Team Assistant

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Abstract. Team Assistant is a Logplayer/ Debugger/ Analyzer for Robocup soccer simulation. This program was developed having in mind the general requirements for analysis and design of a soccer simulation team.

Enhanced Logplayer. The enhanced Logplayer plays a standard Server Log and allows the user to see each player's attributes. The players' views are graphically displayable and the user can follow the ball/player movements using a trace option.

Graphical Debugger. The Debugger allows graphical representation of statements stored in a Player log. A generic grammar is proposed by studying the general requirements of a soccer simulation team. This grammar has statements for declaring a world model (player/ball positions/velocities), player behaviors (includes passes, shots, dribbles, changing position, holding the ball, intercepting the ball, marking an opponent player, escaping opponent marking), and also supports comments. The behaviors can be graphically displayed on the field on user request. The player can also log the skills that he has performed in a given cycle, this information is then matched against the server log to determine whether the server performed the skill or not. If not, the user is notified. The player is also able to log a set of shapes to be drawn on the field in a given cycle. These shapes include lines, rectangles, triangles, circles and arcs.

Analyzer. Definitions are proposed for the following events, based on the server log information only. Ball Possession, Passing, Losing the ball, Dribbles and shots. The analyzer is able to recognize these events and graphically display them on the field. The occurrence of each of these events is displayed to the user in a textbox as an online narrator. The analyzer also works in offline mode generating reports, which can be used to evaluate every player's performance, based on the above events, in any given period of the game. In offline mode the user can also follow a player or the ball's movement and offsides that occurred during the game. These items are also displayed graphically on the field.

Another feature of the program is the ability of the user to draw shapes while the log being played is stopped. These shapes include lines, rectangles, triangles, circles and arcs. The measurements of these shapes are shown to the user using the soccer world units. The program allows the user to save a capture of the field, or any part of it, with all the shapes drawn.