SBML Test Suite v2.0.0 alpha 1 – Standalone Application

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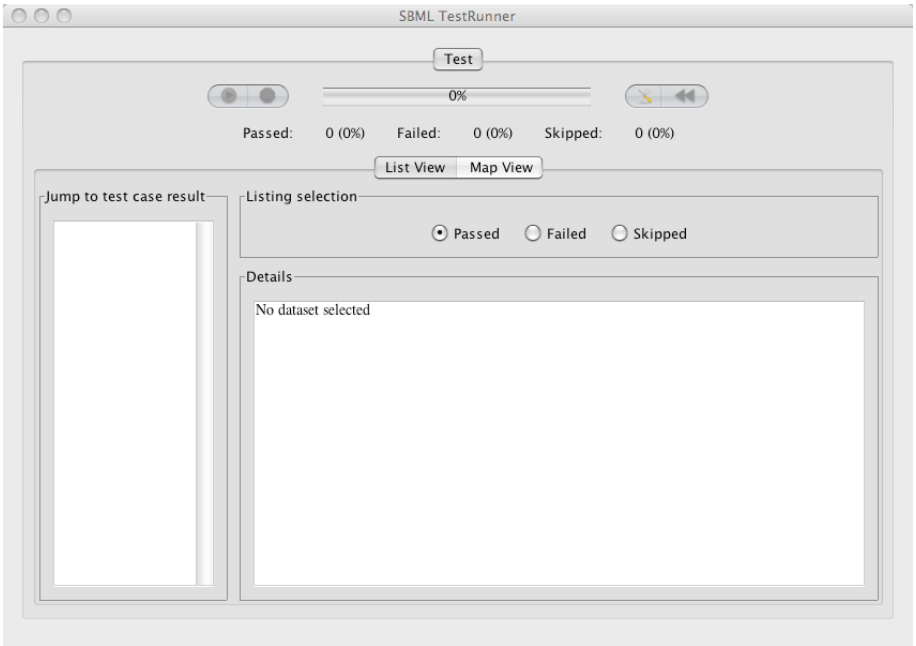
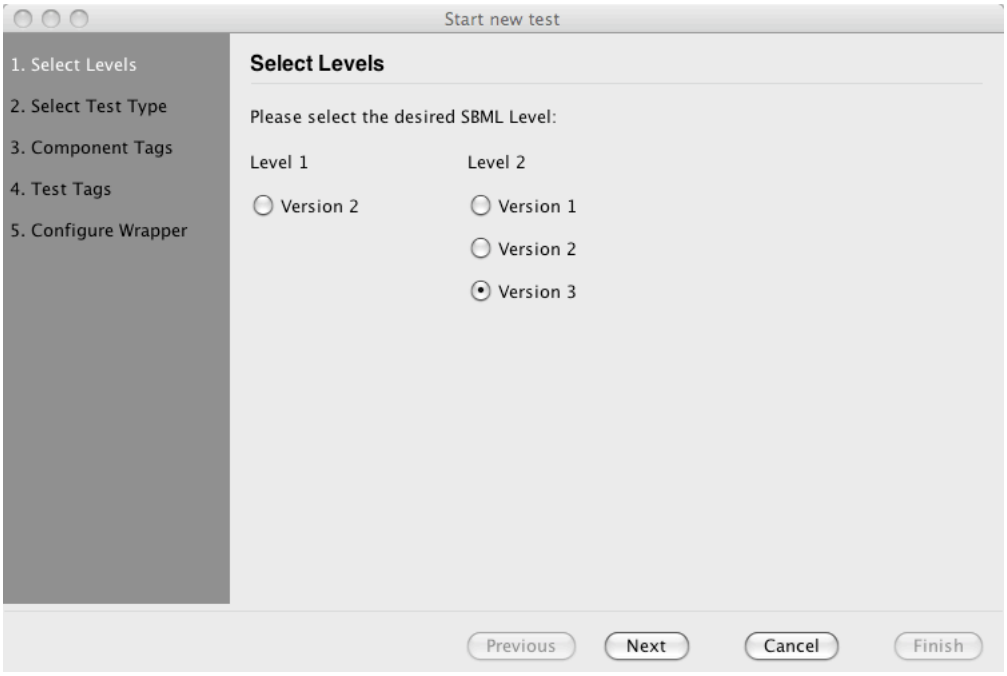
How to run a test
Double click on the test suite jar file. The main test window will appear.



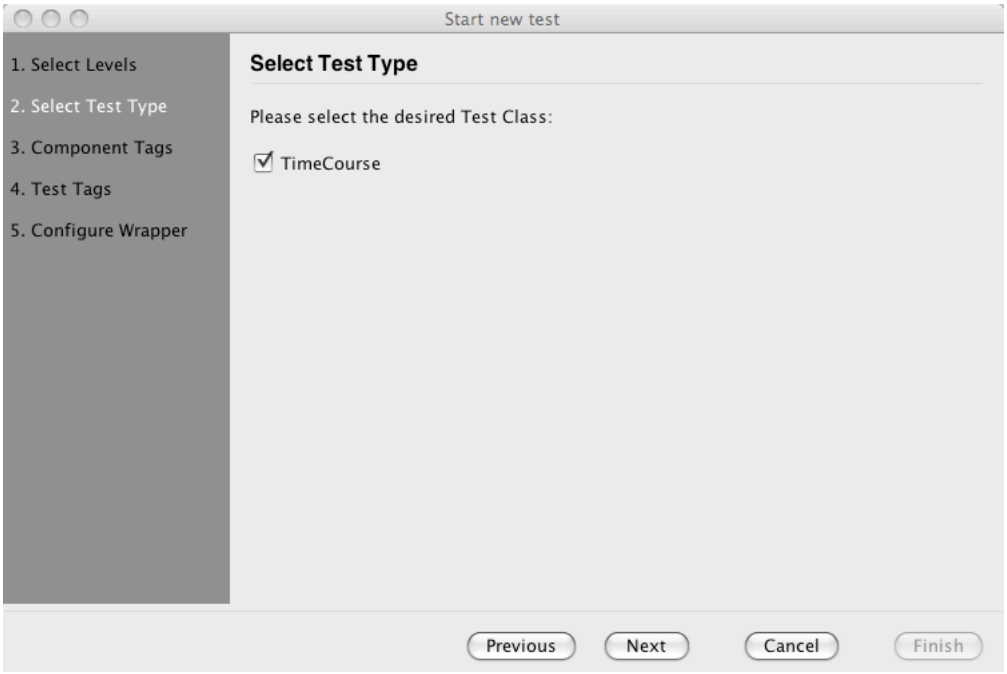
Go to the menu and select *File->New Test Run*. A wizard window will appear entitled "Start new test".

Select SBML level to test
Select the level you wish to test – note you can only test one level at a time. Click on "Next".



Select Test Class

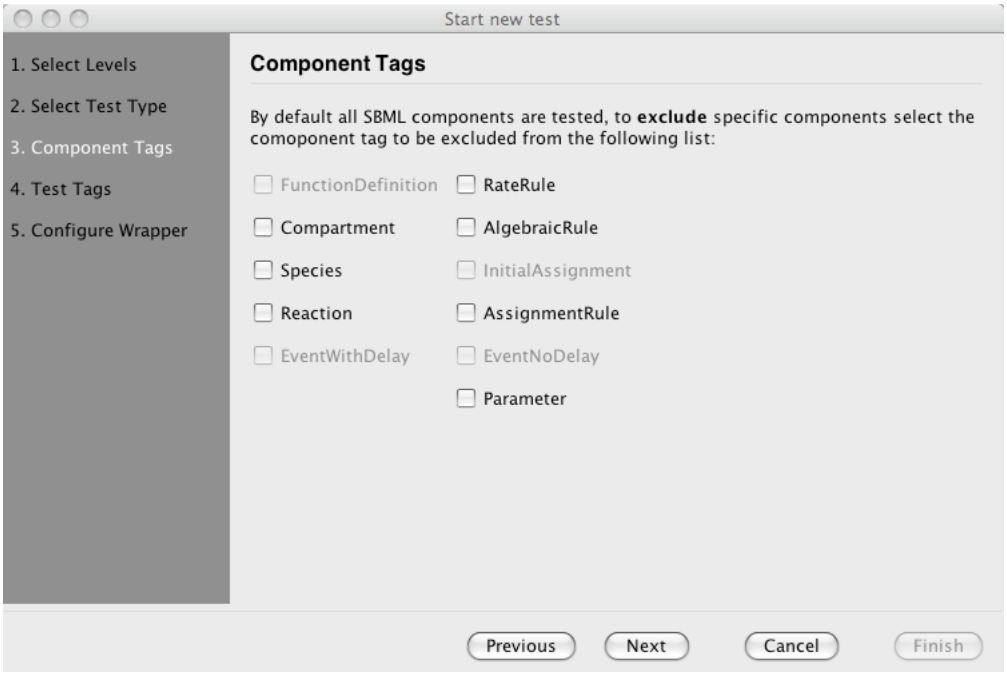
Select the desired test type – at the moment the only choice is time course. Click on "Next" to continue or "Previous" to return to the level selection page.



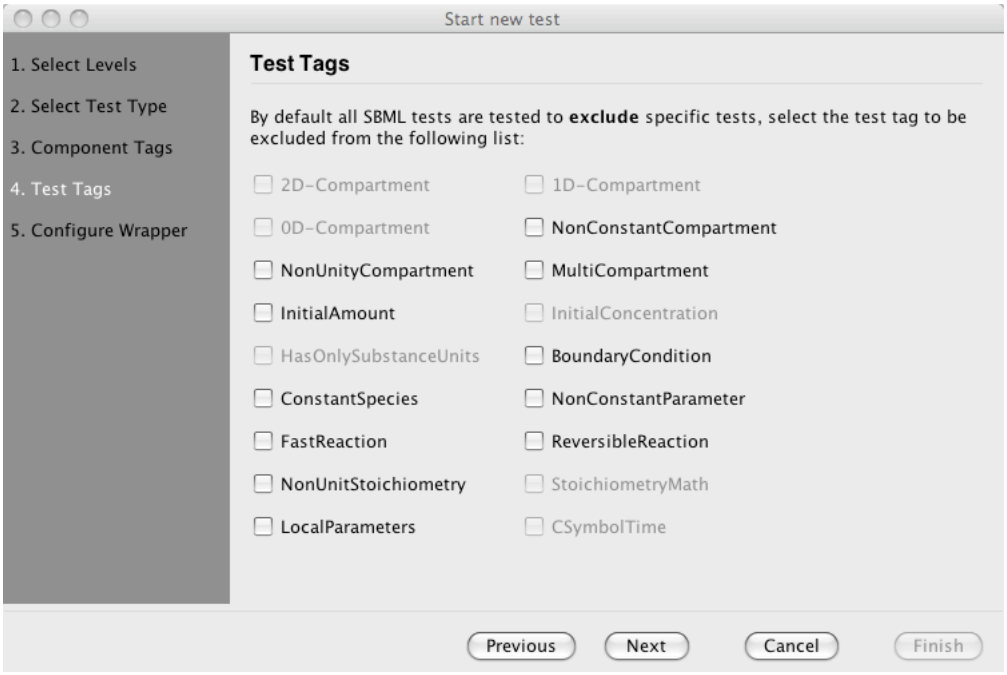
Select component tags to omit

Select the component tags you wish to omit from the test. Click on "Next" to continue or "Previous" to return to the test type selection page.

Note – due to tag dependencies the component tags and test tag selections you make may have an affect on the availability to include or omit other tags.



Select test tags to omit
Select the test tags you wish to omit from the test, again due to tag dependencies not all test tags may be available to omit according to the selections you made in the component tag selection page. Click on "Next" to continue or "Previous" to return to the component tag selection page.



Enter the wrapper details
The role of the wrapper is to act as a liason between the SBML Test Runner and the application you are testing. The SBML Test Runner provides you with the ability to specify a complete command line invoking the wrapper. The wrapper command should take as input 3 parameters:

%d = path to the directory containing all test cases
%n = current test case number (of the form NNNNN)
%o = directory where the CSV output file should be written

The specific values will be set by the SBML Test Runner itself; they are not under user control. However, the order in which the arguments are handed to the wrapper is under user control. For example, if the path to your test wrapper is /home/myself/wrapper, the command line you provide might look like this:

/home/myself/wrapper %d %n %o

but you could equally chose to write it as, say,

/home/myself/wrapper %n %d %o

if your wrapper was written to take the arguments in that order.

The reason all three values are needed will become apparent shortly. The directory indicated by %d will contain a large number of subdirectories named after the test case number (i.e., 00001, 00002, 00003, etc.). Inside each of these directories, there will be multiple SBML files, a settings file, and some miscellaneous other files:

```
0xxxx-sbml-l1v2.xml   -- the model in SBML Level 1 Version 2 format
0xxxx-sbml-l2v1.xml   -- the model in SBML Level 2 Version 1 format
0xxxx-sbml-l2v2.xml   -- the model in SBML Level 2 Version 2 format
0xxxx-sbml-l2v3.xml   -- the model in SBML Level 2 Version 3 format
0xxxx-settings.txt    -- the settings file
```

You will need to write the wrapper such that it performs the following steps:

a) Extracts the relevant simulation run settings from the file "%d/%n/%n-sbml-lXvY.xml". These settings include the starting time of the simulation, the duration of the simulation, the variables whose values should appear in the output, the number of output steps to record in the output, and the tolerances to use.

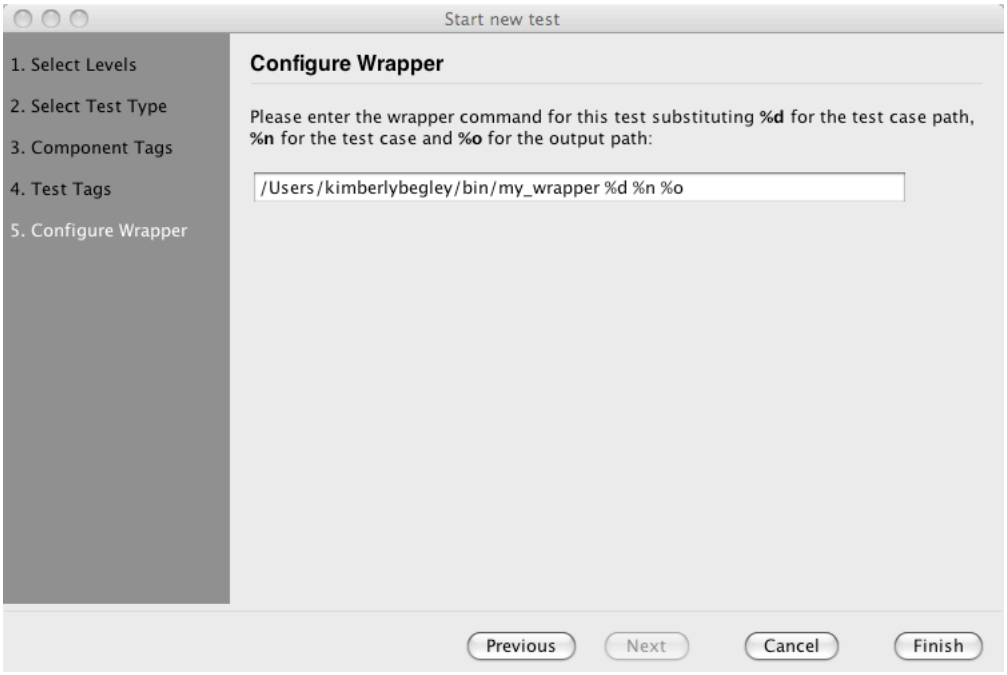
b) Tells the to-be-tested application to (i) read an SBML file named "%d/%n/%n-sbml-lXvY.xml", where X is the SBML Level and Y is the Version within the Level, (ii) execute a simulation with the settings determined in step (a), and (iii) write the output as a file named "%o/%n.csv". The command line arguments to be handed to the application depend on the application itself.

The SBML Test Runner will go through every test in the test case directory and invoke the wrapper, once for each test case. It will do this by executing command lines that look a bit like this:

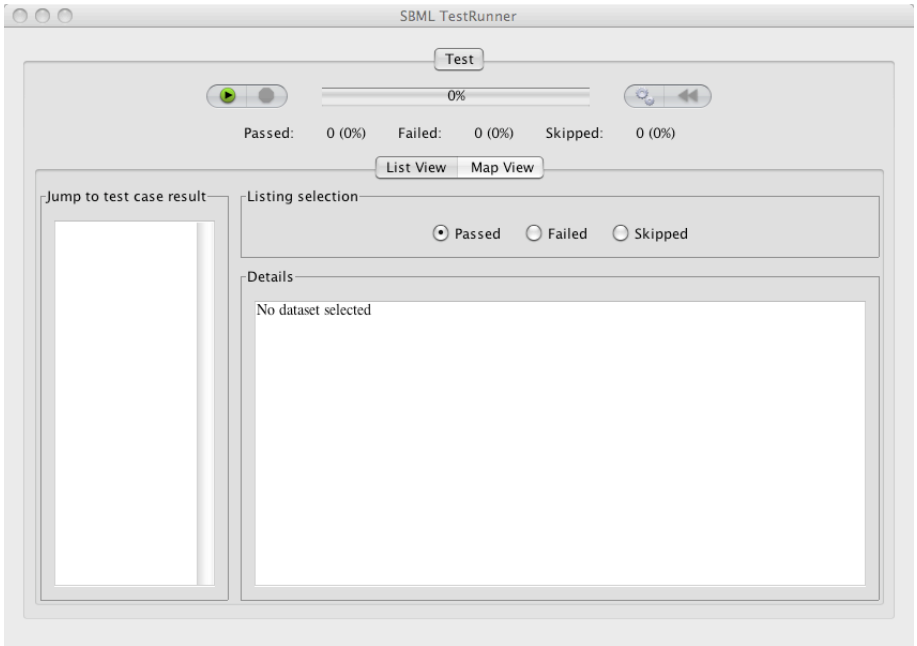
```
/path/to/your/wrapper  %d  00001  %o
/path/to/your/wrapper  %d  00002  %o
/path/to/your/wrapper  %d  00003  %o
/path/to/your/wrapper  %d  00004  %o
...
```

where %d is the path to the directory containing all the test case subdirectories and %o is the directory where the SBML Test Runner will expect to find the output written by the application.

Click on “Finish” to finish configuration, or “Previous” to go back to editing elections to the test tag page, or “Cancel” to cancel the configuration process.



Now the main window will have the green start button enabled. Click on the green start button when you are ready to run the test with the specified configurations from the wizard windows.



The test will start running and you can view the results in either of 2 views – the map view via a grid of red/green/blue squares or the list view via passed, failed and skipped radio buttons. When the test is running the red stop button is enabled if you want to cancel the test.

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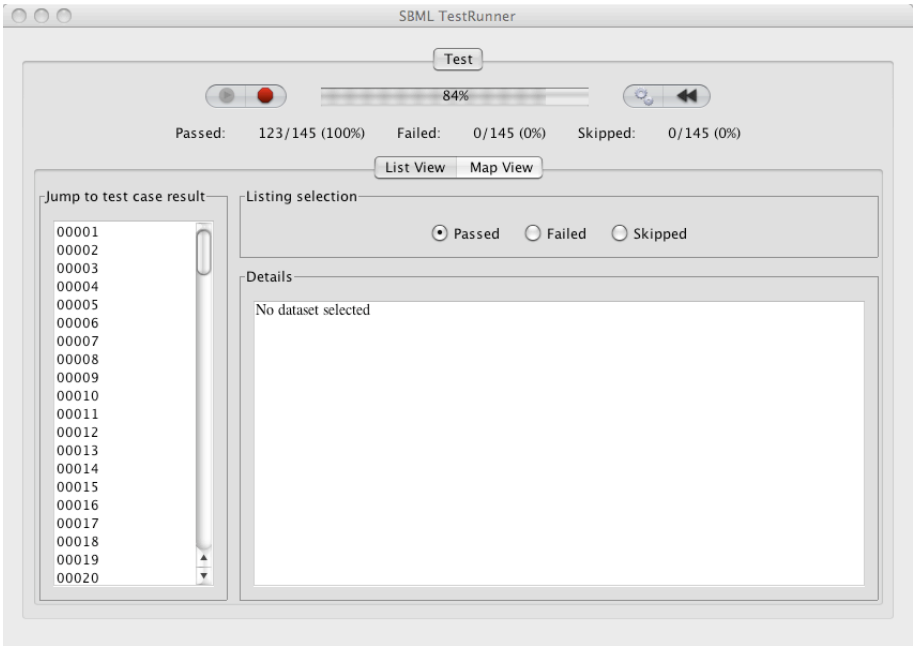
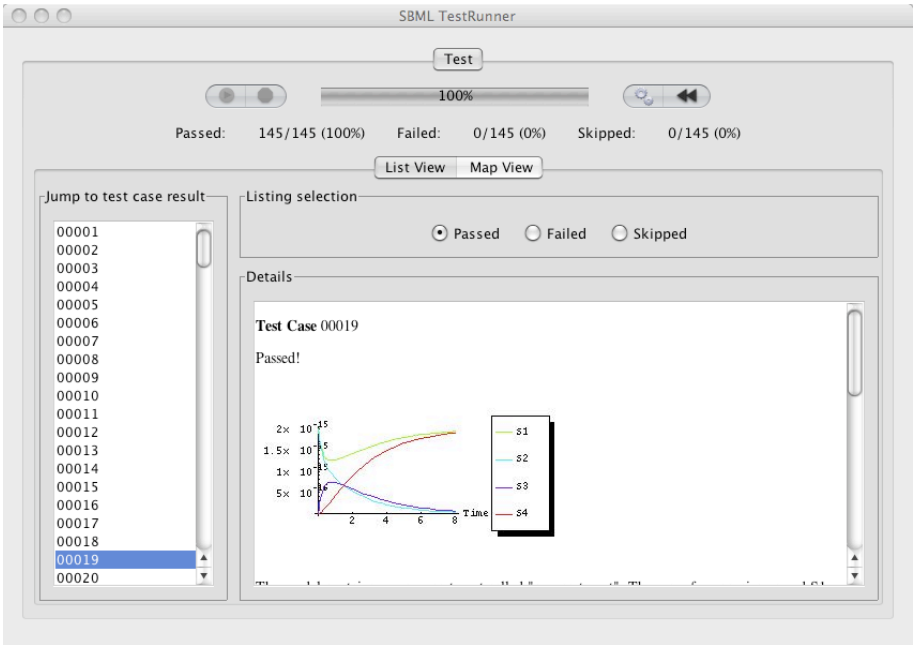
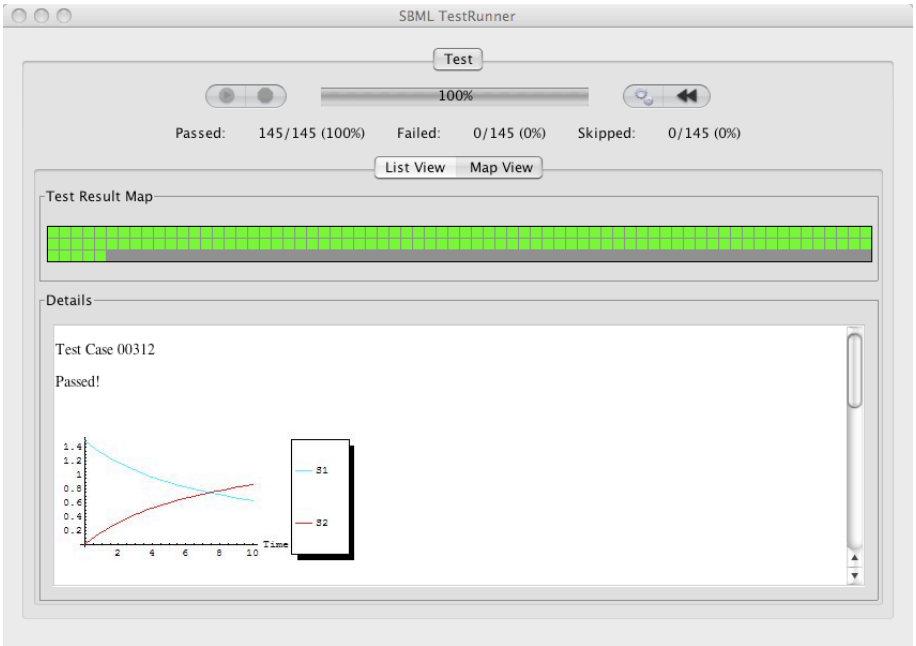


The list view:



To view the details of a particular test select the test in the scroll pane window on the left and the details will appear in the details window on the lower right hand side.

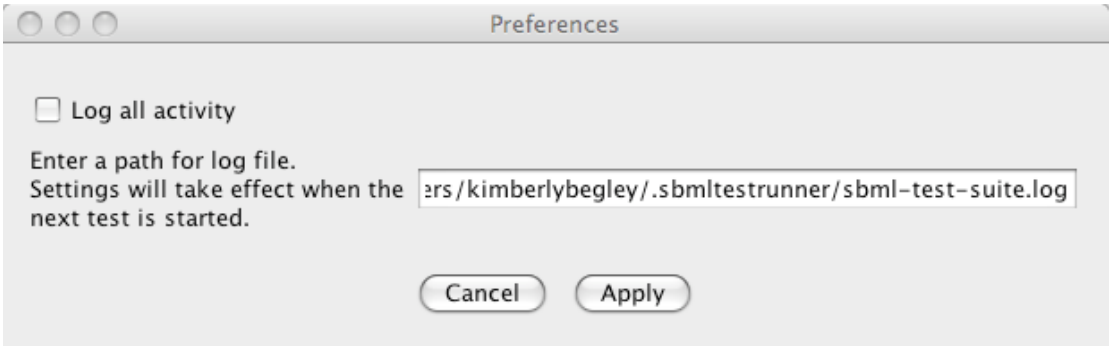
And the map view:



To view the details of a particular test select the test via the grid by clicking on a coloured square – the details will appear in the details window in the lower portion of the window.

How to add detailed logging

Go to the test suite menu and select "Preferences" BEFORE running a new test. A new window will pop up.

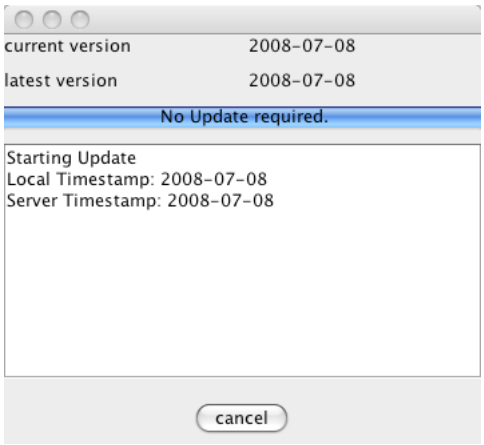


Check the checkbox to log all activity and optionally alter the path for the log file. All activity for the next test will be logged in this file.

Update test cases

The test suite ships with SBML test cases but to check for updates to the SBML test cases go to file menu and select "Check for test case updates". The application will then check your version against the newest version available on sourceforge. If there is a new version available it will update the version on your machine displaying status

information to you as it runs. If your version is up to date it will let you know that as well.



To Quit

Go to the menu bar and select “Quit SBML Test Suite”