

RENESAS TOOL NEWS on January 26, 2005: RSO-R0C30600DBW00-050126D

The Debugger Package V.1.00 Release 00 for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny Series of MCUs Released

We have released the debugger package V.1.00 Release 00 for the M16C/60, M16C/30, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny series of MCUs. (Those MCUs are hereafter called the M16C MCUs.)

1. Outline

This debugger package runs on the High-performance Embedded Workshop V.4 (hereafter called the V.4). The V.4 provides you with Renesas's integrated user interface by incorporating useful functions of the TM (an integrated development environment) and emulator debuggers such as the M3T-PDxx and KDxx (hereafter abbreviated as the PD debuggers).

For details of the V.4, see RENESAS TOOL NEWS "The High-performance Embedded Workshop, an Integrated Development Environment, Revised to Its V.4.00.00" (Document No. RSO-HEW-050126D), issued on January 26, 2005.

2. Functionality

The package is provided with the functionality covering the following debuggers:

- M3T-PD30F

(used together with the PC7501 emulator and debugs the M16C/60, M16C/30, and M16C/Tiny* series of MCUs)

* Support for the R8C/Tiny series is under development.

- M3T-PD30

(used together with the PC4701 emulator and debugs the M16C/60, M16C/30, M16C/20, and M16C/10 series of MCUs)

NOTICE: This debugger package supports the PC4701U, PC4701M, PC4701HS, and PC4700H emulators only. Note that it does not support the PC4701L

and PC4700L.

- **M3T-PD30MF**

(used together with compact emulators and debugs M16C/Tiny and R8C/Tiny* series of MCUs)

* Support for the R8C/Tiny series is under development.

NOTICE: This debugger package does not cover the functionality of the M3T-PD30M debugger (used together with the compact emulators for the M16C/62A, M16C/30, and M16C/6K MCUs).

- **KD30**

(used together with the M3A-0665 (FoUSB/UART) emulator and debugs the M16C/60, M16C/20, M16C/10, M16C/Tiny, and R8C/Tiny series of MCUs)

Main features in comparison with the above debuggers are as follows:

- (1) When the High-performance Embedded Workshop is used conventionally to develop programs for M16C MCUs, it performs builds of programs only, and any of the above debuggers has to be used as an external development tool.

Now, running this debugger package on the High-performance Embedded Workshop V.4 enables you to debug programs using an emulator; that is, the emulators for the M16C MCUs can perform seamless operations of coding, compiling, simulating, and debugging under the single development environment of the V.4. So you need not invoke an editor, a compiler, a simulator debugger, and an emulator debugger independently.

- (2) Under the V.4 development environment, common windows to each emulator (for example, such basic debugging windows as the Register and Memory windows) are manipulated in the same, unified manner regardless of the types of target MCU. On the contrary, the windows dependent to each emulator (for example, those providing trace functions and hardware breaks) are manipulated in the manner specific to conventional emulators or debuggers.

3. Host System Requirements

Computer: IBM PC/AT compatible

OS: Windows XP, Windows 2000, Windows Me. or Windows 98SE

4. Main Points of Difference between the Package and the PD Debuggers

(1) This debugger package does not support the OS debugging function. If you need this function, use the PD debugger for your emulator. We plan to support the OS debugging function in our next release of the package.

(2) If you run application programs created using the PDSDK COM kit on this debugger package, consult our technical support contact.
csc@renesas.com

(3) This debugger package does not run in combination with ZIPC CASE tool, manufactured by CATS Co., Ltd. If you want to utilize ZIPC's debugging functions, use the PD debugger for your emulator.

(4) On this debugger package, the commands and windows created by the CB (Custom Builder) do not operate.

(5) Though the simulator debugger for the M16C MCUs runs on the V.4, it is not included with this debugger package; it is being included with the compiler package for the M16C MCUs--M3T-NC30WA V.5.30 Release 02--which will be released on this February 1.

The online revision to the M3T-NC30WA V.5.30 Release 02 will be available from February 7 on.

5. Problems Encountered in the PD Debuggers Fixed

The following known problems have been fixed in this debugger package:

(1) On using the LAN interface: It is impossible to set an IP address and others in the emulator using the SetIp.exe file included with the debuggers.

For details, see RENESAS TOOL NEWS "A Note on Using Emulator Debuggers M3T-PD32R, M3T-PD308F, M3T-PD308, M3T-PD30F, M3T-PD30, M3T-PD79, M3T-PD77, and M3T-PD38", issued on June 1, 2004.

(2) On using the C Watch window: If structures, unions, classes, arrays, and pointers are expanded, the emulator

debugger may hang up.

For details, see RENESAS TOOL NEWS "A Note on Using Emulator Debuggers M3T-PD32RM, M3T-PD32R, M3T-PD308F, M3T-PD308, M3T-PD30F, and M3T-PD30", issued on August 1, 2004.

- (3) On expanding a global variable in the C Watch window: In the C Watch window, expanding a global variable in a structure, a union, or an array of structures or unions may cause the emulator debugger to terminate unsuccessfully. For details, see RENESAS TOOL NEWS "A Note on Using Emulator Debuggers M3T-PD32RM, M3T-PD32R, M3T-PD308F, M3T-PD308, M3T-PD30F and M3T-PD30", issued on September 1, 2004.
- (4) On using the C Watch window: Incorrect values of variables may be displayed in the C Watch window if RAM-monitoring display is used. For details, see RENESAS TOOL NEWS "A Note on Using Emulator M3T-PD308F, M3T-PD30F, and M3T-PD30MF", issued on December 1, 2004.

6. **Problems Encountered in the High-performance Embedded Workshop V.3 Fixed**

Eleven problems have been fixed in the High-performance Embedded Workshop V.4. For details of these, see RENESAS TOOL NEWS "The High-performance Embedded Workshop, an Integrated Development Environment, Revised to Its V.4.00.00" (Document No. RSO-HEW-050126D), issued on January 26, 2005.

7. **How to Get the Product**

The users who are using any of the debuggers listed in Section 2 above are able to download this debugger package free of charge from the Download Site.

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