

New PIC Architecture

The fall 2008 offering of Embedded Systems Interfacing will be centered on the PIC24F architecture. In particular the lecture and laboratory exercises will be based on the PIC24FJ128GA010.

Textbook

The textbook will be Programming 16-bit Microcontroller in C, Learning to Fly the PIC24, by Lucio Di Jasio. The publisher is Newnes with an ISBN of 13: 978-0-7506-8292-3. See <http://www.newnespress.com> for more details. This book contains a CD-ROM with the student edition of Microchip C-30 among other things. You should download the latest version from the Microchip website (<http://www.microchip.com>)

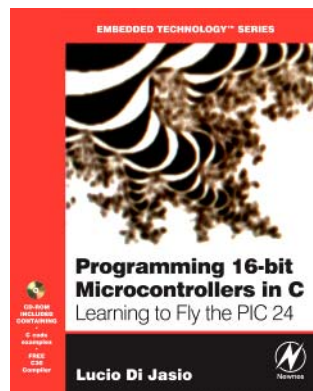


Figure 1 Course Textbook

Development Tools

The laboratory exercises will be based on the Microchip Explorer 16 100-Pin board. See the Microchip web site for details about this board that lists for \$150 at <http://www.microchip.com>. They may be obtained for a 25% discount for educational purposes.



Figure 2 Explore-16 Development Board with ICD-2

The software will be developed using the latest release of Microchip MPLAB. This is a free download from the Microchip web site. I am assuming it will be in the MPLAB 8.1x series.

We will be using the student edition of Microchip's C-30 compiler. After the initial 60-day period levels -O2, O3 and Os optimization and procedural abstraction are turned off until a license is obtained. I have developed all the labs and other course code with all levels of optimization turn off without any problems.

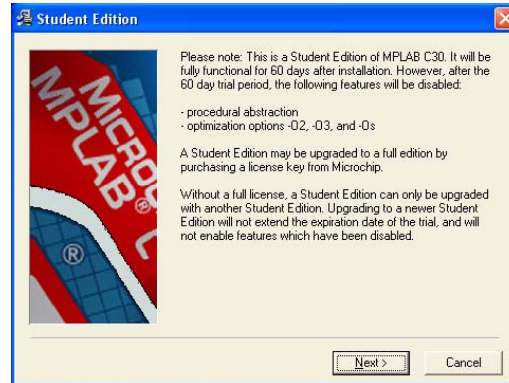


Figure 3 Student Edition Optimization