# [Upgrade to Revision] Solution Toolkit QE for Motor V1.3.0: Development Assistance Tool for Motor

R20TS1005EJ0100 Rev.1.00 Feb. 01, 2024

## Outline

QE for Motor, a development assistance tool for motor, has been updated from V1.2.0 to V1.3.0.

#### 1. Description

For details of the update, supported devices and how to install the product, refer to the release note at the link below.

> QE for Motor V1.3.0 Release Note

https://www.renesas.com/document/rln/qe-motor-v130-release-note

The main changes are as follows.

- 1.1 Addition of Supported Devices
  - The following group is now supported.
     RA Family: RA8T1

#### 1.2 Renewal of Main View

The main view has two display types that you can switch between. To open the main view, select the e<sup>2</sup>studio menu, [Renesas Views], [Renesas QE], and [Motor Workflow (QE)].

When the view is wide, it is displayed the operation guide and illustration shown in Figure 1 as a detailed guide. When the view is narrowed, a simple guide is displayed (Figure 2). Switching the width toggles between these view guides.



Figure 1: Detailed guide

Figure 2: Simple guide



#### 1.3 Updated sample program download wizard

The sample program download wizard has been updated. In new wizard, you can search the sample program by selecting target board. The new sample program download wizard can be opened from [Download and import motor sample program] button on[Prepare Project] page.

| QE for Motor           |  |   |                                    |  |  |                              |
|------------------------|--|---|------------------------------------|--|--|------------------------------|
| Preparation            | Tuning   | Tuning Analyze  |                                    |  |  |                              |
| 1.Preparation -        | Prepa  | Prepare project   |                                    |  |  |                              |
| Prepare Project        |  |   | _                                  |  |  |                              |
| Introduce Related Tool | Download and impo  | ort motor sample program  |                                    |  |  |                              |
| 2. Tuning              | Select target project  |   |                                    |  |  |                              |
| 2.Tuning -             |  |   | ~                                  |  |  |                              |
| Tuning                 |  |   | Device :                           |  |  |                              |
| 3.Analyze 🗸 🗸          |  |   | Part Number :                      |  |  |                              |
| Australian             |  | Motor C   | ontrol System :                    |  |  |                              |
| Analyze                | Concre project se dece less  |   |                                    | fund automas   | November 201   | 10.1                         |
|                        | Ry Lawre   | Device  | Notor type                         | Somple project name  Somple pr | Name Is we repace<br>ran Meter RAM 1 (MOLV) SIM LESS FOC, 1990/RE LESS V180  | Applicat<br>Q1 Cick          |
|                        | 2. o MXX-RAH11 Service Linearies Linearies Minist  | or Control Kellor KM11 MCB Comp. MM11   | Institutes DC Marter (D4701.0 ECI) | Wheter Control for Permanent Negari Syndromous Motor with Encoder     Wheter Control for Permanent Negari Syndromous Motor with Encoder     Singuing Tablesing Conducting Control of Permanent Magnet Syndromous     Water Control for Permanent Magnet Syndromous Motor   | INTELLET AND A CONTRACT OF A C | 8 04<br>8 04<br>8 04<br>8 04 |
|                        | Noner Centrel Funzation Symmetry   | tor IX Remity - IXVIII Group RAIIII   | Brachier DC Manar (TC-55-80, 244)  | O Terrentres Werte Crement for Demonster Ellingues Systematics Malare     Ora Conducting Commit of Demonster Magnet Systematics     Werter Conducting Commit August Systematics Malare with induction 5     Oracle Control for Permanent Margine Systematics Malare with induction 5   | MATLACIV, SMUSJOC J25, VID   | 6 04<br>6 04<br>6 04         |
|                        | Usage Gu   | or Control Kit for \$2.652 MCV Group 14312  | Brachies: DC Notor (84291.0.3013)  |  |  |                              |
|                        |  | or Control Kit for KACTE NCU Group AATT   | Braches: DC Motor (B129LD3)L3      | y Keywards   |  |                              |
|                        | Project<br>MCK-RA4T1 Remesses Flexible Motor C<br>RTKNEMA330500120BJ   | MCK-RA4T1 Reneses Flexible Motor Control Kit for RA4T1 MCU Group  |                                    |  | hart samer, detection method 🔄 broadse teadback<br>I senser foodback 🔄 inductive senser foodback   |                              |
|                        | motor cont   |   |                                    | Sample project description   |  |                              |
|                        | Down Sector  | The MCR PARTY is a development with the enables cess webuilting effective strain sing permanent meanst<br>another as makes the advised to main all with the method and the central strains and the time the |                                    |  | magnetic syndroxes motor (MBM) using the 64411 microsoribolise.  |                              |
|                        | You can  | chect Information   |                                    | (Postarce, Karget Sjolarn)<br>- Generaties (Peedinal)<br>- Weber screeks (P  |  |                              |
|                        | easily fr  |   |                                    | I-down current detection method  Displayers Serve)   |  |                              |
|                        | e2studic Note in using sample program  |   |                                    | - DV Issael (M4110/UM TBEED) MCOU Issael (TCORM415000000)<br>- Investor board (MCOV1<br>- Community Internet: MCCOV1   |  |                              |
|                        | evaluati Some of the sample programs requires a change in the hardware setup. Please refer to "Hardware Setup" and the application note of each sample program for the very of the hardware setup of the hardware setup. |   |                                    | Motor: RAGELDOLD<br>(Supported OE functioned)  |  |                              |
|                        | A netwo<br>MoxAMTE   |   |                                    | -SW ostliguetos  |  |                              |
|                        |  |   |                                    | - Sogra<br>Forenze Kulter<br>Hotosofickeriti   |  |                              |
|                        | Batti di i   | Next Investor Second (MD-01-1)  |                                    |  |  |                              |
|                        | for some sample programs, change for salig t   | tom the components included in ECX-RATI 1 as  | lefters.                           | The same directory : Different   |  |                              |

Figure 3: Open the Sample Program Download Wizard

## 2. Operating Environment

Renesas e<sup>2</sup> studio 2023-07 (or later)

% If you are using a version of e<sup>2</sup> studio earlier than 2023-07, update it to 2023-07 or later.

## 3. Obtaining the Product

Download the installer for QE for Motor V1.3.0 from the following URL:

https://www.renesas.com/software-tool/qe-motor-development-assistance-tool-motor-applications#tabrelease-information



# **Revision History**

|      |           | Description |                      |  |
|------|-----------|-------------|----------------------|--|
| Rev. | Date      | Page        | Summary              |  |
| 1.00 | Feb.01.24 | -           | First edition issued |  |
|      |           |             |                      |  |

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