Re: PIC and EEPROM modules

Source: http://sci.tech−archive.net/Archive/sci.electronics.design/2008−01/msg01277.html

- *From*: donald <Donald@xxxxxxxxxxxxxxx>
- *Date*: Wed, 09 Jan 2008 07:17:18 −0700

coetzee.evert@xxxxxxxxx wrote:

> Hi guys
>
> I'm currently using a PIC16F84 for a project. I need to use more
> EEPROM than I have on the chip. So I'm considering adding a memory
> module to store the additional data. I have no idea what my options
> are, which will be the easiest to implement etc.
>
> I dont even need the PIC to write the data to the EEPROM. I would like
> to use my computer to program the EEPROM (max 1Mb) and then just use
> the PIC to read it (I do the same currently with the PIC. Write EEPROM
> data with the pic programmer and then read the data with the PIC).
>
> I've been to microchip's website but I don't really get a noobguide to
> what my choices are. Seems like there's at least two architechtures
> I2C and SPI. Which will be best? Any suggestions?
>
> Thanks

Some design considerations.

How many pins do you have left on the 16F84 ?

How much code space do you have left in the 16F84 ?

The 16F84 does _not_ have an SPI or I2C controller on board.
You will need to bit−bang the lines to the external EEPROM.

With these assumption, what can you do with your design ?

Also, getting any data from your PC into the EEPROM.
Do you have an external programmer, do you want to code another PIC to interface to a serial/parallel port on your PC.

Do you want to remove the EEPROM from the target board to reprogram it ?

All these things can be done, you need to make a decision about what you want to do.

One last thing, are you programming in assembly or C ?

donald
.