

Abstract: This thesis analyses the questions of communication between agents in MAS. Firstly, I tried to introduce a logic agents, particularly logic rational agents. For rational logic agents characterization I used LORA logic. I illustrated the syntax and the semantic of LORA. Then I concentrated on architecture MAS according to a FIPA specification. I used the JADE environment as implementation of this architecture. JADE is fully implemented in the JAVA language. I described how the communication between two JADE agents works and what form and parameters the messages according to the ACL language have. FIPA developed the ACL language for communication between agents. I described how agents use the protocols. JADE didn't contain any protocol for negotiation. That is why I integrated a new VETO protocol into JADE. This protocol can use all the JADE agents. In order to do it, I integrated new message parameters into JADE. This message parameters extend the ACL message parameters. For demonstration I implemented two classes in the JADE (one for the initiator and one for the responder) using a Veto protocol. Further, I described how new negotiation protocols could be add to JADE. For example I added to JADE another negotiation protocol, called NEGO. At last I used my new implemented ability to negotiation on more complicated MAS.