

**A Note on Using the Debuggers
for the M16C/60, /30, /Tiny, /20, /10,
and R8C/Tiny Series of MCUs
--On Loading Object Module Files Created
Using Tool Chains Manufactured by IAR Systems Inc.--**

Please take note of the following problem in using the debugger for the M16C/60, /30, /Tiny, /20, /10 and R8C/Tiny series of MCUs:

- On Loading Object Module Files Created Using Tool Chains Manufactured by IAR Systems Inc.
-

1. Products and Versions Concerned

- (1) M16C R8C PC7501 emulator debugger V.1.00 Release 00 and V.1.01 Release 00, which runs on the High-performance Embedded Workshop
- (2) M16C R8C compact emulator debugger V.1.00 Release 00 and V.1.01 Release 00, which runs on the High-performance Embedded Workshop
- (3) M16C R8C FoUSB/UART debugger V.1.00 Release 00 and V.1.01 Release 00, which runs on the High-performance Embedded Workshop
- (4) E8 emulator software V.2.01 Release 00 through V.2.04 Release 00, which runs on the High-performance Embedded Workshop
- (5) M3T-PD30F PC7501 emulator debugger V.1.00 Release 1 through V.2.20 Release 1, which is used for the M16C/60, /30, /Tiny series
- (6) M3T-PD30MF compact emulator debugger V.1.00 Release 1, which is used for the M16C/Tiny series

- (7) KD30 FoUSB/UART debugger V.1.00 Release 1 through V.4.10 Release 1, which is used for the M16C/60, /Tiny, /20, /10 and R8C/Tiny series

2. Description

When loading object module files created using tool chains manufactured by IAR Systems inc., the following symptoms may arise:

- (1) If the product in (1), (2), (5), or (6) in Section 1 is used (that is, used in combination with the PC7501 or compact emulator), loading programs into the emulator may make the value of the reset vector incorrect.
- (2) If the product in (3), (4), or (7) in Section 1 is used (that is, used in combination with the E8 emulator or via FoUSB (M3A-0665) or UART connection, programs may not be loaded into the emulator or they may not run properly after loaded.

3. Conditions

The above symptoms occur if object module files created using the "Fill unused code memory" link option of any tool chain manufactured by IAR Systems Inc. are loaded into the emulator.

4. Workaround

- (1) In the case in 2-(1) above
Create Motorola's S-format files from the object module files to be debugged, and load the S-format files first.
Then load only the debugging information of the object module files.
- (2) In the case in 2-(2) above
Don't use the "Fill unused code memory" option;
otherwise, the contents of the object module files are overwritten into the monitor program area of the target MCU.

5. Schedule of Fixing the Problem

- (1) For the symptom encountered when using the debugger in (1), (2), (5), or (6) in Section 1

We plan to fix this symptom in the next release of the M16C R8C PC7501 emulator debugger and the M16C R8C compact emulator.

When you are using the M3T-PD30F or the M3T-PD30MF, please update your product to the M16C R8C PC7501 emulator debugger or the M16C R8C compact emulator at the next release of them (free-of-charge update will be available).

- (2) For the symptom encountered when using the debugger in (3), (4), or (7) in Section 1

Sorry that we have no plan to fix this symptom. So don't use the "Fill unused code memory" option.

[Disclaimer]

The past news contents have been based on information at the time of publication. Now changed or invalid information may be included. The URLs in the Tool News also may be subject to change or become invalid without prior notice.

© 2010-2016 Renesas Electronics Corporation. All rights reserved.