Iranians 2003 Presentation Description

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Our presentation and analysis system is composed of two parts: the *Commentary System* that has the responsibility of analysing and reporting the game, and the *Monitoring System* that provides visual and auditorial presentation of the information given by the commentary system.

The simulated commentary system is developed as a Mulit Agent System in which each agent is given a specific responsibility and monitors the game in that respect. The agents cooperate to provide commentary information about the game, so that they can be presented online and real-time by the monitoring system. These agents are cooperating in the commentary system: *Skill and Tactic Anticipator Agent*, *Team Strategy Detector Agent*, *Statistics Provider Agent* and *Commentator Agent*.

The SoccerServer outputs an stream of data containing all required information about the playing filed at each cycle, without any noise in the information. The data stream at each cycle is preprocessed. Visualizable information is sent to the visualizer, and information necessary for analysis is sent to the agents of the commentary system. Skill and Tactic Anticipator Agent is responsible for recognizing indivdual and group movements and focuses the ball movement and figures out the intention of the player agent acting on the ball to identify skills or tactics. The Team Strategy Detector Agent is responsible for the detection of team strategies and overlooks the whole playing field in search of strategic movement of the teams such as overall team formation. Statistics Provider Agent supplies statistics to the commentator out of the data stream received from the SoccerServer and information provided by other two agents in the commentary system. The commentator agent receives instant information from other aforementioned three agents in the commentary system. It then reports the appropriate information to the monitoring system for presentation.

Our presentation tool can be used as a logplayer, analyser, automatic commentary system and visualizer. Now our visualizer is 2D and we are going to add the ability of 3D demonstration. Also we are currently designing a debug mode for this tool. You may refer to [1] for details of our presentation tool.

References

1. Sharifi, M., Mousavian, H., Aavani, A.: Predicting the Future State of the Robocup Simlulation Environment: Heuristic and Neural Networks Approaches. In: Proceedings of 2003 IEEE International Conference on Systems, Man and Cybernetics.