RENESAS Tool News

Simulator Debuggers
M3T-PD308SIM, M3T-PD30SIM, M3T-PD79SIM, M3T-PD77SIM, and M3T-PD38SIM
Upgraded

We have upgraded simulator debuggers. The upgraded products and their versions are as follows:

- M3T-PD308SIM V.3.10 Release 1 for the M32C/80 and M16C/80 series MCUs
- M3T-PD30SIM V.5.10 Release 1 for the M16C/60, M16C/30, M16C/20, and M16C/10 series MCUs
- M3T-PD79SIM V.3.20 Release 1 for the 79xx series MCUs
- M3T-PD77SIM V.3.10 Release 1 for the 77xx series MCUs
- M3T-PD38SIM V.2.10 Release 1 for the 740 family MCUs

1. **Descriptions of Upgrade**

    1.1 Improvements Introduced
    - To the M3T-PD77SIM only:

        (1) Supporting source-level debugging of source programs in assembly language when IAR Systems' ICC7700 C compiler (Embedded Workbench EW7700) is used.

    - To the M3T-PD38SIM only:

        (1) Supporting source-level debugging of source programs in assembly language when IAR Systems' ICC740 C compiler (Embedded Workbench EW740) is used.

    1.2 Problems Fixed
    The following known and newly found problems have been fixed:
    - In all the products:

        (1) On debugging target programs during execution of them:
            If you try to open dialog boxes for setting breakpoints and changing windows etc., during execution of target programs, those dialog boxes may not appear,

and the subsequent operations become frozen.
For details, see MAEC TOOL NEWS "PD32RSIM, PD308SIM, PD30SIM, PD79SIM, PD77SIM, PD38SIM, PD32000, PD32R, PD308, PD30, PD79, PD77, PD38, PD308M, and PD30M Precautions" issued on May 16, 2001.

(2) On using the C watch window:
When variables are entered in the C watch window, debuggers may be terminated forcibly.
For details, see MAEC TOOL NEWS "PD32RSIM, PD308SIM, PD30SIM, PD79SIM, PD77SIM, PD38SIM, PD32000, PD32R, PD308, PD30, PD79, PD77, PD38, PD308M, and PD30M Precautions" issued on August 1, 2001.

(3) On downloading target programs:
If a Windows application is launched or any of the other already-opened Windows applications is made active while you are downloading a target program (a load module), the debugger may freeze suddenly.

(4) On opening the Source window:
The Source window may not be opened or not display materials normally if opened.
For details of (3) and (4), see MAEC TOOL NEWS "M3T-PD32RSIM, M3T-PD308SIM, M3T-PD30SIM, M3T-PD79SIM, M3T-PD77SIM, M3T-PD38SIM, M3T-PD32R, M3T-PD308, M3T-PD30, M3T-PD79, M3T-PD77, M3T-PD38, PD308M, and PD30M Precautions" issued on December 16, 2001.

(5) On setting coverage data:
When coverage data is set, the simulator debugger may be hung.
For details, see MAEC TOOL NEWS "A Note on Simulator Debuggers M3T-PD32RSIM, M3T-PD308SIM, M3T-PD30SIM, M3T-PD79SIM, M3T-PD77SIM, and M3T-PD38SIM" issued on December 16, 2002.

○ In the M3T-PD308SIM, M3T-PD30SIM, and M3T-PD79SIM only:

(1) On setting search paths for source files:
Even when a search path is set using the Customize dialog box or the Path script command, the source file located by the search path may not be displayed in the Program window and others.
For details, see MAEC TOOL NEWS "M3T-PD32RSIM, M3T-PD308SIM, M3T-PD30SIM, M3T-PD79SIM, M3T-PD77SIM, M3T-PD38SIM, M3T-PD32R, M3T-PD308, M3T-PD30, M3T-PD79, M3T-PD77, M3T-PD38, PD308M, and PD30M Precautions" issued on December 16, 2001.

○ In the M3T-PD308SIM only:

(1) On using "ADD.L:G src, dest" and "SUB.L:G src, dest" instructions:
When an operation is performed between memory and a register; a register and memory; or memory and memory using the above instructions, the measured

number of execution cycles will be larger than the actual one.

- In the M3T-PD30SIM only:
  (1) On the MOV instruction:
      When data is transferred by an MOV instruction using the SP relative addressing mode, the S flag will not be cleared but incorrectly be set to "1" if the MSB value of the lower 8 bits of dest (destination) is "1", even though the value of the MSB of dest is "0".
      For details, see MAEC TOOL NEWS "A Note on Simulator Debugger M3T-PD30SIM" issued on November 16, 2002.

- In the M3T-PD79SIM only:
  (1) On absolute-value instructions:
      When operations handling any of the values that cannot be converted to positive numbers are performed using an absolute-value instruction (ABS or ABSD), the C flag may be set to 1, not cleared to 0.

  (2) On subtraction instructions:
      When the value of the minuend in the accumulator or memory is 0 before the operation is performed using a specified subtraction instruction, the V flag will not be set to 1 if the result of the operation overflows.
      For details of (1) and (2), see MAEC TOOL NEWS "Notes on Simulator Debuggers M3T-PD79SIM and M3T-PD77SIM" issued on October 16, 2002.

- In the M3T-PD77SIM only:
  (1) On modifying memory data:
      In the ASM watch window, when memory data is modified by using watch points of 2 or 4 bytes wide beginning at an odd address may cause communication protocol errors to occur.
      For details, see MESC TOOL NEWS "Precaution in Using Simulator Debuggers for 16-Bit MCUs" issued on December 1, 1999.

  (2) On decimal operations:
      When the program executes a specified subtract instruction in the decimal mode, the accumulator will be loaded with incorrect values.
      For details, see MESC TOOL NEWS "PD79SIM and PD77SIM Precautions" issued on April 16, 2000.

  (3) On display of the Source dialog box:
      During display of the Source dialog box in the Program or Source window (opened by using View -> Source button or menu), Windows' error message appears, forcing the program to terminate.
      For details, see MESC TOOL NEWS "PD32RSIM, PD308SIM, PD30SIM, PD79SIM,

PD77SIM, PD32000, PD308, PD30, PD79, PD77 Precautions" issued on June 16, 2000.

(4) On downloading IEEE-695 absolute format files created by IAR's C compiler ICC7700 (work bench EW7700):
The portion of the program beyond address 100000h cannot correctly be downloaded.
For details, see MESC TOOL NEWS "PD77SIM and PD77 Precautions" issued on September 1, 2000.

(5) On subtraction instructions:
When the value of the minuend in the accumulator or memory is 0 before the operation is performed using a specified subtraction instruction, the V flag will not be set to 1 if the result of the operation overflows.
For details, see MAEC TOOL NEWS "Notes on Simulator Debuggers M3T-PD79SIM and M3T-PD77SIM" issued on October 16, 2002.

○ In the M3T-PD38SIM only:

(1) On the help file:
The help file included with the product cannot be displayed.
For details, see MAEC TOOL NEWS "PD38SIM V.2.00 Release 1 Precaution" issued on May 16, 2001.

2. How to Upgrade the Current Products and Order the Upgraded Ones

2.1 Online Upgrade (without Charge)
Please download the upgraded product you want from HERE.

2.2 First Ordering or Upgrading by CD-ROM (with Additional Charge)
Upgrade service in CD-ROM is also available. When you place an order please furnish the following information to your local Renesas Technology sales office or distributor:

[First Ordering]

Product Type　:

Version No.　　:

Release No.　　:

Host OS　　　　: Windows XP, Windows Me, Windows 98, Windows 95, Windows 2000, or Windows NT 4.0

[Upgrading by CD-ROM]
Please let us know your product's license ID or Serial No. besides the above information.