CMD-2001 Addendum - 02

Purpose

This document explains how to use the serial port version of the SDS Single Step software development system with the Axiom CMD2001 development board.

Requirements

- Serial cable with NULL Modem adapter for connecting to the CMD2001 COM2 port
- CMD2001 development board running MBUG v1.6 in external EPROM's (u5/u6)
- SDS SingleStep serial debugger software version 7.3.1 or greater.

Preparing the Software

The SDS Single Step serial debugger works fine on the Axiom CMD2001 board running at 16Mhz. Following are the procedures for setting it up:

1. Using the SDS SingleStep software version 7.3.1 or greater, under the `\mcoremon\pstrike\` directory, modify the file "**`evalcomm.s`**" by changing the **CLOCK_33MHZ** constant to 0 to run at 16MHZ. (this is also explained in the readme file.)
2. Recompile the monitor source code by running the **`PSTRIKE.BAT`** file. NOTE: You may get errors if the SDS command utilities aren't in your path. To fix this, copy the following files into the current directory from the **`..\..\cmd`** directory: **`FROMELF.EXE`** and **`DOWN.EXE`**.
3. The debugger software successfully compiles to a hex file called **`t.mot`** starting at 2D000000, so it can be offset programmed into the CMD2001 boards internal flash memory using a programming utility running under the MBUG monitor. Following are the steps to do this:

Programming the Software

1. Make sure the CMD2001 board is running at 16Mhz by installing JP2 on the PB board in positions 1 & 2. Also make sure the M1-SEL jumpers are ON 3 and 6 and M-SEL jumper 3 is ON so that CS0 is mapped to external EEPROMS and CS1 is mapped to fixed flash. (also make sure JP1 on the CMD2001 board is installed to disable write protection)
2. Run the terminal program to get the MBUG 1.6 prompt (this is running off CS0 in external EEPROMS U5/U6).
3. At the prompt, type dl, hit <enter>, upload our utilities program from the CD called **`mcutil.s19`**.
4. At the monitor prompt type go 30000000.
5. From the menu, choose Offset Program Flash EEPROM. This is required because address 2D000000 is defaulted to CS0 so you must offset program it to CS1 address space. When prompted for the offset address enter 2F000000.
6. After the fixed flash is erased you are prompted to send your hex file to the board, which is the recompiled SDS debug monitor file **`t.mot`**.
7. When the utility is finished programming install M-SEL jumpers 1 and 4. This will remap CS0 to fixed flash and enable the fixed SRAM on CS1.
8. Remove JP1 on the main CMD board (not the PB board) to enable write protection.
9. Press Reset on the board to start the SDS SingleStep monitor. Run the SDS windows interface software.