M16C R8C E100 Emulator Software V.1.03 Release 02

Release Notes

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Rev.1.00
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Thank you for purchasing our product. There are several precautions which need to be taken while using this product. Please also read the precautions on the High-performance Embedded Workshop described in the High-performance Embedded Workshop Release Notes.

Contents

1. MCU Unit and Target MCU

Table 1.1 shows the names of the MCU unit and target MCU for the M16C R8C E100 emulator software.

Table 1.1 MCU Unit and Target MCU

MCU Unit	Target MCU	
	Group Name	MCU Model [*1]
R0E530640MCU00	M16C/64	R5F36406, R5F3640D, R5F3640M
R0E530650MCU00	M16C/64A	R5F364A6, R5F364AE, R5F364AK, R5F364AM
	M16C/65	R5F36506, R5F3650E, R5F3650K, R5F3650M, R5F3650N, R5F3650R, R5F3650T R5F365x6, R5F365xE, R5F365xK, R5F365xM, R5F365xN, R5F365xR, R5F365xT
R0E535M00MCU00	M16C/5L	R5F35Lx0, R5F35Lx3, R5F35Lx6, R5F35LxE
	M16C/5M	R5F35M23, R5F35M33, R5F35M73, R5F35M83, R5F35M16, R5F35M26, R5F35M36, R5F35M66, R5F35M76, R5F35M86, R5F35M1E, R5F35M2E, R5F35M3E, R5F35M6E, R5F35M7E, R5F35M8E, R5F35MB3, R5F35MC3, R5F35ME3, R5F35MF3, R5F35MA6, R5F35MB6, R5F35MC6, R5F35MD6, R5F35ME6, R5F35MF6, R5F35MAE, R5F35MBE, R5F35MCE, R5F35MDE, R5F35MEE, R5F35MFE
	M16C/56	R5F356x0, R5F356x3, R5F356x6, R5F356xE
	M16C/57	R5F35723, R5F35733, R5F35773, R5F35783, R5F35716, R5F35726, R5F35736, R5F35766, R5F35776, R5F35786, R5F3571E, R5F3572E, R5F3573E, R5F3576E, R5F3577E, R5F3578E
R0E521300MCU00	R8C/32A	R5F21321A, R5F21322A, R5F21324A
	R8C/32C	R5F21321C, R5F21322C, R5F21324C
	R8C/32D	R5F21321D, R5F21322D, R5F21324D
	R8C/32G	R5F21324G, R5F21326G
	R8C/32H	R5F21324H, R5F21326H
	R8C/32M	R5F21321M, R5F21322M, R5F21324M
	R8C/33A	R5F21331A, R5F21332A, R5F21334A, R5F21335A, R5F21336A
	R8C/33C	R5F21331C, R5F21332C, R5F21334C, R5F21335C, R5F21336C
	R8C/33D	R5F21331D, R5F21332D, R5F21334D, R5F21335D, R5F21336D
	R8C/33G	R5F21334G, R5F21336G
	R8C/33H	R5F21334H, R5F21336H
	R8C/33M	R5F21331M, R5F21332M, R5F21334M, R5F21335M, R5F21336M
	R8C/34C	R5F21344C, R5F21345C, R5F21346C
	R8C/34E	R5F21346E, R5F21347E, R5F21348E, R5F2134AE, R5F2134CE
	R8C/34F	R5F21346F, R5F21347F, R5F21348F, R5F2134AF, R5F2134CF
	R8C/34G	R5F21346G, R5F21347G, R5F21348G, R5F2134AG, R5F2134CG
	R8C/34H	R5F21346H, R5F21347H, R5F21348H, R5F2134AH, R5F2134CH
	R8C/34M	R5F21344M, R5F21345M, R5F21346M
	R8C/34P	R5F21346P
	R8C/34R	R5F21346R
	R8C/34W	R5F21346W, R5F21347W, R5F21348W, R5F2134AW, R5F2134CW
	R8C/34X	R5F21346X, R5F21347X, R5F21348X, R5F2134AX, R5F2134CX
	R8C/34Y	R5F21346Y, R5F21347Y, R5F21348Y, R5F2134AY, R5F2134CY
	R8C/34Z	R5F21346Z, R5F21347Z, R5F21348Z, R5F2134AZ, R5F2134CZ

MCU Unit	Target MCU	
	Group Name	MCU Model [*1]
R0E521300MCU00	R8C/35A	R5F21354A, R5F21355A, R5F21356A, R5F21357A, R5F21358A, R5F2135AA, R5F2135CA
	R8C/35C	R5F21354C, R5F21355C, R5F21356C, R5F21357C, R5F21358C, R5F2135AC, R5F2135CC
	R8C/35D	R5F21354D, R5F21355D, R5F21356D
	R8C/35M	R5F21354M, R5F21355M, R5F21356M, R5F21357M, R5F21358M, R5F2135AM, R5F2135CM
	R8C/36A	R5F21364A, R5F21365A, R5F21366A, R5F21367A, R5F21368A, R5F2136AA, R5F2136CA
	R8C/36C	R5F21364C, R5F21365C, R5F21366C, R5F21367C, R5F21368C, R5F2136AC, R5F2136CC
	R8C/36E	R5F21368E, R5F2136AE, R5F2136CE
	R8C/36F	R5F21368F, R5F2136AF, R5F2136CF
	R8C/36G	R5F21368G, R5F2136AG, R5F2136CG
	R8C/36H	R5F21368H, R5F2136AH, R5F2136CH
	R8C/36M	R5F2136AM, R5F2136CM, R5F21364M, R5F21365M R5F21366M,R5F21367M, R5F21368M
	R8C/36W	R5F21368W, R5F2136AW, R5F2136CW
	R8C/36X	R5F21368X, R5F2136AX, R5F2136CX
	R8C/36Y	R5F21368Y, R5F2136AY, R5F2136CY
	R8C/36Z	R5F21368Z, R5F2136AZ, R5F2136CZ
	R8C/38A	R5F21386A, R5F21387A, R5F21388A, R5F2138AA, R5F2138CA
	R8C/38C	R5F21386C, R5F21387C, R5F21388C, R5F2138AC, R5F2138CC
	R8C/38E	R5F21388E, R5F2138AE, R5F2138CE
	R8C/38F	R5F21388F, R5F2138AF, R5F2138CF
	R8C/38G	R5F21388G, R5F2138AG, R5F2138CG
	R8C/38H	R5F21388H, R5F2138AH, R5F2138CH
	R8C/38M	R5F2138AM, R5F2138CM, R5F21386M, R5F21387M, R5F21388M
	R8C/38W	R5F21388W, R5F2138AW, R5F2138CW
	R8C/38X	R5F21388X, R5F2138AX, R5F2138CX
	R8C/38Y	R5F21388Y, R5F2138AY, R5F2138CY
	R8C/38Z	R5F21388Z, R5F2138AZ, R5F2138CZ
R0E521500MCU00	R8C/54E	R5F21546E, R5F21547E, R5F21548E, R5F2154AE, R5F2154CE
	R8C/54F	R5F21546F, R5F21547F, R5F21548F, R5F2154AF, R5F2154CF
	R8C/54G	R5F21546G, R5F21547G, R5F21548G, R5F2154AG, R5F2154CG
	R8C/54H	R5F21546H, R5F21547H, R5F21548H, R5F2154AH, R5F2154CH
	R8C/56E	R5F21566E, R5F21567E, R5F21568E, R5F2156AE, R5F2156CE
	R8C/56F	R5F21566F, R5F21567F, R5F21568F, R5F2156AF, R5F2156CF
	R8C/56G	R5F21566G, R5F21567G, R5F21568G, R5F2156AG, R5F2156CG
	R8C/56H	R5F21566H, R5F21567H, R5F21568H, R5F2156AH, R5F2156CH

*1: This is the MCU selectable from the [Device] drop-down list box in the [Device setting] dialog box.

2. Contents of Revision from V.1.03 Release 01

2.1 Emulator Software Revision Up

The M16C R8C E100 Emulator Software version has been revised from V.1.03 Release 01 to V.1.03 Release 02.

2.2 Supported MCUs Increased

The following MCUs have been added to the support line:

-In the R8C/5x series

(1) R5F21546E, R5F21547E, R5F21548E, R5F2154AE, and R5F2154CE (the R8C/54E group)

(2) R5F21546F, R5F21547F, R5F21548E, R5F2154AF, and R5F2154CF (the R8C/54F group)

(3) R5F21546G, R5F21547G, R5F21548G, R5F2154AG, and R5F2154CG (the R8C/54G group)

(4) R5F21546H, R5F21547H, R5F21548H, R5F2154AH, and R5F2154CH (the R8C/54H group)

(5) R5F21566E, R5F21567E, R5F21568E, R5F2156AE, and R5F2156CE (the R8C/56E group)

(6) R5F21566F, R5F21567F, R5F21568F, R5F2156AF, and R5F2156CF (the R8C/56F group)

(7) R5F21566G, R5F21567G, R5F21568G, R5F2156AG, and R5F2156CG (the R8C/56G group)

(8) R5F21566H, R5F21567H, R5F21568H, R5F2156AH, and R5F2156CH (the R8C/56H group)

2.3 Support for the Functions Specific to the R8C/5x-Series MCUs

2.3.1 Selecting a Package

The [Port mapping Control] drop-down list box has been added to the [Device setting] dialog box.

2.3.2 Stopping Counting by Timers

The [Stops all timer counts, while the user program has halted.] checkbox has been added to the [Configuration properties] dialog box.

2.3.3 Display of Event-Link Information in the [Trace] Window

The [ELC] and [ELCOVLAP] columns that display event-link information in bus-display mode have been added to the [Trace] window.

3. Contents of Revision from V.1.03 Release 00

3.1 Emulator Software Revision Up

The M16C R8C E100 Emulator Software version has been revised from V.1.03 Release 00 to V.1.03 Release 01.

3.2 Problem Fixed

The following known problem has been fixed:

With using the MCU unit for the R8C/3x MCU series--R0E521300MCU00.

For details of the problem, see Renesas Tool News Document No. 110427/tn1 at:

http://tool-support.renesas.com/eng/toolnews/110427/tn1.htm

4. Contents of Revision from V.1.02 Release 01

Contents of revision from The M16C R8C E100 Emulator Software V.1.02 Release 01 to V.1.03 Release 00 are shown below.

4.1 Supported MCUs Increased

The following MCUs have been added to the support line:

-In the M16C/60 series

(1) R5F364AK (the M16C/64 group)

(2) R5F365x6, R5F365xE, R5F365xK, R5F365xM, R5F365xN, R5F365xR, and R5F365xT (the M16C/65 group)

-In the M16C/50 series

(1) R5F35M23, R5F35M33, R5F35M73, R5F35M83,
R5F35M16, R5F35M26, R5F35M36, R5F35M66, R5F35M76, R5F35M86,
R5F35M1E, R5F35M2E, R5F35M3E, R5F35M6E, R5F35M7E, R5F35M8E,
R5F35MB3, R5F35MC3, R5F35ME3, R5F35MF3,
R5F35MA6, R5F35MB6, R5F35MC6, R5F35MD6, R5F35ME6, R5F35MF6,
R5F35MAE, R5F35MBE, R5F35MCE, R5F35MDE, R5F35MEE, and R5F35MFE (the M16C/5M group)

(2) R5F35723, R5F35733, R5F35773, R5F35783,
R5F35716, R5F35726, R5F35736, R5F35766, R5F35776, R5F35786,
R5F3571E, R5F3572E, R5F3573E, R5F3576E, R5F3577E, and R5F3578E (the M16C/57 group)

-In the R8C/3x series

(1) R5F21321C, R5F21322C, and R5F21324C (the R8C/32C group)

(2) R5F21321D, R5F21322D, and R5F21324D (the R8C/32D group)

(3) R5F21321M, R5F21322M, and R5F21324M (the R8C/32M group)

(4) R5F21324G, and R5F21326G (the R8C/32G group)

(5) R5F21324H, and R5F21326H (the R8C/32H group)

(6) R5F21331C, R5F21332C, R5F21334C, R5F21335C, and R5F21336C (the R8C/33C group)

(7) R5F21331D, R5F21332D, R5F21334D, R5F21335D, and R5F21336D (the R8C/33D group)

(8) R5F21334G, and R5F21336G (the R8C/33G group)

(9) R5F21334H, and R5F21336H (the R8C/33H group)

(10) R5F21331M, R5F21332M, R5F21334M, R5F21335M, and R5F21336M (the R8C/33M group)

(11) R5F21344C, R5F21345C, and R5F21346C (the R8C/34C group)

(12) R5F21344M, R5F21345M, and R5F21346M (the R8C/34M group)

(13) R5F21346P (the R8C/34P C group)

(14) RR5F21346R (the R8C/34 group)

(15) R5F21346W, R5F21347W, R5F21348W, R5F2134AW, and R5F2134CW (the R8C/34W group)

(16) R5F21346X, R5F21347X, R5F21348X, R5F2134AX, and R5F2134CX (the R8C/34X group)

(17) RR5F21346Y, R5F21347Y, R5F21348Y, R5F2134AY, and R5F2134CY (the R8C/34Y group)

(18) R5F21346Z, R5F21347Z, R5F21348Z, R5F2134AZ, and R5F2134CZ (the R8C/34Z group)

(19) R5F21354C, R5F21355C, R5F21356C, R5F21357C, R5F21358C, R5F2135AC, and R5F2135CC (the R8C/35C group)

(20) R5F21354D, R5F21355D, and R5F21356D (the R8C/35D group)

(21) R5F21354M, R5F21355M, R5F21356M, R5F21357M, R5F21358M, R5F2135AM, and R5F2135CM (the R8C/35M group)

(22) R5F21364C, R5F21365C, R5F21366C, R5F21367C, R5F21368C, R5F2136AC, and R5F2136CC (the R8C/36C group)

(23) R5F2136AM, R5F2136CM, R5F21364M, R5F21365M, R5F21366M, R5F21367M, and R5F21368M (the R8C/36M group)

(24) R5F21368W, R5F2136AW, and R5F2136CW (the R8C/36W group)

(25) RR5F21368X, R5F2136AX, and R5F2136CX (the R8C/36X group)

(26) R5F21368Y, R5F2136AY, and R5F2136CY (the R8C/36Y group)

(27) R5F21368Z, R5F2136AZ, and R5F2136CZ (the R8C/36Z group)

(28) RR5F21386C, R5F21387C, R5F21388C, R5F2138AC, and R5F2138CC (the R8C/38C group)

(29) R5F2138AM, R5F2138CM, R5F21386M, R5F21387M, and R5F21388M (the R8C/38M group)

(30) R5F21388W, R5F2138AW, and R5F2138CW (the R8C/38W group)

(31) R5F21388X, R5F2138AX, and R5F2138CX (the R8C/38X group)

(32) R5F21388Y, R5F2138AY, and R5F2138CY (the R8C/38Y group)

(33) R5F21388Z, R5F2138AZ, and 5F2138CZ (the R8C/38Z group)

4.2 High-performance Embedded Workshop Updated

The High-performance Embedded Workshop included in the package has been updated from V.4.05.01 to V.4.08.00.

4.3 Compatibility with Windows® 7

The revised product has been made compatible with the 64-bit and the 32-bit editions of Windows(R) 7.

4.4 Real-time OS Aware Debugging Function Enhanced

To enhance the debugging functions for systems using real-time OSes, the following windows have been added:

- OS Trace window
- OS Analyze window

Note that the above windows support the MCUs of the M16C/60 and the M16C/50 series only. They do not support any MCU of the R8C/3x series, so never use these windows in such a case. If used, the windows may not operate properly.

4.5 Notification Function of an Access to Address 0 Introduced

If address 00000h or 00001h is read out except when an interrupt is serviced, a warning for notifying this read is displayed in the Extended Monitor window.

4.6 Warning Function Against Loading Programs onto Reserved Areas Introduced

If you start loading a program onto any area except ROM, RAM, and external areas, a warning for notifying the illegal operation is displayed in the Output window.

4.7 Step-execution Function with an Input to RESET Masked Introduced

Even if the Mask the terminal RESET check box is selected in the Configuration Properties dialog box that appears when the debugger is started, the debugger can perform step execution whenever the RESET signal is in the LOW state.

5. Restrictions

5.1 [IO] Window

The [IO] window is not supported when an R8C/5x-series MCU is selected. Do not use the [IO] window while you are using the R8C/5x-series MCU unit (R0E521500MCU00).

5.2 Project Workspaces Created by M16C R8C E100 Emulator Software V.1.00 Release 00

When a project workspace created by M16C R8C E100 Emulator Software V.1.00 Release 00 (hereafter referred to as V.1.00 R00) is opened by M16C R8C E100 Emulator Software V.1.03 Release 00 (hereafter referred to as V.1.03 R00) or a later version, the High-performance Embedded Workshop may not operate correctly (e.g. may be abruptly terminated).
Before using V.1.03 Release 00 or a later version to open a project workspace created by V.1.00 R00, follow the procedure below to save the session of the project workspace under the environment of V.1.03 R00 or a later version.

* When a project workspace created by an older version is opened, a confirmation message box appears and the project workspace is saved with a filename “old_version_xxx + original filename.hws”.

To save the session:

(1) Start up the High-performance Embedded Workshop under the environment of V.1.03 R00 and open a project workspace created by V.1.00 R00.
(2) Connect the High-performance Embedded Workshop to the E100 emulator.
(3) Select [View -> Event -> Hardware Break] from the menu to open the [Hardware Break] dialog box.
(4) Select the [Exception] checkbox on the [Hardware Break] page of the [Hardware Break] dialog box and click on the [Detail] button to open the [Exception] page.
(5) Click on the [Detail] button for [Read from a uninitialized memory] on the [Exception] page to open the [Uninitialized area detection] dialog box.
(6) Click on the [Cancel] button in the [Uninitialized area detection] dialog box.
(7) Click on the [Close] button in the [Hardware Break] dialog box (if the [EcxEventE100] dialog box appears, click on the [No] button).
(8) Select [File -> Exit] from the menu.
(9) The [High-performance Embedded Workshop] dialog box appears asking you whether you want to save the session. To save the session, click on the [Yes] button.

6. Note

6.1 Installing the M16C R8C E100 Emulator Software

M16C R8C E100 Emulator Software V.1.03 Release 02 contains High-performance Embedded Workshop V.4.08.00.

When M16C R8C E100 Emulator Software V.1.03 Release 02 is installed on the host computer where V.4.07.01 or an earlier version has been installed, the High-performance Embedded Workshop will be updated to V.4.08.00.

7. Real-Time OS Aware Debugging

For details of the real-time OS aware debugging, refer to the following page.

http://www.renesas.com/ecxos

8. Operating Environment

Table 5.1 Operating Environment (Windows® XP)

PC Environment	
PC	IBM PC/AT compatible
OS	Windows® XP 32-bit edition [*2] [*4]
CPU2	Pentium 4 running at 1.6 GHz or more recommended
Interface	USB2.0/USB1.1 [*3]
Memory	1 Gbyte or larger (more than 10 times the file size of the load module) recommended
Hard disk	Installation of the emulator 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

Table 5.2 Operating Environment (Windows Vista® or Windows® 7)

PC Environment	
PC	IBM PC/AT compatible
OS	Windows Vista® 32-bit edition [*2] [*5] Windows 7 32-bit edition/64-bit edition [*2]
CPU	Pentium 4 running at 3 GHz or Core 2 Duo running at 1 GHz or more recommended
Interface	USB2.0/USB1.1 [*3]
Memory	2 Gbyte or larger (more than 10 times the file size of the load module) recommended (32-bit edition) 3 Gbyte or larger (more than 10 times the file size of the load module) recommended (64-bit edition)
Hard disk	Installation of the emulator 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

Notes:

*2: Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other company or product names are the property of their respective owners.

*3: Operation with all combinations of host machine, USB device and USB hub is not guaranteed for the USB interface.

*4: The 64-bit edition of Windows® XP is not supported.

*5: The 64-bit edition of Windows Vista® is not supported.

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