ID2209 – Distributed Artificial Intelligence and Intelligent Agents

Assignment Y – Agents & stuff

Group X
GroupMember_A

GroupMember_B

DATE.OF.ASSIGNMENT

<A short, simple header that explains what the assignment is about>

In this assignment, we were tasked with creating X in GAMA, and implement Task2 when Event1 happened.

How to run

<Include a simple description for future readers who might want to run your code example, including some parameter tweaking if necessary>

Run GAMA 1.7 and import filename.x as a new project. Press main to run the simulation. Note that changing parameters 1,2 and 3 will affect how A, B and C will work.

Species

Agent A

<Short description about the agent and behaviour>

This agent was responsible with doing Task1 when AgentB did required Task2. The important variables, reflexes and actions used to do X are ...*<write something interesting>*

Agent B

This agent was responsible with doing Task2 whenever Event1 happened…

Implementation

<Explain a little bit how you went on with your assignment>

We started developing AgentA and made his simple behaviour work. When we had created AgentB, the next logical step was to make Task1 achievable by implementing X using method Y…

Results

<If there is anything interesting that you want to demonstrate, to proof that you have completed the assignment, do that here>

As you can see in the following log, AgentB successfully completes Task2

AgentA: I'm doing this
AgentB: Ok I'm doing that
….
AgentB: Task2 completed at time xx.yy.zzzz

This can also be demonstrated from this fancy screenshot right here.

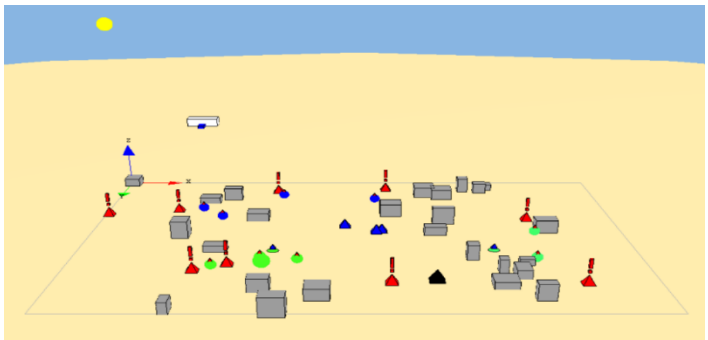

Figure 1: A screenshot of the final solution.

Challenge 1

<Explain shortly how you went on by implementing the challenging features>
To complete the first challenge, we added a List variable to AgentA and an Array variable to AgentB. The List held information and X and Y while the Array had information about Z…

Challenge 2

<Same as the above, if there are two challenges or more>

Creative implementation

<You are free to express yourselves here. Keep it simple, but motivate why you should be awarded a creative bonus point for your implementation>

For our creative solutions, we added a new agent, **AgentÞ** (**Þ** is an Icelandic letter that sounds just like the word *the* without the *e*. It's name is pronounced *thodn*) that took care of managing voting of agents in the system to optimize Task2. Three of such agents were created that could broadcast messages to all other agents. We used the Bully Algorithm to select and maintain a leader in our system, making it fault tolerant.

We argue that we should receive a bonus point for creativity in this assignment because not only did we include a feature from a totally different course showing off our capabilites to combine skills that we have learned here at KTH, but this also adds a lot of value to the assignment!

Figure X: Show off your fancy implementation here!

<If you implemented the creative part, please fill this table with the relevant information>

Qualitative/Quantitative questions	*Answer*
Time spent on finding and developing the creative part	
In what area is your idea mostly related to…	
On the scale of 1-5, how much did the extra feature add to the assignment?	
On the scale of 1-5, how much did you learn from implementing your feature?	

Discussion / Conclusion

<Discuss what went well and what went bad in the assignment, what you thought of it and what you learned>
Creating AgentA was no problem, but AgentB did not behave as we wanted to. The assignment was really nice and thaught us how to X and Y, but Z was not so interesting and could be skipped or improved. Overall a good assignment, can't wait to create a new version when I get back home to show my friends and family!