

RENESAS TOOL NEWS on March 16, 2014: 140316/tn2

## Note on Using Device Information for RL78 Family (Managed by CubeSuite+)

When using "CubeSuite+ DevInfo\_RL78\_78K," the Device Information for the RL78 family (managed by CubeSuite+), take note of the following problem:

- With an on-chip debug option byte value is neither specified as the link options setting for the CA78K0R compiler nor in an assembler source file

---

### 1. Product and Versions Concerned

CubeSuite+ DevInfo\_RL78\_78K V1.00.00 through V1.00.15

To check to see the version number, refer to the following URL:  
[https://www.renesas.com/cs+\\_ver](https://www.renesas.com/cs+_ver)

### 2. Affected Groups of the Device Information File

RL78/G12, RL78/G13, RL78/G14, RL78/G1A, RL78/G1C,  
RL78/I1A, RL78/L12, RL78/L13, RL78/F12, and RL78/D1A groups

### 3. Description

When a program is built while both of the conditions below are met, the program that is output will set bit 6 of the on-chip debug option byte to 1.

Conditions:

- "No" is selected in the "Set enable/disable on-chip debug by link option" property in the link options setting of the CA78K0R.
- An on-chip debug option byte value is not specified in an assembler source file.

Bit 6 of the on-chip debug option byte is fixed to 0 as stated in the User's Manual: Hardware for each device. Setting the bit to 1 creates a possibility of the device entering the flash memory programming mode. This depends on the state of the P40/TOOL0 pin.

Note, however, that this problem does not arise if the P40/TOOL0 pin is handled in the way stated in the user's manual for each device; that is, the signal on the pin does not go to the low level for 1 ms after release from the external reset state. For more information on the handling of pins, refer to the user's manual for the device you are using.

Note that the problem also does not arise if the on-chip debug option byte value is set in either of the ways listed below:

- (1) Select "Yes (-go)" in the "Set enable/disable on-chip debug by link option" property, and set a desired value in the "Option byte values for OCD" property in the link options setting of the CA78K0R.
- (2) Select "No" in the "Set enable/disable on-chip debug by link option" property in the link options setting of the CA78K0R and specify the on-chip debug option byte value in an assembler source file.

#### **4. How to Set the On-Chip Debug Option Byte Value**

The on-chip debug option byte value can be correctly set by using the link options of the CA78K0R or by directly editing the assembler source file.

These ways are described in User's Manual: Hardware for each device. Refer to the description below for how to set the value by using each way.

- Setting the "Option byte values for OCD" property as the link options of the CA78K0R
  - (1) Select and right-click on "CA78K0R (build tool)" in the project tree panel of CubeSuite+.
  - (2) Select "Property" from the context menu.
  - (3) Open the "Link Options" tabbed page in the property panel.
  - (4) Make settings below in the "Device" category.
    - (a) Select "Yes (-go)" in the "Set enable/disable on-chip debug by link option" property.
    - (b) Enter the desired value in the "Option byte values for OCD" property. (see NOTE)

#### **NOTE:**

For the on-chip debug option byte value, refer to the chapter on "option byte" in User's Manual: Hardware for the device you are using.

- Setting the on-chip debug option byte value in an assembler source file  
Refer to the section on "setting of option byte" in the chapter on "option byte" in User's Manual: Hardware for the device you are using.

## 5. Schedule for Fixing the Problem

This problem will be fixed in the CubeSuite+ V2.02.00  
(to be published on March 24, 2014).

---

### [Disclaimer]

The past news contents have been based on information at the time of publication. Now changed or invalid information may be included. The URLs in the Tool News also may be subject to change or become invalid without prior notice.

© 2010-2016 Renesas Electronics Corporation. All rights reserved.