number of saves for one particular @Pos Period, or total	Always if applies for this player	N	T2
ST_IH/ IH_SVS_TOURN	Number of saves for the whole tournament	Always if applies for this player	N	T2
ST_IH/ IH_SVP	Percentage of saves from shots on goal for one particular @Pos Period, or total	Always if applies for this player	N	T2
ST_IH/ IH_PTS	Points	Always	N	T2
ST_IH/ IH_FO_WON	Face-offs won	Always	N	T2
ST_IH/ IH_FO_LOST	Face-offs lost	Always	N	T2
ST_IH/ IH_FO_NET	Face-offs net	Always	N	T2
ST_IH/ IH_FOP	Face-offs won as percentage	Always	N	T2



Type/Code	Description	Expected	RT Only	RT Trigger
ST_IH/ IH_PIM_TOURN	Penalties in minutes, for the whole tournament.	Always	N	T2
ST_IH/ IH_PTS_TOURN	Points, for the whole tournament.	Always	N	T2

#### 3.2.4.6 Message Sort

Sort by Result @SortOrder

UnitAction @Time will be used to sort actions (if actions are requested).



### 3.2.5 Pool Standings

#### 3.2.5.1 Description

The pool standings message contains the standings of a group in a competition. It is similar to the Phase Results message, except in the frequency and trigger. Here the message is triggered after each event unit (game, match, etc.), while the Phase Results message is triggered once the phase has finished. For this reason, in most sports, the message will be at event unit level, in order to provide information at the moment when the message was generated.

This report is sent independently for each of the groups / pools of the competition in a particular phase, and the group / pool can be determined from the message headers (DocumentCode and DocumentSubtype).

The mandatory attributes and mandatory elements defined in this message will have to be used by all the sports, although each ODF Sport Data Dictionary will have to explain with further detail the optional attributes or optional elements of the message.

#### 3.2.5.2 Header Values

##### 3.2.5.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEEP00	The DocumentCode attribute in the ODF header will be sent according for all the competition events at phase level of the preliminaries to the ODF Common Codes document (header values sheet).
DocumentType	DT_POOL_STANDING	Pool Standings message
DocumentSubtype	- Preliminary Round Group A: A - Preliminary Round Group B: B - Preliminary Round Group C (for men): C - Preliminary Round Group D: D	Please, refer to the ODF header definition
ResultStatus	<a href="#">CC @ResultStatus</a>	Status of the message
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at



Attribute	Value	Comment
		1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Venue	<a href="#">CC @VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.

### 3.2.5.3 Trigger and Frequency

#### 3.2.5.3.1 PiT Triggers

Please, follow the general definition, taking also into account the following:

- INTERIM: After each game of the preliminaries is finished
- OFFICIAL: After last game of the preliminaries



**3.2.5.4 Message Structure**

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
<b>Competition</b>					
	<i>Code</i>				
	Result (1,N)				
		<i>Rank</i>			
		<i>RankEqual</i>			
		<i>ResultType</i>			
		<i>IRM</i>			
		<i>SortOrder</i>			
		Competitor			
			<i>Code</i>		
			<i>Type</i>		
			ExtendedResults (0,1)		
				ExtendedResult (1,N)	
					<b>Type</b>
					<b>Code</b>
					<b>Pos</b>
					<i>Value</i>
			Composition (0,1)		
				Athlete (1,N)	
					<i>Code</i>
					<i>Order</i>



### 3.2.5.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Result

For any Phase Results message, there should be at least one competitor being awarded a result for the phase.

Attribute	M/O	Value	Comments
Rank	O	Numeric Or "-" Or Text	Rank of the competitor in the corresponding phase. This attribute is optional because the team could get an invalid rank mark.  It should be numeric for most of possibilities.  It could be "-" in case teams have not yet played.  It could be text, because in the case of the whole preliminary round, it should follow the form nnD, where nn should be rank in the qualification preliminary round without leading zeroes (e.g.: 1D, 2D, 3D...).
RankEqual	O	Y	It identifies if a rank has been equalled.
ResultType	M	<a href="#">CC @ResultType</a>	Result type, either rank or IRM for the corresponding phase.
IRM	O	<a href="#">CC @IRM</a>	IRM for the particular group (or phase). Send just in the case @ResultType is IRM (see codes section).
SortOrder	M	Numeric	It is mostly based on the rank, but it should be used to sort out rank ties as well as results without rank.

#### Result /Competitor

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Competitor's ID
Type	M	T,A	T for team A for athlete

#### Result /Competitor /ExtendedResults /ExtendedResult

Team competitor's extended results, according to competitors' rules.

Type	Code	Pos	Value	Description
ER_IH	IH_GP		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Games played indeed by the team competitor
	IH_W		Numeric	For @Type:



Type	Code	Pos	Value	Description
				Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Wins by the team competitor
	IH_OTW		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Overtime wins by the team competitor
	IH_OTL		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Overtime losses by the team competitor
	IH_L		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Losses by the team competitor
	IH_PTS		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Points by the team competitor
	IH_GDF		(+)(-)N(3) (+)(-)990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals difference by the team competitor. Send the +/- signs always except for the case the goal difference is 0
	IH_GF		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals for by the team competitor





Type	Code	Pos	Value	Description
	IH_GA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals against by the team competitor
	IH_WR		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: IIHF World ranking for the previous full year for the team competitor

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ER_IH/ IH_GP	Games played indeed	Always in the case of group A, B or C
ER_IH/ IH_W	Wins	Always in the case of group A, B or C
ER_IH/ IH_OTW	Overtime wins	Always in the case of group A, B or C
ER_IH/ IH_OTL	Overtime losses	Always in the case of group A, B or C
ER_IH/ IH_L	Losses	Always in the case of group A, B or C
ER_IH/ IH_PTS	Points	Always in the case of group A, B or C
ER_IH/ IH_GDF	Goals difference	Always in the case of group A, B or C
ER_IH/ IH_GF	Goals for	Always in the case of group A, B or C
ER_IH/ IH_GA	Goals against	Always in the case of group A, B or C
ER_IH/ IH_WR	IIHF World ranking for the previous full year	Send just in the case of the whole preliminary round message

**Result /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID.
Order	M	Numeric	The order will be according to the team roster in the case Competitor @Type=T.



### 3.2.5.6 Message Sort

The attribute used to sort the results is Result @SortOrder.



### 3.2.6 Event Final Ranking

#### 3.2.6.1 Description

The event final ranking is a message containing the final results and ranking at the completion of one particular event, either for individual athletes or for aggregated athletes.

The final ranking message is a generic message for all sports, including the full event final result for all competitors who were either ranked, got an Invalid Rank Mark (disqualified, etc.), or both.

The mandatory attributes and mandatory elements defined in this message will have to be used by all the sports, although each ODF Sport Data Dictionary will have to explain with further detail the optional attributes or optional elements of the message.

Depending on the sport rules include all competitors in the competition as all can be ranked (as in Marathon) or only include those with a final ranking as other are unranked (as in tennis).

#### 3.2.6.2 Header Values

##### 3.2.6.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEE000	DD according to CC @Discipline G according to CC @DisciplineGender EEE according to CC @Event
DocumentType	DT_RANKING	Event Final ranking message
ResultStatus	<a href="#">CC</a> <a href="#">@ResultStatus</a>	Result status
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced



Attribute	Value	Comment
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages. Serial starts with 1 each day session at every different venue.

### 3.2.6.3 Trigger and Frequency

#### 3.2.6.3.1 PiT Triggers

The general rule is that this message is sent just at the end of the last event unit of one particular event.

Trigger also after any major change.

Take also into account the following:

After a game, if it determines the final position of a team (as in the Play-off round or Bronze Medal game), the message should be sent with the partial results:

- ResultStatus in the header will have the value "PARTIAL"

Then proceed with UNOFFICIAL and OFFICIAL results, as expected.



**3.2.6.4 Message Structure**

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
<b>Competition</b>					
	<i>Code</i>				
	Result (1,N)				
		<i>Rank</i>			
		<i>RankEqual</i>			
		<i>ResultType</i>			
		<i>IRM</i>			
		<i>SortOrder</i>			
		Competitor			
			<i>Code</i>		
			<i>Type</i>		
			ExtendedResults (0,1)		
				ExtendedResult (1,N)	
					<b>Type</b>
					<b>Code</b>
					<b>Pos</b>
					<i>Value</i>
			Composition		
				Athlete (1,N)	
					<i>Code</i>
					<i>Order</i>



### 3.2.6.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Result

For any event final ranking message, there should be at least one competitor being awarded a result for the event.

Attribute	M/O	Value	Comments
Rank	O	Numeric	Final rank of the competitor in the corresponding event. This attribute is optional because the skater may have got an invalid rank mark.
RankEqual	O	Y	It identifies if a rank has been equalled.
ResultType	M	<a href="#">CC @ResultType</a>	Result type, either "rank" or IRM for the corresponding event.
IRM	O	<a href="#">CC @IRM</a>	IRM for the particular event.  Send just in the case @ResultType is IRM (see codes section)
SortOrder	M	Numeric	This attribute is a sequential number with the order of the results for the particular event, if they were to be presented. It is mostly based on the rank, but it could be used to sort out rank ties as well as results without rank.

#### Result /Competitor

Competitor related to one final event result.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes ,NOC ID or TBD	Competitor's ID. If NOC or NPC, the value will be NOC ID. If the competitor is not known or does not exist, the value will be TBD.
Type	M	T,A, N	T for team A for athlete N for NOC's or NPC's

#### Result /Competitor /ExtendedResults /ExtendedResult

Team competitor's extended results, according to competitors' rules.

Type	Code	Pos	Value	Description
ER_IH	IH_GP		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Games played indeed by the team competitor
	IH_W		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything



Type	Code	Pos	Value	Description
				For @Value: Wins by the team competitor
	IH_OTW		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Overtime wins by the team competitor
	IH_OTL		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Overtime losses by the team competitor
	IH_L		N(2) 90	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Losses by the team competitor
	IH_GF		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals for by the team competitor
	IH_GA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals against by the team competitor

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ER_IH/ IH_GP	Games played indeed	Always
ER_IH/ IH_W	Wins	Always
ER_IH/ IH_OTW	Overtime wins	Always
ER_IH/ IH_OTL	Overtime losses	Always
ER_IH/ IH_L	Losses	Always
ER_IH/ IH_GF	Goals for	Always
ER_IH/ IH_GA	Goals against	Always

**Result /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID.
Order	M	Numeric	The order will be according to the team roster in the case Competitor @Type=T.

**3.2.6.6 Message Sort**

Sort by Result @SortOrder





### 3.2.7 Statistics

#### 3.2.7.1 Description

The Statistics message contains a list of statistics for a competitor (could be an individual athlete or a team), that applies at a DocumentCode level, which could be for an event unit, a phase or an event.

There will be a separate message (identified by the header's Subtype and DocumentSubtype) for every table where multiple statistics apply (e.g.: leading points' scores, leading red cards, etc.).

#### 3.2.7.2 Header Values

##### 3.2.7.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	RSC	The DocumentCode attribute in the ODF header will be sent according for all the competition events to the ODF Common Codes document (header values sheet).
DocumentSubcode	S(4)	Used when DocumentSubtype = CUM . The DocumentSubcode is the NOC concatenated with the Team Number, e.g. BRA1. Concatenation will happen only when an NOC has more than one team.
DocumentType	DT_STATS	Statistics message
DocumentSubtype	CC @Statistics	<ul style="list-style-type: none"> <li>• CUM: For cumulative data of individual player statistics and team statistics. There will be one single message for each team.</li> <li>• TOU: For Tournament statistics (like Tournaments Total statistics)</li> <li>• IND_RANKING: Ranking of individual tournament statistics, for the best athletes.</li> <li>• TEAM_RANKING: Ranking of team tournament statistic</li> </ul>
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	<p>Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).</p> <p>The end of the logical day is defined by default at 03:00 a.m.</p> <p>For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.</p> <p>Logical Date is expressed in the local time zone where the message</p>



Attribute	Value	Comment
		was produced
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages. Serial starts with 1 each day session at every different venue.

### 3.2.7.3 Trigger and Frequency

#### 3.2.7.3.1 PiT Triggers

This message should be sent after the end of each event unit, for all DocumentSubtype (for CUM, send only the two playing teams).



### 3.2.7.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
<b>Competition</b>							
	<i>Code</i>						
	Stats						
		<i>Code</i>					
		StatsItems (0,1)					
			StatsItem (1,N)				
				<b>Type</b>			
				<b>Code</b>			
				<b>Pos</b>			
				<i>Value</i>			
		Competitor (0,N)					
			<i>Code</i>				
			<i>Type</i>				
			<i>Order</i>				
			StatsItems (0,1)				
				StatsItem (1,N)			
					<b>Type</b>		
					<i>Code</i>		
					<b>Pos</b>		
					<i>Value</i>		
			Composition (0,1)				
				Athlete (1,N)			
					<i>Code</i>		
					<i>Order</i>		
					StatsItems (0,1)		
						StatsItem (1,N)	
							<b>Type</b>
							<b>Code</b>
							<b>Pos</b>
							<i>Value</i>





### 3.2.7.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Stats

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Statistics</a>	A code to identify the statistics being listed.

#### Stats /StatsItems /StatsItem

Statistics for the event (to be sent just in the case of tournament statistics: for the DocumentSubtype=TOU).

Type	Code	Pos	Value	Description
ST_IH	IH_GP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of games played
	IH_SPEC		N(6) 999990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total number of spectators
	IH_SPEC_AVG		N(6) 999990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Average number of spectators

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ST_IH/ IH_GP	Games played	If available, for the DocumentSubtype=TOU
ST_IH/ IH_SPEC	Total number of spectators	If available, for the DocumentSubtype=TOU
ST_IH/ IH_SPEC_AVG	Average number of spectators	If available, for the DocumentSubtype=TOU

#### Stats /Competitor



Competitor of the statistics.

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Team competitor's ID
Type	M	T	T is for team competitor in the case of CUM statistics.
Order	M	Numeric	Sort order: For each team: 1 - Team NOC code However, disqualified teams will appear at the bottom of the report.

**Stats /Competitor /StatsItems /StatsItem**

The following table describes in more detail the Competitor /StatsItems /StatsItem element in the case of Ice Hockey (to be sent just in the case of team statistics: for the DocumentSubtype=CUM or TEAM\_RANKING).

Type	Code	Pos	Value	Description
ST_IH	IH_GP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of games played indeed by the team competitor
	IH_DSQ		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send Y in case the team has been disqualified.
	IH_GF		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of goals for
	IH_SSG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shots saved by goalkeeper
	IH_SOG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shots on goal



Type	Code	Pos	Value	Description
	IH_SGP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Percentage of goals from total shots
	IH_RNK_SE		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Scoring efficiency rank (ranked by highest IH_SGP, highest IH_GP)
	IH_SORT_SE		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_SE (used also to sort rank ties)
	IH_ADV		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Advantage (times on power play)
	IH_PPGF		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play goals for
	IH_PPP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play eff. as percentage
	IH_TPP		MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value:



Type	Code	Pos	Value	Description
				Time of power play (in minutes and seconds)
	IH_PPA		MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Average power play time in minutes and seconds
	IH_RNK_PP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play rank (based on highest IH_PPP, highest IH_GP)
	IH_SORT_PP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_PP (used also to sort rank ties)
	IH_DVG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Disadvantage (number of times shorthanded)
	IH_PKP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty killing percentage
	IH_TSH		MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Time shorthanded in minutes and seconds
	IH_TSA		MM:SS 90:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos:





Type	Code	Pos	Value	Description
				Do not send anything For @Value: Average time shorthanded in minutes and seconds
	IH_RNK_PK		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalty killing rank (based on highest IH_PKP, highest IH_GP)
	IH_SORT_PK		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_PK (used also to sort rank ties)
	IH_GA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals against
	IH_SVS		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Saves
	IH_SOGG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shots on goal (against goalkeeper)
	IH_SVP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Percentage of saves of total SOG
	IH_GAA		N(2).N(2) 90.00	For @Type: Send proposed type For @Code:



Type	Code	Pos	Value	Description
				Send proposed code For @Pos: Do not send anything For @Value: Goals against as average per 60 minutes
	IH_SHGA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shorthanded goals against
	IH_PPGA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play goals against
	IH_SO		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of shutouts
	IH_ENG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Empty net goals
	IH_RNK_GK		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goalkeeping rank (based on highest IH_SVP)
	IH_SORT_GK		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_GK (used also to sort rank ties)
	IH_M2		N(3) 990	For @Type: Send proposed type



Type	Code	Pos	Value	Description
				For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of 2 minutes penalties
	IH_M5		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of 5 minutes penalties
	IH_M10		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of 10 minutes penalties
	IH_GM		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of game misconducts, gross misconducts
	IH_MP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of match penalties
	IH_PAVG		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: PIM (average) per game (in minutes and seconds)
	IH_RNK_PTY		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalties rank (based on highest IH_PIM)
	IH_SORT_PTY		N(3) 990	For @Type: Send proposed type



Type	Code	Pos	Value	Description
				For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_PTY (used also to sort rank ties)
	IH_SHGF		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shorthanded goals for
	IH_SH_NET		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: SHGF – SHGA
	IH_RNK_SH		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shorthanded rank (based on highest IH_SH_NET, lowest IH_GP)
	IH_SORT_SH		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_SH (used also to sort rank ties)
	IH_SPEC		N(6) 999990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total number of spectators
	IH_SORT_SPEC		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_SPEC (used also to



Type	Code	Pos	Value	Description
				sort rank ties)
	IH_SPEC_AVG		N(6) 999990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Average number of spectators
	IH_RNK_SPEC		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Spectators rank (based on IH_SPEC_AVG)
	IH_PIM		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalties in minutes

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ST_IH/ IH_GP	Games played indeed by the team competitor	If available, for the DocumentSubtype=CUM
ST_IH/ IH_DSQ	Disqualified team	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GF	Number of goals for	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SSG	Shots saved by goalkeeper	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SOG	Shots on goal	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SGP	Percentage of goals from total shots	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_SE	Scoring efficiency rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_SE	Sort according to ST_IH /IH_RNK_SE (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_ADV	Advantage (times on power play)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PPGF	Power play goals for	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PPP	Power play eff. as percentage	If available, for the DocumentSubtype=CUM
ST_IH/ IH_TPP	Time of power play (in minutes and seconds)	If available, for the DocumentSubtype=CUM



Type/Code	Description	Expected
ST_IH/ IH_PPA	Average power play time in minutes and seconds	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_PP	Power play rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_PP	Sort according to ST_IH /IH_RNK_PP (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_DVG	Disadvantage (number of times shorthanded)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PKP	Penalty killing percentage	If available, for the DocumentSubtype=CUM
ST_IH/ IH_TSH	Time shorthanded in minutes and seconds	If available, for the DocumentSubtype=CUM
ST_IH/ IH_TSA	Average time shorthanded in minutes and seconds	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_PK	Penalty killing rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_PK	Sort according to ST_IH /IH_RNK_PK (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_GA	Goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SVS	Saves	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SOGG	Shots on goal (against goalkeeper)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SVP	Percentage of saves of total SOG	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GAA	Goals against as average per 60 minutes	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SHGA	Shorthanded goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PPGA	Power play goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SO	Number of shutouts	If available, for the DocumentSubtype=CUM
ST_IH/ IH_ENG	Empty net goals	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_GK	Goalkeeping rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_GK	Sort according to ST_IH /IH_RNK_GK (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_M2	Number of 2 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_M5	Number of 5 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_M10	Number of 10 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GM	Number of game/gross misconducts	If available, for the DocumentSubtype=CUM
ST_IH/ IH_MP	Number of match penalties	If available, for the



Type/Code	Description	Expected
		DocumentSubtype=CUM
ST_IH/ IH_PAVG	PIM (average) per game (in minutes and seconds)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_PTY	Penalties rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_PTY	Sort according to ST_IH /IH_RNK_PTY (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SHGF	Shorthanded goals for	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SH_NET	SHGF - SHGA	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_SH	Shorthanded rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SORT_SH	Sort according to ST_IH /IH_RNK_SH (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SPEC	Total number of spectators	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SORT_SPEC	Sort according to ST_IH /IH_RNK_SPEC (used also to sort rank ties)	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_SPEC_AVG	Average number of spectators	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_SPEC	Spectators rank	If available, for the DocumentSubtype=TEAM_RANKING
ST_IH/ IH_PIM	Penalties in minutes	If available, for the DocumentSubtype=CUM

**Stats /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID
Order	M	Numeric	The order will be according to the team roster in the case Competitor @Type=T

**Stats /Competitor /Composition /Athlete /StatsItems /StatsItem**

Team member's or individual athlete's stats item, depending on whether Competitor @Type="T" or Competitor @Type="A" according to competitors' rules.

Type	Code	Pos	Value	Description
ST_IH	IH_GP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Games played indeed
	IH_PTS		N(3) 990	For @Type: Send proposed type For @Code:



Type	Code	Pos	Value	Description
				Send proposed code For @Pos: Do not send anything For @Value: Points
	IH_A		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Assists
	IH_GOL		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals scored
	IH_NET		(-)N(3) (-)990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Net result of positive and negative participation (with "-" sign for negative participation)
	IH_PIM		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Penalties in minutes
	IH_GWG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Game winning goals
	IH_PPG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play goals
	IH_SHG		N(3) 990	For @Type: Send proposed type





Type	Code	Pos	Value	Description
				For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shorthanded goals
	IH_SOG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total shots
	IH_SP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Percentage of goals from total shots
	IH_TM		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total minutes played (in minutes and seconds)
	IH_MG		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Minutes played by game (in minutes and seconds)
	IH_SHIFTS		Numeric	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total shifts played
	IH_ATS		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Average time per shift (in minutes and seconds)
	IH_RNK_SCORE		N(3)	For @Type:



Type	Code	Pos	Value	Description
			990	Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Scoring leaders rank (rank by highest points, then by highest goals, then lowest number of Games Played)
	IH_SORT_SCORE		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_SCORE (used also to sort rank ties)
	IH_RNK_GOAL		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goal scoring leaders rank (rank by goals, then lowest number of Games Played)
	IH_SORT_GOAL		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_GOAL (used also to sort rank ties)
	IH_RNK_A		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Assists rank (rank by assists, then lowest number of Games Played)
	IH_SORT_A		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_A (used also to sort rank ties)
	IH_RNK_D_SCORE		N(3) 990	For @Type: Send proposed type For @Code:



Type	Code	Pos	Value	Description
				Send proposed code For @Pos: Do not send anything For @Value: Defensemen Scoring leaders rank (rank by highest points, then by highest goals, then by lowest games played)
	IH_SORT_D_SCORE		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RANK_D_SCORE (used also to sort rank ties)
	IH_POS		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Positive participation
	IH_NEG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Negative participation
	IH_RNK_NET		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Net result of positive and negative participation rank (based on highest IH_NET, highest IH_POS and lowest IH_NEG).
	IH_SORT_NET		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_NET (used also to sort rank ties)
	IH_M2		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything



Type	Code	Pos	Value	Description
				For @Value: Number of 2 minutes penalties
	IH_M5		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of 5 minutes penalties
	IH_M10		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of 10 minutes penalties
	IH_GM		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of game misconducts, gross misconducts
	IH_MP		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of match penalties
	IH_PAVG		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: PIM (average) per game (in minutes and seconds)
	IH_RNK_PEN		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Most penalised players rank (based on highest IH_PIM first, lowest IH_GP).
	IH_SORT_PEN		N(3) 990	For @Type: Send proposed type For @Code:



Type	Code	Pos	Value	Description
				Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_PEN (used also to sort rank ties)
	IH_GKD		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of times goalkeeper dressed
	IH_MIP		MMM:SS 990:00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Total minutes in play, where MMM is minutes and SS is seconds
	IH_MIP_P		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Minutes in play as percentage
	IH_SOGG		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shots on goal (against goalkeeper)
	IH_GA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of goals against
	IH_SVS		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of saves
	IH_SVP		N(3).N(2)	For @Type:



Type	Code	Pos	Value	Description
			990.00	Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Percentage of saves from shots on goal
	IH_SO		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of shutouts
	IH_GAA		N(2).N(2) 90.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goals against as average per 60 minutes
	IH_PPGA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Power play goals against
	IH_SHGA		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Shorthand goals against
	IH_W		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of games won
	IH_L		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Number of games lost
	IH_RNK_GK		N(3)	For @Type:



Type	Code	Pos	Value	Description
			990	Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Goalkeeper rank (based on highest IH_SVP, lowest IH_GAA and highest IH_GPI). Highest ranks should be for those goalkeepers with at least 40% of their team's total minutes.
	IH_SORT_GK		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_GK (used also to sort rank ties)
	IH_FO_WON		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Face-offs won
	IH_FO_LOST		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Face-offs lost
	IH_FO_NET		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Face-offs net
	IH_FOP		N(3).N(2) 990.00	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Face-offs won as percentage
	IH_RNK_FO		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything



Type	Code	Pos	Value	Description
				For @Value: FO rank (based on highest IH_FOP)
	IH_SORT_FO		N(3) 990	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Sort according to IH_RNK_FO (used also to sort rank ties)
	IH_BEST_FW		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send Y in case the athlete is best forward.
	IH_BEST_D		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send Y in case the athlete is best defenseman.
	IH_BEST_GK		S(1) (Y)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Send Y in case the athlete is best goalkeeper.

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ST_IH/ IH_GP	Games played indeed	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PTS	Points	If available, for the DocumentSubtype=CUM
ST_IH/ IH_A	Assists	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GOL	Goals scored	If available, for the DocumentSubtype=CUM
ST_IH/ IH_NET	Net result of positive and negative participation	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PIM	Penalties in minutes	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GWG	Game winning goals	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PPG	Power play goals	If available, for the DocumentSubtype=CUM





Type/Code	Description	Expected
ST_IH/ IH_SHG	Shorthanded goals	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SOG	Shots on goal	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SP	Percentage of goals from total shots	If available, for the DocumentSubtype=CUM
ST_IH/ IH_TM	Total minutes played (in minutes and seconds)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_MG	Minutes played by game	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SHIFTS	Total shifts played	If available, for the DocumentSubtype=CUM
ST_IH/ IH_ATS	Average time per shift (in minutes and seconds)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_SCORE	Scoring leader rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_SCORE	Sort according to ST_IH /IH_RNK_SCORE	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_RNK_GOAL	Goal scoring leader rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_GOAL	Sort according to ST_IH /IH_RNK_GOAL	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_RNK_A	Assists rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_A	Sort according to ST_IH /IH_RNK_A	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_RNK_D_SCORE	Defenseemen scoring leaders rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_D_SCORE	Sort according to ST_IH /IH_RNK_D_SCORE	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_POS	Positive participation	If available, for the DocumentSubtype=CUM
ST_IH/ IH_NEG	Negative participation	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_NET	Net result of positive and negative participation rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_NET	Sort according to ST_IH /IH_RNK_NET	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_M2	Number of 2 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_M5	Number of 5 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_M10	Number of 10 minutes penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GM	Number of game/gross misconducts	If available, for the DocumentSubtype=CUM
ST_IH/ IH_MP	Number of match penalties	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PAVG	PIM (average) per game (in minutes and seconds)	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_PEN	Most penalised players rank	If available, for the



Type/Code	Description	Expected
		DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_PEN	Sort according to ST_IH /IH_RNK_PEN	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_GKD	Number of times goalkeeper dressed	If available, for the DocumentSubtype=CUM
ST_IH/ IH_MIP	Total minutes in play	If available, for the DocumentSubtype=CUM
ST_IH/ IH_MIP_P	Minutes in play as percentage	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SO	Shots on goal against goalkeeper	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GA	Goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SVS	Number of saves	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SVP	Percentage of saves from shots on goal	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SO	Number of shutouts	If available, for the DocumentSubtype=CUM
ST_IH/ IH_GAA	Goals against as average per 60 minutes	If available, for the DocumentSubtype=CUM
ST_IH/ IH_PPGA	Power play goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_SHGA	Shorthanded goals against	If available, for the DocumentSubtype=CUM
ST_IH/ IH_W	Number of games won	If available, for the DocumentSubtype=CUM
ST_IH/ IH_L	Number of games lost	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_GK	Goalkeeper rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_GK	Sort according to ST_IH /IH_RNK_GK	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_FO_WON	Face-offs won	If available, for the DocumentSubtype=CUM
ST_IH/ IH_FO_LOST	Face-offs lost	If available, for the DocumentSubtype=CUM
ST_IH/ IH_FO_NET	Face-offs net	If available, for the DocumentSubtype=CUM
ST_IH/ IH_FOP	Face-offs won as percentage	If available, for the DocumentSubtype=CUM
ST_IH/ IH_RNK_FO	FO rank	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_SORT_FO	Sort according to ST_IH /IH_RNK_FO	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_BEST_FW	Best forward	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_BEST_D	Best defenseman	If available, for the DocumentSubtype=IND_RANKING
ST_IH/ IH_BEST_GK	Best goalkeeper	If available, for the DocumentSubtype=IND_RANKING



### 3.2.7.6 Message Sort

Sort according to the @Order attributes.



### 3.2.8 Event's Medallists

#### 3.2.8.1 Description

The "Event's Medallists" is a message containing the list of medallists awarded in one particular event.

#### 3.2.8.2 Header Values

##### 3.2.8.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEE000	DD according to CC @Discipline G according to CC @DisciplineGender EEE according to CC @Event
DocumentType	DT_MEDALLISTS	Event's Medallists message
ResultStatus	<a href="#">CC</a> <a href="#">@ResultStatus</a>	It indicates whether the result is official or partial. "OFFICIAL" / "PARTIAL"
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Venue	<a href="#">CC @VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information



### 3.2.8.3 Trigger and Frequency

#### 3.2.8.3.1 PiT Triggers

The message is sent with ResultStatus=PARTIAL when the information of the medallist is known but the final event Unit is not yet finished.

The message is sent with ResultStatus=OFFICIAL when the medallists are officially known.

For some sports, bronze medals are known before the end of the final event unit. In this case the message is sent the first time with the bronze medallists, and the second time with all the medallists.

Trigger also after any major change.



**3.2.8.4 Message Structure**

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
<b>Competition</b>					
	<i>Code</i>				
	Medal (1,N)				
		<i>Code</i>			
		<i>Phase</i>			
		<i>Unit</i>			
		Competitor			
			<i>Type</i>		
			<i>Code</i>		
			<i>Order</i>		
			Composition		
				Athlete (1,N)	
					<i>Code</i>
					<i>Order</i>



### 3.2.8.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Medal

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @MedalType</a>	Medal type. All the Competitors with the same CC@MedalType are not grouped in the same element.
Phase	M	<a href="#">CC @Phase</a>	Phase code in which a medal was awarded. It is used in case of disciplines like Ice Hockey or Basketball, with the bronze medal and the gold medal awarded in different event units.
Unit	M	<a href="#">CC @Unit</a>	Unit code in which a medal was awarded. It is used in case of disciplines like Ice Hockey or Basketball, with the bronze medal and the gold medal awarded in different event units.

#### Medal /Competitor

Attribute	M/O	Value	Comments
Type	M	T, A	T for team A for athlete
Code	M	S(20) with no leading zeroes	Competitor's ID
Order	M	Numeric	Competitor order (Send 1 by default). In the case of tie the order is defined for the sport rules.

#### Medal /Competitor /Composition /Athlete

(Include all members that won the medal according to sport rules if Competitor @Type="T")

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID, corresponding either to a team member or an individual athlete
Order	M	Numeric	Order of the team members in a team if Competitor @Type="T". 1 if Competitor @Type="A".

### 3.2.8.6 Message Sort

The message is sorted according to the medal type. Moreover, in case of tie the order is according to the Competitor@Order (given by the sport rule). Team members are sorted according to the Athlete@Order.



### 3.2.9 Brackets

#### 3.2.9.1 Description

This message is the Brackets message as described in the ODF Sport Messages Interface Document.

In the case of Ice Hockey, the message has to be sent for all the competition events, as listed in the header values section.

#### 3.2.9.2 Header Values

##### 3.2.9.2.1 PiT Header

The following table describes the ODF header attributes

Attribute	Value	Comment
DocumentCode	DDGEEE000	DD should be according to CC @Discipline G should be according to CC @DisciplineGender EEE should be according to CC @Event
DocumentType	DT_BRACKETS	Brackets message
ResultStatus	<a href="#">CC</a> <a href="#">@ResultStatus</a>	Status of the message
Version	1..V	Version number associated to the message's content. Ascendant number
FeedFlag	"P"-Production "T"-Test	Test message or production message.
Date	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.
LogicalDate	Date	Logical Date of events that extends until next day. If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).  The end of the logical day is defined by default at 03:00 a.m.  For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.  Logical Date is expressed in the local time zone where the message was produced
Venue	<a href="#">CC</a> <a href="#">@VenueCode</a>	Venue where the message is generated.
Serial	Numeric	Sequence number for ODF-PiT messages.  Serial starts with 1 each day session at every different venue.  In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information





### 3.2.9.3 Trigger and Frequency

#### 3.2.9.3.1 PiT Triggers

Please, follow the general definition, taking also into account the following:

- Before competition
- After the last game of preliminaries is officialised
- After every game during final phases



3.2.9.4 Message Structure

Following table defines the structure of the message.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
Competition								
	Code							
	Bracket							
		Code						
		BracketItems (1,N)						
			Code					
			BracketItem (1,N)					
				Code				
				Order				
				Unit (0,1)				
					Phase			
					Unit			
				NextUnit (0,1)				
					Phase			
					Unit			
				NextUnitLoser (0,1)				
					Phase			
					Unit			
				CompetitorPlace (1,N)				
					Pos			
					Code			
					ExtCompPlaces (0,1)			
						ExtCompPlace (1,N)		
							Type	
							Code	
							Pos	
							Value	
					PreviousUnit (0,1)			
						Phase		
						Unit		



ODF/INT012-R3-v4.5 APP (IH)

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
					Competitor (0,1)			
						Code		
						Type		
						Composition (0,1)		
							Athlete (1,N)	
								Code
								Order



### 3.2.9.5 Message Values

#### Competition

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Competition</a>	Unique ID for competition

#### Bracket

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @Bracket</a>	Bracket code to identify a bracket item. It should be always a bracket of finals.

#### Bracket /BracketItems

Attribute	M/O	Value	Comments
Code	M	<a href="#">CC @BracketItems</a>	Each BracketItems should include all BracketItem grouped by their CC @BracketItems.

#### Bracket /BracketItems /BracketItem

Attribute	M/O	Value	Comments
Code	M	Numeric Or "tbd"	In general, it will be sent the game number for each bracket item (e.g.: 17, 18, 19, 20 ...).  However, it may include "tbd" for to be defined, if the game number is not known.
Order	M	Numeric	Sequential number inside of BracketItems to indicate the order, always start by 1

#### Bracket /BracketItems /BracketItem /Unit

Unit related to the BracketItem.

Attribute	M/O	Value	Comments
Phase	M	<a href="#">CC @Phase</a>	Phase code for the bracket item
Unit	O	<a href="#">CC @Unit</a>	Unit code for the bracket item

#### Bracket /BracketItems /BracketItem /NextUnit

Next event unit related to the current bracket item. It is always informed except for the terminal bracket items, which do not have continuation according to the brackets graph.

Attribute	M/O	Value	Comments
Phase	M	<a href="#">CC @Phase</a>	Phase code of the next event unit for the current bracket item.
Unit	M	<a href="#">CC @Unit</a>	Unit code of the next event unit for the current bracket item.

#### Bracket /BracketItems /BracketItem /NextUnitLoser

Next event unit related to the current bracket item, but related to the loser competitor. It is always informed except for the terminal bracket items, which do not have continuation according to the brackets graph.

Attribute	M/O	Value	Comments
Phase	M	<a href="#">CC @Phase</a>	Phase code of the next event unit for the current bracket item, but related to the loser competitor.



Attribute	M/O	Value	Comments
Unit	M	<a href="#">CC @Unit</a>	Unit code of the next event unit for the current bracket item, but related to the loser competitor.

**Bracket /BracketItems /BracketItem /CompetitorPlace**

- If the competitors are known, this element is used to place the competitors in the bracket.
- If they are not yet known, it contains some information (on the rule to access to this bracket...)

Attribute	M/O	Value	Comments
Pos	M	N(3) 999	This attribute is a sequential number to place the different competitors in the bracket (1, 2 ...).
Code	O	competitor place	It will be sent when there is no competitor team (BYE) or when it is not known yet (UNK).

**Bracket /BracketItems /BracketItem /CompetitorPlace /ExtCompPlaces /ExtCompPlace**

Type	Code	Pos	Value	Description
ECP_IH	IH_BRK_CODE		S(4)	For @Type: Send proposed type For @Code: Send proposed code For @Pos: Do not send anything For @Value: Bracket item code in the format Wnn, Lnn, nD, nnD or TBD. W stands for winner, L stands for loser and nn should be the game number (removing leading zeroes if it is the case). Example: W17, L18, etc. nD and nnD stand for "team ranked N/NN after preliminary round".

For the table above, we have the following additional/summary information:

Type/Code	Description	Expected
ECP_IH/ IH_BRK_CODE	Bracket item @code	Send when the team competitors of the bracket items are not yet known.

**Bracket /BracketItems /BracketItem /CompetitorPlace /PreviousUnit**

Previous event unit related to the CompetitorPlace@Pos competitor of the current bracket item. It is always informed except for the bracket items whose CompetitorPlace@Pos competitor do not have preceding event units in the bracket graph.

Attribute	M/O	Value	Comments
Phase	M	<a href="#">CC @Phase</a>	Phase code of the previous event unit for the CompetitorPlace@Pos competitor of the bracket item.
Unit	M	<a href="#">CC @Unit</a>	Unit code of the previous event unit for the CompetitorPlace@Pos competitor of the bracket item.

**Bracket /BracketItems /BracketItem /CompetitorPlace /Competitor**

CompetitorPlace @Pos competitor related to the bracket item. Only include if the competitor is known .

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Competitor's ID



Attribute	M/O	Value	Comments
Type	M	T, A	T for team A for athlete

**Bracket /BracketItems /BracketItem /CompetitorPlace /Competitor /Composition /Athlete**

Attribute	M/O	Value	Comments
Code	M	S(20) with no leading zeroes	Athlete's ID, corresponding to either a team member or an individual athlete
Order	M	Numeric	Order attribute used to sort team members in a team (if Competitor @Type="T") or 1 if Competitor @Type="A".

**3.2.9.6 Message Sort**

BracketItems @Code should be sorted by:

Men's competition:

- Qualification play-offs (ordered by game number), Quarterfinals and Semifinals (ordered according to qualification play-offs sequential logic) and finals (first gold game, and then bronze game).

Women's competition

- Semifinals (ordered by game number), finals (first gold game, and then bronze game) and classification games (first two games ordered by game number, and then for the two last classification games, the losers of the first classification games come in the last position ).









## 4 Messages Sequence

### 1. Preliminaries

Message	DocumentCode	DocumentSubType	ResultStatus	Comments
DT_START_LIST	DDGEEPUU	N/A	N/A	Start List
DT_RESULT	DDGEEPUU	N/A	LIVE_UPDAT	Real Time Results
DT_RESULT	DDGEEPUU	N/A	UNOFFICIAL	Unofficial Results
DT_RESULT	DDGEEPUU	N/A	LIVE_LAST	End of Real Time Results
DT_RESULT	DDGEEPUU	N/A	OFFICIAL	Official Results
DT_POOL_STANDING	DDGEEPU0	Group	INT./OFFI.	Pool Standings
DT_STATS	DDGEE000	TEAM_RANKING	N/A	Team Ranking Statistics
DT_STATS	DDGEE000	IND_RANKING	N/A	Ind. Ranking Statistics
DT_STATS	DDGEE000	TOU	N/A	Tournament Statistics
DT_STATS	DDGEE000	CUM	N/A	Team A Stats.
DT_STATS	DDGEE000	CUM	N/A	Team B Stats.

### 2. Knock-Out

Message	DocumentCode	DocumentSubType	ResultStatus	Comments
DT_START_LIST	DDGEEPUU	N/A	N/A	Start List
DT_RESULT	DDGEEPUU	N/A	LIVE_UPDAT	Real Time Results
DT_RESULT	DDGEEPUU	N/A	UNOFFICIAL	Unofficial Results
DT_RESULT	DDGEEPUU	N/A	LIVE_LAST	End of Real Time Results
DT_RESULT	DDGEEPUU	N/A	OFFICIAL	Official Results
DT_BRACKETS	DDGEE000	N/A	INT./OFFI.	Brackets
DT_STATS	DDGEE000	TEAM_RANKING	N/A	Team Ranking Statistics
DT_STATS	DDGEE000	IND_RANKING	N/A	Ind. Ranking Statistics
DT_STATS	DDGEE000	TOU	N/A	Tournament Statistics
DT_STATS	DDGEE000	CUM	N/A	Team A Stats.
DT_STATS	DDGEE000	CUM	N/A	Team B Stats.



## 5 Codes

### 5.1 Global Codes

Code Entity	Format	Entity Description	Link
CC @AccreditationStatus	S(6)	Defined in ODF Common Codes Document  See entity Accreditation Status • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @Competition	S(7)	Defined in ODF Common Codes Document  See entity Competition • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @Country	S(3)	Defined in ODF Common Codes Document  See entity Country • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @Discipline	S(2)	Defined in ODF Common Codes Document  See entity Discipline • The entity's attribute to be used is Id  Valid disciplines contains Non-Sport attribute='N'	<a href="#">Link</a>
CC @DisciplineGender	S(1)	Defined in ODF Common Codes Document  See entity Discipline Gender • The entity's attribute is to access to the Discipline Gender entity is the combination of Discipline + Gender	<a href="#">Link</a>
CC @Event	S(3)	Defined in ODF Common Codes Document  See entity Event • The entity's attribute to be used is Event • It will be related to Discipline and Gender	<a href="#">Link</a>
CC @Function	S(30)	Defined in ODF Common Codes Document  See entity Function • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @MedalType	S(9)	ME_BRONZE : Bronze ME_GOLD : Gold ME_SILVER : Silver	
CC @Organisation	S(3)	Defined in ODF Common Codes Document  See entity Organization • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @PersonGender	S(1)	Defined in ODF Common Codes Document  See entity Person Gender • The entity's attribute to be used is Id	<a href="#">Link</a>
CC @Phase	S(1)	Defined in ODF Common Codes Document  See entity Phase	<a href="#">Link</a>



Code Entity	Format	Entity Description	Link
		<ul style="list-style-type: none"> <li>The entity's attribute to be used is Phase</li> <li>It will be related to Discipline, Gender and Event</li> </ul>	
CC @ResultStatus	S(15)	<p>INTERIM : Results of the top x competitors at the logical, predefined points released during or at the end of a event unit. Every next competitor may change the standing of those who already have results at a predefined point.</p> <p>INTERMEDIATE : Results of the top x competitors at the logical, predefined points during race or match. The results at those points cannot change. The number of competitors may vary. In the case of Bracket message its progression will be consider INTERMEDIATE until the last Event Unit is sent as OFFICIAL.</p> <p>LIVE_FULL : This status is used only in real time messages.</p> <p>LIVE_LAST : This status is used only in real time messages.</p> <p>LIVE_MANDATORY : This status is used only in real time messages.</p> <p>LIVE_UPDATE : This status is used only in real time messages.</p> <p>PARTIAL : Results of the top x competitors are released at the end of a race and before all competitors finished their competition. The results including the ranking, from the competitors that finished the race do not change with the results from new competitors.</p> <p>OFFICIAL : Results of the competition released as soon as the event is officially confirmed taking into account the resolution of the protests, etc.</p> <p>UNOFFICIAL : Results of the competition released as soon as the event is over, not waiting any official decision of the International Federation. The correctness of data must be assured.</p>	
CC @SportClass	S(8)	<p>Defined in ODF Common Codes Document</p> <p>See entity Sport Class</p> <ul style="list-style-type: none"> <li>The entity's attribute to be used is Id</li> </ul>	
CC @Unit	S(2)	<p>Defined in ODF Common Codes Document</p> <p>See entity Event Unit</p> <ul style="list-style-type: none"> <li>The entity's attribute to be used is Eventunit</li> <li>It will be related to Discipline, Gender, Event and Phase</li> </ul>	<a href="#">Link</a>
CC @VenueCode	S(3)	<p>Defined in ODF Common Codes Document</p> <p>See entity Venue</p> <ul style="list-style-type: none"> <li>The entity's attribute to be used is Id</li> </ul>	<a href="#">Link</a>

## 5.2 Ice Hockey Codes

Code Entity	Format	Entity Description
CC @Action	S(7)	<p>G : Goal</p> <p>GK : Goalkeeper in, at the beginning of the game, or out at the end of the game</p> <p>GWS : Game winning shoot only for @code GWS</p> <p>GWG : Game winning goal only for @code GWS</p> <p>P : Penalty</p>



Code Entity	Format	Entity Description
		PTY : Penalty shot TMO : Time-out
CC @ActionRole	S(5)	ASST_1 : Assistant 1 (in goal action, if assistant 1 is awarded) ASST_2 : Assistant 2 (in goal action, if 2 assistants are awarded) GK : Goal keeper (in penalty shoot, GWS and GWG actions) GK_IN : Goalkeeper in (in goalkeeper action) GK_OUT : Goalkeeper out (in goalkeeper action) SCR : Goal scorer (in goal action) SHOT : Penalty shooter, in penalty shoot, GWS and GWG actions
CC @Assignment	S(2)	1 : Line 1 2 : Line 2 3 : Line 3 4 : Line 4 GK : Line up goalkeeper
CC @Bracket	S(3)	FNL: Finals
CC @BracketItems	S(8)	CLASS_SFL : Classification games semi-finals (just in women's competition) CLASS_FNL : Classification games finals (just in women's competition) FNL : Finals QLF : Qualification play-off (just in men's competition) QFL : Quarterfinals SFL : Semifinals (Code values QLF and QFL do not apply for Paralympics).
CC @GoalType	S(7)	AG : Awarded goal EA : Extra attacker ENG : Empty net goal EQ : Equal strength EQ-EA : Equal with extra attacker PP1 : Power play - 1 player PP1-EA : Power play 1 player with extra attacker PP1-ENG : Empty net goal while in Power play 1 player PP2 : Power play - 2 players PP2-EA : Power play 2 players with extra attacker PP2-ENG : Empty net goal while in Power play 2 players PS : Penalty Shot SH1 : Shorthanded - 1 player SH1-EA : Shorthanded 1 player with extra attacker SH1-ENG : Empty net goal while in Shorthanded 1 player SH2 : Shorthanded - 2 players SH2-EA : Shorthanded 2 players with extra attacker SH2-ENG : Empty net goal while in Shorthanded 2 players
CC @Hand	S(1)	L : Left R : Right
CC @IRM	S(5)	DSQ : Disqualified
CC @PenaltyDesc	S(6)	ABUSE : Abuse of Official by Players/Team Officials AD-EQ : Measurement of Equipment ATTUDE : Captain and Alternate Captain Complaint BD-CK : Women Body Checking BENCH : Bench Minor Penalty BLOOD : Prevention of Infection by Blood BOARD : Boarding BR-ST : Broken Stick BUT-E : Butt-Ending CHARG : Charging



Code Entity	Format	Entity Description
		CHE-B : Checking from Behind CHE-H : Checking to the Head and Neck Area CH-PL : Infringement of Change of Players Procedure CLIPP : Clipping CROSS : Cross-Checking DELAY : Delaying the Game DIVE : Diving ELBOW : ELBOW = Elbowing EQ-INF : Illegal or Dangerous Equipment (Equipment Infraction) EX-RP : Excessive Roughness FAL-P : Falling on the Puck by the Player/Goalkeeper FISTI : Fisticuffs GA-MI : Game Misconduct (GM) GK-PEN : Goalkeeper Penalties HAND-P : Handling the Puck with the Hands By a Player/Goalkeeper H-BUT : Head-Butting HI-ST : High Sticking HOLD : Holding HOOK : Hooking HO-ST : Holding the Stick INTRF : Interference INT-S : Interference With Spectators KICK : Kicking KNEE : Kneeing L-BCH : Players Leaving the Penalty Bench MATCH : Match Penalty MISC : Misconduct OTHER : Other Penalties P_SHO : Penalty Shot REFUSE : Refusing to Start Play-Team on/off the Ice ROUGH : Roughing SLASH : Slashing SPEAR : Spearing T-BCH : Team Officials Leaving the Players Bench THR-ST : Throwing a Stick or any Object TOO-M : Too Many Players on the Ice TRIP : Tripping
CC @PenaltyShot	S(8)	LOST_PCK : Lost the puck - Only for penalty shot for GWS MISS : Missed - Only for penalty shot during the game MISS_GP : Missed (goal post) - Only for penalty shot for GWS MISS_H : Missed (height) - Only for penalty shot for GWS MISS_L : Missed (left) - Only for penalty shot for GWS MISS_R : Missed (right) - Only for penalty shot for GWS SCRDR : Scored - Only for penalty shot for GWS SVD_GOL : Saved by Goalie - Only for penalty shot for GWS
CC @Period	S(7)	P1 : 1st Period P2 : 2nd Period P3 : 3rd Period OT : Overtime GWS : Game Winning Shot
CC @Position	S(2)	D : Defence F : Forward GK : Goalkeeper
CC @ResultType	S(13)	FORFEIT : Forfeit for just the team including this code (just in the Event Unit Results message) FORFEIT_2 : Forfeit for the two teams (just in the Event Unit



Code Entity	Format	Entity Description
		Results message), to indicate the both teams lost IRM : Invalid Result Mark (in the Standings of group in a team competition message and Event final ranking message) RANK : Rank (in the Standings of group in a team competition message and Event final ranking message) SCORE : Competitor's score (just in the Event Unit Results message) (Both forfeits and score are for the event unit results message, while rank and invalid result are for the standings and event final ranking messages).
CC @Statistics	S(12)	CUM : Cumulative Statistics of team and individual IND_RANKING : Ranking of Individual tournament statistics TEAM_RANKING : Ranking of Team tournament statistics TOU : Tournament Statistics
CC @WLT	S(1)	W : Won L : Lost T : Tie





## 6 General definitions

### 6.1 ODF Message Structure

ODF interface defines ODF messages. ODF messages are data structures based on standard XML.

```
<?xml version="1.0" encoding="UTF-8"?>    ←Declaration
<OdfBody                                ←ODF Header
  DocumentType=...
  DocumentCode=... >
  [body]                                  ←ODF Body
</OdfBody>
```

#### 6.1.1 ODF Declaration

The first line in an ODF message is the XML declaration. It defines the XML version and the encoding used, UTF-8.

#### 6.1.2 ODF Header

The next line after the declaration is the ODF header.

ODF header is the root element and it is always introduced by the element Odfbody.

Header attributes identifies ODF messages uniquely.

The message unique identifier is the aggregation of the following attributes:

- DocumentCode,
- DocumentSubcode (Optional)
- DocumentType and
- DocumentSubtype (Optional)

The following table describes the ODF header attributes. “M” designates mandatory attributes that must appear in all ODF messages. “O” designates optional attributes. Optional attributes can be required depending on other attributes in the header.

Attribute	M/O	Value	Comment
-----------	-----	-------	---------





DocumentCode	M	S(9)	RSC for Results messages DDGEEPUU, where DD=discipline, G=discipline's gender, EEE=event, P=phase, UU=unit  DocumentCode can have many different values depending on the nature of the message. Each message defines the value for this header attribute.
DocumentSubcode	O	S(10)	Extension for the DocumentCode It is used when the RSC is not enough and it is required several different messages with the same RSC.
DocumentType	M	S(30)	Message Type (e.g. DT_RESULTS)
DocumentSubtype	O	S(20)	Attribute used to extend DocumentType for some messages.
Version	M	1..V	Version of the message
ResultStatus	O	CC @ResultSt atus	Status of the messages for results message
Language	O	CC @Languag e	Language of the content of the message.  If the message accepts multi- language and the attribute is not included, then by default the language is English  If the message does not accept multi-language, then the attribute must not be included
FeedFlag	M	"P"- Production "T"-Test	Test message or production message.
Date	M	Date	Date when the message is generated, expressed in the local time zone where the message was produced.
Time	M	MillisTime	Time up to milliseconds when the message is generated, expressed in the local time zone where the message was produced.



LogicalDate	M	Date	<p>Logical Date of events that extends until next day.</p> <p>If an event unit continues after midnight (24:00), all messages produced will be considered as happening at the logical date on which the event unit began (e.g. for a session which began at 21:00 on Aug 2 and ended at 1:20 on Aug 3, the output will be dated Aug 2).</p> <p>The end of the logical day is defined by default at 03:00 a.m.</p> <p>For messages corrections, like invalidating medals or Records, it will be the LogicalDate of the correction.</p> <p>Logical Date is expressed in the local time zone where the message was produced.</p>
Venue	O	CC @VenueCode	Venue where the message is generated.
RTSerial	O	Numeric	<p>Sequence number for ODF-RT messages.</p> <p>RTSerial starts with 1 each Real Time session at every different venue.</p>
Serial	M	Numeric	<p>Sequence number for ODF-PiT messages.</p> <p>Serial starts with 1 each day session at every different venue.</p> <p>In the case of RT transmission, this attribute contains the last PiT message Serial number in order to ensure that RT information is processed over the last PiT information.</p>

### 6.1.3 ODF Body

The next line after the ODF header is the body of the ODF Message.

Declaration	<?xml version="1.0" encoding="UTF-8"?>
Header	<OdfBody DocumentType=... > <Competition Code= ...>
Body	<p>.... ← &lt;Competition&gt; element</p> <p>&lt;/Competition&gt;</p> <p>&lt;Message&gt; Athlete nnnn disqualified... ← &lt;Message&gt; element</p>



```
</Message>  
</OdfBody>
```

Some important considerations for the ODF messages:

Mandatory elements are sent always.

- Empty optional elements are not sent neither in ODF-PiT nor ODF-RT
- Mandatory attributes are sent always. If they do not have any value then they are sent empty (Attribute = "")
- Empty optional attributes are sent either empty (Attribute = "") or not sent.
- Order of the elements inside an ODF message must be followed as defined in the ODF documentation. Elements must be sorted according what it is stated in the corresponding ODF message definition
- All elements in an ODF message are identified by one of the attributes (e.g. Code for an Competitor element) or a set of the attributes (e.g. Type + Code for an Extension element)
- ODF is being designed in such way that elements and attributes are organized to minimize redundancy and dependency. The objective is to isolate data so that additions, deletions, and modifications of an attribute can be made with just one message and then propagated through the rest of the messages via the defined references. However, in some very special circumstances, some important information (such as team members) will be repeated in order to make some message processing a little bit easier. Also, the ODF Light definition repeats some data across messages to simplify message processing to ODF Light Customers.
- ODF Light is a set of self-contained messages with the aim of simplifying the message processing to the clients as they do not have to resolve references

#### **<Competition> Element**

An ODF message contains a mandatory element <Competition>.

Element	Attribute	M/O	Value	Comment
Competition	Code	M	CC @Competition	Unique ID for the competition

#### **<Message> Element**

All ODF messages can have an optional element <Message> to include free non-formatted text in case more information is needed.

<Message> element follows the <Competition> element.

#### **<Competitor> Element**

ODF messages contain an optional element <Competitor> to include information for Athletes, Teams or Groups. Group is used when competitors of same or different organizations participate in an event together but they are not considered a team and their results are individuals.



Element	Attribute	M/O	Value	Comment
Competitor	Code	M	S(20) with no leading zeroes	Competitor's ID
	Type	M	T, A, G	T = Team A = Athlete G = Group

If Competitor is an Athlete:

- <Competitor> element contains the attribute **Type** = "A"
- <Competitor> element contains the attribute **Code** = AthleteID. This attribute links to an athlete appearing in the DT\_PARTIC message.
- <Competitor> element contains the element <Composition>. This element is provided always.
- <Composition> element contains the mandatory element <Athlete>. Both codes in the <Athlete> and in the <Competitor> elements are the same, the AthleteID
- <Athlete> element contains the mandatory attribute **Order** with value 1.
- Athlete's **Bib** (if applicable) will be only sent in Competitor /Composition /Athlete element.
- Sport specific extensions are in the <Athlete> element and defined in the ODF Discipline Data Dictionary.

```
<Competitor Code="A1" Type="A">  
  <Composition>  
  
    <Athlete Code="A1" Order="1"/>  
  
  </Composition>  
</Competitor>
```

If Competitor is a Team:

- <Competitor> element contains the attribute **Type** = "T"
- <Competitor> element contains the attribute **Code** = TeamCode. This attribute links to a team appearing in the DT\_PARTIC\_TEAMS message.
- <Competitor> element contains the element <Composition>. This element is optional because there are situations where the team members are not known when message is provided.
- <Composition> element contains the mandatory element <Athlete> with the list of athletes that are the team members. The **Code** attribute links to an athlete appearing in the DT\_PARTIC (athletes) message.
- Although team members for the whole event will be able to be found in the DT\_PARTIC\_TEAMS message, the specific ODF Sport messages will also include always the team's members particularized for the message.



- <Athlete> element contains the mandatory attribute **Order** with the team members sort order.
- Team’s **Bib** (if applicable) will be sent in Competitor element.
- Team members’ **Bib** (if applicable) will be sent in Competitor /Composition /Athlete element.
- Team sport specific extensions are in the <Competitor> element and defined in the ODF Discipline Data Dictionary.
- Team members sport specific extensions are in the <Athlete> element and defined in the ODF Discipline Data Dictionary.

```

<Competitor Code="T1" Type="T">
  <Composition>

    <Athlete Code="A1" Order=.../>

    <Athlete Code="A2" Order=.../>

    ...

  </Composition>
</Competitor>

```

If Competitor is a Group:

- <Competitor> element contains the attribute **Code** = NOC/NPC when the athletes belong to the same organization, otherwise MIXn.
- There will be several Competitor /Composition /Athlete elements, containing the group competitor members.

## 6.2 ODF Data Types and Formats

This chapter describes data types and formats for the attributes in the ODF messages.

Format	Format Description
CC @CodeEntity	Set of values included in the CodeEntity. CodeEntity is the name of the entity that identifies a particular set of codes.
String	Text strings without a predetermined length
S(n)	Text strings with a length of up to n characters
Date	YYYYMMDD
MillisTime	HHMMSSmmm <ul style="list-style-type: none"> <li>• HH: hour</li> <li>• MM: minutes</li> <li>• SS: seconds</li> </ul>



Format	Format Description
	<ul style="list-style-type: none"> <li>• mmm: milliseconds</li> </ul> <p>All formatted with leading zeroes (example: 090303020).</p>
DateTime	<p>YYYY-MM-DDThh:mm:ssTZD (e.g.: 2006-02-06T13:00:00+01:00)</p> <ul style="list-style-type: none"> <li>• YYYY: year</li> <li>• MM: Month</li> <li>• DD: day</li> <li>• hh: hour</li> <li>• Mm: minutes</li> <li>• Ss: seconds</li> <li>• TZD in the Time Zone Designator (Z or +hh:mm or -hh:mm) where the message was produced and when the message was produced. "Z" is the zone designator for the zero UTC offset</li> </ul>
Boolean	'true' or 'false'
Numeric	<p>Number with no predetermined length</p> <ul style="list-style-type: none"> <li>• If the number starts with 9 (e.g. 99), then leading zeroes are removed. Example: 10 in format 99 is 10, and 3 in format 99 is 3.</li> <li>• If the number starts with 0 (e.g. 00), then leading zeroes are kept. Example: 10 in format 00 is 10, and 3 in format 00 is 03.</li> <li>• If nothing is stated, it is assumed that the leading zeroes are removed</li> </ul>
N(n)	Number with a length up to n digits
N(n).N(m)	<p>Number with decimal</p> <ul style="list-style-type: none"> <li>• N(n) integer part up to n digits</li> <li>• N(m) decimal part up to m digits</li> </ul>
Specific pattern	Attributes with an specific pattern not specified in this table
Free text	<p>Free text is never used in a message attribute, but it can be used inside the element content</p> <p>Example &lt;element&gt;Free text goes in here&lt;/element&gt;</p>

### 6.2.1 Rules for rounding numbers

This chapter describes the rules for rounding numbers to use in all messages, unless other rules are specified in the sport documentation. (sport rules are applied before the transmission of the data)



- Last digit in the number decimal part < 5 (0, 1, 2, 3, 4) → no rounding (i.e. 1,544 = 1, 54)
- Last digit in the number decimal part >= 5 (5, 6, 7, 8, 9) → rounding up (i.e. 1,545 = 1, 55)

### 6.2.2 Measures format

This chapter describes the measure formats and the conversion rules to use in all messages, unless other formats or rules are specified in the sport documentation.

Measure	Value	Format	Example
<b>Height/Distance</b>	N(1).N(2)m	9.00m	1.83m
	N(3)cm	900cm	183cm
	N(1)'N(2)''	9'09''	6'0''
<b>Weight</b>	N(3)kg	900kg	100kg
	N(3)lbs	900lbs	220lbs
<b>Temperature</b>	N(2)°C	90°C	35°C
	N(3)°F	990°F	95°F
<b>Distance</b>	N(3).N(3)km	90.000km	1.789km
	N(3).N(3)mi	90.000m	6.123mi
<b>Speed</b>	N(2).N(3)m/s	90.000m/s	1.789m/s
	N(3).N(3)mph	90.000mph	6.123mph
	N(3).N(3)km/h	90.000km/h	3.890km/h
<b>Precipitation</b>	N(2)cm	90cm	2cm
	N(2)in	90in	1in

### 6.2.3 Rules for measures conversion

This chapter describes measure the conversion rules to use in all messages, unless other rules are specified in the sport documentation. When using these conversions for athlete heights and weights and fore mentioned rounding rules must be applied.

Measure	Conversion Rules
<b>Distance</b>	1 in = 0,0254 m
	1 ft = 12 in = 0,3048 m
	1 yd = 3 ft = 36 in = 0,9144 m
	1 mi = 1.760 yd = 5.280 ft = 63360 in = 1609,344 m
	1 nmi (nautical mile) = 1,852 m
<b>Speed</b>	1 km/h = 3,6 m/s
	1 kts= 1 nmi/h
<b>Weight</b>	1 lbs = 0,453 592 37 kg



Measure	Conversion Rules
Temperature	$T[^{\circ}\text{F}] = 1,8 \times T[^{\circ}\text{C}] + 32$ $T[^{\circ}\text{C}] = (T[^{\circ}\text{F}] - 32) / 1.8$

### 6.3 ODF Message Update

An update occurs when it is received a message whose identification is coinciding with the identification of an already received message.

Message identification is the combination of the header attributes: *DocumentCode* + *DocumentSubcode* + *DocumentType* + *DocumentSubtype*.

#### ODF PiT:

The latest message substitutes completely the previous received message.

There are specific messages, (with an UPDATE suffix) for updating some elements and keep the rest of the message, e.g. DT\_SCHEDULE\_UPDATE, DT\_PARTIC\_UPDATE, DT\_PARTIC\_TEAMS\_UPDATE or DT\_PARTIC\_HORSES\_UPDATE.

#### ODF RT:

When the message header contains the attribute **ResultStatus** = LIVE\_FULL or LIVE\_LAST or LIVE\_MANDATORY, the latest message substitutes completely the previous received message.

When the message header contains the attribute **ResultStatus** = LIVE\_UPDATE, only the elements and attributes in the new message must be updated by message receiver. Elements and attributes provided before must be kept by message receiver.

- New message only includes the changed attributes, with the exception of the mandatory attributes that are always sent even if there is no modification.

When an attribute sent in the past has no value anymore, send the same message with ResultStatus=LIVE\_MANDATORY and

- If the attribute is mandatory send it empty (Attribute="")
- If the attribute is optional either do not send it or send it empty







## 7 DOCUMENT CONTROL

### 7.1 File Reference

ODF/INT012-R3-v4.5 APP (IH)

### 7.2 Version history

Version	Date	Comments
R3 v1.0	12 Mar 2012	Submitted for review version
R3 v1.1	08 May 2012	English revision (pending to review interface data meeting comments)
R3 v2.0	22 Jun 2012	Revision after IDM
R3 v2.1	05 Jul 2012	Some changes
R3 v3.0	29 Aug 2012	New messages proposal (in blue). Messages deletion proposal (in pink). ODF light information deletion proposal. Changes in start list and pool standing. Changes after PT1.
R3 v3.1	28 Sep 2012	CR306 and changes after PT2 (SFR version)
R3 v3.1	11 Oct 2012	Reviewer Comments included - (SFA version)
R3 v3.2	14 Dec 2012	Defects and version APP
R3 v3.3	31 Jan 2013	CR316. Brackets and Start List. Codes
R3 v3.4	15 Mar 2013	Defects and new generation of the document
R3 v4.0	10 May 2013	CR426 applied
R3 v4.1	09 Aug 2013	Changes applied (CR827, CR666, CR906, CR929, CR959 and CR1071), and some minor corrections
R3 v4.2	09 Aug 2013	CR929 applied (missing codes)
R3 v4.3	20 Sep 2013	Changes applied (CR1265 and CR1253), and some minor corrections
R3 v4.4	20 Sep 2013	Change applied (CR1285)
R3 v4.5	12 Dec 2013	Changes applied (CR1529 and CR1633)

### 7.3 Change Log

Version	Status	Changes on version
R3 v1.0	SFR	• First version.
R3 v1.1	SFR	• English revision (pending to review interface data meeting comments).
R3 v2.0	SFA	• CC: @ActionRole – GK_IN and GK_OUT can be used for beginning and end of game. • CC: @Assignment value “EG” removed.



Version	Status	Changes on version
		<ul style="list-style-type: none"> <li>• CC: @EntryStatus removed.</li> <li>• CC: @Statistics modified.</li> <li>• DT_GLOBAL_GM and DT_GLOBAL_GN marked as Global.</li> <li>• DT_CONFIG and DT_WEATHER not used here.</li> <li>• DT_PARTIC: EventEntry/@RegisteredEvent should not exist. Removed.</li> <li>• DT_PARTIC_TEAMS: /RegisteredEvent /EventEntry – E_SHIRT removed.</li> <li>• DT_RESULTS: /UnitActions /UnitAction /ExtendedAction: added EA_GOAL_UNASSISTED to know if a goal was unassisted.</li> <li>• DT_RESULTS: /UnitActions /UnitAction /ExtendedAction: added EA_LAST_GWS to know the last shot for each team.</li> <li>• DT_RESULTS: Result /Competitor /Stats /Stat attributes are also PiT.</li> <li>• DT_RESULTS: / Competitor / Composition /Athlete /Stats /Stat – removed duplicated IH_SVS and IH_SVP.</li> <li>• DT_RESULTS: / Competitor / Composition /Athlete /Stats /Stat – IH_GA, IH_GA_TOURN, IH_SVP, IH_MIP, IH_SOGG, IH_SOGG_TOURN, IH_SVS, IH_SVS_TOURN only for Goalkeepers.</li> <li>• DT_RESULTS: / Competitor / Composition /Athlete /ExtendedResults /ExtendedResult –CURRENT not used anymore (current player impossible to know in IH).</li> <li>• DT_RESULTS: / Competitor / Composition /Athlete /ExtendedResults /ExtendedResult – IH_GK_FACES_GWS to know if and when goalkeeper faces GWS.</li> <li>• DT_START_LIST: UnitInfo /Competitor is not used.</li> <li>• DT_START_LIST: Competitor /Composition /Athlete /EventUnitEntry codes must have values.</li> <li>• DT_START_LIST: Competitor /Composition /Athlete /EventUnitEntry – new attribute EU_ENTRY / IH_NOT_DRESSED.</li> <li>• DT_START_LIST: EventUnitEntry – IH_UNIFORM is now a free text.</li> <li>• DT_STATS: Header explained in detail.</li> <li>• DT_STATS: StatsItem – removed duplicated PPGA and SHGA.</li> <li>• DT_STATS: order for competitor is NOC. Order for athlete is team roster.</li> <li>• DT_STATS: Competitor /StartsItems/StatsItem – attributes separated between CUM and TEAM_RANKING messages.</li> <li>• DT_STATS: Competitor /StartsItems/StatsItem – IH_DSQ must have a value.</li> <li>• DT_STATS: Competitor /Composition /Athlete /StartsItems/StatsItem – attributes separated between CUM and IND_RANKING messages.</li> <li>• DT_STATS: Competitor /Composition /Athlete /StartsItems/StatsItem – attribute MVP has been removed.</li> <li>• DT_STATS: Competitor /Composition /Athlete /StartsItems/StatsItem – IH_BEST_F, IH_BEST_GK, IH_BEST_D must have a value.</li> <li>• DT_RT_RESULTS: Triggers changed. Updated in /Competitor /Stats /Stat and Competitor / Composition /Athlete /Stats /Stat.</li> </ul>
R3 v2.1	SFA	<ul style="list-style-type: none"> <li>• DT_RESULTS: Result /Competitor /Composition /Athlete /ExtendedResults /ExtendedResult / IH_GK_FACES_GWS removed.</li> </ul>
R3 v3.0	DRAFT	<ul style="list-style-type: none"> <li>• New Code values for CC@GoalType.</li> <li>• New messages proposal: Added the definition of DT_CUMULATIVE_RESULT and DT_RT_CUMULATIVE_RESULT messages (marked in blue color). These messages should be used (instead of DT_RESULT_SUMMARY and DT_RT_RESULT_SUMMARY) at the moment that these changes are approved until then the deprecated messages should be still used.</li> <li>• Deletion messages proposal: DT_RESULT_SUMMARY and DT_RT_RESULT_SUMMARY (marked in pink color). These messages</li> </ul>



Version	Status	Changes on version
		<p>should be deleted at the moment that these changes are approved until then the deprecated messages should be still used.</p> <ul style="list-style-type: none"> <li>• Deletion extensions proposal: ODF Light extensions from the DT_START_LIST Message. Marked in pink color the ODF Light extensions. These extensions should be deleted at the moment that these changes are approved until then they should be still used.</li> <li>• DT_BRACKETS: BracketItem /CompetitorPlace /ExtCompPlaces /ExtCompPlace Element – new values for IH_BRK_CODE.</li> <li>• DT_POOL_STANDING: headers changed.</li> <li>• DT_POOL_STANDING: triggers changed.</li> <li>• DT_POOL_STANDING: Result/ Competitor/ExtendedResults /ExtendedResult – IH_OPPONENT and extensions removed.</li> <li>• DT_START_LIST: triggers changed.</li> </ul>
R3 v3.1	SFR	<ul style="list-style-type: none"> <li>• CR306 and changes after PT2</li> </ul>
R3 v3.1	SFA	<ul style="list-style-type: none"> <li>• CC @PenaltyShot: SCRD value is only for GWS.</li> <li>• DT_HIST_REC_UPDATE removed from applicable messages.</li> <li>• DT_RESULT (PiT &amp; RT): UnitActions /UnitAction /ExtendedAction – clarifications. Column RT Only and RT Trigger added.</li> <li>• DT_RESULT (PiT &amp; RT): added UnitActions /UnitAction /ExtendedAction/ IH_ET_PERIOD.</li> <li>• DT_RESULT (PiT &amp; RT): added UnitActions /UnitAction /ExtendedAction/ IH_PTY_TYPE_PS.</li> <li>• DT_RESULT (PiT &amp; RT): UnitActions /UnitAction/ExtendedAction. Do not send IH_PTY_PIM for time “0”.</li> <li>• DT_RESULT (PiT &amp; RT): UnitActions /UnitAction /ExtendedAction/ IH_LAST_GWS modified. There is only one with value Y for a given GWS period (and not one for each team).</li> <li>• DT_RESULT (PiT &amp; RT): percentage values changed from N(2).N(2) to N(3).N(2) to allow value 100.00%.</li> <li>• DT_STATS: percentage values changed from N(2).N(2) to N(3).N(2) to allow value 100.00%.</li> <li>• DT_START_LIST: Start / Competitor /PreviousResult can be used.</li> <li>• DT_WEATHER not used.</li> <li>• Light extension: ODF Light extensions from the DT_START_LIST and DT_CUMULATIVE_RESULT Message marked in pink colour. These extensions will be deleted at the moment that these changes are implemented by Omega for Non-Olympics projects from those messages and included in new messages.</li> <li>• Light Extensions: DT_START_LIST PreviousResults defined as non-light extension.</li> <li>• DT_EXTRA_DATA renamed to DT_PLAY_BY_PLAY.</li> <li>• SortOrder attribute clarified so that any result sort order change from the initial start list order will be provided in the SortOrder attribute (or any extension used to sort competitors) of the DT_RT_RESULT messages(this includes ranked, none-ranked and IRM athletes/team).</li> </ul>
R3 v3.2	APP	<ul style="list-style-type: none"> <li>• DT_RESULT: 86171 – Period for Stats can be OT or GWS.</li> <li>• Version from SFA to APP</li> </ul>
R3 v3.3	APP	<ul style="list-style-type: none"> <li>• CR316: DT_START_LIST - IH_GAME_NUMBER added to UnitInfo</li> <li>• CR316: DT_BRACKETS - BracketItem /Unit: @Unit is now optional.</li> <li>• Codes: Bracket QFL (Quarterfinal) is also for women.</li> </ul>
R3 v3.4	APP	<ul style="list-style-type: none"> <li>• 89356: DT_RESULT – UnitActions /UnitAction /ExtendedAction. IH_PTY_PIM is a text, so that values like “2+2+10” are allowed.</li> <li>• 90670: DT_START_LIST – Start /Competitor /Composition /Athlete /EventUnitEntry /IH_NOT_DRESSED. Description, additional description and expected of the code corrected.</li> <li>• 90958: DT_RT_RESULT – Triggers: "end" replaced by "period".</li> </ul>



Version	Status	Changes on version
		<p>DT_STATS - Trigger corrected.</p> <ul style="list-style-type: none"> <li>• INC0011588: DT_RESULT - element Competition /Result, attributes Rank and RankEqual removed. Not used in Ice Hockey.</li> <li>• New document format done (also in HTML).</li> </ul>
R3 v4.0	APP	<p>(CR426 applied):</p> <ul style="list-style-type: none"> <li>• DT_START_LIST: Updated the attribute Order (at element Start /Competitor /Composition /Athlete) for the GK, due to new rules (C54B).</li> <li>• DT_RESULT: Added the codes for Points and Face offs statistics for Competitor and Team' members (at elements Result /Competitor /Stats /Stat and Result /Competitor /Composition /Athlete /Stats /Stat) (due to C74).</li> <li>• DT_RANKING: Updated the sections "Structure", "Triggers" and "Values" to include the element Result /Competitor /ExtendedResults /ExtendedResult, and the corresponding codes (due to C76F).</li> <li>• Ice Hockey Codes: Added the codes (AE and AG) in CC@GoalType entity (due to C74).</li> </ul>
R3 v4.1	APP	<ul style="list-style-type: none"> <li>• (CR827-related to def. #91835): DT_PARTIC_UPDATE: Added the entry E_IRM to support Disqualification of a team member.</li> <li>• (CR666): Added Venue attribute as mandatory for DT_PARTIC / DT_PARTIC_UPDATE and DT_PARTIC_TEAMS / DT_PARTIC_TEAMS_UPDATE messages.</li> <li>• (CR906): Removed ODF Light elements from the DT_START_LIST message.</li> <li>• (CR929-included the codes -from CR426- also in RT message): DT_RESULT / DT_RT_RESULT: Updated the codes for Points and Face-offs statistics of competitor and team' members (added due CR426) to include the RT trigger.</li> <li>• (CR959): Updated the entity codes CC @PenaltyDesc, have been added the codes (DIVE, T-BCH), and have deleted the codes (DIS-N, UN-SP).</li> <li>• (CR1071-related to def. #95247): Removed the codes (OTW, OTL) from the entity codes CC @WLT.</li> </ul>
R3 v4.2	APP	<ul style="list-style-type: none"> <li>• (CR929-missing codes): DT_RESULT / DT_RT_RESULT: Added the codes of statistics for Points and PIM in Tournament (IH_PTS_TOURN and IH_PIM_TOURN) of competitor and team' members.</li> </ul>
R3 v4.3	APP	<ul style="list-style-type: none"> <li>• (CR1265-related to def.: #97095, #97288, #97290, #97291): <ul style="list-style-type: none"> <li>- Ice Hockey Codes: Updated the description of the code CHE-H from the entity codes CC @PenaltyDesc.</li> <li>- DT_RESULT/DT_RT_RESULT: Updated the RT_Only column for most codes of the elements UnitActions/UnitAction/ExtendedAction and Result/Competitor/Composition/Athlete/Stats/Stat, to be sent also in PIT message.</li> <li>- DT_RESULT/DT_RT_RESULT: Included a comment when is expected the code IH_GOAL_UNASSISTED (at element UnitActions /UnitAction /ExtendedAction).</li> <li>- DT_STATS: Included the element Stats /StatsItems /StatsItem with the codes IH_GP, IH_SPEC and IH_SPEC_AVG for TOU statistics (DocumentSubType="TOU").</li> </ul> </li> <li>• (CR1253): <ul style="list-style-type: none"> <li>- DT_RESULT/DT_RT_RESULT: (same as above def.#97288, #97290).</li> <li>- DT_STATS: (same as above def.#97291).</li> <li>- DT_POOL_STANDING: Updated the Rank attribute, in order to add "-" as possible value (as well as blank, that could be when get an IRM), and also updated its comment accordingly.</li> </ul> </li> </ul>



Version	Status	Changes on version
		<ul style="list-style-type: none"> <li>- Ice Hockey Codes: Updated the entity codes CC @Action, has been added the code for Time-out action (TMO).</li> <li>- DT_RT_RESULT: Updated the RT-Triggers, removed the triggers of the messages LIVE_MANDATORY and LIVE_LAST (since should follow general definition), and have been included to the LIVE_UPDATE (if applicable). Also, have been updated the RT triggers of some codes.</li> <li>- DT_RT_RESULT: Added the code for the current period IH_CURRENT_PERIOD at the UnitInfos/UnitInfo element.</li> <li>• Some typos corrected.</li> </ul>
R3 v4.4	APP	<ul style="list-style-type: none"> <li>• (CR1285-related to def.#99448):</li> <li>- Ice Hockey Codes: Updated the descriptions of codes ATTUDE, HAND-P, AD-EQ, THR-ST and BD-CK from the entity codes CC @PenaltyDesc.</li> </ul>
R3 v4.5	APP	<ul style="list-style-type: none"> <li>• (CR1529):</li> <li>DT_RESULT / DT_RT_RESULT: Added the code IH_PTY_TYPE_AG at the element UnitActions /UnitAction /ExtendedAction, to be used in case the penalty leads to Awarded Goal.</li> <li>• (CR1633):</li> <li>DT_STATS: Updated the format of the value to minutes and seconds, separated by colon (like "MM:SS" or "MMM:SS") for codes IH_TSH, IH_TSA, IH_PAVG (at element Stats /Competitor /StatsItems /StatsItem), and, for codes IH_TM, IH_MG, IH_ATS, IH_PAVG (at element Stats /Competitor /Composition /Athlete /StatsItems /StatsItem).</li> </ul>



*This page has been intentionally left blank*