

timing of the agents. Numerous concurrent access requests will drag down the performance of the system in a short time even if there seems to be enough resources.

6. CONCLUSIONS

This paper designs a communication framework, highlighting the system architecture, socket-based connection, the O-SLIP, as well as message encapsulation and parsing, and proposes an optimized serial line Internet protocol (O-SLIP) for the MAS system. The protocol can be deployed in any agent object and any layer, unifying the communication between the objects in the MAS system, and lays the basis for group control, consistency check, etc. After that, the author verified the performance of the proposed system in terms of network saturation, agent load capacity and data transmission delay. Finally, the author summed up the important issues in the selection and design of MAS communication systems.

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