

Team OZ-RP: OZ by Real Players for RoboCup 2001 a system to beat replicants

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1 introduction

The team OZ-RP is a quite a unique and it is nearly illegal team.

The team employs eleven REAL HUMAN PLAYERS.

The final goal of RoboCup project is to beat a human soccer team in a legal regulation like as a chess computer did. These few years robot teams and simulation teams make great progress. However there is no human team to compete to artificial teams.

Especially in the simulation league, teams have achieved great level. Therefore we can see nice and exciting plays like as human soccer games in the robocup simulation logs.

Now we need to have a game with artificial teams. The team OZ-RP are developing a system that integrates two facility: user friendly interface system and intelligent assist system. The system enable us to play a simulation soccer as a player a pilot.

2 why OZRP in official games

RoboCup competition is a good evaluation domain for many different methodology teams from completely SAME view. This is very important to foster new AI techniques. New methodologies have so many aspects. Without any discussion, We can't evaluate and compare so many technologies in same analytic manner. And analytic manner doesn't work on complex systems such as robotic soccer that has 22 independent agents.

Therefore our introduced human team OZ-RP has to join the official match in same regulation as for artificial teams. Fair play is the most important key word for human player team. The team OZ-RP has been developing a system that realize fair constraints, ie. oral-communication inhibition, using only noisy information, less host machine, less special settings and so on.

3 team

This OZ-RP team and the OZ-RP system is developed distributed. Number of team member is around fifteen form seven different institutions.

1. Kubo T. : Fukui Univ.
2. Shimora H. : Fukui Univ.
3. Akita J. : Hakodate Future Univ.
4. Tanaka N. : Keio Univ.
5. Nakagawa Y. : JST Japan
6. Funakami R. : Fukui Univ.
7. Nishino J. : Univ. of Electro-Com.
8. Hirose T. : Tokyo Univ.
9. Ohashi Y. : Fukui Univ.
10. Fujitsuka I. : Toyohashi Inst. of Tech.

11. Noda I. : ETL Japan
12. Ito N. : Nagoya Inst. of Tech.
13. Watariuchi S. : Toyohashi Inst. of Tech.
14. Mitsunaga N. : Osaka Univ.
15. Oota M. : Tokyo Inst. of Tech.

4 oz-rp system

OZ-RP system has many constraints which is derived from fair play regulations.

- less host machine
- less communication except (say .) and (here .)

From scientific interests it need to have some features such as below;

- user behavior logging system
- intelligent user assist system for soccer
- reconfigurable architecture to fit user tastes

To realize less communication constraint, we need to prepare eleven independent display system. If some player use a same console with screen division method, a player can peep other player's display witch contains information he can't have in ordinary way.

There are many issues to solve. To analyze and solve these matter, we develop several prototypes. OZRPC is a application level intelligent multiplexer. JINN is a integrated system including user interface and intelligent assist system with simple monitor. OZip is one other integrated system including visualized use interface and intelligent assist system. OZWWS employ portable game devices and it can provide eleven independent display by its own LCDs.

5 conclusion

Because the team OZ-RP employ eleven human player the team log can be used to analyze human cooperation behavior.

To realize this goal, we consider several constrains to make the human players legal in the RoboCup official regulations.

By this OZ-RP team project, it becomes obviously that the human team is necessary for RoboCup project and its goal.

references

- Junichi Akita, Junji Nishino, Takenori Kubo, Hiroki Shimora, Itaru Fujitsuka, "OZ-RP system : RoboCup Simulation League Human Interface to beat replicants", JSAI SIG-Challenge report, 2001, to be appeared.
- <http://bishop.fuis.fukui-u.ac.jp/~nishino/ozrp/>
this page contains many photos of the OZ-RP system