

RENESAS TOOL NEWS on November 16, 2005: RSO-E10A-USB-051116D

## A Note on Using the E200F and E10A-USB Emulators for the SH-2A-Cored MCUs

Please take note of the following problem in using the E200F and E10A-USB emulators for the SuperH RISC engine family of MCUs:

- On using built-in trace capability
- 

### 1. Products Concerned

- E200F emulator (R0E0200F1EMU00) supported by its emulator software V.1.00 Release 00 or later
- E10A-USB emulators (HS0005KCU01H and HS0005KCU02H) supported by their emulator software V.1.08 Release 00 or later

### 2. Description

If the internal trace function is used, user programs may not be executed in real time (their execution may be halted).

### 3. Conditions

This problem occurs if the following conditions are all satisfied:

- (1) Any member of the SH7200 group, SuperH RISC engine family is targeted for debugging.
- (2) After selecting Non realtime trace as an AUD Trace Acquisition mode in the Acquisition dialog box, the mode is changed to the one for using the internal trace function. These procedures are as follows:
  - a. Right-click an unoccupied area of the Trace window to open a pop-up menu. Then select the Setting

- command and open the Acquisition dialog box.
- b. In the Trace mode tab, select the AUD function option button out of the Trace type section. This enables you to use the AUD Trace function.
  - c. Select the Non realtime trace option button out of the AUD mode1 section (AUD Trace Acquisition mode\*).
  - d. Click the OK button in the Acquisition dialog box.
  - e. Right-click an unoccupied area of the Trace window to open a pop-up menu. Then select the Setting command and open the Acquisition dialog box.
  - f. To change the selection in item b, select the Internal Trace option button out of the Trace type section. This enables you to use the internal trace function.
  - g. Click the OK button in the Acquisition dialog box.
- If you debug programs after the above procedures, the problem will arise.

\* There are two modes in the AUD Trace Acquisition mode; that is, Realtime trace and Non realtime trace.

- o Realtime trace

If an interrupt is generated while outputting a series of trace information, the whole series of trace information will be acquired, but the next series cannot be done. Accordingly, though user programs are executed in real time, some parts of trace information may not be output.

- o Non realtime trace

If an interrupt is generated while outputting a series of trace information, the CPU is halted until the whole series of trace information has been acquired. So user programs cannot be executed in real time.

#### 4. Workaround

If you change the Non realtime trace mode to the one for using the internal trace function after selecting Non realtime trace as an AUD Trace Acquisition mode in the Acquisition dialog box, once disconnect the emulator from the system, and then reconnect it to use the internal trace function.

For disconnection and reconnection of your emulator, see the "Reconnecting the Emulator" and "Ending the Emulator" sections in its user's manual.

## 5. **Schedule of Fixing the Problem**

This problem is caused by the emulator software packages for the emulators concerned. So we plan to fix it in the next release of the emulator software packages (V.2.01 Release 00 for the E200F and V.2.02 Release 00 for the E10A-USB; both scheduled in this December). We will inform you of the time of publishing later in our tool news.

---

### **[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.