

F24 Appendices

Appendix 1 - Event types		
Event ID	Name	Description
1	Pass	Any pass attempted from one player to another - free kicks, corners, throw-ins, goal kicks and goal assists
2	Offside Pass	Attempted pass made to a player who is in an offside position
3	Take On	Attempted dribble past an opponent (excluding when qualifier 211 is present as this is 'overrun' and is not always a duel event)
4	Foul	This event ID shown when a foul is committed resulting in a free kick
5	Out	Shown each time the ball goes out of play for a throw-in or goal kick
6	Corner Awarded	Ball goes out of play for a corner kick
7	Tackle	Tackle = dispossesses an opponent of the ball - Outcome 1 = win & retain possession or out of play, 0 = win tackle but not possession
8	Interception	When a player intercepts any pass event between opposition players and prevents the ball reaching its target. Cannot be a clearance.
9	Turnover	Unforced error / loss of possession - i.e. bad control of ball – Replaced with Unsuccessful Touch + Overrun in recent seasons
10	Save	Goalkeeper event; saving a shot on goal. Can also be an outfield player event with qualifier 94 for blocked shot.
11	Claim	Goalkeeper event; catching a crossed ball
12	Clearance	Player under pressure hits ball clear of the defensive zone or/and out of play
13	Miss	Any shot on goal which goes wide or over the goal
14	Post	Whenever the ball hits the frame of the goal
15	Attempt Saved	Shot saved - this event is for the player who made the shot. Qualifier 82 can be added for blocked shot.
16	Goal	All goals
17	Card	Bookings - will have red, yellow or 2nd yellow qualifier plus a reason
18	Player Off	Player is substituted off
19	Player on	Player comes on as a substitute

20	Player retired	Player is forced to leave the pitch due to injury and the team have no substitutions left
21	Player returns	Player comes back on the pitch
22	Player becomes goalkeeper	When an outfield player has to replace the goalkeeper
23	Goalkeeper becomes player	Goalkeeper becomes an outfield player
24	Condition change	Change in playing conditions
25	Official change	Referee or linesman is replaced
27	Start delay	Used when there is a stoppage in play such as a player injury
28	End delay	Used when the stoppage ends and play resumes
30	End	End of a match period
32	Start	Start of a match period
34	Team set up	Team line up - qualifiers 30, 44, 59, 130, 131 will show player line up and formation
35	Player changed position	Player moved to a different position but the team formation remained the same
36	Player changed Jersey number	Player is forced to change jersey number, qualifier will show the new number
37	Collection End	Event 30 signals end of half. This signals end of the match and thus data collection.
38	Temp_Goal	Goal has occurred but it is pending additional detail qualifiers from Opta. Will change to event 16.
39	Temp_Attempt	Shot on goal has occurred but is pending additional detail qualifiers from Opta. Will change to event 15.
40	Formation change	Team alters its formation
41	Punch	Goalkeeper event; ball is punched clear
42	Good skill	A player shows a good piece of skill on the ball – such as a step over or turn on the ball
43	Deleted event	Event has been deleted – the event will remain as it was originally with the same ID but will be resent with the type altered to 43.
44	Aerial	Aerial duel – 50/50 when the ball is in the air – outcome will represent whether the duel was won or lost
45	Challenge	When a player fails to win the ball as an opponent successfully dribbles past them

47	Rescinded card	This can occur post match if the referee rescinds a card he has awarded
49	Ball recovery	When a player takes possession of a loose ball
50	Dispossessed	Player is successfully tackled and loses possession of the ball
51	Error	Mistake by player losing the ball. Leads to a shot or goals as described with qualifier 169 or 170
52	Keeper pick-up	Goalkeeper event; picks up the ball
53	Cross not claimed	Goalkeeper event; cross not successfully caught
54	Smother	Goalkeeper event; comes out and covers the ball in the box winning possession
55	Offside provoked	Awarded to last defender when an offside decision is given against an attacker
56	Shield ball opp	Defender uses his body to shield the ball from an opponent as it rolls out of play
57	Foul throw-in	A throw-in not taken correctly resulting in the throw being awarded to the opposing team
58	Penalty faced	Goalkeeper event; penalty by opposition
59	Keeper Sweeper	When keeper comes off his line and/or out of his box to clear the ball
60	Chance missed	Used when a player does not actually make a shot on goal but was in a good position to score and only just missed receiving a pass
61	Ball touch	Used when a player makes a bad touch on the ball and loses possession. Outcome 1 – ball simply hit the player unintentionally. Outcome 0 – Player unsuccessfully controlled the ball.
63	Temp_Save	An event indicating a save has occurred but without full details. Event 10 will follow shortly afterwards with full details.
64	Resume	Match resumes on a new date after being abandoned mid game
65	Contentious referee decision	Any major talking point or error made by the referee – decision will be assigned to the relevant team
66	Possession Data	Possession event will appear every 5 mins **No longer recorded in the feed**
67	50/50	New duel - 2 players running for a loose ball - GERMAN ONLY. Outcome 1 or 0.
68	Referee Drop Ball	Delay - ref stops - this to event given to both teams on restart. No Outcome
69	Failed to Block	Attempt to block a shot or pass - challenge lost. Put Through (qualifiers 266) is the winning duel event.

70	Injury Time Announcement	Injury Time awarded by Referee
71	Coach Setup	Coach Type; 1,2,18,30,32,54,57,58,59
72	Caught Offside	New event to just show player who is offside instead of offside pass event
73	Other Ball Contact	This is an automated extra event for DFL. It comes with a tackle or an interception and indicates if the player who made the tackle/interception retained the ball after this action or if the tackle/interception was a single ball touch (other ball contact with type "interception", type "Defensive Clearance" or type " TackleRetainedBall").
74	Blocked Pass	Similar to interception but player already very close to ball
75	Delayed Start	Match start delayed
76	Early end	The match has had an early end
77	Player Off Pitch	Event indicating that a player is now off the pitch

Appendix 2 - Qualifier types

ID	Pass Events	Values	Description (ASSOCIATED TO EVENT TYPE 1)
1	Long ball		Long pass over 32 metres
2	Cross		A ball played in from wide areas into the box
3	Head pass		Pass made with a players head
4	Through ball		Ball played through for player making an attacking run to create a chance on goal
5	Free kick taken		Any free kick; direct or indirect
6	Corner taken	$df_shots['angle^2'] = df_shots['angle'] * df_shots['angle']$	All corners Short corners will feature qualifier 6 but be missing qualifier 2 (cross).
7	Players caught offside	Players caught offside	Player who was in an offside position when pass was made.
8	Goal disallowed		Pass led to a goal disallowed for a foul or offside
106	Attacking Pass		A pass in the opposition's half of the pitch No longer collected as of June 2016
107	Throw-in		Throw-in taken
140	Pass End X	0_100	The x pitch coordinate for the end point of a pass - See Appendix 11
141	Pass End Y	0_100	The y pitch coordinate for the end point of a pass - See Appendix 11
152	Direct		A direct free kick.
155	Chipped		Pass which was chipped into the air
156	Lay-off		Pass where player laid the ball into the path of a teammates run
157	Launch		Pass played from a player's own half up towards front players. Aimed to hit a zone rather than a specific player
168	Flick-on		Pass where a player has "flicked" the ball forward using their head
193	Goal Measure		Essentially a Goal Rating from 1-5 but is only used for a limited about of comps. This was collected from 2013-2015 but is no longer used

195	Pull Back		Player in opposition's penalty box reaches the by-line and passes (cuts) the ball backwards to a teammate
196	Switch of play		Any pass which crosses the centre zone of the pitch and in length is greater than 60 on the y axis of the pitch
210	Assist		The pass was an assist for a shot. The type of shot then dictates whether it was a goal assist or just key pass.
212	Length	Dynamic - length of pass in metres	The estimated length the ball has travelled during the associated event.
213	Angle	0 to 6.28 (Radians)	The angle the ball travels at during an event relative to the direction of play. Shown in radians.
218	2nd assist		Pass was deemed a 2nd assist - created the opportunity for another player to assist a goal
219	Players on both posts		Assigned to a pass event with qualifier 6 indicating if there were defensive players on both posts when a corner was taken No longer collected as of June 2016
220	Player on near post		Assigned to a pass event with qualifier 6 indicating if there was a defensive player on only the near post when a corner was taken No longer collected as of June 2016
221	Player on far post		Assigned to a pass event with qualifier 6 indicating if there was a defensive player on only the far post when corner was taken No longer collected as of June 2016
222	No players on posts		Assigned to a pass event with qualifier 6 indicating if there were no defensive players on either post when a corner was taken No longer collected as of June 2016
223	In-swinger		Corner was crossed into the box swerving towards the goal
224	Out-swinger		Corner was crossed into the box swerving away from the goal
225	Straight		Corner was crossed into the box with a straight ball flight
236	Blocked Pass		Similar to interception but player already very close to ball - instead of touch event in past. Or assigned to the pass to indicate it was blocked
238	Fair Play		Ball kicked out of play for injury etc

240	GK Start		Automated qualifier which appears on all GK passes after keeper collects ball with his hands and then puts it on the ground.
241	Indirect		Shows if indirect freekick is taken
266	Put Through		Attacking player has passed/shot the ball past a defending player who attempted to stop the ball. A “put through “ is always linked with a “failed to block” event. Collected for DFL competitions only between 2013/14 and 2016/17
279	Kick Off	S = kick-off to start a period (first half, second half, first half extra-time, second half extra-time) G = kick-off following a goal	Starting pass - to enable exclusion from passing %
278	Tap		Ball tapped to other player (i.e. for free-kick shot)
287	Over-arm		Indicates over-arm throw out by the goalkeeper
ID	Phase of Possession (DFL specific)	Values	
307	Phase of posession ID		The id for phase of possession for DFL. Related to events (1,2,3,4,7,8,10,11,12,13,14,15,16,41,42,50,54,61,74). Collected for DFL competitions only between 2013/14 and 2016/17
312	Phase of possession start		Indicator that possession has started for DFL. (Related to events 3,7,8,10,11,54,74) Collected for DFL competitions only between 2013/14 and 2016/17
<i>Offside Pass Events</i>			
23	Fast Break		An offside pass which would have started a fast break
297	Follows shot rebound		An offside pass that follwos a rebounded shot
298	Follows shot blocked		An offside pass that follwos a blocked shot
<i>Body Part</i>			
15	Head		Any event where the player used their head such as a shot or a clearance

72	Left footed		Player shot with their left foot
20	Right footed		Player shot with right footed
21	Other body part		Shot was neither via a player's head or foot for example knee or chest
<i>Pattern of Play</i>			
22	Regular play		Shot during open play as opposed to from a set play
23	Fast break		Shot occurred following a fast break situation
24	Set piece		Shot occurred from a crossed free kick
25	From corner		Shot occurred from a corner
26	Free kick		Shot occurred directly from a free kick
29	Assisted		Indicates that there was a pass (assist) from another player to set up the goal opportunity
55	Related event ID	Event_id	This will appear for goals or shots, the related event_id will be that of the assist and thus show the assisting player ID
96	Corner situation		Pass or shot event in corner situation. 25 is used when the goal is direct from corner, 96 relates to 2nd phase attack - NO LONGER USED
97	Direct free		26 will be used for shot directly from a free kick. 97 only used with Opta GoalData (game system 4) but not with full data.
112	Scramble		Goal where there was a scramble for possession of the ball and the defence had an opportunity to clear No longer collected as of June 2016
154	Intentional assist		Shot from an intentional assist i.e. The assisting player intended the pass, no deflection etc
160	Throw-in set piece		Shot came from a throw-in set piece
216	2nd related event ID	Event_id	If there was a 2nd assist, i.e a pass to create the opportunity for the player making the assist. MLS and German Bundesliga 1 & 2.
233	Opposite related event ID		Used for any event where there is the same event for both teams with outcome 1 or 0. This relates the 2 event together, for example aerial duels
<i>Shot Descriptors - ASSOCIATED TO EVENT TYPES 13,14,15,16</i>			

9	Penalty		When attempt on goal was a penalty kick. ALSO used on Event type 4 to indicate a penalty was awarded
28	Own goal		Own goal . Note: Use the inverse coordinates of the goal location
108	Volley		Shot on the volley (ball doesn't bounce before the shot)
109	Overhead		Shot via overhead kick
113	Strong		Shot was subjectively classed as strong
114	Weak		Shot was subjectively classed as weak
115	Rising		Shot was rising in the air No longer collected as of June 2016
116	Dipping		Shot was dipping towards the ground No longer collected as of June 2016
117	Lob		Shot was an attempt by the attacker to play the ball over the goalkeeper and into the goal
120	Swerve Left		Shot which swerves to the left - from attackers perspective
121	Swerve Right		Shot which swerves to the right - from attackers perspective
122	Swerve Moving		Shot which swerves in several directions
133	Deflection		Shot deflected off another player
136	Keeper Touched		Goal where the goalkeeper got a touch on the ball as it went in
137	Keeper Saved		Shot going wide or over the goal but still collected/saved by the goalkeeper with event type 15
138	Hit Woodwork		Any shot which hits the post or crossbar
153	Not past goal line		Shot missed which does not pass the goal line
214	Big Chance		Shot was deemed by Opta analysts an excellent opportunity to score – clear cut chance eg one on one
215	Individual Play		Player created the chance to shoot by himself, not assisted. For example he dribbled to create space for himself and shot.

217	2nd assisted		Indicates that this shot had a significant pass to create the opportunity for the pass which led to a goal
228	Own shot blocked		Player blocks an attacking shot unintentionally from their teammate
230	GK X Coordinate		GK position when goal or shot hit post
231	GK Y Coordinate		GK position when goal or shot hit post
249	Temp_ShotOn		Shot has occurred but it is pending additional detail qualifiers from Opta.
250	Temp_Blocked		Block has occurred but it is pending additional detail qualifiers from Opta.
251	Temp_Post		Shot has hit the post but it is pending additional detail qualifiers from Opta.
252	Temp_Missed		Shot has missed but it is pending additional detail qualifiers from Opta.
253	Temp_Miss Not Passed Goal Line		Shot has missed but not gone past the end line but it is pending additional detail qualifiers from Opta.
254	Follows a Dribble		A goal followed a dribble by the goalscorer
261	1 on 1 Chip		Goal scored via a 1 on 1 chip over the goalkeeper
262	Back Heel		Goal scored via a back heel
263	Direct Corner		Shot or goal directly from a corner
280	Fantasy Assist Type		Related Event to - PASS_LOST, BLOCKED_SHOT, ATTEMPT_SAVED, POST, FREE_KICK_WON, HANDBALL_WON, OWN_GOAL, PENALTY_WON
281	Fantasy Assisted By		Player making assist
282	Fantasy Assist Team		Team making assist
284	Duel		Indicates Blocked Shot is a duel
96	Corner situation		Pass or shot event in corner situation. 25 is used when the goal is direct from corner, 96 relates to 2nd phase attack - NO LONGER USED
110	Half Volley		Shot on the half volley (hit immediately after the ball bounces) - NO LONGER USED
111	Diving Header		Shot where the player dives to head the ball - NO LONGER USED

118	One Bounce		Shot where the ball bounced once on its way towards the goal - NO LONGER USED
119	Few Bounces		Shot where the ball bounced several times on its way to the goal - NO LONGER USED
316	Passed Penalty		Player elected to pass the ball to a team-mate when taking a penalty instead of trying a direct shot on goal
328	First Touch		The shot was attempted by the player first time without another touch to control the ball

Shot Location Descriptors

16	Small box-centre		Zone of the pitch - See appendix 13
17	Box-centre		Zone of the pitch - See appendix 13
18	Out of box-centre		Zone of the pitch - See appendix 13
19	35+ centre		Zone of the pitch - See appendix 13
60	Small box-right		Zone of the pitch - See appendix 13
61	Small box-left		Zone of the pitch - See appendix 13
62	Box-deep right		Zone of the pitch - See appendix 13
63	Box-right		Zone of the pitch - See appendix 13
64	Box-left		Zone of the pitch - See appendix 13
65	Box-deep left		Zone of the pitch - See appendix 13
66	Out of box-deep right		Zone of the pitch - See appendix 13
67	Out of box-right		Zone of the pitch - See appendix 13
68	Out of box-left		Zone of the pitch - See appendix 13
69	Out of box-deep left		Zone of the pitch - See appendix 13
70	35+ right		Zone of the pitch - See appendix 13
71	35+ left		Zone of the pitch - See appendix 13
73	Left		Hit the left post or missed left
74	High		Hit crossbar or missed over
75	Right		Hit right post or missed right
76	Low left		Zone of the goalmouth - See appendix 12
77	High left		Zone of the goalmouth - See appendix 12

78	Low centre		Zone of the goalmouth - See appendix 12
79	High centre		Zone of the goalmouth - See appendix 12
80	Low right		Zone of the goalmouth - See appendix 12
81	High Right		Zone of the goalmouth - See appendix 12
82	Blocked		Zone of the goalmouth - See appendix 12
83	Close left		Zone of the goalmouth - See appendix 12
84	Close right		Zone of the goalmouth - See appendix 12
85	Close high		Zone of the goalmouth - See appendix 12
86	Close left and high		Zone of the goalmouth - See appendix 12
87	Close right and high		Zone of the goalmouth - See appendix 12
100	Six yard blocked		Shot blocked on the 6 yard line
101	Saved off line		Shot saved on the goal line
102	Goal mouth y co-ordinate	0-100	Y Co-ordinate of where a shot crossed goal line - see Appendix 12
103	Goal mouth z co-ordinate	0-100	Z Co-ordinate for height at which a shot crossed the goal line - see Appendix 12
146	Blocked x co-ordinate		The x pitch coordinate for where a shot was blocked
147	Blocked y co-ordinate		The y pitch coordinate for where a shot was blocked
276	Out on sideline		Shot missed and went out on the sideline. Please note that in this context the accompanying Blocked qualifiers (q 147 and q 153) are where the ball goes out on the touchline.
300	Solo run		Related to event 16 - to show the goal came from a solo run
ID	Foul & Card Events	Values	Description - ASSOCIATED TO EVENT TYPE 4 except for cards
10	Hand		Handball
11	6-seconds violation		Goalkeeper held onto the ball longer than 6 seconds resulting in a free kick
12	Dangerous play		A foul due to dangerous play
13	Foul		All fouls
31	Yellow Card		Player shown a yellow card

32	Second yellow		Player receives a 2nd yellow card which automatically results in a red card
33	Red card		Player shown a straight red card
34	Referee abuse		Card shown to player because of abuse to the referee
35	Argument		Card shown to player because of an argument
36	Violent conduct		Card shown to player because of violent conduct.
37	Time wasting		Card shown to player for time wasting
38	Excessive celebration		Card shown to player for excessively celebrating a goal
39	Crowd interaction		Card shown to player because of contact or communication with the crowd
40	Other reason		Card shown for unknown reason
95	Back pass		Free kick given for an illegal pass to the goalkeeper which was collected by his hands or picked up
132	Dive		Free kick or card event; player penalised for simulation
158	Persistent infringement		Card shown to player for persistent fouls
159	Foul and abusive language		Card shown for player using foul language
161	Encroachment		Card shown for player who moves within 10 yards of an opponent's free kick
162	Leaving field		Card shown for player leaving the field without permission
163	Entering field		Card shown for player entering the field during play without referee's permission
164	Spitting		Card shown for spitting
165	Professional foul last man		Card shown for a deliberate tactical foul
166	Professional foul handball		Card shown to an outfield player for using their hand to keep the ball out of the goal
171	Rescinded card		Referee rescind a card post match
172	No impact on timing		Player booked on bench but who hasn't played any minutes in the match

184	Dissent		Card shown when a player does not obey referee instructions
191	Off the ball foul		Foul committed by and on a player who is not in possession of the ball
192	Block by hand		Outfield player blocks a shot with their hand
241	Indirect		Shows if indirect foul is awarded
242	Obstruction		Foul committed is for obstruction
243	Unsporting Behaviour		Card shown for unsporting behaviour
244	Not Retreating		Card shown for player not retreating at a set-piece
245	Serious Foul		Card shown for player committing a serious foul
264	Aerial Foul		Foul committed aerially
265	Attempted Tackle		Foul committed by an attempted tackle
289	Denied goal-scoring opp		Foul committed by a player denying a goal-scoring opportunity
294	Shove/push		Foul given for a shove/push
295	Shirt Pull/Holding		Foul given for shirt pull/holding
296	Elbow/Violent Conduct		Foul given for elbow/violent conduct
313	Illegal Restart		Foul given for an illegal restart
314	End of offside		Foul given for shot hitting offside player
<i>ID</i>	<i>Ball Touch Events</i>	<i>Values</i>	<i>Description - ASSOCIATED TO EVENT TYPE 61 & 73</i>
228	Own Shot Blocked		Player blocks an attacking shot unintentionally from their teammate
238	Fair Play		Ball kicked out of play for injury etc
291	Other Ball Contact Type		This is an automated extra event for DFL. It comes with a tackle or an interception and indicates if the player who made the tackle/interception retained the ball after this action or if the tackle/interception was a single ball touch (other ball contact with type "interception", type "Defensive Clearance" or type "TackleRetainedBall"). Collected during 2013/14 season only
<i>ID</i>	<i>Goalkeeper Events</i>	<i>Values</i>	<i>Description - EVENT TYPES 10,11,12</i>

190	From shot off target		Used with Event 10. Indicates a shot was saved by the goalkeeper but in fact the shot was going wide and not on target
88	High claim		Event 11 Claim - Goalkeeper claims possession of a crossed ball
89	1 on 1		When attacker was clear with no defenders between him and the goalkeeper (can be associated with 10, 11, 12, 13, 14, 15 or 16)
90	Deflected save		Event 10 Save; when goalkeeper saves a shot but does not catch the ball No longer collected as of June 2016
91	Dive and deflect		Event 10 Save; when goalkeeper saves a shot while diving but does not catch the ball No longer collected as of June 2016
92	Catch		Event 10 Save; when goalkeeper saves a shot and catches it No longer collected as of June 2016
93	Dive and catch		Event 10 Save; when goalkeeper saves a shot while diving and catches it No longer collected as of June 2016
123	Keeper Throw		Pass event - goalkeeper throws the ball out
124	Goal Kick		Pass event – goal kick
128	Punch		Clearance by goalkeeper where he punches the ball clear
139	Own Player		Shot saved by goalkeeper that was deflected by a defender
173	Parried safe		Goalkeeper save where shot is parried to safety
174	Parried danger		Goalkeeper save where shot is parried but only to another opponent
175	Fingertip		Goalkeeper save using his fingertips
176	Caught		Goalkeeper catches the ball
177	Collected		Goalkeeper save and collects possession of the ball
178	Standing		Goalkeeper save while standing
179	Diving		Goalkeeper save while diving
180	Stooping		Goalkeeper saves while stooping
181	Reaching		Goalkeeper save where goalkeeper reaches for the ball
182	Hands		Goalkeeper saves with his hands

183	Feet		Goalkeeper save using his feet –
198	GK hoof		Goalkeeper drops the ball on the ground and kicks it long towards a position rather than a specific player
199	Gk kick from hands		Goalkeeper kicks the ball forward straight out of his hands
237	Low		Indicates a low goal kick
267	Right Arm		Goalkeeper uses his right arm to make the save Collected during 2013/14 season only
268	Left Arm		Goalkeeper uses his left arm to make the save Collected during 2013/14 season only
269	Both Arms		Goalkeeper uses both of his arms to make the save Collected during 2013/14 season only
270	Right Leg		Goalkeeper uses his right leg to make the save Collected during 2013/14 season only
271	Left Leg		Goalkeeper uses his left leg to make the save Collected during 2013/14 season only
272	Both Legs		Goalkeeper uses both legs to make the save Collected during 2013/14 season only
273	Hit Right Post		Hit right post after save
274	Hit Left Post		Hit left post after save
275	Hit Bar		Hit bar after save
232	Unchallenged		Goalkeeper smothers ball but is not under any challenge
301	Shot from cross		Related to event type 15 to show it was an attempted save from a shot that came from a cross
<i>ID</i>	<i>Penalty Events</i>	<i>Values</i>	<i>Description - qualifiers for penalty faced (event type 58)</i>
186	Scored		Goalkeeper event - shots faced and not saved resulting in goal
187	Saved		Goalkeeper event - shots faced and saved
188	Missed		Goalkeeper event - shot faced which went wide or over. Did not require a save
<i>ID</i>	<i>Defensive Events</i>	<i>Values</i>	<i>Description</i>
14	Last line		When a player makes a defensive action and they are the last person between the opponent and the goal

94	Def block		Defender blocks an opposition shot. Shown with event 10.
167	Out of play		Tackle or clearance event sent the ball out of play
169	Leading to attempt		A player error, event 51, which leads to an opponent shot on goal
170	Leading to goal		A player error, event 51, which lead to an opponent scoring a goal
185	Blocked cross		Blocked cross
239	By Wall		Freekick situation blocked by wall – need associated outfielder hit
<i>ID</i>	<i>Duel Events</i>	<i>Values</i>	<i>Description - Associated to Event Types 3,4,7,44,45,54,69</i>
285	Defensive		Indicates a defensive duel
286	Offensive		Indicates an offensive duel
<i>ID</i>	<i>Take On Event</i>	<i>Values</i>	<i>Description - Associated to event type 3</i>
211	Overrun		Take on where the player attempting overhits the ball and it runs away from them out of play or to an opponent
<i>ID</i>	<i>Possession Data Events</i>	<i>Values</i>	<i>Description - associated to event type 66</i>
234	Home Team Possession		Possession % in last 5 mins
235	Away Team Possession		Possession % in last 5 mins
288	Out of Play Secs		Amount of time the ball was out of play in the last 5 minutes
<i>ID</i>	<i>Line Up/Subs/Formation</i>	<i>Values</i>	<i>Description - ASSOCIATED WITH EVENT TYPES 32, 34, 35, 36, 40, 71</i>
30	Involved	Player ID's in line up	This will show all players in the starting line up and available as a substitute
41	Injury		Substitution, event 18, because of injury
42	Tactical		Substitution, event 18 for tactical reasons
44	Player position	Dynamic	Goalkeeper, Defender, Midfielder, Forward or Substitute. These are the playing positions associated with each player for the specific match they are playing in.

59	Jersey number	Shirt number of player(s)	This will be shown for substitutions, line ups, line up changes
130	Team formation	Formation ID	See appendix 14
131	Team player formation	1 to 11	Player position within a formation - 'See appendix 14
145	Formation slot	1 to 11	Formation position of a player coming on - see appendix 14
194	Captain	Player ID	ID of the player who is the team captain
197	Team kit	Kit ID	Kit of the team
283	Coach ID	Coach ID	ID of the team coach
290	Coach Types	1,2,18,30,32,54,57,58,59	Shows Coaches and involved roles
292	Detailed Position ID		<p>Associated to event type 19, this value refers to the position the player comes on in</p> <p>1 - Goalkeeper</p> <p>2 - Wing Back</p> <p>3 - Full Back</p> <p>4 - Central Defender</p> <p>5 - Defensive Midfielder</p> <p>6 - Attacking Midfielder</p> <p>7 - Central Midfielder</p> <p>8 - Winger</p> <p>9 - Striker</p> <p>10 - Second Striker</p>
293	Position Side ID		<p>Associated to event type 19, this value refers to the side the player comes on in</p> <p>1 - Left</p> <p>2 - Right</p> <p>3 - Centre</p> <p>4 - Left/Centre</p> <p>5 - Centre/Right</p>

			6 - Left/Centre/Right
			7 - Left/Right
319	Captain change		An indicator to confirm that the team has changed their captain
<i>ID</i>	<i>Referee</i>	<i>Values</i>	<i>Description</i>
50	Official position	1, 2, 3, 4	Referee, Linesman#1, Linesman#2, Forth official
51	Official ID	Official ID	Unique ID for the official
200	Referee stop		Referee stops play
201	Referee delay		Delay in play instructed by referee
208	Referee Injury		Referee injured
247	Offside		Contentious decision relating to offside
248	Goal Line		Contentious decision relating to ball crossing the goal line
<i>ID</i>	<i>Stoppages</i>	<i>Values</i>	<i>Description - Event Type 27</i>
53	Injured player id	ID of player injured	ID of the player who is injured and causing a delay in the game
202	Weather problem		Bad weather stops or interrupts play
203	Crowd Trouble		Trouble within the crowd stops or delays play
204	Fire		Fire with the stadium stops or delays play
205	Object thrown on pitch		Object throw from the crowd lands on the pitch and delays play
206	Spectator on pitch		Spectator comes onto the pitch and forces a delay in play
207	Awaiting officials decision		Given to an event/delay where the referee still has to make a decision
208	Referee injury		Referee sustained injury causing stoppage in play
226	Suspended		Game is has not finished but is suspended
227	Resume		Game has resumed after being suspended mid-way through on a previous date
246	Drinks Break		Game delayed due to drinks break
299	Clock affecting		Related to event types 27 and 28 to indicate the delay is affecting the match clock
303	Floodlight failure		Related to event type 303 to show the delay is due to a floodlight failure
ID	Early End	Values	Related to event type 76

54	End cause	0 = Normal 1 = Golden Goal 2 = Weather 3 = Crowd trouble 4 = Insufficient players on the pitch 5 = Floodlight failure 6 = Frozen pitch 7 = Waterlogged pitch 8 = Suspended 99 = Other reason 100 = Unknown 101 = No events	The relating value that has caused the match to end early
226	Match suspended		Match has been suspended
227	Resume		Match has resumed
<i>ID</i>	<i>General</i>	<i>Values</i>	<i>Description</i>
57	End type	0, 1	Related to event type 30, 1 indicates when it is the end of collection (the End event has a period_id = 14, 'Post Game')
127	Direction of Play		Related to event type 32, this signifies the actual direction of play in relation to the TV cameras. X/Y coordinates however are ALWAYS normalized to Left to Right.
144	Explanation of Deleted Event		Related to event type 34, this qualifier is used to inform you which match action action has been deleted - the number within the value tag will relate to Event Type
189	Not visible		The event occurred off camera and was not seen by the analyst (usually due to a replay being shown)
209	Game end		Related to event type 30, signifies End event is at the end of the match
229	Post-match complete		Confirmation that the game has been reviewed and Opta post-match quality control has been completed
277	Minutes		Number of minutes of injury time given by the referee
302	Checks complete		Collection of the game has been completed and initial post-match checks have been carried out by analyst
308	Goes to extra time		Related to event type 30, match has went to extra time
309	Goes to penalties		Related to event type 30, match has gone to penalties
325	Abandonment to Follow		Match has been abandoned and the end event (type 30) will be soon followed by the information regarding the abandonment

<i>ID</i>	<i>General</i>	<i>Values</i>	<i>Description - related to Contentious Referee Decision Type 65</i>
329	VAR - Goal		Video Assistant Referee is investigating a potential goal
330	VAR - Penalty Awarded		Video Assistant Referee is investigating a potential penalty
331	VAR - Penalty not awarded		Video Assistant Referee is investigating a potential penalty that was originally not awarded
332	VAR - Red Card		Video Assistant Referee is investigating a potential red card
333	VAR - Mistaken Identity		Video Assistant Referee is investigating a potential case of mistaken identity
334	VAR - Other		Video Assistant Referee is investigating another matter
335	Referee Decision Confirmed		The decision has been confirmed
336	Referee Decision Cancelled		The decision has been cancelled
<i>ID</i>	<i>Conditions</i>	<i>Values</i>	<i>Description</i>
45	Temperature	1, 2, 3, 4, 5	Very cold, cold, pleasant, warm, hot - NO LONGER USED
46	Conditions	1, 2, 3, 4	Wind, rain, fog, snow/hail
47	Field Pitch	1, 2, 3, 4, 5	Water logged pitch, wet pitch, damp pitch, normal pitch, dry
48	Lightings	1, 2, 3	Flood lights, bad visibility, natural lights
49	Attendance Figure	Dynamic	Number of people in crowd
255	Open Roof	Dynamic	Whether the roof is open
256	Air Humidity	Dynamic	Dynamic
257	Air Pressure	Dynamic	The air pressure
258	Sold Out	Dynamic	Whether the game is sold out
259	Celsius degrees	Dynamic	The temperature
260	Floodlight	Dynamic	Whether the game is floodlit
<i>ID</i>	<i>Ball Touch Events</i>	<i>Values</i>	<i>Description - Associated to Event Type 74</i>
56	56	Zone	Back, Left, Center, Right

285	Defensive		Indicates a defensive duel
233	Opposite related event ID		Used for any event where there is the same event for both teams with outcome 1 or 0. This relates the 2 event together, for example aerial duels
ID	Player off Pitch	Values	Description - related to event type 77
41	Injury		Player off pitch due to injury
304	Ball In Play		Player off pitch but ball in play
305	Ball Out of Play		Ball out of play due to player being off pitch
306	Kit change		Player off pitch for kit change
310	Player goes out		Player goes out of pitch
311	Player comes back		Player comes back onto pitch
ID	Qualifier		Description - relates to all event types
320	Extra flag for checker		Additional flag for checker (FOR INTERNAL USE ONLY)

Appendix 3 - Useful Queries

English	Type_id	outcome	qualifier_id	Extra info	EXCLUDING EVENTS WITH THESE QUALIFIERS:
passes total	1	-	-	Include short corners where qualifier 6 is present but not qualifier 2	2, 107, 123
Passes successful	1	1			2, 107, 123
passes unsuccessful	1	0	-		2, 107, 123
Crosses Total (open play)	1	-	2		5,6
Successful Crosses Total (open)	1	1	2		5,6
Unsuccessful Crosses Total (excl corners & Free kicks)	1	0	2		5,6
assists total *	16	1	29,55	Value of 55 = event_id of the assisting pass	
key passes total *	13,14,15,60	-	29,55	Value of 55 = event_id of the key pass	
offensive passes total	1	-		If (x < end_x)	2, 107, 123,
offensive passes won	1	1		If (x < end_x)	2, 107, 123,
offensive passes lost	1	0		If (x < end_x)	2, 107, 123,
defensive/backward passes	1	-		If (x > end_x)	2, 107, 123,

sideway passes total	1	-		If (x = end_x)	2, 107, 123,
long passes total	1	-	1		2, 107, 123,
long passes won	1	1	1		2, 107, 123
long passes lost	1	0	1		2, 107, 123
aerial total	44,4 with qualifier 264	-			
aerial won	44,4 with qualifier 264	1			
aerial lost	44,4 with qualifier 264	0			
ground duels total	3,4 (ignore qualifier 264),7,45,54,50	-			
ground duels won	3,4 (ignore qualifier 264),7,54	1			
ground duels lost	3,4 (ignore qualifier 264),7,45,50	0 (except event type 50 which is always =1)			
Free kicks taken total	1	-	5		
Fouls total	4	-			
Fouls won	4	1			
Fouls conceded	4	0			
handball conceded	4	0	10		
corners total	1	-	6	Crossed corners include qualifier 2, short corner without qualifier 2	
corners into box - successful	1	1	6	If (83 < end_x < 100) If (21 < end_y < 78.9)	

corners into box - unsuccessful	1	0	6	If (83 < end_x < 100) If (21 < end_y < 78.9)	
interceptions	8	-			
tackles won	7	1 or 0		Outcome 1 – tackle won and possession won or ball went out of play. Outcome 0 – only tackle won no possession won	
tackles lost - challenge	45	0			
saves total	10	1			
save (block by outfielder)	10	1	94		
<i>claim (goalkeeper catches cross)</i>	11	1			
clearance lost	12	0		as of October 2016, outcome="0" is no longer found on Clearance events	
headed clearance won	12	1	15		
headed clearance lost	12	0	15	as of October 2016, outcome="0" is no longer found on Clearance events	
Total shots	13,14,15,16	-			28 (own goals)
shots on target	15,16				28 (own goals), 82 (blocked shots)
shots off target	13,14				
Goals	16	1			
Goals from open play	16	1	22		

Goals from set plays	16	1	24		
Goals from penalties	16	1	9		
Own Goals	16	1	28	Team_id will be the team	
headed shots on target	15,16	-	15		82 (blocked shots)
headed shots total	13,14,15,16,24	-	15		
headed shots off target	13,14	-	15		
shots blocked by outfielder	15	-	82		
Total touches	All events with these type IDs: 1, 2, 3, 4 (outcome = 1), 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 41, 42, 50, 54, 61, 73, 74	All	All		
Successful take on (dribble)	3	1			
Unsuccessful take on (dribble)	3	0		Qualifier 211 indicates an "overrun" which is not always a duel event. Optional to include these.	
Fouls won	4	1			
Fouls conceded	4	0			
Penalty conceded	4	0	9		
Yellow card	17	-	31		
2nd Yellow Cards	17	-	32		
Red Cards	17	-	33		

Appendix 4 - Assist and keypass interpretation

Event ID	Name	Description

When qualifier="55" is present, then look for its corresponding value=""; this will show you the value of the event_id="" to look at to find information. It is basically telling you that the shot on goal was assisted (in this case a 'keypass') by a pass and it is telling you where to look to find the pass details. For example:

```
<Event id="783279345" event_id="170" type_id="1" period_id="1" min="20"
sec="33" player_id="19645" team_id="52" outcome="1" x="98.0" y="65.9"
keypass="1" timestamp="2011-08-13T15:21:16.403" last_modified="2011-08-
13T17:21:17">
<Q id="1360104517" qualifier_id="140" value="95.7" />
<Q id="716687577" qualifier_id="154" />
<Q id="1024698286" qualifier_id="141" value="69.8" />
<Q id="548528358" qualifier_id="213" value="2.3" />
<Q id="1464195139" qualifier_id="212" value="3.6" />
<Q id="811964232" qualifier_id="56" value="Center" />
<Q id="629946245" qualifier_id="210" />
</Event>
```

```
<Event id="1079282470" event_id="171" type_id="15" period_id="1"
min="20" sec="35" player_id="2019" team_id="52" outcome="1" x="95.7"
y="69.8" timestamp="2011-08-13T15:21:17.559" last_modified="2011-08-
13T17:21:18">
<Q id="1372749641" qualifier_id="76" />
<Q id="1476860249" qualifier_id="20" />
<Q id="607536004" qualifier_id="102" value="53.5" />
<Q id="852431923" qualifier_id="65" />
<Q id="951864007" qualifier_id="154" />
<Q id="1904271995" qualifier_id="56" value="Center" />
<Q id="995057860" qualifier_id="103" value="4.2" />
<Q id="1206524667" qualifier_id="146" value="99.7" />
<Q id="1896231395" qualifier_id="22" />
<Q id="119954813" qualifier_id="147" value="53.8" />
<Q id="432940257" qualifier_id="29" />
<Q id="2000327362" qualifier_id="55" value="170" />
</Event>
```

So you can see that the value attribute with qualifier_id="55" is telling you to look at event_id="170" from the preceding event.

By looking at event_id="170" you can see this was a pass (type_id="1") and qualifier_id="55" tells you that it assisted the shot on goal that was saved(type_id="15").

Note that keypass="1" indicates a pass that led directly to a shot on goal (but not a goal) and assist="1" denotes a pass that led directly to a shot that was a goal.

Appendix 5 - The <Event> tag

Event ID	Name	Description

Some of the attributes within the <Event> tag can cause confusion when it comes to interpreting their meanings and uses.

An example:

```
<Event id="2044318208" event_id="153" type_id="5" period_id="1" min="19"
sec="31" player_id="49396" team_id="368" outcome="1" x="-2.0" y="53.3"
timestamp="2012-06-23T20:04:45.40" last_modified="2012-06-23T20:04:45">
```

Definitions:

id="2044318208" This is the absolute unique integer that we assign to each individual match event and it can be used to database the event and search at a later date.

event_id="153" This is the reference to the order of the match events within this match only and the count runs simultaneously for each team.

For example (NB in a real F24b match file, the two event_id="1" attributes are actually the team line-ups, so treat the below example as merely theory for illustrative purposes):

Team A's first match event is a successful pass from player 1 to player 2, so this is event_id="1"; the second event is another successful pass from player 2 to player 3, so this is event_id="2"; the third event is an unsuccessful pass from player 3 to player 4 as it was intercepted by the opposite team, so the event_id count stops at "2" for Team A (until they get the ball back in possession, at which point their count will start again at "3"). Now that Team B have the ball, let's say there is a successful pass from their player 1 to their player 2, so Team B's event_id count begins at "1", then there's another successful pass from their player 2 to player 3, so this is event_id="2" ... this alternate ascending count continues through the match for both teams as their number of match events increase.

timestamp="2012-06-23T20:04:45.40" This is the timestamp that relates to the date and time that the event occurred within the match.

last_modified="2012-06-23T20:04:45" This relates to the time that the event was last modified by our analysts, for example an event could be edited, deleted or a new one inserted.

*Important note: whilst at first glance event_id looks as though it can be used to order each team's match events chronologically, there are sometimes cases that after our analysts have reviewed each

match, that the timestamp of the event can be tweaked. In which case this can knock the event_id's out of order (eg instead of event_id="1", then event_id="2" and event_id="3", it could change to event_id="1", then event_id="3" and event_id="2").

So please be aware that you should always order events by the following attributes (in this order):

team_id; then
period_id; then
min; then
sec; and then
timestamp.

Appendix 6 - How events are deleted

Event ID	Name	Description

An example of a deleted event will look something like this in the feed:

```
<Event id="328486810" event_id="26" type_id="43" period_id="1" min="4"
sec="8" player_id="2399" team_id="110" outcome="1" x="0.0" y="0.0"
timestamp="2010-12-04T15:04:17.278" last_modified="2010-12-04T15:04:34">
<Q id="19756363" qualifier_id="56" value="Back" />
<Q id="371368182" qualifier_id="144" value="50" />
</Event>
```

Where type_id="43" describes this event as one that has been deleted from the game file. qualifier_id="144" is used to inform you about the type of match action that was deleted, in this case value="50" describes the deleted event as one that was a 'dispossession' event.

If you database each of the F24 match files that we send as the game progresses, when a deletion occurs, you will be able to search id="328486810" from the previous F24 files you have received during the game.

You will then be able to locate the specific event from a previously delivered match file, which would have looked something like this:

```
<Event id="328486810" event_id="26" type_id="50" period_id="1" min="3"
sec="37" player_id="2399" team_id="110" outcome="1" x="65.3" y="2.7"
timestamp="2010-12-04T15:03:47.195" last_modified="2010-12-04T15:03:47">
<Q id="313977382" qualifier_id="56" value="Right" />
</Event>
```

*This can only be achieved if you database each F24 match feed as it is delivered live. If not and you allow each F24 match feed to be overwritten with every new delivery, then the only evidence that you will see that there was a deleted event is by the inclusion of the type_id="43" attribute.

Notes:

Once we delete an event, the associated event's data will be removed from the feed and so this will only be visible in the feeds that were produced before the event was deleted.

The value of the event_id="" attribute remains associated with its deleted event and the ascending count continues to increase in just the same way as if it were any other type_id. So for example, event_id="1", event_id="2" and event_id="3" which could relate to pass, pass and pass might then become; pass, deleted event and pass.

Appendix 7 - How events are edited/modified

Event ID	Name	Description

We can edit events either live in-play or during our post-match data verification checks; these can be things such as slight player position changes in formations, or the official time of a goal adjusted by a couple of seconds etc.

To associate an event as being edited, we make use of the last_modified attribute eg:

```
last_modified="2010-12-04T15:03:47"
```

By using this attribute, it allows you to avoid the situation whereby you'd be faced with having to parse every row of the feed each time a new file is delivered, in an attempt to make sure nothing had been edited.

Instead, by looking for the last_modified attribute's appearance only, this will allow you to parse just the new events that are delivered each time, safe in the knowledge that until this attribute is flagged up on your parser, that all previous information can be deemed as correct.

Q id

Whilst the id associated with the event does not change (eg Event id="316446219") in the occurrence of an edited event, the qualifiers – if modified – will be associated with new id value in the id attribute ie Q id="212475322"

Appendix 8 - Outcome definitions

Event ID	Name	Outcome 0	Outcome 1
1	Pass	Unsuccessful pass ie pass did not find team mate	Successful pass
2	Offside Pass	Always set to "1"	
3	Take On	Unsuccessful – player lost possession or was tackled	Successful take on
4	Foul	Player who committed the foul	Player who was fouled
5	Out	The team that put the ball out	The team that therefore gained possession
6	Corner Awarded	The team that conceded the corner	The team that won the corner
7	Tackle	Unsuccessful attempted tackle/challenge from this team to the team on the ball ie other team retains possession after the challenge	Successful tackle ie challenging player wins possession of the ball from the other team
8	Interception	Always set to "1"	
9	Turnover	n.a	
10	Save	Always set to "1"	
11	Claim	Keeper drops the ball after an attempted catch from a cross. The keeper may then pick up the ball again and retain possession, but this would be a separate event	Keeper catches the cross in one attempt ie no drop
12	Clearance	Always set to "1"	
13	Miss	Always set to "1"	
14	Post	Always set to "1"	
15	Attempt Saved	Always set to "1"	
16	Goal	Always set to "1"	
17	Card	Always set to "1"	
18	Player off	Always set to "1"	
19	player on	Always set to "1"	
20	player retired	Always set to "1"	

21	player returns	Always set to "1"	
22	player becomes goalkeeper	Always set to "1"	
23	Goalkeeper becomes player	Always set to "1"	
24	Condition change	Always set to "1"	
25	Official change	Always set to "1"	
27	Start delay	Always set to "1"	
28	End delay	Always set to "1"	
30	End	Always set to "1"	
32	Start	Always set to "1"	
34	Team set up	Always set to "1"	
35	Player changed position	Always set to "1"	
36	Player changed jersey number	Always set to "1"	
37	Collection end	Always set to "1"	
38	Temp_Goa	Always set to "1"	
39	Temp_Attempt	Always set to "1"	
40	Formation change	Always set to "1"	
41	Punch	Always set to "1"	
42	Good skill	Always set to "1"	
43	Deleted Event	Always set to "1"	
44	Aerial	Player lost aerial duel	Player won the aerial duel
45	Challenge	Always set to "0" ie. a challenge by definition is unsuccessful and the player does not win the ball (by winning the ball this would be a tackle ie type_id="7")	
47	Rescinded card	Always set to "1"	
49	Ball recovery	Always set to "1"	
50	Dispossessed	Always set to "1"	
52	Keeper pick-up	Always set to "1"	

53	Cross not claimed	Always set to "1"	
54	Smother	Always set to "1"	
55	Offside provoked	Always set to "1"	
51	Error	Always set to "1"	
56	Shield ball opp	Always set to "1"	
57	Foul throw in	Player who conceded the foul throw	Player who won the foul throw
58	Penalty faced	Always set to "0"	
59	Keeper Sweeper	Goalkeeper comes off the line and clears ball but possession switches to other team (not the same as player clearing ball out of play which is outcome="1")	Goalkeeper comes off the line and either clears ball to another team mate (ie possession retained) or straight out of play
60	Chance missed	Always set to "0"	
61	Ball touch	Player unsuccessfully controlled the ball ie lost possession	Ball simply hit player unintentionally
63	Temp_save	Always set to "1"	
64	Resume		
65	CRD		
66	Possession Data		
67	50/50	Player lost 50/50 duel	Player won 50/50 duel
68	Referee Drop Ball	Always set to "1"	
69	Failed to block	Always set to "1"	
70	Injury Time Announcement	Always set to "1"	
71	Coach Setup	Always set to "1"	
72	Caught offside	Always set to "1"	
73	Other Ball Contact	Always set to "1"	

Appendix 9 - Associated qualifiers

Type_id	qualifier_id
1	1, 2, 4, 5, 6, 15, 22, 23, 25, 26, 29, 31, 55, 56, 96, 97, 106, 107, 123, 124, 138, 140, 141, 152, 154, 155, 156, 157, 160, 168, 195, 196, 198, 199, 210, 212, 213, 214, 218, 223, 224, 225, 236, 237, 238, 240, 241, 266, 278, 279, 287, 307
2	1, 2, 3, 4, 5, 6, 7, 8, 23, 55, 56, 107, 123, 124, 140, 141, 152, 241, 297, 298, 307
3	56, 211, 285, 286, 307, 312
4	9, 10, 11, 12, 13, 34, 40, 56, 95, 132, 152, 184, 241, 242, 264, 265, 285, 286, 289, 294, 295, 296, 307, 313
5	56
6	56, 73, 219, 220, 221, 222
7	14, 56, 167, 285, 286, 307, 312
8	13, 14, 15, 31, 32, 56, 307, 312
9	n/a
10	1, 2, 9, 14, 15, 17, 21, 25, 29, 55, 56, 82, 88, 90, 91, 92, 93, 94, 101, 102, 103, 137, 139, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 190, 239, 267, 268, 269, 270, 271, 272, 273, 274, 275, 284, 307, 312
11	1, 2, 56, 88, 307, 312
12	1, 2, 14, 15, 56, 91, 128, 167, 185
13	1, 2, 9, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 55, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 89, 96, 97, 100, 102, 103, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 133, 137, 146, 147, 153, 154, 160, 188, 214, 215, 249, 250, 251, 252, 253, 263, 266, 276, 307, 314
14	5, 9, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 55, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 81, 89, 96, 97, 102, 103, 108, 109, 111, 112, 113, 114, 116, 117, 118, 119, 120, 121, 122, 133, 146, 147, 154, 160, 214, 215, 230, 231, 249, 250, 251, 252, 253, 263, 266, 307
15	1, 2, 9, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 55, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 89, 96, 97, 100, 101, 102, 103, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 133, 138, 139, 146, 147, 154, 160, 192, 214, 215, 249, 250, 251, 252, 253, 263, 266, 284, 301, 307, 314
16	2, 9, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 40, 55, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 89, 96, 97, 102, 103, 108, 109, 110, 111, 112, 113, 114, 117, 118, 119, 120, 121, 122, 133, 136, 138, 146, 147, 216, 217, 230, 231, 249, 250, 251, 252, 253, 254, 261, 262, 263, 266, 280, 281, 282, 300, 307

17	10, 11, 12, 13, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 56, 95, 132, 158, 159, 161, 162, 163, 164, 165, 166, 171, 172, 184, 191, 243, 244, 245, 283
18	41, 42, 44, 55, 59, 83, 227
19	41, 42, 44, 55, 59, 145, 227
20	n/a
21	145
22	n/a
23	44
24	45, 46, 47, 48, 49, 255, 256, 257, 258, 259, 260
25	50,51
27	41, 53, 200, 201, 202, 203, 204, 205, 206, 207, 208, 246, 299, 303
28	299
30	54, 57, 209, 226, 227, 308, 309
32	127
34	30, 44, 59, 130, 131, 194, 197, 227
35	44
36	59
37	229
38	9, 16, 17, 18, 19, 22, 26, 56, 60, 61, 62, 63, 64, 65, 66, 69, 70, 71
39	9, 16, 17, 18, 19, 20, 22, 26, 56, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71
40	30, 44, 59, 130, 131, 227
41	56, 307
42	56, 307
43	n/a
44	9, 13, 55, 56, 285, 286
45	31, 56, 285, 286
47	13, 31, 32, 33, 34
49	14, 56
50	56, 307

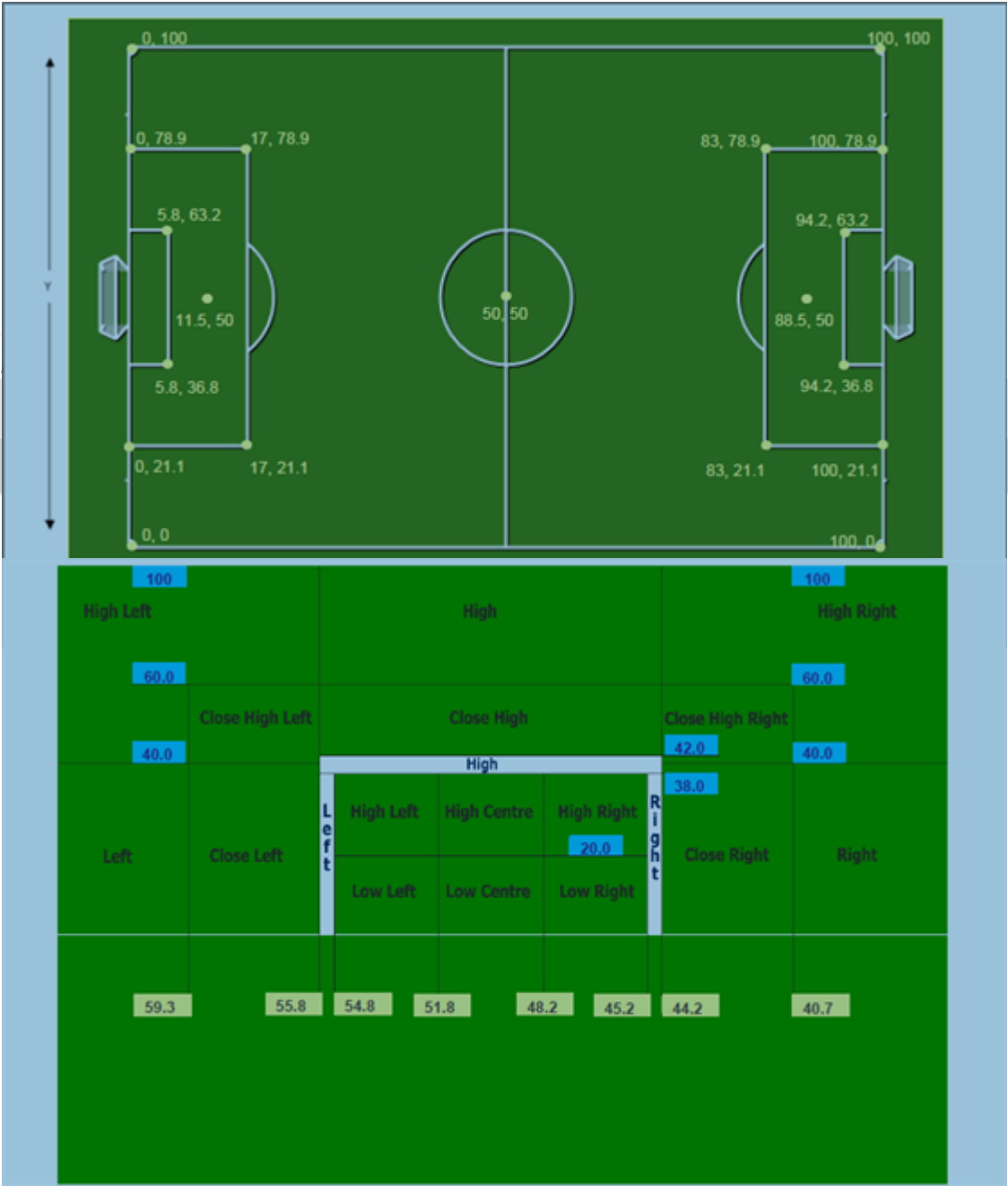
51	169, 170
52	n/a
53	n/a
54	232, 285, 286, 307, 312
55	n/a
56	56
57	56
58	9, 56, 73, 75, 138, 178, 179, 186, 187, 188
59	56 302
60	55, 56, 89, 154
61	56, 138, 228, 238, 307
63	56, 173, 178, 182
64	n/a
65	9, 26, 33, 40, 167, 247, 248
66	234, 235, 288
67	285, 286
68	n/a
69	285, 286
70	277
71	290
72	n/a
73	291
74	56, 285, 233, 307, 312
76	54, 226, 227
77	41, 304, 305, 306, 310, 311

Appendix 10 - Period ID list

Period	Period_id
First half	1
Second Half	2
First period of extra time	3
Second period of extra time	4
Penalty shoot out	5
Half-time	10
Post-game	14
Pre-game	15
Pre-match	16

Appendix 11 - Pitch co-ordinates and direction of play

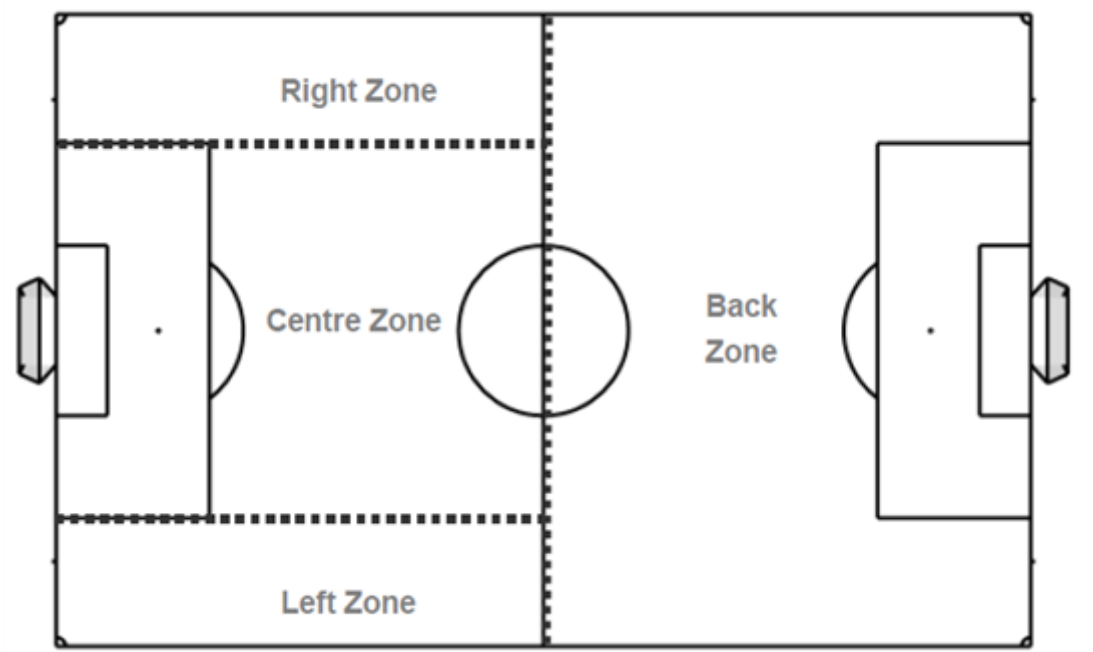
This is based on the direction of attack always being from left to right on the x-axis, regardless of the team or period of the game, the defending goal line is always where $x=0$ and the attacking where $x=100$. All measurements for events given in the feed should therefore be taken in relation to percentages.



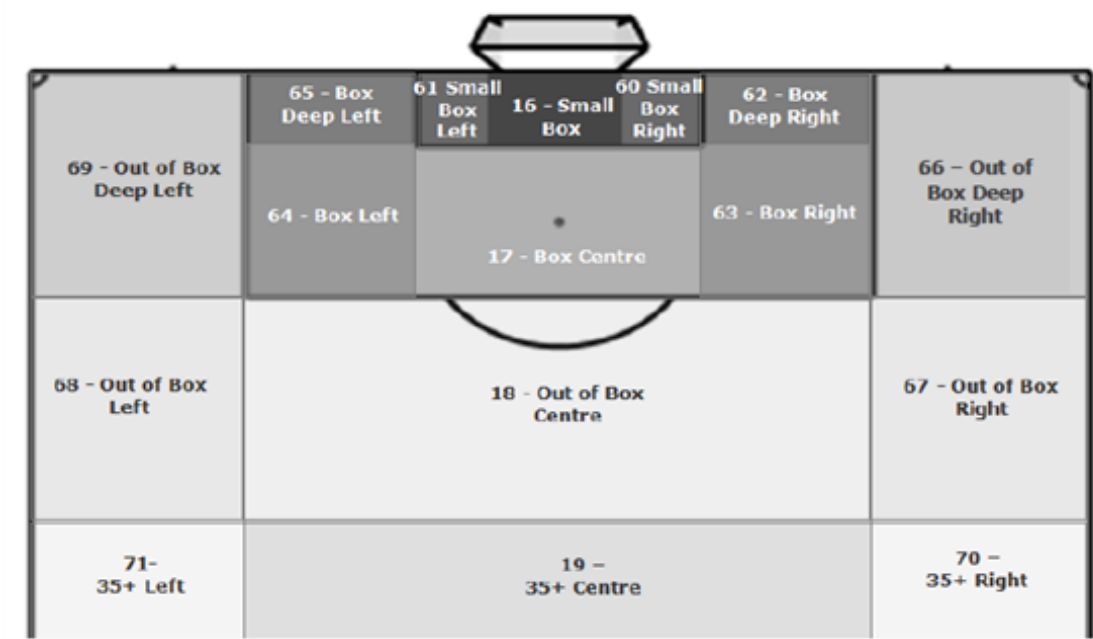
EVENT - Goal, Attempt Saved		
Qualifier	end_y	end_z
Low Left	(51.8 <= end_y <= 54.8)	(0 <= end_z <= 20)
High Left	(51.8 <= end_y <= 54.8)	(20 <= end_z <= 38)
Low Centre	(48.2 <= end_y <= 51.8)	(0 <= end_z <= 20)
High Centre	(48.2 <= end_y <= 51.8)	(20 <= end_z <= 38)
Low Right	(45.2 <= end_y <= 48.2)	(0 <= end_z <= 20)
High Right	(45.2 <= end_y <= 48.2)	(20 <= end_z <= 38)
EVENT - Post		
Qualifier	end_y	end_z
Left	(54.8 <= end_y <= 55.8)	(0 <= end_z <= 38)
High	(44.2 <= end_y <= 55.8)	(38 <= end_z <= 42)
Right	(44.2 <= end_y <= 45.2)	(0 <= end_z <= 38)
EVENT - Miss		
Qualifier	end_y	end_z
Close left	(55.8 <= end_y <= 59.3)	(0 <= end_z <= 40)
Close High Left	(55.8 <= end_y <= 59.3)	(40 <= end_z <= 60)
Close Right	(40.7 <= end_y <= 44.2)	(0 <= end_z <= 40)
Close High Right	(40.7 <= end_y <= 44.2)	(40 <= end_z <= 60)
Close High	(44.2 <= end_y <= 55.8)	(42 <= end_z <= 60)
Left	(59.3 <= end_y <= 100)	(0 <= end_z <= 40)
Right	(0 <= end_y <= 40.7)	(0 <= end_z <= 40)
HighLeft	(55.8 <= end_y <= 100)	(60 <= end_z <= 100)
HighRight	(0 <= end_y <= 44.2)	(60 <= end_z <= 100)
High	(44.2 <= end_y <= 55.8)	(60 <= end_z <= 100)

Appendix 13 - Pitch zones

When Qualifier 56 is shown with an event it will also display a value which can be right, left, centre or back. The diagram below highlights what these zones are on the pitch.



Qualifiers 16, 17, 18, 19 and 60 - 71 refer to areas of the pitch. The below diagram illustrates where these zones are.



Appendix 14 - Playing positions

Event ID	Name	Description

When Event 34 is shown it will include Qualifier 30, 130 and 131.

130 will indicate the formation the team will be playing in

30 will list the players

131 will list the playing positions

The order that the players are listed in qualifier 30 will be the same order as the positions listed on qualifier 131. For example:

```
<Q id="1998281501" qualifier_id="130" value="8" />
```

```
<Q id="193244804" qualifier_id="30" value="59936, 37748, 42427, 8758,  
17127, 51507, 20467, 21091, 12297, 41792, 43274, 8597, 57214, 81880, 37096,  
13227, 56861, 15675" />
```

```
<Q id="280405493" qualifier_id="131" value="1, 2, 3, 4, 5, 6, 7, 8, 9, 10,  
11, 0, 0, 0, 0, 0, 0, 0" />
```

With regards to the qualifier id 130 (ie formation), this can be interpreted as the team playing in a 4231 formation which is depicted below from formation number 8.

For line ups using qualifier id's 130 and 131 in conjunction, you can see for example that position 1 will be player 59936 and position 7 will be 20467. Where position = 0, this relates to a substitute for which we do not currently record the exact playing position.

The diagrams [here](#) show all of the possible formation numbers and the layout of players in this formation – note that team formation #1 is not used. These are all the formations that Opta Sports can provide. Please email customerservice-uk@optasportsdata.com to find out a little more information if these tactical formations are not understood.

Event 34 - Formations

Player Layout

The players are laid out with the goalkeeper at the top of each diagram and then moving down through defense, midfield and attack.

Team Formation 2 - 442

	1		
2	5	6	3
7	4	8	11
	10	9	

Team Formation 3 - 41212 (Diamond)

	1		
2	5	6	3
	4		
7			11
	8		
	10	9	

Team Formation 4 - 433

	1		
2	5	6	3
7	4		8
10	9		11

Team Formation 5 - 451 (updated for 10th Nov)

	1			
2	5		6	3
7	4	10	8	11
	9			

Team Formation 6 - 4411

	1		
--	---	--	--

2	5	6	3
7	4	8	11
	10		
	9		

Team Formation 7 - 4141

	1		
2	5	6	3
	4		
7	8	10	11
	9		

Team Formation 8 - 4231

	1			
2	5		6	3
	8		4	
	7	10	11	
		9		

Team Formation 9 - 4321

	1		
2	5	6	3
8	4		7
	10	11	
	9		

Team Formation 10 - 532

	1			
2	6	5	4	3
	7	8	11	
	10		9	

Team Formation 11 - 541

	1			
2	6	5	4	3
7	8	10		11
	9			

Team Formation 12 - 352 (updated for 10th Nov)

	1				
	6	5		4	
2	7	11	8		3
		10	9		

Team Formation 13 - 343

	1			
	6	5	4	
2	7	8		3
10	9			11

Team Formation 15 - 4222

	1			
2	5		6	3
	4		8	
	7		11	
	10		9	

Team Formation 16 - 3511 (updated for 10th Nov)

	1			
	6	5	4	
2	7	11	8	3
		10		
		9		

Team Formation 17 - 3421

	1			
	6	5	4	
2	7	8		3
	10		11	
		9		

Team Formation 18 - 3412

	1			
	6	5	4	
2	7	8		3
	9			
		10	11	

New Formation 19 - 3142

	1			
	5	4	6	
		8		
2	7		11	3
	9		10	

New Formation 20 - 343d (Diamond)

	1			
	6	5	4	
		8		
2				3
	7			
10	9		11	

New Formation 21 - 4132

	1		
2	5	6	3
	4		

7	8		11
	9	10	

New Formation 22 - 4240

	1		
2	5	6	3
	4	8	
7	9	10	11

New Formation 23 - 4312

	1		
2	5	6	3
7	4		11
	8		
	9	10	

New Formation 24 - 3241

	1		
6	5		4
	2	3	
10	7	8	11
	9		

New Formation 25 - 3331

	1			
	6	5	4	
	2	8	3	
10		7		11
	9			