

Practical exercise 2013-2014

There are 3 main packages in the Multi Agents practice. The most basic classes for each package are detailed based on their function:

- **Package: Sma**
 - Central Agent: Is the agent that contains the information related to the interface by the instance of the GraphicInterface class. Initially it loads the practice parameters for the game and set this information into the InfoGame class. This information is located in the game.txt file.
 - Coordinator Agent: Is the agent that knows the changes that dynamically happen in the map by using the AuxInfo class. Initially this information is sent from the Central Agent.
 - UtilsAgent: Utility class for search and create agents (dynamically).
- **Package: Sma gui**
 - GraphicInterface: Main class of the UI. It loads the MapVisualizer (Map cells).
 - MapVisualizer: Class used to create and paint the map cells. It extends from a JPanel.
 - When the paintComponent method is invoked (MapVisualizer is a JPanel), based on the information of the cell, an agent, building or street is painted by their respective methods (drawBuilding, etc).
 - The initial state of the map are obtained from the AuxInfo class, specifically the method getMap() which contains the cells.
- **Package: Sma ontology**
 - InfoGame: Contains the information of the game (encapsulated in the AuxInfo variable). Initially, the agents are defined randomly on the readGameFile method.
 - AuxInfo: Contains the map cells and information of the agents. It's send from the Central Agent to the Coordinator Agent when the game is initialized. This information may be used for the agents to determine next movements or actions, coordinations, etc.
 - InfoAgent: Represents the information of a specific agent in the practice. The properties of each kind are encapsulated in this class (type of agent, units of garbage allows, etc).