Reactis V2021

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Initialization Performance Improvements

- Prior versions created .mwi cache file for models (skips import)
- V2021 introduces binary version (.mwib) that loads even faster by caching static model analysis and block execution order.

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Improved Signal Tracing for Buses

- Reactis signal tracing now traces signals through Bus Creator and Bus Selector blocks.
- If a signal is selected (highlighted in yellow) by clicking on it and that signal is an input to a Bus Creator then the bus output of the Bus Creator is also highlighted.
- If that bus signal is used as the input to a Bus Selector that selects the original signal, that output of the Selector block is also highlighted.

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Added Flexibility for Test Suite Import

- Previously, when importing a test suite, if the imported data did not include values for an item (input, output, testpoint) needed in the test suite, then Reactis let you create random values for the missing data.
- V2021 extends this feature to let you select for each missing item whether the missing values should either all be zero or be randomly generated values.

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User-Guided Simulation Enhancement

- In the user-guided simulation mode of Reactis Simulator, you can specify a value for each top-level input at each simulation step.
- Simple expressions are supported to specify each input. For example, to specify a ramp signal for an input *x* you can enter the expression $pre(x) + 1$.
- V2021 extends the expression notation to let you reference the current values of other inputs.
- For example, if *x* should be false when *y* is true and should be true when *y* is false, then for *x* you can specify its value as !(y).

Other Improvements

- Support for R2021a.
- Option in *Fast Run with Report* to include a section listing the error detection settings (e.g. integer overflow) used when generating the report.
- The user-guided simulation dialog now lets you switch all inputs to zero.
- When exporting to CSV, support exporting fixed point values as their stored integers.

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Reactis for EML Plugin

- Support fixed-point types using binary point scaling, including:
  - Creation of values with fi, ufi, sfi
  - Arithmetic with fixed point arguments
  - Relational operators with fixed point arguments
  - Bit operations: bitconcat, bitset, bitget, bitand, bitor, bitsra, bitsll, bitsrl
  - Casting from fixed point values to built-in MATLAB numeric types
  - storedInteger and storedIntegerDouble functions
- Support hexadecimal literals
- Support log2 function

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