

# Model Test Manager

Model Test Manager (**mTm**) is a software toolbox for MATLAB<sup>®</sup> that helps users manage the instrumentation of models in Simulink<sup>®</sup> and Stateflow<sup>®</sup>. **mTm** is part of the Next Generation of tools that have evolved from our popular Model Instrumentation Manager (MIM). In addition to instrumenting standard Simulink<sup>®</sup> sinks such as Scopes, ToWorkspace blocks and Displays, **mTm** has the capability to inject exogenous signals into simulation using any of the built-in sources such as Constants, Ramps, Repeating signals, etc. When the model is simulating, users can tune model parameters "on-line" using **mTm** to meet desired performance objectives. The test instruments can be managed through an user-friendly Graphical User Interface (GUI). The user can either interactively define an instrumentation list through this GUI or retrieve a previously saved list and apply it to the simulation model. As the instrumentation information is maintained independent of the model, the Simulink<sup>®</sup> model and associated libraries are not corrupted with unnecessary blocks. **mTm** automatically ensures that the saved model does not have any instruments *even when the instrumented model is saved by the user*. Thus, numerous scenario-specific instrument configurations can be generated and easily applied for the same model or across similar models without making any changes to the models.

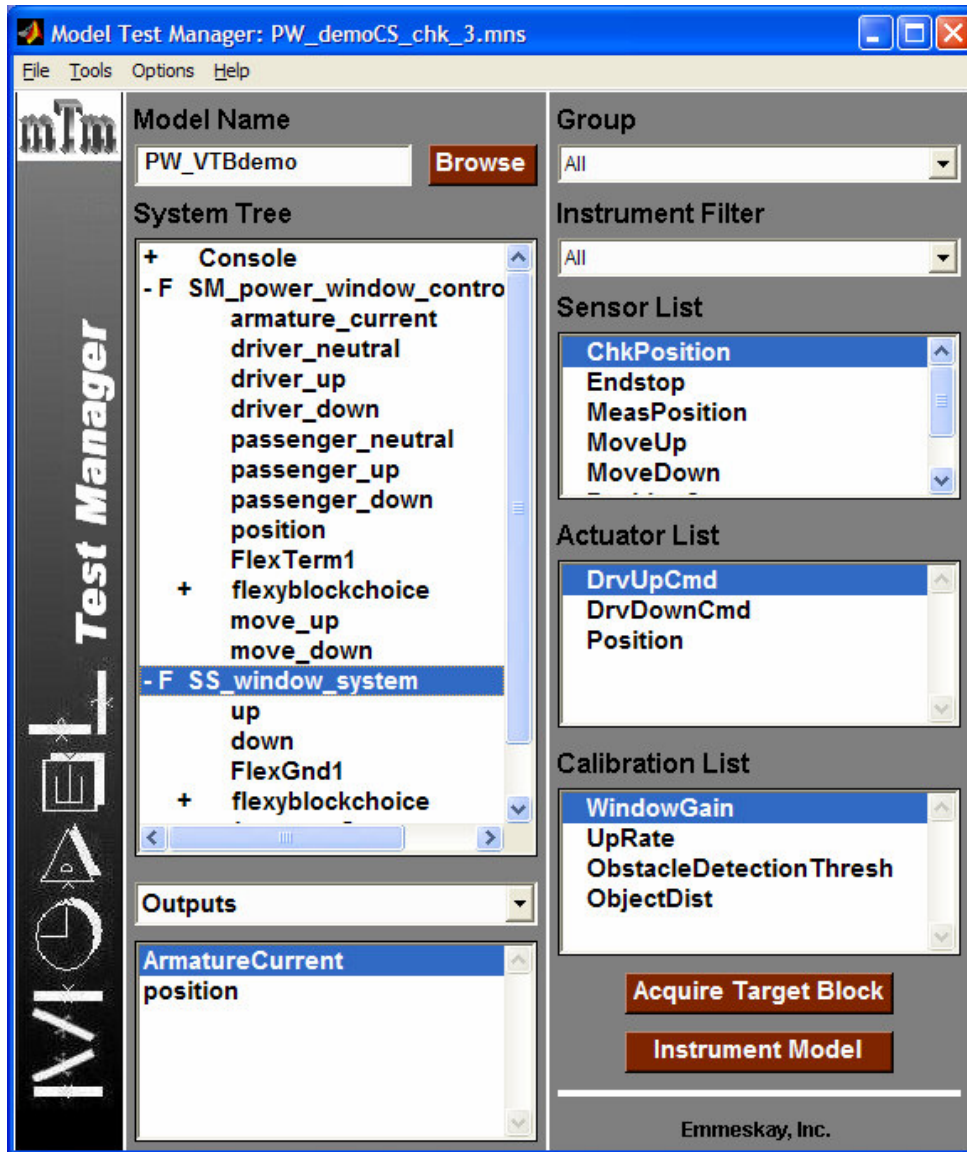
## Key Features

- GUI to manage and manipulate information (see figure on the next page).
- Browser to identify signals to instrument and parameters to calibrate.
- Familiar instrument choices:
  - Sensors: built-in Sinks such as Scopes, ToWorkspace, and Display.
  - Actuators: built-in Sources such as Constant, Sine Wave, Repeating Signals, Signal Generator, Band Limited White Noise, etc.
- Ability to instrument with *user designed custom sensors and actuators*.
- Signals inside *multiple instantiated library-linked blocks can be instrumented* and viewed with all actuators and sensors including Scopes.
- *User customizable signal scaling and unit conversion elements* as part of both sensors and actuators.
- Ability to change *tuneable parameters* either offline or online (during run-time).
- *Snapshot feature* to remember and apply desired values for a group of parameters.
- *Groups feature* for easy housekeeping and better control over the instruments.
- User-friendly plot features:
  - Multiple signals in one plot – same axis or sub-plots
  - Custom scroll bar that can read out values from the plot itself
  - User can customize and save plot options – line and marker style.
- *Batch mode* to facilitate programmed execution of saved instrumentation to facilitate automated testing of performance.

## Convenience Features

- *Built-in flexible Data Save tool* to selectively save experiment results.
- Option to *save user comments* with experimental results and instrumentation data.
- *Built-in search engine* to locate instrumentation and results files based on keywords in user comments.
- Optional feature available to *automatically generate instrument layouts* for dSPACE ControlDesk from test instrumentations in Model Test Manager.

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## System Requirements

- Compute Platform: PC with Microsoft Windows® 9x, NT, 2000 or XP
- MATLAB®/Simulink®/Stateflow® Versions: R12, R12.1, R13, R13.1, R14SP2

## Customer Benefits

**mTm** can significantly *reduce the time* it takes to setup and cleanup the model during debugging. Users can benefit from reduced simulation times because **mTm** avoids model “over-instrumentation”. **mTm** *eliminates human errors* that can be introduced while clearing the debugging instruments in the model. This greatly *enhances the quality* of the book-shelved models. In addition, **mTm** can significantly reduce development times through *test automation*.

**Contact Emmeskay, Inc. for tool details, licensing and pricing information by sending email to [info@emmeskay.com](mailto:info@emmeskay.com) or calling 734-207-5562/5564. In Japan, contact Emmeskay's distributor NEAT Company at [www.neat21.co.jp](http://www.neat21.co.jp) for additional information.**