

# MSP430 in-circuit firmware upgrade question

**Source:** <http://coding.derkeiler.com/Archive/General/comp.arch.embedded/2004-11/0215.html>

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I am trying to implement the in-circuit firmware upgrade feature on a MSP430148 based system. The firmware consists of a boot loader and application. boot loader will be able to receive new application firmware over UART and program it into the flash to replace the older application.

I have a few questions related to this:

1. Can the boot loader program flash while executing in flash? Or does it have to be copied to RAM first?
2. Both of my boot loader and application need to communicate over UART, how do I change the interrupt handler at run time? I am using IAR's tool. Its "interrupt" keyword sets up interrupt vector at compile time.
3. In IAR's Embedded Workbench, I will have two projects for boot loader and application. If I use the linker script to place boot loader and application into different location, can I use C-Spy to download them into flash?
4. When build the application firmware for field upgrade, what link output format should I choose that's good for download and flash programming?
5. When the system goes to production, how do I get a complete flash image so we can program it on MSP430 chips before populate it on the board?

Thanks

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