

IMAS-MAI

First implementation

Team 5

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User Agent

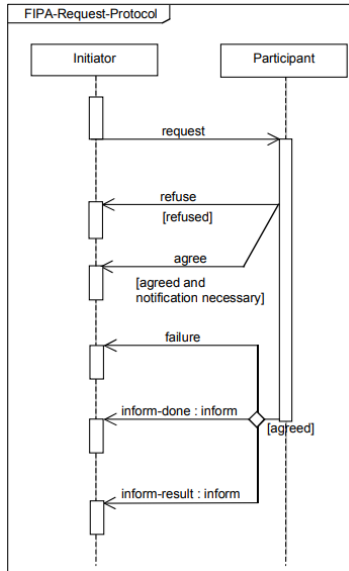
What has been done:

- Setup:
 - DF registration
 - Instantiates Manager Agent
- Cyclic behaviour that:
 - Reads the user input:
 $T < \text{config file name} >$: For training
 P : For predicting
 - Reads configuration file
 - Sends requests with instructions (training includes the proper configuration).

Future work:

- Complement control over agent own life cycle (inactive, active, take down).
- Complete the FIPA Request Protocol:
 - Be able to receive "refused" or "agreed" responses from the Manager.
 - Be able to receive failures and informs from the Manager.

User Agent



Manager Agent

What has been done:

- Dynamically instantiate classifier agents.
- Receive orders from the user agent and send orders to the classifiers.

Future work:

- Establish more complex strategies for managing the classifiers (weighting, for instance).

Classifier Agent

What has been done:

- Implement a J48-type classifier
- Detail and enable a communication protocol for training and predicting.

Classifier Agent

Future work:

- Create classifier variants, for using things other than a J48 as the model.

Execution

```
Nov 19, 2019 11:21:10 PM jade.core.AgentContainerImpl joinPlatform
INFO: -----
Agent container Main-Container@172.17.0.1 is ready.
-----
T imas.settings
Nov 19, 2019 11:21:26 PM UserAgent readConfigFile
INFO: Loading simulation parameters from: src/config//imas.settings
1
Nov 19, 2019 11:21:26 PM UserAgent readConfigFile
INFO: Node 0
Nov 19, 2019 11:21:26 PM UserAgent readConfigFile
INFO: Simulation IMAS_basic_simulation config loaded!
IMAS_basic_simulation@J48@2@80@80@5@fertility_Diagnosis_train.arff
src/data/fertility_Diagnosis_train.arff
Nov 19, 2019 11:21:26 PM ManagerAgent$WaitOrderAndActBehaviour action
INFO: Agent manager read message from user
Nov 19, 2019 11:21:26 PM ClassifierAgent$WaitMSGAndActBehaviour action
INFO: Agent Classifier1 trained classifier as per request from manager
Trained successfully
Nov 19, 2019 11:21:26 PM ClassifierAgent$WaitMSGAndActBehaviour action
INFO: Agent Classifier0 trained classifier as per request from manager
Trained successfully
```


Execution

The screenshot displays the JADE Agent Management GUI. The title bar shows the connection path: `rma@172.17.0.1:1099/JADE`. The menu bar includes **File**, **Actions**, **Tools**, **Remote Platforms**, and **Help**. The toolbar contains various icons for agent management, including creating, deleting, and connecting to agents.

The left pane shows a tree view of the agent platforms:

- AgentPlatforms
 - "172.17.0.1:1099/JADE"
 - Main-Container
 - Classifier0@172.17.0.1:1099/JADE
 - Classifier1@172.17.0.1:1099/JADE
 - ams@172.17.0.1:1099/JADE
 - df@172.17.0.1:1099/JADE
 - manager@172.17.0.1:1099/JADE
 - rma@172.17.0.1:1099/JADE
 - user@172.17.0.1:1099/JADE

The right pane displays a table with the following columns: **name**, **addr...**, **state**, and **owner**. The table is currently empty.