New Debugging Tools in TSI 3.0

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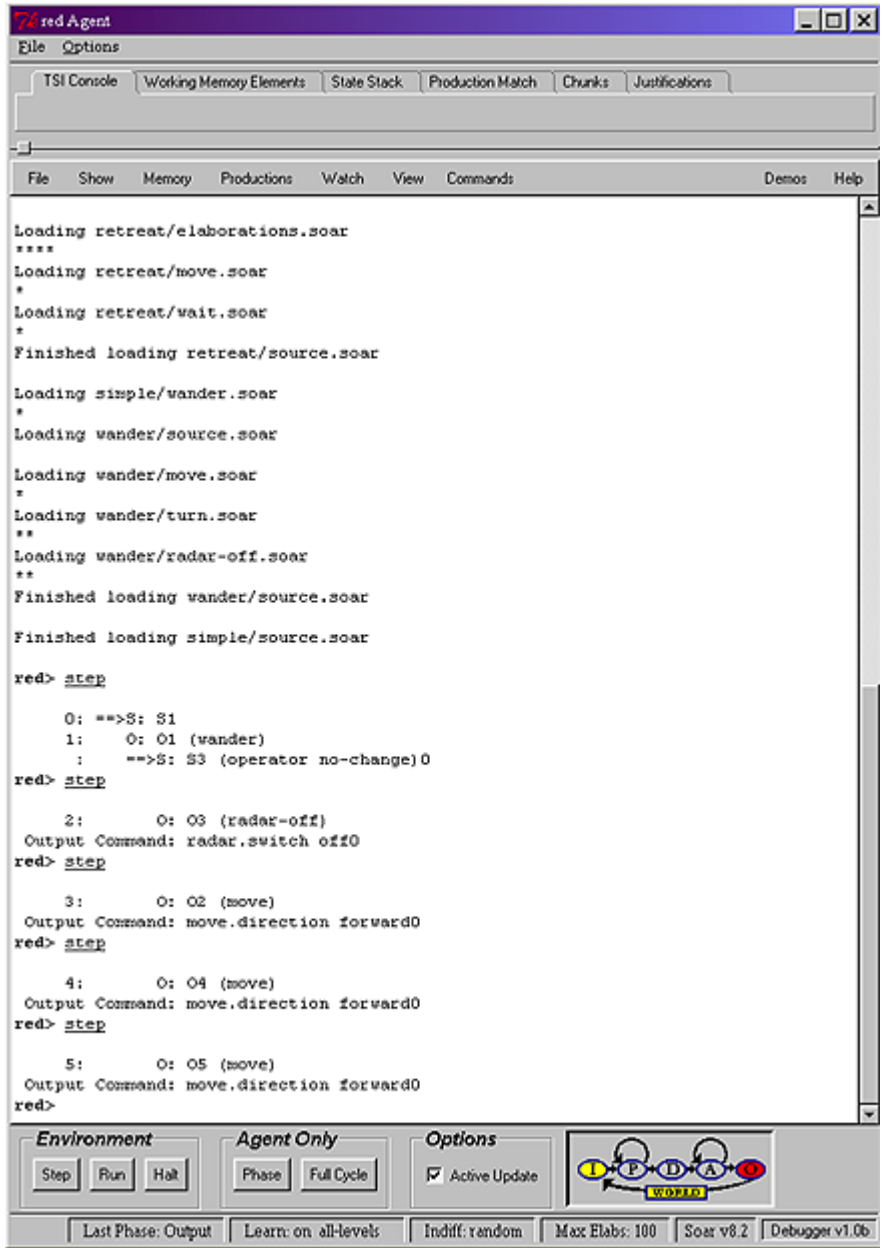
What's new in TSI 3.0

- Look at Soar working memory more intuitively: Tree views of working memory, state map, production matches
- Graphical representation of decision cycle
- Traditional TSI interface maintained
- Generalized interface to Tcl environments now part of the TSI
- Bug fixes

Compatibility

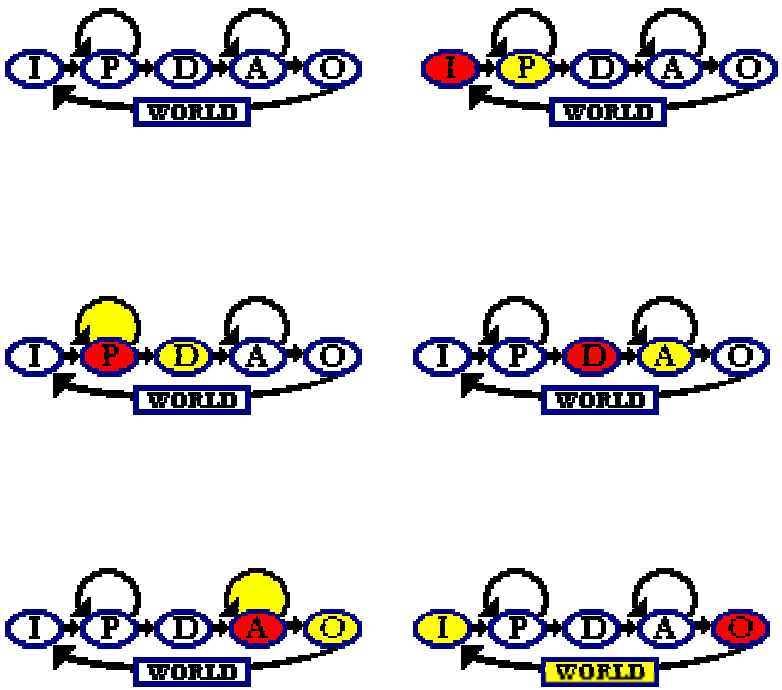
- New graphical views require Tcl 8.0 or newer.
- Backward compatible
  - Old TSI interface is a component of TSI 3.0
  - Old TSI can be used exclusively by setting global variable tsiConfig(interfaceType) to 1



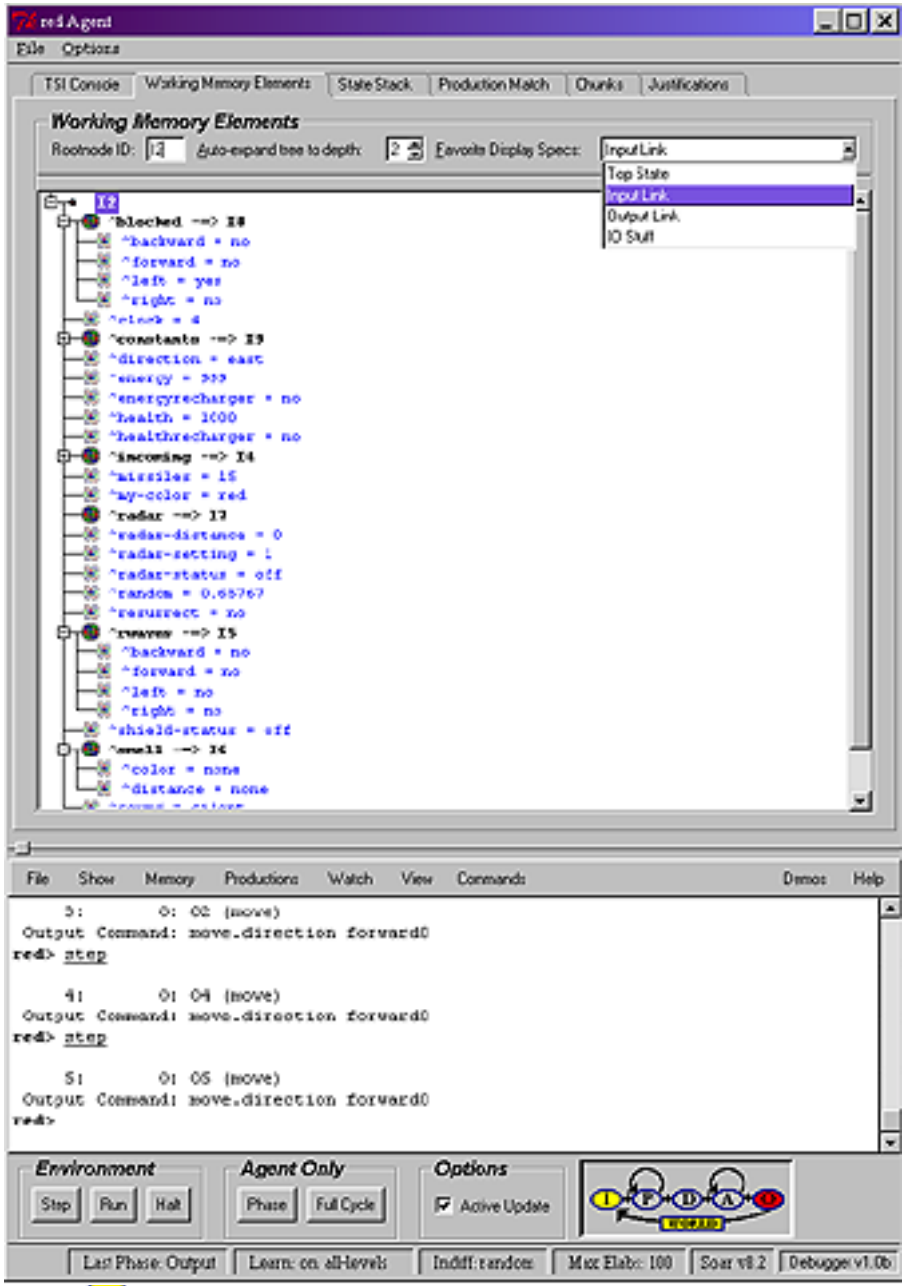
General Description

- Notebooks
- Split pane
- Graphical decision cycle
- Step buttons
- Active update
- Configuration Settings

Graphical Decision Cycle

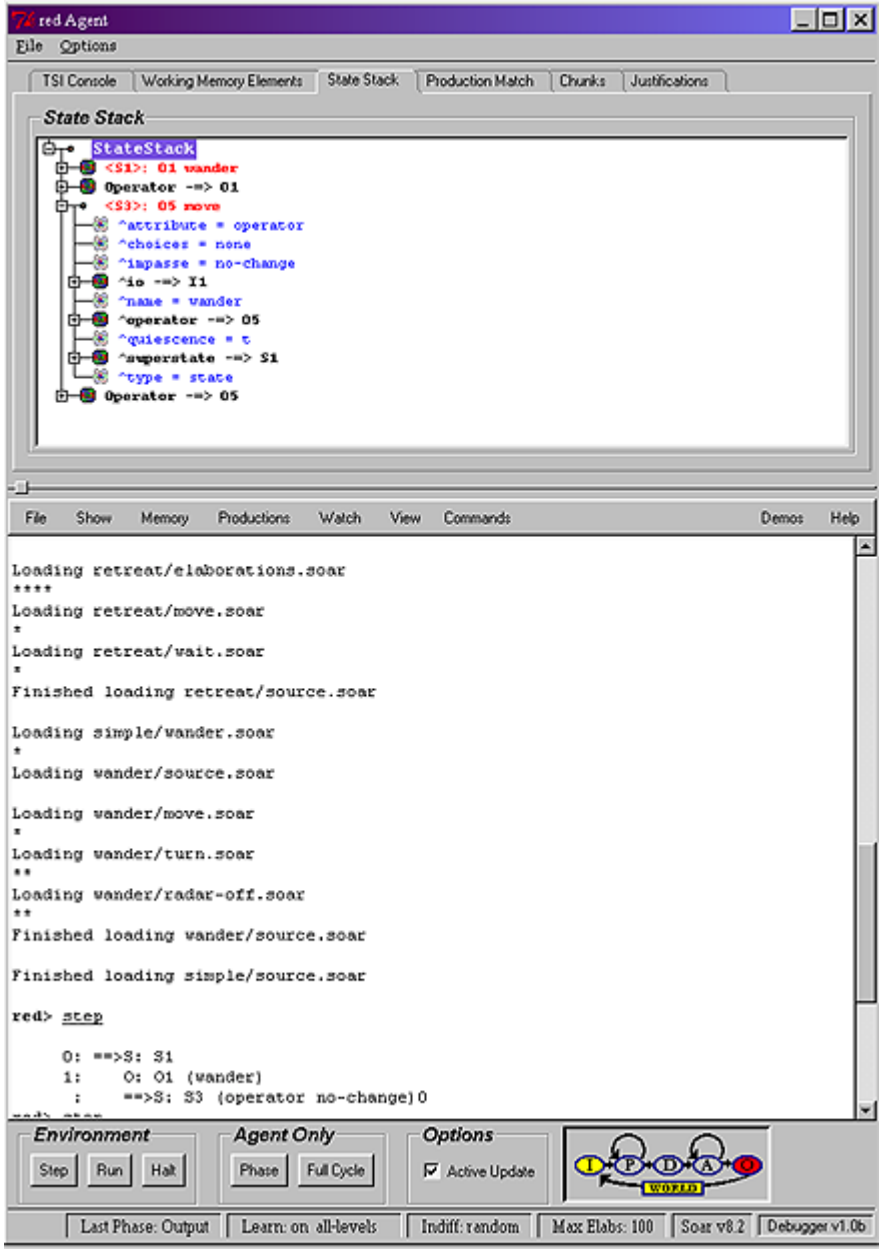


- Shows
  - Last phase
  - Possible next phases



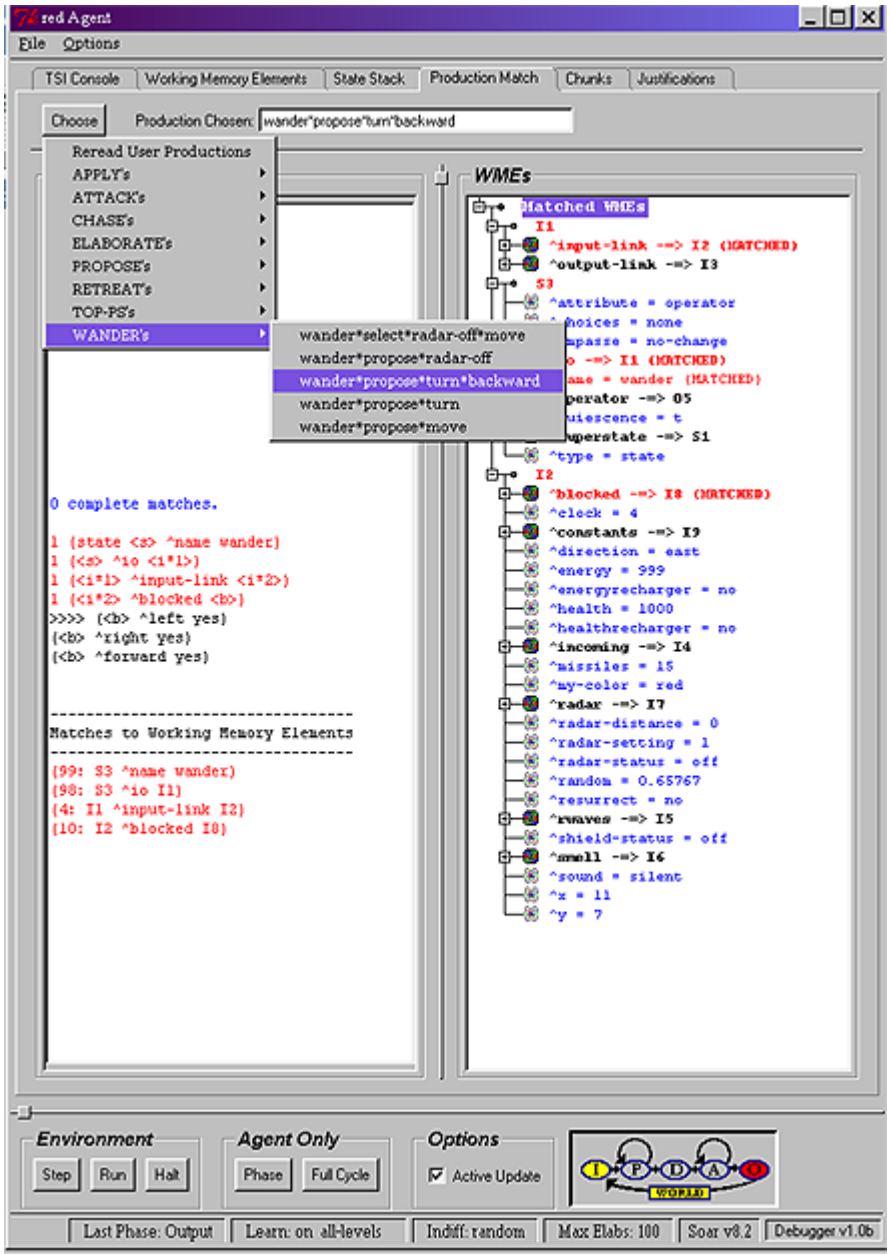
The WME Tree View

- Tree starting at any specified WME
- Auto-expansion
- Persistent list of favorite display specifications



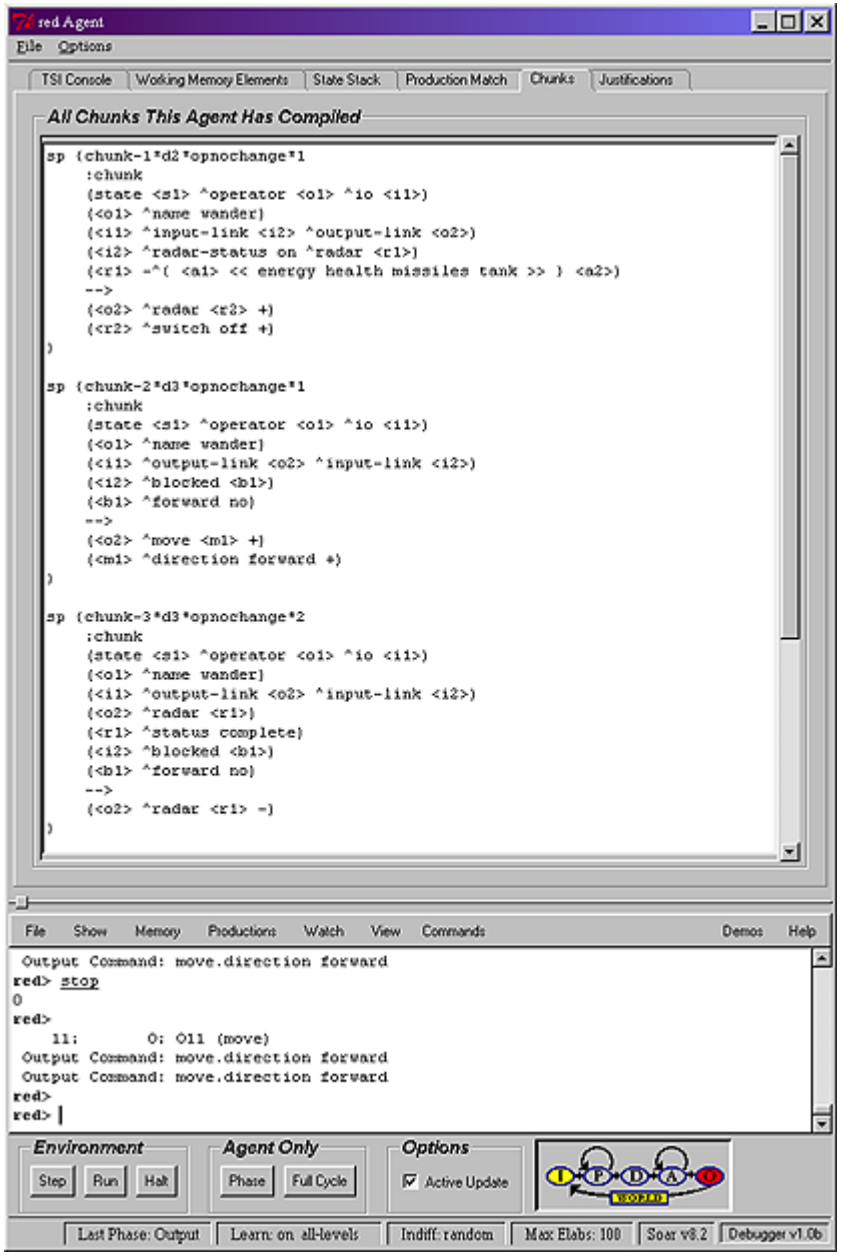
The State Stack View

- List of states with currently selected operator
- Works like standard WME tree



The Production Match View

- Select production from hierarchical list of user productions
- Matches output in left pane
- Matched WMEs in right pane



Chunks and Justifications View

Nuggets

- Graphical decision cycle useful for both users just learning about the Soar decision cycle and debugging tricky phase-related bugs
- Less wear and tear on your ‘p’ key

Coals

- Performance hit
  - Depends on amount of information displayed
- Requires more screen real estate
  - Suggest saving your own window prefs
  - Will try to reduce in a future version
  - Possible weird sash positioning
- Need to use Tcl 8
- Be careful with preferences
  - Novice users can mess up

Where to get

- Soar home page at the University of Michigan
- http://ai.eecs.umich.edu/soar/projects.html
- Part of the latest release of Soar, Tanksoar and Eaters