

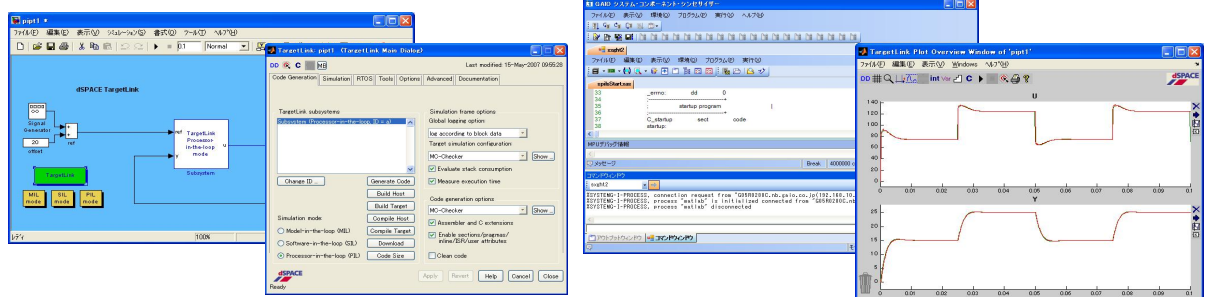
MC-Checker Model and Code Comparator

Performs verification and comparison of the MATLAB/Simulink models and target code

Executes target code using GAIO's ISS

Compatible with both hand-coded and auto-generated code

MC-Checker is an embedded code verification tool for automobile model-based development. It compares the behavior of the MATLAB/Simulink specification model with the hand-coded or auto-generated target code. Also the option to enable compatibility with dSPACE's TargetLink program is available.



Improves Quality of Automotive ECU Embedded Code

Recently model-based development using MATLAB/Simulink has become more common for automotive ECU development. This development technique uses the MATLAB/Simulink defined vehicle models as part of the specifications for ECU software development. Auto Code Generation (ACG), a process that automatically generates C source code from the MATLAB/Simulink models, has also become a common practice recently.

However, there is a need for verifying the accuracy of auto-generated code so that it will function properly with the target device. The primary contributing factors for errors are:

- Differences between the continuous MATLAB/Simulink models and the discrete processing of embedded code
- Bit width differences
- Calculation precision differences etc.

Compares the MATLAB/Simulink Models with the Generated Code

MC-Checker can be used to test the embedded code by comparing it with the MATLAB/Simulink specification models. The MATLAB/Simulink models are executed by MILS (Model In the Loop Simulation), while the embedded code is executed using SPILS (Simulator-based Processor In the Loop Simulation).

Errors will be displayed on the dedicated graphical display.

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The Generated Code is Compiled and Executed

The embedded code may be compiled using a cross compiler of your preference, and then executed using GAIO's ISS.

