Prometheus Design Tool

• Design tool supporting the Prometheus methodology developed at RMIT

• Features:
  – Enter and edit designs (descriptor forms, diagrams)
  – Cross checking:
    – undefined and unused entities
    – interface consistency
    – …
  – Generate design report (HTML) + images (PNG)

• Written in Java, freely available on web
  www.cs.rmit.edu.au/agents/pdt

• Beta – feedback welcome!

• Demo …
start FIPA query protocol
agent I Initiator
agent P Participant
box alt
  message I P query-if
next
  message I P query-ref
end alt
box alt
  message P I not-understood
next
  message P I refuse
next
  message P I failure
next
  message P I inform
end alt
finish

www.cs.rmit.edu.au/~winikofff/auml
Data Coupling Diagram

- Meeting Planner
- Meetings
- Rescheduler
- Available hours
- Personal Planner
- Unavailable times

Prometheus
GUI - Descriptor

Name: GUI
Description: Interacts with the user and stores user-related data.
Cardinality minimum: 1
Cardinality maximum: 1

GUI - Acquaintance Diagram

- GUI
- Meeting Scheduler
- Messaging

GUI interacts with the user and stores user-related data.
Consistency checking

Consistency check alternatives

- ✔ Check project agents
- ✔ Check project capabilities

Find unused:

- ✔ Actions  ✔ Capabilities  ✔ Functionalities  ✔ Messages  ✔ Plans  ✔ Scenarios
- ✔ Agents  ✔ Data  ✔ Goals  ✔ Percepts  ✔ Protocols

OK: The message "checkPriority" is sent.
OK: The message "priorityResponse" is received.
OK: The message "priorityResponse" is sent.
OK: The message "scheduleMeeting" is received.
OK: The message "scheduleMeeting" is sent.
OK: The message "notifyCancelMeeting" is received.
OK: The message "notifyCancelMeeting" is sent.
OK: The message "notifyNewMeeting" is received.
OK: The message "notifyNewMeeting" is sent.
OK: The message "AvailabilityQuery" is received.
OK: The message "AvailabilityQuery" is sent.
OK: The message "AvailabilityResponse" is received.
OK: The message "AvailabilityResponse" is sent.
OK: The message "Request Manual Scheduling" is received.
OK: The message "Request Manual Scheduling" is sent.
OK: The message "cancelMeeting" is received.

✔ Ok  ✔ Warnings  ✔ Errors
Goals
Reschedule meeting, Avoid cascading reschedules, Consider meeting priority

Functionality Personal Planner
Name: Personal Planner
Description: Concerned with the user interface. Obtains from the user when they are not available, reports to the user their meetings.
Triggers: Unavailable times set, Available hours set, User requests meetings