QE for TCP/IP V1.0.1 [technical preview version]

Release Documentation

This time, thank you very much for your using the QE for TCP/IP V1.0.1 [technical preview version].

This release documentation, we have indicated this product installation and the questionnaire.

Contents

1. About QE for TCP/IP

1.1   Summary

QE for TCP/IP is a dedicated solution tool for applications that employ TCP/IP. It is intended to shorten development times of embedded systems incorporating the M3S-T4-Tiny software library (hereafter referred to as the T4 library) for these communications protocols on RX-family products which are suitable for TCP/IP.

This product is an extension plugin for the e^2 studio integrated development environment. That is, the product is for use after being installed under the e^2 studio.

1.2   Supported Environment

Microsoft Windows 7, Windows 8.1, Windows 10

Renesas e^2 studio V4.2.0 (or later)

1.3   Supported Microcontroller

RX Family:

- The following products, which include Ethernet controllers, are recommended for use with TCP/IP over an Ethernet link.
  — RX600 Series: RX62N, RX63N, RX64M, RX65N
  — RX700 Series: RX71M
- The following products, which include SD host interfaces, are recommended for using wireless LAN through an SDIO connection.
  — RX200 Series: RX231
  — RX600 Series: RX64M, RX65N, RX651
  — RX700 Series: RX71M

1.4   Supported Library

Renesas Network software library

  - Ultracompact TCP/IP protocol stack [high-speed version] : M3S-T4-Tiny V2.02 (or later)

1.5   Related Documents

Table 1   Related Documents

Document Name	Document No.
TCP/IP for Embedded system M3S-T4-Tiny Introduction Guide	R20AN0051E
TCP/IP for Embedded system M3S-T4-Tiny: User's Manual	R20UW0031E
TCP/IP for Embedded system M3S-T4-Tiny: Ethernet Driver Interface Specification	R20UW0032E

2.　Installation and Uninstallation

2.1　Installing This Product

Use the following procedure to install this product.

1. Start e² studio V4.2.0 (or later).
2. From the [Help] menu, select [Install New Software...] to open the [Install] dialog box.
3. Click the [Add...] button to open the [Add Repository] dialog box.
4. Click the [Archive] button, select the zip file for installation in the opened dialog box, and click the [Open] button.
5. Click the [OK] button in the [Add Repository] dialog box.
6. Select the [Renesas QE for TCP/IP] check box displayed in the [Install] dialog box and click the [Next] button.
7. Check that [Renesas QE for TCP/IP] is selected as the target of installation, and click the [Next] button.
8. After confirming the license agreements, select the [I accept the terms of the license agreements] radio button, and click the [Finish] button.
9. A security warning message will appear; click the [OK] button to continue installation.
10. If the dialog of the trust certificate is displayed, check that certificate, and click the [OK] button to continue installation.
11. When prompted to restart e² studio, restart it.

2.2　Uninstalling This Product

Use the following procedure to uninstall this product.

1. Start e² studio.
2. Select [Help -> Installation Details] to open the [e2 studio Installation Details] dialog box.
3. Select [Renesas QE for TCP/IP] displayed on the [Installed Software] tabbed page and click the [Uninstall...] button to open the [Uninstall] dialog box.
4. Check the displayed information and click the [Finish] button.
5. When prompted to restart e² studio, restart it.

3.   About the Questionnaire of Technical Preview Version

3.1   Positioning of this product

QE for TCP/IP is a technical preview version. We aim to become a better product by the customer feedback.

3.2   Request for the Questionnaire after Using This Product

In order to become a better product, please send us your comments and requests to this product.

Contact E-mail Address:
qe_feedback@lm.renesas.com

[Questionnaire Content] (Within the range that can answer.)

— Name
— Company name, department name
— Purpose
— We are planning to develop the full version with enhanced features.
  Did you think that you want to use the full version? [Yes / No]
— Comments and Requests
— Do you want to support applications in the QE series? (Except for the USB, BLE and TCP/IP)
  [For example: Wi-SUN/Sub-GHz, I2C, PLC, and so on...]

Website and Support

Renesas Electronics Website
https://www.renesas.com/

Inquiries
https://www.renesas.com/contact/

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Revision History

Rev.	Date	Description	
		Page	**Summary**
1.00	Jul 20, 2017	-	First edition issued.

General Precautions in the Handling of Microprocessing Unit and Microcontroller Unit Products

The following usage notes are applicable to all Microprocessing unit and Microcontroller unit products from Renesas. For detailed usage notes on the products covered by this document, refer to the relevant sections of the document as well as any technical updates that have been issued for the products.

1. Handling of Unused Pins

   Handle unused pins in accordance with the directions given under Handling of Unused Pins in the manual.

   — The input pins of CMOS products are generally in the high-impedance state. In operation with an unused pin in the open-circuit state, extra electromagnetic noise is induced in the vicinity of LSI, an associated shoot-through current flows internally, and malfunctions occur due to the false recognition of the pin state as an input signal become possible. Unused pins should be handled as described under Handling of Unused Pins in the manual.

2. Processing at Power-on

   The state of the product is undefined at the moment when power is supplied.

   — The states of internal circuits in the LSI are indeterminate and the states of register settings and pins are undefined at the moment when power is supplied.
   In a finished product where the reset signal is applied to the external reset pin, the states of pins are not guaranteed from the moment when power is supplied until the reset process is completed.
   In a similar way, the states of pins in a product that is reset by an on-chip power-on reset function are not guaranteed from the moment when power is supplied until the power reaches the level at which resetting has been specified.

3. Prohibition of Access to Reserved Addresses

   Access to reserved addresses is prohibited.

   — The reserved addresses are provided for the possible future expansion of functions. Do not access these addresses; the correct operation of LSI is not guaranteed if they are accessed.

4. Clock Signals

   After applying a reset, only release the reset line after the operating clock signal has become stable. When switching the clock signal during program execution, wait until the target clock signal has stabilized.

   — When the clock signal is generated with an external resonator (or from an external oscillator) during a reset, ensure that the reset line is only released after full stabilization of the clock signal. Moreover, when switching to a clock signal produced with an external resonator (or by an external oscillator) while program execution is in progress, wait until the target clock signal is stable.

5. Differences between Products

   Before changing from one product to another, i.e. to a product with a different part number, confirm that the change will not lead to problems.

   — The characteristics of Microprocessing unit or Microcontroller unit products in the same group but having a different part number may differ in terms of the internal memory capacity, layout pattern, and other factors, which can affect the ranges of electrical characteristics, such as characteristic values, operating margins, immunity to noise, and amount of radiated noise. When changing to a product with a different part number, implement a system-evaluation test for the given product.

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