Performance parameters Forward Football

TECHNOLEON

NEXT LEVEL
SPORTS DATA INTELLIGENCE

We can show the parameters at the team level, per line, and per player. Based on previous training and match events, a trend/progression can be displayed. Additionally, the average of past events can be compared with the most recent event. Comparisons can be made between different teams, players and among different trainng and match events.

Physical = All physical parameters.
Provides insight into the experienced load during the training and/or match event.

Total distance:	Total distance covered
Distance per minute:	The total distance covered, divided by the player's playing time
Maximum heart rate:	Maximum heart rate during the event
Average heart rate:	Average heart rate during the event
Heart rate over time:	Heart rate graph over time
Heart Rate per Zone:	Heart rate distributed in multiple zones, for example: low, medium, and high
The physical load (TRIMP):	Physical load based on a combination of the average heart rate and the player's playing time
Intensity:	The physical load of an event divided by the playing time
A:C workload ratio	Ratio between the TRIMP of an event compared to the average of a certain number of previous events
Different speed zones:	Distance covered in different speed zones: Walk/Stand (0.0m/s≤V<4.3 km/h); Jog (4.3m/s≤V<8.6 km/h); Low-speed (8.6m/s≤V<13.3 km/h); Medium-speed (13.3m/s≤V<17.6 km/h); High-speed (17.6m/s≤V<21.6 km/h); Sprint (>21.6 km/h)
Sprint distribution per sprintzone:	Percentages of how much distance a player spends in each speed zone relative to the total distance covered
High-speed runs:	The number of runs in the 'high-speed' speed zone ~ must last at least 0.6 seconds
Total amount of sprints:	Total number of sprints in the 'sprint' speed zone ~ must last at least 0.6 seconds

Physical = All physical parameters
Provides insight into the experienced load during the training and/or match event.

Sprint Speed:	Speed during a sprint
Distance covered sprinting (in meters):	Distance covered during a sprint
Intensive runs:	Total distance covered in high-speed runs and sprints combined
Accelerations:	Number of accelerations categorized in low-mid-high
decelerations:	Number of decelerations categorized in low-mid-high
Left turns	Number of sharp turns to the left categorized by acceleration speed: low-mid-high
Rigth turns:	Number of sharp turns to the right categorized by acceleration speed: low-mid-high
Action zones:	The field is divided into attacking, midfield, and defensive sections. It can be observed how often an activity occurs in a specific section.
Attack sides:	The field is divided into left, midfield, and right sections. It can be observed how often an activity occurs in a specific section.

MPI = Match performance indicators:
Provides insight into how a player performs during a match.

Attacking Phase	**When a team possesses the ball and actively tries to score This includes build-up play and creating opportunities.**
Expected Successful Pass (xSP):	A prediction from our machine learning model of whether a pass will be successful or not.
Average xSP:	A low average xSP of all passes means that it has been predicted that few passes will successfully reach a teammate. An average xSP essentially indicates the difficulty/risk level of the passes. A lower xSP implies a higher difficulty/risk level of the chosen passes.
Pass Performance Ratio (PPR):	A comparison of how many passes the machine learning model predicts will be successful compared to the actual number of passes that have been successful. If the PPR is above 1, it means the player has performed better than expected based on the machine learning model.
Number of Opponents Outplayed (NOO):	Number of opponents bypassed during a pass.
Snake:	A chain of passes that ultimately leads to a shot. In other words, a chain of passes in an attack.
Attack Threat Contribution (ATC) pass:	The number of passes in a snake that adds danger (Expected Threat) divided by the total number of passes in a snake.
Contribution to Attack (CTA) pass:	How many given passes are part of a snake, divided by the total number of given passes.
Expected Successful Dribble (xSD):	A prediction from our machine learning model of whether a dribble will lead to a successful pass or shot.
Dribble Performance Ratio (DPR):	A comparison of how many dribbles the machine learning model predicts will be successful compared to the actual number of successful dribbles. If the DPR is above 1, it means the player has performed better than expected based on the machine learning model.

MPI = Match performance indicators:
Provides insight into how a player performs during a match.

Attack Threat Contribution (ATC) dribble:	The number of dribbles in a snake that add danger (expected thread) divided by the total number of dribbles in a snake.
Contribution to Attack (CTA) dribble:	How many dribbles are part of a snake, divided by the total number of dribbles made.
Transition from attack to defense	**When a team loses possession and transitions from attack to defense.**
Expected Interception to Attack (xAS) of opponent:	A prediction from our machine learning model of whether an opponent's interception leads to a snake for the opponent.
Interception performance ratio (IPR) opponent:	A comparison of how often the machine learning model predicts that a loss of possession will lead to a snake for the opponent compared to the actual number of times a loss of possession leads to a snake.
Blockforming:	Characteristics of creating a defensive block (under development).
Transition from defense to attack	**When a team wins possession and transitions from defense to attack.**
Expected Interception to Attack (xAS) :	A prediction from our machine learning model on whether an interception by your own team leads to a snake for your own team.
Interception performance ratio (IPR):	A comparison of how many interceptions the machine learning model predicts will lead to a snake compared to the actual number of times an interception leads to a snake.

DMI = Decision making indicators:
Provides insight into the choices a player makes during the match.

Attacking phase	**When a team has possession and actively tries to score, this includes build-up and creating chances.**

Pass characteristics:

Pass length:	0-5 meters, 5-10 meters, and >10 meters
Pass direction:	Forward, backward, or sideways
Amount of Passes:	Total number of passes
Pass completion:	Total number of actually successful passes divided by the total number of given passes
Pass location:	The field is divided into 18 equally sized zones; this parameter indicates from which zone the pass originated.
Expected Thread (xT) of pass:	Measure of the amount of danger a pass adds to an attack.
Receives:	Total number of passes a player receives.

Pressure characteristics: Compare, for example, the pass length under different pressure levels:

High pressure:	Distance between the player and the nearest opponent at the time of passing is < 2 meters.
Limited pressure:	Distance between the player and the nearest opponent at the time of passing is > 2 meters and < 4 meters.
No pressure:	Distance between the player and the nearest opponent at the time of passing is > 4 meters.

Dribble characteristics:

Dribble duration:	How long does the dribble take?
Dribble distance:	Linear distance from the starting point to the endpoint of the dribble.
Dribble speed:	Speed during the dribble.
Dribble completion:	Number of actual successful dribbles divided by the total number of dribbles.
Dribble location:	The field is divided into 18 equally sized zones; this parameter indicates in which zone the dribble started.
Expected Thread (xT) of dribble:	Measure of the amount of danger a dribble adds to an attack.

Snake characteristics:

Amount of snakes:	How often does a snake sequence take place?
Amount of passes:	The number of passes that occur during the snake.
Snake duration:	How long does it take from the first pass to the shot?
Snake location:	The field is divided into 18 equally sized zones; this parameter indicates in which zone the snake took place.

DMI = Decision making indicators:
Provides insight into the choices a player makes during the match.

Shots:	Total number of shots.
Possession:	Percentage of ball possession.
Longest uninterrupted possession:	Longest time in seconds that a player has uninterrupted possession of the ball.

Transition from attack to defense	**When a team loses possession and transitions from attack to defense.**
Interception characteristics: Amount of interceptions against:	Total number of times the opponent intercepts your team, in other words: the number of times your team loses possession.
Ball Win Back Time (BWBT) of opponent:	The time between the moment your team gains possession and the moment your team loses possession.
Interception location of opponent:	The field is divided into 18 equally sized zones; this parameter indicates in which zone the loss of possession occurred.

Transition from defense to attack	**When a team wins possession and transitions from defense to attack.**
Interception characteristics: Amount of interceptions:	Total number of ball interceptions.
Ball Win Back Time (BWBT):	The time between the moment your team loses possession and the moment of ball interception.
Interception location:	The field is divided into 18 equally sized zones; this parameter indicates in which zone the interception occurred.