

Multi-Agent Systems – Syllabus –

Olivier Boissier, Gauthier Picard

ENS Mines Saint-Etienne
<http://www.emse.fr/~{boissier|picard}>

Ecole Nationale
Supérieure des Mines
SAINT-ETIENNE

“Web Intelligence” Master — October 2013

Content

- Existing models defining multi-agent oriented programming paradigm: Agent, Interaction, Environment, Organisation Models
- Existing programming languages and platforms supported by these models
- Special focuses on:
 - A Multi-Agent Oriented Programming Approach and Platform
 - *Self-Organisations vs Controlled Coordination*

Objective

- To get a brief overview of the multi-agent systems research domain
- To understand the problems, the questions that are addressed in this domain
- To practice existing multi-agent technologies
- To acquire some skill in multi-agent oriented programming

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Timings

- 13/10/03:
 - 8h00-10h00: Introduction, Multi-Agent Programming, *JaCaMo* Platform
 - 10h00-12h00: Agent Oriented Programming – Agents' models & *Jason*
- 13/10/10:
 - 8h00-10h00: Agent Oriented Programming – Practical Work on *JaCaMo* [*Jason*]
 - 10h00-12h00: Distributed Problem Solving
- 13/10/24:
 - 8h00-10h00: Distributed Problem Solving – Practical Work
 - 10h00-12h00: Distributed Problem Solving – Practical Work
 - **Practical Work finishes at the end of the session.**
 - **Practical Work PW_{DPS} counts for the evaluation.**

Timings (Continued)

- 13/10/25:
 - 8h00-10h00: Environnement Oriented Programming – Environments' models & CArtAgO
 - 10h00-12h00: Environnement Oriented Programming – Practical Work on *JaCaMo* [CArtAgO]
- 13/11/08:
 - 8h00-10h00: Organisation Oriented Programming – Organisations' models & *MOISE*
 - 10h00-12h00: Interaction Oriented Programming – Interactions' models
- 13/11/15:
 - 8h00-10h00: Organisation Oriented Programming – Practical Work *JaCaMo* [*MOISE*]
 - 10h00-12h00: Interaction Oriented Programming – Practical Work *JaCaMo*

Timings (Continued)

- 13/11/22:
 - 13h30-15h30: Self-Organisation
 - 15h30-17h30: Self-Organisation – Practical Work
- End of January 2014:
 - **Practical Work PW_{MAOP} is due at that time and counts for the evaluation.**
 - **Evaluation of Theoretical Work.**

Grading Policy

- DPS Practical Work (PW_{DPS}), MAOP Practical Work (PW_{MAOP})
- Oral Presentations (OP) : by group of 2, study of a research paper, oral presentation of 20 min. + 5 min. of questions/answers
- Grade = $((PW_{DPS} + 2 * PW_{MAOP}) / 3 + 2 * OP) / 3$