



Olympic Data Feed

ODF Ice Hockey Dictionary

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Technology Department
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DOCUMENT CONTROL

Version history

Version	Date	Comments
1.0	01 July 2011	Submitted for review version
1.1	15 July 2011	SFA Version
1.2	29 July 2011	APP Version
1.3	4 November 2011	References to DTX_SCHEDULE, DTX_COMMUNICATION, DTX_PARTIC_ATHLETES and DTX_PARTIC_TEAMS removed

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Change Log

Version	Status	Changes on version
1.0	SFR	<ul style="list-style-type: none">• First version
1.1	SFA	<ul style="list-style-type: none">• SFA Version
1.2	APP	<ul style="list-style-type: none">• APP Version
1.3	APP	<ul style="list-style-type: none">• References to DTX_SCHEDULE, DTX_COMMUNICATION, DTX_PARTIC_ATHLETES and DTX_PARTIC_TEAMS removed



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1. Introduction

1.1. This document

This document includes the ODF Ice Hockey Data Dictionary. This Data Dictionary refines the messages described in the ODF Light Messages Interface Document.

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

- **IF** – International Federation
- **IOC** – International Olympic Committee
- **NOC** – National Olympic Committee
- **ODF** – Olympic Data Feed
- **ODF-RT** – Olympic Data Feed Real Time
- **RSC** – Results System Codes
- **IH** – Ice Hockey
- **WNPA** – World News Press Agencies

1.5. Related Documents

Document Reference	Document Title	Document Description
ODF/COD101	ODF Common Codes Document	This document describes the ODF codes used across the rest of the ODF documents
ODF/INT100	ODF Light Messages	This document describes the



	Interface Document	ODF Light messages
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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

The general rules as described in the documents referenced in the section 1.5 will have to be considered for a complete and formal definition. It is especially important the ODF Light Messages Interface Document, since this ODF Ice Hockey Data Dictionary is a particularization of those documents.

In the following sections, for each ODF Light message it will be explained in further detail those elements, attributes, codes, ODF header, the trigger and frequency for each message generation, as well as the sort of the message that are particular in the case of Ice Hockey.

Any ODF Ice Hockey message should follow all the previous definitions in order to be considered as an ODF compliant message.



3. Codes

Several codes are used in the definition of the messages in this document. Any code will be referenced the following way:

CC @CodeEntity

CodeEntity is the name of the entity that identifies a particular set of codes.

The following table describes the codes entities used in document sorted by name, indicating whether the set of values can be found in the ODF Common Codes Document, or listed in the table itself, otherwise.

Code Entity	Code Entity Set of Values	
CC @Action	Code	Description
	GK	Goalkeeper in, at the beginning of the game, or out at he end of the game
	GOAL	Goal
	PTY	Penalty
	PTY_SHOT	Penalty shot
	GWS	Game winning shoot only for @code GWS
	GWG	Game winning goal only for @code GWS
CC @ActionRole	Code	Description
	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). Not used for goalkeeper at the beginning of the game action.
	GK_OUT	Goalkeeper out (in goalkeeper action). Not used for goalkeeper at the end of the game action.
	SCR	Goal scorer (in goal action)
	SHOT	Penalty shooter, in penalty shoot, GWS and GWG actions.
CC @Assignment	Code	Description
	GK	Line up goalkeeper
	EG	Emergency Goalkeeper
	1	Line 1
	2	Line 2
	3	Line 3
CC@BracketItemsCode	Code	Description
	1ST_ROUND	First Round (only for Skill Challenge Qualification)



	QFL	Quarterfinals (only for Skill Challenge)
	SFL	Semifinals
	FNL	Finals
CC @Function	Defined in ODF Common Codes Document See entity Function <ul style="list-style-type: none"> The entity's attribute to be used is Code 	
CC @EntryStatus	Code	Description
	D	Disqualified
CC @GoalType	Code	Description
	ENG	Empty net goal
	EQ	Equal strength
	PP1	Power play – 1 player
	PP2	Power play – 2 players
	SH1	Short handed - 1 player
	SH2	Short handed - 2 players
	PS	Penalty Shot
CC @Hand	Code	Description
	L	Left
	R	Right
CC @IRM	Code	Description
	DSQ	Disqualified
CC @PenaltyDesc	Code	Description
	ABUSE	Abuse of Official by Players/Team Officials
	AD-EQ	Measurement of equipment
	ATTUDE	Captain and Alternate Captain Attitude
	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
	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
	DIS-N	Goal being deliberately upset or knocked
	ELBOW	ELBOW = Elbowing
	EQ-INF	EQ-INF=Illegal or Dangerous Equipment (Equipment Infraction)
	EX-RP	EX-RP= Excessive Roughness



	FAL-P	FAL-P= Falling on the Puck by the Player/Goalkeeper
	FISTI	FISTI = Fisticuffs
	GA-MI	GA-MI = Game Misconduct (GM)
	GK-PEN	GK-PEN=Goalkeeper Penalties
	HAND-P	HAND-P=Handling the Puck with the hands By a Player/Goalkeeper
	H-BUT	H-BUT=Head-Butting
	HI-ST	HI-ST = High Sticking
	HOLD	HOLD = Holding
	HOOK	HOOK = Hooking
	HO-ST	HO-ST = Holding the Stick
	INTRF	INTRF = Interference
	INT-S	INT-S=Interference With Spectators
	KICK	KICK=Kicking
	KNEE	KNEE = Kneeing
	L-BCH	L-BCH=Players Leaving the Penalty Bench
	MATCH	MATCH = Match Penalty
	MISC	MISC = Misconduct
	OTHER	OTHER = Other Penalties
	P_SHO	P_SHO = Penalty Shot
	REFUSE	REFUSE=Refusing to Start Play-Team on/off the Ice
	ROUGH	ROUGH = Roughing
	SLASH	SLASH = Slashing
	SPEAR	SPEAR = Spearing
	THR-ST	THR-ST= Throwing a stick or any Object
	TOO-M	TOO-M = Too Many Players on the Ice
	TRIP	TRIP = Tripping
	UN-SP	UN-SP = Diving
CC @PenaltyShot	Code	Description
	SCRD	Scored - For penalty shot during the game and GWS
	MISS	Missed – Only for penalty shot during the game
	MISS_L	Missed (left) - Only for penalty shot for GWS
	MISS_R	Missed (right) - Only for penalty shot for GWS
	MISS_GP	Missed (goal post) - Only for penalty shot for GWS
	MISS_H	Missed (height) - Only for penalty shot for GWS
	LOST_PCK	Lost the puck - Only for penalty shot for GWS
	SVD_GOL	Saved by Goalie - Only for penalty shot for GWS



CC @Period	Code	Description
	1	Period 1
	2	Period 2
	3	Period 3
	OT	Overtime
CC @Position	Code	Description
	F	Forward
	D	Defence
	GK	Goalkeeper
CC @ResultType (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)	Code	Description
	RT_FORFEIT	Forfeit for just the team including this code (just in the Event Unit Results message) in case of Team Competition event
	RT_FORFEIT_2	Forfeit for the two teams (just in the Event Unit Results message), to indicate the both teams lost in case of Team Competition event
	RT_POINTS	Points for the Event final ranking message in case of Skill Challenge event
	RT_SCORE	Competitor's score (just in the Event Unit Results message) in case of Team Competition event
	RT_RANK	Rank (in the Standings of group in a team competition message and Event final ranking message) in case of Team Competition event
	RT_INVALID_RESULT	Invalid Result Mark (in the Standings of group in a team competition message and Event final ranking message)
CC @WLT	Code	Description
	W	Won
	L	Lost
	T	Tie
	OTW	Overtime won
	OTL	Overtime lost



4. Applicable Messages

The following table is a full list of all ODF messages and describes the list of messages used in Ice Hockey, as well as the category of each message, which identifies if the message structure definition can be found either in the ODF Sport Messages Interface Document or ODF Light Messages Interface Document.

- 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 “Message documented” indicates the document where you should go to have the general definition for a particular Message type
- The column “Message used in this sport” indicates whether a message is used in particular for this sport or not. If it is not ticked (X), then the message should not be used for this sport.

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. Any message ticked (X) in this column should also be ticked in the “Message used in this sport column”. 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	Message used in this sport	Message extended in this document
DTX_START_LIST	Start List	X	X
DTX_RESULT	Event Unit Results	X	X
DTX_POOL_STANDING	Pool Standings of group in a team competition	X	X
DTX_BRACKETS	Brackets	X	X
DTX_RANKING	Event Final ranking	X	X
DTX_MEDALLISTS	Medallists of one event	X	



5. Ice Hockey Data Extension

5.1. General Issues

The following sections extend and complete the information to be sent in each of the messages for this particular discipline, if some particularization is needed. If there are special considerations for any of the message types that have to be sent for this discipline, then they should be considered in the following sections. If nothing is mentioned for a particular message type, then the general rules, as defined in the ODF Light Messages Interface Document, should be respected for the messages described in the chapter 4 of this document.

5.1.1. ODF header

Regarding to ODF header values, you should also follow the description in the ODF Light Messages Interface Document. However, the following attributes could be refined for each message type regarding to the header values:

- ODF Header: DocumentCode.

5.1.2. Attributes Definition

The attributes types are explained in the section “5.1.2. Attributes Definition” of the ODF Light Messages Interface Document. Please, refer to that document for further information.



5.2. Start List

5.2.1. Description

This message is the Start List message as described in the ODF Light Messages Interface Document.

In the case of Ice Hockey Team Tournament, it will present either the game roster or the line-up (please, see the Trigger and Frequency chapter, as well as the Message Values chapter).

5.2.2. Header Values

The DocumentCode attribute in the ODF header will be sent according to the ODF Common Codes document (header values sheet).

5.2.3. Trigger and Frequency

The message will normally be sent four times:

- As soon as head-to-head (H2H) teams are known, it will be sent as the H2H start list
- Approx. 2 hours before the start of the game, it will be sent as game roster
- Approx. 50 minutes before the start of the game, it will be sent as line-up (with captain / assistant captain information)
- Approx. 20 minutes before the start of the game (with team starters)

Trigger also after any major change

5.2.4. Message Structure

The optional elements defined for this message in the ODF Light Messages Interface Document that should be included in the case of Ice Hockey are:

- UnitDateTime (following the general rules for this element)
- Officials /Official
- Competitor /Coaches /Coach
- Competitor /EventUnitEntry
- Competitor /Composition /Athlete /EventUnitEntry

In the next section (message values), there is a more detailed definition.

Composition /Athlete should follow the general rules as explained in the ODF Light Messages Interface Document.



5.2.5. Message Values

The following table lists the Start List optional attributes (defined in the ODF Light Messages Interface Document) that are used in the case of Ice Hockey, as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
Officials /Official	Function	M	CC @Function	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
Start	StartOrder	M	Numeric	Send 1 for home team, send 2 for away team
	SortOrder	M	Numeric	Same @StartOrder
Coach	Function	M	CC @Function	Coach function
	Order	M	Numeric	Send 1 if just one coach, sequential number if more than one
Start /Competitor /Composition /Athlete (Either in game roster or line-up, include all players as in game roster)	Bib	M	S(2)	Jersey number
	Order	M	N(3) 990	In game-roster <ul style="list-style-type: none"> - Send order according to Start @Bib - Send suspended players at the end In line-up: <ul style="list-style-type: none"> - Send goalkeepers first (according to their starting order), 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).

The following table describes in more detail the Competitor /EventUnitEntry element in the case of Ice Hockey.

Element: Competitor /EventUnitEntry			
Type	Code	Value	Description
EU_ENTRY	E_HOME		For @Type: Send proposed type



			For @Code: Send proposed code just for the competitor that is the home team
			For @Value: Do not send anything
	E_AWAY		For @Type: Send proposed type
	E_AWAY		For @Code: Send proposed code just for the competitor that is the away team
	E_AWAY		For @Value: Do not send anything

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

Type /Code	Description	Expected
EU_ENTRY /E_HOME	Home team	It must be sent in the case of the home team, and not sent for the away team
EU_ENTRY /E_AWAY	Away team	It must be sent for the away team, and not sent for the home team

The following table describes in more detail the Competitor /Composition /Athlete /EventUnitEntry element in the case of Ice Hockey.

Element: Competitor /Composition /Athlete /EventUnitEntry			
Type	Code	Value	Description
EU_ENTRY	E_POSITION	CC @Position	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Position in the team
	E_ASSIGNMENT	CC @Assignment	For @Type: Send proposed type
			For @Code: Send proposed code for non-goalkeeper line or goalkeeper in the line-up
			For @Value: Non-goalkeeper line
	E_SUSPENDED		For @Type: Send proposed type
			For @Code: Send proposed code for suspended players
			For @Value: Do not send anything
	E_STARTING		For @Type: Send proposed type
			For @Code: Send proposed code for the starting players
			For @Value:



			Do not send anything
	E_CAPTAIN		For @Type: Send proposed type
			For @Code: Send proposed code for the captain
			For @Value: Do not send anything
	E_ASS_CAPTAIN		For @Type: Send proposed type
			For @Code: Send proposed code for the assistant captain
			For @Value: Do not send anything

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

Type /Code	Description	Expected
EU_ENTRY /E_POSITION	Position in the team	Send always
EU_ENTRY /E_ASSIGNMENT	Non-goalkeeper in the line-up 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 /E_SUSPENDED	Suspended players	Send just for those suspended players
EU_ENTRY /E_STARTING	Starting player	Send the code just for the starting players (when this information is known)
EU_ENTRY /E_CAPTAIN	Captain	Send the code just for the captain (when this information is known)
EU_ENTRY /E_ASS_CAPTAIN	Assistant captain	Send the code just for the assistant captain (when this information is known)

5.2.6. Message sort

Please, follow the general definition.



5.3. Event Unit Results

5.3.1. Description

This message is the Event Unit Results message as described in the ODF Light Messages Interface Document.

This message is used only for the team's tournament event. Skills challenge event results are included in the brackets message.

5.3.2. Header Values

The DocumentCode attribute in the ODF header will be sent according to the ODF Common Codes document (header values sheet).

5.3.3. Trigger and Frequency

Please, follow the general definition, taking 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.

Trigger also after any major change.

5.3.4. Message Structure

The optional elements defined for this message in the ODF Light Messages Interface Document that should be included in the case of Ice Hockey are:

- UnitDateTime (following the general rules for this element, however being @EndDate mandatory following the general rule)
- UnitInfo
- Period
- UnitAction
- UnitAction /ExtendedAction
- UnitAction /Competitor
- UnitAction /Competitor /Composition /Athlete
- Competitor /Stats /Stat (for the teams' statistics)



5.3.5. Message Values

The following table lists the Event Unit Results optional and/or extended attributes (defined in the ODF Light Messages Interface Document), as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
Result	WLT	O	CC @WLT	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)
	ResultType	M	CC @ResultType	Result type, either Score or Forfeit for the corresponding event unit
	Result	O	Numeric or '*'	Score for the team competitor for the 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
	SortOrder	M	Numeric	This attribute is a sequential number with the order of the results for the particular event unit. It should be listed, first, the team that won (in case of tie, it should be according to @SortOrder in the start list).

Send UnitDateTime including also the @EndDate attribute.

The following table describes in more detail the UnitInfo element in the case of Ice Hockey.

Element: UnitInfo			
Type	Code	Value	Description
UI_GENERAL	GE_ATTENDANCE	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Number of spectators

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

Type /Code	Description	Expected
UI_GENERAL /GE_ATTENDANCE	Number of spectators	Send just if this information is available

The following table describes in more detail the Period element in the case of Ice Hockey.

Element	Attribute	M/O	Value	Comments
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Element	Attribute	M/O	Value	Comments
Period	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
	HomeScore	M	Numeric	Home competitor score up to the end of the @Code period
	AwayScore	M	Numeric	Away competitor score up to the end of the @Code period
	HomePeriodScore	M	Numeric	Home competitor score achieved in the @Code period (as isolated period)
	AwayPeriodScore	M	Numeric	Away competitor score achieved in the @Code period (as isolated period)

The following table describes in more detail the UnitAction element in the case of Ice Hockey.

Element: UnitAction				
Type	Code	Pos	Value	Description
AC_IH	CC @Period or GWS	Numeric	CC @Action	For @Type: Send proposed type
				For @Code: Send one period code
				For @Pos: 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).
				For @Value: Send one action code

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

Type /Code	Description	Expected
AC_IH /CC @Period or GWS	Actions in the game	Send always that the information is available

The following table describes in more detail the ExtendedAction element in the case of Ice Hockey.

Element: ExtendedAction			
Type	Code	Value	Description
EA_IH	IH_TIME	MM:SS 00:00	For @Type: Send proposed type
			For @Code: Send proposed code for time when the action happened
			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
		For @Code: Send proposed code for penalty end time
		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_RES	S(7) 000:000	For @Type: Send proposed type
		For @Code: Send proposed code for result of game after action
		For @Value: Result of game after action, first home team, then away team
IH_PTY_TYPE	Numeric	For @Type: Send proposed type
		For @Code: Send proposed code for penalty type
		For @Value: Penalty minutes (e.g.: "2")
IH_PTY_DESC	CC @PenaltyDesc	For @Type: Send proposed type
		For @Code: Send proposed code for penalty description
		For @Value: Select one of CC @PenaltyDesc
IH_PTY_SHOT_DESC	CC @PenaltyShot	For @Type: Send proposed type
		For @Code: Send proposed code
		For @Value select one of CC @PenaltyShot
IH_GOAL_TYPE	CC @GoalType	For @Type: Send proposed type
		For @Code: Send proposed code for type of goal
		For @Value: Select one of CC @GoalType

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

Type /Code	Description	Expected
EA_IH /IH_TIME	Time when the action takes place	Send always except for UnitAction @Code = GWS
EA_IH /IH_ET	Penalty end time	Send always for UnitAction @Code = IH_PTY
EA_IH /IH_RES	Result of game after action	Send always for UnitActions when there is a change in the score
EA_IH /IH_PTY_TYPE	Penalty type	Send always for UnitAction @Code = IH_PTY
EA_IH /IH_PTY_DESC	Penalty description	Send always for UnitAction @Code = IH_PTY
EA_IH /IH_PTY_SHOT_DESC	Penalty shot description	Send always for UnitAction @Code = IH_PTY_SHOT and IH_GWS
EA_IH /IH_GOAL_TYPE	Type of goal	Send always for UnitAction @Code = IH_GOAL and IH_PTY_SHOT



UnitAction /Competitor should be used for all actions according to the general definition of this element.

UnitAction /Competitor /Composition /Athlete should also follow the general definition of this element for all actions. However, the following table redefined the optional @Role attribute, specifically for Ice Hockey.

Element	Attribute	M/O	Value	Comments
UnitAction /Competitor /Composition /Athlete	Role	O	CC @ActionRole	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.

The following table describes in more detail the Competitor /Stats /Stat element in the case of ice hockey for the team statistics.

Element: Competitor /Stats /Stat (for the teams)				
Type	Code	Pos	Value	Description
ST_IH	IH_SOG	Numeric Or TOT	Numeric	For @Type: Send proposed type
				For @Code: Send proposed type
				For @Pos: Period (numeric) or TOT (for total)
				For @Value: Shots on goal for one particular @Pos Period, or total
IH_SVS	Numeric Or TOT	Numeric	Numeric	For @Type: Send proposed type
				For @Code: Send proposed type
				For @Pos: Period (numeric) or TOT (for total)
				For @Value: Saves for one particular @Pos Period, or total
IH_PIM	Numeric Or TOT	Numeric	Numeric	For @Type: Send proposed type
				For @Code: Send proposed type
				For @Pos: Period (numeric) or TOT (for total)
				For @Value: Penalties in minutes for one particular @Pos Period, or total
IH_TPP	Numeric Or TOT	Numeric	MM:SS 90:00	For @Type: Send proposed type
				For @Code: Send proposed type
				For @Pos: Period (numeric) 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				



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

Type /Code	Description	Expected
ST_IH /IH_SOG	Shots on goal, for one particular @Pos Period, or total	Always
ST_IH /IH_SVS	Saves for one particular @Pos Period, or total	Always
ST_IH /IH_PIM	Penalties in minutes for one particular @Pos Period, or total	Always
ST_IT /IH_TPP	Time of power play in minutes and seconds for one particular @Pos Period, or total	Always

5.3.6. Message sort

Please, follow the general definition.



5.4. Pool Standings of group in a team competition

5.4.1. Description

This message is the Pool Standings of group in a team competition message as described in the ODF Light Messages Interface Document.

This message shows the pool standings for the team's tournament preliminary phase

5.4.2. Header Values

The DocumentCode attribute in the ODF header will be sent according to the ODF Common Codes document (header values sheet).

DocumentSubtype and Subtype attributes will be:

- Preliminary round standings

5.4.3. Trigger and Frequency

In the case of preliminary round, the message should be sent after the end of each game, for the teams in that group.

The message for the whole preliminary round, which includes all teams, will not be triggered until the last game of the preliminary round is complete.

Trigger also after any major change.

5.4.4. Message Structure

The optional elements defined for this message in the ODF Light Messages Interface Document that should be included in the case of Ice Hockey are:

- Competitor /ExtendedResults /ExtendedResult

5.4.5. Message Values

The following table lists the Pool Standings of group in a team competition optional and/or extended attributes (defined in the ODF Sport Messages Interface Document), as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
Result	Rank	O	Numeric Or String	Rank of the competitor in the corresponding phase. This attribute is optional because the team could get an invalid rank mark. It could be string, 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...). It should be numeric for the rest of possibilities.



Element	Attribute	M/O	Value	Comments
	ResultType	M	CC @ResultType	Result type, either rank or IRM for the corresponding phase
	IRM	O	CC @IRM	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.

The following table describes in more detail the Competitor /ExtendedResults /ExtendedResult element in the case of Ice Hockey.

Element: Competitor /ExtendedResults /ExtendedResult			
Type	Code	Value	Description
ER_IH	IH_GP	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code for number of games played
			For @Value: Games played indeed by the team competitor
	IH_W	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code for wins
			For @Value: Wins by the team competitor
	IH_OTW	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code for overtime wins
			For @Value: Overtime wins by the team competitor
	IH_OTL	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code for overtime losses
			For @Value: Overtime losses by the team competitor
	IH_L	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code for losses
			For @Value: Losses by the team competitor
	IH_PTS	N(3) 990	For @Type: Send proposed type
			For @Code: Send proposed code for points
			For @Value: Points by the team competitor
	IH_GDF	(+)(-)N(3) (+)(-)990	For @Type: Send proposed type
			For @Code: Send proposed code for goals difference
			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 goals for
			For @Value: Goals for by the team competitor
IH_GA	N(3) 990		For @Type: Send proposed type
			For @Code: Send proposed code for goals against
			For @Value: Goals against by the team competitor
IH_WR	N(3) 990		For @Type: Send proposed type
			For @Code: Send proposed code for IIHF World ranking for the previous full year
			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 round Standings
ER_IH / IH_W	Wins	Always in the case of round Standings
ER_IH /IH_OTW	Overtime wins	Always in the case of round Standings
ER_IH /IH_OTL	Overtime losses	Always in the case of round Standings
ER_IH /IH_L	Losses	Always in the case of round Standings
ER_IH /IH_PTS	Points	Always in the case of round Standings
ER_IH /IH_GDF	Goals difference	Always in the case of round Standings
ER_IH /IH_GF	Goals for	Always in the case of round Standings
ER_IH /IH_GA	Goals against	Always in the case of round Standings

The following table describes in more detail the Competitor /Composition /Athlete element in the case of Ice Hockey.

Element	Attribute	M/O	Value	Comments
Competitor /Composition /Athlete	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

5.4.6. Message sort

Please, follow the general definition.



5.5. Brackets

5.5.1. Description

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

Brackets message is used for the team's tournament and skills challenge events.

The message is provided at event level for the Teams Tournament event and at skating skill phase (Qualification or Grand Final) level (phase level) for the Skills Challenge event

5.5.2. Header Values

The DocumentCode attribute in the ODF header will be sent according to the ODF Common Codes document (header values sheet).

5.5.3. Trigger and Frequency

Team Tournaments:

The message will be triggered as soon as a team has qualified for the next round but the event has not finished, in this case sent it with a ResultStatus = INTERMEDIATE. Please, follow the general definition (UNOFFICIAL and OFFICIAL) when the event has finished.

Skills Challenge:

The message will be triggered as some athlete has qualified for the next round

5.5.4. Message Structure

The optional elements defined for this message in the ODF Light Messages Interface Document that should be included in the case of Ice Hockey are:

- CompetitorPlace/Competitor /Composition (just for the Team Tournaments)
- CompetitorPlace/Competitor /Composition /Athlete /ExtBracketAths (just for the Skill Challenge)

Moreover, the following should be considered:

- Team Tournaments:
 - BracketItem /NextUnit should be informed in the case of the semi-finals.
 - BracketItem /NextUnitLoser should be informed just in the case of the semi-finals
 - CompetitorPlace /PreviousUnit should be informed in the case of the gold medal game and the bronze medal game.
- Skills Challenge:



- BracketItem /NextUnit should be informed in the case of the 1st Round, Quarterfinals and Semifinals for Qualification phase and Quarterfinals and Semifinals for Grand final phase.
- CompetitorPlace /PreviousUnit should be informed in the case of Final, Semi-finals and Quarterfinals for the Qualification phase and for the Semi-final and the gold medal game for the Grand final phase.

5.5.5. Message Values

The following table lists the Brackets optional and/or extended attributes (defined in the ODF Light Messages Interface Document), as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
BracketItems	Code	M	CC @BracketItemsCode	Each BracketItems should include all BracketItem grouped by their CC @BracketItemsCode.
BracketItem	Code	M	Numeric	In general, it will be sent the game number for each bracket item for Team Tournaments (e.g.: 17, 18, 19, 20 ...). Or Heat Number for Skills Challenge.

The following table describes in more detail the CompetitorPlace/Competitor/Composition/Athlete/ExtBracketAths element.

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult			
Type	Code	Value	Description
ER_IH	IH_SCORE	MM:SS.hh 99:90.00	For @Type: Send proposed type
		MM=minutes SS=seconds hh=hundredth of second	For @Code: Send proposed code
		Or N(3).N(2) 9999.99	For @Value: For skills 1, 2, 3, 5 and 6 send time For skill 4: send speed

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

Type /Code	Description	Expected
ER_IH /IH_SCORE	Skating Skill score for the current athlete	Always, for Skill challenge event



5.5.6. Message sort

BracketItems @Code should be sorted by:

Team Tournaments:

- Semifinals and finals (first gold game, and then bronze game).

Skills Challenge:

- 1st Round (only qualification phase), Quarterfinals, Semifinals and Final.

5.6. Event Final Ranking

5.6.1. Description

This message is the Event Final Ranking message as described in the ODF Light Header Values

The DocumentCode attribute in the ODF header will be sent for all competition events according to the ODF Common Codes document (header values sheet).

The message is provided at event level for the Teams Torunament event and at skating skill phase (Qualification or Grand Final) level (phase level) for the Skills Challenge event

5.6.2. Trigger and Frequency

The message will be triggered as soon as some ranking positions are definitive (not waiting for the bronze or gold medal games) in this case sent it with a ResultStatus = PARTIAL. Please, follow the general definition (UNOFFICIAL and OFFICIAL) when the event has finished.

Trigger also after any major change.

5.6.3. Message Structure

The optional elements defined for this message in the ODF Light Messages Interface Document that should be included in the case of Ice Hockey are:

- Competitor /Composition /Athlete /ExtendedResults /ExtendedResult only for Skill Challenge Event

In the next section (message values), there is a more detailed definition.

5.6.4. Message Values

The following table lists the Event Final Ranking optional attributes (defined in the ODF Light Messages Interface Document) that are used in the case of Ice Hockey, as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
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Element	Attribute	M/O	Value	Comments
Result	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.
	ResultType	M	CC @ResultType	Result type, either "Rank" or IRM (Team Tournaments) or "Points" or IRM (Skill Challenge) for the corresponding event.
	IRM	O	CC @IRM	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	O	N	Final result in Points for the particular event of the Skills Challenge event Send just in the case @ResultType is Points (see codes section)

The following table describes in more detail the Competitor /Composition /Athlete element in the case of Ice Hockey Team Tournament.

Element	Attribute	M/O	Value	Comments
Competitor /Composition /Athlete	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

The following table describes in more detail the Competitor /Composition /Athlete /ExtendedResults /ExtendedResult element.

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult			
Type	Code	Value	Description
ER_IH	IH_SCORE	MM:SS.hh 99:90.00	For @Type: Send proposed type
		MM=minutes SS=seconds hh=hundredth of second	For @Code: Send proposed code
		Or N(3).N(2) 9999.99	For @Value: For skills 1, 2, 3, 5 and 6 send time For skill 4: send speed

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



Type /Code	Description	Expected
ER_IH /IH_SCORE	Skating Skill score for the current athlete	Always, for Skill challenge event

5.6.5. Message sort

Please, follow the general definition.



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