

F24 Appendices

Elements/attribute/value descriptions ([expand all](#))

Tables detailing all elements, attributes and values:

| 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. |

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| 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 |

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| 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 |

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| 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”). |

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| 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 | | 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 |

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| 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 |

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| 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 % |

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| 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 possession 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 |
| Offside Pass Events | | | |
| 23 | Fast Break | | An offside pass which would have started a fast break |
| 297 | Follows shot rebound | | An offside pass that follows a rebounded shot |
| 298 | Follows shot blocked | | An offside pass that follows a blocked shot |
| Body Part | | | |
| 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 |

Pattern of Play

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| 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. |

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| 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 |
| Shot Descriptors - ASSOCIATED TO EVENT TYPES 13,14,15,16 | | | |
| 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 |

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| 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_Shot On | | Shot has occurred but it is pending additional detail qualifiers from Opta. |
| 250 | Temp_Block ed | | 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_Miss ed | | 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 |

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| 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 |

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| 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 |

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| 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 |

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| 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 |

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| 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 |
| ID | Ball Touch Events | Values | Description - ASSOCIATED TO EVENT TYPE 61 & 73 |
| 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 |
|-----|-------------------------|--------|---|
| ID | Goalkeeper Events | Values | Description - EVENT TYPES 10,11,12 |
| 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 |

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| 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 |

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| 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 |
| ID | Penalty Events | Values | Description - qualifiers for penalty faced (event type 58) |
| 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 |
| ID | Defensive Events | Values | Description |
| 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 |

| ID | Duel Events | Values | Description - Associated to Event Types 3,4,7,44,45,54,69 |
|-----|------------------------|---------------------------|--|
| 285 | Defensive | | Indicates a defensive duel |
| 286 | Offensive | | Indicates an offensive duel |
| ID | Take On Event | Values | Description - Associated to event type 3 |
| 211 | Overrun | | Take on where the player attempting overhits the ball and it runs away from them out of play or to an opponent |
| ID | Possession Data Events | Values | Description - associated to event type 66 |
| 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 |
| ID | Line Up/Subs/Formation | Values | Description - ASSOCIATED WITH EVENT TYPES 32, 34, 35, 36, 40, 71 |
| 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 | | Associated to event type 19, this value refers to the position the player comes on in 1 - Goalkeeper 2 - Wing Back 3 - Full Back 4 - Central Defender 5 - Defensive Midfielder 6 - Attacking Midfielder 7 - Central Midfielder 8 - Winger 9 - Striker 10 - Second Striker |
| 293 | Position Side ID | | Associated to event type 19, this value refers to the side the player comes on in 1 - Left 2 - Right 3 - Centre 4 - Left/Centre 5 - Centre/Right 6 - Left/Centre/Right 7 - Left/Right |
| 319 | Captain change | | An indicator to confirm that the team has changed their captain |
| ID | Referee | Values | Description |
| 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 |
| ID | Stoppages | Values | Description - Event Type 27 |
| 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 |
| ID | General | Values | Description |
| 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 No longer collected as of August 2016 |
| 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 |
| ID | General | Values | Description - related to Contentious Referee Decision Type 65 |
| 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 |

| ID | Conditions | Values | Description |
|-----|---------------------------|---------------|--|
| 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 |
| ID | Ball Touch Events | Values | Description - Associated to Event Type 74 |
| 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 | | |

| | | | | | |
|----------------------------------|----------------|---|----|--|------------------------------------|
| claim (goalkeeper catches cross) | 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 |
| 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 |

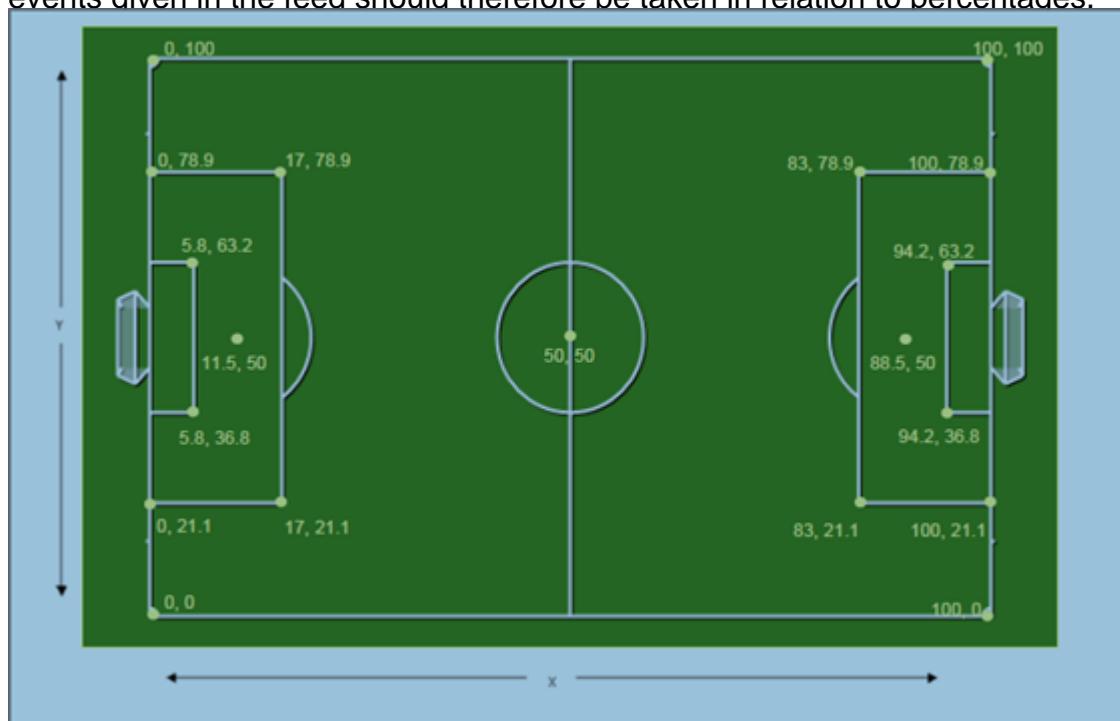
Appendix 10 - Period ID list

| 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 |

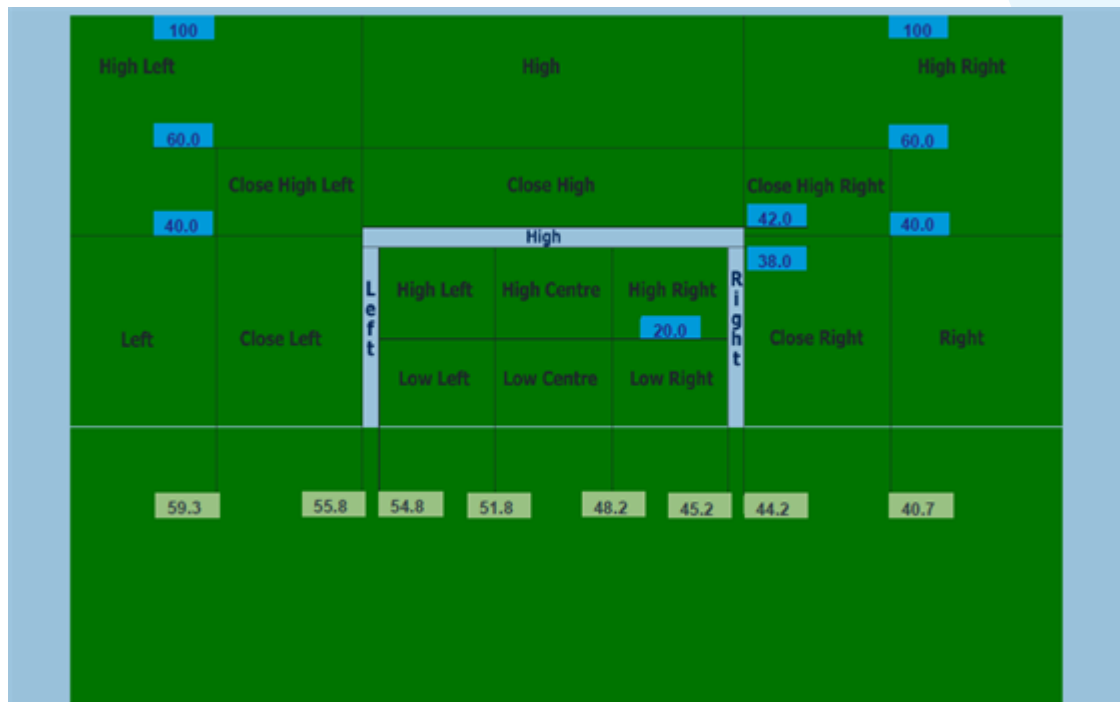
Appendix 11 - Pitch co-ordinates and direction of play

| |
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| |

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.



Appendix 12 - Goalmouth co-ordinates



EVENT - Goal, Attempt Saved

| Qualifier | end_y | end_z |
|-------------|---------------------------------------|-----------------------------------|
| Low Left | $(51.8 \leq \text{end_y} \leq 54.8)$ | $(0 \leq \text{end_z} \leq 20)$ |
| High Left | $(51.8 \leq \text{end_y} \leq 54.8)$ | $(20 \leq \text{end_z} \leq 38)$ |
| Low Centre | $(48.2 \leq \text{end_y} \leq 51.8)$ | $(0 \leq \text{end_z} \leq 20)$ |
| High Centre | $(48.2 \leq \text{end_y} \leq 51.8)$ | $(20 \leq \text{end_z} \leq 38)$ |
| Low Right | $(45.2 \leq \text{end_y} \leq 48.2)$ | $(0 \leq \text{end_z} \leq 20)$ |
| High Right | $(45.2 \leq \text{end_y} \leq 48.2)$ | $(20 \leq \text{end_z} \leq 38)$ |

EVENT - Post

| Qualifier | end_y | end_z |
|-----------|---------------------------------------|-----------------------------------|
| Left | $(54.8 \leq \text{end_y} \leq 55.8)$ | $(0 \leq \text{end_z} \leq 38)$ |
| High | $(44.2 \leq \text{end_y} \leq 55.8)$ | $(38 \leq \text{end_z} \leq 42)$ |
| Right | $(44.2 \leq \text{end_y} \leq 45.2)$ | $(0 \leq \text{end_z} \leq 38)$ |

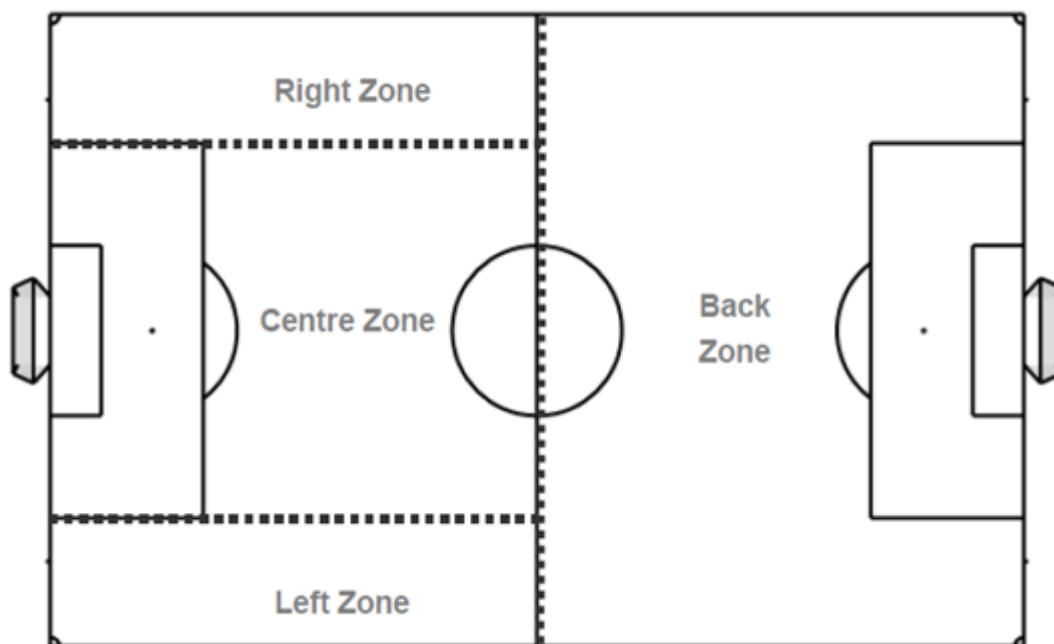
EVENT - Miss

| Qualifier | end_y | end_z |
|------------------|---------------------------------------|-----------------------------------|
| Close left | $(55.8 \leq \text{end_y} \leq 59.3)$ | $(0 \leq \text{end_z} \leq 40)$ |
| Close High Left | $(55.8 \leq \text{end_y} \leq 59.3)$ | $(40 \leq \text{end_z} \leq 60)$ |
| Close Right | $(40.7 \leq \text{end_y} \leq 44.2)$ | $(0 \leq \text{end_z} \leq 40)$ |
| Close High Right | $(40.7 \leq \text{end_y} \leq 44.2)$ | $(40 \leq \text{end_z} \leq 60)$ |
| Close High | $(44.2 \leq \text{end_y} \leq 55.8)$ | $(42 \leq \text{end_z} \leq 60)$ |

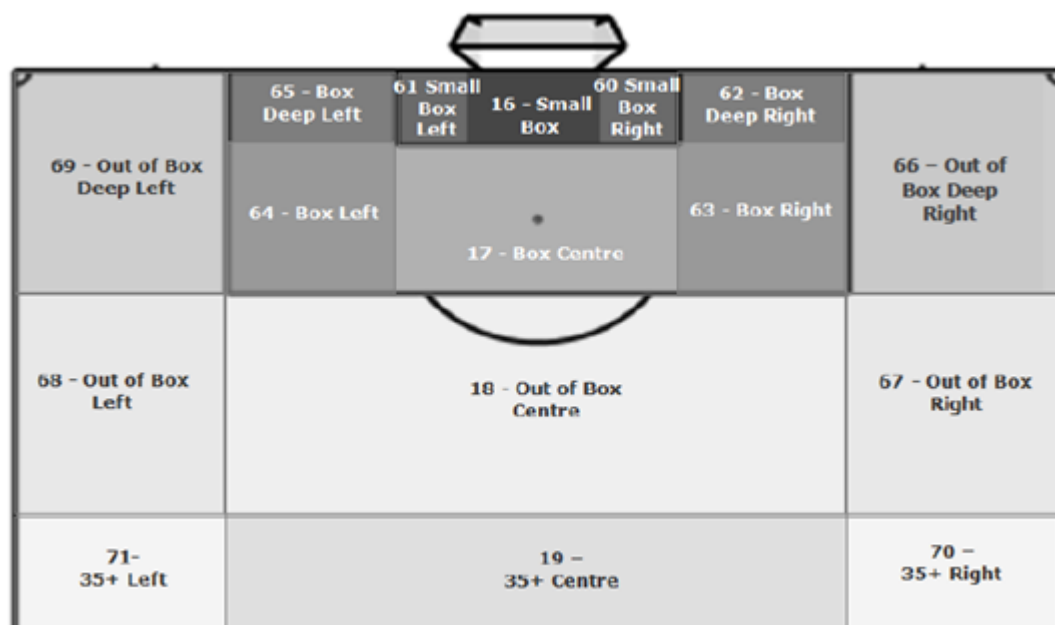
| | | |
|-----------|-------------------------|----------------------|
| Left | (59.3 <= end_y <= 100) | (0 <= end_z <= 40) |
| Right | (0 <= end_y <= 40.7) | (0 <= end_z <= 40) |
| HighLeft | (55.8 <= end_y <= 100) | (60 <= end_z <= 100) |
| HighRight | (0 <= end_y <= 44.2) | (60 <= end_z <= 100) |
| 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 current 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.