

Master Visualizer Blueprint: Complete Data Specification

This document provides the definitive data structure for visualizing youth soccer tactics across all age groups (U6-U16). It utilizes a realistic **100x80 field aspect ratio** and includes comprehensive formation options and field subdivision definitions.

1. Field Definitions (100 Length x 80 Width)

A. Full Field (11v11)

Component	Value	Notes
Field Orientation	Horizontal (Landscape)	X runs 0-100, Y runs 0-80.
Center	(50, 40)	
Goal Locations	(0, 40) and (100, 40)	Goals centered on the Y-axis.

B. Half Field (Training Grid)

Component	Value	Notes
Field Area	X: 0 to 50, Y: 0 to 80	Used for possession and transition drills.
Goal 1 (Defensive)	(0, 40)	Full size goal.
Goal 2 (Attacking)	(50, 40)	Usually a portable goal or cones.

C. Quarter Field (Small-Sided / Rondo)

Component	Value	Notes
Field Area	X: 0 to 50, Y: 0 to 40	Used for specific technical and small-group tactics.
Goal 1 (Defensive)	(0, 20)	Target goals (cones).
Goal 2 (Attacking)	(50, 20)	Target goals (cones).

2. Core Action Schema for Visualization

All gameplay sequences must be constructed using this detailed structure for defining ball and player movements.

Data Field	Action Type	Example Value
Action Type	Ball / Player	Pass, Shot, Run, Press, Dribble, Intercept
Source Player ID	Ball Interaction	Player initiating the action (e.g., P6 or OP5).
Target	Ball Interaction	Player ID, Coordinate (X, Y), or Goal.
Start Position (X, Y)	Ball / Player	Location when the action

Data Field	Action Type	Example Value
		begins.
End Position (X, Y)	Player Movement	Target location for the player's run/cut.
Trajectory	Ball Interaction	Path of the ball from start to target.
Result Status	Outcome	SUCCESS, INTERCEPTION, GOAL, OUT OF PLAY

3. Formation Data Tables (U6 - U8 / 4v4)

Total Players: 4 (No dedicated Goalkeeper)

Formation	Mode	Team	Player IDs	Positions (X / Y)
1-2-1 (Diamond)	Game/Comp A	P1-P4	(25 / 40), (40 / 25), (40 / 55), (65 / 40)	
2-1-1 (Pyramid)	Game/Comp A	P1-P4	(25 / 25), (25 / 55), (45 / 40), (65 / 40)	
1-1-2 (Attack)	Game/Comp A	P1-P4	(25 / 40), (45 / 40), (65 / 25), (65 / 55)	
3-1 (Defense)	Game/Comp B	OP1-OP4	(75/20), (75/40), (75/60), (55/40)	

4. Formation Data Tables (U10 / 7v7)

Total Players: 7 (Includes Goalkeeper P1/OP1)

Formation	Mode	Team	Player IDs	Positions (X / Y)
3-2-1 (Balanced)	Game/Comp A	P1-P7	(5/40), (20/20), (20/40), (20/60), (40/32), (40/48), (65/40)	
2-3-1 (Midfield)	Game/Comp A	P1-P7	(5/40), (25/28), (25/52), (45/20), (45/40), (45/60), (65/40)	
3-3-0 (Defensive)	Game	P1-P7	(5/40), (20/20), (20/40), (20/60), (45/25), (45/40), (45/55)	
2-3-1	Comp B	OP1-OP7	(95/40), (80/28), (80/52), (60/20), (60/40), (60/60), (45/40)	

5. Formation Data Tables (U12 / 9v9)

Total Players: 9 (Includes Goalkeeper P1/OP1)

Formation	Mode	Team	Player IDs	Positions (X / Y)
3-3-2 (Classic)	Game/Comp A	P1-P9	(5/40), (25/16),	

Formation	Mode	Team	Player IDs	Positions (X / Y)
			(25/40), (25/64), (45/16), (45/40), (45/64), (65/32), (65/48)	
4-3-1 (Diamond)	Game	P1-P9	(5/40), (20/9), (20/28), (20/52), (20/71), (45/25), (45/40), (45/55), (65/40)	
4-2-2 (Compact)	Comp B	OP1-OP9	(95/40), (75/9), (75/32), (75/49), (75/71), (55/28), (55/52), (45/32), (45/48)	

6. Formation Data Tables (U14 / U16 / 11v11)

Total Players: 11 (Full Field)

Table A: Team A 4-3-3 (Attacks L->R)

Player ID	Role	X / Y	Player ID	Role	X / Y
P1	GK	5 / 40	P7	Mid-C	55 / 40
P2	FB-L	20 / 9	P8	Mid-A	40 / 55
P3	CB	20 / 28	P9	Winger-L	75 / 12
P4	CB	20 / 52	P10	Striker-C	80 / 40
P5	FB-R	20 / 71	P11	Winger-R	75 / 68
P6	Mid-D	40 / 25			

Table B: Team A 4-4-2 (Attacks L->R)

Player ID	Role	X / Y	Player ID	Role	X / Y
P1	GK	5 / 40	P7	Mid-R	40 / 71
P2	FB-L	20 / 9	P8	CM-L	50 / 25
P3	CB	20 / 28	P9	CM-R	50 / 55
P4	CB	20 / 52	P10	F-L	75 / 32
P5	FB-R	20 / 71	P11	F-R	75 / 48
P6	Mid-L	40 / 9			

Table C: Team A 4-2-3-1 (Attacks L->R)

Player ID	Role	X / Y	Player ID	Role	X / Y
P1	GK	5 / 40	P7	Mid-DM2	40 / 48
P2	FB-L	20 / 9	P8	Mid-AM	60 / 40
P3	CB	20 / 28	P9	Wing-L	60 / 16
P4	CB	20 / 52	P10	Striker	80 / 40
P5	FB-R	20 / 71	P11	Wing-R	60 / 64

Player ID	Role	X / Y	Player ID	Role	X / Y
P6	Mid-DM1	40 / 32			

Table D: Team B 4-4-2 (Opponent R->L)

Player ID	Role	X / Y	Player ID	Role	X / Y
OP1	GK	95 / 40	OP7	Mid-C1	60 / 28
OP2	FB-L	80 / 9	OP8	Mid-C2	60 / 52
OP3	CB	80 / 28	OP9	Mid-R	60 / 71
OP4	CB	80 / 52	OP10	F-L	40 / 32
OP5	FB-R	80 / 71	OP11	F-R	40 / 48
OP6	Mid-L	60 / 9			

Table E: Team A 3-5-2 (Attacks L->R)

Player ID	Role	X / Y	Player ID	Role	X / Y
P1	GK	5 / 40	P7	CM-C	50 / 40
P2	CB-L	20 / 20	P8	RWB	50 / 75
P3	CB-C	15 / 40	P9	Striker-L	75 / 32
P4	CB-R	20 / 60	P10	Striker-R	75 / 48
P5	LWB	50 / 5	P11	CM-R	50 / 55
P6	CM-L	50 / 25			