MSP430 Programming Instructions

PMEL's Engineering Development Division uses MSP430 microcontrollers in many of the custom circuits. The following is the procedure for programming the microcontrollers, also known as "flashing".

Requirements

The following are the basic hardware and software requirements for loading binary files onto the microcontroller.

Hardware

- Texas Instruments MSP-FET Flash Emulation Tool
- EDD Custom 0.100" Pitch x14-pin to 0.050" pitch x10-pin converter

Software

- Elprotronic, Inc. FET-Pro-430-LITE
- Free download from www.elprotronic.com

Files

- Pre-generated binary files for target device
- File should have the form "DeviceName_version.txt

Loading "Binary" files to target

1. Connect the programming cable to the microcontroller and the MSP-FET.
2. Apply Power to the target board
3. Open the FET-Pro-430 program
4. Press the button "Open Code File ->", navigate to the location of the "binary" file (ProjectName.txt)
    - In the source code project folder, this is found in Debug->Exe->Projectname.txt
5. In the Microcontroller Type block (refer to User Manual for values)
    - In "Group", select the general type of MSP430 used.
    - On the next line, select the specific type of MSP430 used

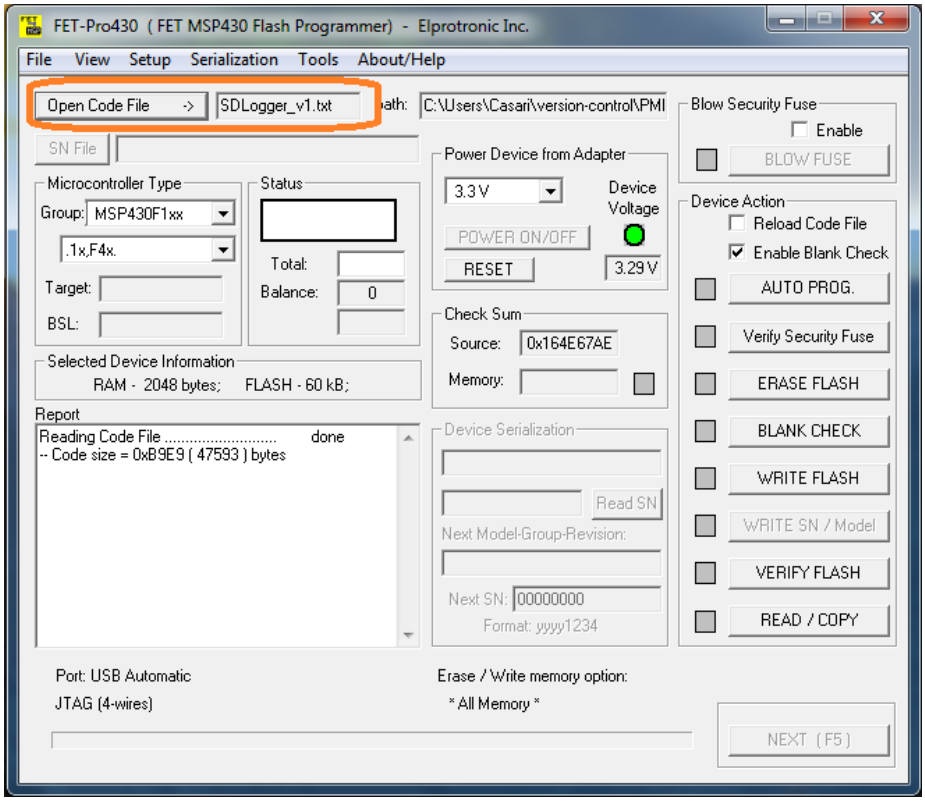

Figure 1: Step_2

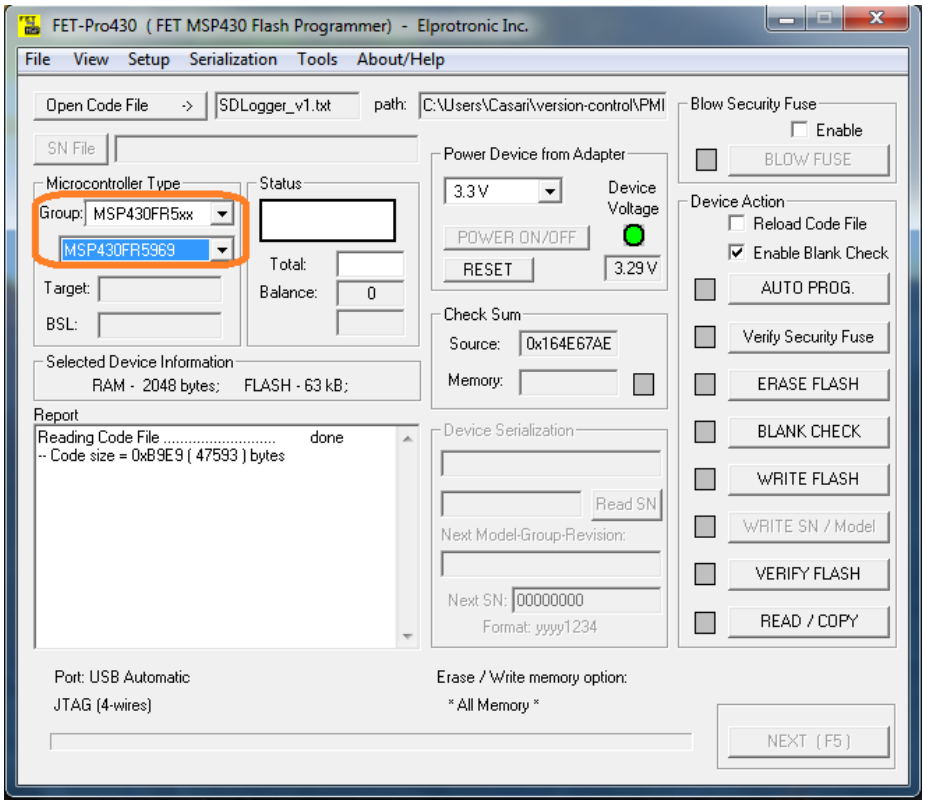

Figure 2: Step_3

6. In the “Device Action” block, press “AUTO PROG.”

   - If successfull, the “Status” block should show **“Pass”**
   - If unsuccessfull, press “ERASE FLASH” and try step 6 again.

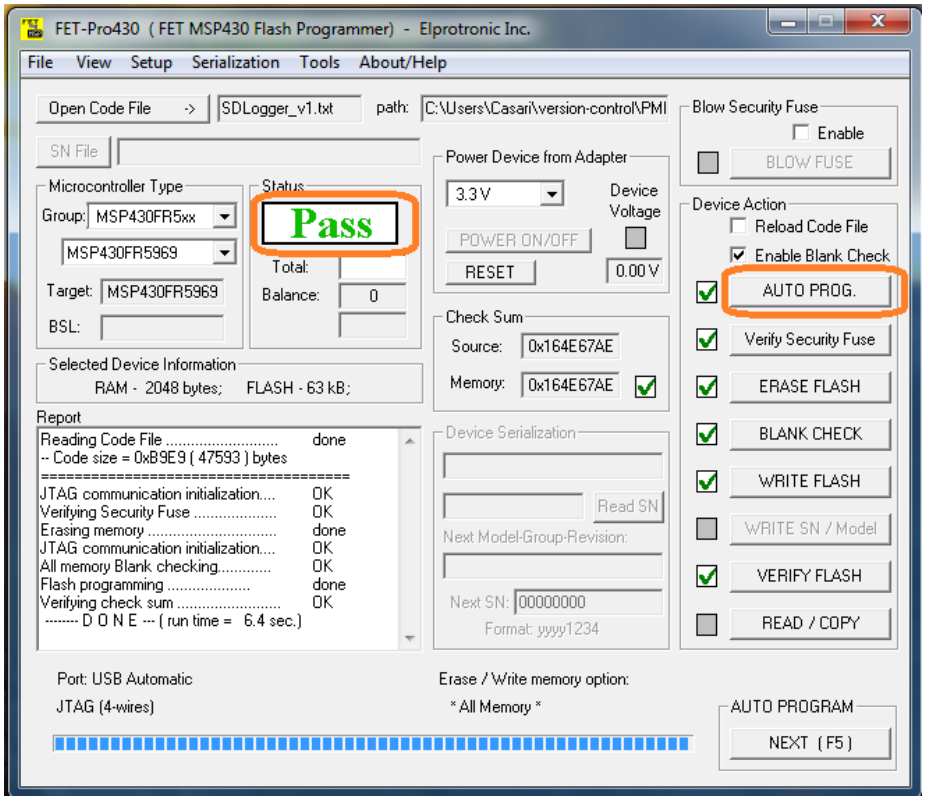

Figure 3: Step_4

7. The device is now programmed

   - **NOTE:** The board may require additional configuration settings over the console. Consult the User Manual for the corresponding device.