

Homework 2

ID2209

Distributed Artificial Intelligence and Intelligent Agents

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Problem Statement

Implementing the FIPA Dutch Auction Interaction Protocol [1] using the JAVA Agent Development Framework (JADE) [2] and laying out a theoretical model of the the game mechanisms involved in dutch auctions between autonomous self-interested agents. The purpose of the homework was to get further practive in developing MultiAgentSystems (M.A.S) and in particular M.A.S that involves *negotiatons* between agents.

Main problems and solutions

- *Implementing the FIPA dutch action protocol in JADE*
 - Agent design - Designing and implementing auctioneer and bidder agents.
 - Society design - Implementing the interactions of the protocol as defined by the specification [1].
- *Constructing a theoretical model of the game mechanisms of dutch auctions and evaluating it*

TODO

Implementation

Game mechanisms

Conclusions

Attachments

Documented source code can be found in the attached zipfile. See README.MD in the root directory for instruction on how to execute and build the program.

References

- [1] Foundation for Intelligent Physical Agents. Fipa dutch auction interaction protocol specification. <http://www.fipa.org/specs/fipa00032/XC00032F.pdf>, 2001. [Online; accessed 18-Nov-2016].
- [2] Telecom Italia. Java agent development framework. <http://jade.tilab.com/>, 2016. [Online; accessed 11-Nov-2016].