

## Re: Learning to use PICS

**Source:** <http://sci.tech-archive.net/Archive/sci.electronics.design/2004-11/7133.html>

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All,

I appreciate everyone's suggestions and help so far. Right now I've started diving into understanding the architecture and memory of a typical PIC (16C84), which I figure is the best place to start. After that, I figure the programming will be a lot easier to understand.

The program memory I understand, no problem (like the BS2, only it seems only instructions can be written at these locations for PICS, and only during programming).

However, with the data memory allocation, I'm having some difficulty based on some of the online datasheets:

<http://ww1.microchip.com/downloads/en/DeviceDoc/30445c.pdf>

and beginner guides (from piclist.com):

<http://www.piclist.com/techref/microchip/intro/pic.htm>

>From what I've read, there are 2 banks each divided into 128 registers. The first 12 registers are SPR, which more or less define the chip's current state. The next 32 registers are GPR (like RAM?). What are the next 88? It's defined as "unimplemented data" according to Fig 4-2 in the 16C84 datasheet.

Secondly, figure 4-7 (pg 18) shows 4 banks, not just two... just how many banks are there for this chip? Can it be more than 2 banks for different PICS, which is why they're showing it as 'off limits', so to speak?

Lastly, back in figure 4-2, it states the 36 GPR in bank 1 are mapped to bank 0. Does this mean they're connected, and if a GPR in bank X changes, then the same GPR in the other bank will change also? If so, are any of the SPR connected in this fashion?

Thanks for the patience if you've made it this far, and I really appreciate the help!

Dave

Secondly