M32C E8a Emulator Debugger
Release Notes

This document describes the notes of this debugger, and please read before you start to use this debugger.

And also, please refer to the “High-performance Embedded Workshop Release Notes” about the notes of High-performance Embedded Workshop IDE.

Contents

1 Application

This release notes is applicable to the following parts of the E8a emulator software.

- M32C E8a Emulator Debugger V.1.04.00

2 System Requirements

2.1 Operating Environment (Windows Vista®, Windows® XP or Windows® 2000)

PC Environment	
PC	IBM PC/AT compatible
OS	32-bit editions of Windows Vista® *1 *3 32-bit editions of Windows® XP *1 *2 Windows® 2000 *1
CPU	Pentium 4 running at 3 GHz or more recommended
Memory	Windows Vista® 1.5 Gbytes or larger (more than 10 times the file size of the load module) recommended Windows® XP , Windows® 2000: 768 Mbytes or larger (more than 10 times the file size of the load module) recommended
Hard disk	Installation of the simulator debugger requires free space of 200 Mbytes or larger. Also keep additional free space that is at least twice the memory capacity (four times or larger recommended) for use as swap space.
Display resolution	1024 × 768 or higher recommended

*1: Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
*2: The 64-bit editions of Windows® XP is not supported.
*3: The 64-bit edition of Windows Vista® is not supported.

3 Supported MCUs

3.1 M32C/80 Series

Group	Part No.
M32C/84	M30843FJ, M30843FW, M30843FH, M30845FJ, M30845FW, M30845FH,
M32C/85	M30853FJ, M30853FW, M30853FH, M30855FJ, M30855FW, M30855FH
M32C/86	M30865FJ
M32C/87	M30879FL, M3087BFL M30873FH, M30875FH, M30876FJ, M30878FJ, M30879FK, M3087BFK
M32C/88	M30880FW, M30882FW, M30880FH, M30882FH M30880FJ M30882FJ
M32C/8B	M308B6FC, M308B8FC, M308B6FG, M308B8FG

4 Notes

This document is supplementary information for the E8a Emulator Additional Document for User's Manual.

4.1 Note on rewriting flash memory

Do not execute debugging operations when rewriting the flash memory. Flash memory rewrite ends when the "Flash memory write end" is displayed in the output window of the High-performance Embedded Workshop. Flash memory rewrite occurs:

- When downloading the user program
- After setting PC breaks in the flash memory and executing the user program
- After canceling PC breaks in the flash memory and executing the user program
- After rewriting the value of the flash memory in the memory window and executing the user program

4.2 Notes on using automatic memory update

- If the automatic memory update is enabled in the Memory or Watch window, do not reset the MCU.
- When automatic memory update is enabled, do not execute Step Out or Multiple-steps.

4.3 Note on memory verification

- As the E8a emulator debugger does not support the following memory verification, the emulator always runs without verifying memory.
  - Memory Setting (e.g. [Set] popup menu in the Memory window)
  - Memory Fill (e.g. [Fill] popup menu in the Memory window)
  - Memory Copy (e.g. [Move] popup menu in the Memory window)
  - Loading a memory area from a file (e.g. [Load] popup menu in the Memory window)
- The E8a emulator debugger does not support "Perform memory verify during download" and "Access size" of the Download Module dialog box. Please run the debugger without memory verification and with access size set to 1.
- From [Debug] > [Verify Memory] you cannot select any format containing debug information. Though an option may appear in [File format] drop-down list, do not select it.

4.4 Note on using Windows Vista®

- Low power mode in Windows Vista®
  When Windows Vista® goes into sleep mode or suspend mode, a communication error may occur in the USB communication between the host machine and the emulator. Therefore, configure Windows Vista® not to enter sleep mode or suspend mode.
- No Help (including the context-sensitive help) may be displayed.
  Install the Windows Help file (WinHlp32.exe file) from Microsoft Corporation's Web site.
  http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=6ebcfad9-d3f5-4365-8070-334cd175d4bb

4.5 Note on I/O Files

- The incorrect descriptions in the I/O window might be solved by correcting the I/O files.
- You can make or edit the I/O file with a text editor. For details, please refer to "I/O File Format" in High-performance Embedded Workshop Help.

5 Version Report

This section describes the specification of the changed software.

5.1 M32C E8a Emulator Debugger V.1.04.00

In this version, the following specifications were changed from the previous version M32C E8a Emulator Debugger V.1.03.00.
This version supports all of the function extensions and the revisions to the restrictions in the High-performance Embedded Workshop V.4.06.00 and V.4.07.00. For more details, please refer to the RENESAS TOOL NEWS “090701/tn1” issued on July 1st, 2009 and “091001/tn1” issued on October 1st, 2010.

5.1.1 Functional Extensions and Modifications

1. Up to now, it was necessary to end the debugger for "Communication timeout error" to occur if there is no response from MCU, and to recover the state. In this version, the state can be recovered without ending the debugger..
2. Trouble shoot collections of E8a emulators can be opened from the following error message display dialog box.
   - "Boot falied"
   - "Communication timeout Error"
   - "ID code error !"

5.2 M32C E8a Emulator Debugger V.1.03.00

In this version, the following specifications were changed from the previous version M32C E8a Emulator Debugger V.1.02.00.
This version supports all of the function extensions and the revisions to the restrictions in the High-performance Embedded Workshop V.4.05.00 and V.4.05.01. For more details, please refer to the RENESAS TOOL NEWS “081125/tn1” issued on November 25th, 2008 and “090201/tn3” issued on February 1st, 2009.

5.2.1 Functional Extensions and Modifications

1. The debuggers can run on Windows Vista® with your user rights.
   Note, however, the 64-bit Windows Vista has not been supported.

5.3 M32C E8a Emulator Debugger V.1.02.00

In this version, the following specifications were changed from the previous version M32C E8a Emulator Debugger V.1.01.00.
This version supports all of the function extensions and the revisions to the restrictions in the High-performance Embedded Workshop V.4.04.00 and V.4.04.01. For more details, please refer to the RENESAS TOOL NEWS “071216/tn5” issued on December 16th, 2007 and “080118/tn1” issued on January 18th, 2008.

5.3.1 Supported MCUs Increased

- M32C/8B group:
  M308B6FC, M308B8FC, M308B6FG, M308B8FG

5.3.2 Problems Fixed

1. The following problems have been fixed:
   With debugging target systems designed with any member of the M32C/80 MCU series (RENESAS TOOL NEWS Document No. 080316/tn2)

5.3.3 Functional Extensions and Modifications

1. The automatic sampling period of the watch-points was sped up.

5.4 M32C E8a Emulator Debugger V.1.01.00

In this version, the following specifications were changed from the previous version M32C E8a Emulator Debugger V.1.00.00.
This version supports all of the function extensions and the revisions to the restrictions in the High-performance Embedded Workshop V.4.03.00. For more details, please refer to the RENESAS TOOL NEWS "070701/tn1" issued on July 1st, 2007.

5.4.1 Problems Fixed

1. The following problems have been fixed:
   Problem arising from a treatment of the MCU's pin connected with the BUSY pin on the emulator (RENESAS TOOL NEWS Document No. 071116/tn3)
2. The following problems have been fixed:
   - If you select the Debugging of CPU rewrite mode in the Emulator Setting dialog box that appears when the debugger is invoked, and if you modify values in the data flash area in the Memory or Watch window, the contents of the un-modified data flash area will resume those before CPU reprogramming is performed by the user program.
   - When you load the user program into the target system, no error message may be dispatched even if the user program area overlaps the area occupied by the emulator debugger.

5.5 M32C E8a Emulator Debugger V.1.00.00

The first version