Outline

When using the e² studio integrated development environment V5.2.0 to V6.0.0, note the following point.

1. When the E1 or E20 emulator is used for the RX family

1. When the E1 or E20 Emulator is Used for the RX Family

1.1 Applicable Products

- e² studio V5.2.0, V5.2.1, V5.3.0, V5.3.1, V5.4.0, and V6.0.0

Check the version number of your copy of e² studio in the dialog box opened by selecting [About e² studio] from the [Help] menu of e² studio.

Applicable emulators: On-chip debugging emulator E1 and E20

Remarks: This problem does not apply in the case of E2 emulator and E2 emulator Lite.

Applicable MCUs: RX family(Note)

Note: This problem does not apply to cases where the debugging function is not used in projects for the RX65N/RX651 group.

1.2 Details

When you use e² studio to try to connect a debugger(Note) in a project for the RX family, connection fails or an error occurs, and debugging operations cannot be performed.

Note: The debugger function of e² studio rewrites the emulator firmware to that corresponding to the device when starting debugging, and then connects to the device. However, since the emulator firmware is not rewritten if either of the conditions shown in section 1.3 is met, the above phenomenon may occur. Apply the workaround shown in section 1.4 to avoid the problem.

1.3 Conditions

The phenomenon described in section 1.2 may arise in the case of either of the following conditions:

- When using a project for RX65N/RX651 of the RX family with an applicable emulator and applicable version of e² studio, and then using a project for a device other than RX65N/RX651 of the RX family

- When using a project for a device other than RX65N/RX651 of the RX family with an applicable emulator and applicable version of e² studio, and then using a project for RX65N/RX651 of the RX family
1.4 **Workaround**

The debugger can operate normally by applying the following (1) to (4) steps.

1. Prepare a project for the RL78 family or RH850 family.
   - You do not need to prepare a board on which an MCU of the RL78 or RH850 family has been mounted.
   - The load module must have been created by a project build.
   - The debugger settings must correspond to the emulator you use.

2. Connect the emulator you use to a PC.
   - The emulator does not need to be connected to the board of (1).

3. Start debugging for the prepared project of (1).
   - If the emulator is not connected to the board of (1), an error occurs. However, there is no problem if the firmware is rewritten in step (4).

4. Connect the emulator to the board on which the MCU of the RX family to be used has been mounted, confirm that a message indicating that the emulator firmware has been rewritten is displayed on the debug console, as shown below. Then, confirm that debugging can be performed normally.

```
Example of Debug Console Display
(The version number displayed in the message depends on the version of e²studio.)

Starting firmware update from ‘1.51.01.000’ to ‘2.07.00.005’
Finished firmware update
```

Note: If multiple versions of e² studio have been installed and you want to use projects for the RX65N/RX651 group and projects for groups other than the RX65N/RX651 group with each version, perform the above operation before debugging.

1.5 **Schedule for Fixing the Problem**

This problem will be fixed in a later revision of e² studio.
Revision History

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