78K0 Integrated Debugger ID78K0-QB V3.21

Be sure to read this document before using the product.

Contents

Chapter 1. INTRODUCTION

Thank you for purchasing the 78K0 development tool ID78K0-QB.

This document describes the cautions and usage restrictions that apply when using this tool, and document correction. Be sure to read this document before using the ID78K0-QB.

1.1 User's Manual

The following user's manual is available for this version, as a PDF file only.

• Integrated Debugger ID78K0-QB Ver. 3.10 Operation User's Manual (document number: U19611J (Japanese), U19611E (English))

1.2 Operating Environment

1.2.1 Host machine

Use ID78K0-QB V3.21 in a host machine that satisfies the following requirements.

• Processor: At least 1GHz

• Main memory: 512 MB or more

• USB interface: 1.1/2.0

• OS[Note] :   Windows XP (Home Edition/Professional)

            Windows Vista (Business Edition / Enterprise Edition)

            Windows 7

• Monitor(display): When using multiple monitors (two or more displays), use the monitor assigned to monitor

            1(primary monitor).

Note   Installation of the latest service pack for each OS is recommended.

            Only 32-bit OS is supported.

1.3 Supported Tools

1.3.1 Development tools (software products)

ID78K0-QB V3.21 supports the following versions of tools[Note].

• Assembler: RA78K0 V4.01 and later

• C compiler: CC78K0 V4.00 and later

• USB driver: USB driver V1.10 and later

• Project manager: PM+ V6.30 and later

Note   Use of the products with the latest control code and the latest firmware is recommended.

1.3.2 Development tools (hardware products)

ID78K0-QB V3.21 supports the following emulators[Note].

• IECUBE (such as QB-78K0KX2):   In-circuit emulator

• MINICUBE (QB-MINI2):   On-chip debugging emulator with programming function

• MINICUBE2 (QB-78K0MINI):   On-chip debugging emulator

Note   Use of the products with the latest control code and the latest firmware is recommended.

1.4   Installation

Installation of the following is required before using the ID78K0-QB.

- ID78K0-QB

- Device file

- USB driver

1.4.1 Cautions on installing ID78K0-QB

(1) The ID78K0-QB supports multiple-version installation. Multiple-version installation allows multiple versions of a product in one computer. It is basically recommended to use the latest version of a development tool, but there may be cases when the previous development environment should be left as is, or when code generation will be changed due to the development tool upgrade, which may cause problems. Multiple-version installation solves these problems by allowing coexistence between the previous development environment and the latest one. These environments can be switched easily. If multiple versions have been installed, set the version to be used on the [Tool Version Settings] tab of the Project Settings dialog box that appears by choosing "Project Settings…" on the PM+ [Project] menu.

(2) Terminate all other applications because the computer may have to be restarted after installation.

(3) Log on Windows as an administrator user to install the ID78K0-QB.

(4) The ID78K0-QB can be installed in a folder whose name uses ASCII characters only (excluding the eleven characters /*:<>?|"\;,) and does not start or end with a space. If any other characters are used, the tools included in ID78K0-QB V3.21 may not operate normally.

(5) Installation to/from a network drive is not possible.

(6) The installer does not set the environment variable path. Set the environment variable path after installation, as necessary.

(7) The help is supplied in the HTML help format. If the help does not operate correctly, install Microsoft Internet Explorer 5.0 or later (IE5.5 SP2 or later recommended).

1.4.2 Cautions on installing USB driver

(1) The USB driver can be installed when installing the ID78K0-QB. See 1.4.3 ID78K0-QB installation procedure.

(2) This USB driver is not installed by the Windows Plug&Play function, so do not connect the emulator and the computer until installation is complete.

(3) If the USB driver for the ID78K0-QB is installed in an operating system in which the previous version (NEC Tools32 environment) has been installed, the new USB driver overwrites the older USB driver stored in the system folder.

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1.4.3 ID78K0-QB installation procedure

This section describes the installation procedure, assuming that the ID78K0-QB is installed under the folder "C:\Program Files\NEC Electronics Tools\".

(1) Turn on power to the computer to start Windows.

(2) Insert the CD of the ID78K0-QB into the CD drive; the installer then starts automatically. If it does not start automatically, double-click INSTALL.exe on the CD.

　　　If your ID78K0-QB is the one downloaded from the Development Tools Download page on the Renesas Electronics website, run id78k0-qb_v321_e.exe.

　　　Follow the directions on the window to continue installation.

(3) The following files will be created after the ID78K0-QB has been installed. These files are required for uninstalling the ID78K0-QB and must not be deleted.

For ID78K0-QB and documents:

　　　C:\Program Files\NEC Electronics Tools\id78k0-qb\version\SETUP*.*

For USB driver for IECUBE:

　　　C:\Program Files\NEC Electronics Tools\id78k0-qb\ieqb78k0*.*

For USB driver for MINICUBE:

　　　C:\Program Files\NEC Electronics Tools\id78k0-qb\mqb78k0*.*

For USB driver for MINICUBE2:

　　　C:\Program Files\NEC Electronics Tools\mqb2all*.*

For MINICUBE utilities and documents:

　　　C:\Program Files\NEC Electronics Tools\MINICUBE Utilities\version\setup*.*

1.4.4 Installation of USB driver

Connect the emulator to the computer after the USB driver is installed by the installer; the "Found New Hardware Wizard" then starts. The following explanation shows an example when the IECUBE driver is installed in Windows XP.

(1)　The following window appears and then the "Found New Hardware Wizard" starts. Select "No, not this time" and click the [Next] button. (This procedure is unnecessary if this window does not appear.)
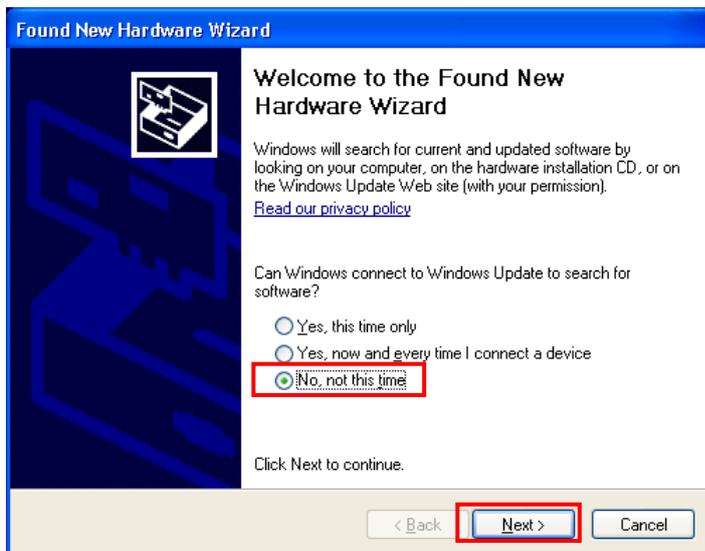
(2)   The following window appears. Select "Install the software automatically (Recommended)" and click the [Next] button.
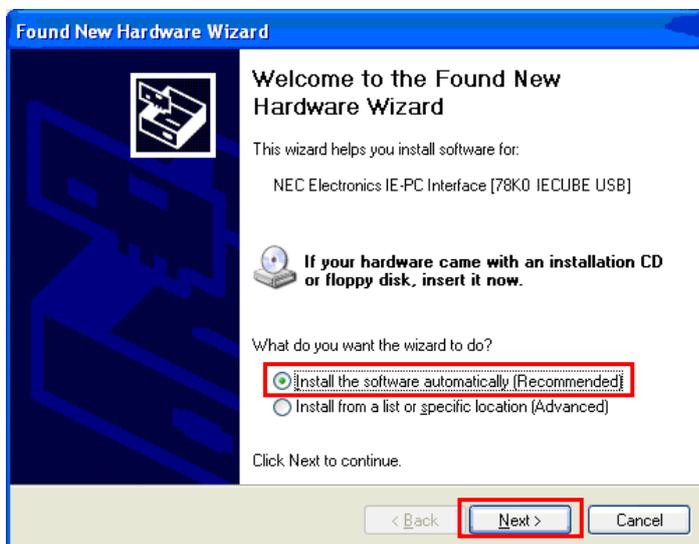
(3)   The installation wizard ends with the following window.
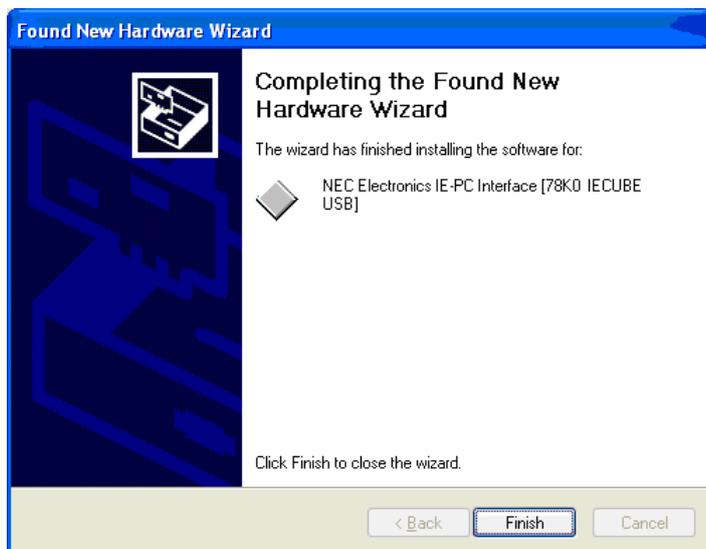
1.4.5 Installation of device files

Install the device file using the following procedure.

(1)   Download the device file from the Renesas Electronics website (Development Tools Download webpage) to any folder.

English version: http://www2.renesas.com/micro/en/ods/

→ Click "Version-up Service".

        Japanese version: http://www2.renesas.com/micro/ja/ods/

(2)   Double-click the downloaded file.

(3)   Start the device file installer[Note] from the Start menu.

(4)   Click the [Install] button.

(5)   Click the [Browse] button to specify the folder where the decompressed files are placed.

(6)   The NECSETUP.INI file and __CSETUP.INI file are displayed in the file list of the dialog box that appears after step (5). Select either of the following files according to the language of the OS used.

        English version: __CSETUP.INI

        Japanese version: NECSETUP.INI

(7)   Follow the installation wizard to continue installation.

Note   The device file installer is automatically installed when an Renesas Electronics development tool (SM+, RA78K0, or ID78K0-QB) is installed

1.5   Uninstallation

1.5.1 Cautions on uninstallation

The program size displayed in the "Add or Remove Programs", "Add/Remove Programs", or "Programs and Features" window indicates the total size of the installation folder in which the ID78K0-QB has been installed, and not the size of the ID78K0-QB itself. For example, if the ID78K0-QB has been installed in C:\Program Files\NEC Electronics Tools\, the size of the C:\Program Files\NEC Electronics Tools\ID78K0-QB\version\ folder is displayed. Therefore, the total size of the ID78K0-QB main program and documents is displayed for each item.

1.5.2 Uninstallation of user's manual and USB driver

This section describes the uninstallation procedure.

(1)   Turn on power to the computer to start Windows.

(2)   Start "Add/Remove Programs", "Add or Remove Programs", or "Programs and Features" in Control Panel.

(3)   Select the item to be removed from the list displayed on the Install/Uninstall tab, and then click the [Add/Remove...] or [Change/Remove] button.

- When uninstalling the debugger itself:

    Select "NEC EL ID78K0-QB version" from the list.

- When uninstalling documents for ID78K0-QB V3.21:

    Select "NEC EL ID78K0-QB version Documents" from the list.

- When uninstalling the USB driver for IECUBE:

    Select "NEC EL 78K0 IECUBE USB driver version" from the list.

- When uninstalling the USB driver for MINICUBE:

    Select "NEC EL 78K0 MINICUBE USB driver version" from the list.

- When uninstalling the USB driver for MINICUBE2:

    Select "NEC EL 78K0 MINICUBE2 USB driver version" from the list.

- When uninstalling the MINICUBE2 diagnostic tool MINICUBE OCD Checker:

    Select "NEC EL MINICUBE Utilities version" from the list.

- When uninstalling documents for the MINICUBE2 diagnostic tool MINICUBE OCD Checker:

    Select "NEC EL MINICUBE Utilities version Documents" from the list.

(4)   Maintenance mode of the installer starts. Follow the directions on the window to continue uninstallation

1.5.3 Uninstallation of device files

To uninstall the device file, select the corresponding device in the Registry field in DFINST, select the "Delete File" check box, and then click the [UnRegister] button.

Chapter 2. REVISIONS FROM V3.20 TO V3.21

This section describes the revisions in V3.21.

2.1   Changed Specifications

The following specifications have not been changed.

2.2   Correction of Usage Restrictions

The usage restrictions are corrected newly in V3.21 is No.92,No.93,No.95.

Please refer to [4. USAGE RESTRICTIONS] for details.

Chapter 3. CAUTIONS

This section describes the cautions on using ID78K0-QB V3.21.

No.	Usage Restrictions	Affected Product
1	Operations in Assemble window	Common
2	Return execution	Common
3	Coverage function	Common
4	Standby mode set by stepwise execution	Common
5	Execution operation while external reset signal is input	Common
6	Software breakpoint in RAM area	Common
7	Access indication in Memory window	IECUBE
8	Emulation of flash self-programming	IECUBE
9	Caution on option byte	Common
10	Power supply voltage for the target system	MINICUBE2
11	Uninstallation of USB driver	Common
12	About setting of the security ID (ID code)	MINICUBE MINICUBE2

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3.1   Cautions

The caution are listed below.

3.2   Caution Details

Common: Issues common to IECUBE, MINICUBE and MINICUBE2

No. 1   Operations in Assemble window <Common>

(1)   The insertion point can be placed at a position to which nothing can be input in the Assemble window, using arrow keys or Back Space key.

(2)   If an attempt is made to display in the Assemble window an instruction in the common area and a symbol in the memory bank area is used to display the instruction, a symbol in another bank may be displayed.

(3)   When scrolling up (toward lower addresses) for 500 bytes (equivalent to 0x200) or more, the view may become invalid. In this case, click the [Refresh] button, or select the [Move...] command from the context menu to move to the start address of the instruction.

No. 2   Return execution <Common>

(1)   Return cannot be executed if the program pointer (PC) points to an address other than the start address of the source line (if attempted, an error will occur). In addition, return cannot be executed successively because the PC does not point to the start address of the source line after return execution. To execute return again, therefore, perform stepwise execution in the source file so that the PC points to the address of the next line.

(2)   If returning from a function that does not push the frame pointer (HL) in the stack (such as noauto, norec) or from a memory bank function is executed, the program may start free-running.

No. 3   Coverage function <Common>

(1)   The PC points to the instruction that has not been executed, but for code coverage measurement, one or two bytes from the top of the instruction pointed to by the PC are counted by the code coverage execution.

(2)   Even if all of the codes are executed, the coverage may not be 100%. For example, the jump table for case in a switch statement is data and not the code to be executed, so it is not subject to the code coverage measurement.

No. 4   Standby mode set by stepwise execution <Common>

Standby mode is released if it is set by stepwise execution or if program execution is forcibly stopped using the Stop button.

No. 5   Execution operation while external reset signal is input <Common>

When the SFR window is displayed and execution or stepwise execution is performed while an external reset is not masked (the TARGET RESET check box is not selected in the Configuration dialog box) and an external reset signal has been input, the program has to wait for a timeout in communication with the emulator, each time the operation is performed, which drastically degrades the operability.

No. 6   Software breakpoint in RAM area <Common>

Do not overwrite the program in which a software breakpoint has been set to the RAM area; otherwise, the break may not occur normally. Even if the break occurs, the program before being overwritten is automatically restored.

Therefore, use a software breakpoint to set a breakpoint to a program in the RAM area.

No. 7   Access indication in Memory window <IECUBE>

When the Accumulative menu is not checked on the [View] menu in the Memory window, access display information is usually cleared at the redraw interval specified in the Extended Option dialog box. At this time, if clearing access display information conflicts with execution of a write instruction, data write may not be highlighted. (The write instruction itself is executed correctly.)

In addition, display of an access being executed does not necessarily change in the order of access because data is read by the emulator in block units.

No. 8   Emulation of flash self-programming <IECUBE>

To emulate boot swapping, both of the ID78K0-QB and IECUBE must be upgraded. Boot swapping is supported by ID78K0-QB V3.00 and later. For IECUBE, see the operating precaution document supplied with each emulator to check whether boot swapping is supported. Devices not described in this document either do not support boot swapping, or have always supported (that is, the support status has not changed).

No. 9   Caution on option byte <Common>

Emulation of the option byte which is assigned to addresses 0x80 to 0x83 (see the user's manual of the device used for the address and function) is performed as follows.

When IECUBE (QB-78K0KX1H or QB-780714) is connected:

Emulation is performed without using the value set to the option byte. Be sure to set the option byte function in the Mask Option dialog box.

When IECUBE (other than QB-78K0KX1H and QB-780714) is connected:

The option byte setting is emulated.

When MINICUBE or MINICUBE2 is connected:

The option byte setting is emulated.

The following shows an example of code for setting the option byte.

Example: When setting address 0x80 to 0x00

```
SSS    CSEG   AT      080H; "SSS" is any name (up to 8 characters)
       DB     0H
```


No. 10 Power supply voltage for the target system <MINICUBE2>

Be sure to satisfy the following conditions when starting or stopping the debugger, or during operation that involves rewriting flash memory (such as downloading a program or setting up software breakpoints).

(1)   If the voltage that enables rewriting of the flash memory to the device is 2.7 V or higher:

Set the target system voltage to the above flash rewriting voltage or higher.

(2)   If the voltage that enables rewriting of the flash memory to the device is less than 2.7 V:

Set the target system voltage to 2.7 V or higher.

No. 11 Uninstallation of USB driver <Common>

Before uninstalling the IECUBE USB driver of a version earlier than V1.10, make sure that the IECUBE USB driver of V1.10 is not installed in that computer.

If the V1.10 driver and an earlier-version driver are installed in the same computer, uninstall the V1.10 driver first and then uninstall the earlier-version driver. After that, install the V1.10 driver again.

If the earlier-version driver is uninstalled while the V1.10 driver remains in the computer, the V1.10 driver is also removed from the computer.

In this case, although the V1.10 driver is displayed in "Add/Remove Programs", "Add or Remove Programs", or "Programs and Features" in Control Panel, the driver actually no longer exists. As a result, IECUBE can no longer start.

No. 12 About setting of the security ID (ID code) <MINICUBE, MINICUBE2>

"FFF…"(10 Byte) is written in a blank device as the security ID.

Therefore when starting a debugger from PM+ first (using a blank device),

please set "FFF…" (10 Byte) for ID Code area on configuration dialogue of the debugger and

start it. If you set other ID code on PM+, please start a debugger by the following way.

1. When starting a debugger from PM+ first, set "FFF…" (10 Byte) for ID Code area on configuration dialogue of the debugger and start it. Don't save the project file. And close the debugger(Note).

2. A debugger is started from PM+ once again. Set same value as PM+ setting for ID Code area on configuration dialogue of the debugger. Start debugger, and save project file.

NOTE If you saved project file when you closed the debugger, please delete "**.pri" file in the project folder, and do the step "2".

Chapter 4. USAGE RESTRICTIONS

Usage restrictions on using ID78K0-QB V3.21 are described below.

Since the restriction items are numbered as they were reported in the previously issued document (ZUD-CD-09-0267), they are not in sequence.

4.1   Usage Restrictions

The usage restrictions are listed below.

No.	Usage Restrictions	Affected Product	V3.20	V3.21
5	Source path cannot be added even if addition is specified by PM+	Common	×	×
6	Bug in redraw	Common	×	×
27	Flash memory data become invalid when debuggers is terminated	MINICUBE MINICUBE2	×	×
40	Symbols with a func#var format cannot be converted into addresses	Common	×	×
45	When the view position is moved to the last address in the Memory window, an extra line is displayed	Common	×	×
47	Search operation fails in Assemble window	Common	×	×
48	Refresh button appears dimmed in Watch window	Common	×	×
49	Restriction whereby bits of the PSW are registered in Watch window	Common	×	×
50	Values of the PSW bits cannot be changed in DMM dialog box	Common	×	×
51	Search extending over search-disabled areas is impossible	Common	×	×
54	Restriction on displaying stack trace	Common	×	×
55	Restriction whereby a function at a memory bank is stepped in	Common	×	×
56	Restriction on displaying local variables	Common	×	×
57	Restriction on clearing coverage	Common	×	×
80	Restrictions on adding SFRs to Add I/O Port dialog box	Common	×	×
81	Restriction on changing font size	Common	×	×
82	Restrictions on setting access breakpoints	Common	×	×
83	Restrictions on Watch window	Common	×	×
92	Restrictions on Main Clock setting " System", 8.00MHz, 16.00MHz	MINICUBE2	×	○
93	Restrictions on break of sub-clock operation	Common	×	○
94	Restrictions about ADCR/ADCRH indication of sub-clock operation	Common	×	×
95	Restrictions on the setting of 16-bit timer X0/X1 compare registers 0 to 3 for 78K0/Ix2	MINICUBE2	×	○

○: Corrected , ×: Not corrected

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4.2   Usage Restriction Details
  Common: Issues common to IECUBE, MINICUBE and MINICUBE2

No. 5   Source path cannot be added even if addition is specified by PM+ <Common>

  [Description]

  When a project is saved in the ID78K0-QB and then a new source path is added in PM+, the new
  source path cannot be added to the debugger.

  [Workaround]

  Select the "Debugger Options" menu from the [Option] menu. The Debugger Option dialog box is then
  opened, so add the source path manually.

  [Action]

  Under study

No. 6   Bug in redraw <Common>

  [Description]

  When the Memory window is displayed in front of another window, if the window behind the Memory
  window is clicked to the front and then the Memory window is clicked to the front again, the line where
  the caret was placed and the portion which was overlapped by the other window appear blank in the
  Memory window.

The line where the caret was placed and the portion which was overlapped by the other window appear blank.

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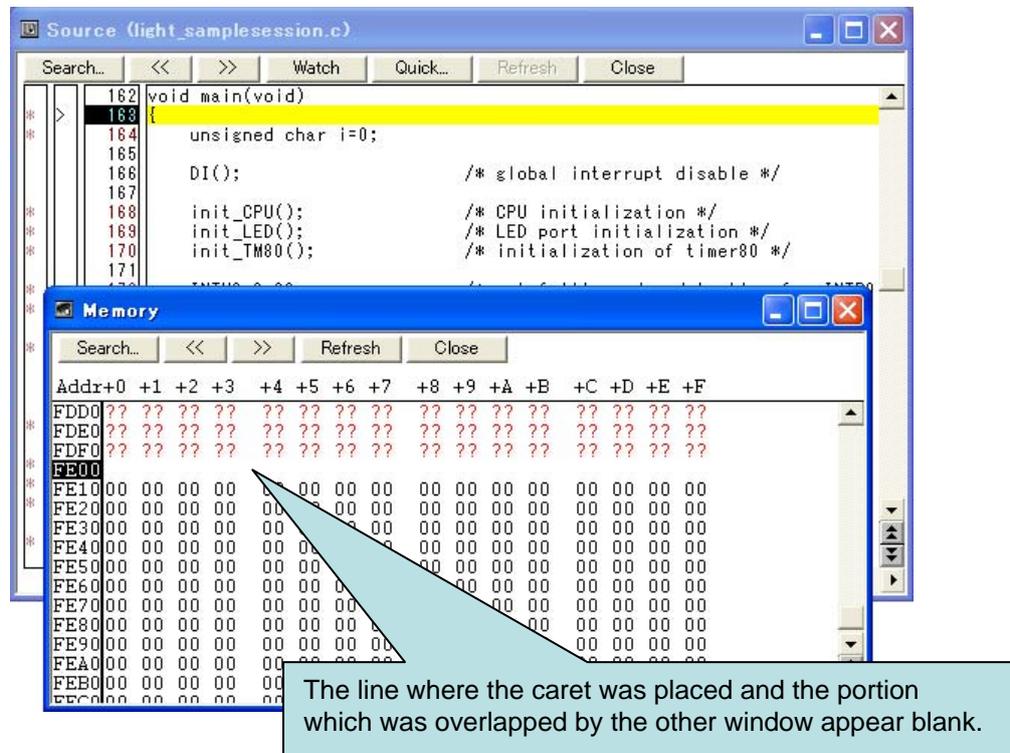
[Workaround]

Click the [Refresh] button or click on the blanked line to restore the original display.

[Action]

Under study

No. 27 Flash memory data become invalid when debugger is terminated <MINICUBE, MINICUBE2>

[Description]

If an operation to overwrite the flash memory is performed and the debugger is terminated with a voltage lower than the minimum operating voltage, the flash memory data may become invalid.

[Workaround]

Download the load module when restarting the debugger.

[Action]

Correction is under discussion.

No. 40 Symbols with a func#var format cannot be converted into addresses <Common>

[Description]

(1) Symbols with a func#var (func: Function name, var: Variable name) format cannot be converted into addresses in the Symbol To Address dialog box, if the conversion targets are variables.

(2) If a static variable in a function is registered as a func#var format symbol (func: Function name, var: Variable name) in the Add Watch dialog box, the variable value cannot be displayed.

[Workaround]

Set such symbols using a method other than func#var, such as var, file#var, or file#func#var format). When there is a variable with the same name as a static variable in a function, set the variable when the program counter (PC) exists in that function.

[Action]

Under study

No. 45 When the view position is moved to the last address in the Memory window, an extra line is
        displayed <Common>

[Description]

When the view position is moved to the last address (e.g., 0xFFF0 to 0xFFFF in a device without
BANK) using the "Move" menu in the Memory window, one extra line is displayed.

[Workaround]

There is no workaround.

[Action]

Under study

No. 47 Search operation fails in Assemble window <Common>

[Description]

Search may not be performed for the last 0x400 spaces of the range subject to search in the Assemble
window. For example, if the range 0x1000 to 0x1FFF is searched for toward the down direction and a
character string that matches the searched target exists in the range 0x1C00 to 0x1FFF, the search
may fail. In the same manner, if the range 0x2000 to 0x2FFF is searched for toward the up direction,
the search in the range 0x2000 to 0x23FF may fail.

[Workaround]

Add 0x400 spaces to the search target range.

(To search a character string in the range 0x1000 to 0x1FFF toward the down direction, for example,
specify 0x1000 to 0x23FF.)

[Action]

Under study

No. 48 Refresh button appears dimmed in Watch window <Common>

[Description]

If an item at the bottom in the Watch window is deleted, the Refresh button appears dimmed.

[Workaround]

Close the Watch window, and then open it again.

[Action]

Under study

No. 49 Restriction whereby bits of the PSW are registered in Watch window <Common>

[Description]

If bits of the PSW (ie, z, rbs1, ac, rbs0, isp, or cy) are added to the Watch window, the values will not be displayed correctly. If an attempt is made to change the value, the error message "A9004: Too large register size." will be displayed

[Workaround]

Check and change the value in the Register window.

[Action]

Under study

No. 50 Values of the PSW bits cannot be changed in DMM dialog box <Common>

[Description]

If an attempt is made to change the value of the PSW bits (ie, z, rbs1, ac, rbs0, isp, or cy) in the DMM dialog box, the error message "A9004: Too large register size." will be displayed.

[Workaround]

Change the value of the PSW in byte units.

[Action]

Under study

No. 51 Search extending over a search-prohibited area is impossible <Common>

[Description]

If an area for which searching is prohibited (non-map area, SFR area, or I/O protect area) is included in the search target specified in the Memory Search dialog box and Assemble Search dialog box, search is not performed for any area later than the area for which search is prohibited.

[Workaround]

There is no workaround.

[Action]

Under study

No. 54 Restriction on displaying stack trace <Common>

[Description]

The stack trace display function may not display the main function normally if there is a function (such as noauto, norec) that does not push the frame pointer (HL) in the stack, or if a memory bank is used.

If returning from a function (such as noauto, norec) that does not push the frame pointer (HL) in the stack or from a memory bank function is executed, the program may start free-running.

[Workaround]

There is no workaround.

[Action]

Under study

No. 55 Restriction whereby a function at a memory bank is stepped in <Common>

[Description]

If a user-defined library function at a memory bank or a function without debug information at a memory bank is stepped at the source level, a break occurs in the bank switching library.

[Workaround]

There is no workaround.

[Action]

Under study

No. 56 Restriction on displaying local variables <Common>

[Description]

The local variables out of the current scope are not displayed normally in the Stack window.

[Workaround]

There is no workaround.

[Action]

Under study

No. 57 Restriction on clearing coverage <Common>

[Description]

If the coverage is cleared while the Code Coverage window is displayed at the front, the highlight colors that show the access monitoring statuses may not be cleared in the Memory window.

[Workaround]

Click the [Refresh] button in the Memory window.

[Action]

Under study

No. 80 Restrictions on adding SFRs to Add I/O Port dialog box <Common>

[Description]

The following restrictions apply when adding SFRs in the Add I/O Port dialog box (dialog box used when an SFR name is redefined with another name in a C source).

(1) If a R/W-attribute SFR is added as a W-attribute register with another name, the SFR is added to the Add Watch window and its value is changed in the Watch window, values displayed in the SFR window are not updated.

(2) If an SFR that satisfies the following two conditions is added, the SFR name is added but an error occurs if an attempt is made to display the added SFR by using the [Move] command of the context menu (right-click menu) in the SFR window (move fails).

- The name of the SFR to be added is used for a general-purpose register

- The address to be added is the same as that of an SFR area (different from the address of the general-purpose register.)

[Workaround]

(1) When changing values in the Watch window, input the value two or more times, or change the values in the SFR window.

(2) There is no workaround.

[Action]

Under study

No. 81 Restriction on changing font size <Common>

[Description]

The font size in the Watch window and Local Variable window can be specified in the [Font] area in the Debugger Option dialog box, which is opened by selecting the [Option] menu and then [Debugger Option...], but if the font size is reduced, the graphics before changing the font size remain in the window.

Example of Watch window:
Font size: Large
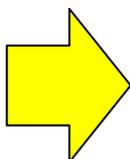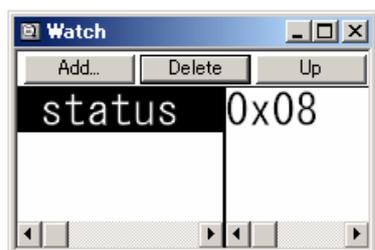
Font size: Small
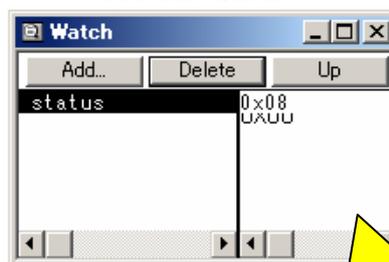
The graphics before changing the font size

[Workaround]

When such a case occurs, minimize the window once and then restore the window size, or close the window once and then open it again.

[Action]

Under study

No. 82 Restrictions on setting access breakpoints <Common>

[Description]

(1) A variable other than global cannot be specified for an access breakpoint in the Watch window.

(2) A variable other than global cannot be specified for an access breakpoint in the Source window.

[Workaround]

To set an access breakpoint to a static variable in a function, specify the setting in the Event dialog box while the current PC line is in that function. To set an access breakpoint to a static variable in a file, specify the setting in the Event dialog box while the current PC line is in that file.

[Action]

Under study

No. 83 Restrictions on Watch window <Common>

  [Description]

  (1) If a general-purpose register is added to the Watch window, the displayed data digit may be incorrect. (For example, instead of the values of the PC register being displayed with five digits, they are displayed with four.)

  (2) If the item at the bottom of the list is deleted in the Watch window, the [Refresh] button appears dimmed and is no longer available. In this case, close the Watch window and then open it again.

  [Workaround]

  (1) Use the Register window to reference the general-purpose register values.

  (2) Close the Watch window and then open it again.

  [Action]

  Under study

No. 92 Restrictions on Main Clock setting " System", 8.00MHz, 16.00MHz <MINICUBE2>

  [Description]

  When opening the project file which set Main Clock setting "System" as 8.00MHz or 16.00MHz

  in Configuration dialogue, Main Clock is operated by 4.00MHz.

  [Workaround]

  There is no workaround.

  [Action]

  This has been corrected in V3.21

No. 93 Restrictions on CPU break in sub-clock operation <Common>

[Description]

When CPU operates by sub-clock, and Monitor Clock setting in the Configuration dialogue is set as "System", an error may occur or drawing speed may become slow at CPU breaks.

[Workaround]

Set Monitor Clock as "User" to avoid an error at CPU break.

[Action]

This has been corrected in V3.21

No. 94 Restrictions about ADCR/ADCRH indication in sub-clock operation <Common >

[Description]

When CPU operates by sub-clock, an error may occur to show ADCR/ADCRH in the SFR window.

[Workaround]

Please do not show ADCR/ADCRH in the SFR window. Follow the below procedure.

(1) Right-click on the SFR window and choose [View].

(2) SFR Select window is opened.

(3) Choose ADCR/ADCRH and push "hide button".

(4) Check if ADCR/ADCRH is moved to "No Display" area, and push "OK" button.

[Action]

Under study

No. 95 Restrictions on the setting of 16-bit timer X0/X1 compare registers 0 to 3 for 78K0/Ix2 <MINICUBE2>

[Description]

When debugging 78K0/Ix2 using MINICUBE2, 16-bit timer X0/X1 compare registers 0 to 3

(TX0CR0, TX0CR1, TX0CR2, TX0CR3, TX1CR0, TX1CR1, TX1CR2, TX1CR3) cannot be changed.

Lower 8-bit will be 00H.

[Workaround]

There is no workaround.

[Action]

This has been corrected in V3.21

Chapter 5. Revision History

Document Number	Issued on	Description
R20AN0084EJ0100	April 20, 2011	Newly created.