



RunningBall Real Time Feeds

Specifications

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The purpose of this document is to provide an overview of the features and the functionality of the RunningBall real time data feeds.

The RunningBall data feeds are intended for fast and automated data transmission and evaluation. It is designed focused on good usability, reliability and the highest possible availability. Its modular design allows being adapted easily to the customer's needs.

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1 General Information

The purpose of this document is to provide an overview of the features and the functionality of the RunningBall real time data feeds.

The RunningBall data feeds are intended for fast and automated data transmission and evaluation. It is designed focused on good usability, reliability and the highest possible availability. Its modular design allows being adapted easily to the customer's needs.

1.1 Revision History

Revision	Information	Reference Date
00	Initial version (Mitterer).	
01	Structural changes (Mitterer).	12/12/2008
02	Layout changes (Marko).	13/12/2008
03	Rewrite (Mitterer).	19/12/2008
04	ID mapping information added (Marko)	12/03/2009
05	XML and XML over tcp updates (Mitterer).	08/07/2009
06	New events and partly more detailed information, new logo (Mitterer).	12/11/2009
07	Rewrite of streamconnection (Mitterer).	01/12/2009
08	Http Pull Interface added (Marko).	03/12/2009
09	Ball Position, Substitution, Stoppage Time & Scorer Events added (Mitterer).	10/01/2010
10	XML adaption, Player data, event number for game conditions and system message, line break definition for socket connections added (Mitterer).	27/04/2010
11	Oracle as new database option added (Mitterer).	15/07/2010
12	Multisport extensions, structural changes (Posch).	03/01/2011
13	Minor corrections, new special message handling Snooker extensions, League parameters, updated event code mapping (Posch).	16/06/2011
14	Updated Basketball event codes, minor corrections, new special message handling (Posch).	12/10/2011
15	Soccer event reason mapping corrections (Posch).	20/12/2011
16	Extensions for Darts (Mappings); Extensions for Soccer (Mappings). ValueEvent (Schema/Description/Samples); Line-ups: samples corrected, DB schema added; PlayerName attribute descriptions and samples; BallPosition zone mappings added (Posch).	09/07/2012
17	Ice hockey mappings; RelatedEvent added for Database feeds (Posch).	13/07/2012
18	Extensions for Volleyball/Beach Volleyball (Mappings); Rework jersey colour description (Posch).	31/01/2013

Revision	Information	Reference Date
19	Handball: added mappings; Minor corrections; Common: 'Substitution update' event description & samples; Common: Scout information added; Common: Referee information added; Common: SportsTickerData added; All sports: Updated SystemMessage descriptions texts; Soccer: correction of shot events (documentation only); Soccer: added PPEN1/2; Player data confirmation added (Posch).	16/07/2013
20	Snooker: Ball Positions added (pocket information); Player data confirmation sample fixed (TCP text); Volleyball/ beach volleyball: substitutions removed (not used in scouting), minor corrections in pre-game events; 'hasPlayerData' for leagues added; (Beach) Volleyball/Ice Hockey: 'score' property extensions; HTTP XML Feed workflow description updated; TCP feed client implementation requirements added; Minor corrections; references to Tennis and Darts removed. (Posch)	11/12/2013
21	Snooker: Added 'Snooker' event codes. Common events: fixed descriptions for ID515/516 (Posch/Meznaric). System Message Event descriptions updated. Soccer: CONF_GOAL, BREAKAWAY added. Series/SeriesMatch added.	04/03/2014
22	Updated response codes for register/unregister/unbook requests; added Home Advantage; updated the whole documentation; competition parameter mapping updated (Posch/Meznaric).	10/03/2015
23	Fix wrong used term for homeAdvantage parameter in the XML Game List examples.	21/04/2015
24	Soccer events: Possible corner home/away and No corner home/away (see chapter 8.1.2 Soccer Events) Ice hockey events: Goal confirmation home/away. New event reasons for soccer: player on substitution bench and trainer. System Messages for all sports were updated. Possession statistics in TCP TXT protocol.	03/08/2015
25	New event for all sports: Game cancelled.	13/08/2015
26	System Messages added in <i>Table 71 – General System Messages</i> Update regarding the jersey colour design.	08/01/2016
27	Cricket: mappings added Common: "Assist" event code added; "GGCC" event code added Minor corrections	02/05/2016
28	Cricket: "Dot ball" event codes added, ball data value events documented. Volleyball: New competition parameter added. (Beach)Volleyball: "Start service" event codes added. Soccer: New card and throw in workflow added. Snooker removed.	04/07/2016
29	Game Possession Statistics Added	10/11/2016
30	Cricket: additional system messages added and edited; penalty and dismissal events as well as the value events; competition match format added; extended ball data values Ice hockey: additional system message added Minor corrections	03/04/2017

Revision	Information	Reference Date
31	Player position event added; new events for soccer, basketball, volleyball and beach volleyball	03/07/2017
32	Formation changed event added; minor corrections	30/10/2017
33	Video Assistant Referee (events) league parameters and Sin Bin added for soccer (league parameter and System Message) ABBA penalty system added for soccer, handball and ice hockey Best of 7 competitions added for volleyball Error code for pullservice added when parameters are invalid	29/01/2018
34	New competition types added for cricket (see chapter 8.14.7 <i>Cricket</i>)	09/04/2018
35	Some competition types for cricket renamed; Cricket Ball Data Events: batting connection 23 renamed and 27 (Spliced) added	07/05/2018

Table 1 – Revision History

1.2 Glossary of Terms and Abbreviations

Term/Abbreviation	Description
DB	Database
Game Conditions	Information about the basic circumstances of a game
Game Period	The different stages of a sports event. (e.g. 1st half, 3rd period, 2nd quarter, half-time break, extra time etc.)
Game State	Describes the current situation on the pitch in a soccer game; in soccer the Game State generally informs about which team is in possession of the ball, which team is attacking and it highlights possible goal threats. Danger is sent/generated in all sports when it is currently not possible to provide data (disconnections, broadcasting interruptions).
Game Status	Describes the current coverage status of a game in the RunningBall data base; a game can be "Open" (the coverage has not started yet), "Finished" (the coverage ended), "Cancelled" (the coverage was cancelled), "Running" (the game is currently covered live) or "Suspended" (the game is officially cancelled).
Game Zone	Describes areas of the pitch. Game Zones are indicators to determine the Game State.
GC	Game Conditions
ISO	International Organization for Standardisation
JDBC	Java Database Connectivity
Live Game	Game that is covered directly at the venue (in contrast to a TV Game)
MSSQL	Microsoft SQL Server
MySQL	MySQL Server
RB	RunningBall
Scout	Person who collects live data of sports events for RunningBall
System Message	Game-related message that provides the customers with additional information

Term/Abbreviation	Description
TCP	Transmission Control Protocol
TV Game	Game that is reported by a Scout who is watching a live broadcast of the relevant game
URL	Uniform Resource Locator
XML	Extensible markup language

Table 2 – Terms and Abbreviations

2 Features

2.1 General Aspects

- > A fast setup time due to predefined scripts
- > An elaborate handling of unforeseen incidents during a game
- > The lowest possible amount of data with the highest possible information content
- > All dates and times are in GMT+0, no matter where a game is reported from
- > An easy-to-use data format for real time data processing or statistical evaluation
- > The data is cached in case of connection loss
- > A good scalability for transferring a lot of data at the same time

2.2 Information Content

- > Master data (country, competition, competitor, venue)
- > Game fixture data
- > Game event
- > Additional game information messages
- > Game Conditions (attendance, pitch condition, weather condition)

2.3 Standard Game Events

The game events sent with the data feed contain the following basic information:

Attribute	Mandatory? (Yes/No)	Description
tickerId	Yes	The unique ID of the game the event is referring to.
eventCode	Yes	Identifies the action described by the event. In most cases, the event code is related to any game-flow-describing activities such as fouls, cards, attacks or game state changes (kick-off, start of 1st half, ...), but also data-feed-related events such as System Messages, Game Conditions or stoppage time information. For detailed information about all event codes provided by the data feed see chapter 8.1 <i>Event Code Mapping</i> .
eventNumber	Yes	The sequential number that is unique for each event of a game; every game starts with number=0 and increases with each event send by the feed.
minute	Yes	The current playtime of the game/period in minutes; a soccer game for example counts up from 0 to 90+ while basketball game minute values decrease from 10 or 12 to 0.
tickerState	Yes	The current Game Period the game is in; e.g. 'first half' when a soccer game is in the first 45 minutes of its regular playtime. Possible values for all supported sports are described in chapter 8.3 <i>Ticker State Handling</i> .
timestamp	Yes	GMT timestamp describing the time when the event occurred.

currentPlaytime	Yes	The current playtime of the game in milliseconds; the values correlate with minute.
clockRunning	Yes	Set to 'true' when the game clock is running and the game time (currentPlaytime, minute) is counting up- or downwards. clockRunning is important for sports where the clock is interrupted often (e.g. basketball), but may also change if a game is in a paused state. The value correlates with the "Game clock start/stop" events and provides information of the game clock state of the game.
scoreHome	Yes	The current score of the competitor 1; the value depends on the sport of the game. Detailed information on score mapping is provided in chapter 8.12 Score Mapping.
scoreAway	Yes	The current score of competitor 2; the value depends on the sport of the game. Detailed information on score mapping see chapter 8.11 Score Mapping.
statistics	No	An array of statistic values, for example the number of free throws or yellow cards; the values are added, when a statistic changes, e.g. when a goal is scored, the statistic values for goals are updated.
score	No	An array of score values for sports having more than one relevant score information per competitor. An example is given in the Http XML (chapter 7.1 Http XML). For detailed information on score mapping see chapter 8.11 Score Mapping.
relatedSportsTickerEventNumbers	No	Some specific events are related to one or more other events that were sent earlier; example: An event with number 520 provides scorer-related information of a goal event with relatedSportsTickerEventNumber{519}.
clearedEventNumbers	No	Due to the real-time character of a data feed it might be necessary to delete wrong game event information. clearedEventNumbers refers to the events that are deleted by a specific clear event such as Cancel last sent.

Table 3 – Game Event Attributes

Specific event types also provide the mandatory information of a game event, but might extend it with further properties.

In this chapter, a general overview of all event types sent by the RB data feed is given. For detailed information on the implementation of the specific feed types (HTTP, TCP, Database), have a look at chapter 5 Database.

They individual event types are not necessarily available for all provided sports. See chapter 2.8 *Matrix of Supported Special Events* for sport-specific information.

2.4 Special Event with Divergent Format

2.4.1 Ball Position Event

A ball position event is sent to provide information about the sports-specific Game Zone of the field where an event is taking place, e.g. where a free kick is taken. Ball position events always refer to other events using relatedSportsTickerEventNumber.

Detailed information about ball position zone mappings is provided in chapter 8.16 *Ball Position Mappings*.

Attribute	Mandatory? (Yes/No)	Description
zone	Yes	The sport-specific zone code describing the area of the field where the event has taken place. Zones exist in both halves of the field, so the direction is determined by the <i>teamId</i> .
teamId	Yes	The ID of the team performing the action, e.g. the team taking the free kick.

Table 4 – Ball Position – Event Attributes

2.4.2 Substitution Event

This event informs about a substitution of players, e.g. in soccer. Player-related data is only provided in certain competitions.

Attribute	Mandatory? (Yes/No)	Description
tickerId	Yes	The unique ID of the game the event is referring to.
jerseyIn	Yes	The jersey number of the player joining the game.
jerseyOut	Yes	The jersey number of the player leaving the game.
playerIn	Yes	The unique ID of the player joining the game. Player information is optional, because player data is only provided for some competitions. Note: If no player information is available, <i>playerIn</i> is set to 0.
playerOut	Yes	The unique ID of the player leaving the game. Note: If no player information is available, <i>playerOut</i> is set to 0.
playerInName	No	The name of the player related to <i>playerIn</i> .
playerOutName	No	The name of the player related to <i>playerOut</i> .

Table 5 – Substitution – Event Attributes

2.4.3 Substitution Update Event

Substitution update events are used to correct or to extend information of a substitution event that was sent previously. The relation to the substitution event to be updated is provided by the “relatedSportsTickerEventNumber” property.

Attribute	Mandatory? (Yes/No)	Description
jerseyIn	Yes	The jersey number of the player joining the game.
jerseyOut	Yes	The jersey number of the player leaving the game.

Attribute	Mandatory? (Yes/No)	Description
playerIn	Yes	The unique ID of the player joining the game. Player information is optional, because player data is only provided for some competitions. Note: If no player information is available, <i>playerIn</i> is set to 0.
playerOut	Yes	The unique ID of the player leaving the game. Note: If no player information is available, <i>playerOut</i> is set to 0.
playerInName	No	The name of the player related to <i>playerIn</i> .
playerOutName	No	The name of the player related to <i>playerOut</i> .
relatedSportsTickerEventNumber	Yes	The event number of the substitution event to be updated.
eventReasonId	No	The reason (EventReason) for the substitution.

Table 6 – Substitution Update – Event Attributes

2.4.4 Player-Related Events

Player-related events contain additional player-related information to events, e.g. goals or cards, referred by the respective relatedSportsTickerEventNumber.

Attribute	Mandatory? (Yes/No)	Description
jerseyNumber	Yes	The jersey number of the respective player.
playerId	Yes	The unique ID of the player. Note: If no player information is available, <i>playerId</i> is set to -1.
playerName	No	The name of the player.
eventReasonId	Yes	The reason for the event (e.g. why a card was awarded) or the method a goal was scored.
relatedSportsTickerEventNumber	Yes	The event number the player-related information is provided for.

Table 7 – Player-Related Events – Event Attributes

2.4.5 System Message Event

System Messages are used to send predefined, custom messages for various situations that are not of statistical relevance but are important in case of extraordinary situations during the game, for example regarding game delays, cancellations or score corrections.

Attribute	Mandatory? (Yes/No)	Description
message	Yes	The content of the System Message.
messageId	Yes	System Message identifiers (see chapter 8.8 System Message Mapping).

Table 8 – System Message – Event Attributes

2.4.6 Stoppage Time Event

This event indicates the official stoppage time added to the regular time shown by game officials.

Attribute	Mandatory? (Yes/No)	Description
minutes	Yes	The displayed stoppage time in minutes.

Table 9 – Extra Time – Event Attributes

2.4.7 Game Condition Event

Game Conditions are typically sent before a game is started to indicate under which conditions it will take place. These conditions may also change during a game, for example if it starts to rain or if many spectators leave early.

Attribute	Mandatory? (Yes/No)	Description
attendance	Yes	The attendance at the venue (see chapter 8.6.3 <i>Attendance</i>).
pitch	Yes	The condition of the field; the values depend on the sport (see chapter 8.6.1 <i>Pitch Conditions</i>).
weather	Yes	The current weather conditions at the venue (see chapter 8.6.2 <i>Weather Conditions</i>).

Table 10 – Game Condition – Event Attributes

2.4.8 Generic Game Conditions Changed Event

The event *Generic Game Conditions Changed* event is exclusively featured in cricket. It indicates a change if the Game Conditions, for example if it starts to rain or if many spectators leave early.

Attribute	Mandatory? (Yes/No)	Description
attendance	No	The attendance at the venue (see chapter 8.6.3 <i>Attendance</i>).
bounce	No	The measure of how consistent the bounce is (see chapter 8.6.5 <i>Bounce</i>).
light	No	The current light conditions at the venue (see chapter 8.6.6 <i>LiLight</i>).
matchDay	No	The current matchday
movement	No	The measure of how much the ball is moving in the air or off the pitc (see chapter 8.6.4 <i>Movement</i>).
pitch	No	The condition of the field; the values depend on the sport (see chapter 8.6.1 <i>Pitch Conditions</i>).
weather	No	The current weather conditions at the venue (see chapter 8.6.2 <i>Weather Conditions</i>).

Table 11 – Generic Game Condition – Event Attributes

2.4.9 Time Correction Event

When an event is entered too late *Time Correction* is used to indicate that it has actually occurred earlier including an approximate timestamp. The accuracy of this information depends on the references that are used for double checking the event.

Example:

A yellow card in the 20th minute was missed. It was sent afterwards in minute 40. An additional *Time Correction* refers to the associated event (*relatedSportsTickerEventNumber*) and provides information about the corrected time.

Attribute	Mandatory? (Yes/No)	Description
correctPlaytime	Yes	The corrected game time in milliseconds 2.160.000 would indicate that the event occurred in minute 36.
relatedSportsTickerEventNumber	Yes	The number of the event the <i>Time Correction</i> refers to.

Table 12 – Time Correction – Event Attributes

2.4.10 Line-up Event

Attribute	Mandatory? (Yes/No)	Description
teamId	Yes	The unique ID of the competitor.
squadTypeId	Yes	A specification of the line-up entry, e.g. "Starting 11" or "Bench players" (see chapter 8.12 <i>Score Mapping</i>).
lineupEntries	Yes	A list of players of the squad containing: > playerId: the unique ID of the player. > jerseyNumber: the jersey number of the player. > jerseyName: the name of the player. > player_position_id: position of the player on the field (available only on special request, see chapter 8.10 <i>Player Position Mapping</i>)

Table 13 – Line-up – Event Attributes

2.4.11 Cancellation and Clear Events

Clear and *Cancel* events are used to correct invalid events. In database feeds, 'cleared' events are marked the other way around: The 'clear' event does not provide information about affected events. Cleared event refer to the event that cleared them (*clearedBy* column).

The following examples are provided in the http XML format described in chapter 7.1.3 *Sports Ticker Event*.

> Cancellation Event:

Cancellation events are sent after a wrong event was entered which should be cancelled with the following event.

```
<event_list date_generated="2010-12-14T16:11:14.722Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136931" minute="1" event_number="44" event_code_id="1025"
    date="2010-12-14T16:00:32.791Z" event_code="Corner Home"
    tickerstate_id="2" tickerstate="1st half" score_home="1"
    score_away="1" statistics="2049=0 1025=2" seconds="11"
    currentPlaytime="11620" clockRunning="true"/>
  <event game_id="136931" minute="1" event_number="45" event_code_id="256"
    date="2010-12-14T16:00:34.879Z" event_code="Cancel" tickerstate_id="2"
    tickerstate="1st half" score_home="1" score_away="1" clears_event="44"
statistics="2049=0 1025=1" seconds="13" currentPlaytime="13709"
    clockRunning="true"/>
</event_list>
```

If a statistical event is cancelled, *Cancel* does also provide updated statistic values. In the given example the value for "1025" (the corners of competitor 1) decreased.

> Event-Specific Cancellation Event:

There are also specific cancellations codes for statistical events that might occur at any time of a game and are related to a specific event.

```
<event_list date_generated="2010-12-14T16:19:05.097Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136904" minute="118" event_number="18"
    event_code_id="1029"
    date="2010-12-14T16:08:23.190Z" event_code="Goal Home"
    tickerstate_id="2" tickerstate="1st half" score_home="1" score_away="0"
statistics="2053=0 1029=1" seconds="7036" currentPlaytime="7036014"
    clockRunning="true"/>
  <event game_id="136904" minute="118" event_number="19" event_code_id="265"
    date="2010-12-14T16:08:25.903Z" event_code="Scorer Preview"
    tickerstate_id="2" tickerstate="1st half" score_home="1" score_away="0"
    seconds="7038" currentPlaytime="7038727" clockRunning="true"/>
  <event game_id="136904" minute="118" event_number="20"
    event_code_id="2068" date="2010-12-14T16:08:29.650Z"
    event_code="Kickoff Away"
    tickerstate_id="2" tickerstate="1st half" score_home="1" score_away="0"
    seconds="7042" currentPlaytime="7042474" clockRunning="true"/>
  <event game_id="136904" minute="118" event_number="21"
    event_code_id="2075" date="2010-12-14T16:08:29.650Z" event_code="Safe
    Away"
    tickerstate_id="2" tickerstate="1st half" score_home="1"
    score_away="0" seconds="7042" currentPlaytime="7042474"
    clockRunning="true"/>
  <event game_id="136904" minute="118" event_number="22"
    event_code_id="2075" date="2010-12-14T16:08:53.815Z" event_code="Safe
    Away"
    tickerstate_id="2" tickerstate="1st half" score_home="1"
    score_away="0" seconds="7066" currentPlaytime="7066639"
    clockRunning="true"/>
  <event game_id="136904" minute="118" event_number="23"
    event_code_id="1030" date="2010-12-14T16:09:04.905Z"
```

```

event_code="Cancel Goal Home"                                tickerstate_id="2" tickerstate="1st
half" score_home="0"
    score_away="0" related_events="18" statistics="2053=0 1029=0"
    seconds="7077" currentPlaytime="7077727" clockRunning="true"/>
</event_list>

```

> Clear Event

Clear events are sent when one or more events need to be marked as invalid afterwards.

```

<event_list date_generated="2010-12-14T16:43:40.745Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136904" minute="18" event_number="44" event_code_id="1024"
    date="2010-12-14T16:32:59.070Z" event_code="Attack Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" statistics="2048=0 1024=2" seconds="1071"
    currentPlaytime="1071309" clockRunning="true"/>
  <event game_id="136904" minute="18" event_number="45"
    event_code_id="1052" date="2010-12-14T16:32:59.681Z"
    event_code="Danger Home" tickerstate_id="2" tickerstate="1st half"
    score_home="0" score_away="1" seconds="1071" currentPlaytime="1071920"
    clockRunning="true"/>
  <event game_id="136904" minute="18" event_number="46" event_code_id="1026"
    date="2010-12-14T16:32:59.681Z" event_code="Dangerous Attack Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" statistics="2050=0 1026=1" seconds="1071"
    currentPlaytime="1071920" clockRunning="true"/>
  <event game_id="136904" minute="19" event_number="47" event_code_id="1039"
    date="2010-12-14T16:33:11.858Z" event_code="Shot (on target) Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" statistics="1039=1 2063=0" seconds="1084"
    currentPlaytime="1084098" clockRunning="true"/>
  <event game_id="136904" minute="19" event_number="48" event_code_id="2075"
    date="2010-12-14T16:33:21.414Z" event_code="Safe Away"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" seconds="1093" currentPlaytime="1093655"
    clockRunning="true"/>
  <event game_id="136904" minute="19" event_number="49" event_code_id="2077"
    date="2010-12-14T16:33:21.414Z" event_code="Goal kick Away"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" statistics="1053=0 2077=0" seconds="1093"
    currentPlaytime="1093655" clockRunning="true"/>
  <event game_id="136904" minute="19" event_number="50" event_code_id="257"
    date="2010-12-14T16:33:29.948Z" event_code="Clear" tickerstate_id="2"
    tickerstate="1st half" score_home="0" score_away="1" clears_event="47"
    statistics="1039=0 2063=0" seconds="1102" currentPlaytime="1102190"
    clockRunning="true"/>
</event_list>

```

The given example illustrates a situation where a shot on goal was cleared after further events occurred, but the shot was recognised as incorrect information.

> Reset Period

A special use case of the *Clear* event is clearing a game period. In the example below the 2nd half of the game was started by accident and further events were entered. Therefore, no cancellation of *Start 2nd half* is possible any more.

If a period of a game is reset, all events of this period are cleared and the ticker state is set to its previous value, in the example the game is set back to *Pause*.

```
<event_list date_generated="2010-12-14T16:53:35.587Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136904" minute="28" event_number="53" event_code_id="1"
    date="2010-12-14T16:42:53.813Z" event_code="Stop 1st half"
    tickerstate_id="4" tickerstate="Pause" score_home="0" score_away="1"
    seconds="1666" currentPlaytime="1666056" clockRunning="true"/>
  <event game_id="136904" minute="46" event_number="54" event_code_id="13"
    date="2010-12-14T16:42:55.925Z" event_code="Start 2nd half, kickoff:"
    tickerstate_id="8" tickerstate="2nd half" score_home="0"
    score_away="1" seconds="2700" currentPlaytime="2700000"
    clockRunning="true"/>
  <event game_id="136904" minute="46" event_number="55" event_code_id="1051"
    date="2010-12-14T16:43:10.225Z" event_code="Safe Home"
    tickerstate_id="8" tickerstate="2nd half" score_home="0"
    score_away="1" seconds="2714" currentPlaytime="2714298"
    clockRunning="true"/>
  <event game_id="136904" minute="46" event_number="56" event_code_id="1024"
    date="2010-12-14T16:43:14.988Z" event_code="Attack Home"
    tickerstate_id="8" tickerstate="2nd half" score_home="0"
    score_away="1" statistics="2048=0 1024=3" seconds="2719"
    currentPlaytime="2719059" clockRunning="true"/>
  <event game_id="136904" minute="46" event_number="57" event_code_id="257"
    date="2010-12-14T16:43:26.057Z" event_code="Clear" tickerstate_id="4"
    tickerstate="Pause" score_home="0" score_away="1" clears_event="56
55    54" seconds="2730" currentPlaytime="2730130" clockRunning="true"/>
</event_list>
```

> Correct Statistics

The CSTAT event basically behaves as other clear or cancellation events. CSTAT clears the event specified by the related event number and corrects the game statistics. Optionally, a replacement event is sent after CSTAT.

In the example below the *Error Away* (event_number=24) is cleared afterwards by sending CSTAT (eventNumber=27) and replaced with a *Block Home* (event_number=28).

```
<event_list date_generated="2014-01-10T11:48:25.176Z" pusher_id="1"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="334293" minute="1" event_number="24"
event_code_id="2437" date="2014-01-10T09:06:19.253Z"
event_code="Error Away"
    tickerstate_id="2101" tickerstate="1st set" score_home="0"
    score_away="0" statistics="1413=0 2437=1" currentPlaytime="119258"
    clockRunning="true" score="1421=2 2445=2"/>
  <event game_id="334293" minute="1" event_number="25" event_code_id="1421"
    date="2014-01-10T09:06:19.253Z" event_code="Point Home"
    tickerstate_id="2101" tickerstate="1st set" score_home="0"
    score_away="0" statistics="2445=2 1421=3" currentPlaytime="119258"
    clockRunning="true" score="1421=3 2445=2"/>
  <event game_id="334293" minute="2" event_number="26" event_code_id="1431"
    date="2014-01-10T09:06:20.020Z" event_code="Point confirmation Home"
    tickerstate_id="2101" tickerstate="1st set" score_home="0"
    score_away="0" currentPlaytime="120025" lockRunning="true"
```

```

        score="1421=3 2445=2"/>
<event game_id="334293" minute="8" event_number="27" event_code_id="279"
    date="2014-01-10T09:12:46.917Z" event_code="Correct statistics"
    tickerstate_id="2101" tickerstate="1st set" score_home="0"
    score_away="0" related_events="24" statistics="1413=0 2437=0"
    currentPlaytime="506923" clockRunning="true" score="1421=3 2445=2"/>
<event game_id="334293" minute="8" event_number="28" event_code_id="1410"
    date="2014-01-10T09:12:46.917Z" event_code="Block Home"
    tickerstate_id="2101" tickerstate="1st set" score_home="0"
    score_away="0" statistics="1410=2 2434=0" currentPlaytime="506923"
    clockRunning="true" score="1421=3 2445=2"/>
</event_list>

```

2.4.12 Value Event

Value events provide additional event-specific information, based on the type of event. Unlike other special events (ball position, player-related events), value events do not have a single specific event code. They can only occur together with a defined set of event codes.

Attribute	Mandatory? (Yes/No)	Description
		<p>A list of value event data; [1-n] entries, depending on the event code.</p> <ul style="list-style-type: none"> > valueEventType: Type of the value event parameter, e.g. 'shirtColor' on 'Jersey changed' events. > dataType: Data type of the parameter, you can always expect the same data type for a [valueEventType]. > 1 = String > 2 = Boolean > 3 = Integer > 4 = Long > 5 = Double > 6 = Date > value: The value of the parameter, provided as string.
valueEventData	Yes	

Table 14 – Value Event – Event Attributes

Note: Only the database feed format (see chapter 5.1 *Database*) contains the full [type,dataType,value] information, but the data type is of an event type that is fixed and does not need a dynamic data type mapping.

More detailed information on value events is provided in chapter 8.15 *Value Event Mappings*.

2.4.13 Player Data Confirmation

This event confirms that player-related information regarding an event is correct. It includes a reference to the event to be confirmed (e.g. goals, cards and substitution events).

Attribute	Mandatory? (Yes/No)	Description
relatedSportsTickerEventNumber	Yes	A reference to the event to be confirmed.

Table 15 – Player Data Confirmation – Event Attributes

```
<event_list date_generated="2013-07-16T08:46:11.670Z" pusher_id="1"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="319129" minute="2" event_number="3"
    event_code_id="2058" date="2013-07-16T08:46:11.360Z"
    event_code="Yellow card Away" tickerstate_id="2"
    tickerstate="1st half" score_home="0" score_away="0"
    statistics="1034=1 2058=1" seconds="102"
    currentPlaytime="102384" clockRunning="true"/>
  [...]
  <event game_id="319129" minute="2" event_number="5"
    event_code_id="285" date="2013-07-16T08:46:15.842Z"
    event_code="Player data for Yellow card in the 2. minute
confirmed." tickerstate_id="2" tickerstate="1st half"
    score_home="0" score_away="0" related_events="3"
    related_event_codes="2058" seconds="106"
    currentPlaytime="106865" clockRunning="true"/>
</event_list>
```

2.5 Keep Alive Event

Keepalive events are sent to ensure connectivity of a feed. This information should also be used by a receiver of the feed to monitor the feed status.

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the feed.
providerId	Yes	The timestamp when the keepalive event was generated.

Table 16 – Keepalive Event – Event Attributes

2.6 Master Data Events

Master data is basic information about games and related objects such as competitors, competitions, countries and venues. Not all feed interfaces provide the full information of the described entities in this chapter and implementations may differ between the messaging formats.

The following tables should give an overview of the general structure of master data entities:

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the game.
homeTeamId	Yes	The unique ID of competitor 1 (described in chapter 2.6.5 <i>Competitor</i>).
foreignTeamId	Yes	The unique ID of competitor 2 (described in chapter 2.6.5 <i>Competitor</i>).
leagueId	Yes	The unique ID of the competition in which the game takes place (leagues/competitions are described in 2.6.3 <i>Competition</i>).
coverageId	Yes	Coverage information about the game: > 0 = Live Game > 1 = TV Game
playStateId	Yes	The current game status; see chapter 0 Table 61 – Cricket State ID Mappings Game Status Mapping for further details.
stadiumId	Yes	The unique ID of the venue where the game takes place. Refers to a venue as described in chapter 2.6.4 <i>Venue</i> .
dateTime	Yes	Game start time
neutralGround	Yes	Is the game performed on neutral ground, e.g. at a World Cup tournament?
scoutConfirmed	Yes	Has the Scout confirmed?
oddsAvailable	Yes	Are odds events available for the game? (deprecated)
liveOddsAvailable	Yes	Are live odds available? (deprecated)
booked	Yes	Have I booked this game?
refereeId	Yes	The unique ID of the game's referee (referees are described in chapter 2.6.6 <i>Referee</i>)
scoutId	Yes	The unique ID of the game's scout (scouts are described in chapter 2.6.7 <i>Scout</i>)
homeAdvantageId	Yes	The competitor ID with home advantage; see chapter 8.5 <i>Home Advantage Mapping</i> for further details

Table 17 – Master Data – Game Attributes

2.6.1 Game Data

Game data provides (optional) information about games in a flexible data structure (for future extensions).

Attribute	Mandatory? (Yes/No)	Description
parameterId	Yes	The (English) name of the respective parameter.

Attribute	Mandatory? (Yes/No)	Description
typeId	Yes	<p>The data type of the parameter</p> <ul style="list-style-type: none"> > 1: String > 2: Boolean > 3: Integer > 4: Long > 5: Double > 6: Date <p>In pusher messages, the value for the parameter is always delivered as String and should be interpreted depending on the typeId of the parameter – a parameter of the type “Long” should only contain numeric values that can be converted to Long.</p>
description	Yes	The textual property description.
Position	Yes	<p>The position index for data with multiple entries</p> <ul style="list-style-type: none"> > -1 Single parameter > [0-n] List parameter
value	Yes	The string value of the game data parameter.

Table 18 – Master Data – Game Data Attributes

2.6.2 Country

Attribute	Mandatory? (Yes/No)	Description
id	Yes	The unique ID of the country.
name	Yes	The (English) name of the country.
isoName	Yes	The ISO country code (e.g. “AUT”, “USA”, “DEU”).
changeTime	Yes	The timestamp of the last update.

Table 19 – Master Data – Country Attributes

2.6.3 Competition

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the competition.
sportsId	Yes	The sport (soccer, basketball, etc.) the league or competition refers to; see chapter 8.9 <i>Sports Mapping</i> for details.
countryId	Yes	The country in which the competition takes place.
name	Yes	The official name of the competition.
regularPlaytime	Yes	The length of a regular Game Period (a halftime, a quarter) of a game in the competition.

Attribute	Mandatory? (Yes/No)	Description
overPlaytime	Yes	The length of an overtime of a game in the competition; 0 if there is no overtime.
hasPenaltyShootout	Yes	Does the competition have a penalty shootout if there is a draw after regular playtime/overtime?
changeTime	Yes	The timestamp of the last update.
hasPlayerData	Yes	If set to 'true', there is detailed player-related information provided for the competition.

Table 20 – Master Data – Competition Attributes

> League Parameters

League parameters are optional attributes of a competition that describe game mode details of a specific+ competition (e.g.: are NBA rules applied in a specific basketball game?).

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the parameter.
typeId	Yes	<p>The data type of the parameter.</p> <ul style="list-style-type: none"> > 1.String > 2.Boolean > 3.Integer > 4.Long > 5.Double > 6.Date <p>In pusher messages, the value for the parameter is always delivered as String and should be interpreted depending on the typeId of the parameter – a parameter of the type “Long” should only contain numeric values that can be converted to Long.</p>
description	Yes	The textual description of the game data parameter.
value	Yes	The parameter value as string.

Table 21 – Master Data – League Parameter Attributes

2.6.4 Venue

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the venue.
sportsId	Yes	Is it a soccer/basketball/... venue? See chapter 8.9 <i>Sports Mapping</i> for details.
name	Yes	The official name of the venue.
changeTime	Yes	The timestamp of the last update.

Table 22 – Master Data – Venue Attributes

2.6.5 Competitor

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the competitor.
sportsId	Yes	Is it a soccer/basketball/... competitor? (Described in chapter 8.9 <i>Sports Mapping</i>)
countryId	Yes	The country the competitor is from as described in chapter.
name	Yes	The official name of the competitor.
changeTime	Yes	The timestamp of the last update.

Table 23 – Master Data – Competitor Attributes

2.6.6 Referee

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the referee.
sportsId	Yes	Is it a soccer/basketball/...referee? (described in chapter 8.9 <i>Sports Mapping</i>).
countryId	Yes	The country the referee is from (countries are described in chapter 2.6.6 <i>Referee</i>).
name	Yes	The name of the referee.
changeTime	Yes	The timestamp of the last update.

Table 24 – Master Data – Referee Attributes

2.6.7 Scout

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the Scout.
avgRating	Yes	The average rating of the Scout.
last10GamesAvgRating	Yes	The average rating of the Scout based on the last ten games.
numOfGames	Yes	The overall number of games scouted by the Scout.

Table 25 – Master Data – Scout Attributes

2.6.8 Series

A number of consecutive games of two competitors, e.g. 'Best of N' matches or KO-rounds. Pre-game information is provided in a SeriesMatch (see chapter 2.6.9 *Series Match*).

Attribute	Mandatory? (Yes/No)	Description
Id	Yes	The unique ID of the series.

Attribute	Mandatory? (Yes/No)	Description
numberOfMatches	Yes	The number played in this series (=number of SeriesMatches entries).
team1Id	Yes	The id of competitor 1 (usually the home competitor in the first game of the series; teams/competitors are described in chapter 2.6.5 <i>Competitor</i>).
team2Id	Yes	The id of competitor 2 (usually the home competitor in the first game of the series; teams/competitors are described in chapter 2.6.5 <i>Competitor</i>).
winnerTeamID	No	The competitor that won the series; teams/competitors are described in chapter 2.6.5 <i>Competitor</i> .
score1	No	The aggregated score for competitor 1 in the series.
score2	No	The aggregated score for competitor 2 in the series.
standing1	No	The score in the series for competitor 1.
standing2	No	The score in the series for competitor 2.

Table 26 – Master Data – Series Attributes

2.6.9 Series Match

Attribute	Mandatory? (Yes/No)	Description
seriesId	Yes	The ID of the series this match is played in.
Leg	Yes	The consecutive number of the game in the series (1 = the 1 st game etc.).
homeTeamId	Yes	The RunningBall teamID of competitor 1 in this SeriesMatch (teams/competitors are described in chapter 2.6.5 <i>Competitor</i>).
foreignTeamId	Yes	The RunningBall teamID of competitor 2 in this SeriesMatch (teams/competitors are described in chapter 2.6.5 <i>Competitor</i>).
playStateId	Yes	The current play game status. E.g.: <ul style="list-style-type: none"> > 1 Open > 2 Finished
seriesWinnerId	No	In case of an in-running cancellation the game status is set from Running to Finished. In such cases a System Message is sent (see 8.8 <i>System Message Mapping</i> for further details on system message mappings). Defines the status of this series <ul style="list-style-type: none"> > 1 Open > 2 Finished > 3 Draw
sportsTickerId	No	The reference to the RunningBall fixture (if available). Teams/competitors are described in chapter 2.6 <i>Master Data Events</i>).
score1	No	The score for competitor 1 in this game.

Attribute	Mandatory? (Yes/No)	Description
score2	No	The score for competitor 2 in this game.
standing1	No	The score in the series for competitor 1.
standing2	No	The score in the series for competitor 2.

Table 27 – Master Data – SeriesMatch Attributes

2.7 Player Attributes

Optionally, the RB feed provides information about players and their current team and team history. Player information events are used to provide updates through the feed. Due to the huge amount of data the base set of player data can be provided before the feed is activated.

Attribute	Mandatory? (Yes/No)	Description
id	Yes	The unique ID of the player
jerseyName	Yes	The name of the player, e.g.: "D. Maradona"
nationality	Yes	The nationality of the player (countryId)
playerPositionId	Yes	The player's position (see chapter 8.10 <i>Player Position Mapping</i> for details)
teamPlayers	Yes	Information about the current team of the player <ul style="list-style-type: none"> > TeamId: The unique ID of the player's current team > playerRatingId: See chapter 8.11 <i>Player Rating Mapping</i> for details > jerseyNumber: The player's jersey number

Table 28 – Master Data – Player Attributes

2.8 Matrix of Supported Special Events

Sport	BP	SUB	PR	SM	ST	GC	TC	KA	MD	PA	LU	PDC	GCC
Soccer	X	X	X	X	X	X	X	X	X	X	X	X	
Basketball			X	X		X	X	X	X	X	X		
Ice Hockey	X		X	X		X	X	X	X				
Volleyball			X	X		X	X	X	X				
Beach Volleyball				X		X	X	X	X				
Handball			X	X		X	X	X	X				
Cricket								X	X				X

Table 29 – Event Type Support Matrix

Key:

BP – Ball Position Event
PR – Player-Related Event
ST – Stoppage Time Event
TC – Time Correction Event
MD – Master Data Event
LU – Line-up Event
GCC – Game Conditions Changed Event

SUB – Substitution Event
SM – System Message Event
GC – Game Condition Event
KA – Keepalive Event
PA – Player Attributes Event
PDC – Player Data Confirmation

3 Data Feed Interfaces

3.1 Connection-Based

3.1.1 Database Feed (MSSQL, MySQL or Oracle)

The feed pusher currently supports the following database types:

- > MS SQL 2005 and above.
- > MySQL from version 5.0.17 (users need to have root privileges for database procedures setup).
- > Oracle from version 10.

In database feeds, a JDBC connection is used to access the database server set-up with a feed-specific scheme. This scheme also contains a trigger that can update game statistics when the individual events are entered. The game statistics are continuously updated. The feeding system caches unsent data in case of a connection loss and tries to reconnect periodically. If the connection can be re-established, the cached data is resent. It is also possible to configure an emergency notification contact. Then a notification email is sent to you in case of a connection failure.

The figure below shows the general database feed architecture.

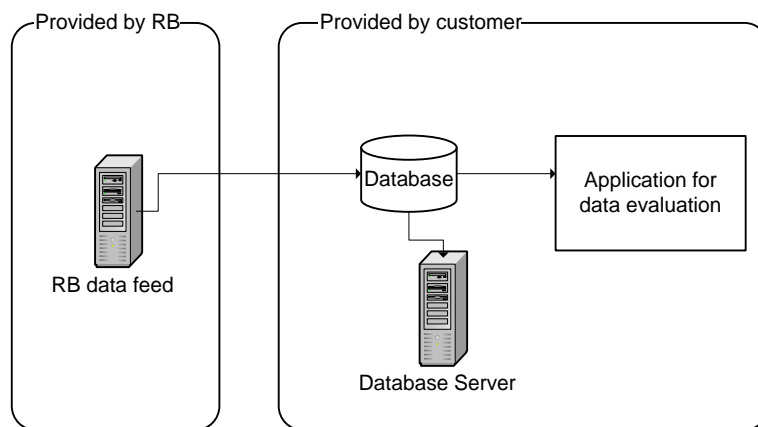


Figure 1 – General Database Architecture

If the Microsoft SQL Server DB is used, there is the possibility to set up a database mirror. This provides higher availability in case of a hardware failure.

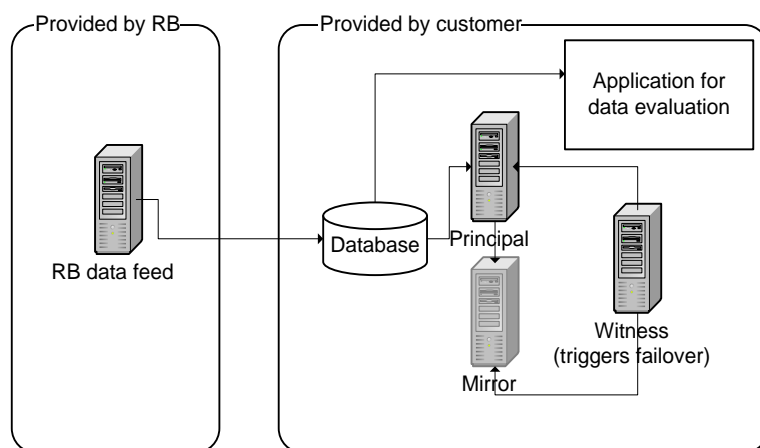


Figure 2 – MSSQL Architecture with a Database Mirror

3.1.2 Stream Connections Implementing the TCP Text or XML via a TCP Feed

If no database can be provided, one of two different application interfaces can be used to connect to the feed. The main difference to the database feed is that a client application following the feed interface specification must establish a stream connection to a socket server provided by the feed.

The basis for one piece of information (a request or a response) of both TCP stream connections is one line. This is important when you want to interpret the information correctly. A request is a part of information sent from your client to our feed. A response is a part of information sent from our feed to your client.

RB provides a hostname/port and a default number of user accounts (5) for access to the TCP feed.

Clients should implement the following behaviour:

- > Handle synchronous and asynchronous messages properly: wait for responses and consume asynchronous messages ('live events').
- > Handle documented response codes, such as 'login failed', 'already booked'.
- > Automatically recover from connection issues (reconnection intervals of 1-5 seconds).
- > Usage of API commands to restore sessions (register matches, fetch missed events).
- > Provided user accounts can only be used for one network session. Existing sessions will automatically be disconnected by the server if shared between clients (login attempt "looping").

Note: RB might temporarily disable accounts not complying with the criteria listed above (especially in case of a high amount of "login" counts or other API calls which clearly show misbehaviour of the component on the partner's side).

> Request Line Breaks:

Name	Character	Hex	Decimal
Line feed	\n	0x0A	10
Carriage return + line feed	\r\n	0x0D 0x0A	10 13
Carriage return	\r	0x0D	13

Table 30 – Request Line Breaks

> Response Line Breaks:

Name	Character	Hex	Decimal
Line feed	\n	0x0A	10

Table 31 – Response Line Break

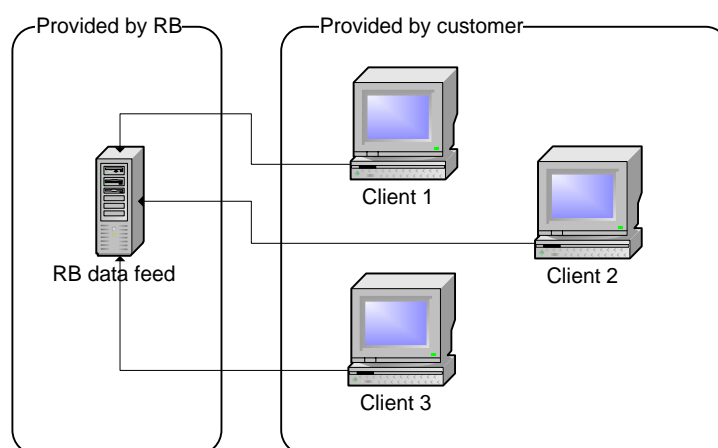


Figure 3 – Stream Connection Architecture

3.2 Connectionless

3.2.1 Http XML Web Post Feed

The RB data feed calls an URL on the receiving end point (the server managed by the customer) by posting XML data into the parameter called "rb_data". For an existing web application this is probably the easiest way to integrate the data feed into the system. Http as well as https are supported.

Messages sent by the Http feed must always be confirmed by returning HTTP_OK (200). For 'unconfirmed' messages the delivery is repeated and preceding messages are queued up.

In case of endpoint outages or protocol errors, up to 50000 messages are held in an output queue.

Therefore, the http endpoint must accept every POST call to consume messages properly and to avoid 'queuing' in regular cases:

- > Successful delivery.
- > Messages of ignored fixtures.
- > "Duplicated" events: If a message was sent to the server, but no response (or a protocol error) is returned, the same message ('event') is sent again until it is confirmed by HTTP_OK (200).

Note: This could lead to an endless loop if it is not handled properly and no new messages will be delivered.

The default timeout of POST calls is 10 seconds. The used encoding is the UTF-8 xml standard encoding.

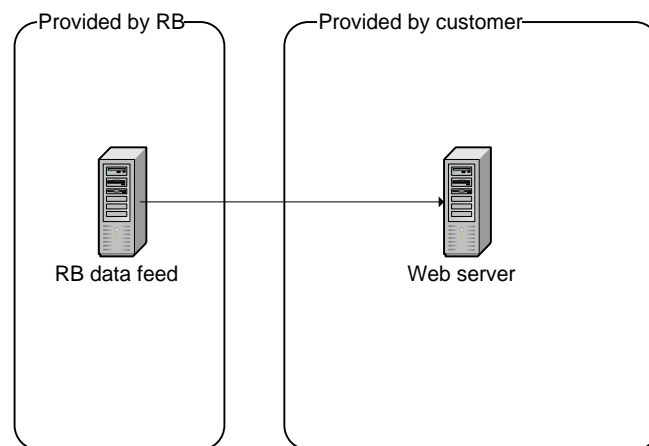


Figure 4 – XML Post Feed Architecture

4 Game Selection (Booking)

There are three methods available to book games: auto booking, pre-booking and manual booking.

4.1 Auto Booking

All offered games are automatically booked for the feed.

4.2 Pre-booking

All games of the respective competition are automatically transferred to the feed. Additionally, it can be defined that only games that start during a specific time frame are transferred.

Example:

The UEFA Champions League and timeframe from 2 pm until 8 pm is chosen. Then, all available UEFA Champions League games that start between 2 pm and 8 pm will be transmitted. Besides that, games from other leagues or competitions can always be manually booked in the Trader Client.

4.3 Manual Booking

All games to be transferred must be selected manually using the Trader Client, the http pull interface, or the Socket Client if the integration method TCP has been chosen.

5 Interface Description

5.1 Database

The database scheme provided by RunningBall contains the tables listed below as well as a trigger for statistical values that are updated in-running.

5.1.1 Master Data

Database feeds provide information about the “master data” of games, such as competitors, competitions or countries.

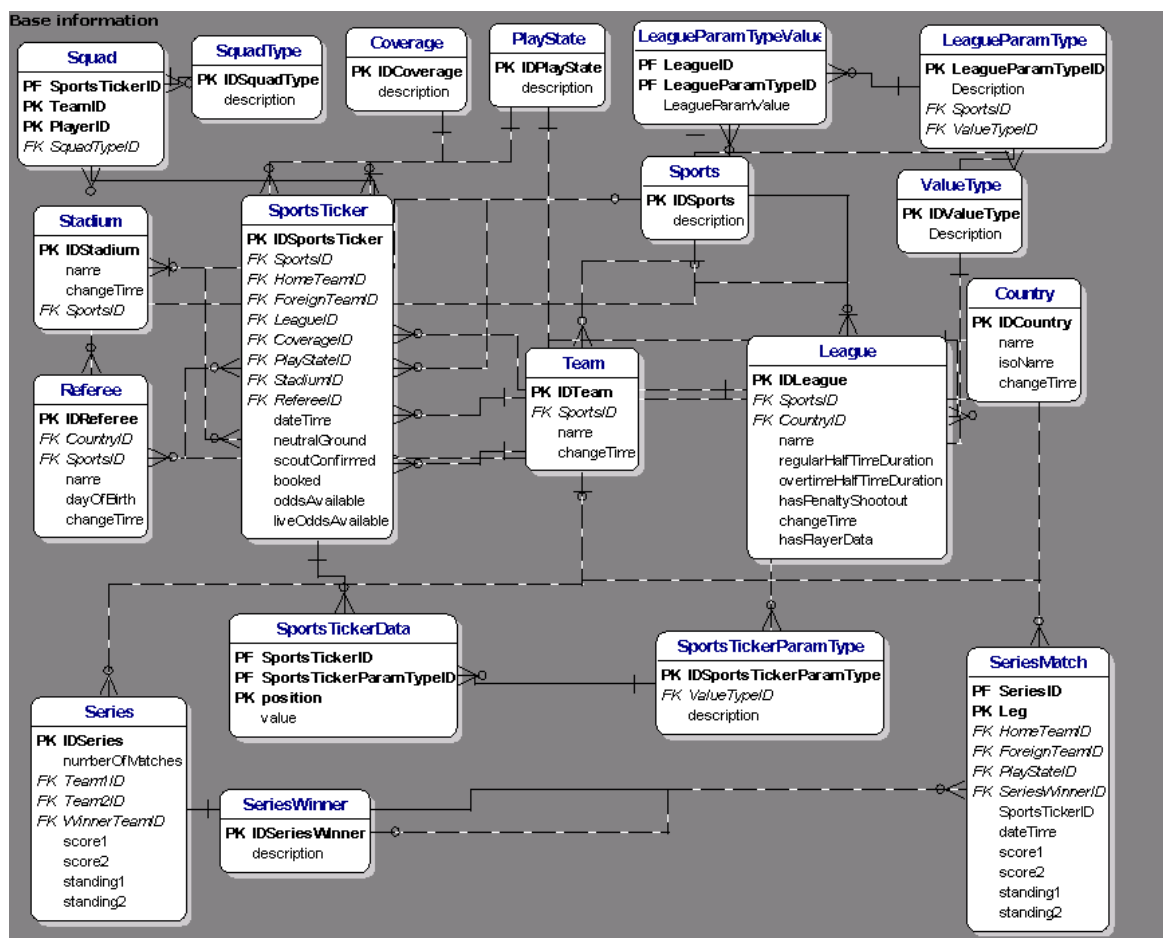


Figure 5 – XML Post Feed Architecture

Table	Description
Coverage	Defines whether or not the game is TV Game or a Live Game.
PlayState	The Game Status; see chapter 8.4 <i>Game Status Mapping</i> .
Sports	All sports that are available for you.

Table	Description
SportsTicker	Information about a single game <ul style="list-style-type: none"> > Game start time > Game Status > Competitor > Venue > Etc.
Stadium	Venue name mappings
Teams	Competitor name mappings
Country	Country name mappings
League	Information about the competition (name, game settings, country & sport)
LeagueParamType	Look-up table for all possible league parameter types (including the textual description and sports mappings)
ValueType	Look-up table for all possible league parameter values (string, long, date, ...)
LeagueParamType Value	Parameter value mappings for competitions.
Squad	<p>If the competition provides player information and the 'Line-up changed' (ID520) event was sent initially, the teams' line-ups will be shown in this table.</p> <ul style="list-style-type: none"> > Team > Player > Squad: Starting 11, Bench, Suspended... <p>The 'SquadTypeId' indicates if a team's player is in the 'Starting eleven' or on the 'Bench' in this game.</p>
SquadType	Look-up table for 'SquadTypeId' in the 'Squad' table. See chapter 8.13 <i>Squad Type Mapping</i> .
Referee	Basic information about the referee of the game (name, country).
SportsTickerData	Lookup table for all possible game data parameters.
SportsTickerParamType	SportsTicker data entries of a single game (per SportsTickerID).
Series	Defines a series of consecutive matches played between two competitors. See chapter 2.6.8 <i>Series</i> .
SeriesMatch	<p>Defines a single game played in a series, e.g. 'Best of N'.</p> <p>Note: The <i>SeriesMatch.SportsTickerID</i> fixture reference column has no foreign key constraint to the <i>SportsTicker</i> table defined by design, because there might be further games (SeriesMatch) in the series that are not yet entered (no SportsTicker entry available yet). See chapter 2.6.9 <i>Series Match</i>.</p>
HomeAdvantage	The competitor with home advantage; see chapter 8.5 <i>Home Advantage Mapping</i> for further details.

Table 32 – Data Base Master Data – Tables

5.1.2 Game Events and Statistics

The following scheme describes how game events as specified in chapter 2.3 Standard Game Events are mapped to the database:

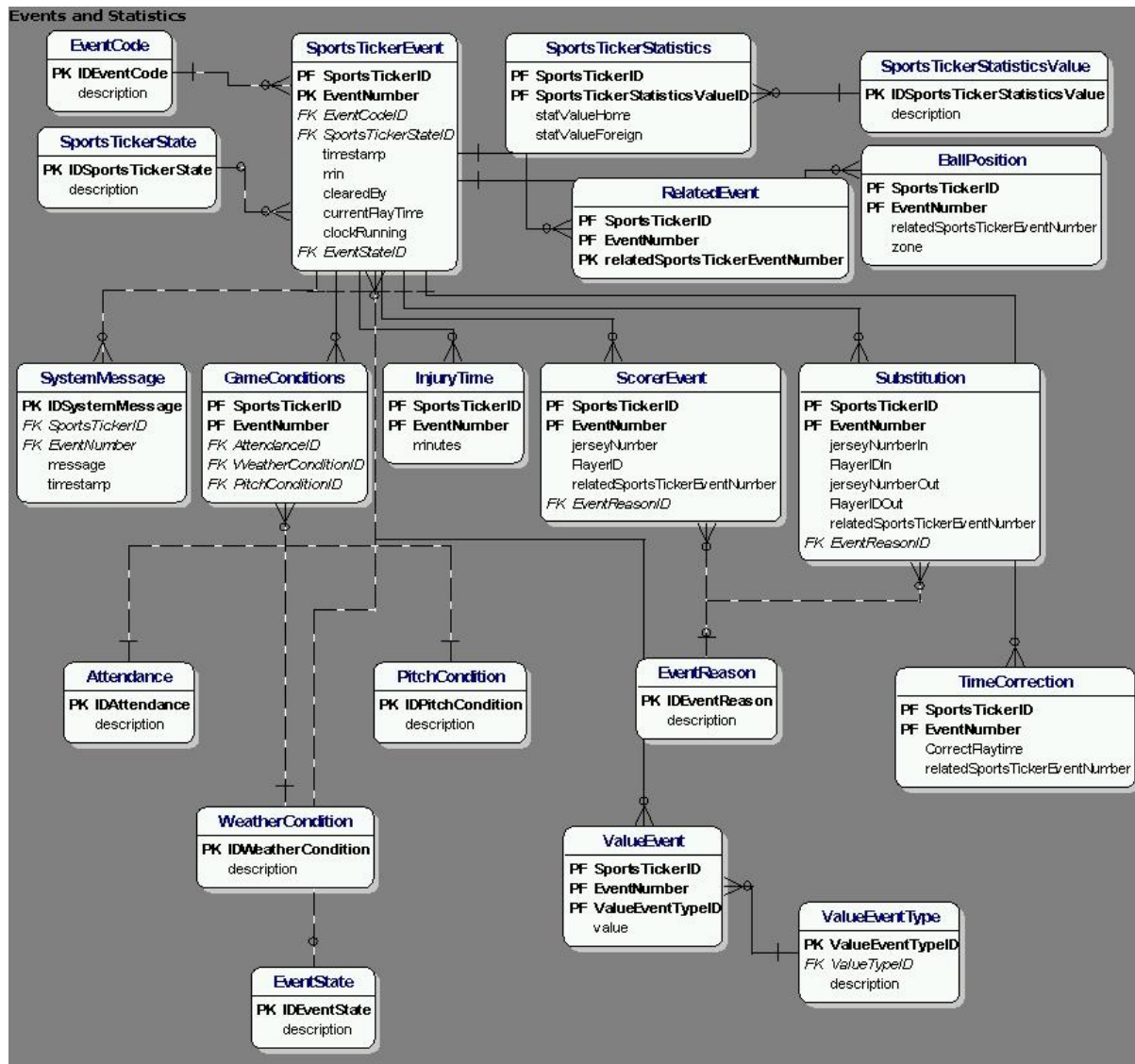


Figure 6 – Game Events and Statistics

Table	Description
EventCode	Look-up table for event codes associated with game events For a detailed description, see chapter 8.1 <i>Event Code Mapping</i> .
SportsTickerState	Look-up table for game states associated with game events. For a detailed description, see chapter 8.3 <i>Ticker State Handling</i> .
SportsTickerEvent	Game events as described in chapter 0 Table 48 – Cricket Event Code ID Mappings Event Reason Mapping.
SportsTickerStatistics	Statistical information about a game; multiple statistical values (goals, cards, free throws) of every game are provided.
SportsTickerStatisticsValue	Describes a single statistical value (goals, cards).

Table	Description
BallPosition	Additional information regarding ball position events. The sports-specific zone code is stored in the zone column. See also chapter 8.16 <i>Ball Position Mappings</i> .
GameConditions	Additional information regarding game condition events. GameConditions refers to Attendance, PitchCondition and WeatherConditions. See also chapter 2.4.7 <i>Game Condition Event</i> .
InjuryTime	Additional information regarding injury time events; see also chapter 2.4.6 <i>Stoppage Time Event</i> .
ScorerEvent	Additional information regarding scoring events; see also chapter 2.4.4 <i>Player-Related Events</i> .
Substitution	Additional information regarding substitution events. See also chapter 2.4.2 <i>Substitution Event</i> . The optional attributes relatedSportsTickerEventNumber and eventReasonID are only used for substitution update events (ID283). See also chapter 2.4.2 <i>Substitution Event</i> .
SystemMessage	Additional information regarding system message events. See also chapter 2.4.5 <i>System Message Event</i> .
TimeCorrection	Additional information for time correction events. See also chapter 2.4.8 <i>Generic Game Conditions Changed Event</i> .
Attendance	Look-up table for information about the attendance (used in the game condition event). See also chapter 2.4.7 <i>Game Condition Event</i> .
PitchCondition	Look-up table for information about the pitch condition (used in the game condition event); see also chapter 2.4.7 <i>Game Condition Event</i> .
WeatherConditions	Look-up table for information about the weather conditions (used in the game condition event). See also chapter 2.4.7 <i>Game Condition Event</i> .
ValueEvent	A single event parameter, referred to via [SportsTickerID,EventNumber].
ValueEventType	The description of possible value event parameters. "ValueTypeID" refers to the "ValueType" table that is used as a look-up for "LeagueParameters".
RelatedEvent	The event relation mapping table for events referring to other events, e.g. Cancel Goal Home, ...

Table 33 – Data Base Game Event and Statistical Tables

5.1.3 Market Price (Deprecated)

Detailed information about market prices/odds messages:

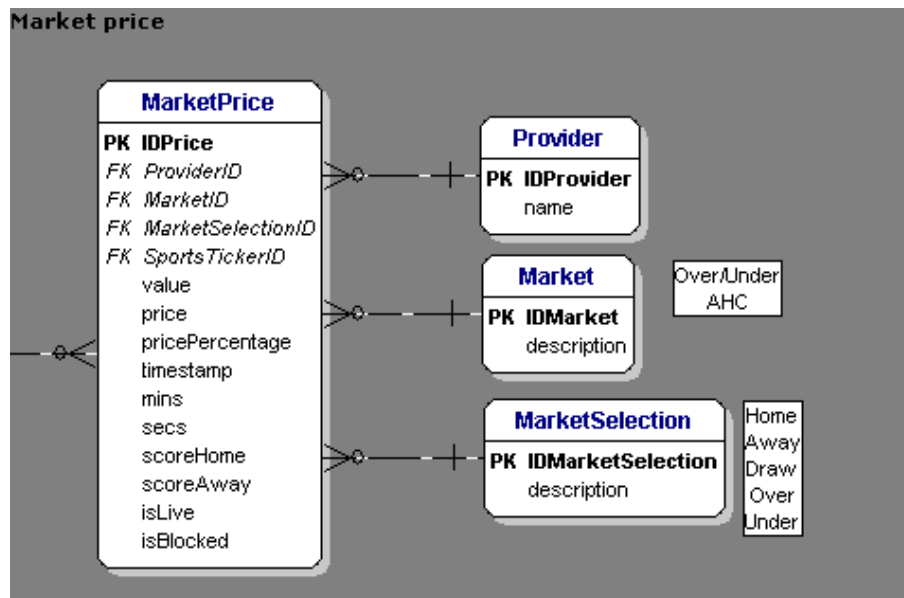


Figure 7 – Market Price Event

Table	Description
MarketPrice	Information regarding the odds of the game.
Provider	Look-up table for market price/odds providers.
Market	Look-up table for available markets (e.g. "1X", "Over/Under", ...).
SportsTicker	Look-up table for available market selections.

Table 34 – Data Base Market Price Tables

5.1.4 Player Information

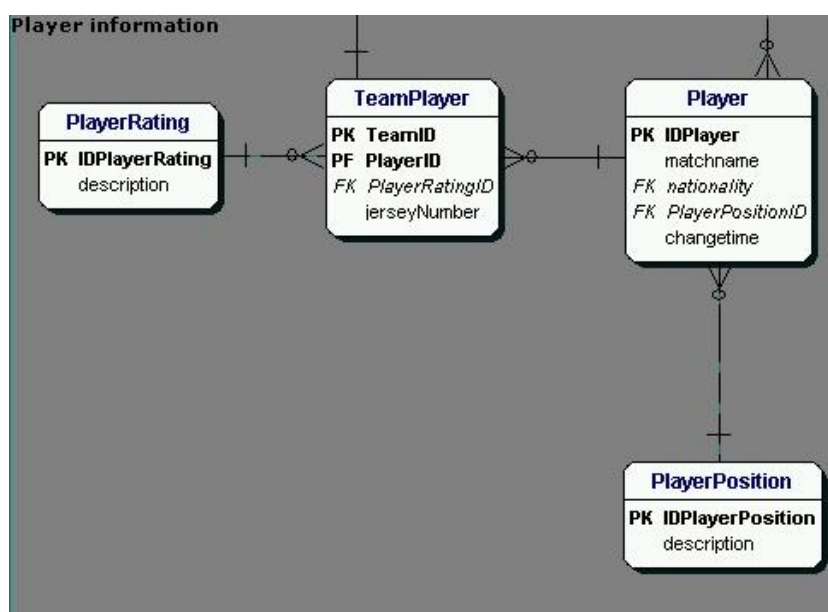


Figure 8 – Player Information

Table	Description
Player	Player data.
TeamPlayer	Player-team relation.
PlayerRating	Look-up table for players' ratings; see chapter 8.11 <i>Player Rating Mapping</i> for detailed information. Currently, there is no data available.
PlayerPosition	Look-up table for players' position; see chapter 8.10 <i>Player Position Mapping</i> for detailed information.
Team	Competitor name mappings.
Nationality	Country name mappings.

Table 35 – Data Base – Player Tables

5.1.5 Keep Alive Event



Figure 9 – Administrative Tables

6 Stream Connections

6.1 General Information

"XML over TCP" and "TCP text" use the same functionality that is described below. For the detailed protocol description of each of the two implementations please refer to chapters 6.2 *TCP XML Protocol Details* and 6.3 *TCP Text Protocol Details*.

Stream connections offer a set of synchronous commands and asynchronous event messages.

Note: All features except client "keep alive" (FeatureID =1, see chapter 6.2.1 *Keep Alive from the Client*) and timestamp requests (FeatureID =5) require to be logged in with valid user data (username/password).

Only one active session per user is allowed at a time, the current session will be disconnected if credentials are used on multiple connections/clients.

6.1.1 Connection

The connection is set up via a TCP socket, optionally secured by SSL encryption. Please see chapter 3.1.2 *Stream Connections Implementing the TCP Text or XML via a TCP* for correct line breaks.

6.1.2 Game Registration

> Automatic registration

All booked games are automatically available in each client (please see chapter 4 *Game Selection (Booking)* for game booking). This means that the set of possible games to receive data from is the same for all clients and they do not have to explicitly register games.

> Manual registration

Every single client has to select the games he/she is interested in. Different game sets can be processed by different clients. The game set for a client is only valid for one session. This means that the games have to be selected again if there is a connection loss and the client does a re-login.

6.1.3 Feature Matrix

Feat. ID	Name	Description	XML TCP – Information	TCP Text – Information
1	Keepalive from the client	Keepalive that the client sends to the server; the server disconnects the client in case of a timeout; interval 5 seconds.	Link	Link

Feat. ID	Name	Description	XML TCP – Information	TCP Text – Information
2	Keepalive from the server	Keepalive that the server sends to the client; the client should reconnect in case of a timeout; interval 5 seconds.	Link	Link
3	Login - Request	Login request by the client.	Link	Link
4	Login - Response	The answer to the login request with a status (OK or wrong username or wrong password).	Link	Link
5	Timestamp - Request	Requests the server's timestamp for client-server time synchronisation.	Link	Link
6	Timestamp - Response	The server's timestamp.	Link	Link
7	Game Clock - Request	Requests the game clock of a particular running game.	Link	Link
8	Game Clock - Response	The game clock.	Link	Link
9	Feedback - Request	Used to provide us with feedback about a particular game if you detect wrong data.	Link	Link
10	Feedback - Response	The server's answer (OK or non-existing game).	Link	Link
11	Game List - Request	Requests a list of games; normally you get all games from now minus 24 hours until 14 days in the future; if you supply a dateTo you get all games from now minus 24 hours until dateTo; if you supply a dateFrom and a dateTo you get all games in that timeframe.	Link	Link
12	Game List - Response	The answer to the game list request consisting of a list of games	Link	Link
13	Register Game - Request	Assign for a game you want to be informed about	Link	Link
14	Register Game - Response	The answer (OK, or error)	Link	Link
15	Retrieve Registered Game - Request	Register a game to get information about it	Link	Link
16	Retrieve Registered Game - Response	Requests the list of currently registered games.	Link	Link
17	Re-Send Game - Request 1	Requests that game event and market price data (deprecated) of a particular game (starting from the event number you supply until the most recent event available) is re-sent to you. Re-Send cannot be called for games that are not registered!	Link	Link
18	Re-Send Game - Request 2	Requests that game event and market price data (deprecated) of a list of games in a given timespan is re-sent to you. Re-send cannot be called for games that are not registered!	Link	Link

Feat. ID	Name	Description	XML TCP – Information	TCP Text – Information
19	Re-Send Game - Response	A list of events (23) followed by a list of market prices (deprecated) (22) or a piece of information if there are no events or market prices.	Link	Link
20	Unregister Game - Request	Unregistering a game causes the server to stop sending you data to this game.	Link	Link
21	Unregister Game - Response	The answer to the unregister request (OK or error).	Link	Link
22	Market Price Event	One market price event (deprecated).	Link	Link
23	Sports Ticker Event	One sports ticker event.	Link	Link
24	Book Game - Request	Requests to book a game.	Link	Link
25	Book Game - Response	Answer to the book game request (OK or error).	Link	Link
26	Unbook Game - Request	Requests to “unbook” a game.	Link	Link
27	Unbook Game - Response	Answer to the unbook game request (OK or error).	Link	Link
28	Logout	Causes the client’s logout (closing of the socket), no response.	Link	Link
29	System Message	Game-related message that provides the customers with additional information about unforeseen happenings.	Link	Link
30	Game Conditions	Game condition containing attendance and - depending on the sport - weather and pitch conditions.	Link	Link

Table 36 – Feature Matrix

6.2 TCP XML Protocol Details

Each XML object is put into one line by the server, e.g. all line breaks of xml are omitted. Here in this documentation line breaks and tab stops were added in case of longer XML examples to improve readability. For easier readability the XML types are described by example, XSD definitions can be provided on request.

6.2.1 Keep Alive from the Client

```
<client_keep_alive timestamp="1271934950109" />
```

6.2.2 Keep Alive from the Server

```
<keep_alive timestamp="1271934512159" />
```

6.2.3 Login – Request

```
<login timestamp="1271934438078" bookmakerid="username" key="password" />
```

6.2.4 Login – Response

```
<login status="loginok" timestamp="1271934432053" />
```

Possible values for status: loginok, loginfailed

Note: "loginfailed" is also sent if the client tries to execute any other function without being logged in.

6.2.5 Timestamp – Request

```
<timestamp_request />
```

6.2.6 Timestamp – Response

```
<timestamp_response timestamp="1271935385513" />
```

6.2.7 Game Clock – Request

```
<match_clock_request timestamp="1184145289891" matchid="117655" />
```

6.2.8 Game Clock – Response

```
<match_clock_response is_ticking="T" matchid="137541" minute="23" second="10" timestamp="1294397689570" status="ok" />
```

6.2.9 Feedback – Request

```
<feedback_request timestamp="1184145289891" matchid="117655" text="The red card for team home was entered 30 seconds late" is_scout_related="true" />
```

6.2.10 Feedback – Response

```
<feedback_response matchid="117655" timestamp="1271935938250" status="feedback_ok" />
```

Possible values for status: feedback_ok, feedback_error

6.2.11 Game List – Request

```
<match_list_request timestamp="1184145289891" date_from="1184145289891" date_to="1184146289891" />
```

6.2.12 Game List – Response

```
<match_list timestamp="1423559145275" status="meta2"
xmlns="http://rball.com/eventpusher/data/xmltcpbeans">
  <match matchid="503291" timestamp="1423924200000" team1="SV Werder Bremen"
team1_id="1187" team2="FC Augsburg" team2_id="108" league="Bundesliga"
league_id="130" country1="Germany" country1_id="0" country2="Germany"
country2_id="0" neutralvenue="false" stadium="Weser Stadion" stadium_id="398"
coverage="LIVE" coverage_id="0" playstate="Open" playstate_id="0"
scout_confirmed="true" league_country="Germany" league_country_id="0" booked="true"
sportid="1" sportname="Soccer" oddsAvailable="false" liveOddsAvailable="false"
homeAdvantageId="1" homeAdvantage="competitor 1" league_halftime_duration="45"
league_overtime_duration="0" league_has_penalty_shootout="false"
league_has_player_data="true" scout_id="11587" scout_num_games="106"
scout_avg_rating="1.056603" scout_last10_avg_rating="1.0"/>
  <match matchid="502307" timestamp="1423530000000" team1="Milwaukee Bucks"
team1_id="9813" team2="Brooklyn Nets" team2_id="9805" league="NBA"
league_id="1120" country1="USA" country1_id="9" country2="USA" country2_id="9"
neutralvenue="false" stadium="BMO Harris Bradley Center" stadium_id="5971"
coverage="LIVE" coverage_id="0" playstate="Open" playstate_id="0"
scout_confirmed="true" league_country="USA" league_country_id="9" booked="false"
sportid="2" sportname="Basketball" oddsAvailable="false" liveOddsAvailable="false"
homeAdvantageId="1" homeAdvantage="competitor 1" league_halftime_duration="12"
league_overtime_duration="5" league_has_penalty_shootout="false"
league_has_player_data="false" leagueParameters="5=false 4=true" scout_id="317"
scout_num_games="2596" scout_avg_rating="2.457241"
scout_last10_avg_rating="3.0"/>
  <match matchid="502632" timestamp="1423845000000" team1="Oulun
K&#228;rp&#228;t" team1_id="16082" team2="Tappara" team2_id="16348"
league="SM-liiga" league_id="2377" country1="Finland" country1_id="27"
country2="Finland" country2_id="27" neutralvenue="false" stadium="Oulun Energia
Areena" stadium_id="9169" coverage="LIVE" coverage_id="0" playstate="Open"
playstate_id="0" scout_confirmed="false" league_country="Finland"
league_country_id="27" booked="true" sportid="8" sportname="Ice Hockey"
oddsAvailable="false" liveOddsAvailable="false" homeAdvantageId="1"
homeAdvantage="competitor 1" league_halftime_duration="20"
league_overtime_duration="5" league_has_penalty_shootout="true"
league_has_player_data="true" scout_id="3859" scout_num_games="324"
scout_avg_rating="1.12037" scout_last10_avg_rating="1.4"/>
</match_list>
```

Game lists can also be sent as an asynchronous message if new or updated game data is provided. Asynchronous game lists have an additional attribute (replytype) in order to avoid message handling issues if an update is sent while waiting for a GameListResponse.

```
<match matchid="501408" timestamp="1423398600000" team1="Eintracht
Braunschweig" team1_id="1211" team2="1. FC Kaiserslautern" team2_id="763"
league="2. Bundesliga" league_id="111" country1="Germany" country1_id="0"
country2="Germany" country2_id="0" neutralvenue="false" stadium="Eintracht Stadion"
stadium_id="400" coverage="LIVE" coverage_id="0" playstate="Open" playstate_id="0"
scout_confirmed="true" league_country="Germany" league_country_id="0" booked="true"
sportid="1" sportname="Soccer" oddsAvailable="false" liveOddsAvailable="false"
homeAdvantageId="1" homeAdvantage="competitor 1" league_halftime_duration="45"
league_overtime_duration="0" league_has_penalty_shootout="false"
league_has_player_data="true" referee="F. Zwayer" referee_id="2111"
referee_country_id="52" referee_country="World" scout_id="14402"
scout_num_games="59" scout_avg_rating="1.084745" scout_last10_avg_rating="1.0"/>
```

</match_list>

Game Series:

```
<match matchid="414944" timestamp="1399740300000" team1="Vitesse Arnhem"
  team1_id="1125" team2="FC Groningen" team2_id="871" league="Eredivisie"
  league_id="101" country1="Netherlands" country1_id="4"
  country2="Netherlands" country2_id="4" neutralvenue="false" stadium="GelreDome"
  stadium_id="488" coverage="LIVE"
  coverage_id="0" playstate="Open" playstate_id="0" scout_confirmed="true"
  league_country="Netherlands" league_country_id="4" booked="false" sportid="1"
  sportname="Soccer" oddsAvailable="false" liveOddsAvailable="false"
  league_halftime_duration="45" league_overtime_duration="0"
  league_has_penalty_shootout="false" league_has_player_data="true" referee="P.
  Vink" referee_id="2196" referee_country_id="52" referee_country="World">
  <series num_of_matches="2" team1_id="871" team2_id="1125" score_team1="1"
    score_team2="0">
    <seriesMatch leg="1" date="2014-05-06T16:45:00.000Z" team1_id="871"
      team2_id="1125" playstate_id="1" playstate="Finished"
      match_id="414943" winner_id="1" winner="Home Competitor"
      score_team1="1" score_team2="0"/>
    <seriesMatch leg="2" date="2014-05-10T16:45:00.000Z" team1_id="1125"
      team2_id="871" playstate_id="0" playstate="Open"
      match_id="414944"/>
  </series>
</match>
```

6.2.13 Register Game – Request

```
<register_match_request timestamp="1184145289891" matchid="117655" />
```

6.2.14 Register Game – Response

```
<register_match_response matchid="117655" status="register_ok"
timestamp="1271935583943" />
```

Possible values for status: register_ok, not_booked, already_registered, error

6.2.15 Retrieve Registered Game – Request

```
<registered_matches_request />
```

6.2.16 Retrieve Registered Game – Response

```
<registered_matches_response timestamp="1271935471155" matchids="117276 116760
116950 116887 117655" />
```

6.2.17 Re-Send Game – Request 1

```
<resend_request timestamp="1184145289891" matchid="117655" sequenceid="40" />
```

6.2.18 Re-Send Game – Request 2

```
<BookmakerStatus type="error" timestamp="1271936350608"
dateFrom="1171936350608" dateTo="1271936350608">
<Match matchid="117655" />
<Match matchid="65499" />
</BookmakerStatus>
```

6.2.19 Re-Send Game – Response

An event list as described in chapter 2.6 Master Data Events and a market price list (deprecated) as described in chapter 5.1.3 Market Price (Deprecated) are sent in response. Please note that the attribute replytype is set to error in both cases so that you can categorise these events as events that were not sent live, but as answers to a Re-Send request. If the event is a System Message (code 513), an additional System Message as described in chapter 6.2.30 Game Conditions is sent. If the event is a Game Condition (code 258), an additional Game Condition (see chapter 6.3.30 Game Conditions) is sent.

There are two possible error responses:

```
<BookmakerStatus type="no_events" timestamp="1184145289891" status="error" />
<BookmakerStatus type="no_odds" timestamp="1184145289891" status="error" />
```

6.2.20 Unregister Game – Request

```
<unregister_match_request timestamp="1184145289891" matchid="117655" />
```

6.2.21 Unregister Game – Response

```
<unregister_match_response matchid="117655" timestamp="1271935734916"
status="unregister_ok" />
```

6.2.22 Market Price Event (Deprecated)

```
<market_price_list status="price_list" timestamp="1271936350629">
  <market_price matchid="117655" id="0" provider_id="327"
    provider="providerUrl" market_id="22" market="Next goal HT1"
    selection_id="3" selection="X" value="0.0" price="3.164" pp="0.0"
    date="2010-04-22T10:12:06.107Z" min="0" sec="0" hs="0" as="0" live="1"
    blocked="0" />
</market_price_list>
```

6.2.23 Game Event

> Standard Game Event

```
<event_list status="event" timestamp="1294215296267">
  <event matchid="137499" event_number="2" event_code_id="1024"
    event_code="Attack Home" timestamp="1294214542186" minute="4"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    statistics="2048=0 2050=0 2053=0 1024=1 1026=1 1029=0"
```



```

        currentPlaytime="182556" clockRunning="true"/>
</event_list>

```

> Ball Position Event

```

<event_list status="event" timestamp="1294215424745">
  <event matchid="137499" event_number="8" event_code_id="1027"
    event_code="Dangerous Free kick Home" timestamp="1294214673306"
    minute="6" tickerstate="1st half" tickerstateid="2" score_home="0"
    score_away="0"
  <event matchid="137499" event_number="9" event_code_id="262"
    event_code="Zone information" timestamp="1294214673306" minute="6"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    zone="FK4" team_id="0" related_events="6" related_event_codes="1028"
    statistics="2051=0 1027=1" currentPlaytime="313675"
    clockRunning="true"/>
</event_list>

```

> Substitution Event

```

<event_list status="event" timestamp="1328688232434">
  <event matchid="184564" event_number="5" event_code_id="1055"
    event_code="Substitution Home" timestamp="1328688232562" minute="3"

    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    player_in_num="24" player_out_num="37" player_in_id="3502"
    player_out_id="57619" player_in_name="P. Vieira"
    player_out_name="Gunnar Nielsen" statistics="1055=1 2079=0"
    currentPlaytime="129334" clockRunning="true"/>
</event_list>

```

> Substitution Update Event

```

<event_list status="event" timestamp="1370873723744">
  <event matchid="123456" event_number="1" event_code_id="1055"
    event_code="Substitution Home" timestamp="1370873723533" minute="85"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    player_in_num="23" player_out_num="7" player_in_id="12345"
    player_out_id="54321" currentPlaytime="1740000" clockRunning="true"/>
  <event matchid="123456" event_number="2" event_code_id="283"
    event_code="Substitution details for Substitution in the 85. minute changed"
    timestamp="1370873723533" minute="85" tickerstate="1st half"
    tickerstateid="2" score_home="0" score_away="0" player_in_num="16"
    player_out_num="7" player_in_id="11111" player_out_id="54321"
    related_events="1" event_reason_id="20" event_reason="injury"
    currentPlaytime="1740000" clockRunning="true"/>
</event_list>

```

> Player-Related Event

```

<event_list status="event" timestamp="1328688111364">
  <event matchid="184564" event_number="3" event_code_id="1029"
    event_code="Goal Home" timestamp="1328688111573" minute="1"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    statistics="2053=0 1029=1" currentPlaytime="8346"
    clockRunning="true"/>
  <event matchid="184564" event_number="4" event_code_id="261"

```



```

    event_code="Event details for Goal in the 1. minute changed"
    timestamp="1328688135506" minute="1" tickerstate="1st
    half" tickerstateid="2" score_home="1" score_away="0"
    player_id="13169" player_num="45" player_name="Mario Balotelli"
    event_reason="shot" event_reason_id="0" related_events="3"
    related_event_codes="1029" currentPlaytime="32279"
    clockRunning="true"/>
</event_list>

```

> Stoppage Time Event

```

<event_list status="event" timestamp="1291636394752">
  <event matchid="136807" event_number="22" event_code_id="260"
    event_code="Stoppage time" timestamp="1291635780621" minute="23"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="1"
    stoppage_time="3" currentPlaytime="1371463" clockRunning="true"/>
</event_list>

```

> Cancellation & Clear Event

```

<event_list status="event" timestamp="1294216440344">
  <event matchid="137527" event_number="11" event_code_id="1024"
    event_code="Attack Home" timestamp="1294215688874" minute="4"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    statistics="2048=0 1024=2" currentPlaytime="226461"
    clockRunning="true"/>
  <event matchid="137527" event_number="12" event_code_id="256"
    event_code="Cancel" timestamp="1294215696676" minute="4"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    clears_event="11" statistics="2048=0 1024=1"
    currentPlaytime="234264" clockRunning="true"/>
</event_list>

```

```

<event_list status="event" timestamp="1291636642310">
  <event matchid="136807" event_number="30" event_code_id="257"
    event_code="Clear" timestamp="1291636029273" minute="28"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="1"
    clears_event="23" currentPlaytime="1620119" clockRunning="true"/>
</event_list>

```

```

<event_list status="event" timestamp="1294216249893">
  <event matchid="137527" event_number="7" event_code_id="1029"
    event_code="Goal Home" timestamp="1294215498423" minute="1"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    statistics="2053=0 1029=1" currentPlaytime="36010"
    clockRunning="true"/>
  <event matchid="137527" event_number="8" event_code_id="261"
    event_code="Event details for Goal in the 1. minute changed"
    timestamp="1294215509034" minute="1" tickerstate="1st half"
    tickerstateid="2" score_home="1" score_away="0" player_id="20438"
    player_num="16" event_reason="header" event_reason_id="2"
    related_events="7" related_event_codes="1029" currentPlaytime="46621"
    clockRunning="true"/>
  <...>
  <event matchid="137527" event_number="15" event_code_id="1030"
    event_code="Cancel Goal Home" timestamp="1294215894343" minute="8"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    statistics="2053=0 1029=0" currentPlaytime="431929"

```

```

        clockRunning="true"/>
</event_list>

```

> Player-Related Event

```

<event_list status="event" timestamp="1294216249893">
  <event matchid="137527" event_number="7" event_code_id="1029"
    event_code="Goal Home" timestamp="1294215498423" minute="1"
    tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
    statistics="2053=0 1029=1" currentPlaytime="36010"
    clockRunning="true"/>
  <event matchid="137527" event_number="8" event_code_id="261"
    event_code="Event details for Goal in the 1. minute changed"
    timestamp="1294215509034" minute="1" tickerstate="1st half"
    tickerstateid="2" score_home="1" score_away="0" player_id="20438"
    player_num="16" event_reason="header" event_reason_id="2"
    related_events="7" related_event_codes="1029" currentPlaytime="46621"
    clockRunning="true"/>
</event_list>

```

> Time Correction Event

A time correction can be used to send missing events afterwards for statistical correctness. In the example, a *Yellow Card* event at 05:40 was missed and sent in minute 12 (*eventNumber*=18). The time correction event (*eventNumber*=19) indicates the correct game clock of the Yellow Card event.

```

<event_list status="event" timestamp="1294216907341">
  <event matchid="137527" event_number="17" event_code_id="1034"
    event_code="Yellow card Home" timestamp="1294216155780"
    minute="12" tickerstate="1st half" tickerstateid="2" score_home="0"
    score_away="0" statistics="1034=1 2058=0"
    currentPlaytime="693365"
    clockRunning="true"/>
  <event matchid="137527" event_number="18" event_code_id="261"
    event_code="Event details for Yellow card in the 12. minute changed"
    timestamp="1294216155921" minute="12" tickerstate="1st half"
    tickerstateid="2" score_home="0" score_away="0" player_id="50411"
    player_num="3" event_reason="foul" event_reason_id="10"
    related_events="17" related_event_codes="1034"
    currentPlaytime="693506" clockRunning="true"/>
  <event matchid="137527"
    event_number="19" event_code_id="266" event_code="Yellow card time
    was adjusted to 05:40." timestamp="1294216176080" minute="12"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    correctPlaytime="340000" related_events="17"
    currentPlaytime="713666" clockRunning="true"/>
</event_list>

```

> Value Event

Value event parameters are passed as a list of key-value parameters (just like 'score' or 'statistics'. In the TCP XML format, only the type and value are sent.

The following shows an example for 'Jersey changed', providing information about the jersey colours of a competitor (see also chapter 8.15.1 *Jersey Colour Event*).

```

<event_list status="event" timestamp="1328618695969">
  <event matchid="301363" event_number="3" event_code_id="524"

```

```

event_code="Jersey colors updated" timestamp="1367345798660"
minute="0" tickerstate="Not started" tickerstateid="1"
score_home="0" score_away="0" currentPlaytime="0"
clockRunning="false" value_event_data="15=696 16=-1 17=-1 18=-1
19=-1 20=0 25=true"/>
</event_list>

```

The following shows an example for 'Generic Game Conditions changed', providing information about the weather, movement, bounce, light conditions and about which match day is in progress (see also chapter 8.15.3 *Generic Game Conditions Value Event*):

```

<event_list status="event" timestamp="1460632569906">
  <event matchid="623876" event_number="4" event_code_id="286"
    event_code="Game conditions changed" timestamp="1460632569639" minute="0"
    tickerstate="Not started" tickerstateid="1" score_home="0" score_away="0"
    currentPlaytime="0" clockRunning="false" value_event_data="80=3 81=2 76=0
    78=2 79=2"/>
</event_list>

```

Generic Game Conditions are available only for Cricket and are always combined with an event via the gameId and the eventNumber. Please see chapter 2.4.8 *Generic Game Conditions Changed Event* for a detailed description.

> Line-up Event

```

<event_list status="event" replytype="error" timestamp="1334143204406">
  <event matchid="216044" event_number="0" event_code_id="520"
    event_code="Lineup changed" timestamp="1334143124530" minute="0"
    tickerstate="Not started" tickerstateid="1" score_home="0"
    score_away="0" currentPlaytime="0" clockRunning="false">
    <lineups squad_type="Starting11" squad_type_id="1" team_name="Borussia
    Dortmund" team_id="236">
      <lineup jersey_number="1" match_name="Roman Weidenfeller"
        player_id="1543"/>
      <lineup jersey_number="5" match_name="Sebastian Kehl"
        player_id="1554"/>
      <lineup jersey_number="11" match_name="Mario Götze"
        player_id="53833"/>
      <lineup jersey_number="13" match_name="Damien Le Tallec"
        player_id="28369"/>
      <lineup jersey_number="9" match_name="Robert Lewandowski"
        player_id="11348"/>
      <lineup jersey_number="4" match_name="Neven Subotic" player_id=
        "23274"/>
      <lineup jersey_number="6" match_name="Florian Kringle"
        player_id="1550"/>
      <lineup jersey_number="8" match_name="Antonio Da Silva"
        player_id="8972"/>
      <lineup jersey_number="2" match_name="Julian Koch"
        player_id="57928"/>
      <lineup jersey_number="7" match_name="Moritz Leitner"
        player_id="57932"/>
      <lineup jersey_number="14" match_name="Ivan Perisic"
        player_id="57933"/>
    </lineups>
  </event>
</event_list>

```

```

</lineups>
<lineups squad_type="Bench" squad_type_id="4" team_name="Borussia
Dortmund" team_id="236">
  <lineup jersey_number="15" match_name="Mats Hummels"
player_id="1561"/>
  <lineup jersey_number="16" match_name="Jakub Blaszczykowski"
player_id="1562"/>
  <lineup jersey_number="19" match_name="Kevin Großkreutz"
player_id="53837"/>
  <lineup jersey_number="20" match_name="Mitchell James Langerak"
player_id="18500"/>
  <lineup jersey_number="18" match_name="Lucas Barrios"
player_id="764"/>
</lineups>
<lineups squad_type="Starting11" squad_type_id="1" team_name="SV
Werder Bremen" team_id="1187">
  <lineup jersey_number="6" match_name="Tim Borowski"
player_id="3884"/>
  <lineup jersey_number="4" match_name="Naldo" player_id="7992"/>
  <lineup jersey_number="8" match_name="Clemens Fritz"
player_id="25142"/>
  <lineup jersey_number="1" match_name="Tim Wiese"
player_id="25143"/>
  <lineup jersey_number="10" match_name="Marko Marin"
player_id="12308"/>
  <lineup jersey_number="7" match_name="Marko Arnautovic"
player_id="12193"/>
  <lineup jersey_number="5" match_name="Wesley" player_id="8836"/>
  <lineup jersey_number="2" match_name="Sebastian Boenisch"
player_id="57211"/>
  <lineup jersey_number="9" match_name="Denni Avdic"
player_id="8479"/>
  <lineup jersey_number="11" match_name="M. Rosenberg"
player_id="6815"/>
  <lineup jersey_number="3" match_name="Affolter"
player_id="59270"/>
</lineups>
<lineups squad_type="Bench" squad_type_id="4" team_name="SV Werder
Bremen" team_id="1187">
  <lineup jersey_number="15" match_name="Sebastian Prödl"
player_id="3906"/>
  <lineup jersey_number="14" match_name="Aaron Hunt"
player_id="55808"/>
  <lineup jersey_number="16" match_name="Mikael Silvestre"
player_id="47863"/>
  <lineup jersey_number="13" match_name="Lukas Schmitz"
player_id="46658"/>
  <lineup jersey_number="17" match_name="Aleksandar Ignjovski"
player_id="58128"/>
</lineups>
</event>
</event_list>

```

> Player Data Confirmation

```

<event_list status="event" timestamp="1328688111364">
  <event matchid="184564" event_number="3" event_code_id="1029"

```

```

        event_code="Goal" Home" timestamp="1328688111573" minute="1"
        tickerstate="1st half" tickerstateid="2" score_home="1" score_away="0"
statistics="2053=0 1029=1" currentPlaytime="8346"
        clockRunning="true"/>
<event matchid="184564" event_number="4" event_code_id="261"
        event_code="Event details for Goal in the 1. minute changed"
        timestamp="1328688135506" minute="1" tickerstate="1st half"
        tickerstateid="2" score_home="1" score_away="0" player_id="13169"
        player_num="45" player_name="Mario Balotelli" event_reason="shot"
        event_reason_id="0" related_events="3"
related_event_codes="1029" currentPlaytime="32279" clockRunning="true"/>
</event_list>
<event_list status="event" timestamp="1328688711573">
    <event matchid="184564" event_number="50" event_code_id="285"
        event_code="Player data for Goal in the 1. minute confirmed."
        timestamp="1328688711565" minute="10" tickerstate="1st half"
        tickerstateid="2" score_home="1" score_away="0" related_events="3"
        related_event_codes="1029" currentPlaytime="600000"
        clockRunning="true"/>
</event_list>

```

6.2.24 Book Game – Request

```
<book_match_request timestamp="1184145289891" matchid="117655" />
```

6.2.25 Book Game – Response

```
<book_match_response matchid="117655" timestamp="1271935852332"
status="book_ok" />
```

Possible values for status: book_ok, already_booked, error

6.2.26 Unbook Game – Request

```
<unbook_match_request timestamp="1184145289891" matchid="117655" />
```

6.2.27 Unbook Game – Response

```
<unbook_match_response matchid="117655" timestamp="1271935805385"
status="unbook_ok" />
```

Possible values for status: unbook_ok, not_booked_before, error

6.2.28 Logout

```
<logout />
```

6.2.29 System Message

```
<event_list status="event" timestamp="1298565887296">
    <event matchid="154534" event_number="112" event_code_id="513"
        event_code="System message received" timestamp="1298565858986"
        minute="170" tickerstate="1st half" tickerstateid="2" score_home="0"

```

```

        score_away="0" currentPlaytime="10174560" clockRunning="true"
        message_id="309" message="Game is suspended - referee is injured"
    /> </event_list>

```

> Outdated:

The format below is still supported for compatibility reasons but should not be used any longer:

```

<event_list status="event" timestamp="1291644416392">
  <event matchid="136806" event_number="17" event_code_id="513"
    event_code="System message received" timestamp="1291643808986"
    minute="169" tickerstate="1st half" tickerstateid="2" score_home="2"
    score_away="2" currentPlaytime="10134085" clockRunning="true"/>
</event_list>
  <message_list timestamp="1291644416416">
    <message matchid="136806" event_number="17" message="Game is
suspended - players are fighting" message_id="308"
timestamp="1291643808986"/>
  </message_list>

```

A System Message is always combined with an event via the *matchId* and the *eventNumber*. Please refer to chapter 8.8 *System Message Mapping* for all possible System Messages.

6.2.30 Game Conditions

```

<event_list status="event" timestamp="1298565887296">
  <event matchid="154534" event_number="129" event_code_id="258"
    event_code="Game conditions changed" timestamp="1298566801437"
    minute="186" tickerstate="1st half" tickerstateid="2" score_home="0"
    score_away="0" currentPlaytime="11117009" clockRunning="true"
    attendance_id="0" attendance="small" pitch_condition_id="4"
    pitch_condition="regular" weather_condition_id="14"
    weather_condition="sunny" />
</event_list>

```

> Outdated:

The format below is still supported for compatibility reasons but should not be used any longer:

```

<event_list status="event" timestamp="1291644263526">
  <event matchid="136806" event_number="16" event_code_id="258"
    event_code="Game conditions changed" timestamp="1291643656250"
    minute="167" tickerstate="1st half" tickerstateid="2" score_home="2"
    score_away="2" currentPlaytime="9981349" clockRunning="true"/>
</event_list>
  <game_condition_list timestamp="1291644263531">
    <game_condition attendance="medium" attendance_id="1"
    event_number="16" matchid="136806" pitch_condition="regular"
    pitch_condition_id="4" timestamp="1291643656250"
    weather_condition="sunny"
    weather_condition_id="14"/>
  </game_condition_list>
</event_list>

```

Game Conditions are always combined with an event via the *gameId* and the *eventNumber*. Please refer to chapter 2.4.7 *Game Condition Event* for detailed description of the pitch & weather conditions and the attendance.

6.2.31 Assist

```
<event_list status="event" timestamp="1460631168245">
  <event matchid="623872" event_number="120" event_code_id="287"
    event_code="Assist details for Goal in minute 1 changed."
    timestamp="1460631168056" minute="1" tickerstate="1st half"
    tickerstateid="2" score_home="1" score_away="0" player_id="58151"
    player_num="7" event_reason="other" event_reason_id="99"
    related_events="116" related_event_codes="1029" currentPlaytime="31592"
    clockRunning="true"/>
</event_list>
```

6.2.32 Game Possession Statistics

```
<event_list status="event" timestamp="1478167270581">
  <event matchid="569687" event_number="56" event_code_id="1024"
    event_code="Attack Home" timestamp="1478167270544" minute="173"
    tickerstate="1st half" tickerstateid="2" score_home="0" score_away="0"
    statistics="1024=10 2048=5 1063=70 2087=30" currentPlaytime="10334354"
    clockRunning="true"/>
</event_list>
```

6.3 TCP Text Protocol Details

Note: This protocol is not up-to-date and does not offer the full variety of RunningBall services (e.g. Player information / line-up data).

6.3.1 Keep Alive from the Client

X

6.3.2 Keep Alive from the Server

X|1224837313875

The second value corresponds to the current timestamp of the server (long).

6.3.3 Login – Request

LI username password

6.3.4 Login – Response

LI ...if the login is accepted, or
LI 1 ...if the username or the password is wrong.

Note: "LI 1" is also sent if the client tries to execute any other function without being logged in.

6.3.5 Timestamp – Request

TS

6.3.6 Timestamp – Response

TS 1224837313875

6.3.7 Game Clock – Request

C 96845

The number value stands for the game ID.

6.3.8 Game Clock – Response

C|tickerId|gameClock|isTicking

The game clock is provided in the format mm:ss or mmm:ss for overtime. *isTicking* informs about whether or not the game clock is currently running. It can have the values "T" for ticking or "NT" for not ticking.

6.3.9 Feedback – Request

With this command you can give us feedback on a particular game. *text* should contain the feedback text where all spaces are replaced by underlines (" " □ "_"). *isScoutRelated* should be 1 if the comment concerns the Scout at the venue (e.g. the events are entered too slowly), otherwise it should be 0. This data is evaluated by our quality assurance team and necessary measures will be taken in case there are any problems.

6.3.10 Feedback – Response

> FB

6.3.11 Game List – Request

> G

Returns all available games with a game start time from now minus 24 hours until now plus 14 days.

> G dateTo

Returns all games with a game start time from now minus 24 hours until dateTo 23:59:59.

> G dateFrom dateTo

Returns all games with a game start time from dateFrom 00:00:00 until dateTo 23:59:59.

The GMT time zone is expected and the format of the date parameters is dd/mm/yyyy.

6.3.12 Game List – Response

country|league|teamHome|teamAway|stadium|timestamp|gameId|coverage|countryId|leagueId|teamHomeId|teamAwayId|stadiumId|booked|liveOddsAvailable|oddsAvailable|sportsId|hasPlayerData[[|leagueParameterList] [|refereeId|referee][|gameDataParameterList]

The attributes in squared brackets are optional (can be enabled/disabled in the configuration).

Or:

Error wrong date format

The same response format is provided for all three different game list request types.

- > Timestamp is long.
- > Coverage indicates whether a game is a TV Game TV (0) or a Live Game (1)
- > Booked, liveOddsAvailable and oddsAvailable are Booleans (1 is true, 0 is false).

6.3.13 Register Game – Request

RST gameId

6.3.14 Register Game – Response

RST gameId	...or
Error game already registered gameId	...or
Error game not booked gameId	...or
Error	

Please refer to chapter 6.1.2 *Game Registration* about game registration. A game that is not cannot be registered. A game that is finished cannot be registered anymore either.

6.3.15 Retrieve Registered Game – Request

RRG

6.3.16 Retrieve Registered Game – Response

RRG|98465|84875|64158|...

There is an entry in this list for every registered game.

6.3.17 Re-Send Game – Request 1

RSD gameId sequenceId

6.3.18 Re-Send Game – Request 2

RSD2 timeFrom timeTo gameId1 gameId2 gameId3...

timeFrom and timeTo are long values defining the time range in which all events for the provided game IDs are resent.

6.3.19 Re-Send Game – Response

A list of all available sports ticker events (see chapter 6.3.23 *Game Event*) and – if available – a list of all market price events (see chapter 5.1.3 *Market Price (Deprecated)*) is sent.

If the event is a System Message (code 513), an additional System Message (as described in chapter 6.2.29 *System Message*) is provided. If the event is a Game Condition (code 258) an additional Game Condition (as described in chapter 6.3.30 *Game Conditions*) is sent.

The following errors may be returned:

Error no events
Error no odds

6.3.20 Unregister Game – Request

UST gameId

6.3.21 Unregister Game – Response

UST gameId ...or
Error game was not registered before gameId

6.3.22 Market Price Event (Deprecated)

P|gameId|providerId|marketId|selectionId|value|price|pp|timestamp|minute|second|score
Home|scoreAway|isLive|isBlocked

Timestamp is a long value, minute and second define the current game clock, isLive and isBlocked can have the value 1 for true or 0 for false.

6.3.23 Game Event

> Standard Game Event

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning

> Ball Position Event (eventCodeId=262)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|zone|teamId| **relatedSportsTickerEventNumber**|relatedEventCodeId|playerName

> Substitution Event (eventCodeId=1055 or 2079)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|playerInNum|playerOutNum|playerInId|playerOutId|playerInName|playerOutName

> Substitution Update Event (eventCodeId=283)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|playerInNum|playerOutNum|playerInId|playerOutId|playerInName|playerOutName|**relatedSportsTickerEventNumber**|**eventReasonId**

Substitution updates have the same format as regular substitution events, but are used to update information for an existing substitution event (relatedSportsTickerEventNumber). EventReasonId is optional, -1 means 'not set'.

Sample:

E|27|123456|1055|1370874240384|0|1740000|1|23|10|12345|54321|P._In|P._Out
E|28|123456|283|1370874264351|0|1740000|1|23|10|12345|54321|P._In|P._Out|27|20

> Player-Related Event (eventCodeId=261)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|eventReasonId|playerNum|playerId|relatedSportsTickerEventNumber|relatedEventCodeId

Please refer to chapter 8.2 *Event Reason Mapping* for a detailed description of event reasons.

> Stoppage Time Event (eventCodeId=260)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|stoppageTime

> Cancel Last Sent (eventCodeId=256)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|cleared_events_list

Cleared_events_list is a list of the short type with blank paces as separator characters. It specifies the event numbers of the events to be cleared. Cancel last sent deletes the last entered event.

> Clear (eventCodeId=257)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|cleared_events_list

Clear can be applied to any of the previously entered events.

> Cancel Events (CCR_x, CGOAL_x, CPEN_x, CRC_x, CYC/RC_x, CYC_x)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|related_events_list

Related_events_list is a list of the short type with blank spaces as separator characters. It specifies the event numbers of the events to be cleared (e.g. if CGOAL1 is sent, related_events_list contains the eventNumber of the GOAL 1 to be deleted).

> Time Correction Event (eventCodeID=266)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|correctPlaytime|related_events_list

> Value Event

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|valueEventArray

Value event parameters are transmitted as a blank-separated list of key-value-pairs (if more than one parameter per value event is available).

E|729|183887|2625|1326962478837|2|162348|1|3=4 1=60 2=20

> Player Data Confirmation (eventCodeID=285)

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning| **relatedSportsTickerEventNumber|relatedEventCodeId**

Sample:

E|26|123456|1029|1373965144335|3|1740000|1
E|27|123456|261|1373965144373|0|1740000|1|0|9|1001|26|1029
E|28|123456|**285**|1373965144335|3|1740000|1|**26|1029**

6.3.24 Book Game – Request

B gameId

6.3.25 Book Game – Response

B gameId

...or

Error game was already booked before gameId

6.3.26 Unbook Game – Request

UB gameId

6.3.27 Unbook Game – Response

UB gameId ...or
Error game was not booked before gameId ...or
Error

6.3.28 Logout

LO

6.3.29 System Message

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|msgId|message

> Outdated:

The format below is still supported for compatibility reasons but should not be used any longer.

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning
M|gameId|timestamp|message|eventNumber

A System Message is always combined with an event, linked together via gameId and eventNumber. Please refer to chapter 8.8 *System Message Mapping* for all possible System Messages.

6.3.30 Game Conditions

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning|attendanceId|pitchConditionId|weatherConditionId

> Outdated:

The format below is still supported for compatibility reasons but should not be used any longer.

E|sequenceId|gameId|eventCodeId|timestamp|gameMinute|currentPlaytime|gameClockRunning
GC|gameId|attendanceId|pitchConditionId|weatherConditionId|eventNumber

A Game Condition is always combined with an event, linked together via gameId and eventNumber. Please refer to chapter 8.6 *Game Condition Mapping* for detailed description of pitch condition, weather condition and attendance.

6.3.31 Game Possession Statistics

> Possession Information

E|0|527580|517|1436858326483|0|0|0|2087=50 1063=50 (regular event)
E|12|527580|1024|1436858445017|1|5485|1|2048=0 2087=0 1024=1 1063=100
(possession + AT stats)

E|23|527580|262|1436858510253|2|70722|1|2087=53 1063=47|FK4|1582|20|1028
(possession stats + BP metadata)

> Possession Information Enabled but no Statistics Available

E|17|123456|1029|1436858892850|3|1740000|1| (empty statistics field added at end)

E|27|123456|262|1436858973769|0|1740000|1||FK1|-1|26|1042 (empty statistics field in message)

6.4 Error Handling

If the server detects a command it does not understand, null or a connection loss it closes the socket forcing the client to reconnect.

7 Http Connections

7.1 Http XML

This chapter contains examples for the xml formats used for the Http XML web post data feed. The encoding used is UTF-8. Xsd type definitions can be obtained on request.

Note: All data is sent into the http form post parameter called "rb_data".

The Http XML push web post data feed is managed by RunningBall on the sender side and the receiver interface is provided by the customer where the communication between the customer and the RunningBall client side is done over Http POST (see graphic below). In this case, the customer is fully responsible for the function of the service running at the receiver interface.

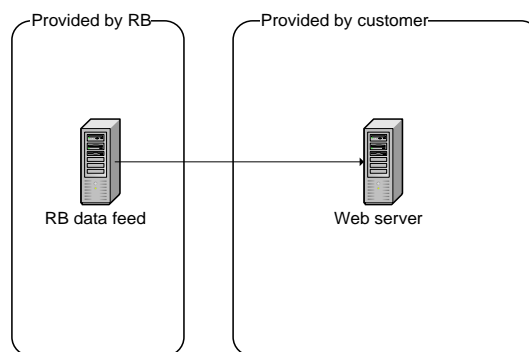


Figure 10 – Architecture http XML Push Feed

The interface on client side has to fulfil the following requirements so that RunningBall can ensure an adequate QoS.

In terms of data throughput, the following rule has to be considered: a RunningBall soccer game consists of approximately 1000 events (in total over ~ 90 min). This may lead to 1000 XML messages per game. Considering that one XML message consists of approximately 250 characters, the following formulas can be used to calculate the number of calls and the sent raw data for the number of games that is to be consumed simultaneously (at peak times RunningBall provides up to 150 games in parallel):

Number of http calls = Number of games * Number of events

Raw data (excl. http overhead) = Number of games * Number of events * message size (250 byte)

Worst case scenario (150 games simultaneously; all starting at the same time):

Number of http calls = 150 * 1000

= 150.000 per 90 minutes (~**28 http calls per second**)

Raw data (excl. http overhead) = 150 * 1000 * 250

= 37.500.000 byte per 90 minutes (**~6,9kB per second**)

The amount of calls and data can be reduced drastically by filtering out events which are not of interest. In case only main events should be transmitted (start/stop, goals, cards, penalties, corners, throw-ins, goal kicks, fouls, substitutions and shots) the number of events per game will come down to approximately 300, which would be a third of the worst case scenario.

7.1.1 Keep Alive

```
<keep_alive date_generated="2010-04-22T08:05:39.485Z" pusher_id="1" />
```

7.1.2 Game List

```
<match_list date_generated="2016-11-01T09:56:00.904Z" pusher_id="0">
  <match game_id="569589" date="2016-10-31T14:30:00.000Z" team1="SV Alemania
Waldalgesheim" team1_id="31137" team2="VfL Bochum" team2_id="1335" league="DFB
Pokal" league_id="54" country1="Germany" country1_id="0" country2="Germany"
country2_id="0" neutralvenue="false" stadium="Sportplatz an der Waldstra&#223;e"
stadium_id="22452" coverage="LIVE" coverage_id="0" playstate="Cancelled"
playstate_id="2" scout_confirmed="true" league_country="Germany"
league_country_id="0" booked="true" iso="DEU" odds_available="false"
live_odds_available="false" league_halftime_duration="45" league_overtime_duration="15"
league_has_penalty_shootout="true" league_has_player_data="true" sportId="1"
sportname="Soccer" scout_id="17633" scout_num_games="11"
scout_avg_rating="1.545454545454545" scout_last10_avg_rating="1.6"/>
</match_list>
```

> Game Series:

```
<match game_id="414945" date="2014-05-07T18:45:00.000Z" team1="AZ Alkmaar"
team1_id="240" team2="SC Heerenveen" team2_id="467"
league="Eredivisie" league_id="101" country1="Netherlands"
country1_id="4" country2="Netherlands" country2_id="4"
neutralvenue="false" stadium="AFAS Stadion" stadium_id="2291"
coverage="LIVE" coverage_id="0" playstate="Open" playstate_id="0"
scout_confirmed="true" league_country="Netherlands"
league_country_id="4" booked="true" iso="NLD" odds_available="false"
live_odds_available="false" league_halftime_duration="45"
league_overtime_duration="0" league_has_penalty_shootout="false"
league_has_player_data="true" sportId="1" sportname="Soccer" >
  <series num_of_matches="2" team1_id="240" team2_id="467">
    <seriesMatch leg="1" date="2014-05-07T18:45:00.000Z" team1_id="240"
team2_id="467" playstate_id="0" playstate="Open"
game_id="414945"/>
    <seriesMatch leg="2" date="2014-05-10T18:45:00.000Z" team1_id="467"
team2_id="240" playstate_id="0" playstate="Open"
game_id="414946"/>
  </series>
</match>
```


7.1.3 Sports Ticker Event

> Game Event

```
<event_list date_generated="2011-01-05T09:15:26.008Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="46" event_number="35" event_code_id="2075"
    date="2011-01-05T09:02:54.092Z" event_code="Safe Away"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" statistics="2053=0 1029=0" seconds="2711"
    currentPlaytime="2711680" clockRunning="true"/>
</event_list>
```

> Ball Position

```
<event_list date_generated="2011-01-05T09:16:41.731Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="47" event_number="36" event_code_id="1028"
    date="2011-01-05T09:04:10.178Z" event_code="Free kick Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" statistics="2052=1 1028=1"
    seconds="2787" currentPlaytime="2787765" clockRunning="true"/>
  <event game_id="137527" minute="47" event_number="37" event_code_id="1027"
    date="2011-01-05T09:04:10.279Z" event_code="Dangerous Free kick Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" currentPlaytime="2787867" clockRunning="true"/>
  <event game_id="137527" minute="47" event_number="38"
event_code_id="262" date="2011-01-05T09:04:10.279Z"
event_code="Zone information" tickerstate_id="2" tickerstate="1st
half" score_home="0"
    score_away="0" related_events="36" zone="FK4" team_id="0"
    related_event_codes="1028" statistics="2051=1 1027=1" seconds="2787"
    currentPlaytime="2787867" clockRunning="true"/>
</event_list>
```

> Substitution Event

```
<event_list date_generated="2012-02-08T08:09:26.265Z" pusher_id="2"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="184564" minute="3" event_number="5" event_code_id="1055"
    date="2012-02-08T08:03:52.563Z" event_code="Substitution Home"
    tickerstate_id="2" tickerstate="1st half" score_home="1"
    score_away="0" player_in_num="24" player_out_num="37"
player_in_id="3502" player_out_id="57619" player_in_name="P.
Vieira" player_out_name="Gunnar Nielsen" statistics="1055=1 2079=0"
    currentPlaytime="129334" clockRunning="true"/>
</event_list>
```

> Substitution Update Event

```
<event_list date_generated="2013-06-10T16:27:07.307Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="1234" minute="2" event_number="5" event_code_id="1055"
    date="2013-06-10T16:27:07.307Z" event_code="Substitution Home"
    tickerstate_id="2" tickerstate="1st half" score_home="2"
    score_away="2" player_in_num="13" player_out_num="9"
```

```

    player_in_id="1013" player_out_id="1009"
    player_in_name="playerInName" player_out_name="playerOutName"
    currentPlaytime="150000"
    clockRunning="false" />
<event game_id="1234" minute="2" event_number="6" event_code_id="283"
date="2013-06-10T16:27:28.446Z" event_code="Substitution details for
Substitution in the 2. minute changed" tickerstate_id="2"
tickerstate="1st half" score_home="2" score_away="2"
related_events="5" player_in_num="13" player_out_num="9"
player_in_id="1013" player_out_id="1009"
player_in_name="playerInName" player_out_name="playerOutName"
event_reason_id="20"
event_reason="injury" currentPlaytime="150000" clockRunning="false" />
</event_list>

```

> Player-Related Event

```

<event_list date_generated="2012-02-08T08:09:26.265Z" pusher_id="2"
xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="184564" minute="1" event_number="3" event_code_id="1029"
date="2012-02-08T08:01:51.573Z" event_code="Goal Home"
tickerstate_id="2" tickerstate="1st half" score_home="1"
score_away="0" statistics="2053=0 1029=1" currentPlaytime="8346"
clockRunning="true"/>
  <event game_id="184564" minute="1" event_number="4" event_code_id="261"
date="2012-02-08T08:02:15.507Z" event_code="Event details for Goal in
the 1. minute changed" tickerstate_id="2" tickerstate="1st half"
score_home="1" score_away="0" related_events="3"
event_reason="shot"
event_reason_id="0" player_num="45" player_id="13169"
player_name="Mario Balotelli" related_event_codes="1029"
currentPlaytime="32279" clockRunning="true"/>
</event_list>

```

> Stoppage Time Event

```

<event_list date_generated="2011-01-05T09:22:44.796Z" pusher_id="3"
xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="53" event_number="41"
event_code_id="260"
date="2011-01-05T09:10:13.220Z" event_code="Stoppage time"
tickerstate_id="2" tickerstate="1st half" score_home="1"
score_away="0" stoppage_time="9" seconds="3150"
currentPlaytime="3150806" clockRunning="true"/>
</event_list>

```

> Cancellation & Clear Event

```

<event_list date_generated="2011-01-05T09:24:13.734Z" pusher_id="3"
xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="46" event_number="44" event_code_id="1039"
date="2011-01-05T09:11:42.151Z" event_code="Shot (on target) Home"
tickerstate_id="8" tickerstate="2nd half" score_home="1"
score_away="0" statistics="1039=1 2063=0" seconds="2705"
currentPlaytime="2705628" clockRunning="true"/>
  <event game_id="137527" minute="46" event_number="45"
event_code_id="256" date="2011-01-05T09:11:44.011Z"
event_code="Cancel" tickerstate_id="8" tickerstate="2nd half"

```

```

score_home="1" score_away="0" clears_event="44"
  statistics="1039=0 2063=0" seconds="2707" currentPlaytime="2707489"
  clockRunning="true"/>
</event_list>

<event_list date_generated="2011-01-05T09:27:25.781Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="49" event_number="47" event_code_id="1029"
    date="2011-01-05T09:14:54.161Z" event_code="Goal Home"
    tickerstate_id="8" tickerstate="2nd half" score_home="1"
    score_away="0" statistics="2053=0 1029=1" seconds="2897"
    currentPlaytime="2897638" clockRunning="true"/>
  [...]
  <event game_id="137527" minute="58" event_number="54"
    event_code_id="1030" date="2011-01-05T09:16:00.720Z"
    event_code="Cancel Goal Home" tickerstate_id="8" tickerstate="2nd
    half" score_home="0"
    score_away="0" statistics="2053=0 1029=0" seconds="3462"
    currentPlaytime="3462353" clockRunning="true"/>
</event_list>

```

> Related Event

```

<event_list date_generated="2010-04-22T08:47:25.354Z" pusher_id="1">
  <event game_id="136807" minute="34" event_number="37" event_code_id="1031"
    date="2010-12-06T11:54:04.303Z" event_code="Penalty Home"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="1" statistics="2055=0 1031=1" seconds="2035"
    currentPlaytime="2035148" clockRunning="true"/>
  <event game_id="136807" minute="35" event_number="38" event_code_id="142"
    date="2010-12-06T11:54:11.037Z" event_code="Missed" tickerstate_id="2"
    tickerstate="1st half" score_home="0" score_away="1"
    related_events="37" seconds="2041" currentPlaytime="2041880"
    clockRunning="true"/>
</event_list>

```

> Time Correction Event

```

<event_list date_generated="2011-01-05T09:34:26.927Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="137527" minute="64" event_number="55" event_code_id="1034"
    date="2011-01-05T09:21:55.289Z" event_code="Yellow card Home"
    tickerstate_id="8" tickerstate="2nd half" score_home="0"
    score_away="0" statistics="1034=2 2058=1" seconds="3816"
    currentPlaytime="3816922" clockRunning="true"/>
  <event game_id="137527" minute="64" event_number="56" event_code_id="261"
    date="2011-01-05T09:21:55.376Z" event_code="Event details for Yellow card
in the
64. minute changed" tickerstate_id="8" tickerstate="2nd half" score_home="0"
score_away="0" related_events="55" event_reason="foul"
event_reason_id="10" player_num="0" player_id="-1"
related_event_codes="1034" seconds="3817" currentPlaytime="3817008"
clockRunning="true"/>
  <event game_id="137527" minute="64" event_number="57"
    event_code_id="266" date="2011-01-05T09:22:09.396Z"
    event_code="Yellow card time was adjusted to 50:00."
    tickerstate_id="8" tickerstate="2nd half" score_home="0"
    score_away="0" related_events="55"

```

```

        correctPlaytime="3000000" seconds="3831" currentPlaytime="3831027"
        clockRunning="true"/>
</event_list>

```

> Value Event

Value event parameters are provided as a list of key-value parameters (just as 'score' or 'statistics'). In the Http XML format, only the type and the value are sent.

The following shows a sample of 'Jersey changed', providing jersey color information for a team (See also chapter 8.15.1 *Jersey Colour Event*).

```

<event_list date_generated="2012-02-07T10:55:10.661Z" pusher_id="2"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="240361" minute="1" event_number="10" event_code_id="524"
    date="2012-08-19T14:59:17.157Z" event_code="Jersey colors updated"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" currentPlaytime="22954" clockRunning="true"
    value_event_data="15=6708 16=1 17=-16777216 18=-16777216 19=-
16777216 20=1"/>
</event_list>

```

> Line-up Event

```

<event_list date_generated="2010-12-06T13:49:50.004Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="194625" minute="0" event_number="3" event_code_id="520"
    date="2011-11- 20T15:45:23.020Z" event_code="Lineup changed"
    tickerstate_id="1" tickerstate="Not started" score_home="0"
    score_away="0" seconds="0">
    <lineups squad_type="Starting11" squad_type_id="1" team_name="Stade
      Brestois 29" team_id="376">
      <lineup jersey_number="1" match_name="Steeve Elana"
        player_id="24765"/>
      <lineup jersey_number="6" match_name="Bruno Grougi"
        player_id="28640"/>
      <lineup jersey_number="4" match_name="Johan Martial"
        player_id="57075"/>
      <lineup jersey_number="27" match_name="Mario Licka"
        player_id="14288"/>
      <lineup jersey_number="26" match_name="Nolan Roux"
        player_id="54485"/>
      <lineup jersey_number="10" match_name="Larsen Toure"
        player_id="48083"/>
      <lineup jersey_number="12" match_name="Paul Baysse"
        player_id="49110"/>
      <lineup jersey_number="8" match_name="Jonathan Zebina"
        player_id="591"/>
      <lineup jersey_number="29" match_name="Gregory Lorenzi"
        player_id="24771"/>
      <lineup jersey_number="2" match_name="John Jairo Culma"
        player_id="58131"/>
      <lineup jersey_number="9" match_name="Eden Ben Basat"
        player_id="58133"/>
    </lineups>
    <lineups squad_type="Bench" squad_type_id="4" team_name="Stade
      Brestois 29" team_id="376">
      <lineup jersey_number="20" match_name="Romain Poyet"

```

```

        player_id="24785"/>
        <lineup jersey_number="5" match_name="Oscar Ewolo"
        player_id="3657"/>
        <lineup jersey_number="25" match_name="Omar Daf"
        player_id="1492"/>
        <lineup jersey_number="19" match_name="Benoît Lesoimier"
        player_id="29608"/>
        <lineup jersey_number="15" match_name="Tomas Micola"
        player_id="12369"/>
        <lineup jersey_number="17" match_name="Santiago Gentiletti"
        player_id="58134"/>
        <lineup jersey_number="30" match_name="Joan Hartock"
        player_id="8664"/>
    </lineups>
    <lineups squad_type="Starting11" squad_type_id="1" team_name="FC
    Sochaux Montbéliard" team_id="228">
        <lineup jersey_number="16" match_name="Teddy Richert"
        player_id="1488"/>
        <lineup jersey_number="11" match_name="Yassin Mikari"
        player_id="1507"/>
        <lineup jersey_number="14" match_name="Marvin Martin"
        player_id="23190"/>
        <lineup jersey_number="21" match_name="Vincent Nogueira"
        player_id="23192"/>
        <lineup jersey_number="20" match_name="Edouard Butin"
        player_id="23193"/>
        <lineup jersey_number="23" match_name="David Sauget"
        player_id="7503"/>
        <lineup jersey_number="29" match_name="Mathieu Peybernes"
        player_id="56941"/>
        <lineup jersey_number="6" match_name="Kevin Anin"
        player_id="23463"/>
        <lineup jersey_number="2" match_name="Sebastien Corchia"
        player_id="57819"/>
        <lineup jersey_number="9" match_name="Sloan Privat"
        player_id="57820"/>
        <lineup jersey_number="5" match_name="Carlos Alberto Carlao"
        player_id="56942"/>
    </lineups>
    <lineups squad_type="Bench" squad_type_id="4" team_name="FC Sochaux
    Montbéliard" team_id="228">
        <lineup jersey_number="27" match_name="Loic Poujol"
        player_id="53556"/>
        <lineup jersey_number="15" match_name="Modibo Maiga"
        player_id="11805"/>
        <lineup jersey_number="7" match_name="Rafael Dias"
        player_id="56944"/>
        <lineup jersey_number="8" match_name="Abdoul Razzagui Camara"
        player_id="55020"/>
        <lineup jersey_number="1" match_name="Cros" player_id="59057"/>
        <lineup jersey_number="33" match_name="Zouma" player_id="59189"/>
    </lineups>
</event>
</event_list>

```

> Score

Basketball and soccer use the straightforward home vs. away score scheme (scoreHome / scoreAway) as shown in other message samples. Other sports may also provide more than two values (volleyball: points in current set; ice hockey: goals in current period; cricket: wickets and legal balls in current inning etc.).

```
<event game_id="334293" minute="0" event_number="4" event_code_id="1421"
      date="2014-01-10T09:04:32.983Z" event_code="Point Home"
      tickerstate_id="2101" tickerstate="1st set" score_home="0" score_away="0"
      statistics="2445=0 1421=1" currentPlaytime="12990" clockRunning="true"
      score="1421=1 2445=0"/>
```

Further information is given in chapter 8.12 *Score Mapping*.

> Player Data Confirmation

```
<event_list date_generated="2013-07-16T08:46:11.670Z" pusher_id="1"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="319129" minute="2" event_number="3" event_code_id="2058"
    date="2013-07-16T08:46:11.360Z" event_code="Yellow card Away"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" statistics="1034=1 2058=1" seconds="102"
    currentPlaytime="102384" clockRunning="true"/>
  [...]
  <event game_id="319129" minute="2" event_number="5" event_code_id="285"
    date="2013-07-16T08:46:15.842Z" event_code="Player data for Yellow
    card in the 2. minute confirmed." tickerstate_id="2" tickerstate="1st
    half" score_home="0" score_away="0" related_events="3"
    related_event_codes="2058" seconds="106" currentPlaytime="106865"
    clockRunning="true"/>
</event_list>
```

7.1.4 Market Price (Deprecated)

```
<market_price_list date_generated="2010-04-22T10:12:06.149Z" pusher_id="1">
  <market_price id="0" provider_id="1" provider="MARKET_AVG"
    market_id="22" market="Next goal HT1" selection_id="3" selection="X"
    game_id="117655" value="0.0" price="3.22" pp="0.0" date="2010-04-
    22T10:12:12.719Z" min="0" sec="0" hs="0" as="0" live="true"
    blocked="false" />
</market_price_list>
```

7.1.5 System Message

```
<event_list date_generated="2011-02-24T16:33:52.849Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="154534" minute="159" event_number="100"
    event_code_id="513" date="2011-02-24T16:33:24.550Z"
    event_code="System message received"
    tickerstate_id="2" tickerstate="1st half" score_home="0"
    score_away="0" currentPlaytime="9520124" clockRunning="true"
    message="Game is suspended - referee is injured" message_id="309"
  />
</event_list>
```


> Outdated

The format below is still supported for compatibility reasons but should not be used any longer.

```
<event_list date_generated="2010-12-06T13:59:00.506Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136806" minute="161" event_number="12" event_code_id="513"
    date="2010-12-06T13:48:53.152Z" event_code="System message received"
    tickerstate_id="2" tickerstate="1st half" score_home="2"
    score_away="2" seconds="9658" currentPlaytime="9658240"
    clockRunning="true"/>
</event_list>
<message_list date_generated="2010-12-06T13:59:00.512Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <message game_id="136806" date="2010-12-06T13:48:53.152Z" message="Game
is
  suspended - players are fighting" message_id="308" event_number="12"/>
</message_list>
```

A System Message is always combined with an event, linked together via game_id and event_number. Please refer to chapter 8.8 *System Message Mapping* for all possible System Messages.

7.1.6 Game Condition

```
<event_list date_generated="2011-02-24T16:33:58.750Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="154534" minute="159" event_number="102"
event_code_id="258" date="2011-02-24T16:33:30.438Z" event_code="Game
conditions changed" tickerstate_id="2" tickerstate="1st half"
score_home="0"
  score_away="0" currentPlaytime="9526012" clockRunning="true"
  attendance_id="1" attendance="medium" pitch_condition_id="4"
  pitch_condition="regular" weather_condition_id="14"
  weather_condition="sunny"/>
</event_list>
```

> Outdated

The format below is still supported for compatibility reasons but should not be used any longer:

```
<event_list date_generated="2010-12-06T13:54:09.947Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <event game_id="136806" minute="157" event_number="11" event_code_id="258"
    date="2010-12-06T13:44:02.636Z" event_code="Game conditions changed"
    tickerstate_id="2" tickerstate="1st half" score_home="2"
    score_away="2" seconds="9367" currentPlaytime="9367725"
    clockRunning="true"/>
</event_list>
<game_condition_list date_generated="2010-12-06T13:54:09.953Z" pusher_id="3"
  xmlns="http://rball.com/eventpusher/data/xmlbeans">
  <game_condition game_id="136806" attendance_id="1" attendance="medium"
    pitch_condition_id="4" pitch_condition="regular"
    weather_condition_id="14" weather_condition="sunny" date="2010-12-
06T13:54:09.956Z" event_number="11"/>
</game_condition_list>
```

</game_condition_list>

A Game Condition is always combined with an event, linked together via game_id and event_number. Please refer to chapter 8.6 *Game Condition Mapping* for detailed description of pitch condition, weather condition and attendance.

7.1.7 Player Information

```
<player_list date_generated="2010-04-22T08:15:47.954Z" pusher_id="1">
  <player id="3898" match_name="C. Gratzei" country_id="43" country="Austria"
    position_id="0" position="Goal keeper" changetime="2010-04-
    22T08:14:50.480Z">
    <team_player team_id="412" rating_id="0" rating="Unrated"
      jersey_number="1" />
  </player>
  <player id="3909" match_name="I. Szabics" country_id="43" country="Austria"
    position_id="3" position="Attacker" changetime="2010-04-
    22T08:14:50.480Z">
    <team_player team_id="412" rating_id="1" rating="Premium"
      jersey_number="11" />
  </player>
</player_list>
```

7.1.8 Game Possession Statistics

```
<event_list date_generated="2016-11-03T07:10:01.573Z" pusher_id="0">
  <event game_id="569687" minute="2" event_number="49"
    event_code_id="1051" date="2016-11-03T07:10:01.537Z" event_code="Safe
    Home" tickerstate_id="2" tickerstate="1st half" score_home="0" score_away="0"
    statistics="1063=57 2087=43" currentPlaytime="65347" clockRunning="true"/>
</event_list>
```

7.2 Http Pull Interface

The Http pull interface is an additional interface to offer a communication channel to RunningBall when an Http XML data feed is used, as the Http XML feed is a push feed only. The Http pull interface is tightly coupled with the Http XML. The Http interface is a SOAP web service. The return data of the methods will be XML documents which fit the data provided in the Http XML data feed.

The following methods are offered in the Http pull interface:

- > login
- > logout
- > getFixtures
- > getFixturesByIds
- > getSportsFixturesById
- > getSportsFixtures
- > bookGames
- > revokeGames
- > getAllEventsForSingleGame
- > getAllEventsForGameList

- > getEventsByTime
- > getEventsFromEventNumber
- > getGameConditions
- > getGameMessages

The Http pull interface URL is available upon request at Runningball Feed Support.

7.2.1 Error Codes

The table below provides an overview of errors that may be returned by the service methods. Please be aware that the error codes are just returned as plain numbers.

ID	Description
0	OK (only returned if no XML document is returned, e.g. bookGames).
34	Session does not exist (i.e. the handed over session ID is invalid).
38	Session is not active (session was found but already logged out).
45	Invalid session (handed over session ID is null).
100	General error (unspecified).
106	The given parameters are invalid.

Table 37 – Http Pull Interface – General Error Codes

7.2.2 Method “login”

This method is used to authenticate the service and to retrieve the session ID which is required for any further interaction.

Input parameters:

- > username (String)
- > password (String)

Return value:

This method returns a valid session ID in case the login was successful. In any other case the appropriate error code will be returned. The error code is a number smaller than or equal to 100.

ID	Description
1	Version error (would be internal on our side).
32	Invalid login (caused by a wrong username or password).
39	Login user not active (account blocked or deactivated).
54	Password change required (should never happen as the passwords of these accounts will never expire).

Table 38 – Http Pull Interface – Login Error Codes

7.2.3 Method "logout"

In case the client implementation is stopped on the customer side, a logout has to be called so that the old user session is closed.

Input parameters:

- > sessionId (String)

Return value:

Returns 0 if the logout was successful or an error code otherwise.

7.2.4 Method "getFixtures"

This method returns an XML document which contains a game list for a requested time frame.

Input parameters:

- > sessionId (String)
- > dateFrom (long – EPOCH timestamp)
- > dateTo (long – EPOCH timestamp)

Return value:

An XML document including the fixtures for the requested time frame. The format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.2 *Game List*).

7.2.5 Method "getFixturesByIds"

This method returns an XML document which contains a game XML for the handed over IDs.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

An XML document including the fixtures for the requested game IDs. The format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.2 *Game List*).

7.2.6 Method "getSportsFixturesByIds"

This method returns an XML document which contains a game XML for the handed over Ids with the given sportsIds.

Input parameters:

- > sessionId (String)
- > gameIds (int[])
- > sportsIds(short[])

7.2.7 Method "getSportsFixtures"

This method returns an XML document which contains a game list for a requested time frame.

Input parameters:

- > sessionId (String)
- > dateFrom (long – EPOCH timestamp)
- > dateTo (long – EPOCH timestamp)
- > sportsIds (short [])

Return value:

An XML document including the fixtures for the requested time frame. The format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.2 *Game List*).

7.2.8 Method "bookGames"

With this method the handed over games will be booked, so that the live feed will deliver the data.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

Returns 0 if the booking was successful or an error code otherwise.

Error	Description
0 OK	All handed over game IDs have been booked successfully.
56 INVALID TICKER ID	One of the handed over IDs is not a valid RB game ID.
57 INVALID ID	The handed over game IDs are null or an empty array.
100 GENERAL ERROR	Undefined internal error.

Table 39 – Http Pull Interface – BookGames Codes

7.2.9 Method "revokeGames"

With this method a list of games can be unbooked. Unbooking a game is only possible as long as the game has not started.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

Returns 0 if the revoking was successful or an error code otherwise.

Error	Description
0 OK	All handed over game IDs have been unbooked successfully.
56 INVALID TICKER ID	One of the handed over IDs is not a valid RB match ID.
57 INVALID ID	The handed over game IDs are null or an empty array.
100 GENERAL ERROR	Undefined internal error.

Table 40 - Http Pull Interface – RevokeGames Codes

7.2.10 Method "getAllEventsForSingleGame"

This method returns an XML document containing all events for the handed over game.

Input parameters:

- > sessionId (String)
- > gameId (int)

Return value:

An XML document including all events for the requested game; the format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.3 *Sports Ticker Event*).

7.2.11 Method "getAllEventsForGameList"

This method returns an XML document containing all events for the handed over game list.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

An XML document including all events for the requested game list; the format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.3 *Sports Ticker Event*).

7.2.12 Method "getEventsByTime"

This methods returns an XML document containing all events of the handed over game list for the selected time frame.

Input parameters:

- > sessionId (String)
- > dateFrom (long – EPOCH timestamp)
- > dateTo (long – EPOCH timestamp)
- > gameIds (int[])

Return value:

An XML document including all events for the requested games in the defined time frame; the format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.3 *Sports Ticker Event*).

7.2.13 Method "getEventsFromEventNumber"

This method returns an XML documents containing all events for the handed over game from the handed over event number.

Input parameters:

- > sessionId (String)
- > gameId (int)
- > eventNumber (int)

Return value:

An XML document including all events for the requested game starting from the handed over eventNumber; the format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.2.13 *Method "getEventsFromEventNumber"*).

7.2.14 Method "getGameConditions"

This method returns an XML document containing the game conditions for the handed over game list.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

An XML document including the game conditions for the requested games. The format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.6 *Game Condition*).

7.2.15 Method "getGameMessages"

This method returns an XML document containing the game messages for the handed over game list.

Input parameters:

- > sessionId (String)
- > gameIds (int[])

Return value:

An XML document including the game messages for the requested games. The format of the XML document is the same as defined in the Http XML pushing feed (see chapter 7.1.5 *System Message*).

8 Mapping Information

The following subchapters provide you with an overview of the ID mappings used in the feed.

8.1 Event Code Mapping

8.1.1 Common Events

The following events may occur on any type of data feed as they are not sports-specific.

ID	Event Name	Long Description
20	STOP_GAME	Indicates that the game has finished.
149	Game suspended	The game has been suspended for undisclosed reasons.
197	UPDATE_SCORE_START	Start score update.
198	UPDATE_SCORE_FINISHED	Score update finished.
216	STATISTIC_VERIFICATION	Statistics confirmation.
256	CLS	Cancel last sent event.
257	CLR	Clear events.
258	GCC	Game conditions changed.
261	SCORER	Event details for %RELATED_EVENT% in the %MIN%. minute changed.
262	BP	Ball position event.
264	ODD	Odds event (deprecated).
266	TIME_CORRECTION_EVENT	Correct timestamp for a missed event; see also chapter 2.4.9 <i>Time Correction Event</i> .
276	START_GAME_CLOCK	The (stopped) game clock is (re)started; the game is running.
277	STOP_GAME_CLOCK	The game clock is stopped. Time will not change until 'Start Game Clock' is sent again.
278	ADJUST_GAME_CLOCK	Game clock value is adjusted manually.
279	CSTAT	A statistical value is cleared and an additional event with the correct action is sent (e.g. an invalid "Ace Home" event is replaced by a "Service Winner Home").
280	CONF_PERIOD_SCORE	Period score confirmed.
282	TIME_ADAPTION	Time for event %RELATED_EVENT% was adapted by %SEC% seconds.
285	PLAYER_DATA_CONFIRMED	Player data for %RELATED_EVENT% in the %MIN% confirmed.
513	SYS_MSG	System Message.

ID	Event Name	Long Description
514	SCOUT_IN_STADION	Scout in Stadium.
515	CONNECTION_PROBLEMS SCOUT_OFFLINE	Connection problems Scout offline.
516	CONNECTION_PROBLEMS	Connection problems.
517	TRANSMISSION_ONLINE	Transmission online.
520	LINEUP_CHANGED	Line-up changed.
782	Game cancelled	Automatic "Game cancelled" event after first "cancellation" System message is sent.

Table 41 – Common Events

8.1.2 Soccer Events

ID	Event Name	Long Description
0	Start RT1	Start first half
1	Stop RT1	Stop first half
2	Start RT2	Start second half
3	Stop RT2	Stop second half
4	Start OT1	Start first half extra time
5	Stop OT1	Stop first half extra time
6	Start OT2	Start second half extra time
7	Stop OT2	Stop second half extra time
8	Start PEN	Start penalty shootout
9	Stop PEN	Stop penalty shootout
10	Start RT1 Team 1	
11	Start RT1 Team 2	
12	Start RT2 Team 1	
13	Start RT2 Team 2	
14	Start OT1 Team 1	
15	Start OT1 Team 2	
16	Start OT2 Team 1	
17	Start OT2 Team 2	
18	Start PEN Team 1	
19	Start PEN Team 2	

ID	Event Name	Long Description
128	Safe	Safe
129	Danger	Danger
132	Injury Break	Injury Break
133	Players are coming out	Players are coming out
134	Players lined up	Players lined up
135	National anthem singing	National anthem singing
136	Shake hands	Shake hands
137	Flip coin	Flip coin
138	Minute of silent	Minute of silent
139	Prize giving ceremony	Prize giving ceremony
140	Photo taking	Photo taking
141	Game about to start	Game about to start
142	Missed	Penalty missed
143	PRC	Possible red card
144	PPEN	Possible penalty
145	No RC	No RC after PRC
146	No Pen	No PEN after PPEN
147	Retake Pen	Retake Penalty
148	Restart	Restart game (eg after injury break)
150	Next Penalty Scorer	
187	Goal under Investigation	Goal under investigation
207	Possible Free Kick	
208	No Free Kick	
209	Referee Ball	
226	Possible Card	
227	No Card	
228	Possible TI	Possible throw in
229	No TI	No throw in
260	Extra Time	Indicates the extra time.
283	SUB_UPDATE	Substitution details for %RELATED_EVENT% in the %MIN%. minute changed

ID	Event Name	Long Description
287	Assist	Assist details for %RELATED_EVENT% in minute %MIN% changed
524	Jersey Changed	Jersey colours updated
532	Formation changed	Formation information updated
533	VAR started	Video assistant referee session started
534	NO VAR	No video assistant referee session
535	VAR reason	Video assistant referee reason sent
536	VAR finished	Video assistant referee session finished
537	Penalty about to be taken	Penalty about to be taken
1024	AT1	Attack home
1025	CR1	Corner home
1026	DAT1	Dangerous attack Home
1027	DFK1	Dangerous free kick Home
1028	FK1	Free kick Home
1029	GOAL1	Goal Home
1030	CGOAL1	Cancel goal Home
1031	PEN1	Penalty Home
1032	RC1	Red card Home
1034	YC1	Yellow card Home
1039	SHG1	Shot on target Home
1040	SHB1	Shot off target Home
1041	SHW1	Shot woodwork Home
1042	F1	Foul Home
1043	O1	Offside Home
1044	KO1	Kickoff Home
1045	YRC1	Yellow/red card Home
1046	CYC_RC1	Cancel yellow/red card Home
1047	CRC1	Cancel red card Home
1048	CYC1	Cancel yellow card Home
1049	CPEN1	Cancel penalty Home
1050	CCR1	Cancel corner Home

ID	Event Name	Long Description
1051	SAFE1	Safe Home
1052	DANGER1	Danger Home
1053	GK1	Goal kick Home
1054	TI1	Throw in Home
1055	SUB1	Substitution Home
1058	BLOCKED1	Shot blocked Home
1059	RPEN1	Retake penalty Home
1060	MPEN1	Missed penalty Home
1062	PPEN1	Possible Penalty Home
1064	BREAKAWAY1	Breakaway Home
1065	CONF_GOAL1	Goal confirmation Home
1066	PCR1	Possible corner Home
1067	NCR1	No corner Home
1068	CONF_YC1	Yellow card confirmed Home
1069	CONF_YC_RC1	Yellow/red card confirmed Home
1070	CONF_RC1	Red card confirmed Home
1071	PFK1	Possible free kick Home
1072	NEXT_PEN1	Penalty Shootout Home Team's turn
2048	AT2	Attack Away
2049	CR2	Corner Away
2050	DAT2	Dangerous attack Away
2051	DFK2	Dangerous free kick Away
2052	FK2	Free kick Away
2053	GOAL2	Goal Away
2054	CGOAL2	Cancel goal Away
2055	PEN2	Penalty Away
2056	RC2	Red card Away
2058	YC2	Yellow card Away
2063	SHG2	Shot on target Away
2064	SHB2	Shot off target Away

ID	Event Name	Long Description
2065	SHW2	Shot woodwork Away
2066	F2	Foul Away
2067	O2	Offside Away
2068	KO2	Kickoff Away
2069	YRC2	Yellow/red card Away
2070	CYC_RC2	Cancel yellow/red card Away
2071	CRC2	Cancel red card Away
2072	CYC2	Cancel yellow card Away
2073	CPEN2	Cancel penalty Away
2074	CCR2	Cancel corner Away
2075	SAFE2	Safe Away
2076	DANGER2	Danger Away
2077	GK2	Goal kick Away
2078	TI2	Throw in Away
2079	SUB2	Substitution Away
2082	BLOCKED2	Shot blocked Away
2083	RPEN2	Retake penalty Away
2084	MPEN2	Missed penalty Away
2086	PPEN2	Possible Penalty Away
2088	BREAKAWAY2	Breakaway Away
2089	CONF_GOAL2	Goal confirmation Away
2090	PCR2	Possible corner Away
2091	NCR2	No corner Away
2092	CONF_YC2	Yellow card confirmed Away
2093	CONF_YC_RC2	Yellow/red card confirmed Away
2094	CONF_RC2	Red card confirmed Away
2095	PFK2	Possible free kick Away
2096	NEXT_PEN2	Penalty Shootout Away Team's turn

Table 42 – Soccer Event Code ID Mappings

8.1.3 Basketball Events

ID	Event Name	Long Description
0	START_RT1	Start 1 st half*
1	STOP_RT1	Stop 1 st half*
2	START_RT2	Start 2 nd half*
3	STOP_RT2	Stop 2 nd half* * Note: Only NCAA games are played in halves. These events only apply to games with the corresponding league parameter set to 'true'. See also chapter 8.14.2 <i>Basketball</i> .
31	START_Q1	Start 1 st quarter
32	START_Q2	Start 2 nd quarter
33	START_Q3	Start 3 rd quarter
34	START_Q4	Start 4 th quarter
35	START_OVERTIME	Start overtime
36	STOP_QUARTER	Stop quarter
37	STOP_OVERTIME	Stop overtime
101	STOP_Q1	Stop 1 st quarter
102	STOP_Q2	Stop 2 nd quarter
103	STOP_Q3	Stop 3 rd quarter
104	STOP_Q4	Stop 4 th quarter
129	DANGER	Danger
135	ANTHEM	National anthem singing
138	MINUTE_OF_SILENT	Minute of silence
139	PRICE_GIVING_CEREMONY	Price giving ceremony
157	TIMEOUT	Timeout
159	NO_FT	No free throw
160	PLAYERS_WARMING_UP	Players warming up
161	FINAL_CALL	Final call to the court by referees
171	PLAYERS_INTRODUCTION	Players are introduced
172	THREE_MINUTE_WARNING	3 minute warning by referee
178	PFT	Possible free throw
280	CONF_PERIOD_SCORE	Score of last period confirmed

ID	Event Name	Long Description
283	SUB_UPDATE	Substitution details for %RELATED_EVENT% in the %MIN%. minute changed
524	Jersey Changed	Jersey colors updated
1093	BB_FG_2PT1	2 Points Home
1094	BB_FG_3PT1	3 Points Home
1095	BB_TI1	Throw in Home
1096	BB_FOUL1	Foul Home
1097	BB_FOULED_OUT1	Fouled out Home
1099	BB_ONE_FT1	1 free throw Home
1100	BB_TWO_FT1	2 three throws Home
1101	BB_FG_1PT1	1 Point Home
1102	BB_TIME1	Timeout Home
1104	BB_TURNOVER1	Turnover Home
1105	BB_STEAL1	Steal Home
1106	BB_ROFF1	Offensive rebound Home
1107	BB_RDEF1	Defensive rebound Home
1108	BB_BALL1	Ball Home
1110	BB_THREE_FT1	3 free throws Home
1111	BB_CFG_1PT1	Cancel 1 point Home
1112	BB_CFG_2PT1	Cancel 2 points Home
1113	BB_CFG_3PT1	Cancel 3 points Home
1114	BB_MISSED_FT1	Missed free throw Home
1115	BB_DISQ_PLAYER1	Disqualified player home
1116	BB_TI_FOUL1	Tech./Int Home
1117	BB_P_FOUL1	Personal foul Home
1120	BB_CROFF1	Cancel offensive rebound Home
1121	BB_CRDEF1	Cancel defensive rebound Home
1122	BB_INJ_OUT1	Player injured Home
1123	BB_BIG1	Player back in game Home
1127	BB_CONF_POINT1	Point confirmation Home
1128	BB_JB_WIN1	Jump ball winner Home

ID	Event Name	Long Description
1129	BB_POSS_ARROW1	Possession arrow Home
1130	BB_MISSED_2PT1	Missed 2 point attempt Home
1131	BB_MISSED_3PT1	Missed 3 point attempt Home
2117	BB_FG_2PT2	2 points Away
2118	BB_FG_3PT2	3 Points Away
2119	BB_TI2	Throw in Away
2120	BB_FOUL2	Foul Away
2121	BB_FOULED_OUT2	Fouled out Away
2123	BB_ONE_FT2	1 free throw Away
2124	BB_TWO_FT2	2 three throws Away
2125	BB_FG_1PT2	1 Point Away
2126	BB_TIME2	Timeout Away
2128	BB_TURNOVER2	Turnover Away
2129	BB_STEAL2	Steal Away
2130	BB_ROFF2	Offensive rebound Away
2131	BB_RDEF2	Defensive rebound Away
2132	BB_BALL2	Ball Away
2134	BB_THREE_FT2	3 free throws Away
2135	BB_CFG_1PT2	Cancel 1 point Away
2136	BB_CFG_2PT2	Cancel 2 point Away
2137	BB_CFG_3PT2	Cancel 3 point Away
2138	BB_MISSED_FT2	Missed free throw Away
2139	BB_DISQ_PLAYER2	Disqualified player Away
2140	BB_TI_FOUL2	Tech./Int Away
2141	BB_P_FOUL2	Personal foul Away
2144	BB_CROFF2	Cancel offensive rebound Away
2145	BB_CRDEF2	Cancel defensive rebound Away
2146	BB_INJ_OUT2	Player injured Away
2147	BB_BIG2	Player back in game Away
2151	BB_CONF_POINT2	Point confirmation Away

ID	Event Name	Long Description
2152	BB_JB_WIN2	Jump ball winner Away
2153	BB_POSS_ARROW2	Possession arrow Away
2154	BB_MISSED_2PT2	Missed 2 point attempt Away
2155	BB_MISSED_3PT2	Missed 3 point attempt Away

Table 43 – Basketball Event Code ID Mappings

8.1.4 Ice Hockey Events

ID	Event Name	Long Description
18	START_PEN1	Start penalty shootout, first penalty: Home
19	START_PEN2	Start penalty shootout, first penalty: Away
35	START_OT	Start overtime
37	STOP_OT	Stop overtime
60	START_P1	Start 1 st period
61	STOP_P1	Stop 1 st period
62	START_P2	Start 2 nd period
63	STOP_P2	Stop 2 nd period
64	START_P3	Start 3 rd period
65	STOP_P3	Stop 3 rd period
128	SAFE	Safe
132	IN_BREAK	Game suspended – Player injured
133	PLAYERS_COMING_OUT	Players are coming out
134	LINE_UP	Players lined up
135	ANTHEM	Nation anthem singing
136	SHAKE_HANDS	Shake hands
137	FLIP_COIN	Coin flipping
138	MINUTE_OF_SILENT	Minute of silent
139	PRIZE_GIVING_CEREMONY	Prize giving ceremony
140	PHOTO_TAKING	Photo taking
141	GAME_ABOUT_TO_START	Game about to start
142	MISSED	Missed

ID	Event Name	Long Description
144	PPEN	Possible PEN
146	NO_PEN	No PEN
147	RETAKE_PEN	Retake PEN
148	GC	Restart
149	GAME_SUSPENDED	Game suspended
150	NEXT_PEN_SCORER	Next scorer
157	TIMEOUT	Timeout
160	PLAYERS_WARMING_UP	Players warming up
171	PLAYERS_INTRODUCTION	Players introduction
174	POSSIBLE_SUSPENSION	Possible Suspension
175	NO_SUSPENSION	No Suspension
187	GOAL_UNDER_INVESTIGATION	Goal under investigation
195	IH_FO	Faceoff
197	UPDATE_SCORE_START	Updating score
198	UPDATE_SCORE_FINISHED	Score updated
212	FO Done	Faceoff done
213	FO Undecided	Faceoff undecided
282	TIME_ADAPTION	Event time adaption
524	Jersey Changed	Jersey colors updated
537	Penalty about to be taken	Penalty shot about to be taken
1475	IH_GOAL1	Goal Home
1476	IH_PEN_SH1	Penalty Shot Home
1477	IH_M_PEN_SH1	Missed Penalty Shot Home
1478	IH_R_PEN_SH1	Retake Penalty Shot Home
1479	IH_2M1	2 Minute Penalty Home
1480	IH_5M1	5 Minute Penalty Home
1481	IH_10M1	10 Minute Penalty Home
1482	IH_P2M1	+2 Minute Penalty Home
1483	IH_P10M1	+10 Minute Penalty Home
1484	IH_GMP1	Game Misconduct Penalty Home

ID	Event Name	Long Description
1485	IH_SH1	Shot Home
1487	IH_FOW1	Face-off Won Home
1488	IH_OFFSIDE1	Offside Home
1489	IH_ICING1	Icing Home
1490	IH_TIME1	Timeout Home
1492	IH_2MPO1	2 Minute Penalty Over Home
1493	IH_5MPO1	5 Minute Penalty Over Home
1494	IH_CGOAL1	Cancel Goal Home
1495	IH_CPEN_SH1	Cancel Penalty Shot Home
1496	IH_C2M1	Cancel 2 Minute Penalty Home
1497	IH_C5M1	Cancel 5 Minute Penalty Home
1499	IH_CGMP1	Game Misconduct Penalty Home
1500	IH_PR1	Penalty Running Home
1501	IH_PRO1	Penalty Running Over Home
1502	IH_GK_OFF1	Goalkeeper Off Home
1504	IH_GK_ON1	Goalkeeper On Home
1505	IH_ZONE_AT_HALF1	Attacking Half Home
1508	IH_P5M1	+5 Minute Penalty Home
1509	IH_CP2M1	Cancel +2 Minute Penalty Home
1510	IH_CP5M1	Cancel +5 Minute Penalty Home
1511	IH_C10M1	Cancel 10 Minute Penalty Home
1512	IH_CP10M1	Cancel +10 Minute Penalty Home
1513	IH_CONF_GOAL1	Goal confirmation Home
1514	IH_NEXT_PEN1	Penalty Shootout Home Team's turn
2499	IH_GOAL2	Goal Away
2500	IH_PEN_SH2	Penalty Shot Away
2501	IH_M_PEN_SH2	Missed Penalty Shot Away
2502	IH_R_PEN_SH2	Retake Penalty Shot Away
2503	IH_2M2	2 Minute Penalty Away
2504	IH_5M2	5 Minute Penalty Away

ID	Event Name	Long Description
2505	IH_10M2	10 Minute Penalty Away
2506	IH_P2M2	+2 Minute Penalty Away
2507	IH_P10M2	+10 Minute Penalty Away
2508	IH_GMP2	Game Misconduct Penalty Away
2509	IH_SH2	Shot Away
2511	IH_FOW2	Face-off Won Away
2512	IH_OFFSIDE2	Offside Away
2513	IH_ICING2	Icing Away
2514	IH_TIME2	Timeout Away
2516	IH_2MPO2	2 Minute Penalty Over Away
2517	IH_5MPO2	5 Minute Penalty Over Away
2518	IH_CGOAL2	Cancel Goal Away
2519	IH_CPEN_SH2	Cancel Penalty Shot Away
2520	IH_C2M2	Cancel 2 Minute Penalty Away
2521	IH_C5M2	Cancel 5 Minute Penalty Away
2523	IH_CGMP2	Game Misconduct Penalty Away
2524	IH_PR2	Penalty Running Away
2525	IH_PRO2	Penalty Running Over Away
2526	IH_GK_OFF2	Goalkeeper Off Away
2528	IH_GK_ON2	Goalkeeper On Away
2529	IH_ZONE_AT_HALF2	Attacking Half Away
2532	IH_P5M1	+5 Minute Penalty Away
2533	IH_CP2M1	Cancel +2 Minute Penalty Away
2534	IH_CP5M2	Cancel +5 Minute Penalty Away
2535	IH_C10M2	Cancel 10 Minute Penalty Away
2536	IH_CP10M2	Cancel +10 Minute Penalty Away
2537	IH_CONF_GOAL2	Goal confirmation Away
2538	IH_NEXT_PEN2	Penalty Shootout Away Team's turn

Table 44 – Ice Hockey Event Code ID Mappings

8.1.5 Volleyball Events

ID	Event Name	Long Description
41	START_SET_1	Start 1 st set
42	START_SET_2	Start 2 nd set
43	START_SET_3	Start 3 rd set
44	START_SET_4	Start 4 th set
45	START_SET_5	Start 5 th set
46	STOP_SET	Stop set
54	START_SET_6	Start 6 th set
55	START_SET_7	Start 7 th set
56	START_GOLDEN_SET	Start golden set
128	SAFE	Safe
129	DANGER	Danger
132	INJ_BREAK	Game suspended - Player injured
134	LINE_UP	Players lined up
135	ANTHEM	Nation anthem singing
136	SHAKE_HANDS	Shake hands
137	FLIP_COIN	Coin flipping
138	MINUTE_OF_SILENT	Minute of silence
139	PRIZE_GIVING_CEREMONY	Prize giving ceremony
141	GAME_ABOUT_TO_START	Game about to start
157	TIMEOUT	Timeout
160	PLAYERS_WARMING_UP	Players warming up
171	PLAYERS_INTRODUCTION	Players introduction
180	RALLY_OVER_5	Rally over 5 possession changes
181	RALLY_OVER_10	Rally over 10 possession changes
182	RALLY_OVER_15	Rally over 15 possession changes
187	POINT_UNDER_INVESTIGATION	Point under investigation
197	UPDATE_SCORE_START	Start score update
198	UPDATE_SCORE_FINISHED	Score update finished
199	TTO	Technical timeout

ID	Event Name	Long Description
216	Statistic Confirmation	Statistic Confirmation
217	WARM_UP_AT_NET	Warming up at the net
218	PDISQ	Possible disqualification
219	No DISQ	No disqualification
230	SRV_TEAM_UNKNOWN	Unknown Team to start Service
524	Jersey Changed	Jersey Changed
1408	VB_SERVE1	Service Home
1409	VB_KILL1	Kill Home
1410	VB_BLOCK1	Block Home
1412	VB_OUT1	Out Home
1413	VB_ERR1	Error Home
1414	VB_SRV_A1	Ace Home
1417	VB_SRV_ERR1	Service error Home
1418	VB_PENALTY1	Penalty Home
1419	VB_EXPULSION1	Expulsion Home
1420	VB_DISQ1	Disqualification Home
1421	VB_POINT1	Point Home
1422	VB_TIME1	Timeout Home
1423	VB_SET1	Set Home
1425	VB_CPENALTY1	Cancel Penalty Home
1426	VB_CEXPULSION1	Cancel Expulsion Home
1427	VB_CDISQ1	Cancel Disqualification Home
1428	VB_CPOINT1	Cancel point Home
1429	VB_SRV_IN1	Serve in Home
1431	VB_CONF_POINT1	Point confirmation Home
1432	VB_PEN_POINT1	Penalty Point Home
1433	VB_UNDEF_METHOD_P1	Point (unknown method) Home
1434	VB_START_SRV1	Start service Home
1435	VB_BALL_POSS1	Ball possession Home
2432	VB_SERVE2	Service Away

ID	Event Name	Long Description
2433	VB_KILL2	Kill Away
2434	VB_BLOCK2	Block Away
2436	VB_OUT2	Out Away
2437	VB_ERR2	Error Away
2438	VB_SRV_A2	Ace Away
2441	VB_SRV_ERR2	Service error Away
2442	VB_PENALTY2	Penalty Away
2443	VB_EXPULSION2	Expulsion Away
2444	VB_DISQ2	Disqualification Away
2445	VB_POINT2	Point Away
2446	VB_TIME2	Timeout Away
2447	VB_SET2	Set Away
2449	VB_CPENALTY2	Cancel Penalty Away
2450	VB_CEXPULSION2	Cancel Expulsion Away
2451	VB_CDISQ2	Cancel Disqualification Away
2452	VB_CPOINT2	Cancel point Away
2453	VB_SRV_IN2	Serve in Away
2455	VB_CONF_POINT2	Point confirmation Away
2456	VB_PEN_POINT2	Penalty Point Away
2457	VB_UNDEF_METHOD_P2	Point (unknown method) Away
2458	VB_START_SRV2	Start service Away
2459	VB_BALL_POSS2	Ball possession Away

Table 45 – Volleyball Event Code ID Mappings

8.1.6 Beach Volleyball Events

ID	Event Name	Long Description
41	START_SET_1	Start 1 st set
42	START_SET_2	Start 2 nd set
43	START_SET_3	Start 3 rd set
44	START_SET_4	Start 4 th set

ID	Event Name	Long Description
45	START_SET_5	Start 5 th set
46	STOP_SET	Stop set
47	WO1	W.O. Home
48	WO2	W.O. Away
54	START_SET_6	Start 6 th set
55	START_SET_7	Start 7 th set
56	START_GOLDEN_SET	Start golden set
128	SAFE	Safe
129	DANGER	Danger
132	INJ_BREAK	Game suspended - Player injured
134	LINE_UP	Players lined up
135	ANTHEM	Nation anthem singing
136	SHAKE_HANDS	Shake hands
137	FLIP_COIN	Coin flipping
138	MINUTE_OF_SILENT	Minute of silence
139	PRIZE_GIVING_CEREMONY	Prize giving ceremony
141	GAME_ABOUT_TO_START	Game about to start
157	TIMEOUT	Timeout
160	PLAYERS_WARMING_UP	Players warming up
171	PLAYERS_INTRODUCTION	Players introduction
180	RALLY_OVER_5	Rally over 5 possession changes
181	RALLY_OVER_10	Rally over 10 possession changes
182	RALLY_OVER_15	Rally over 15 possession changes
187	POINT_UNDER_INVESTIGATION	Point under investigation
199	TTO	Technical timeout
216	Statistic Confirmation	Statistic Confirmation
217	WARM_UP_AT_NET	Warming up at the net
218	PDISQ	Possible disqualification
219	No DISQ	No disqualification
230	SRV_TEAM_UNKNOWN	Unknown Team to start Service

ID	Event Name	Long Description
524	Jersey Changed	Jersey Changed
1408	VB_SERVE1	Service Home
1409	VB_KILL1	Kill Home
1410	VB_BLOCK1	Block Home
1412	VB_OUT1	Out Home
1413	VB_ERR1	Error Home
1414	VB_SRV_A1	Ace Home
1417	VB_SRV_ERR1	Service error Home
1418	VB_PENALTY1	Penalty Home
1419	VB_EXPULSION1	Expulsion Home
1420	VB_DISQ1	Disqualification Home
1421	VB_POINT1	Point Home
1422	VB_TIME1	Timeout Home
1423	VB_SET1	Set Home
1425	VB_CPENALTY1	Cancel Penalty Home
1426	VB_CEXPULSION1	Cancel Expulsion Home
1427	VB_CDISQ1	Cancel Disqualification Home
1428	VB_CPOINT1	Cancel point Home
1429	VB_SRV_IN1	Serve in Home
1431	VB_CONF_POINT1	Point confirmation Home
1432	VB_PEN_POINT1	Penalty Point Home
1433	VB_UNDEF_METHOD_P1	Point (unknown method) Home
1434	VB_START_SRV1	Start service Home
1435	VB_BALL_POSS1	Ball possession Home
2432	VB_SERVE2	Service Away
2433	VB_KILL2	Kill Away
2434	VB_BLOCK2	Block Away
2436	VB_OUT2	Out Away
2437	VB_ERR2	Error Away
2438	VB_SRV_A2	Ace Away

ID	Event Name	Long Description
2441	VB_SRV_ERR2	Service error Away
2442	VB_PENALTY2	Penalty Away
2443	VB_EXPULSION2	Expulsion Away
2444	VB_DISQ2	Disqualification Away
2445	VB_POINT2	Point Away
2446	VB_TIME2	Timeout Away
2447	VB_SET2	Set Away
2449	VB_CPENALTY2	Cancel Penalty Away
2450	VB_CEXPULSION2	Cancel Expulsion Away
2451	VB_CDISQ2	Cancel Disqualification Away
2452	VB_CPOINT2	Cancel point Away
2453	VB_SRV_IN2	Serve in Away
2455	VB_CONF_POINT2	Point confirmation Away
2456	VB_PEN_POINT2	Penalty Point Away
2457	VB_UNDEF_METHOD_P2	Point (unknown method) Away
2458	VB_START_SRV2	Start service Away
2459	VB_BALL_POSS2	Ball possession Away

Table 46 – Beach Volleyball Event Code ID Mappings

8.1.7 Handball Events

ID	Event Name	Long Description
0	START_RT1	Start 1 st half
1	STOP_RT1	Stop 1 st half
2	START_RT2	Start 2 nd half
3	STOP_RT2	Stop 2 nd half
4	START_OT1	Start 1 st extra time
5	STOP_OT1	Stop 1 st extra time
6	START_OT2	Start 2 nd half extra time
7	STOP_OT2	Stop 2 nd half extra time
10	START_RT1_1	Start 1 st half, throw-off: Home

ID	Event Name	Long Description
11	START_RT1_2	Start 1 st half, throw-off: Away
12	START_RT2_1	Start 2 nd half, throw-off: Home
13	START_RT2_2	Start 2 nd half, throw-off: Away
14	START_OT1_1	Start 1 st half of overtime, throw-off: Home
15	START_OT1_2	Start 1 st half of overtime, throw-off: Away
16	START_OT2_1	Start 2 nd half of overtime, throw-off: Home
17	START_OT2_2	Start 2 nd half of overtime, throw-off: Away
37	STOP_OVERTIME	Stop overtime
50	START_7M_SHOOTOUT	Start 7m shootout
51	START_7M_SHOOTOUT_TEAM1	Start 7m shootout (home)
52	START_7M_SHOOTOUT_TEAM2	Start 7m shootout (away)
53	STOP_7M_SHOOTOUT	Stop 7m shootout
87	START_2_OT1	Start 1 st half of 2nd overtime
88	START_2_OT1_1	Start 1 st half of 2nd overtime, throw-off: Home
89	START_2_OT1_2	Start 1 st half of 2nd overtime, throw-off: Away
90	STOP_2_OT1	Stop 1 st half of 2nd overtime
91	START_2_OT2	Start 2 nd half of 2nd overtime
92	START_2_OT2_1	Start 2 nd half of 2nd overtime, throw-off: Home
93	START_2_OT2_2	Start 2 nd half of 2nd overtime, throw-off: Away
94	STOP_2_OT2	Stop 2 nd half of 2nd overtime
129	DANGER	Danger
132	INJ_BREAK	Game suspended – Player injured
133	PLAYERS_COMING_OUT	Players are coming out
134	LINE_UP	Players lined up
135	ANTHEM	National anthem singing
136	SHAKE_HANDS	Shake hands
137	FLIP_COIN	Coin flipping
138	MINUTE_OF_SILENT	Minute of silence
139	PRIZE_GIVING_CEREMONY	Prize giving ceremony
140	PHOTO_TAKING	Photo taking

ID	Event Name	Long Description
141	GAME_ABOUT_TO_START	Game about to start
142	MISSED	Missed
148	GC	Restart
149	GAME_SUSPENDED	Game suspended
150	NEXT_PEN_SCORER	Next scorer
157	TIMEOUT	Timeout
160	PLAYERS_WARMING_UP	Players warming up
171	PLAYERS_INTRODUCTION	Players introduction
174	HB_SUSPENSION_SELECTION	Possible suspension
175	NO_SUSP	No suspension
176	P7M	Possible 7 meter
177	NO_7M	No 7 meter
186	CLEAR_FLOOR	Clear floor
197	UPDATE_SCORE_START	Start score update
198	UPDATE_SCORE_FINISHED	Score update finished
210	TEAMS_GREETING	Teams greeting
214	TEAM_HUDDLE	Team huddle
282	TIME_ADAPTION	Time for event %RELATED_EVENT% was adapted by %SEC% seconds.
524	JERSEY_CHANGED	Jersey colors changed
537	Penalty about to be taken	7-metre throw about to be taken
1216	HB_POSS1	Possession Home
1220	HB_GOAL1	Goal Home
1221	HB_7M1	7 meter Home
1222	HB_R7M1	Retake 7 meter Home
1223	HB_7MM1	7 meter missed Home
1224	HB_YC1	Yellow card Home
1225	HB_2M1	2 minutes penalty Home
1226	HB_P2M1	+2 minutes penalty Home
1227	HB_RC1	Red card Home
1229	HB_2MPO1	2 minutes penalty over Home

ID	Event Name	Long Description
1230	HB_SH1	Shot Home
1235	HB_GKT1	Goalkeeper-throw Home
1236	HB_TI1	Throw in Home
1237	HB_FT1	Free throw Home
1241	HB_TTO1	Team timeout Home
1243	HB_CGOAL1	Cancel Goal Home
1244	HB_C7M1	Cancel 7m Home
1245	HB_CYC1	Cancel Yellow card Home
1246	HB_C2M1	Cancel 2 minutes penalty Home
1247	HB_CP2M1	Cancel +2 minutes penalty Home
1248	HB_CRC1	Cancel Red card Home
1250	HB_PR1	Penalty running Home
1251	HB_PRO1	Penalty running over Home
1254	HB_TO1	Throw-off Home
1257	HB_GK_OFF1	Goalkeeper left goal Home
1258	HB_GK_ON1	Goalkeeper back in goal Home
1260	HB_CONF_GOAL1	Goal confirmation Home
1261	HB_NEXT_PEN1	7m Shootout Home Team's turn
2240	HB_POSS2	Possession Away
2244	HB_GOAL2	Goal Away
2245	HB_7M2	7 meter Away
2246	HB_R7M2	Retake 7 meter Away
2247	HB_7MM2	7 meter missed Away
2248	HB_YC2	Yellow card Away
2249	HB_2M2	2 minutes penalty Away
2250	HB_P2M2	+2 minutes penalty Away
2251	HB_RC2	Red card Away
2253	HB_2MPO2	2 minutes penalty over Away
2254	HB_SH2	Shot Away
2259	HB_GKT2	Goalkeeper-throw Away

ID	Event Name	Long Description
2260	HB_TI2	Throw in Away
2261	HB_FT2	Free throw Away
2265	HB_TTO2	Team timeout Away
2267	HB_CGOAL2	Cancel Goal Away
2268	HB_C7M2	Cancel 7m Away
2269	HB_CYC2	Cancel Yellow card Away
2270	HB_C2M2	Cancel 2 minutes penalty Away
2271	HB_CP2M2	Cancel +2 minutes penalty Away
2272	HB_CRC2	Cancel Red card Away
2274	HB_PR2	Penalty running Away
2275	HB_PRO2	Penalty running over Away
2280	HB_TO2	Throw-off Away
2281	HB_GK_OFF2	Goalkeeper left goal Away
2282	HB_GK_ON2	Goalkeeper back in goal Away
2284	HB_CONF_GOAL2	Goal confirmation Away
2285	HB_NEXT_PEN2	7m Shootout Away Team's turn

Table 47 – Handball Event Code ID Mappings

8.1.8 Cricket Events

ID	Event Name	Long Description
95	START_INNING	Start Inning
96	START_INNING_1	Start Inning Home
97	START_INNING_2	Start Inning Away
98	HALF_INNING	Half Inning
99	STOP_INNING	Stop Inning
105	START_INNING_SO	Start Inning Super Over
106	START_INNING_SO_1	Start Inning Super Over Home
107	START_INNING_SO_2	Start Inning Super Over Away
128	SAFE	Safe
129	DANGER	Danger

ID	Event Name	Long Description
220	CLOSE_MARKET	Close Market
221	OPEN_MARKET	Open Market
222	POWERPLAY	Powerplay
223	NO_POWERPLAY	No Powerplay
224	BALL_IN_PROGRESS	Ball in progress
225	BALL_COMPLETE	Ball complete
286	GGCC	Generic Game Conditions Changed Event
288	CR_OVERS_UPDATE	Number of overs revised
1920	CR_START_BATTING_1	Start Batting Home
1921	CR_STOP_BATTING_1	Stop Batting Home
1922	CR_BALL_DATA_1	Ball Data Home
1923	CR_BALL_DATA_UPDATE_1	Ball Data Updated Home
1924	CR_1_RUN1	1 Run Home
1925	CR_2_RUN1	2 Runs Home
1926	CR_3_RUN1	3 Runs Home
1927	CR_4_RUN1	4 Runs Home
1928	CR_5_RUN1	5 Runs Home
1929	CR_6_RUN1	6 Runs Home
1930	CR_CANCEL_1_RUN1	Cancel 1 Run Home
1931	CR_CANCEL_2_RUNS1	Cancel 2 Runs Home
1932	CR_CANCEL_3_RUNS1	Cancel 3 Runs Home
1933	CR_CANCEL_4_RUNS1	Cancel 4 Runs Home
1934	CR_CANCEL_5_RUNS1	Cancel 5 Runs Home
1935	CR_CANCEL_6_RUNS1	Cancel 6 Runs Home
1936	CR_WICKET1	Wicket Home
1937	CR_NO_BALL1	No Ball Home
1938	CR_WIDE1	Wide Home
1939	CR_BOUNDARY1	Boundary Home
1940	CR_OUT1	Dismissal Home
1941	CR_P_WICKET1	Possible Wicket Home

ID	Event Name	Long Description
1942	CR_N_WICKET1	No Wicket Home
1943	CR_P_BOUNDARY1	Possible Boundary Home
1944	CR_N_BOUNDARY1	No Boundary Home
1945	CR_NEXT_BOWLER1	Next Bowler Home
1946	CR_BATSMAN_INJ1	Batsman Injury Home
1947	CR_BOWLER_INJ1	Bowler Injury Home
1948	CR_OVER1	Over Home
1949	CR_CANCEL_WICKET1	Cancel Wicket Home
1950	CR_CANCEL_NO_BALL1	Cancel No Ball Home
1951	CR_CANCEL_WIDE1	Cancel Wide Home
1952	CR_CANCEL_BOUNDARY1	Cancel Boundary Home
1953	CR_CANCEL_OVER1	Cancel Over Home
1954	CR_DOT_BALL1	Dot Ball Home
1955	CR_CANCEL_DOT_BALL1	Cancel Dot Ball Home
1956	CR_PENALTY1	Penalty Home
1957	CR_CPENALTY1	Cancel Penalty Home
1958	CR_COUT1	Cancel Dismissal Home
1960	CR_POSSIBLE_RUNS1	Possible Run(s) Home
2944	CR_START_BATTING2	Start Batting Away
2945	CR_STOP_BATTING2	Start Batting Away
2946	CR_BALL_DATA2	Ball Data Away
2947	CR_BALL_DATA_UPDATE_2	Ball Data Updated Away
2948	CR_1_RUN2	1 Run Away
2949	CR_2_RUN2	2 Runs Away
2950	CR_3_RUN2	3 Runs Away
2951	CR_4_RUN2	4 Runs Away
2952	CR_5_RUN2	5 Runs Away
2953	CR_6_RUN2	6 Runs Away
2954	CR_CANCEL_1_RUN2	Cancel 1 Run Away
2955	CR_CANCEL_2_RUNS2	Cancel 2 Runs Away

ID	Event Name	Long Description
2956	CR_CANCEL_3_RUNS2	Cancel 3 Runs Away
2957	CR_CANCEL_4_RUNS2	Cancel 4 Runs Away
2958	CR_CANCEL_5_RUNS2	Cancel 5 Runs Away
2959	CR_CANCEL_6_RUNS2	Cancel 6 Runs Away
2960	CR_WICKET2	Wicket Away
2961	CR_NO_BALL2	No Ball Away
2962	CR_WIDE2	Wide Away
2963	CR_BOUNDARY2	Boundary Away
2964	CR_OUT2	Dismissal Away
2965	CR_P_WICKET2	Possible Wicket Away
2966	CR_N_WICKET2	No Wicket Away
2967	CR_P_BOUNDARY2	Possible Boundary Away
2968	CR_N_BOUNDARY2	No Boundary Away
2969	CR_NEXT_BOWLER2	Next Bowler Away
2970	CR_BATSMAN_INJ2	Batsman Injury Away
2971	CR_BOWLER_INJ2	Bowler Injury Away
2972	CR_OVER2	Over Away
2973	CR_CANCEL_WICKET2	Cancel Wicket Away
2974	CR_CANCEL_NO_BALL2	Cancel No Ball Away
2975	CR_CANCEL_WIDE2	Cancel Wide Away
2976	CR_CANCEL_BOUNDARY2	Cancel Boundary Away
2977	CR_CANCEL_OVER2	Cancel Over Away
2978	CR_DOT_BALL2	Dot Ball Away
2979	CR_CANCEL_DOT_BALL2	Cancel Dot Ball Away
2980	CR_PENALTY2	Penalty Away
2981	CR_CPENALTY2	Cancel Penalty Away
2982	CR_COUT2	Cancel Dismissal Away
2984	CR_POSSIBLE_RUNS2	Possible Run(s) Away

Table 48 – Cricket Event Code ID Mappings

8.2 Event Reason Mapping

The following tables provide an overview of the event reason mapping information.

8.2.1 Soccer

ID	Short Description	Goal	Red Card	Yellow/Red Card	Yellow Card
0	shot	X			
1	free kick	X			
2	header	X			
3	own goal	X			
4	penalty	X			
5	penalty shootout	X			
10	foul		X	X	X
11	handball		X	X	X
12	criticism		X	X	X
13	unsportsmanlike conduct		X	X	X
14	assault		X	X	X
15	dive		X	X	X
16	player on substitution bench		X	X	X
17	trainer		X	X	X
99	other	X	X	X	X

Table 49 – Soccer Event Reason ID Mappings

8.2.2 Basketball

ID	Short Description	Fouled Out	Disqualified player	Player injured (out)	Player back in game
10	foul	X	X		
18	violence	X	X		
19	insult	X	X		
20	injury			X	
21	on bench				X
22	on court				X

Table 50 – Basketball Event Reason ID Mappings

8.2.3 Ice Hockey

ID	Short Description	Goal	Penalties
0	shot	X	
4	penalty	X	
25	powerplay	X	
26	shorthanded	X	
27	empty net	X	
29	empty net/powerplay	X	
30	empty net/shorthanded	X	
31	technical goal	X	
10	foul		X
28	roughing		X
99	other		X

Table 51 – Ice Hockey Event Reason ID Mappings

8.2.4 Volleyball

ID	Short Description	Penalty	Expulsion	Disqualification
32	player	X	X	X
33	other team member	X	X	X
34	delay	X		

Table 52 – Volleyball Event Reason ID Mappings

8.2.5 Beach Volleyball

ID	Short Description	Penalty	Expulsion	Disqualification
32	player	X	X	X
33	other team member	X	X	X
34	delay	X		

Table 53 – Beach Volleyball Event Reason ID Mappings

8.2.6 Handball

ID	Short Description	Goal	7-Metre	Yellow Card	Red Card	2min Suspension	+2min Suspension
0	shot	X					
6	7 meter	X	X				
7	7 meter shootout	X		X	X	X	X
10	foul			X	X	X	X
13	unsportsmanlike conduct				X		
35	third suspension					X	X
36	faulty substitution					X	X
37	disqualification						
99	other	X					

Table 54 – Handball Event Reason ID Mappings

8.2.7 Cricket

Event reasons are not supported for cricket feeds. Such information is not provided for cricket games.

8.3 Ticker State Handling

The following tables provide an overview of the ticker state mapping information.

8.3.1 Soccer

ID	Short Description	Long Description
1	Not Started	Not started
2	RT First Half	First half
4	RT Pause	Half time
8	RT Second Half	Second half
16	Finished	Finished
32	Finish RT	Regular time finished
64	Ot First Half	First half extra time
128	Ot Pause	Half time of extra time
256	Ot Second Half	Second half extra time

ID	Short Description	Long Description
512	Finish Ot	Extra time finished
1024	Penalty Shootout	Penalty shootout

Table 55 – Soccer State ID Mappings

8.3.2 Basketball

ID	Short Description	Long Description
1	Not Started	Not Started
2	RT First Half	RT First Half (only applies if NCAA rules are used; see also chapter 8.14.2 <i>Basketball</i>).
4	RT Pause	RT Pause (Break between half 1/2 or quarter 2/3).
8	RT Second Half	RT Second Half (only applies if NCAA rules are used; see also chapter 8.14.2 <i>Basketball</i>).
16	Finished	Finished
32	Finish RT	Finish RT (after 4th quarter or 2nd half if and overtime is following).
2000	Quarter break	Break between quarters 1/2 and 3/4.
2001	1 st Quarter	
2002	2 nd Quarter	
2003	3 rd Quarter	
2004	4 th Quarter	
2005	Overtime	
2006	Overtime break	Break during overtimes.

Table 56 – Basketball State ID Mappings

8.3.3 Ice Hockey

ID	Short Description
1	Not Started
16	Finished
32	Finish RT
512	Finish Ot
2300	Period Break
2301	1 st Period

ID	Short Description
2302	2 nd Period
2303	3 rd Period
2005	Overtime
2006	Overtime Break

Table 57 – Ice Hockey State ID Mappings

8.3.4 Volleyball

ID	Short Description
1	Not Started
16	Finished
2100	Set break
2101	1 st Set
2102	2 nd Set
2103	3 rd Set
2104	4 th Set
2105	5 th Set
2106	6 th Set
2107	7 th Set
2150	Golden Set

Table 58 – Volleyball State ID Mappings

8.3.5 Beach Volleyball

ID	Short Description
1	Not Started
16	Finished
2100	Set break
2101	1 st Set
2102	2 nd Set
2103	3 rd Set
2104	4 th Set

ID	Short Description
2105	5 th Set
2106	6 th Set
2107	7 th Set
2150	Golden Set

Table 59 – Beach Volleyball State ID Mappings

8.3.6 Handball

ID	Short Description	Long Description
1	Not Started	Not started
2	Rt First Half	First half
4	Rt Pause	Half time
8	Rt Second Half	Second half
16	Finished	Finished
32	Finish Rt	Regular time finished
64	Ot First Half	First half extra time
128	Ot Pause	Half time of extra time
256	Ot Second Half	Second half extra time
512	Finish Ot	Extra time finished
2200	7m shootout	
2220	First overtime finished	
2230	Second overtime finished	
2231	Second overtime pause	
2232	Second overtime second half	

Table 60 – Handball State ID Mappings

8.3.7 Cricket

ID	Short Description
1	Not Started
16	Finished
2600	Inning break

ID	Short Description
2601	Inning 1
2602	Inning 2
2680	Inning Super Over

Table 61 – Cricket State ID Mappings

8.4 Game Status Mapping

The following table provides an overview of the Game Status mapping information. Game Status values apply to all sports.

ID	Description	Additional Information
0	Open	The coverage has not started yet.
1	Finished	The coverage ended.
2	Cancelled	The coverage was cancelled.
3	Running	The game is currently covered live.
4	Suspended	The game is officially cancelled.

Table 62 – State ID Mappings

8.5 Home Advantage Mapping

The following table provides an overview of the Home Advantage Mapping information. Home Advantage Values apply to all sports.

ID	Description
0	Undefined
1	Competitor 1
2	Competitor 2
3	Both competitors
4	No competitor

Table 63 – Home Advantage Mappings

8.6 Game Condition Mapping

The following tables provide an overview of the game condition mapping info.

8.6.1 Pitch Conditions

Please note that pitch conditions are available for soccer and cricket only. For all other sports the pitch conditions are set to -1.

ID	Description
-1	Undefined
0	Good
1	Wet
2	Snow
3	Excellent
4	Regular
5	Wet and Fast
6	Slow due to water
7	Uneven & cutting up
8	Goalmouths affected
9	Hard or Frozen
10	Artificial pitch

Table 64 – Pitch Condition Mappings

8.6.2 Weather Conditions

Please note that weather conditions are available only for soccer, cricket and beach volleyball. For all other sports the weather conditions are set to -1.

ID	Description	SO	BVB
-1	Undefined (all sports)		
0	Good	X	X
1	Windy	X	X
2	Stormy	X	
3	Rain	X	X
4	Snowfall	X	
5	Very hot		
6	Heavy rain	X	
7	Light rain		

ID	Description	SO	BVB
8	Cloudy		
9	Heavy snowfall	X	
10	Light snowfall		
11	Sleet/Hail	X	
12	Strong wind	X	X
13	Light wind		
14	Sun		
15	Hot	X	X
16	Mild		
17	Cold	X	X
18	Fog	X	
19	Thunderstorm	X	
20	Indoor venue	X	X

Table 65 – Weather Condition Mappings

8.6.3 Attendance

ID	Description
-1	Undefined
0	Small
1	Medium
2	Full
3	Without fans

Table 66 – Attendance Mappings

8.6.4 Movement

Movement is exclusively featured in cricket.

ID	Description
-1	Undefined
0	Base
1	Low

ID	Description
2	Average
3	High

Table 67 – Movement Mappings

8.6.5 Bounce

Bounce is exclusively featured in cricket.

ID	Description
-1	Undefined
0	Consistent
1	Average
2	Varying
3	Inconsistent

Table 68 – Bounce Mappings

8.6.6 Light

Light is exclusively featured in cricket.

ID	Description
-1	Undefined
0	Worst
1	Bad
2	Poor
3	Average
4	Good
5	Excellent

Table 69 – Light Mappings

8.6.7 MatchDay

MatchDay is only supported for Cricket and represents the match day as number (1, 2, 3...) on multi-day matches (i.e. test matches may last up to five days).

8.7 Formation Data Mapping

The following table provides an overview of the Formation Data Mapping. Formation data is exclusively available in soccer

ID	Description
0	Undefined
1	4-4-2
2	4-5-1
3	3-5-2
4	4-3-3
5	3-4-3
7	4-1-2-1-2
8	4-4-1-1
9	4-1-4-1
10	4-2-3-1
11	4-3-2-1
12	5-3-2
13	5-4-1
14	4-2-2-2
15	3-5-1-1
16	3-4-2-1
17	3-4-1-2
18	3-1-4-2
19	4-1-3-2
20	4-2-4-0
21	4-3-1-2
22	3-2-4-1
23	3-3-3-1

Table 70 – Formation Data Mappings

8.8 System Message Mapping

The following tables provide an overview of System Messages used in games.

Term/Abbreviation	Description
DB	Database
Game Conditions	Information about the basic circumstances of a game
Game Period	The different stages of a sports event. (e.g. 1st half, 3rd period, 2nd quarter, half-time break, extra time etc.)

Table 71 – General System Messages

8.8.1 Soccer

ID	Description
101	Please hold on, the connection in this area is down.
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
105	Please hold on, we are rechecking the number of red cards.
106	Please hold on, we are rechecking the number of yellow/red cards.
107	Please hold on, we are rechecking the number of corners.
108	Please hold on, we are rechecking the number of yellow cards.
120	Please hold on, we are rechecking the number of penalties.
201	The score is correct: (%SCORE%)
202	The number of red cards is correct: (%SCORE%)
203	The number of yellow/red cards is correct: (%SCORE%)
204	The number of corners is correct: (%SCORE%)
205	The number of yellow cards is correct: (%SCORE%)
214	The number of penalties is correct: (%SCORE%)
225	The number of substitutions is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.

ID	Description
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
311	The game is suspended due to a water break.
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
317	The game is suspended due to an injured player.
339	The game is suspended but no official announcement was made at the venue.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
408	The game is officially cancelled due to bad pitch conditions.
409	The game is officially cancelled due to a waterlogged pitch.
410	The game is officially cancelled due to a frozen pitch.
411	The game is officially cancelled due to heavy snow.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.

ID	Description
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
507	Our coverage is continued via TV due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
602	The number of players on the field is correct: %PH1% vs. %PH2%
603	A field player of %COMP1% is acting as a goalkeeper.
604	A field player of %COMP2% is acting as a goalkeeper.
605	There will be no extra time. A direct penalty shootout will be taken.
606	A red card was shown but no player has been sent off.

ID	Description
607	A bench player of %COMP1% received a red card.
608	A bench player of %COMP2% received a red card.
611	An injured player of %COMP1% left the field but no more substitutions are available.
612	An injured player of %COMP2% left the field but no more substitutions are available.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
628	A bench player of %COMP1% received a yellow card.
629	A bench player of %COMP2% received a yellow card.
631	The next period will start with an official delay.
637	There is an official delay of the game start. The referees did not arrive yet.
638	There is an official delay of the game start. The players are still warming up.
647	%COMP1% started the first half.
648	%COMP2% started the first half.
649	%COMP1% started the second half.
650	%COMP2% started the second half.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.
654	Our coverage of the game is continued by phone due to technical problems.
655	The regular game time is %COUNT% x %MIN% minutes.
657	Sin Bin: The current number of players on the field is: %PH% vs. %PA%.
701	Other (free text)

Table 72 – Soccer System Messages

8.8.2 Basketball

ID	Description
101	Please hold on, the connection in this area is down.

ID	Description
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
110	Please hold on, the referees are checking the score.
127	Please hold on, we are rechecking the foul score.
201	The score is correct: (%SCORE%)
206	The statistics are confirmed.
226	The foul score for quarter (%TS%) is correct: (%SCORE%)
227	The number of personal fouls is correct: (%SCORE%)
228	The foul score is correct: %SCORE%
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
312	The game is suspended due to a pending table officials' decision.
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
316	The game is suspended. The referees are rechecking the last play.
317	The game is suspended due to an injured player.
327	The game is suspended due to a commercial break.
329	The game is suspended. The referee is adjusting the scoreboard.
333	The game is suspended. The referees are adjusting the game clock.

ID	Description
339	The game is suspended but no official announcement was made at the venue.
340	The game is suspended. The referees are rechecking the score.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.

ID	Description
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
611	An injured player of %COMP1% left the field but no more substitutions are available.
612	An injured player of %COMP2% left the field but no more substitutions are available.
614	The table officials corrected the current game score.
615	The table officials adjusted the current game time.
616	The game is not finished yet. The referees are rechecking the score.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
625	A technical foul was committed during the break. The free throw awarded to %COMP1% will be taken before the next quarter starts.
626	A technical foul was committed during the break. The free throw awarded to %COMP2% will be taken before the next quarter starts.
631	The next period will start with an official delay.
637	There is an official delay of the game start. The referees did not arrive yet.
368	There is an official delay of the game start. The players are still warming up.
651	The score has been corrected after the game was stopped. The correct score is %SCORE%.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.
654	Our coverage of the game is continued by phone due to technical problems.
655	The regular game time is %COUNT% x %MIN% minutes.
701	Other (free text)

Table 73 – Basketball System Messages

8.8.3 Ice Hockey

ID	Description
101	Please hold on, the connection in this area is down.
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
110	Please hold on, the referees are rechecking the score.
117	Please hold on, we are rechecking the number of suspensions.
121	Please hold on, we are rechecking the number of penalty shots.
201	The score is correct: (%SCORE%)
206	The statistics are confirmed.
214	The number of penalties is correct: (%SCORE%)
217	The total number of suspensions is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
317	The game is suspended due to an injured player.
327	The game is suspended due to a commercial break.
328	The game is suspended due to a destroyed ice rink.

ID	Description
329	The game is suspended. The referee is adjusting the scoreboard.
330	The game is suspended. The ice is too wet.
331	The game is suspended. The ice master is in the rink.
332	The game is suspended due to ice cleaning.
333	The game is suspended. The referees are adjusting the game clock.
339	The game is suspended but no official announcement was made at the venue.
340	The game is suspended. The referees are rechecking the score.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
411	The game is officially cancelled due to heavy snow.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.

ID	Description
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
603	A field player of %COMP1% is acting as a goalkeeper.
604	A field player of %COMP2% is acting as a goalkeeper.
605	There will be no extra time. A direct penalty shootout will be taken.
616	The game is not finished yet. The referees are rechecking the score.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
631	The next period will start with an official delay.
632	There are coincidental penalties that do not affect the number of players on ice.
637	There is an official delay of the game start. The referees did not arrive yet.
638	There is an official delay of the game start. The players are still warming up.
645	The overtime is played 4 on 4.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.

ID	Description
654	Our coverage of the game is continued by phone due to technical problems.
655	The regular game time is %COUNT% x %MIN% minutes.
656	The overtime is played 3 on 3.
701	Other (free text)

Table 74 – Ice Hockey System Messages

8.8.4 Volleyball

ID	Description
101	Please hold on, the connection in this area is down.
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
110	Please hold on, the referees are rechecking the score.
114	Please hold on, we are rechecking the number of penalties.
115	Please hold on, we are rechecking the number of expulsions.
116	Please hold on, we are rechecking the number of disqualifications.
201	The score is correct: (%SCORE%)
219	The number of penalties is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.

ID	Description
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
317	The game is suspended due to an injured player.
329	The game is suspended. The referee is adjusting the scoreboard.
339	The game is suspended but no official announcement was made at the venue.
340	The game is suspended. The referees are rechecking the score.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.

ID	Description
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
631	The next period will start with an official delay.
634	Penalty 1 before the set started. The next set will start with a point score of 0:1.
635	Penalty 2 before the set started. The next set will start with a point score of 1:0.
637	There is an official delay of the game start. The referees did not arrive yet.
638	There is an official delay of the game start. The players are still warming up.
651	The score has been corrected after the game was stopped. The correct score is %SCORE%.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.
654	Our coverage of the game is continued by phone due to technical problems.
701	Other (free text)

Table 75 – Volleyball System Messages

8.8.5 Beach Volleyball

ID	Description
101	Please hold on, the connection in this area is down.
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
110	Please hold on, the referees are rechecking the score.
114	Please hold on, we are rechecking the number of penalties.
115	Please hold on, we are rechecking the number of expulsions.
116	Please hold on, we are rechecking the number of disqualifications.
201	The score is correct: (%SCORE%)
219	The number of penalties is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
317	The game is suspended due to an injured player.
329	The game is suspended. The referee is adjusting the scoreboard.
339	The game is suspended but no official announcement was made at the venue.
340	The game is suspended. The referees are rechecking the score.

ID	Description
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.

ID	Description
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
631	The next period will start with an official delay.
634	Penalty 1 before the set started. The next set will start with a point score of 0:1.
635	Penalty 2 before the set started. The next set will start with a point score of 1:0.
637	There is an official delay of the game start. The referees did not arrive yet.
638	There is an official delay of the game start. The players are still warming up.
651	The score has been corrected after the game was stopped. The correct score is %SCORE%.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.
654	Our coverage of the game is continued by phone due to technical problems.
701	Other (free text)

Table 76 – Beach Volleyball System Messages

8.8.6 Handball

ID	Description
101	Please hold on, the connection in this area is down.
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
105	Please hold on, we are rechecking the number of red cards.

ID	Description
108	Please hold on, we are rechecking the number of yellow cards.
110	Please hold on, the referees are rechecking the score.
117	Please hold on, we are rechecking the number of suspensions.
118	Please hold on, we are rechecking the number of 7-metre.
201	The score is correct: (%SCORE%)
202	The number of red cards is correct: (%SCORE%)
205	The number of yellow cards is correct: (%SCORE%)
217	The total number of suspensions is correct: (%SCORE%)
218	The number of 7-metre is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
312	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
317	The game is suspended due to an injured player.
333	The game is suspended. The referees are adjusting the game clock.
339	The game is suspended but no official announcement was made at the venue.
340	The game is suspended. The referees are rechecking the score.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.
403	The game is officially postponed. The new date is unknown.

ID	Description
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE% CET. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
508	Our coverage of this game is changed from Live to TV.
509	The game will be covered live from the venue.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
515	Our coverage is temporarily suspended due to a commercial break during the TV broadcast.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
531	Our game start time is correct.
532	Our coverage is suspended due to a TV broadcasting problem.
533	There is an official delay of the game start due to a late arrival of the competitors.
534	The new game start date is %DATE% CET.
536	There is an official delay of the game start due to crowd trouble.

ID	Description
537	The new game start date is %DATE% CET. Our coverage is not confirmed yet.
538	Our coverage of this game is changed from Live to TV. The expected delay of the TV picture is %SEC% seconds.
603	A field player of %COMP1% is acting as a goalkeeper.
604	A field player of %COMP2% is acting as a goalkeeper.
616	The game is not finished yet. The referees are rechecking the score.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
624	There is an official delay of the game start because the previous game at this venue is still running.
631	The next period will start with an official delay.
637	There is an official delay of the game start. The referees did not arrive yet.
638	There is an official delay of the game start. The players are still warming up.
641	There will be no extra time. A direct 7-metre throwing will be taken.
647	%COMP1% started the first half.
648	%COMP2% started the first half.
649	%COMP1% started the second half.
650	%COMP2% started the second half.
651	The score has been corrected after the game was stopped. The correct score is %SCORE%.
652	Our coverage of the game was started prematurely. The game was reset and has not started yet.
653	Our coverage of the game was stopped prematurely. The game was reopened and is still running.
654	Our coverage of the game is continued by phone due to technical problems.
655	The regular game time is %COUNT% x %MIN% minutes.
701	Other (free text)

Table 77 – Handball System Messages

8.8.7 Cricket

ID	Description
101	Please hold on, the connection in this area is down.

ID	Description
102	Please hold on, we are rechecking the score.
103	Please hold on, our coverage might start with a delay.
104	Please hold on, we are trying to solve the problem.
201	The score is correct: (%SCORE%)
301	The game has been restarted.
302	The game is suspended due to a power blackout at the venue.
303	The game is suspended due to crowd trouble.
304	The game is suspended due to bad weather conditions.
305	The game is suspended due to fog.
306	The game is suspended due to pyrotechnics being fired.
308	The game is suspended due to fighting players.
309	The game is suspended due to an injured referee.
310	The game is suspended due to an unknown reason.
311	The game is suspended due to a water break.
313	The game is suspended due to broken equipment.
315	The game is suspended due to a serious injury.
316	The game is suspended. The referees are rechecking the last play.
317	The game is suspended due to an injured player.
329	The game is suspended. The referee is adjusting the scoreboard.
339	The game is suspended but no official announcement was made at the venue.
341	The game is suspended due to a lunch break.
342	The game is suspended due to rain.
343	The game is suspended due to a tea break.
344	The game is suspended due to a drink break.
345	The game is suspended due to a dinner break.
401	We are sorry, we have to cancel our coverage of this game.
402	The game is officially cancelled.

ID	Description
403	The game is officially postponed. The new date is unknown.
404	We are sorry, we have to cancel our coverage of this game due to an unavailable connection in this area.
405	We are sorry, we have to cancel our coverage of this game due to technical problems.
406	We are sorry, we have to cancel our coverage of this game due to a TV broadcasting error.
407	The game is officially cancelled due to bad weather conditions.
408	The game is officially cancelled due to bad pitch conditions.
409	The game is officially cancelled due to a waterlogged pitch.
410	The game is officially cancelled due to a frozen pitch.
411	The game is officially cancelled due to heavy snow.
412	The game is officially cancelled due to fog.
417	The game was officially abandoned by the referee.
418	The game was officially postponed.
419	The new game start date is %DATE%. The new ticker %TICKERID% has been created.
501	Our coverage will start in time.
502	There is an official delay of the game start.
504	Our coverage started with %SEC% seconds delay.
506	Our coverage started with %SEC% seconds delay due to technical problems.
510	The game will be played on a neutral venue.
512	Our coverage was started in time.
518	Our coverage is suspended.
522	The new game start time is %TIME% CET.
528	The game will be played at the venue of %COMP1%.
529	The game will be played at the venue of %COMP2%.
530	The game officially started at %TIME% CET.
534	The new game start date is %DATE%.
535	The next session starts on %DATE% at %TIME% CET.

ID	Description
536	There is an official delay of the game start due to crowd trouble.
537	The new game start date is %DATE%. Our coverage is not confirmed yet.
539	The game is temporarily not resumed due to rain.
617	The coach of %COMP1% got ejected.
622	The coach of %COMP2% got ejected.
633	There is an official delay of the game start due to rain!
701	Other (free text)

Table 78 – Cricket System Messages

8.9 Sports Mapping

ID	Description
1	Soccer
2	Basketball
4	Handball
8	Ice Hockey
9	Volleyball
16	Beach Volleyball
19	Cricket

Table 79 – Sports Mapping

8.10 Player Position Mapping

8.10.1 Soccer

ID	Description
0	Goal keeper
1	Defender
2	Midfielder

ID	Description
3	Attacker
4	Unknown
5	Coach

Table 80 – Soccer Player Position Mappings

8.10.2 Basketball

ID	Description
6	Small forward
7	Power forward
8	Point guard
9	Center
10	Shooting guard

Table 81 – Basketball Player Position Mappings

8.11 Player Rating Mapping

ID	Description
0	Unrated
1	Premium
2	Intrinsic
3	Established
4	Fringe
5	Infrequent

Table 82 – Player Rating Mappings

8.12 Score Mapping

This chapter defines how scores are mapped to the game event attributes.

8.12.1 Soccer

Field	Description
score_home	Goal score of team 1
score_away	Goal score of team 2

Table 83 – Soccer Score Mappings

8.12.2 Basketball

Field	Description
score_home	Point score of team 1
score_away	Point score of team 2

Table 84 – Basketball Score Mappings

8.12.3 Ice Hockey

Field	Description
score_home	Goals Team 1
score_away	Goals Team 2
score	Current goal score in the running period (only used in periods 1/2/3, overtime and penalty shootout, not in breaks). > 1475/2499 : Goal score (goals in current period)

Table 85 – Ice Hockey Score Mappings

8.12.4 Volleyball

Field	Description
score_home	Sets won Team 1
score_away	Sets won Team 2
score	Current point score in the running set (only used in 'Set' states, not in breaks): > 1421/2445 : Set score (points scored in current set)

Table 86 – Volleyball Score Mappings

8.12.5 Beach Volleyball

Field	Description
score_home	Sets won Team 1
score_away	Sets won Team 2
score	Current point score in the running set (only used in 'Set' states, not in breaks): > 1421/2445 : Set score (points scored in current set)

Table 87 – Beach Volleyball Score Mappings

8.12.6 Handball

Field	Description
score_home	Goals Team 1
score_away	Goals Team 2

Table 88 – Handball Score Mappings

8.12.7 Cricket

Field	Description
score_home	Runs Team 1
score_away	Runs Team 2
score	Current Wicket and Legal ball score in the running inning (only used in 'Inning' states, not in breaks): > 1936/2960 : Wickets lost score (in current inning) > 1959/2983 : Legal balls (in current inning)

Table 89 – Cricket Score Mappings

Note: 1959(Home Competitor) and 2983(Foreign Competitor) are no real event codes, but just statistic values to show the balls for each team in the current inning.

8.13 Squad Type Mapping

ID	Description
0	None
1	Starting 11

ID	Description
2	Suspended
3	Injured
4	Bench
5	Reserve

Table 90 – Squad Type Mappings

8.14 Competition Parameter Mapping

This chapter gives an overview of optional league parameters that could be included in fixtures.

8.14.1 Soccer

ID	Description	Type	Explanation
37	friendlyGame	Boolean	'true' if the game is being played as friendly.
38	hasAssists	Boolean	'true' if the game features assist information
42	hasMatchFormations	Boolean	'true' if the game features assist information
43	sinBinMinutes	Integer	Sin Bin duration in minutes. "0" = no Sin Bin

Table 91 – Soccer Competition Parameters

8.14.2 Basketball

ID	Description	Type	Explanation
4	applyNbaRules	Boolean	'true' if NBA-specific rules are applied to the tournament/league.
5	applyCollegeRules	Boolean	'true' if NCAA-specific rules are applied to the tournament/league. Note: If NCAA rules are applied, games are played in two halves instead of four quarters. Instead of START/STOP_Qx/STOP_QUARTER, START/STOP_RT _x events are sent. Ticker states are also affected by the NCAA rule set (see chapter 8.3.2 <i>Basketball</i>).

Table 92 – Basketball Competition Parameters

8.14.3 Handball

ID	Description	Type	Explanation
27	doubleOvertime	Boolean	'true' when a tie needs to be broken and an overtime period of 2x5 minutes is played.

Table 93 – Handball Competition Parameters

8.14.4 Ice Hockey

ID	Description	Type	Explanation
36	additionalPenShootout	Boolean	'true' if the game features an additional penalty shootout in case of a draw.

Table 94 – Ice Hockey Competition Parameters

8.14.5 Volleyball

ID	Description	Type	Explanation
25	winningSets	Integer	The number of sets to win a match in this competition.
39	goldenSetPoints	Integer	The number of points to win the golden set.

Table 95 – Volleyball Competition Parameters

8.14.6 Beach Volleyball

ID	Description	Type	Explanation
26	winningSets	Integer	The number of sets to win a match in this competition.

Table 96 – Beach Volleyball Competition Parameters

8.14.7 Cricket

ID	Description	Type	Explanation
40	matchFormat	Integer	1=Mens Test
			2=Mens ODI
			3=Mens Twenty20
			4=Mens Domestic Test
			5=Mens Domestic One Day
			6=Mens Domestic Twenty20
			7=Mens Non Official Test
			8=Mens Non Official One Day
			9=Mens Non Official Twenty20
			10=Cat training
			11=Dual Collection Fast Test Format
			12=Dual Collection Fast ODI Format
			13=Dual Collection Fast T20 Format
			14=Womens Test
			15=Womens ODI
			16=Womens Twenty20
			17=Womens Domestic Test
			18=Womens Domestic One Day
			19=Womens Domestic Twenty20
			20=Womens Non Official Test
			21=Womens Non Official One Day
			22=Womens Non Official Twenty20

Table 97 – Cricket Competition Parameters

8.15 Value Event Mappings

This chapter describes all events having value event data ('value events').

8.15.1 Jersey Colour Event

Jersey colours are available for team-based sports.

ID	EventCode	Value Type ID	Value Type	Data Type	Description
524	Jersey Changed	15	TeamId	Long	ID of the team the jersey data was sent for.
		16	shirtColor1	Integer	4-byte colour value Bytenumber: 4=Alpha 3=Red 2=Green 1=Blue
		17	shirtColor2	Integer	
		18	pantsColor	Integer	
		19	socksColor	Integer	
		20	jerseyDesign	Integer	Design pattern of the jersey: 0=plain 1=multicolor

ID	EventCode	Value Type ID	Value Type	Data Type	Description
		25	homeTeam	Boolean	True if sent for home.

Table 98 – Jersey Colour Event Mappings

Example Colour Value: -65536 (as Hex **FF****FF****00****00**) will show the colour red.

- > FF Alpha Value
- > **FF** Red Color Value
- > **00** Green Color Value
- > **00** Blue Color Value

8.15.2 Time Adaption Event

The time adaption event is available for ice hockey and handball.

ID	EventCode	Value Type ID	Value Type	Data Type	Description
282	TIME_ADAPTION	22	TimeAdaption	Integer	TIME_ADAPTION is sent with 'related event' information to a scoring/statistical event (goals/suspensions/penalties) or period start events. The adaption value is passed in seconds - positive values indicate an event entered with delay, whereas negative adaption values indicate events sent too early.

Table 99 – Time Adaption Event Mappings

8.15.3 Generic Game Conditions Value Event

ID	EventCode	Value Type ID	Value Type	Data Type	Description
286	GGCC	75	AttendanceID	Integer	See chapter 8.6 <i>Game Condition Mapping</i>
		76	WeatherConditionID	Integer	
		77	PitchConditionID	Integer	
		78	MovementID	Integer	
		79	BounceID	Integer	
		80	LightID	Integer	
		81	MatchDay	Integer	The unique ID of the respective ball.

Table 100 – Generic Game Condition Value Event Mappings

8.15.4 Ball Data Value Events

ID	EventCode	Value Type ID	Value Type	Data Type	Description
		58	Ball ID Ext	Long	The unique ID of the respective ball.
		59	Over Nr	Integer	The number of the over within the innings.
		60	Over Ball Nr	Integer	The number of the ball within the over. This can be greater than 6 (repeated attempts).
		62	Batting Player ID Ext	Long	The unique ID of the batsman.
		64	Batting Player Name	String	The name of the batsman.
		66	Bowler Player ID Ext	Long	The unique ID of the bowler.
		68	Bowler Player Name	String	The name of the bowler.
		69	Batsman Hand	Integer	1=right-handed 2=left-handed
		70	Bowler Hand	Integer	1=right-handed 2=left-handed
1922	CR_BALL_DATA1	71	Batting Connection	Integer	1= Middled 2= Missed 3= Thick edge 4= Outside edge 5= Inside edge 6= Top edge 7= Bottom edge 8= Padded 9= Left 10=Mis-timed 11=Bat pad 12=Hit pad 13=None 14=Leading edge 15=Hit body 16=Hit helmet 17=Gloved 18=Shoulders arms 19=Well timed 20=No shot 21=Play + miss 22=False shot 23=Neutral 24=Strong 25=Missed (Leg Side) 26=Play and Miss (Leg Side) 27=Spliced
1923	CR_BALL_DATA2				1=Fast seam 2=Medium seam 3=Off spin 4=Leg spin 5=Orthodox 6=Unorthodox
2946	CR_BALL_DATA_UPDATE1				
2947	CR_BALL_DATA2				

ID	EventCode	Value Type ID	Value Type	Data Type	Description
		73	Bowling from	Integer	1=Over 2=Round
		74	Leg by	Integer	The number of leg byes from a delivery.
		88	Field Direction	Integer	The direction of the ball is a value between 0 and 360. For a right handed batsman 0=square of the wicket on the leg side and values are measured in an anti-clockwise direction so wicket keeper=90, point=180, bowler=270. The same co-ordinate system is used for left handers so 0=square on off side and measurements are taken anti-clockwise from there.
		89	Field Magnitude	Integer	Corresponds to the distance the ball travelled. Below are the values which can be over 180 but the boundaries are registered as described below: 170 = the boundary to each side (3 and 9 o'clock) 180 = the boundary behind the bowler (6 o'clock) 160 = the boundary behind the wicket-keeper (12 o'clock)

Table 101 – Ball Data Value Event Mappings

8.15.5 Revised Number of Overs Value Event

ID	EventCode	Value Type ID	Value Type	Data Type	Description
288	CR_OVERS_UPDATE	59	Over Number	Integer	Revised number of overs

Table 102 – Revised Number of Overs Value Event

8.15.6 Possible Run(s) Value Event

ID	EventCode	Value Type ID	Value Type	Data Type	Description
1960	CR_POSSIBLE_R UNS1	90	Runs	Integer	Number of possible runs
2984	CR_POSSIBLE_R UNS2				

Table 103 – Possible Run(s) Value Event

8.15.7 Penalty Reason Value Events

ID	EventCode	Value Type ID	Value Type	Data Type	Description
1957	CR_CPENALTY1	86	Penalty reason	Integer	1=Slow over rate 2=Illegal fielding 3=Hit Helmet 4=Ball tampering 5=Other
2981	CR_CPENALTY2				

Table 104 – Penalty Reason Value Event Mappings

8.15.8 Dismissal Type Value Events

ID	EventCode	Value Type ID	Value Type	Data Type	Description
1958	CR_COUT1	87	Dismissal type	Integer	0=Not out 1=Bowled 2=Caught and bowled 3=Caught 4=Handled the ball 5=Hit ball twice 6=Hit wicket 7=Leg before wicket 8=Obstructing field 9=Retired hurt 10=Retired out 11=Run out 12=Stumped 13=Timed out 14=Caught (sub) 15=Run out (sub) 16=Absent hurt
2982	CR_COUT2				

Table 105 – Dismissal Type Value Event Mappings

8.15.9 Formation changed event

ID	EventCode	Value Type ID	Value Type	Data Type	Description
532	Formation Changed	91	Match Formation ID Home Team	Integer	Unique Match Formation ID Home Team
		92	Match Formation Home Team	String	See chapter 8.7 <i>Formation Data Mapping</i>

ID	EventCode	Value Type ID	Value Type	Data Type	Description
		93	Match Formation ID Away Team	Integer	Unique Match Formation ID Away Team
		94	Match Formation Away Team	String	See chapter 8.7 <i>Formation Data Mapping</i>

Table 106 – Formation Changed Event






8.15.10 VAR Reason Mapping

ID	EventCode	Value Type ID	Value Type	Data Type	Description
535	VAR reason	95	VAR Reason	Integer	-1=Unknown 0=Goal 1=Penalty 2=Cards

Table 107 – VAR Reason

8.16 Ball Position Mappings

8.16.1 Soccer

Zone	Code	Description
	FK1	Free Kick Zone 1
	FK2	Free Kick Zone 2
	FK3L	Free Kick Zone 3 Left
	FK3R	Free Kick Zone 3 Right
	FK4	Free Kick Zone 4




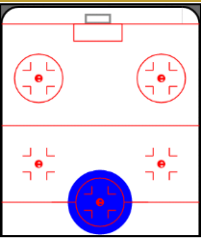
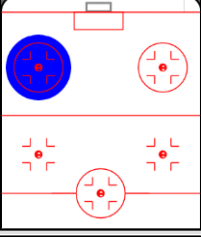
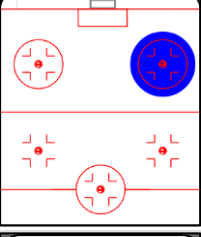
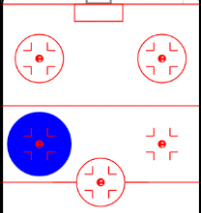
Zone	Code	Description
	FK5	Free Kick Zone 5
	CR_L	Corner Left
	CR_R	Corner Right

Table 108 – Soccer Zones

8.16.2 Ice Hockey

Zone	Code	Description
	IH_Z1	Bully Zone 1
	IH_Z2L	Bully Zone 2 Left
	IH_Z2R	Bully Zone 2 Right
	IH_Z3L	Bully Zone 3 Left

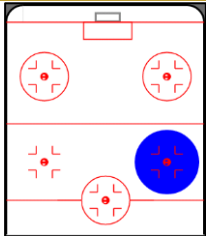
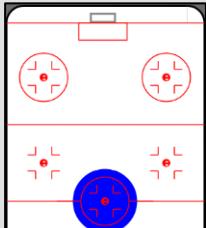
Zone	Code	Description
	IH_Z3R	Bully Zone 3 Right
	IH_Z4	Bully Zone 4

Table 109 – Ice Hockey Zones

Note: Bully Zones 1 and 4 can be handled identically on the feed, as they both represent the centre bully.

8.17 Sports Ticker Data Mappings

8.17.1 Common Sport Ticker Data Mappings

ID	Short Description	Data Type	Long Description
22	coverageTv	String	Name of the TV channel the match is covered on
24	watIsStadiumFeed	Boolean	Watch & Trade stadium feed is available.

Table 110 – Common Sportsticker Data

8.17.2 Cricket Sport Ticker Data Mappings

ID	Short Description	Data Type	Long Description
44	Overs	Integer	The revised number of overs

Table 111 – Common Sportsticker Data

9 Appendix

Support will be provided by RunningBall Live Support (**email:** support@rball.com)

Incidents will be handled by RunningBall Live Support (**email:** support@rball.com)

Technical integration questions will be handled by **email:** feed@rball.com

Note: Please make sure that you always report live incidents via support@rball.com!
The email address feed@rball.com is only for integration support purposes and a response should only be expected during regular business hours.

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