

The control monitor tool allows a user to select an agent of interest and browse-through, add, modify or delete its current jobs, resources, tasks, organisational relations and knowledge, and coordination strategies. Further, the user can suspend or resume jobs, and also suspend, resume or even kill agents. A
5 facility is also provided for the user to tune various parameters of an agent such as how long it waits for replies from other agents before assuming a null response, or how the agent should split its time between performing tasks it has already committed to and coordinating new tasks. Because different multi-agent systems or applications may use different ontologies or data dictionaries to specify data
10 items, this tool allows users to load an ontology database 260 defining the ontology of their specific system or application.

The control monitor tool is useful in debugging and/or analysing the behaviour of a society of agents by allowing a user to dynamically reconfigure the society and analyse its subsequent behaviour. This is useful when testing
15 hypotheses. The user can use it to study the effects of various changes on agents' constitution, organisational relations, co-ordination behaviour etc. For example, an agent might, contrary to expectations, consistently reject a job for which it has adequate know-how (task) but lacks the required resources although there are other agents in the society that can produce the required resources.
20 Using the control monitor tool to browse through the tasks and resources of the agent, a user might convince herself that the agent possesses the know-how but lacks the resources. Checking the agent's list of coordination strategies may, for example, indicate that the agent does have the coordination ability to subcontract out the production of the required resources to other agents in the set-up. Since
25 the agent rejects the job though, the user might posit two hypotheses, that either (A) the agent is unaware of other agents in the society that can produce the required resource, or (B) the time-out period that the agent waits for acceptance after sending out job request messages to other agents might be less than the time needed by those agents to determine whether or not to accept a job. Using the
30 control tool to browse through the organisational relations and knowledge of the agent might confirm or refute hypothesis (A), and again using this tool to increase the agent's wait-acceptance time-out might confirm or refute hypothesis (B).

Other tools such as the micro or society tool might also be used in tandem with the control monitor tool to investigate these hypotheses. Using the society