# Released July 23, 2009



#### 



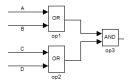
©2009 Reactive Systems, Inc. - 1/9

## New Simulink Support

- Initial support for MATLAB R2009a.
- Accessing Data Store Memory blocks from within Stateflow charts is now supported.
- Support bus types in Stateflow charts
- Parameterized links in library references
- Setting the data type for a machine-global Stateflow variable to *inherited*
- The & operator can now be applied to array and structure elements as a parameter to an external C function called from Stateflow. For example: foo(&(a[3])) and foo(&b.x) are now supported if foo is an external C function called from Stateflow.



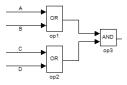
## Multi-Block MC/DC

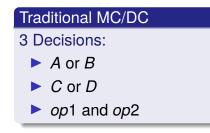




©2009 Reactive Systems, Inc. - 3/9

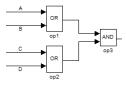
## Multi-Block MC/DC







## Multi-Block MC/DC



#### Traditional MC/DC

3 Decisions:

- A or B
- C or D

op1 and op2

#### Multi-block MC/DC

1 Decision:

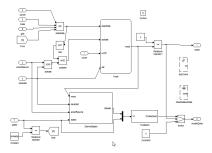
▶ (A or B) and (C or D)

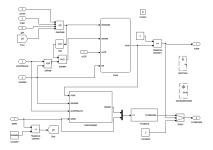


## Improved Drawing of Simulink Signal Lines











©2009 Reactive Systems, Inc. - 4/9

## Validator Objectives Tab in RSI File Editor

## List and manipulate all assertions, UDTs, and virtual sources in one place

File Edit Help	1 0	× ?					
Port Types Configuration	/ariables	Test Points	Objectives	C Code	Callbacks	Search Path	File Dependencies
Туре	Status	Name			System		
Assertion Assertion Assertion User-Defined Target User-Defined Target User-Defined Target	ok violated covered covered covered	d SpdC d Activ d LowS	d/ok heck/ok		cruise cruise		MDL.CruiseMDL
4							

- Assertion violated/ok? UDT covered/uncovered?
- Double-click to highlight item in model.
- Right-click to add, edit, remove item

Reactive Systems, inc

## C Code Tab in RSI File Editor

ile Edit Tools Help				—	
	66 m a (				
Inport Types Configuration Variables	S-Function source code cove	rage Gcking:	Separate		
- Test Points	Create and use cache files	for C code (files	with extension '.rso')		
Outport Tolerances General	Promote 'float' values to '	double' to reduc	e round-off error		
Error Checking Coverage Metrics	Туре	S-Function na	me RSM file	Location	
Excluded Coverage Targets	S-Function Library	n/a	libt2t3.rsm	global global	
Validator Objectives	Stateflow User Library	n/a	libdmult.rsm		
C Code	Stateflow User Sources	n/a	n/a	global	
Callbacks	S-Function	timestwo	timestwo.rsm	ex4.S-Function	
Search Path	Static Library	n/a	libdmult.rsm	ex4.S-Function	
File Dependencies	S-Function	timesthree	timesthree.rsm	ex4.S-Function1	

List places C code might appear in model

Easily attach same RSM file in multiple locations



- Improved performance and memory consumption
- Improved coverage by Tester of C code
- When paused in Simulator, hovering over:
  - an active function displays the current call stack
  - a variable will display the location in the source code at which the variable was last modified
  - a pointer displays the contents of the location pointed to
  - a macro displays the expanded macro



Signal tracing click on a signal to trace it through model

Up-traversing bread crumbs clicking the up arrow (or pressing F2) to display the parent of the currently displayed subsystem, Reactis now highlights the subsystem that was previously visible Find matching pairs double-click on Goto/From or Datastore block to see list of matching blocks.



- New backend engine significantly improves performance when running Simulator or Tester on large models
- In the Reactis Info File Editor, multiple configuration variables can be removed at once
- Auto-wire Validator objective signals

