RENESAS Tool News

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A Note on Using Emulator Debuggers M3T-PD32RM and M3T-PD32R

Please take note of the following problem in using the M3T-PD32RM and M3T-PD32R emulator debuggers for the M32R family MCUs:

- On the break function using the pre-execution PC break

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1. **Products and Versions Concerned**
   All versions of the M3T-PD32RM
   All versions of the M3T-PD32R

2. **Description**
   When the pre-execution PC break is used as an event of a breakpoint, the break function may not be performed properly.

   2.1 Conditions
   This problem occurs if the following four conditions are satisfied:

   (1) The target MCU belongs to any of the following groups:
   32170, 32171, 32172, 32173, 32174, and 32176

   (2) The pre-execution PC break is used as an event of a breakpoint.

   (3) The pre-execution PC break is used as an event of a chip event.

   (4) The breakpoint and the chip event in (2) and (3) above are set at the same address.

   2.2 Example
   If the target program is started with a breakpoint being set in the procedure shown below, no program break occurs when the instruction at the specified address (1000H, for example) is executed:
   (The procedure shown below is an example in the M3T-PD32RM V.2.00 Release 1 and

M3T-PD32R V.4.00 Release 1.)

(1) Open the Program window and double-click the mouse's left button in the area for setting a breakpoint at address 1000H. A breakpoint is set at that address. In Single Chip and External Expansion Modes of the M3217x group, address 1000H is within the internal ROM area, so the pre- execution PC break is used as a breakpoint and "b"s are displayed in the breakpoint display area.

(2) Follow these steps in the Trace-point setting window:
   1. Click the CE0 button in the Set Chip Event area.
      The CE0-Set Chip Event dialog box appears.
   2. Perform the following in the CE0-Set Chip Event dialog box:
      2.1 Check the Enable check box.
      2.2 Select "Preexe-PC 0" in the Event Type combo box.
      2.3 Type H'1000 in the Address text box.
      2.4 Click the OK button.
   3. Click the Set button.

3. Workaround

Don't set a breakpoint and a chip event that use the pre-execution PC break as their events at the same address.
