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## Reactis V2010 Now Available

We are pleased to announce the availability of Reactis V2010. The new version includes a host of new features and enhancements since the previous major release in July 2009. Some highlights are as follows.

**Reactis V2010** includes:

- A 64-bit version of Reactis (requires 64-bit MATLAB).
- Initial support for MATLAB R2009b and the upcoming R2010a.
- Support for using configuration variables as parameters to S-Functions.
- Support for more data type combinations of inputs and outputs to 1-d and 2-d lookup tables.
- A new setting "When detecting Inf or NaN values" in the Reactis settings dialog. Setting this to "Produce error" will cause Reactis to display an error message if an Inf or NaN value is detected during model execution

**Reactis for C Plugin V2010** includes:

- Improved hovering to query program execution details. Hovering now works for more program constructs, in more different situations, and gives more information (e.g. where in your program a variable was last modified).
- Improved coverage tracking within C macro expansions. If a macro in C code expands to multiple statements then the macro invocation will be highlighted in red until all its statements are covered. Hovering over the macro invocation will list all statements that the macro expands to and their respective coverage information.
- New info screen showing contents of RSM files. Clicking on a "FN" (S-Function) or "LIB" (C Library) system in the model hierarchy tree displays the contents of the associated RSM file in the main panel.
- New API routine to export C source code coverage details to a comma separated value (CSV) file.
- Drastically reduced memory allocation for models using S-Functions with large array parameters.

More details regarding the V2010 enhancements may be found in the revision history in the [Reactis User's Guide](#). Customers with active SMS may download V2010 from the [Reactis User Pages](#).

## Reactive Systems Awarded Patent for Test Generation Method

On January 5, 2010, Reactive Systems, Inc. (RSI) was awarded United States Patent 7,644,398 titled "System and Method for Automatic Test-Case Generation for Software". The patent covers the core technology underlying Reactis Tester. [More...](#)

## Japan Branch Marks Three-Year Anniversary

February 2, 2010 marked the three-year anniversary of the opening of the Reactive Systems Japan branch office in Nagoya, Japan. The branch, led by Michio Morimoto, offers direct sales of and technical support for Reactis and the Reactis for C Plugin. Since the branch opened in February, 2007, the number of companies using Reactis in Japan has approximately doubled to over 20 automotive OEMs and suppliers. [More...](#)

## Reactis for C Nears Beta Test

When using Reactis to generate tests from a model or check requirements of a model, have you ever wished you could do the same for C code independently of any model? An upcoming new product *Reactis for C* will offer just such functionality. You will be able to:

- Generate comprehensive tests from C code in order to detect a variety of runtime errors including:
  - Memory errors:
    - Exceeding the bounds of an array or malloced data
    - Accessing memory after a call to free()
    - Accessing a pointer to a local variable after a function call has returned
    - Calling free() twice
    - Reading an uninitialized local variable
  - Overflow errors
  - Divide-by-zero errors
  - Invalid shift operations
- Execute tests in an advanced debug environment that offers coverage tracking (Statement, Decision, Condition, and MC/DC) and even reverse execution
- Check that a program meets its requirements
- Check for unsafe program behavior
- When an error is detected, replay a concrete execution sequence leading to the problem in order to understand, diagnose, and fix the bug.

More information is available in a white paper [Finding Bugs in C Code with Reactis for C](#).

A beta version of Reactis for C will soon be available. Please send email to [help@reactive-systems.com](mailto:help@reactive-systems.com) if you would like to try the beta.

## Coming Events

Reactive Systems will exhibit at the following trade shows:

- March 2-4, 2010. Embedded World Exhibition and Conference. Nuremberg, Germany.
- May 19-21, 2010. Automotive Engineering Exposition. Yokohama, Japan.

## Quick Video: Model Navigation in Reactis

This [1-minute video](#) highlights some model navigation features of Reactis including the following:

- Reactis launches quickly, which is useful if you need to just have a quick look at something in a model.
- Signal highlighting makes it easy to track signals through complex models.
- Hovering over a subsystem in the hierarchy panel highlights the subsystem in the main panel.
- When moving to a parent subsystem, the child you are moving up from is highlighted.
- Hover over any Goto/From or Data Store Read/Write/Memory block to highlight matching blocks.
- Double-click on a Goto/From or Data Store Read/Write/Memory block to see list of matching blocks throughout model. Double-click on items in the list to highlight the block in the model.

Best Regards,  
The Reactis Team