The Reactis Communicator

To : Reactis Users
From : Reactive Systems, Inc.
http://www.reactive-systems.com/
Date : August 26, 2002

This is the fourth installment of "The Reactis Communicator", a low volume mailing list for conveying information about Reactis, RSI's embedded software design automation tool suite. Reactis enables users to deploy model-based software testing to dramatically reduce the costs of testing embedded control software. The tools are designed for use in conjunction with the Simulink® and Stateflow® modeling and simulation environments offered by The MathWorks, Inc.

If you are no longer interested in receiving information about Reactis, please see the instructions below for removing yourself from the list and we apologize for the intrusion.

We are pleased to announce the availability of Version 2002.1 of Reactis. Numerous enhancements including several new features, support for new Simulink blocks, performance improvements, and bug fixes have been made since the inaugural V2002 release. The changes are summarized below.

Reactis V2002.1 is available immediately and runs on the Microsoft Windows® and Linux® platforms. Reactis is priced at US $5000 per year per concurrent license. Free 30-day evaluation licenses are available.

New features since V2002 include the following.

1. A flexible scope facility has been added to Simulator enabling users to monitor the values of data items (certain Simulink blocks or signal lines, or Stateflow variables) during simulation. These scopes function much like the Simulink Scope block; however, instead of being wired into a model they may be dynamically opened and closed during simulation. Scopes are opened by right-clicking on a data item (block, signal line, or Stateflow variable name) and selecting "Open Scope".

2. In Simulator, the coverage information conveyed to the user for branch coverage has been improved for blocks that process signal vectors. When the user places the mouse cursor over a coverage marker in such a block (e.g. 1 or 0 for Relational or Logical operators), a pop-up shows a list of signal indexes for which this branch has not been covered.

3. Simulator and the Model Viewer now include a facility that enables the user to view block parameters by left-clicking on a block. For example, with the new facility users can query the threshold of a Switch block or the limits of a Saturation block.

4. Tester now allows "NaN" (not a number) to appear in test suites.

5. The test generation algorithm in Tester has been improved for models that contain only Simulink and no Stateflow.

6. The computer on which the Reactis License Manager runs, no longer needs to be connected to a network; rather, it must only have a valid Ethernet card installed. This makes it possible to use Reactis on a laptop away from the office.

7. Intermediate representations of models are now cached to greatly speed up loading models into Tester and Simulator.

8. For many types of errors the Reactis error dialog now includes a "highlight" button that, when clicked, opens a model viewer to the pinpoint the source of the error.

9. It is now possible for the user to specify values for configuration variables in Simulator.

The following Simulink blocks are now supported.

1. Enabled subsystems, Atomic subsystems, Configurable Subsystems

2. Discrete Integrator Block (except for "state" port)

3. Discrete State Space Block, Discrete Transfer Function Block, Discrete Zero Pole Block, Discrete Filter Block

4. Combinatorial Logic Block

5. Backlash Block

6. Demuxed Function Calls

The following bugs have been fixed:

1. In cases where a block and a workspace variable had the same name, Reactis got confused. This resulted either in "variable X declared twice" or "couldn't infer type for variable X" messages.

2. Parameters of masked "Function-Call Generator" blocks were sometimes ignored (produced message "block X doesn't have a sample time given").

3. In certain situations, Reactis would ignore signal names given in a model and later complain "Can't find signal in bus".

4. When canceling Tester, some already computed test steps were missing in the resulting test suite.

5. Message "invalid input for port X" when entering negative limits for ranges in user guided simulation.

6. Message "input and output vectors have different sizes" occurred in some LookUpTable and 2d-LookUpTable blocks.

7. Message "Couldn't retrieve local MAC address" when installing/starting Reactis.

8. "tanh" function wrongfully returned "NaN" for large input values.

Regards,
The Reactis Team