

Current and Future Enhancements to Visual Soar

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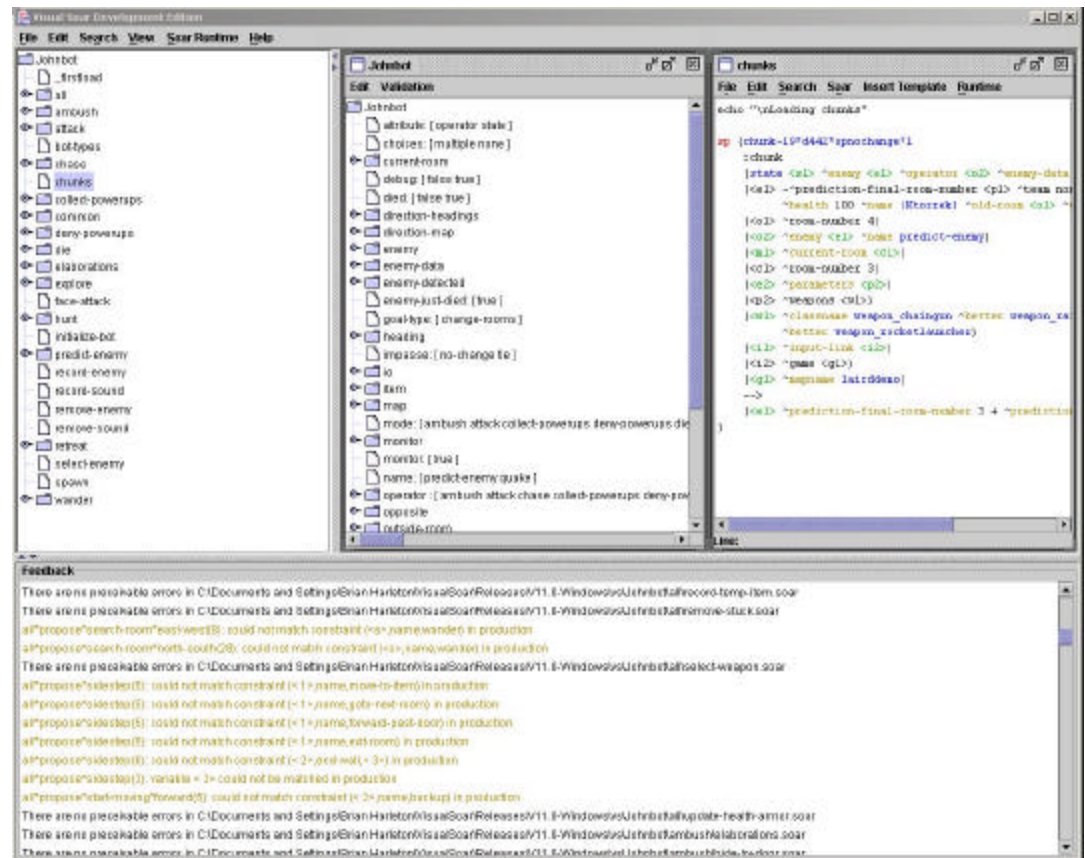


Changes for Visual Soar 4.0

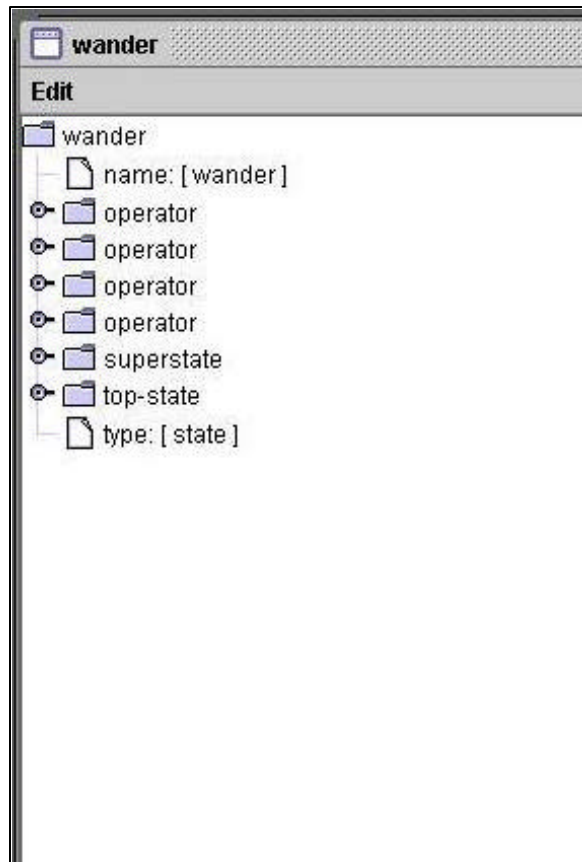
- Cosmetic Changes
- Global Search / Replace
- Bug Fixes
- Add Comments to DataMap
- DataMap Generation
- STI Interface (Three Penny)

Cosmetic Changes

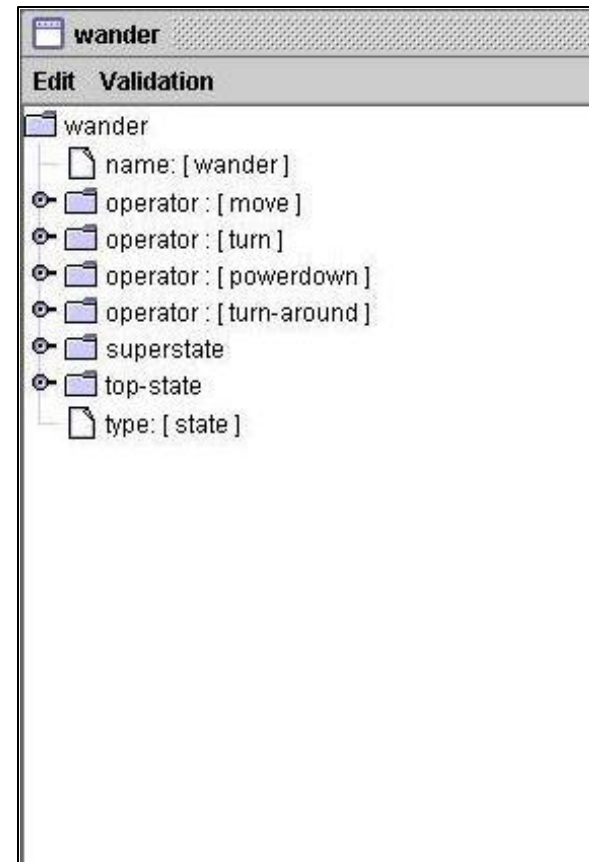
- Initial screen size now 90% of user's screen.
- Ability to resize feedback window.



Name Attribute now appears in operator heading in DataMap.



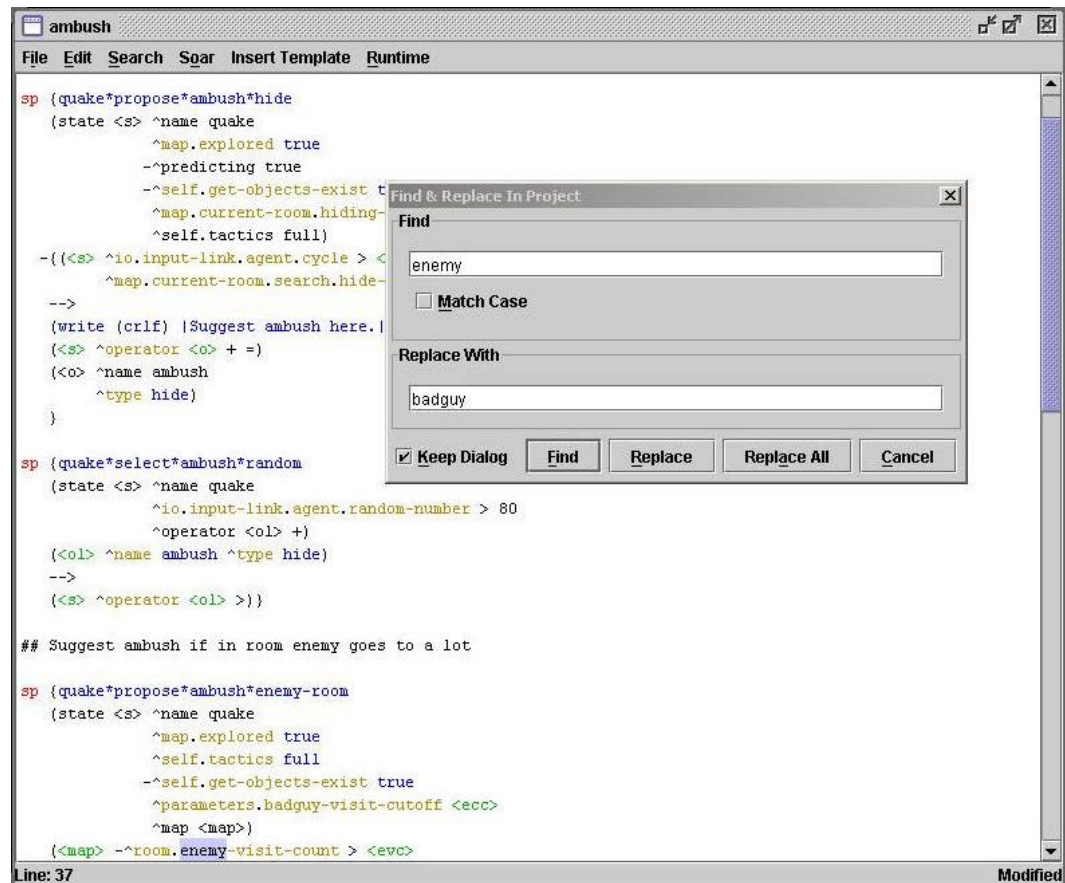
Old



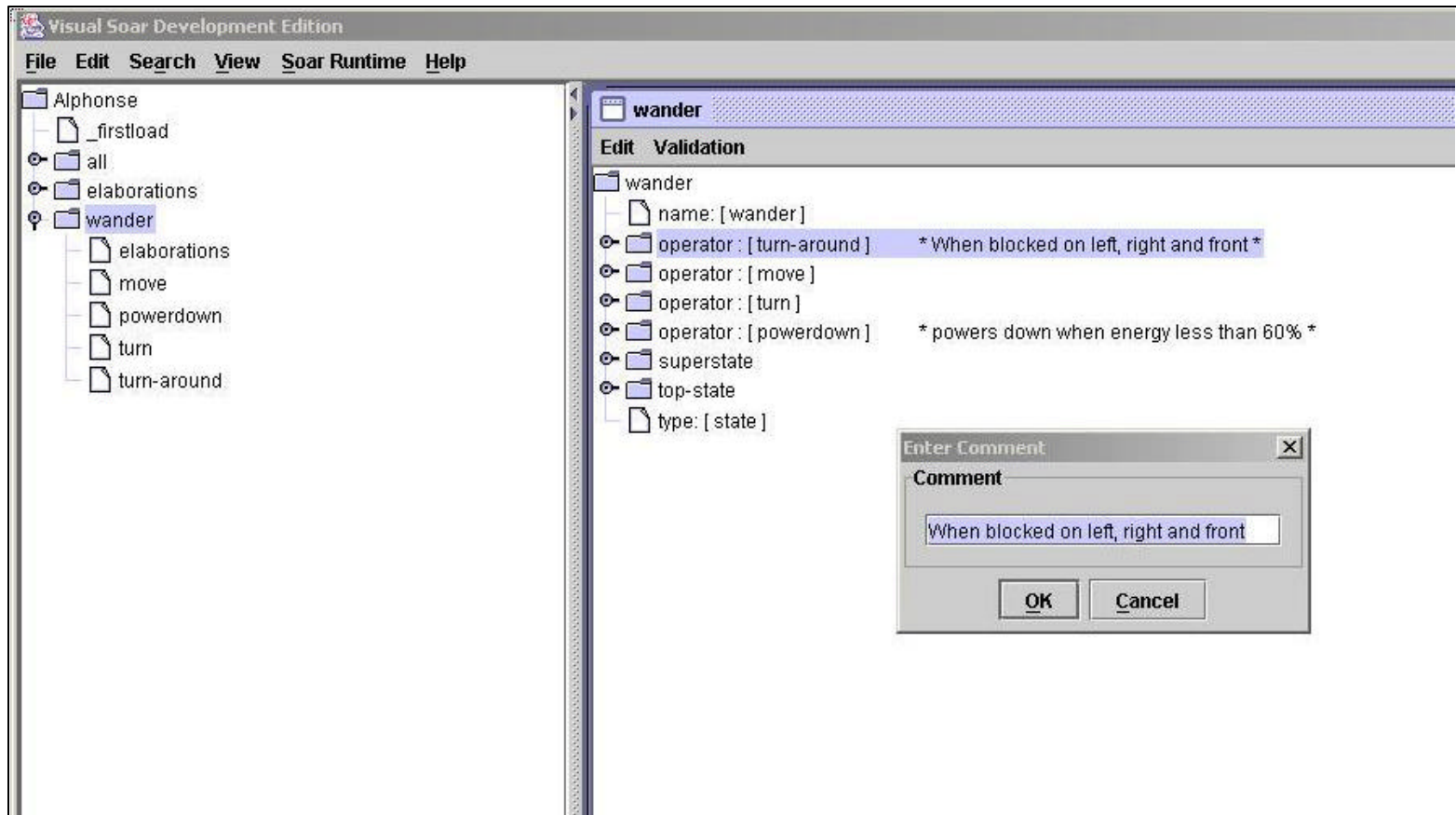
New

Global Search / Replace

Allows user to find and replace words in entire project.



Add Comments to the DataMap



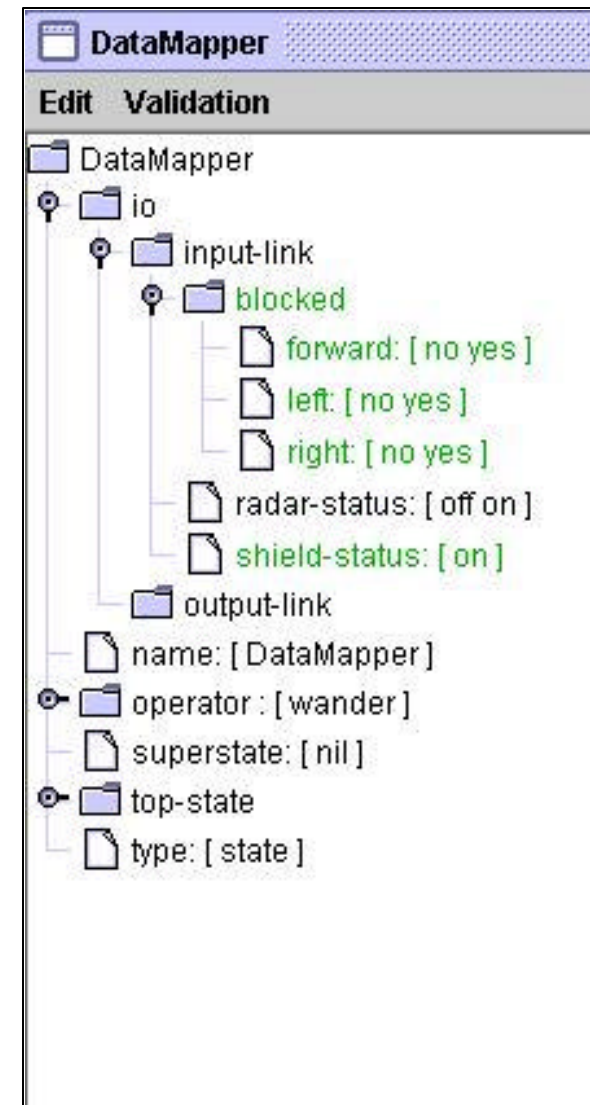


Bugs . . . Save As?

- Save As . . . now works!
- No more lost projects!
- Agents are saved correctly and ready to run.

Automatically Generate DataMaps

- DataMap generator uses existing operator hierarchy to create a DataMap.
- Generated DataMap entries allow user verification before becoming permanent.





Validation of the DataMap Generator

- Double-click on generated entries to locate operator that created that entry.
- Validation of generated entries achieved by several methods.
 - Validate a single entry
 - Validate a branch of the DataMap
 - Validate the whole DataMap
- Removal of all non-validated entries performed in one step.



Known Limitations of the DataMap Generator

- DataMap generator does not try to guess, only generates what is explicitly described in the operators.
 - `^blocked.forward no` would create an enumeration of 'forward' with value of 'no'. The generator does not assume 'yes' will be included and therefore does not add it to the enumeration until it sees 'yes' within the operator hierarchy.
- Generated Floats and Integers created with unbounded range.



Generator Limitations Continued . . .

- DataMap Generator cannot match non-specific attributes.

Example:

```
sp {propose*retreat*incoming  
  (state <s> ^name tanksoar  
    ^io.input-link.incoming.<dir> yes)
```

- The DataMap Generator has no idea what the user means by the attribute variable “<dir>”.
 - What do you mean by <dir>?
 - North, South, East, West?
 - Up, Down, Left, Right?
 - Rather than guess, the DataMap Generator leaves it for you to determine.



Future Features

- List of requests/bugs gathered from throughout Soar community.
 - That list was itemized and assigned a priority based on value and implementation time cost.
 - Many of the highest value items were already implemented and just shown to you.
 - Many items still remain . . .



Future Features

■ Current Highest Priority Items

- Separate Syntax / Productions error checking
- Import / Export portions of DataMap
- Printing!
- Fix disappearing cursor bug
- Retool Parse error feedback
- Auto-tile after a window is closed
- Add History options to recently opened projects, recently searched words , etc.



Future Features

- I need your feedback!
- Check out my current list of requests at:
 - www.personal.engin.umich.edu/~bharleto/visualsoar
- Email me your new requests at:
 - bharleto@engin.umich.edu



References

- Soar Homepage
 - <http://ai.eecs.umich.edu/soar/>
- Visual Soar Homepage
 - <http://ai.eecs.umich.edu/soar/projects/visualsoar/>
- Visual Soar Changes – In Progress
 - <http://www-personal.engin.umich.edu/~bharleto/visualsoar/>
- Email Me! Suggestions/Bugs/Requests
 - bharleto@engin.umich.edu