

# JERICO Evaluation Testbed DREAMS System

A life Demonstration

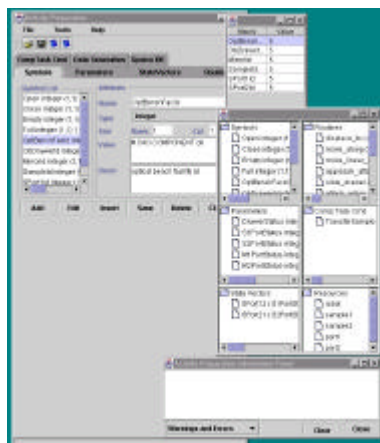
by

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## Activity Preparation



- All editors in the same panel
- Menu bar, tool bar, tabbed pane, progress bar
- Additional tools:
  - information panel
  - a panel for all entities visualised together
  - `macro` evaluation panel
- Coherence maintained

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## Symbol Editor



- Symbol associates a value to a mnemonic name.
- Specified by
  - name
  - type
  - value
- Used for
  - easily give values to Parameters, Arguments, etc
  - connection with CAO

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## Parameter editor



- A Parameter defines a telemetry field
- Specified by
  - name
  - type
- Used for
  - the State Vectors definition
- Examples
  - joint values, drawer status, ...

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## State Vector editor



- A State Vector defines an observable state of the controller
- Specified by
  - name
  - set of parameters with the associated values (tolerance)
- Used for
  - the Compound Tasks Cmds definition

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## Routine editor



- A Routine defines a PDL routine
- Specified by
  - type (action, task, CT)
  - name
  - set of arguments
  - the PDL code
- Used for
  - the Compound Tasks Cmds definition

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## Compound Task Cmd editor



- Comp Task Cmd: partial specification of a *robotic action*
- Specified by
  - name
  - set of valued arguments
  - set of non valued arguments
  - initial/final conditions
  - used resources
- Used for
  - the FQA definition

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## Code Generator Editor



- Objective: parameterised PDL code generator (Routines - Facilities)
  - manageable code & data base size
- Parameterisation specified by the user
- Examples
  - Drawer related tasks for the facility 1

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## Execution Control



- Objective:
  - activate the controllers
  - specify the FQAs
  - specify & control the application
- All editors in the same panel
- Menu bar, tool bar, tabbed pane, progress bar
- Coherence maintained

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## Fully Qualified Activity editor



- FQA: a fully specified *robotic action*
- Specified by:
  - a Comp Task Cmd
  - a set of valuated arguments
  - initial and final conditions
  - resources
  - successfully simulated,
  - simulation information
    - estimated duration, needed power

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# Experiment control



- Objective:
  - specify a sequence of FQAs to be executed
  - control (start/stop/...) their execution,
  - control critical functionalities (drives on/off)
  - monitor the state of the controller

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## Experiment control : External Operator

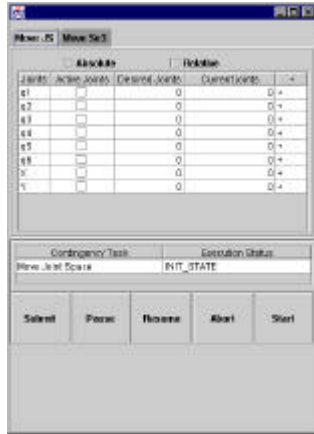


- Objective:
  - identify the connected external operators
  - allow to a particular external operator to submit experiment plans
  - approve / disapprove a submitted plan
  - allow information dialog with the distant operators
  - if the submitted plan is approved it is in the CRMC operator's responsibility to launch it by the main Execution Panel

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## Recovery Control



- Objective:
  - launch recovery actions
    - ex: move js, move se3, relax, ...
  - control a recovery action (pause/resume/abort)
  - Possibility to launch the recovery action when a nominal task is in Pause state
    - => panel to be displayed in parallel with the experiment control panel.

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## The DREAMS System



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