Helli-Respina 2002 Coach Description Abstract

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1 Introduction

One of the most inventive concepts of RoboCup domain is the concept of coaching. Last year, a standardized language for coaches was founded. Helli-Respina was one of the four competitors of Coach Competition in 2001; and again it completely supports CLang (coach language).

In 2001, there were some problems in our coachable components, so all of its components are rewritten for 2002. Now the team supports all features of the coach language.

2 Coaching and Statistical Behavior Extraction

Like last year, our approach to coaching is a kind of opponent modeling based on statistical data from the game. A module named SBE (Statistical Behavior Extractor) analyses all the game and extracts the required data such as: percentage of opponent's successful passes, average cycles they hold the ball when it's kickable, etc. Using these data, the coach sends appropriate advices to the agents. There are two general messages which will be sent to the agents: one is the advices in format of Clang, and the others are Helli-Respina Coach Language (HRCL) messages.

The HRCL is a language inherited from some parts Coach Uni-Lang [1]. This language contains the information about team-level behaviors such as game speed, team pressure, field use, taken risk in actions, playing style, etc.

All players' individual skills in Helli-Respina 2002 players have parameters which can be changed dynamically during the game. These parameters are all controllable by the coach agent through using team-level and standard advices.

References

1. Luis Paulo Reis, Nuno Lau: Coach Uni-Lang A Standard Language in Coaching (Robo) Soccer Team. In Birk, Coradeschi, Tadokoro, editors, RoboCup 2001: Robot Soccer World Cup V. Springer, Berlin, 2002.