StatsBomb API Events Specification v1.3.0

[StatsBomb API - last updated 22 May 2018]

This document describes the API used to request events for a match to which the user has licensed access. Credentials need to be supplied as described in the general API notes.

Summary of Changes from v1.2.0

The following is a short description of the changes from the previous version of the API. Full details of each element are in the appropriate part of the full specification.

1. Additional related event info, between pressures and actions under pressure, and between passes and receipts.
2. Added ‘one on one’ and ‘open goal’ attributes to some shots.
3. Added xG values to shots.

Additionally some bugs been resolved:

4. Some passes were occasionally missed as assists.
5. Position info wasn’t reliably picked up for subbed players.
6. Some shots had missing freeze frames.
7. Some games would have slightly odd event orders, with starting XIs after kick off.

Request

The API can be accessed by making a request to https://data.statsbombservices.com/api/v1/events/?. The question mark should be replaced by the desired match ID.

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Response

The response will be in JSON format. The response is an array containing event information for both teams. Some elements have either child elements (normally a name/id pair), or child arrays (these are detailed later in the document).

Column	Type	Child	Child Type	Description
id	uuid			The unique identifier for each event
index	integer			Sequence notation for the ordering of events.
period	integer			The part of the match the timestamp relates to (1 = first half, 2 = second half).
timestamp	timestamp			The point in the match the event takes place.
minute	integer			The minute part of the timestamp
second	integer			The second part of the timestamp
type	object	id	integer	The unique id for the type of this event
		name	text	The name of the event type (e.g. pass/shot/dribble…)
possession	integer			Each possession is given a unique integer within the scope of the match. Events in the same possession have this same identifier.
possession_team	object	id	integer	the id for the team that began this possession
		name	text	The name of the team that began this possession

play_pattern	object	id	integer	The id of the play pattern relevant to this event.
		name	text	The name of the play pattern (e.g. “Regular Play”, “From Throw In”)
team	object	id	integer	The id of the team this event relates to. Team object will only display if the event is tied to a specific team.
		name	text	The name of the team this event relates to.
player	object	id	integer	The id of the player this event relates to. Player object will only display if the event is tied to a specific player.
		name	text	The name of the player this event relates to.
position	object	id	integer	The id of the position the player was in at the time of this event..
		name	text	The name of the position this player was in at the time of this event.
location	array [x,y]			Array containing two integer values. These are the x and y coordinates of the event. This only displays if the event has pitch coordinates.
duration	decimal			If relevant, the length in seconds the event lasted.
under_pressure	boolean			If an event was done whilst pressure was being applied, this flag will arise.
related_events	array[uuid, uuid,uuid,...]			A comma separated list of the Ids of related events. For example, a shot might be related to the Goalkeeper event, and a Block Event. The corresponding events will have the Id of the shot in their

				related_events column.
[event_type_name]	object			For some event types, additional details are added with additional details specific to that event type. e.g. for shot events a shot object is added, containing details about the shot (shot_type, body_part used etc.) The contents of these types are detailed below.
tactics	object	formation	text	For events with a set of match_posititions relevant (starting XI, tactical shift), the “tactics” object is added. The formation item describes the formation being used.
		lineup	array	Collection of Player Position Objects (detailed later).

Event Type Objects

When an event is of a type with additional details, they are included nested inside an object named after that event type. Thus for an event containing:
“type”: { “id”: 30, “name” : “pass” }

there will also be a section:

“pass”: {“length”: 10 …. }

Some attributes apply to multiple event types (e.g. “body_part”). These will appear in any given event under the section named by the event_type, but the ids are consistent across types (i.e. “left_foot” for shots is the same as “left_foot” for passes). These are specified at the bottom of this table.

Possible values for each attribute can be found in the data specification.

Column	Type	Child	Child Type	Description
Ball Recovery				
offensive	boolean			Added if the recovery was offensive.
recovery_failure	boolean			Added if the recovery was a failure.
Block				
deflection	boolean			Added if the block was a deflection
offensive	boolean			Added if the block was offensive
save_block	boolean			Added if the block saved a shot
out	boolean			Added if the block caused the ball to go out of

				play.
Dribble				
Overrun	boolean			Appears when the dribble was an Overrun.
Nutmeg	boolean			Appears when the dribble was a Nutmeg.
Foul Committed				
offensive	boolean			Added if the foul was committed while in possession of the ball.
Foul Won				
defensive	boolean			Added if the foul was won when out of possession.
Goalkeeper				
position	object	id	integer	Id for the Attribute option of Goalkeeper's positioning before a shot.
		name	text	Description of said position (e.g. moving or prone)
Injury Stoppage				
in_chain	boolean			Added if the ball was in the injured player's team's possession before the stoppage began.
Pass				
recipient	object	id	integer	The unique identifier for the player that received the pass, or for whom an incomplete pass was intended.

		name	text	The name of the player
length	decimal			The length of the pass
angle	decimal			The angle of the pass in radians, with 0 pointing straight ahead, positive values between 0 and π indicating an angle clockwise, and negative values between 0 and -π representing an angle anti-clockwise.
height	object	id	integer	An id specifying the height of the pass.
		name	text	The name for the pass height (ground/low/high).
end_location	array [x,y]			Array containing two integer values. These are the x and y coordinates at which the pass ended.
assisted_shot_id	uuid			Reference to the shot this pass assisted.
pass_backheel	boolean			added if the pass was made by using a backheel
deflected	boolean			Added if the pass was deflected
miscommunication	boolean			Added if the pass was a miscommunication
through_ball	boolean			added if the pass was a through ball
cross	boolean			added if the pass was a cross
cut-back	boolean			added if the pass was a cut-back (ball passed low backwards, within the opposition's penalty box)
switch	boolean			added if the pass was a switch (ball transitioned at least 50% of the pitch vertically)

shot-assist	boolean			added if the pass was an assist to a shot (that did not score a goal)
goal-assist	boolean			added if the pass was an assist to a goal.
Shot				
key_pass_id	uuid			The reference to the event identified as a key pass for the shot.
end_location	array [x,y] or [x,y,z]			Array containing two or three integer values. Where only two coordinates are supplied these are the x and y locations of the ball at the end of the shot. If a z coordinate is supplied, then this details the height in yards from the ground that the shot terminated.
follows_dribble	boolean			Appears if the shot followed a dribble.
deadball	object	id	integer	Id for the Attribute option of shot play type
		name	text	Description of said shot play type (e.g. Free Kick)
fist_time	boolean			Added if the shot was first touch.
redirect	boolean			Added if the shot was a redirect.
freeze_frame	array			Collection of freeze_frame objects (detailed in next table).
one_on_one	boolean			The shot was taken with just the goalkeeper between the shooter and the goal.
open_goal	boolean			The shot was taken with an open goal.
statsbomb_xg	boolean			The expected goals value calculated for the shot.

Substitution				
replacement	object	id	integer	For a substitution, the id of the player leaving. The player details (main event) describe the player coming on.
		name	text	Name of the player
Attributes used by multiple event types				
Shot and Goalkeeper				
technique	object	id	integer	Id for the Attribute option specifying the technique used.
		name	text	Description of said technique
Shot and Pass				
deflected	boolean			Added if the shot was deflected
Pass, Shot and Goalkeeper				
body_part	object	id	integer	Id for the Attribute option specifying the body part used during this action.
		name	text	Description of said body part (e.g. Head or Left_Foot).
Miscontrol, Clearance				
aerial_won	boolean			Added if a miscontrol event was an aerial.
Pass, Duel, Foul Committed and Goalkeeper				

type	object	id	integer	the Id for the attribute value of possible event sub-types. These qualify a more specific version of an event type.
		name	text	The description of the sub- type (e.g. for a pass this may be “Recovery”, for a Duel it may be “Tackle”)
Foul Won and Foul Committed				
advantage	boolean			Added if play continued (referee called advantage)
penalty	boolean			Added if a penalty was awarded.
50/50, Ball Receipt, Block, Dribble, Duel, Pass, Shot, Goalkeeper, Substitution and Interception				
outcome	object	id	integer	Id for the Attribute option specifying the Outcome of the event.
		name	text	Description of said outcome (will be event type dependent, e.g. Won, Lost, Out, Injury Clearance).
Foul Committed and Bad Behaviour				
card	object	id	integer	Id for the Attribute option specifying the Card.
		name	text	Description of said type (e.g. Yellow, Red).

Freeze Frame Objects

Each shot includes an object called freeze_frame which is an array containing information about relevant players at the time of the shot. Each freezeframe object is structured as follows:

Column	Type	Child	Child Type	Description
location	array [x,y]			Array containing two integer values. These are the x and y coordinates on the pitch of the player at the time of the shot.
player	object	id	integer	The id of the player referenced.
		name	text	The name of the player referenced.
position	object	id	integer	The id of the position played by the player referenced.
		name	text	The name of the position played by the player referenced.
teammate	boolean			Is this player on the same team as the shooter.

Player Position Objects

Player positions are detailed in a tactics in the lineup array. They have the following structure:

Column	Type	Child	Child Type	Description
player	object	id	integer	The id of the player referenced.
		name	text	The name of the player referenced.

position	object	id	integer	The id for the position..
		name	text	The name of the position.
jersey_number	integer			The player's jersey number.

Play Pattern

The Play Pattern column has a number of possible events denoting that the current passage of play originated/contained the following type of action:

Id	Name	Description
1	Regular Play	The possession occurred during regular play.
2	From Corner	The passage of play began with a corner.
3	From Free Kick	The passage of play began with a corner.
4	From Throw In	The passage of play began with a throw-in.
5	Other	The possession did not match any of the other options.
6	From Counter	The passage of play began with a counter attack.
7	From Goal Kick	The passage of play began with a Goal Kick.
8	From Keeper	The passage of play began with a keeper claiming the ball from play.
9	From Kick Off	The passage of play began with a kick-off.

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