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Renesas Electronics Corporation

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M32C Simulator Debugger V.1.02.00
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 Notes

1.1 Line Assembly

Regardless of the Radix setting, the default for line assembly input is decimal. Specify H as the radix for a hexadecimal input.

1.2 Event Setting

1. TAB order in Set Event Status dialog box
   Even when you press [TAB] key, the next input control may not be focused on the Set Event Status dialog boxes opened from Trace Point.
2. In-place-edit mode on event list
   On event list in Trace Point, High-performance Embedded Workshop will not escape from in-place-edit mode even when you press the [ESC] key.
3. Event setting by BIT SYMBOL
   When the specified address is odd numbers, the setting by BIT SYMBOL can not set the correct condition. Use DATA ACCESS setting and specify the compared data with the data mask. For details about how to set the conditions for odd number addresses, refer to the online help.
4. Event detection for BIT SYMBOL
   When the event is set to detect the access to specified bit, it will be detected even if the other bit of the same address as the specified bit is accessed. This is because the access to the bit from MCU is byte access.

1.3 Output Port

1. Use of Symbol
   If you use a symbol to specify an address in the Set Port Dialog box, an error “Can’t find symbol.“ will occur, when you restart the HEW or get back to the session.

1.4 Data Trace

1. Split-bar behavior when double-clicking
   If you double-click the split-bar, which divides view up and down, the horizontal scroll-bar, vertical scroll-bar, and tabs in the upper view will vanish. Drag the split-bar to display them again.

1.5 Trace

1. Specifying function in SRC mode
   In the SRC mode, when you specify a function to display it, if the current displayed source file includes the function, the top of the source file will be displayed.
2. Saving of tracing result in text
   - When you save a tracing result in text with only “BUS” and “DATA” buttons ON, the vertical position of some headers will shifts from the corresponding data. Check “Tab Separated Format” and open it with spreadsheet applications to display them correctly.
   - When you save a tracing result that includes BUS and DATA access information in text, some headers can not be correct. When you check “Tab Separated Format”, the headers will be correct.
3. Time concerned data
   Displayed time concerned data is not measured, though time concerned buttons and items in pop-up menu are active.(Time measurement is not supported.)
4. Loading the trace image file
   Trace window can not load the trace image file saved by PDxx debuggers. And also, trace window can not load the trace image file saved by the different target from the current target.

1.6 RAM Monitor

1. Proportional Fonts
   When a proportional font is selected, a part of the characters in the view may be hidden. Fixed fonts are recommended.

1.7 Memory

1. 8 bytes data operations
   To set, fill, and copy 8 bytes data are not supported.

1.8 Script

1. Result of interactive command
   When you invoke an interactive command, for example, Assemble and setMemoryByte, the running dialog box will appear and may hide the view of the results.
2. SCOPE Command
   When you refer current scope name with SCOPE command after program execution, the scope of the start-up module will be returned even if scope has been changed to the other.

1.9 Real-time OS debugging functions

1. When you use the feature to issue system-calls by the script command (MR SYS), the target program should be built with a specific option. For details, refer to the topic “Prepare the real-time OS debug” in the online help.

1.10 Macro recording function

The debug windows which support the macro recording function are memory, registers, and IO. And also, the debug operations which support this are Reset CPU, Go, Reset Go, Go To Cursor, Step In, Step Over, Step Out, Add/Delete a break point, and Download the target program.

1.11 Test facility function

The contents to be compared by the test facility functions are memory, registers, I/O, Output, and stack trace window.

1.12 Using cast operators for the member variable

When you use cast operators for the member variable to refer to it as the pointer of the structure, you would not refer to it correctly.

1.13 Download module dialog box

This debugger does not support the setting of "Offset", "Memory verify on download", and "Access Size" in the download module setting dialog box. These are always treated as "Offset: 0", "Memory verify: off", and "Access Size: 1".

1.14 Notes on Debugging (M32C Simulator Debugger)

1.14.1 Executed time span and executed cycles

The displayed cycles for execution are calculated by the value described in the software manuals of the micro computer. And the displayed time span for execution is calculated from the cycles and the frequency which is specified in the INIT dialog. The external bus width, the state of instruction queues, or the software wait for instructions are not considered, so the value will be different from the value of the actual MCUs.

To calculate the actual cycles, use the full-spec emulator or the compact emulator.

2 System Requirements

2.1 M32C Simulator Debugger

Target host PC	
PC	IBM PC/AT compatible with Pentium III 600MHz or higher
OS	Windows XP Windows 2000 Windows Me Windows 98 Second Edition
Memory	128MB (ten times the size of the target load module file recommended)
HDD	Hard disk available capacity for installation: 100MB or more. Prepare an area at least double the memory capacity (four-times or more recommended) as the swap area.
Display Resolution	1024 x 768 or higher recommended

3 Version Report

This section describes the specification of the changed software.

3.1 M32C Simulator Debugger V.1.02.00

In this version, the following specifications were changed from the previous version M32C Simulator 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.4.01.00 and V.4.01.01. For more details, please refer to RENESAS TOOL NEWS “060701/tn1” issued on July 1, 2006 and “060801/tn1” issued on August 1, 2006.

3.1.1 Revisions to Restrictions

1. A limitation has been corrected: The structure member variables, union member variables, or class member variables whose name begins with a letter of ‘e’ or ‘E’ immediately followed by a numeral, are not referenced.
   For more details, refer to the RENESAS TOOL NEWS RSO-M3T-PD32RM-060116D issued on January 16, 2006.

3.1.2 Functional Extensions and Modifications

1. These commands, which can be invoked in Command Line, have been supported:
   breakpoint, breakpoint_disable, breakpoint_display, breakpoint_clear
   register_display, register_set
   disassemble, assemble