INTERNATIONAL
OLYMPIC
COMMITTEE

ODF/INT102-R1-v1.3 APP

Olympic Data Feed

ODF Biathlon Data Dictionary

4 November 2011
Technology Department

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Version history

Version	Date	Comments
1.0	1 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

File reference: ODF/INT102-R1-v1.2 APP

Change Log

Version	Status	Changes on version
1.0	SFR	• First version
1.1	SFA	• SFA Version
1.2	APP	• APP Version
1.3	APP	• 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 Biathlon 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 Biathlon Data Dictionary, with the intention that the information message producer and the message consumer can successfully interchange the information as the Biathlon 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
- **BT –** Biathlon
- **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 Interface Document	This document describes the ODF Light messages

2. Overall Perspective

2.1. Objective

The objective of this document is to focus on the formal definition of the ODF Biathlon 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 Biathlon 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 Biathlon.

Any ODF Biathlon 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 @IRM (The codes order provided is according to the sport rules. In case of several IRM of the same code, sort by bib numbers in ascending order).	**Code**	**Description**
	DNS	Did not start
	DNF	Did not finish
	LAP	Lapped
	DSQ	Disqualified
CC @ResultType	**Code**	**Description**
	RT_TIME	Time (not used in event final ranking)
	RT_INVALID_RESULT	Invalid Result Mark
	RT_IRM_TIME	For both, time and invalid result mark
CC@Functions	**Code**	**Description**
	IBU_TDL	IBU Technical Delegate - Chairman
	IBU_ATD	IBU Assistant Technical Delegate
	IBU_RCED	IBU Race Director
	CHF_CMP	Chief of Competition
	MMB	Member (send 2 members)

4. Applicable Messages

The following table is a full list of all ODF messages and describes the list of messages used in Biathlon,

- 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_RANKING	Event Final ranking	X	X
DTX_MEDALLISTS	Medallists of one event	X	

5. Biathlon 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 either 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 the 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.

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

Please, follow the general definition.

For provisional start list (mixed relay), send as soon as NOCs are known. Afterwards, the message will have to be sent with team members, also.

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 Biathlon are:

- UnitInfo
- UnitInfo /Competitor can be included or not for UnitInfo codes BT_ZEROING_ALLOCATION and BT_RANGE_ALLOCATION. In case of being included, it can appear one or more times, specifying the @Organisation attribute. It will be one UnitInfo /Competitor for each NOC code's competitor that shares the UnitInfo @Pos lane.
- Competitor /EventUnitEntry (for relay event units)
- Competitor /Composition /Athlete/ EventUnitEntry (for all event units except for relay).
- Officials (this element is not sent for Official Training but it is required for competition events, following the general rules).

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

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 Biathlon, as well as the attributes that have an extended definition.

Element	Attribute	M/O	Value	Comments
Start	StartOrder	O	Numeric	Start order of the competitor in the start list (do not send for relay).
	SortOrder	M	Numeric	Same as @Bib.

Element	Attribute	M/O	Value	Comments
Start /Competitor	Bib	O	Numeric	Team's bib number, to be sent mandatory just in the case of mixed relay event units
Start /Competitor /Composition /Athlete	Bib	M	Numeric	Athlete's bib number
	Order	M	Numeric	In the case of mixed relay, it will be: 1 – r(ed), 2 – g(reen), 3 – y(ellow), 4 – b(lue).
Official	Function	M	CC@Functions	Send the function code
	Order	M	Numeric	Order of the Officials following the Sport Rules

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

Element: UnitInfo				
Type	**Code**	**Pos**	**Value**	**Description**
UI_BT	BT_ST_PROVISIONAL		N(1) 0	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos : Do not send anything
				For @Value: In case of Relay, send 0 in the case of provisional Start List
	BT_ALTITUDE		N(4) 9990	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos : Do not send anything
				For @Value: Altitude in meters, at the level of the stadium
	BT_ HEIGHT_DIFF		N(4) 9990	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Do not send anything
				For @Value: Height difference between the highest and the lowest altitude, in meters
	BT_LENGTH		N(5) 99990	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Do not send anything
				For @Value: Length of course in meters
	BT_MAX_CLIMB		N(4) 9990	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Do not send anything
				For @Value: Maximum climb in the course, in meters
	BT_TOT_CLIMB		N(4) 9990	For @Type: Send proposed type
				For @Code: Send proposed code

				For @Pos: Do not send anything
				For @Value: Total climb in the course, in meters (adding all climbs)
	BT_LAPS_CC		N(2) 99	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Do not send anything
				For @Value: Number of Laps for CC
	BT_LAPS_BT		N(2) 99	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Do not send anything
				For @Value: Number of Laps for BT
	BT_ZEROING_ALLOCATION	N(2) 90	“P” or “S”	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Send the lane number (1..30)
				For @Value: Send proposed value, P for Prone and S for Standing
	BT_RANGE_ALLOCATION	N(2) 90	“P” or “S”	For @Type: Send proposed type
				For @Code: Send proposed code
				For @Pos: Send the lane number (1..30)
				For @Value: Send proposed value, P for Prone and S for Standing

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

Type /Code	Description	Expected
UI_BT / BT_ST_PROVISIONAL	Provisional Start List	Send in the case of provisional Start List only
UI_BT /BT_ALTITUDE	Altitude in meters, at the level of the stadium	Send for Cross-Country Biathlon Mixed Relay
UI_BT /BT_HEIGHT_DIFF	Height difference between the highest and the lowest altitude, in meters	Send for Cross-Country Biathlon Mixed Relay
UI_BT /BT_LENGTH	Length of course in meters	Send for Cross-Country Biathlon Mixed Relay
UI_BT /BT_MAX_CLIMB	Maximum climb in the course, in meters	Send for

		Cross-Country Biathlon Mixed Relay
UI_BT /BT_TOT_CLIMB	Total climb in the course, in meters (adding all climbs)	Send for Cross-Country Biathlon Mixed Relay
UI_BT / BT_LAPS_CC	Number of Laps for CC	Send for Cross-Country Biathlon Mixed Relay
UI_BT / BT_LAPS_BT	Number of Laps for BT	Send for Cross-Country Biathlon Mixed Relay
UI_BT /BT_ZEROING_ALLOCATION	Allocation of lanes for zeroing of rifles	Send always, except for Official Training and provisional start list
UI_BT /BT_RANGE_ALLOCATION	Range Allocation	Send only in case of Pursuit

The following table describes in more detail the Competitor /EventUnitEntry element, which should be used in the case of mixed relay event units, or Competitor /Composition /Athlete /EventUnitEntry in the case of mass start lists.

Element: **Competitor /EventUnitEntry in the case of relay** **Competitor /Composition /Athlete /EventUnitEntry (for all event units except for relay)**			
Type	**Code**	**Value**	**Description**
EU_ENTRY	E_START_ROW	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Start row
	E_START_TIME	HH:MM:SS 00:00:00	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Start time for the competitor
	E_START_GROUP	Numeric	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Start group for the competitor
	E_START_BEHIND	MM:SS 90:00	For @Type: Send proposed type

			For @Code: Send proposed code
			For @Value: Start behind for the competitor, where MM=minutes and SS=seconds
	E_LANE	N(3) 990	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Lane number

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

Type /Code	Description	Expected
EU_ENTRY /E_START_ROW	Start row	Always, for Mixed Relay.
EU_ENTRY /E_START_TIME	Start time	Always, for sprint
EU_ENTRY /E_START_GROUP	Start group	Always, for sprint
EU_ENTRY /E_START_BEHIND	Start behind time	Always, for pursuit
EU_ENTRY /E_LANE	Lane number	Always, for pursuit.

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.

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

- Every 5 minutes during competition, the message will be sent with intermediate results
    - ResultStatus in the headers will have the value “INTERIM” for Sprint and Invividual Events and “INTERMEDIATE” for the rest.
    - The message will be resent with partial results every 5 minutes until the message is sent as “PARTIAL”
- Once the first competitors arrive (depending on the event), the message will be sent with partial results
    - ResultStatus in the headers will have the value “PARTIAL”
    - The message will be resent with partial results every 10 minutes until the last competitor completes the race
    - Then proceed with unofficial and official results, as expected.

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 Biathlon are:

- UnitDateTime (following the general rules for this element, however being @EndDate mandatory)
- UnitInfo
- Competitor /ExtendedResults /ExtendedResult (for relay event units)
- Competitor /Composition/Athlete /ExtendedResults /ExtendedResult (for all event units: in the case of relay, team members detailed results).

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	Rank	O	Numeric	Rank of the competitor in the corresponding event unit. This attribute is optional because the competitor could get an invalid rank mark.
	Result Type	M	CC @ResultType	Result type, either time, IRM or IRM+time for the corresponding event unit
	IRM	O	CC @IRM	IRM for the particular event unit Send just in the case @ResultType is IRM, or both time and IRM (see codes section)
	Result	O	HH:MM:SS.t 99:99:90.0	Result for the particular event unit. Send just in the case @ResultType is Time, or both Time and IRM (see codes section) HH is hours MM is minutes, SS is seconds, t is tenth of second
	SortOrder	M	Numeric	This attribute is a sequential number with the order of the results for the particular event unit, if they were to be presented. 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	Bib	O	Numeric	Team's bib number, to be sent mandatory just in the case of team event units
Result/ Competitor/ Composition/ Athlete	Bib	M	Numeric	Athlete's bib number

Send UnitDateTime including also the @EndDate attribute

The following table describes in more detail the Competition /UnitInfo ement

Element: Competition /UnitInfo					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
UI_BT	BT _TO_COME	BT_INTERMEDIATE	Numeric	Numeric	For @Type: Send proposed type (that is, the same @Code as the parent UnitInfo element)
					For @Code: Send proposed code
					For @Pos: Send the intermediate number
					For @Value: Send number of participants still to come to this point
		BT_FINISH		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent UnitInfo element)
					For @Code: Send proposed code
					For @Pos: Send the intermediate number
					For @Value: Send number of participants still to come to this point

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

Type /Code	Description	Expected
UI_BT/BT _TO_COME	Number of participants to come to this point	Always, that it is available

The following table describes in more detail the Competitor /ExtendedResults /ExtendedResult element (only for mixed relay event units).

Element: Competitor /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
ER_BT	BT_DIFF			+HH:MM:SS.t +99:99:90.0 Or "0.0"	For @Type: Send proposed type
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Event unit's time difference for the whole team (for Result @Rank=1, send "0.0", however) HH is hours MM is minutes, SS is seconds, t is tenth of second
	BT_SHOOTING				For @Type: Send proposed type
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Do not send anything
		BT_TOT_PENALTIES		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Total penalties so far of all shooting sessions for the whole team
		BT_TOT_SPARE		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Total spare round so far of all shooting sessions for the whole team.
		BT_TOT_PENALTY_PRONE		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult

Element: Competitor /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Total prone penalties for team
		BT_TOT_PENALTY_STANDING		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Total standing penalties for team
		BT_TOT_SPARE_PRONE		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Prone spare rounds for team
		BT_TOT_SPARE_STANDING		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Standing spare rounds for team
	BT_POT_DSQ			Y	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Send Y when it is a Potential DSQ
	BT_RULE			String	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: IBU rule number
	BT_FF			Y or P	For @Type: Send proposed type
					For @Code: Send proposed code
					For @Value: Send Y for Evaluated Status and P for Pending Status for the Foto finish

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

Type /Code	Description	Expected
ER_BT /BT_DIFF	Event unit's result time difference (whole team)	Always, just for relay event units
ER_BT /BT_SHOOTING	Cumulative information for the whole team after the shooting	Always, just for relay event units
ER_BT /BT_POT_DSQ	Potential team disqualification, time adjustment or protest	For relay event units, send just if potential DSQ
ER_BT /BT_RULE	IBU rule number, only for Jury decisions	Only if it is available
ER_BT/BT_FF	Foto finish status	Just if applies

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

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
ER_BT	BT_DIFF			+HH:MM:SS.t +99:99:90.0 Or "0.0"	For @Type: Send proposed type
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Event unit's time difference for the single athlete (for Result @Rank=1, send "0.0", however) HH is hours MM is minutes, SS is seconds, t is tenth of second
	BT_SHOOTING		N(2) 90		For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Send the current shooting session number
					For @Value: Do not send anything
		BT_PENALTY		N(1) 0	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Number of shooting penalties for this shooting session (0..5)
		BT_SPARE		N(1) 0	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value:

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					Number of shooting spare rounds for this shooting session (0..5). It applies just to relay event units.
		BT_SHOOTINGTIME		HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Shooting time for this shooting session
		BT_TOT_PENALTIES		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Total penalties so far of all shooting sessions
		BT_TOT_SPARE		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Total spare round so far of all shooting sessions It applies just to relay event units.
		BT_TOT_SHOOTINGTIME		HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Total cumulative shooting times of all shooting sessions
		BT_TOT_SPARE_PRONE		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Prone spare rounds It applies just to relay event units.
		BT_TOT_SPARE_STANDING		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code:

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					Send proposed code
					For @Pos: Do not send anything
					For @Value: Standing spare rounds It applies just to relay event units.
	BT_INTERMEDIATE		N(2) 90	HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: The number that identifies the intermediate result point, from 1 to the total number of intermediate result points
					For @Value: Cumulative time at the *@Pos* intermediate result point for the single athlete. HH is hours MM is minutes, SS is seconds, t is tenth of second
		BT_PENALTY		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Penalties (not cumulative) at this intermediate result point
		BT_TOT_PENALTIES		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Cumulative Penalties after this intermediate result point
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value:

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order according to BT_RANK
	BT_LEG			HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Cumulative time at the end of this leg
		BT_PENALTY		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Number of shooting penalties at this leg
		BT_SPARE		N(2) 90	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed extension code
					For @Pos: Do not send anything
					For @Value: Number of shooting spare rounds at this leg
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader at the end of the leg
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete when arriving at the end of the leg according to the

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					cumulative time at the end of the leg
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order of the athlete according to BT_RANK
	BT_LOOP		N(2) 90	HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: The number that identifies the loop, from 1 to the total number of loops
					For @Value: Time for the *Pos* loop. It is not cumulative. It will be for single athlete, or team member in the case of relay HH is hours MM is minutes, SS is seconds, t is tenth of second
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order according to BT_RANK
	BT_COURSE		Numeric	HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: The number that identifies the loop, starting from 1.

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					For @Value: Course time (not cumulative) for the referred loop. It is the skiing time only without shooting range time.
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader at the end of the leg
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete when arriving at the end of the leg according to the cumulative time at the end of the leg
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order of the athlete according to BT_RANK
	BT_RANGE		Numeric	HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: The number that identifies the loop, starting from 1.
					For @Value: Range time (not cumulative). Time of staying in shooting range area number @Pos (range time + course time = total time). Send just in the loops with shooting. For the other loops, do not include this extension
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader
		BT_RANK		Numeric	For @Type:

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order of the athlete according to BT_RANK
	BT_TOT_COURSE			HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Total time on course (skiing only without shooting range time)
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader at the end of the leg
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete when arriving at the end of the leg according to the cumulative time at the end of the leg
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order of the athlete according to

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					BT_RANK
	BT_TOT_RANGE			HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Total range time.
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order according to BT_RANK
	BT_ISOLATED_PURSUIT			HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Isolated pursuit time. It applies just to pursuit event units, and it is the difference of the event unit result, and the start behind time HH is hours MM is minutes, SS is seconds, t is tenth of second
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order according to BT_RANK
	BT_SKI_TIME			HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Ski time regardless of the penalties. It applies just to Indidivual event. HH is hours MM is minutes, SS is seconds, t is tenth of second
		BT_DIFF		+HH:MM:SS.t +99:99:90.0 Or “0.0”	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Time difference to the leader
		BT_RANK		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Rank of the athlete
		BT_SORTORDER		Numeric	For @Type: Send proposed type (that is, the same @Code as the parent ExtendedResult element)
					For @Code: Send proposed code
					For @Pos: Do not send anything
					For @Value: Sort order according to BT_RANK
	BT_POT_DSQ			Y	For @Type:

Element: Competitor /Composition /Athlete /ExtendedResults /ExtendedResult					
Type	**Code**	**Extension Code**	**Pos**	**Value**	**Description**
					Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Send Y when it is a Potential DSQ
	BT_RULE			String	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: IBU rule number
	BT_TIME_ADJUSTMENT		Numeric	HH:MM:SS.t 99:99:90.0	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Send loop Number in which time was adjusted
					For @Value: Time adjustment, sent only from the shooting range
	BT_FF			Y or P	For @Type: Send proposed type
					For @Code: Send proposed code
					For @ Pos: Do not send anything
					For @Value: Send Y for Evaluated Status and P for Pending Status for the Foto finish

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

Type /Code	Description	Expected
ER_BT /BT_DIFF	Event unit's result time difference	Always, except mixed relay event units
ER_BT /BT_SHOOTING	Information of current shooting session	Always, except in CC/BT Mixed Relay CC relays
ER_BT /BT_INTERMEDIATE	Cumulative time, rank, time difference, penalties, cumulative penalties and number of participants still to come at the intermediate result point	Always, for all event units
ER_BT /BT_LEG	Total time, rank, time difference, penalties, spare rounds, etc. of the team member (leg)	Always, just in the case of mixed relay event units
ER_BT /BT_LOOP	Time (not cumulative), rank, sort order at the *@Pos* loop (according to loop time) and time difference in a particular loop. For single athlete if not relay, or team member if relay.	Always
ER_BT /BT_COURSE	Course time	Always
ER_BT /BT_RANGE	Range Time	Always
ER_BT /BT_TOT_COURSE	Total time on course	Always
ER_BT /BT_TOT_RANGE	Total range time	Always
ER_BT /BT_ISOLATED_PURSUIT	Isolated pursuit time, rank (according to the isolated pursuit time) and time difference.	Send just in pursuit event units

BT_SKI_TIME	Ski time regardless of the penalties time, rank, time difference and sort order	Send just in Individual event
BT_POT_DSQ	Potential disqualification, time adjustment or protest	For all event units except for relay units, send just if potential DSQ
ER_BT /BT_RULE	IBU rule number, only for Jury decisions	Only if it is available
ER_BT /BT_TIME_ADJUSTMENT	Time adjustment	Just if applies
ER_BT/BT_FF	Foto finish status	Just if applies

5.3.6. Message sort

Please, follow the general definition.

5.4. Event Final Ranking

5.4.1. Description

This message is the Event Final Ranking message as described in the ODF Light Messages Interface Document.

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

5.4.2. Header Values

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).

5.4.3. Trigger and Frequency

Please, follow the general definition.

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 Biathlon are:

- Competitor /ExtendedResults /ExtendedResult (for relay event units)
- Competitor /Composition /ExtendedResults /ExtendedResult (for all event units: in the case of relay, team members detailed results).

5.4.5. 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 Biathlon, as well as the attributes that have an extended definition.

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 competitor could get an invalid rank mark.
	ResultType	M	CC @ResultType	Result type, either time or IRM (or both) for the corresponding event
	IRM	O	CC @IRM	IRM for the particular event Send just in the case @ResultType is IRM, or both time and IRM (see codes section)
	Result	O	HH:MM:SS.t 99:99:90.0	Final result for the particular event Send just in the case @ResultType is Time, or both Time and IRM (see codes section) HH is hours MM is minutes, SS is seconds, t is tenth of second

Element	Attribute	M/O	Value	Comments
	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 should be used to sort out rank ties as well as results without rank.
Result/ Competitor	Bib	O	Numeric	Team's bib number, to be sent mandatory just in the case of team event units
Result/ Competitor/ Composition/ Athlete	Bib	M	Numeric	Athlete's bib number

The following table describes in more detail the Competitor /ExtendedResults /ExtendedResult element (only for relay events).

Element: Competitor /ExtendedResults /ExtendedResult			
Type	**Code**	**Value**	**Description**
ER_BT	BT_DIFF	+HH:MM:SS.t +99:99:90.0 Or "0.0"	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Event's time difference for the whole team (for Result @Rank=1, send "0.0", however) HH is hours MM is minutes, SS is seconds, t is tenth of second

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

Type /Code	Description	Expected
ER_BT /BT_DIFF	Event's result time difference (whole team)	Just for relay events

The following table describes in more detail the Competitor /Composition /Athlete /ExtendedResults /ExtendedResult element (for all events except for relay).

Type	Code	Value	Description
ER_BT	BT_DIFF	+HH:MM:SS.t +99:99:90.0 Or "0.0"	For @Type: Send proposed type
			For @Code: Send proposed code
			For @Value: Event's time difference for the single athlete (for Result @Rank=1, send "0.0", however) HH is hours MM is minutes, SS is seconds, t is tenth of second

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

Type /Code	Description	Expected
ER_BT /BT_DIFF	Event's result time difference (single athlete)	Always, except for relay events

5.4.6. Message sort

Please, follow the general definition.

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