RENESAS Tool News

E8a Emulator Software Revised to V.1.05 Release 00

We have revised E8a Emulator Software from V.1.04 Release 00 to V.1.05 Release 00. This emulator software product, in combination with the E8a emulator, is used to debug systems designed with MCUs of the M16C, R8C, H8S, H8, and 740 families.
For details of the product, see:
   http://www.renesas.com/e8a
The above URL is one of our global sites.

1. Descriptions of Revision

1.1 Emulator Debuggers Revised
The emulator debuggers included in E8a Emulator Software have been revised as follows:

From	To	
R32C E8a Emulator Debugger	V.1.01.00	V.1.01.01
M32C E8a Emulator Debugger	V.1.04.00	V.1.04.01
M16C E8a Emulator Debugger	V.1.04.00	V.1.05.00
R8C E8a Emulator Debugger	V.1.04.00	V.1.05.00
740 E8a Emulator Debugger	V.1.04.00	V.1.04.01
H8 Tiny/Super Low Power E8a Emulator Debugger	V.1.04.00	V.1.05.00
H8S/Tiny E8a Emulator Debugger	V.1.02.00	V.1.03.00

1.2 Supported MCUs Increased
The following MCUs have been added to the support line:
(1) In the M16C/60 series
   - R5F36406C, R5F3640EC, R5F3640KC, and R5F3640MC (M16C/64C group)
   - R5F36506C, R5F3650EC, R5F3651EC, R5F3650KC, R5F3651KC,

(2) In the R8C/3x series
- R5F21324G and R5F21326G (R8C/32G group)
- R5F21324H and R5F21326H (R8C/32H group)
- R5F21334G and R5F21336G (R8C/33G group)
- R5F21334H and R5F21336H (R8C/33H group)
- R5F21344P and R5F21346P (R8C/34P group)
- R5F21344R and R5F21346R (R8C/34R group)
- R5F213N7T, R5F213N8T, R5F213NAT, and R5F213NCT (R8C/3NT group)
- R5F21346U (NOTE) and R5F21348U (NOTE) (R8C/34U group)
- R5F21348K (NOTE) and R5F2134CK (R8C/34K group)
- R5F213M6U (NOTE) and R5F213M8U (NOTE) (R8C/3MU group)
- R5F213M8K (NOTE) and R5F213MCK (R8C/3MK group)
- R5F213M6Q, R5F213M7Q, R5F213M8Q, R5F213MAQ, and R5F213MCQ
  (R8C/3MQ group)
- R5F21321M, R5F21322M, and R5F21324M (R8C/32M group)
- R5F21331M, R5F21332M, R5F21334M, R5F21335M, and R5F21336M
  (R8C/33M group)
- R5F21344M, R5F21345M, and R5F21346M (R8C/34M group)
- R5F21354M, R5F21355M, and R5F21356M (R8C/35M group)

NOTE: When these MCUs are used, their internal RAM sizes
      accessible by the E8a are restricted as follows:

MCU	Group	ROM size	RAM size	RAM size accessible by E8a
R5F21346U	R8C/34U	32 KB	4 KB	2.5 KB
R5F21348U	R8C/34U	64 KB	8 KB	6.0 KB
R5F21348K	R8C/34K	64 KB	8 KB	6.0 KB
R5F213M6U	R8C/3MU	32 KB	4 KB	2.5 KB
R5F213M8U	R8C/3MU	64 KB	8 KB	6.0 KB
R5F213M8K	R8C/3MK	64 KB	8 KB	6.0 KB

This restriction is imposed only when RAM is accessed by
the E8a; not imposed when accessed by the user program.
About how to raise the restriction, we will inform you
later in RENESAS TOOL NEWS.

(3) In the R8C/Mx series

- R5F2M131B, R5F2M132B, and R5F2M134B (R8C/M13B group)

(4) In the R8C/Lx series
- R5F2LA32A, R5F2LA34A, R5F2LA36A, and R5F2LA38A
  (R8C/LA3A group)
- R5F2LA52A, R5F2LA54A, R5F2LA56A, and R5F2LA58A
  (R8C/LA5A group)
- R5F2L357M, R5F2L358M, R5F2L35AM, and R5F2L35CM
  (R8C/L35M group)
- R5F2L367M, R5F2L368M, R5F2L36AM, and R5F2L36CM
  (R8C/L36M group)
- R5F2L387M, R5F2L388M, R5F2L38AM, and R5F2L38CM
  (R8C/L38M group)
- R5F2L3A7M, R5F2L3A8M, R5F2L3AAM, and R5F2L3ACM
  (R8C/L3AM group)

(5) In the H8/300H Super Low Power series
- H8/38606F (H8/38602R group)

1.3 Functions Introduced
(1) All the emulator debuggers have been made compatible with the 32-bit
    and the 64-bit editions of Windows 7. On these OSes, you can run any
    of the emulator debuggers by using your user right.
(2) In M16C E8a Emulator Debugger and R8C E8a Emulator Debugger, the
    following commands have been introduced to set and display event
    breakpoints:
    - EVENT_SET
    - EVENT_DISPLAY
    - EVENT_BREAK_POINT
    - EVENT_TRACE_POINT

    These commands can be used for all the members of the following
    MCU series:
    - M16C/6x series except M16C/62P, M16C/6Nx, and M16C/64 groups
    - M16C/5x series
    - R8C/3x series except R8C/3xD group
    - R8C/Mx series
    - R8C/Lx series

    For details of the above commands, see Help of each emulator
    debugger.

1.4 Problems Fixed
The following known problems have been fixed:
(1) With downloading programs extending over the data flash area

and the program ROM or ROM2 area; or manipulating data on memory in those areas in M16C E8a Emulator Debugger and R8C E8a Emulator Debugger

For details see RENESAS TOOL NEWS Document No. 101201/tn4 at:
   http://tool-support.renesas.com/eng/toolnews/101201/tn4.htm

(2) With debugging systems designed with MCUs of the R8C/M11A or /M12A group in R8C E8a Emulator Debugger

For details see RENESAS TOOL NEWS Document No. 101101/tn3 at:
   http://tool-support.renesas.com/eng/toolnews/101101/tn3.htm

1.5 Function Improved

When systems designed with MCUs of the R8C/LA6A and R8C/LA8A groups are debugged, Bit 0 of the Timer RJ0 control register (address 80h) is always set to 1 if the program is halted. In this revision, improvement has been made so that Bit 0 can be set to the value before the program is halted.

1.6 I/O Files Added

The I/O files for the MCUs of the following groups have been added to the file library:

(1) Groups in the R32C/100 series
   R32C/116A, R32C/117A, R32C/118A, R32C/145, and R32C/160

(2) Groups in the M16C/5x series
   M16C/56 and M16C/57

(3) Groups in the R8C/3x series
   R8C/34E, R8C/34F, R8C/34G, R8C/34H,
   R8C/36E, R8C/36F, R8C/36G, R8C/36H,
   R8C/38E, R8C/38F, R8C/38G, R8C/38H,
   R8C/34W, R8C/34X, R8C/34W, R8C/34Z,
   R8C/36W, R8C/36X, R8C/36W, R8C/36Z,
   R8C/38W, R8C/38X, R8C/38W, R8C/38Z,
   R8C/3GC, R8C/3JT, R8C/3NT, and R8C/3MQ

(4) Groups in the R8C/Lx series
   R8C/LA6A, R8C/LA8A, R8C/L35C, R8C/L36C, R8C/L38C, and R8C/L3AC

(5) Groups in the R8C/Mx series
   R8C/M11A, R8C/M12A, and R8C/M13B

2. How to Update Your Product

Online update is available free of charge. Update yours in either of

the following ways:

(1) Use AutoUpdate Utility. This service will be available on and
    after June 21.

(2) Download the update program of the product from:
      http://www.renesas.com/e8a_download
    Then execute it. The update program will be published on the Web
    site on June 20.
    The above URL is one of our global sites.

Note that you can select any of the following eight update programs as
necessary: one full-package edition and seven debugger-package editions.

 A. Full-package edition (NOTE 1)
    (1) E8a Emulator Software V.1.05 Release 00

 B. Debugger-package editions (NOTE 2)
    (1) R32C E8a Emulator Debugger V.1.01.01
    (2) M32C E8a Emulator Debugger V.1.04.01
    (3) M16C E8a Emulator Debugger V.1.05.00
    (4) R8C E8a Emulator Debugger V.1.05.00
    (5) 740 E8a Emulator Debugger V.1.04.01
    (6) H8 Tiny/Super Low Power E8a Emulator Debugger V.1.05.00
    (7) H8S/Tiny E8a Emulator Debugger V.1.03.00

    NOTES:
     1. The full-package edition contains all the E8a Emulator Debugger
        programs, High-performance Embedded Workshop, the evaluation
        version of the C compiler package concerned, E8a emulator
        user's manual, and Autoupdate Utility.
        If the update is executed in the system where High-performance
        Embedded Workshop earlier than V.4.08.00 resides, it will also
        be updated to V.4.08.00.
     2. Each of the debugger-package editions contains the corresponding
        E8a Emulator Debugger program and E8a emulator user's manual
        only; not contain High-performance Embedded Workshop.
        So to install any of these editions on your PC, you must install
        High-performance Embedded Workshop V.4.08.00 or later
        in advance.