Soar 9.3.2

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Key Changes

- Uniform compilation procedure for all platforms compiles Soar as a single library
- New forgetting mechanism + misc. kernel changes
- Revamped and cleaned up Soar home page and Wiki
- New project organization in Wiki and SVN repository

Simplified Soar Shared Library

- ClientSML, ConnectionSML, ElementXML, KernelSML, SoarKernel combined into single Soar library

```
> g++ env.cpp -lElementXML -lClientSML -lConnectionSML -lSoarKernel
> g++ env.cpp -lSoar
```

- Static build is actually static
- No more LibraryLocation or LibraryName arguments in CreateKernelIn*Thread
- The way SpawnDebugger searches for SoarJavaDebugger.jar changed

Unified Build System

- Soar Suite now compiled via a single cross-platform SCons script
  - SCons is included in SoarSuite, you only need python
- No longer requires Ant for Java components
- No longer maintaining Visual Studio project files
  - SCons can generate one for debugging, etc
  - Still uses MSVC++ compiler
  - build.bat automatically sets all necessary environment variables
- Defaults to clang compiler on Mac, g++ 4.2 outdated
- Can compile Linux Standard Base compatible libraries

How To Compile

> svn co https://soar.googlecode.com/svn/trunk/SoarSuite
> cd SoarSuite
> python scons/scons.py

-- or if you have scons installed --

> scons

-- or for Windows --

> build.bat

Separate Compilation Targets

```
> scons list
Building intermediates to build
Installing targets to /home/jzxu/SoarSuite/out
C# compiler not found, not building C# SML wrappers
all
cli
debugger
debugger_api
headers
java_sml_misc
kernel
sml_java
sml_python
tests
> scons -c all
> scons kernel debugger headers
```

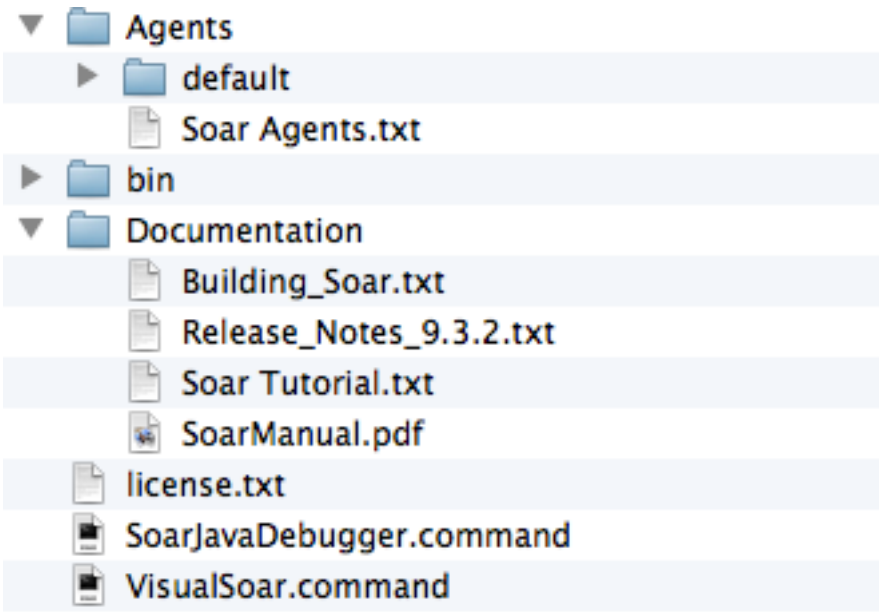
Kernel changes

- New forgetting mechanism to automatically excise chunks via a base-level decay model (look at rl command documentation under apoptosis)
- Tie-impasse substates now augmented with *non-numeric* and *non-numeric-count* attributes, analogous to *item* and *item-count* attributes.
- Soar will no longer automatically change the indifference selection policy to epsilon-greedy when turning reinforcement learning on

New Project Organization

- SoarSuite streamlined (8mb)
  - Contains the Soar kernel, Java debugger, VisualSoar, the Soar manual, default rules, unit tests and Soar header files
  - Other components moved to separate downloads
- The Soar Tutorial targeted towards people learning Soar for the first time.
  - In addition to SoarSuite contents, contains the Soar Tutorial, Eaters, TankSoar, and all the introductory agents discussed in the tutorial and John's new book

What's in Soar Suite 9.3.2



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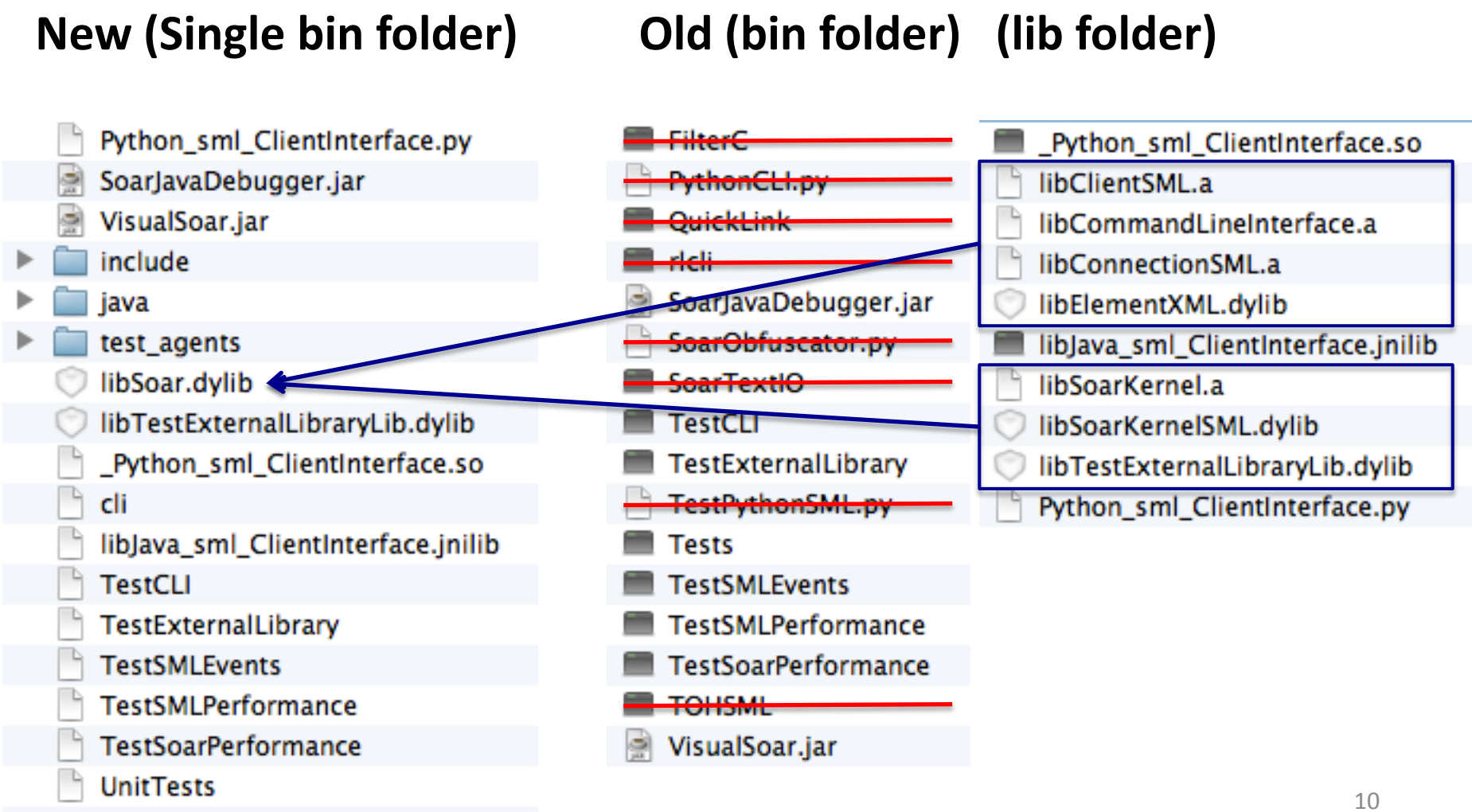
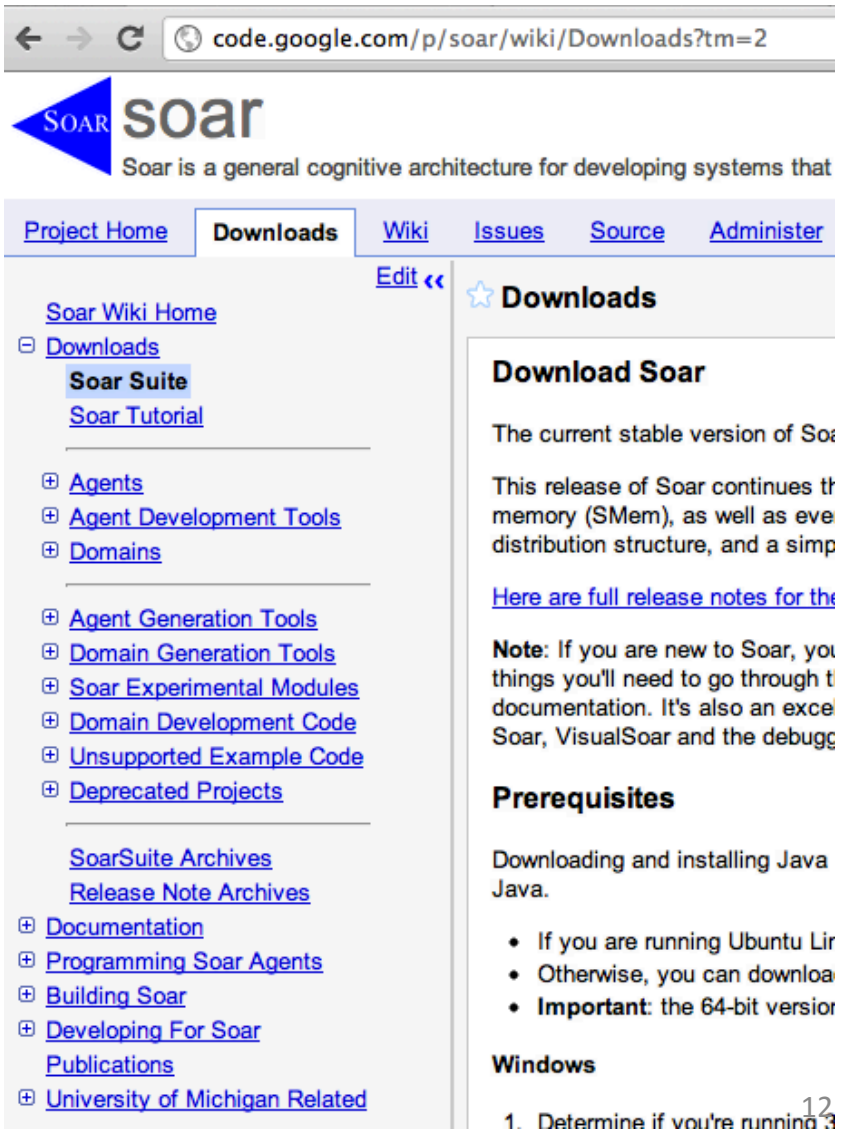


Improved Soar Web Pages and Wiki

- Nearly everything has stand-alone versions to download. Each project has its own web page.
- Every agent in every domain now has its own web page with thorough descriptions
- We encourage you to submit your own agents, tools and domains for inclusion. We want this to very much be a community area.

Improved Soar Web Pages and Wiki

- Agents
  - All agents from every domain
- Agent Development Tools
  - Soar Editor, VisualSoar, Vim plugin, UltraEdit config, Epmem-size, QuickLink, State2Dot
- Domains (8 project)
  - Dice, Eaters, TankSoar, InfiniteMario, RoomsWorld, SoarQnA, SoarTextIO, WordNet
- Generating Tools
  - PDDL, GGP
- Unsupported & Deprecated Projects
- Documentation
  - tutorial, manual



Improved Soar Web Pages and Wiki

- Contacts, alumnae, Soar research groups, publications all updated and dead links removed
  - Please contact us if you want you or your work added to any of these pages.
- Much obsolete documentation removed from Wiki
- Many new documents added to wiki and re-organized to make things easier to find

Coal

- Many older projects are no longer actively supported.
  - All are now under either the example development code or unsupported category.
- Some minor SML API changes

Nuggets

- Compilation is more “out-of-the-box”
- Spring cleaning. Lots of obsolete things removed. People should be much more confident the information they are reading is current.
- It should be much easier for people learning Soar to browse what people have put together in the past.
- Consistently formatted and comprehensive pages for all projects should promote code re-use. People can see everything available quickly and how to get it.