

# StatsBomb Data Specification v1.1

[StatsBomb Data Specification - last updated *13 May 2019*]

## Change Log - Updates for Data Version 1.1

### Competition Data Updates

- “Gender” added for all competitions.

### Match Data Updates

- Team section now includes variables for: “Gender”, “Group”, “Country” and “Managers”
- “Match Week” added as an integer denoting the match week in the competition.
- “Competition Stage” added to reference the phase of the competition this particular match is in.
- “Stadium” updated from a name to an object with a name and corresponding country and id.
- “Referee” updated from a name to an object with a name and corresponding country and id.
- The data-version object is no longer displayed as a property of the match.
- Each match has a metadata object containing information about the structure/versions of various data attributes in the match. This includes the data version. Note: the metadata tag can be empty for any match not in an “available” status. For matches that are available the metadata will contain a data version and may contain other attributes.

### Lineups Data Updates

- “Nickname” added for all players in the lineup.

## Event Data Updates

- “Carry” added as an event type. carry.end\_location added as an additional variable to describe the ending location of a carry event
- “counterpress”: an attribute on various defensive events, including: pressure, dribbled past, 50-50, duel, block, interception, and foul committed (not offensive). These are pressing actions within 5 seconds of an open play turnover.
- “under\_pressure”: the definition has been expanded to apply in more situations. So, events which are naturally performed under pressure like duels, dribbles etc, all pick up the attribute, even in the absence of an actual pressure event. Carries can be pressured not just by pressure events, but other defensive events (defined in change 2.) that happen during or at the end of the carry.
- Enhancements to possession chain and counterattack logic.
- “off\_camera” variable no longer only shows when TRUE, but is a boolean on every event.
- “out” boolean variable added for when the outcome of the event is a ball out of bounds.
- “body type” variable added for clearances.
- Additional body types including “No Touch” and “Drop Kick”.
- “technique” variable added for passes, including: “Inswinging”, “Outswinging”, “Straight” and “Through Ball”.
- “through\_ball” variable for passes is now deprecated.
- “late-video-start” variable added for event type “Half Start” when the broadcast video starts after the kick off.
- “early-video-end” variable added for event type “Half End” when the broadcast video ends before the final whistle.
- “match-suspended” variable added for event type “Half End” when the match is suspended typically due to weather.
- “kick-off” is now an option for shot types.
- “Saved To Post” option for shot outcome when the goalkeeper saves the ball into a post.
- “Saved Off Target” option for shot outcome when the goalkeeper saves a shot that would have missed the frame.
- “No Touch” added as a possible attribute for the event type “Dribble” when the attacker fails to touch the ball.
- Additional “Outcome” options for event type “Goal Keeper” including: “Punched Out”, “Lost Out”, “Lost in Play”, “Success Out”, and “Success In Play”.
- Shots, Freeze Frames, and other events paired to Shots have their locations specified more accurately for matches collected at higher fidelity.

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## StatsBomb Competition Data

Competition information is included for all matches collected. The competition data contains the following information.

Variable	Variable Type	Variable Description	Values
competition_id	integer	The unique identifier for the competition.	e.g, 2
season_id	integer	The unique identifier for the season.	e.g, 1
competition_name	string	The name of the competition.	e.g, "Premier League"

competition_gender	string	The gender of the players competing in the competition.	"male" or "female"
country_name	string	The name of the country the competition relates to (or region for international competitions)	e.g., "England"
season_name	string	The name of the season.	e.g., "2017/2018"
match_updated	DateTime	The date and time at which a match within this competition and season was last updated.	e.g., "2019-02-01T10:45:48.304"
match_available	DateTime	The date and time at which an available match was updated, or a match was made available (whichever is more recent).	e.g., "2019-02-01T10:45:48.304"

## StatsBomb Match Data

StatsBomb records the match information for each match they collect, including competition and season information, stadium and referee information, home and away team information as well as the data version the match was collected under.

Variable	Variable Type	Variable Description	Values
match_id	Integer	The unique identifier for the match (required to request events).	e.g., 2781
competition	object (id (integer) / name (string))	The ID is the unique identifier for the competition and the name is the name of the competition	e.g, 2 / "Premier League"
country_name	String	The name of the country the competition relates to (or region for international competitions)	e.g., "England"
season	object (id (integer) / name (string))	The ID is the unique identifier for the season and the name is the name of the season	e.g., 1, "2017/2018"
match_date	Date	The date of the Match	"2018-03-09"
kick_off	Time	The time of the Match	"16:00:00.000"
stadium	object (id (integer) / name (string))	The ID is the unique identifier for the stadium and the name is the name of the stadium	e.g, 68 / "Stamford Bridge"
stadium_country	String	The name of the country the stadium is in.	e.g., "England"
referee_name	object (id (integer) / name (string))	The ID is the unique identifier for the referee and the name is the name of the referee	e.g., 5 / "A. Marriner"
referee_country	object (id (integer) / name (string))	The ID is the unique identifier for the country and the name is the name of the country	e.g, 68/ "England"
home_team	object (id (integer) / name (string))	The unique identifier integer and the name for the home team in this match	e.g., 1 / "Arsenal"

home_team_gender	String	Gender of the home team in the match.	"male"
home_team_manager	Data Frame	Data frame of the manager for the home team with information about the manager described with the variables listed below.	
	id (integer)	Unique ID number for the manager.	471
	name (string)	Full name of the manager.	Óscar Alexander Pareja Gómez
	nickname (string)	Nickname of the manager.	Ó. Pareja
	dob (Date/String)	Manager's date of birth	8/10/1968
	country (id (integer) / name (string))	ID/name of the manager's country of origin.	49 / "Colombia"
home_team_group	String	Name of the group/conference of the team in the match.	e.g., "Group A"
home_team_country	object (id (integer) / name (string))	ID number and name corresponding to the origin country for the home team in the match.	e.g, 68/ "England"
away_team	object (id (integer) / name (string))	The unique identifier integer and the name for the away team in this match	e.g., 1 / "Arsenal"
away_team_gender	String	Gender of the away team in the match.	"male"
away_team_manager	Data Frame	Data frame of the manager for the away team with information about the manager described with the variables listed below.	
	id (integer)	Unique ID number for the manager.	471
	name (string)	Full name of the manager.	Óscar Alexander Pareja Gómez
	nickname (string)	Nickname of the manager.	Ó. Pareja
	dob (Date/String)	Manager's date of birth	8/10/1968
	country (id (integer) / name (string))	ID/name of the manager's country of origin.	49 / "Colombia"
away_team_group	String	Name of the group/conference of the team in the match.	e.g., "Group A"
away_team_country	object (id (integer) / name (string))	ID number and name corresponding to the origin country for the away team in the match.	e.g, 68/ "England"
home_score	Integer	The final score of the home team	e.g., 2
away_score	Integer	The final score of the away team	e.g., 4
match_status	String	The current status of collection for this match. Only "available" matches are present in the Open Data repository.	"available", "deleted", "scheduled"
match_week	Integer	Number corresponding to the weeks into the competition this match is.	e.g., 25
competition_stage	object (id (integer) / name (string))	id/name pair of the phase of the competition this match is in.	e.g., 1 / "Regular Season"
last_updated	DateTime	The date and time at which this match information was last updated.	e.g., "2018-08-08T15:44:27.375199"
metadata	Object	Contains a list of tags detailing the versions of various parts of the event data for this match.	All child attributes are optional (and this object will be empty for games not yet "Available").

data_version	String	The version number for the method in which the data was collected.	"1.0.2", "1.0.3", "1.1.0"
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## StatsBomb Lineup Data

StatsBomb records the lineup information for the players, managers and referees involved with each match. The following variables are collected in the lineups of each match.

Variable	Variable Type	Variable Description
team_id	Integer	The unique identifier for each team.
team_name	Integer	The name of the team.
lineup	Array	An array of players on the team sheet for this team. See below for the details of the lineup array.

The lineup array is a nested data frame inside of the lineup object, the lineup array contains the following information for each team.

Variable	Variable Type	Variable Description
player_id	Integer	The unique identifier for this player.
player_name	String	The name of the player.
player_nickname	String	The nickname of the player on the team.
jersey_number	Integer	The number on the player's shirt for this match.
country	object (id (integer) / name (string))	The player's nationality, a country object with unique country ID and country name.

## StatsBomb Event Data – General Structure

StatsBomb Event Data comprises of general attributes and event specific attributes. General attributes defined in Section 1. are recorded for most event types, depending only on applicability. The list of event types is defined in Section 2. Event specific attributes can be found in Section 3 and these attributes help describe the event type in more detail as well as describe the



outcome of the event type. The remainder of this document describes an exhaustive list of variables, descriptions, and potential values.

## StatsBomb Event Data General Attributes

The general attributes are the most common variables for each observation in StatsBomb event data. These attributes are recorded depending on their applicability to the event type described in the next section.

Variable	Variable Type	Variable Description	Values	Value Description
id	uuid	The unique identifier for each event	e.g. "0052d1b5-e2b0-4629-bbea-c18c884ab103"	
index	integer	Sequence notation for the ordering of events within each match.	e.g. 1-# of events	
period	integer	The part of the match the timestamp relates to.	1	1st Half
			2	2nd Half
			3	3rd Period
			4	4th Period
			5	Penalty Shootout
timestamp	timestamp	Time in the match the event takes place, recorded to the millisecond.	e.g., 00:00:06.293	
minute	integer	The minutes on the clock at the time of this event. Resets to 45 at half-time, 90 at the start of extra time etc.	e.g., 40	
second	integer	The second part of the timestamp	e.g., 15	
type	object (id (integer) / name (text))	The type of event the corresponds to.	See the second on Event attributes for a thorough list.	
possession	integer	Indicates the current unique possession in the game. A single possession denotes a period of play in which the ball is in play and a single team is in control of the ball.	e.g., 1 - # of unique possessions	New possession are triggered after a team demonstrate they've established control of the ball. A new possession can begin even if the same team has possession of the ball for example, a blocked pass goes out for a throw in for the same team, this would be a new possession for the same attacking team.

possession_team	object (id (integer) / name (text))	The ID and name of the team that started this possession in control of the ball. Note that this will appear even on opposition events like tackles attempted during the possession.	e.g., 1 / "Arsenal"	
play_pattern	object (id (integer) / name (text))	Id /name of the play pattern relevant to this event.	1 / Regular Play	The event was not part of any of the following play_patterns
			2 / "From Corner"	The event was part of the passage of play following a corner.
			3 / "From Free Kick"	The event was part of the passage of play following a free-kick.
			4 / "From Throw In"	The event was part of the passage of play following a throw-in.
			5 / "Other"	
			6 / "From Counter"	The event was part of a counter attack: <ul style="list-style-type: none"> <li>• The possession started with an open play turnover outside the counter-attacking team's final third.</li> <li>• The possession was at least 75% direct towards goal (as measured by our possession chain metrics)</li> <li>• The counterattack travelled at least 18 yards towards goal.</li> <li>• This definition is not part of collection and is derived from the logic above.</li> </ul>
			7 / "From Goal Kick"	The event was part of the passage of play following a goal kick.
			8 / "From Keeper"	The event was part of the passage of play following a keeper distribution.

			9 / "From Kick Off"	The event was part of the passage of play following the kick off.
team	object (id (integer) / name (text))	Id / Name of the team this event relates to. Team object will only display if the event is tied to a specific team.	e.g., 1 / "Arsenal"	
player	object (id (integer) / name (text))	Id / Name of the player this event relates to (player object will only display if the event is tied to a specific player).	e.g., 5079 / "Zlatan Ibrahimovic"	
position	object (id (integer) / name (text))	Id / Name of the position the player was in at the time of this event..	e.g., 1 / "Goal Keeper"	See Appendix 1 below for more information.
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).	e.g., the center of the field is (60,40)	See Appendix 2 below for more information.
duration	decimal	If relevant, the length in seconds the event lasted.	Time in seconds.	
under_pressure	boolean	The action was performed while being pressured by an opponent.	TRUE	See Appendix 7 for more information on pressure.
off_camera	boolean	The event occurred while the camera was off.	FALSE, TRUE	Thus, data accuracy is not guaranteed and information is logically inferred by collectors.
out	boolean	Added if the outcome of the event is the ball going out of bounds.	TRUE	
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.	e.g., "2b7d06c7-9bcb-4bbf-a6e5-08e54e1303ac" or ("2b7d06c7-9bcb-4bbf-a6e5-08e54e1303ac", "03b001b6-bf44-4691-ae47-e279f5a9b38c")	

## StatsBomb Event Types

Each observation in StatsBomb event data has a “Type”. This type is the type of observation, more commonly known as the event type. The following list of event types compose all of StatsBomb data. Their description and their prominence in the data is presented below.

Event Type	Event Type ID	Event Description	Average Percent of Events
50/50	33	2 players challenging to recover a loose ball.	0.05%
Bad Behaviour	24	When a player receives a card due to an infringement outside of play.	0.02%
Ball Receipt*	42	The receipt or intended receipt of a pass.	25.84%
Ball Recovery	2	An attempt to recover a loose ball	2.95%
Block	6	Blocking the ball by standing in its path.	1.08%
Camera off: Deprecated in version 1.03	29	Video broadcast leaves gameplay and show a replay or video is cut.	
Camera On: Deprecated in version 1.03	5	Signals the stop of the camera to capture gameplay for a replay/video cut.	
Carry	43	A player controls the ball at their feet while moving or standing still.	23.11%
Clearance	9	Action by a defending player to clear the danger without an intention to deliver it to a teammate.	0.92%
Dispossessed	3	Player loses ball to an opponent as a result of being tackled by a defender without attempting a dribble	0.68%
Dribble	14	An attempt by a player to beat an opponent	0.94%
Dribbled Past	39	Player is dribbled past by an opponent.	0.62%
Duel	4	A duel is an 50-50 contest between two players of opposing sides in the match.	1.37%
Error	37	When a player is judged to make an on-the-ball mistake that leads to a shot on goal.	0.02%
Foul Committed	22	Any infringement that is penalised as foul play by a referee. Offside are not tagged as a foul committed.	0.84%
Foul Won	21	A foul won is defined as where a player wins a free-kick or penalty for their team after being fouled by an opposing player.	0.79%
Goal Keeper	23	Actions that can be done by the goalkeeper.	0.95%
Half End	34	Signals the referee whistle to finish a match part.	0.12%
Half Start	18	Signals referee whistle to start a match period.	0.12%
Injury Stoppage	40	A stop in play due to an injury.	0.1%
Interception	10	Preventing an opponent's pass from reaching their teammates by moving to the passing lane/reacting to intercept it.	0.7%
Miscontrol	38	Player loses ball due to bad touch	0.79%

Offside	8	Offside infringement. Cases resulting from a shot or clearance (non-pass). For passes resulting in an offside check pass outcomes section	0.02%
Own Goal Against	20	An own goal scored against the team	0%
Own Goal For	25	An own goal scored for the team.	0%
Pass	30	An intended kick from one player to his teammate	28.71%
Player Off	27	A player goes/ is carried out of the pitch without a substitution.	0.03%
Player On	26	A player returns to the pitch after a Player Off event.	0.03%
Pressure	17	Field Position and player 1 must always have a value (Field position shows the spot where the player started to apply pressure & the duration of the event shows the duration that he kept applying pressure)	8.1%
Referee Ball-Drop	41	Referee drops the ball to continue the game after an injury stoppage.	0.02%
Shield	28	Player shields ball going out of bounds to prevent opponent from keeping it in play.	0.03%
Shot	16	An attempt to score a goal, made with any (legal) part of the body.	0.79%
Starting XI	35	Indicates the players in the starting 11, their position and the team's formation.	0.06%
Substitution	19	A player is substituted off the field for various reasons.	0.17%
Tactical Shift	36	Indicates a tactical shift made by the team, shows the players' new positions and the team's new formation.	0.05%

## StatsBomb Event Specific Attributes

Additional attributes are recorded depending on the event type. Below is a list of all the event types (in alphabetical order) with the additional attributes for that event type. Attribute values listed are all possible values for that attribute, or when the list of possible values is exorbitant an example of an attribute value is given. Some attributes are pairs of values representing an object, for example the outcome “Card” has a pair of recordings for the unique id number and the name of the Card given. The “Constraints” for that attribute defines when those attributes are present.

### Event Name: 50/50. Event ID: 33.

50/50s are usually recorded for each competitor in the 50/50 event and these two events are paired by a related\_event.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
Outcome	object (id (integer) / name (text))	Outcome of the 50/50 Event.	108 / “Won”	The player wins the 50/50 contest and regain possession	Recorded for all 50/50 events.
			109 / “Lost”	The player loses the 50/50 contest	
			147 / “Success To Team”	The player wins the 50/50 contest and knocks the ball for their team’s possession	
			148 / “Success To Opposition”	The player wins the 50/50 contest but knocks the ball for their opponent’s possession	
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.

### Event Name: Bad Behaviour. Event ID: 24.

Bad Behaviour events are recorded when a referee needs to discipline a player aside from committing fouls.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
Card	object (id (integer) / name (text))	Id / Name for the attribute option specifying the Card.	65 / “Yellow Card”	A yellow card was issued to this player.	Not recorded for all Bad Behaviour events.
			66 / “Second Yellow”	A second yellow card was issued to this player.	
			67 / “Red Card”	A straight red card was issued to this player.	

**Event Name: Ball Receipt\*. Event ID: 42.**

Ball Receipt\* events describe the location or intended location of a pass and who that recipient was.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
outcome	object (id (integer) / name (text))	Outcome of the ball receipt Event.	"Incomplete"		Recorded only for incomplete Ball Receipt* events.

**Event Name: Ball Recovery. Event ID: 2.**

Ball Recovery events typically describe a loose ball being recovered following a miscontrol or a clearance.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
offensive	boolean	Recorded if the ball recovery event was by the team originally in possession of the ball	TRUE		Recorded only when true.
recovery_failure	boolean	Recorded if the ball recovery attempt failed	TRUE		Recorded only when true.

**Event Name: Block. Event ID: 6.**

Block events typically follow a pass or a shot. They can also be offensive.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.
deflection	boolean	Recorded if the block was only a deflection	TRUE		Recorded only when true.
offensive	boolean	Recorded if the block was by the offensive team	TRUE		Recorded only when true.
save_block	boolean	Recorded if the block definitely prevented an on target shot	TRUE		Recorded only when true.

**Event Name: Carry. Event ID: 43.**

Carry events are typically by the attacking team and describe a player possessing the ball at their feet, either moving with the ball or standing still.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
end_location	Array [x, y]	Recorded for all carry events, describes where the carry ends.	(100, 40)	End location of the carry.	Recorded for all carries.

**Event Name: Clearance. Event ID: 9.**

Clearance events are typically by the defending team and describe a ball getting cleared away without any intended recipient of the ball as a pass has.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
aerial_won	boolean	Recorded if the clearance was accomplished by winning an aerial	TRUE		Recorded only when true.
body_part	object (id (integer) / name (text))	ID / Name of the body part used to shoot.	37 / "Head"	Shot attempted with head	Recorded for every event in Data Version 1.1.0 and newer. If aerial_won is TRUE then the body part must be "Head"
			38 / "Left Foot"	Shot attempted with the left foot	
			70 / "Other"	Other body parts (i.e knee, chest, etc)	
			40 / "Right Foot"	Shot attempted with right foot	

**Event Name: Dispossessed. Event ID: 3.**

Dispossessed events describe an attacking player who had possession of the ball and where and when they lose possession of it. Dispossession events are almost always paired to a Duel or a Goalkeeper Smother via a related event.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Dribble. Event ID: 14.**

Dribble events describe when an attacker with the ball takes on another attacker. Dribble events do not describe every time a player is dribbling the ball, this will be added in an upgrade of StatsBomb data when we derive "Carry" events. Dribble events can be used to see successful/unsuccessful dribbles and when they are unsuccessful, they describe where the ball was lost.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
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outcome	object (id (integer) / name (text))	Outcome of the dribble event	"Complete"	Attacker successfully dribbled past the defender.	Recorded for all dribble events.
			"Incomplete"	Attacker failed to dribble past the defender	
nutmeg	boolean	Added when the dribble went through an opposing players legs.	TRUE		Recorded only when true.
overrun	boolean	Added when a dribble goes past the original defender into the possession of another player	TRUE		Recorded only when true.
No Touch	boolean	If the player attempted to do the dribble by passing the ball past the opponent instead of receiving it.	TRUE		Recorded only when true.

**Event Name: Dribbled Past. Event ID: 39.**

Dribbled Past events describe the player who gets dribbled past when a dribbler takes them on. Almost every dribbled past event has a related id for a dribble event, but not every dribble event has a related dribbled past event (Incomplete dribbles). Dribbled Past events can also imply defensive pressure.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.

**Event Name: Duel. Event ID: 4.**

Duel events describe when a defender challenges an attacker in some way. It can be to win a tackle or challenge an aerial ball. Duel of type Aerial Lost are paired with clearance.aerial\_won, miscontrol.aerial\_won, shot (usually of body part head).

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.
type	object (id (integer) / name (text))	The type of the duel event.	10 / "Aerial Lost"	Challenging for an aerial duel and not winning the ball	Recorded for all duel events.
			11 / "Tackle"	Dispossessing opposing team player	

outcome	object (id (integer) / name (text))	The outcome of the duel event.	4 / "Won"	A tackle that ended up in possession of the tackler	Recorded only for Duel Events with a type of "Tackle"
			13 / "Lost In Play"	A tackle that knocked the ball to an opponent	
			14 / "Lost Out"	A tackle that knocked the ball out of bounds in favor of opposition	
			15 / "Success"		
			16 / "Success In Play"	A tackle that knocked the ball to a teammate	
			17 / "Success Out"	A tackle that knocked the ball out of bounds in favor of tackler's team	

**Event Name: Error. Event ID: 37.**

Errors are rarely recorded, but they represent obviously unintended errors by players. Most commonly follows a failed clearance or ball recovery. The following event is often a ball recovery, shot or goalkeeper event.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Foul Committed. Event ID: 22.**

Foul Committed events describe who committed a foul resulting in a free kick or penalty kick. They are recorded at the location and time of the foul regardless of whether or not advantage was played. For fouls that have advantage played and then called back, the location can be slightly different, so the foul committed and foul won are recorded at the original time and then recorded again if the advantage gets called back. One can actually see how long advantage gets played out if they want to do that.

- Not every foul committed event has a foul won related events.
- There are more foul committed events than foul won events.
- The advantage foul committed are never related to the non-advantage foul committed.
- Therefore, we have to combine them into one event based on time or player etc.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
advantage	boolean	Added when the referee calls advantage and allows play to continue.	TRUE		Recorded only when true.
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.

offensive	boolean	Added if the foul was committed while in possession of the ball.	TRUE		Recorded only when true.
penalty	boolean	Added if a penalty was awarded as a result of the foul committed.	TRUE		Recorded only when true.
card	object (id (integer) / name (text))	Id / Name for the card awarded to the player committing the foul	5 / "Yellow Card"		Recorded only when a card is awarded.
			6 / "Second Yellow"		
			7 / "Red Card"		
type	object (id (integer) / name (text))	Id / Name for the type of foul committed	19 / "6 seconds"	Foul called due to 6 second infringement	Recorded only when a card is awarded.
			20 / "Backpass Pick"	Foul called due to back-pass pick up infringement	
			21 / "Dangerous Play"	Foul called due to dangerous play	
			22 / "Dive"	Foul committed due to simulation	
			23 / "Foul Out"	Foul called due to foul out infringement	
24 / "Handball"	Foul called due to handball infringement				

**Event Name: Foul Won. Event ID: 21.**

Describe the scenario when a player wins a foul, for more information see the Event Name: Foul Committed.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
advantage	boolean	Added when the referee calls advantage and allows play to continue.	TRUE		Recorded only when true.
defensive	boolean	Added if the foul was won while defending.	TRUE		Recorded only when true.
penalty	boolean	Added if a penalty was awarded as a result of the foul won.	TRUE		Recorded only when true.

**Event Name: Goal Keeper. Event ID: 23.**

Goalkeeper events describe a number of different things. Coming to collect crosses, smothering through balls, making saves, etc. They are recorded whenever a goalkeeper attempts a given action and not necessarily succeeds. For example, if a goalkeeper attempts to punch a ball away and never actually makes contact with the ball, it is still recorded.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
position	object (id (integer) / name (text))	Id / Name for the attribute option of goalkeeper's positioning before a shot.	42 / "Moving"	Keeper was moving when the shot was taken	Recorded for most goalkeeper events. Never recorded for goalkeeper events of type "Keeper Sweeper" nor "Smother".
			43 / "Prone"	Keeper was on the ground when the shot was taken	
			44 / "Set"	Keeper was stationary when the shot was taken	
technique	object (id (integer) / name (text))	Id / Name for the attribute option specifying the goalkeeper technique used.	45 / "Diving"	Keeper left his feet in order to make the save	Recorded for most goalkeeper events.
			46 / "Standing"	Keeper made the save from a standing position	
body_part	object (id (integer) / name (text))	Id / Name for the attribute option specifying the body part used during this goalkeeper action.	35 / "Both Hands"	Save with both hands	Recorded for most goalkeeper events. Never recorded for goalkeeper events of type "Keeper Sweeper" nor "Punch".
			36 / "Chest"	Save with chest	
			37 / "Head"	Save with head	
			38 / "Left Foot"	Save was made with left foot	
			39 / "Left Hand"	Save with left hand	
			40 / "Right Foot"	Save was made with right foot	
41 / "Right Hand"	Save with right hand				
type	object (id (integer) / name (text))	Id / Name for the type of goalkeeper action.	(See Table Below)	Recorded for all "Goal Keeper" events.	(See Table Below)
outcome	object (id (integer) / name (text))	Id / Name for the outcome of the goalkeeper action.	(See Table Below)	Recorded for all "Goal Keeper" events except "Shot Faced" goalkeeper types.	(See Table Below)

Goalkeeper event have a complicated structure, of which certain goalkeeper types only take certain goalkeeper outcomes. Because of this complicated structure, we present the goalkeeper types with their corresponding possible outcomes in a separate table below.

Type Values	Type Description	Possible Outcome Values	Outcome Descriptions	Constraints
Collected / 25	Keeper coming out to collect a ball	15 / "Success"	Successfully collected	Outcome is recorded for all Collected goalkeeper event types

		49 / "Collected Twice"	Keeper collected the ball in multiple tries after fumbling first collect	
		50 / "Fail"	Unsuccessful action	
Goal Conceded / 26	Goalkeeper concedes a goal	15 / "Success"	The goal was conceded	Outcome is not recorded for all Goal Conceded goalkeeper event types.
		55 / "No Touch"	Goal conceded without keeper touching the ball	
		58 / "Touched In"	Goal conceded despite keeper touching the ball	
Keeper Sweeper / 27	When keeper comes off his line and/or out of his box to clear the ball	4 / "Won"	Retained possession	Outcome is not recorded for all Keeper Sweeper goalkeeper event types.
		15 / "Success"	Successfully cleared away from danger	
		47 / "Claim"	Keeper sweeper action where keeper collects the ball	
		48 / "Clear"	Keeper sweeper action where keeper clears the ball	
Penalty Conceded / 28	Goalkeeper concedes a goal from a penalty kick	15 / "Success"	The goal was conceded	Outcome is not recorded for all Penalty Conceded goalkeeper event types.
		55 / "No Touch"	Goal conceded without keeper touching the ball	
		58 / "Touched In"	Goal conceded despite keeper touching the ball	
Penalty Saved / 29	Save from a penalty kick	15 / "Success"	The penalty was saved	Outcome is recorded for all Penalty Saved goalkeeper event types
		52 / "In Play Danger"	Goalkeeper save where shot is parried to opposing team player	
		53 / "In Play Safe"	Goalkeeper save where shot is parried to teammate	
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Punch / 30	Keeper punch away (similar to clear)	15 / "Success"	Successful punch away from danger.	Outcome is recorded for all Punch goalkeeper event types
		50 / "Fail"	Unsuccessful punch.	
		52 / "In Play Danger"	Punch is directed to opposing team player	
		53 / "In Play Safe"	Punch is directed to a teammate	

		117 / "Punched Out"	The keeper punches the ball out of boundaries	
Penalty Saved To Post / 109	Goalkeeper saved a shot into the post	53 / "In Play Safe"	Goalkeeper save where shot is parried to teammate	Outcome is recorded for all Penalty Saved To Post goalkeeper event types
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Save / 31	Keeper save from a non-shot (for example, an errant pass from a teammate).	15 / "Success"	The save was made successfully.	Outcome is recorded for all Punch goalkeeper event types
		52 / "In Play Danger"	Goalkeeper save is parried to opposing team player	
		53 / "In Play Safe"	Goalkeeper save is parried to teammate	
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Saved to Post / 110	Keeper save from a non-shot (for example, an errant pass from a teammate).	15 / "Success"	The save was made successfully.	Outcome is recorded for all Saved To Post goalkeeper event types
		52 / "In Play Danger"	Goalkeeper save is parried to opposing team player	
		53 / "In Play Safe"	Goalkeeper save is parried to teammate	
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Shot Faced / 32	A shot faced that did not lead to a save or goal conceded	No outcome recorded for this goalkeeper type.		
Shot Saved / 33	Keeper save from opposing team shot	15 / "Success"	The penalty was saved	Outcome is recorded for all Shot Saved goalkeeper event types
		52 / "In Play Danger"	Goalkeeper save where shot is parried to opposing team player	
		53 / "In Play Safe"	Goalkeeper save where shot is parried to teammate	

		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Shot Saved Off T / 113	Goalkeeper saved a shot that would have missed the frame	15 / "Success"	The shot was saved	Outcome is recorded for all Shot Saved Off T goalkeeper event types
		53 / "In Play Safe"	Goalkeeper save where shot is parried to teammate	
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Shot Saved To Post / 114	Goalkeeper saved a shot into the post	53 / "In Play Safe"	Goalkeeper save where shot is parried to teammate	Outcome is recorded for all Shot Saved To Post goalkeeper event types
		56 / "Saved Twice"	Keeper made the save in multiple tries after fumbling the first save	
		59 / "Touched Out"	Keeper touched the ball out of bounds	
Smother / 34	Equivalent to a tackle for an outfield player, keeper coming out to dispossess a player.	1 / "Lost"	Failed to dispossess the attacker.	Outcome is recorded for all Smother goalkeeper event types
		4 / "Won"	Successfully claimed	
		15 / "Success"	Successfully claimed	

**Event Name: Half End. Event ID: 34.**

Half End records when a period comes to an end.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
early_video_end	boolean	Added if the match video wasn't complete and it ended before the period final whistle	TRUE		Recorded only when true.
match_suspended	boolean	Referee decides to end or postpone the match	TRUE		Recorded only when true.

**Event Name: Half Start. Event ID: 18.**

Half Start events describe when a period begins.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
late_video_start	boolean	Added if the match video wasn't complete and started after Kick Off	TRUE		Recorded only when true.

**Event Name: Injury Stoppage. Event ID: 40.**

These events describe a stoppage in game play do to an injury. They can be used to explain long breaks in the game time.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
in_chain	boolean	Added if the ball was in the injured player's team's possession before the stoppage began.	TRUE		Recorded only when true.

**Event Name: Interception. Event ID: 10.**

These events are recorded when a defender intercepts the ball from the attacking team. There are also some passes that are of type "interception" and are interceptions that are a one-time pass. If you need to define all interceptions, you must look for both events. There are also attempted interceptions that fail. You must clearly discern the successful interceptions from the unsuccessful ones, if you are only concerned with actions that gain possession of the ball. Similarly, look at the pass outcome for the pass type of interception.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
outcome	object (id (integer) / name (text))	Id / Name for the attribute option specifying the outcome of the interception	1 / "Lost"	Incomplete interception resulting in the attacking team maintaining possession	Recorded for almost every interception
			13 / "Lost In Play"	An interception by the defending team that knocked the ball to an attacker	
			14 / "Lost Out"	An interception by the defending team that knocked the ball out of bounds in favor of the attacking team	
			15 / "Success"	Successfully gained possession through the interception	
			16 / "Success In Play"	An interception that knocked the ball to a teammate	



			17 / "Success Out"	An interception that knocked the ball out of bounds in favor of the intercepting team	
			4 / "Won"	An interception that ended up in possession of the intercepting team	

**Event Name: Miscontrol. Event ID: 38.**

These events are typically followed by a pass often of type recovery or a ball recovery (usually offensive). Some miscontrols are the result of an aerial win.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
aerial_won	boolean	Added if a miscontrol event was an aerial.	TRUE		Recorded only when true.

**Event Name: Offside. Event ID: 8.**

These events define when an offside takes place. If interested in all offsides also look at Pass events with outcome Offside.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Own Goal Against. Event ID: 20.**

Easy way of seeing when own goals are conceded since there is no Shot event. The own goal is also recorded as goal conceded under the goalkeeper outcome extra.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Own Goal For. Event ID: 25.**

Easy way of seeing when own goals are scored since there is no Shot event.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Pass. Event ID: 30.**

Passes are the most prominent event type in the data. They are the most common action in football and have several different types. When using passes it is important to look at the pass type and the pass outcome to see what occurred.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
recipient	object (id (integer) / name (text))	Id / Name specifying the player id of the recipient of the pass, or for whom an incomplete pass was intended.	e.g., 2934 / "Érik Lamela"		Recorded whenever the recipient of the pass is clear, regardless of whether or not the pass was complete.
length	decimal	The length in yards of the pass, from its origin to its destination.	e.g., 16.03		Recorded for all passes.
angle	decimal	The angle of the pass in radians, with 0 pointing towards the team's attacking goal, positive values between 0 and $\pi$ indicating an angle clockwise, and negative values between 0 and $-\pi$ representing an angle anti-clockwise.	e.g., -2.49		Recorded for all passes.
height	object (id (integer) / name (text))	Id / Name specifying the height of the pass.	1 / "Ground Pass"	Ball doesn't come off the ground.	Recorded for all passes.
			2 / "Low Pass"	Ball comes off the ground but is under shoulder level at peak height.	
			3 / "High Pass"	Ball goes above shoulder level at peak height.	
end_location	array [x,y]	Array containing two integer values. These are the x and y coordinates at which the pass ended.	e.g., (100,45)		Recorded for all passes.
assisted_shot_id	uuid	Reference to the shot this pass assisted.	e.g. "0052d1b5-e2b0-4629-bbea-c18c884ab103"	See Appendix 2 for more information on location coordinates.	Recorded for all passes that assist a shot.
backheel	boolean	Added if the pass was made by using a backheel.	TRUE		Recorded only when true.

deflected	boolean	Added if the pass was deflected.	TRUE	Pass was deflected, can occur on complete and incomplete passes.	Recorded only when true.
miscommunication	boolean	Added if the pass was a miscommunication.	TRUE	Pass was accurate but receiving player misread the pass OR the run from the receiving player was correct and passer played in his previous position	Recorded only when true.
cross	boolean	Added if the pass was a cross.	TRUE	See Appendix 6 for more on how crosses are defined	Recorded only when true.
cut_back	boolean	Added if the pass was a "cut back" (ball passed low backwards, within the opposition's penalty box).	TRUE	See Appendix 5 for more information on how cut backs are depicted.	Recorded only when true.
switch	boolean	Added if the pass was a switch (ball transitioned at least 50% of the pitch vertically).	TRUE	Whether or not the passer switched the ball to the other side of the pitch. A switch is any pass that travels more than 40 yards of the width of the pitch.	Recorded only when true.
shot_assist	boolean	Added if the pass was an assist to a shot (that did not score a goal).	TRUE		Recorded only when true.
goal-assist	boolean	Added if the pass was an assist to a goal.	TRUE		Recorded only when true.
body_part	object (id (integer) / name (text))	Id / Name of the body part used to make this pass.	68 / "Drop Kick"	Pass is a keeper drop kick	Recorded for most passes.
			37 / "Head"	Pass with head	
			69 / "Keeper Arm"	Pass thrown from keepers hands	
			38 / "Left Foot"	Pass with left foot	
			70 / "Other"	Other body part (chest,back, etc.)	
			40 / "Right Foot"	Pass with right foot	
			106 / "No Touch"	A player deliberately let the pass go past him instead of receiving it to deliver it to a teammate behind him. (Also known as a "dummy").	
type	object (id (integer) / name (text))	Id / Name for the attribute option specifying the type of pass.	61 / "Corner"	A pass from a corner kick	Recorded for all passes with one of the special types listed to the left. Passes missing a "type" are
			62 / "Free Kick"	A pass from a free kick	
			63 / "Goal Kick"	A pass from a goal kick	
			64 / "Interception"	One touch pass off an interception	

			65 / "Kick Off"	A pass from a kick off at the beginning of a match or after scoring	standard passes in the run of play.
			66 / "Recovery"	One touch pass off a loose ball recovery	
			67 / "Throw-in"	A pass from a throw-in	
outcome	object (id (integer) / name (text))	ID / Name of the outcome of the pass.	9 / "Incomplete"	Ball does not reach a teammate and is still in play	Recorded for all passes that are incomplete for a specific reason or their outcome is unknown. Passes missing an "outcome" are completed passes.
			74 / "Injury Clearance"	Ball is played out of bounds to stop play for an injury	
			75 / "Out"	Ball goes out of bounds	
			76 / "Pass Offside"	Ball reaches teammate but pass is judged offside	
			77 / "Unknown"	Outcome is unknown (i.e. foul was called while in mid-flight)	
Technique	object (id (integer) / name (text))	ID / Name of the technique of the pass.	104 / "Inswinging"	For inswinging corner kicks.	Recorded only for corner kicks of low or high height.
			105 / "Outswinging"	For outswinging corner kicks.	
			107 / "Straight"	For neither inswinging nor outswinging corner kicks.	
			108 / "Through Ball"	Pass cuts last line of defence	Recorded only when true.

**Event Name: Player Off. Event ID: 27.**

This event describes the time and player coming off the pitch without a sub for any given reason (usually injury). This does not describe a player being substituted off the pitch.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
Permanent	boolean	Added if the player left the game permanently. For scenarios where no subs are left but the player cannot return to pitch due to injury			Recorded only when true.

**Event Name: Player On. Event ID: 26.**

This event describes the time a player returns to the pitch after coming off for some reason.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Pressure. Event ID: 17.**

Pressure events are unique to StatsBomb data and define a player pressuring an attacking player. They have a timestamp, location and duration. These pressure events can be used to measure player activity and can also be used to see consequences of pressure. For more information on how pressures are defined please see Appendix 7.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
counterpress	Boolean	Pressing actions within 5 seconds of an open play turnover.	TRUE		Recorded only when true.

**Event Name: Referee Ball Drop. Event ID: 41.**

Typically following an injury stoppage, this event describes when the referee drops a ball to restart play. Sometimes there are two events recorded at the same time, one for each team.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Shield. Event ID: 28.**

Shield events describe when a player is purposely shielding a ball without any movement. Shield events typically follow a Ball Receipt\* event.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
No additional attributes					

**Event Name: Shot. Event ID: 16.**

Shot events are recorded every time a player attempts to take a shot, regardless of whether or not they successfully took the shot.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
key_pass_id	uuid	Reference to the shot this pass assisted.	e.g. "0052d1b5-e2b0-4629-bbea-c18c884ab103"		Recorded for shots resulting from a key pass.
end_location	array [x,y] or [x,y,z]	End location of the shot.	e.g., (120, 50) or (120, 32.5, 1.2)	See Appendix 2 for more information	Recorded for all shots.

aerial_won	boolean	Added if the shot resulted from an aerial win	TRUE		Recorded only when true.
follows_dribble	boolean	Added if the shot followed a dribble	TRUE	Whether or not this shot comes after a successful dribble by the shooter.	Recorded only when true.
first_time	boolean	Added if the shot was first touch.	TRUE		Recorded only when true.
freeze_frame	array	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 a data frame with a row for each player including their location, team, id, name and position id and name.		Data from the JSON format will have a data frame nested within each shot event. (see Appendix 3 for more documentation)	Recorded only when true.
open_goal	boolean	Added if the shot was taken with an open goal.	TRUE		Recorded only when true.
statsbomb_xg	numeric	The StatsBomb expected goals value calculated for the shot.	e.g., 0.15	Calculated from StatsBomb's own xG model, visit StatsBomb.com and search for articles on the calculation of xG	Recorded for all shots.
deflected	boolean	Added if the shot was deflected	TRUE	Shot was redirected by another player's touch.	Recorded only when true.
technique	object (id (integer) / name (text))	ID / Name of the technique used for the shot.	89 / "Backheel"	A shot that was taken with the heel	Recorded for all shots.
			90 / "Diving Header"	Shot attempted with header while player diving in front of him to reach the ball	
			91 / "Half Volley"	Contact was made off the ground and after a bounce	
			92 / "Lob"	A shot that had a high arc trajectory in order to pass over the opposition player	
			93 / "Normal"	A shot that does not fall into any other technique	
			94 / "Overhead Kick"	Player's back was to goal when taking the shot	
			95 / "Volley"	The ball never touched the ground prior to the shot	
body_part	object (id (integer) / name (text))	ID / Name of the body part used to shoot.	37 / "Head"	Shot attempted with head	Recorded for all shots.
			38 / "Left Foot"	Shot attempted with the left foot	

			70 / "Other"	Other body parts (i.e knee, chest, etc)	
			40 / "Right Foot"	Shot attempted with right foot	
type	object (id (integer) / name (text))	Id / Name for the attribute option specifying the type of shot.	61 / "Corner"	Shot direct from a corner kick	Recorded for all shots.
			62 / "Free Kick"	Shot is from a direct free kick	
			87 / "Open Play"	Shot is not directly from a set-piece	
			88 / "Penalty"	Shot is a penalty kick	
			65 / "Kick Off"	Shot directly from kick off	
outcome	object (id (integer) / name (text))	Id / Name for the attribute option specifying the outcome of the shot.	96 / "Blocked"	A shot that was stopped from continuing by a defender	Recorded for all shots.
			97 / "Goal"	A shot that was deemed to cross the goal-line by officials	
			98 / "Off T"	A shot that's initial trajectory ended outside the posts	
			99 / "Post"	A shot that hit one of the three posts	
			100 / "Saved"	A shot that was saved by the opposing team's keeper	
			101 / "Wayward"	An unthreatening shot that was way off target or did not have enough power to reach the goal line (or a miskick where the player didn't make contact with the ball)	
			115 / "Saved Off T"	A shot that was saved by the goalkeeper but was not on target.	
			116 / "Saved To Post"	If the keeper saves the shot and it bounces off the goal frame	

### Event Name: Starting XI. Event ID: 35.

Starting XI events describe the starting lineup and formation for each team at the start of a period.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
tactics.formation	integer	The formation item describes the formation being used.	e.g., 343	e.g., three defenders four midfielders and three strikers.	Recorded for almost all Starting XI events.
tactics.lineup	array	The lineups array describes the players and their positions.	See Appendix 4 for more information.		Recorded for almost all Starting XI events.

**Event Name: Substitution. Event ID: 19.**

Substitution events describe the player coming on the pitch, the player coming off the pitch and the reason why.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
replacement	object (id (integer) / name (text))	For a substitution, the id / name of the player coming on the pitch. The player details (main event) describe the player coming off.	e.g., 3049 / "Aaron Ramsey"	Player coming onto the pitch	Recorded for all Substitution events.
outcome	object (id (integer) / name (text))	Id / Name for the attribute option specifying the type of substitution.	102 / "Injury"	Substitution is because of an injury.	Recorded for almost all Substitution events.
			103 / "Tactical"	Substitution is because of tactical reasons.	

**Event Name: Tactical Shift. Event ID: 36.**

Tactical Shift events describe any time the team changes their tactics, whether it be a change in lineup or formation.

Attribute	Attribute Type	Attribute Description	Attribute Values	Value Descriptions	Constraints
tactics.formation	integer	The formation item describes the formation being used.	e.g., 343	e.g., three defenders four midfielders and three strikers.	Recorded for almost all Tactical Shift events.
tactics.lineup	array	The lineups array describes the players and their positions.	See Appendix 4 for more information.		Recorded for almost all Tactical Shift events.

Position Number	Position Abbreviation	Position Name
1	GK	Goalkeeper
2	RB	Right Back
3	RCB	Right Center Back
4	CB	Center Back
5	LCB	Left Center Back
6	LB	Left Back
7	RWB	Right Wing Back
8	LWB	Left Wing Back



## Appendix

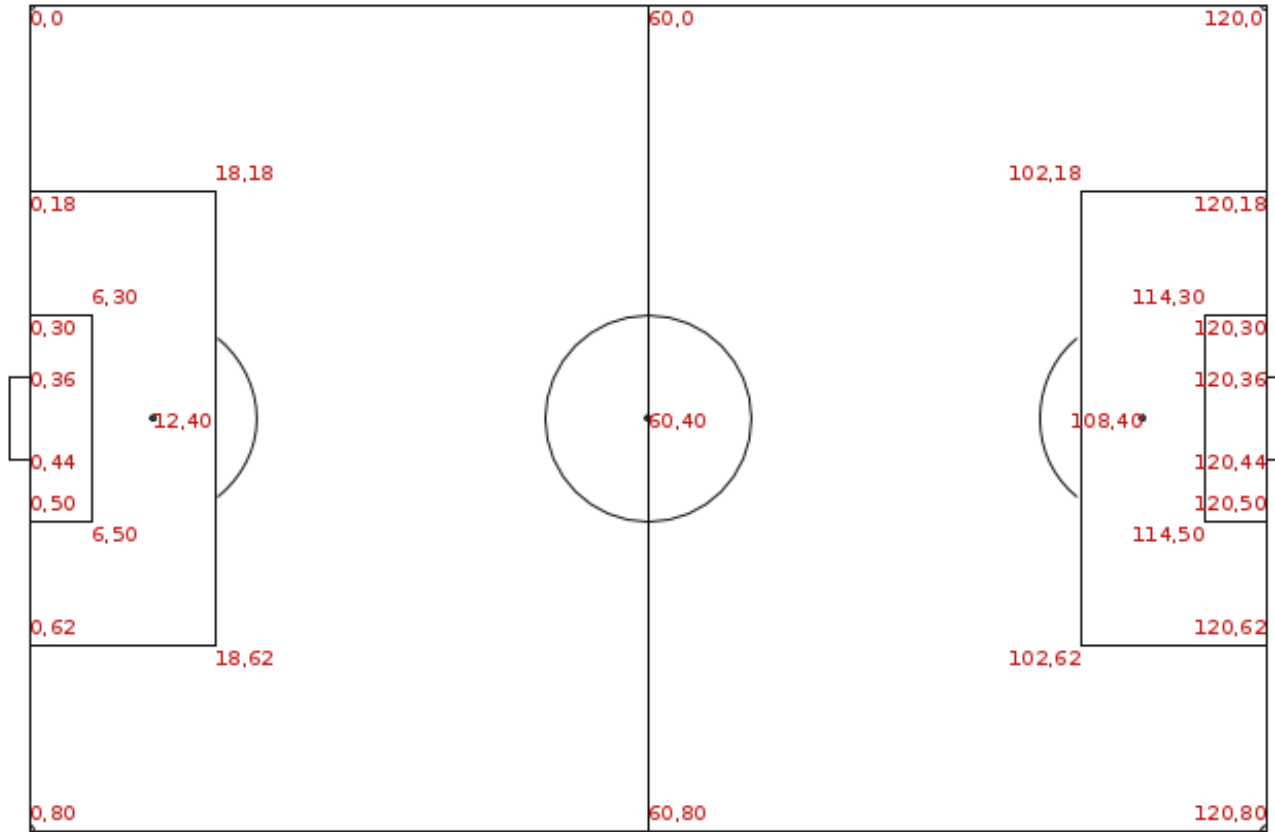
### Appendix 1: Tactical Positions Guide:



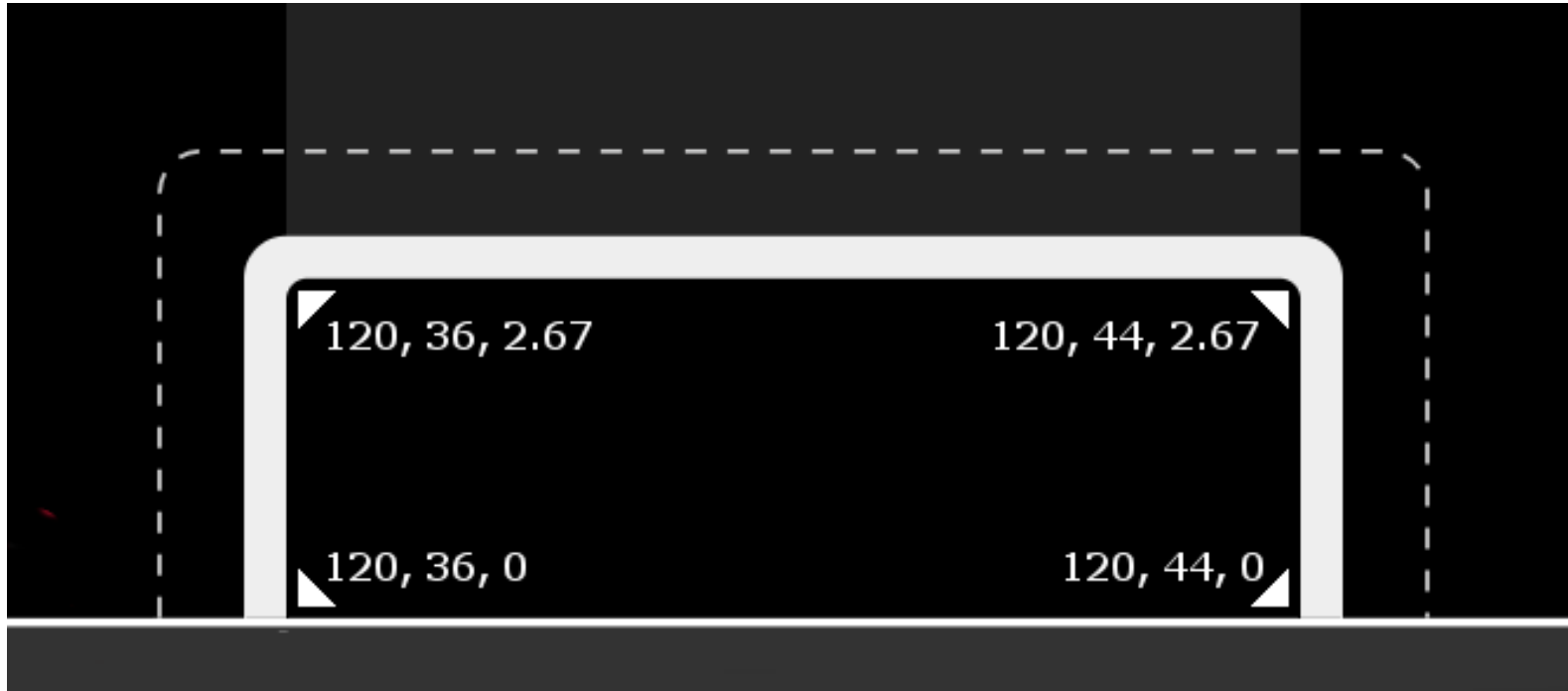
9	RDM	Right Defensive Midfield
10	CDM	Center Defensive Midfield
11	LDM	Left Defensive Midfield
12	RM	Right Midfield
13	RCM	Right Center Midfield
14	CM	Center Midfield
15	LCM	Left Center Midfield
16	LM	Left Midfield
17	RW	Right Wing
18	RAM	Right Attacking Midfield
19	CAM	Center Attacking Midfield
20	LAM	Left Attacking Midfield
21	LW	Left Wing
22	RCF	Right Center Forward
23	ST	Striker
24	LCF	Left Center Forward
25	SS	Secondary Striker

## Appendix 2: Locations

Pitch Coordinates - Coordinates specified as (x, y).



*Goal Coordinates - Coordinates specified as (x, y, z)*



### Appendix 3: Shot 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 freeze\_frame object is structured as follows:

Column	Type	Child	Child Type
location	array [x,y]		
player	object	id /name	integer / text
position	object	id / name	integer / text
teammate	boolean		

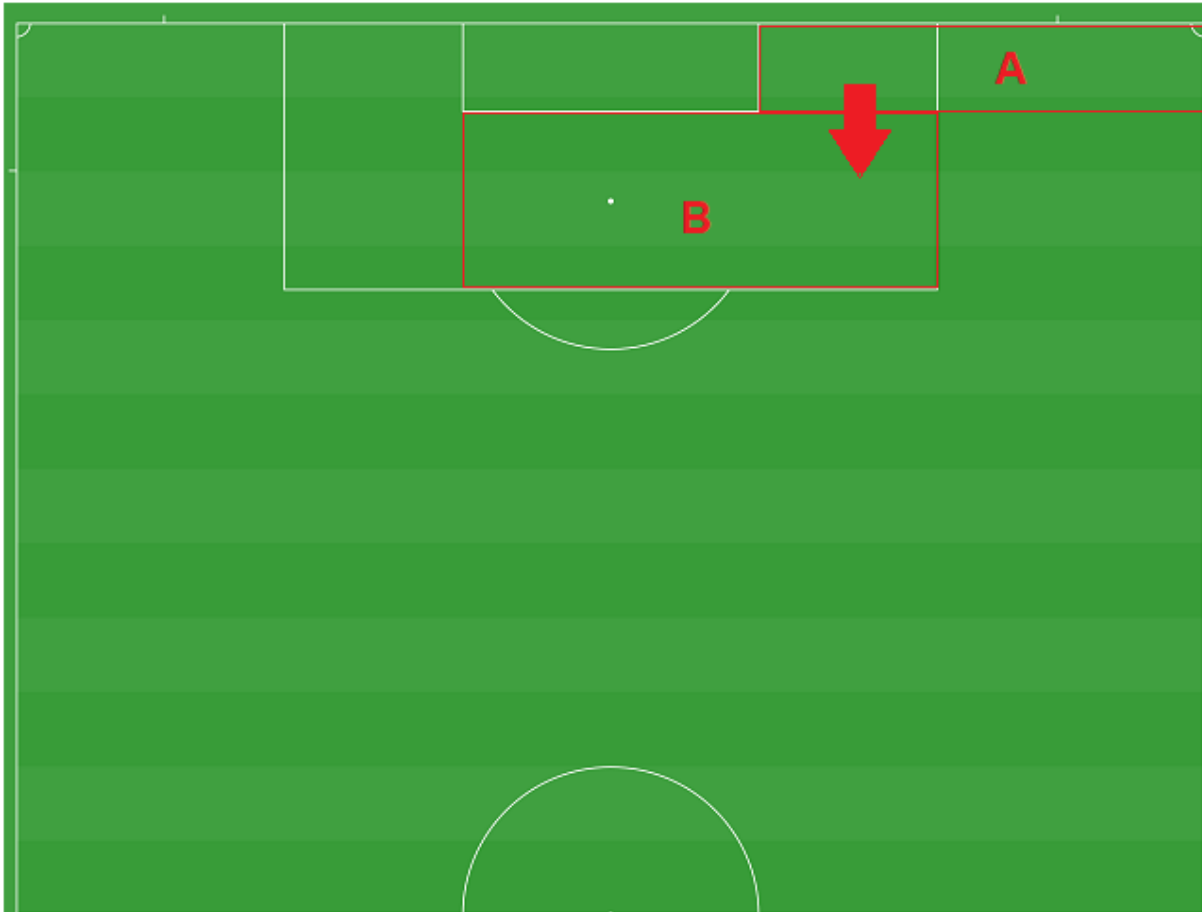
## Appendix 4: Tactics Lineups Objects

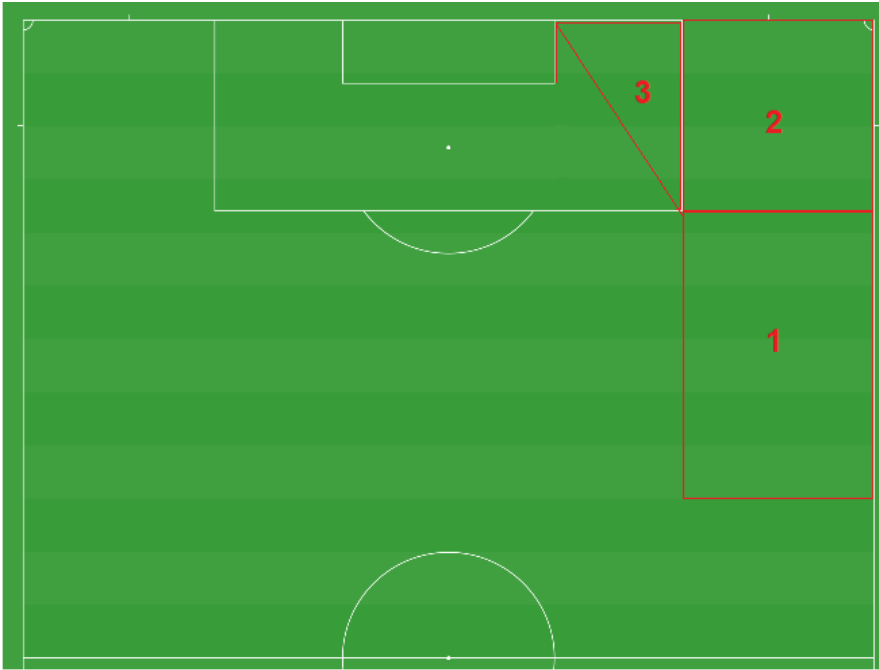
At the beginning of each match, an event is recorded for the tactics and lineups for each team. Each tactics lineups object is structured as follows:

Column	Type	Child	Child Type
jersey_number	integer		
player	object	id / name	integer / text
position	object	id / name	integer / text

## Appendix 5: Cutback

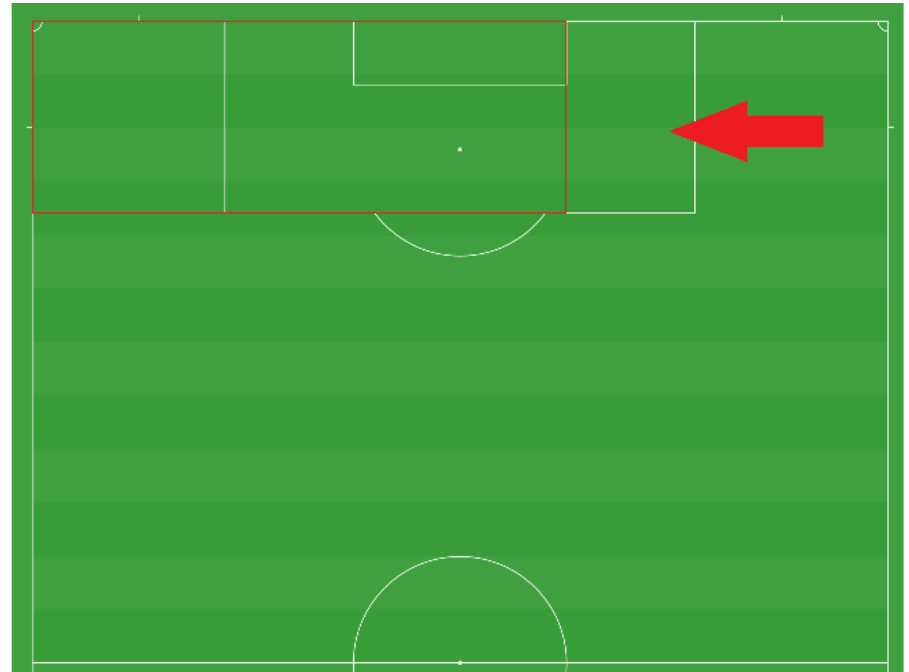
Cutbacks are low or ground passes that originate in zone A (on either side of the pitch) and end in zone B.



**Appendix 6: Cross**

A pass is marked as a cross if it originates from any of the following attacking zones (on either side of the pitch):

And intersects the following zone:



**Appendix 7: Pressure**

Calculated as every on-the-ball event that overlaps the duration of a pressure event. For example, if a pressure event appears before a pass, and the pressure's timestamp plus its duration encompasses the pass's timestamp, that pass is said to have been made under pressure. If a pressure event occurs after a pass, but before the end of the pass (as calculated by using its duration), that pass is said to have been received under pressure.

To see a video of how pressure is recorded, please visit: <https://data.statsbombservices.com/faq>.



## Appendix 8: Competition Stages

Competition Stage ID	Competition Stage Name
1	Regular Season
2	Play-In Round
6	Europa League Play-offs - Semi-finals
8	MLS Cup - Conference Semi-finals
9	3rd Qualifying Round
10	Group Stage
11	Quarter-finals
12	Europa League Play-offs - Finals
13	16th Finals
14	Promotion Play-offs - Final
15	Semi-finals
18	Promotion Play-offs - Semi-finals
19	Preliminary Round
20	2nd Round
21	Europa League Play-offs - Quarter-finals
22	2nd Qualifying Round
23	MLS Cup - Conference Finals
24	Promotion Play-offs - 1st Round
25	3rd Place Final
26	Final
27	Promotion Play-offs - 2nd Round
28	Play-offs
29	1st Qualifying Round
31	Preliminary Round - Semi-finals
33	8th Finals

34	1st Phase
35	Preliminary Round - Final

## Appendix 9: Metadata History

Metadata Item	Version	Note
data_version	1.1.0	See Appendix 11 for details
data_version	1.0.3	See Appendix 11 for details
data_version	1.0.2	See Appendix 11 for details
data_version	1.0.1	See Appendix 11 for details
data_version	1.0.0	See Appendix 11 for details
shot_fidelity_version	2	See Appendix 11 for details
shot_fidelity_version	1 [tag not specified in metadata object]	

## Appendix 10: Shot Fidelity Version Change Log

Shot fidelity version is found in match files. Here is a list of all event data changes between data versions.

### Shot Fidelity Version 2

- Shots, freeze frames and events paired to shots use high fidelity x,y coordinates

### Shot Fidelity Version 1

- All events and freeze frames use standard location granularity.

## Appendix 11: Data Version Change Log

Data version is found in match files. Here is a list of all event data changes between data versions.

### Data Version 1.1

#### Competition Data Updates

- “Gender” added for all competitions.

#### Match Data Updates

- Team section now includes variables for: “Gender”, “Group”, “Country” and “Managers”
- “Match Week” added as an integer denoting the match week in the competition.
- “Competition Stage” added to reference the phase of the competition this particular match is in.
- “Stadium” updated from a name to an object with a name and corresponding country and id.
- “Referee” updated from a name to an object with a name and corresponding country and id.
- The data-version object is no longer displayed as a property of the match.
- Each match has a metadata object containing information about the structure/versions of various data attributes in the match. This includes the data version. Note: the metadata tag can be empty for any match not in an “available” status. For matches that are available the metadata will contain a data version and may contain other attributes.

#### Lineups Data Updates

- “Gender” added for all players in the lineup.
- “Height” added for all players in the lineup.
- “Weight” added for all players in the lineup.
- “Nickname” added for all players in the lineup.

## Event Data Updates

- “Carry” added as an event type. carry.end\_location added as an additional variable to describe the ending location of a carry event
- “counterpress”: an attribute on various defensive events, including: pressure, dribbled past, 50-50, duel, block, interception, and foul committed (not offensive). These are pressing actions within 5 seconds of an open play turnover.
- “under\_pressure”: the definition has been expanded to apply in more situations. So, events which are naturally performed under pressure like duels, dribbles etc, all pick up the attribute, even in the absence of an actual pressure event. Carries can be pressured not just by pressure events, but other defensive events (defined in change 2.) that happen during or at the end of the carry.
- Enhancements to possession chain and counterattack logic.
- “off\_camera” variable no longer only shows when TRUE, but is a boolean on every event.
- “out” boolean variable added for when the outcome of the event is a ball out of bounds.
- “body type” variable added for clearances.
- Additional body types including “No Touch” and “Drop Kick”.
- “technique” variable added for passes, including: “Inswinging”, “Outswinging”, “Straight” and “Through Ball”.
- “through\_ball” variable for passes is now deprecated.
- “late-video-start” variable added for event type “Half Start” when the broadcast video starts after the kick off.
- “early-video-end” variable added for event type “Half End” when the broadcast video ends before the final whistle.
- “match-suspended” variable added for event type “Half End” when the match is suspended typically due to weather.
- “kick-off” is now an option for shot types.
- “Saved To Post” option for shot outcome when the goalkeeper saves the ball into a post.
- “Saved Off Target” option for shot outcome when the goalkeeper saves a shot that would have missed the frame.
- “No Touch” added as a possible attribute for the event type “Dribble” when the attacker fails to touch the ball.
- Additional “Outcome” options for event type “Goal Keeper” including: “Punched Out”, “Lost Out”, “Lost in Play”, “Success Out”, and “Success In Play”.
- Shots, Freeze Frames, and other events paired to Shots have their locations specified more accurately for matches collected at higher fidelity.

### Data Version 1.0.3

- “off\_camera” variable added.
- “camera\_on” and “camera\_off” event-types are now deprecated.



#### **Data Version 1.0.2**

- Bug fixes and QA improvements.

#### **Data Version 1.0.1**

- Pressure events all have a Duration.

#### **Data Version 1.0.0**

- Initial version of StatsBomb Data

*[End of Document]*