

MES Model & Refactor[®] (MoRe)

MES Model & Refactor[®] (MoRe) is a MATLAB Simulink[®] editor extension that simplifies and accelerates model creation and model refactoring. With this MATLAB Simulink[®] editor plug-in daily modeling tasks become easier, faster, and less error-prone, in particular when it comes to the refactoring of models as an important best practice in agile development.

Get to know MoRe

MoRe is a plug-in for the Matlab Simulink[®] Editor that makes your daily modeling tasks easier, faster and less error-prone. Watch the Video and find out MoRe!

As a modeling assistance tool, MoRe automates modeling steps that have to be performed frequently. Automated modeling actions are available for signal routing through subsystem hierarchies, moving blocks with signal connections between subsystems, model refactoring by changing the subsystem partitioning, auto-layout subsystems like auto-positioning blocks or signal route optimization (straighten lines), accelerated editing of subsystem interfaces, simplified work with bus signals, and fast data flow analysis.

The editor enhancements are technically based on sl_customization.m. However, MoRe's enhancements go far beyond this and offer, for example, a multi-level undo and redo of modeling actions. The MoRe productivity tool increases the automation of modeling in MATLAB Simulink[®]. MoRe speeds up modeling so you can focus on the big picture while modeling instead of wasting time on monotonous baby steps.

Saving time with MoRe

In this video we show you the most frequently used actions in MoRe that can save you up to 90% of the time you spend on modeling. MES Model & Refactor (MoRe)[®] is a Simulink[®] extension that simplifies and accelerates model creation and model refactoring.

Your MES Model & Refactor[®] benefits:

Productive

- Makes modeling in Simulink[®] faster and easier
- Automates consecutive modeling steps

Simple

- Easily integrates into context menu
- Reduces complex modeling actions to just a click

Time-saving

- Relieves from tedious repetitive modeling tasks
- Allows for quicker refactoring of models

Reliable

- Avoids inadvertent mistakes by automating work step execution
- Compatible with all MATLAB versions starting from 2014b on

How MoRe supports you:

1. Create or remove cross-hierarchy signals

Create or remove cross-hierarchy signals

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Creating or removing signal paths across the subsystem hierarchy is, in the case of far-reaching signals, time-consuming and error-prone. With MoRe, you can add or remove these types of signals with a single action. Simply choose the source signal and a destination port, and MES Model & Refactor[®] will automatically create/remove all necessary inports, outports, and signals lines.

2. Improve subsystem decomposition

Improve subsystem decomposition

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With MoRe, you can quickly and easily revise the decomposition of your model into subsystems without changing the functionality of your model. This allows you, via individual actions, to move blocks that are already connected into subsystems or out of subsystems. Additionally, you can divide a subsystem in two or merge two subsystems into one with a single action.

3. Rearrange subsystem interfaces

Rearrange subsystem interfaces

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Rearranging subsystem interfaces is supported by MoRe through various actions. For instance, you can change the order of the subsystem's ports from outside in a dialog. Renaming ports and signals from outside is also possible – a function that has only been available in Simulink[®] since R2017a for inports and R2018b for outports.

4. Create and decompose buses

Create and decompose buses

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With MoRe, you can create buses from already connected signals quickly and easily. This is a common but time-consuming work step when reworking subsystem interfaces. In one action, MoRe automatically creates the bus creator and bus selector blocks and signal lines needed for this. In addition, you can use MoRe to add new signals to buses and split or merge bus selectors.

5. Analyze dataflow

Analyze dataflow

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MoRe offers various actions to analyze and visualize dataflow in Simulink[®]. For instance, you can highlight all signal paths that have an influence on a selected signal with one action. This corresponds to the slicing of the model and makes it possible to analyze which input variables of a subsystem have an influence on an output variable. In addition, MoRe can be used to quickly and easily navigate to a signal's source blocks or destination blocks.