A tiny bit of work

M. Simon

I'm working on a project that is using the Atmel ATTiny10 [1] microprocessor. The processor is a cute little device with 4 I/O pins, 1,000 bytes of flash and 32 bytes of RAM not counting processor registers some of which could be used as RAM in a pinch.

In order to do the development I bought an AVRISP mkII [2] programmer which comes with version 4 of the software development tools. Unfortunately Version 4 which comes on a CD ROM with the programmer does not support the ATTiny10. What to do? Download Version 6 [3]. OK I did that and no icons for the program showed up. UGH. So I re-installed the program to fix that. And it did. Wonderful. On to the next part of the project.

I had designed a development board (schematic here [4]) which has four push button switches, four indicator LEDs (powered by a buffer), and a power indicator (powered by the power). I plugged in the connector from my mkII to the board and what do you know. The programmer unlike the Adafruit programmer [5] which I'm going to report on in another column, does not supply power to the board. Curses. But I am prepared for that. I added some wires to the programmer board in the holes I provided and connected 5 volts to the wires. The lights came on. Hallelujah.

I have now begun to work on the programming. It is taking longer than I like (when doesn't it?) but with the help of a number of FAEs from Atmel (John Corral, Ineyaa N, and Chris Wright) I'm now on the right track. I was discussing my assembler needs with John Corral and told him of my early days with the 8080/Z80, and he said something to the effect of, "taking you back to your childhood." He got that one right. I must say it is fun being an old man. You should try it some time.

Back to business. The most helpful link they sent me was to this page:

AVR Assembler User Guide [6]

I will report back on my programming efforts as I get them. In addition I'm working with a board supplier so those of you who want them can get boards. When I have

completed those arrangements (it may take a few weeks) I will report on them as well.

M. Simon's e-mail can be found on the sidebar at Space-Time Productions [7].

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[1] http://www.atmel.com/devices/attiny10.aspx
[2] http://www.atmel.com/tools/AVRISPMKII.aspx
[3] http://www.atmel.com/Microsite/atmel_studio6/
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