

M16C/60, E8a Emulator, HEW



[msherman](#) 9 posts since

Jan 27, 2010

I have a system that I'm attempting to conduct on-chip debugging with via the E8a emulator. I have been successful in using this system with the Tutorial program and feel comfortable using the debugger with that program, and I am confirming correct connections and settings by mentioning this. However, when I attempt to download my own program to the system, the debugging features do not work as expected. I cannot set a S/W breakpoint on a source line; the PC only displays to the first line of disassembly code of the "starting" code; whenever I click the Stop (Halt) button, I receive a communication timeout error.

Am I missing something about this setup? Do I need special instructions in the code to operate with the emulator?

I am not the original author of this software; he is gone and I am trying to get the Renesas environment setup for our products.

Thanks

Tags: m16c, e8a



[FrankL](#) 1,100 posts since

Mar 16, 2009 **1. Re: M16C/60, E8a Emulator, HEW** Feb 2, 2010 12:33 AM

The most likely cause for an E8a crash is that your software overwrites the work RAM area of E8a. In the Init window of E8a is one register card where you set the firmware and work RAM area of E8a. make sure they don't overlap with your application.



[msherman](#) 9 posts since

Jan 27, 2010 **2. Re: M16C/60, E8a Emulator, HEW** Feb 3, 2010 1:22 PM

In the sect30.inc file, I modified the Near RAM data area to start at 480H, and I also modified the Far ROM data area to start at 0C0800H to accomodate the emulator firmware and work

area RAM. I have been studying the map file generated during the building process but I don't see anything that looks suspicious. Is there a possibility this unit will not work if we are using DMA?



[FrankL](#) 1,100 posts since

Mar 16, 2009 **3. Re: M16C/60, E8a Emulator, HEW** Feb 4, 2010 2:23 AM

DMA does not cause problems. E8a stops the DMA when the user application stops.

The memory setting look fine provided E8a is really set to use RAM starting 0x400 and ROM starting 0xC0000.

An E8a communication error could also be caused by

- initialising UART1 in the user application.
- switching the processor to stop mode.

Which M16C do you use? 62P?



[msherman](#) 9 posts since

Jan 27, 2010 **4. Re: M16C/60, E8a Emulator, HEW** Feb 4, 2010 7:09 AM

Yes, I am using 62p. I am looking into the two suggestions you made right away; they could very well be the cause. Thanks!



[msherman](#) 9 posts since

Jan 27, 2010 **5. Re: M16C/60, E8a Emulator, HEW** Feb 4, 2010 10:09 AM

It looks like the UART1 port was being manipulated, thus giving me communication problems. I have altered the code and confirmed it. Thanks again!