Lab 9
Debouncing, EEPROM Data Memory, Flash EEPROM Program Memory, and Indirect Addressing

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This lab familiarizes the student with switch debouncing software, EEPROM data memory, Flash EEPROM program memory modification during program execution, and indirect addressing.

1. Create a new project with lab09.asm. Connect a push button to RB0. Connect eight LEDs to the PORTC pins. Run the program. Every time you press the RB0 button the next PORTC LED should turn on. However, the switch bounces, so sometimes when you press the RB0 button the LEDs "skip."

2. Select the **View→EEPROM** menu item in MPLAB. You can double-click an EEPROM byte to change the EEPROM data in the PIC. You can also right-click in the EEPROM window, and then select the **Fill Memory** menu pop-up, to fill an entire block of EEPROM.

3. Select the **Configure→Configuration Bits** menu item in MPLAB.

    a) The Flash Program Write Enable bit (the WRT bit in the configuration word) specifies whether or not the EECON registers can be used to write to program memory. See page 120 in the data sheet for more information.

    b) If Flash Program Write is enabled, the Code Protection bits (CP1:CP0) in the configuration word specify which program memory addresses can be written with the EECON registers.

    c) Select the PICkit as the debugger tool in MPLAB. Then select the **Debugger→Settings** menu item. Unselect the **Preserve device EEPROM** checkbox. This allows you to program EEPROM at the same time that you program the PIC.