

MoTeC

M1  SIMULINK



MOTEC M1 INTEGRATION TOOL FOR USE WITH SIMULINK®

MoTeC's M1 Integration Tool, for use with Simulink® enables the integration of a compiled Simulink® model into an M1 control unit.

This feature provides a streamlined pathway from MATLAB® and Simulink® control system development to embedded software for an M1 controller by providing a dedicated MoTeC target to the Simulink® Code Generation.

Enabled by
SIMULINK
MathWorks

Get more information on MoTeC products at
www.motec.com.au

MoTeC Controlled Performance

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USE CASES

- Develop a complete engine or electric vehicle control system in Simulink® to use with one of MoTeC's M1 control units.
- Develop a control subsystem for a block exchange in an existing M1 Package. For example, replace a complete gear shift module or traction control module in a MoTeC GPR Package with specific control functions that are developed in Simulink®.
- Develop a control subsystem to add additional functionality to an existing M1 Package. For example add an electric vehicle control module to an existing MoTeC GPR Package to develop a hybrid vehicle control system.

FEATURES

- The M1 Integration Tool is installed in MATLAB® and Simulink® and makes MoTeC custom blocks available through the Simulink® library browser. These custom blocks may be used when developing the model.
- Compilation of the Simulink® model generates a User Library that can be used within M1 firmware development to assign channels and connect physical I/Os.
- Stateflow® and Multi-rate Simulink® models are supported.
- The resulting embedded code can be loaded into one of MoTeC's M1 controllers and calibrated using M1 Tune software.

PREREQUISITES

The M1 Integration Tool requires:

- MATLAB® and Simulink® installation (support from version R2019a)
- Embedded Coder, Simulink® Coder and MATLAB® Coder
- M1 Build (version 1.4.1.0277 or up), MoTeC's development software
- M1 Tune, MoTeC's calibration software
- M1 Development Licence (SL)
- M1 Simulink Activation

