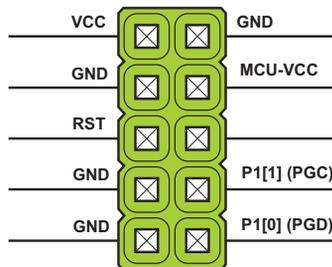


## ABOUT PSoCprog PROGRAMMER

With complementary software, *PSoCprog programmer* represents a great tool for all those working with Cypress's microcontrollers. The microcontroller connects to the *PSoCprog programmer* via 6 lines, three of which are VCC, MCU-VCC and GND and others are PGC, PGD and RST. Unlike programmers whose operation is based on bootloads (and which need to give away part of their memory to a bootloader program) *PSoCprog* programs the microcontroller externally so that the entire memory is available for the programmer. To use the benefits of In-System Programming, target board must have IDC10 connector with following pinout:



PGC and PGD pins connects to the microcontrollers SCL and SDA pins, respectively. SCL and SDA are standard pins for I2C communication (SCL - serial clock, SDA - serial data). I2C communication lines on the target board must be connected directly to the connector.

MCU-VCC pin must be connected to the VCC pin on the microcontroller. MCU-VCC voltage is controlled by the *PSoCprog* so the microcontroller mustn't be powered by the target board in which it's placed! Power supply on the target board must be separated from the microcontroller while programming!



This picture shows the position of jumper when the target board and *PSoCprog* programmer are powered trough USB connector.



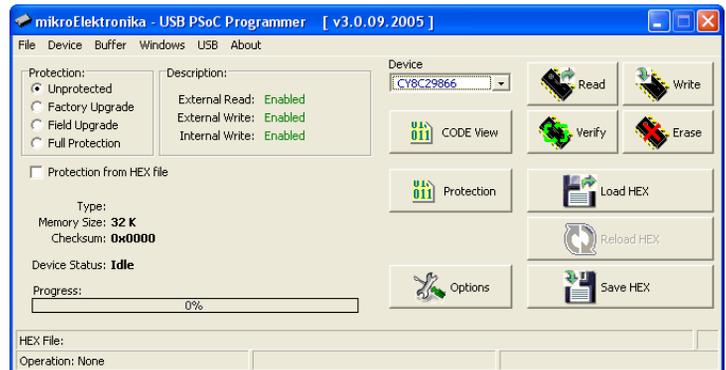
This picture shows the position of jumper when *PSoCprog* programmer is powered by the target board.

## PSoCprog SOFTWARE

### Step 1

Copy the file PSoCprog2.exe from CD to your PC, and run it.

Select the appropriate microcontroller, by clicking the option **Device**. PSoCprog will automatically make adjustments for working with the specified microcontroller.



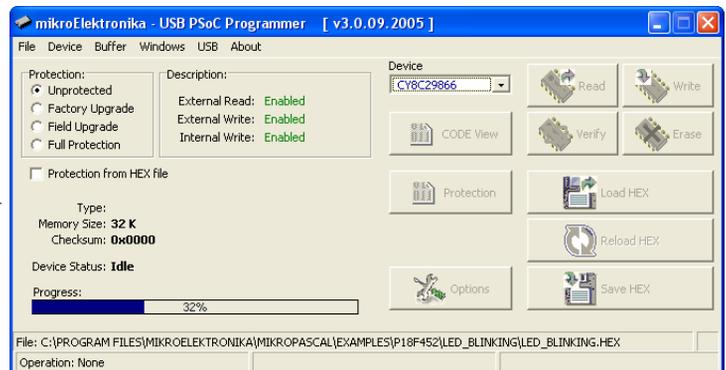
### Step 2

Click the option LOAD HEX which opens up the window similar to picture on the right. By double-clicking the file, appropriate HEX file will be loaded into programmer's buffer. PSoCprog will read all the settings from the HEX file and set up the control bits.



### Step 3

Programming the microcontroller starts by clicking the option **Write** in the right corner of the working window.



## KEYBOARD SHORTCUTS AND COMMAND LINE PARAMETERS.

### Keyboard Shortcuts

<b>Alt-E</b>	Erase
<b>Alt-W</b>	Write
<b>Alt-V</b>	Verify
<b>Alt-R</b>	Read
<b>Alt-D</b>	Change MCU
<b>Ctrl-S</b>	Save
<b>Ctrl-O</b>	Open (Load)
<b>Ctrl-R</b>	Reload

### Command Line

Alternatively, you can use the PSoCprog programmer from the command line. It will allow you to use PSoCprog from some other software, compiler etc. The command line parameters are:

<b>-w</b>	Write to PSoC
<b>-v</b>	Verify
<b>-r</b>	Read from PSoC
<b>-e</b>	Erase PSoC
<b>-p</b>	PSoC name (for example CY8C27643, CY8C26443...)
<b>-f</b>	Filename (use " as delimiters)

### Examples

1. **psocprog2.exe -w -pCY8C27643 -v -f"C:\somefile.hex"**

This will program the PSoC using C:\somefile.hex and it will verify the write

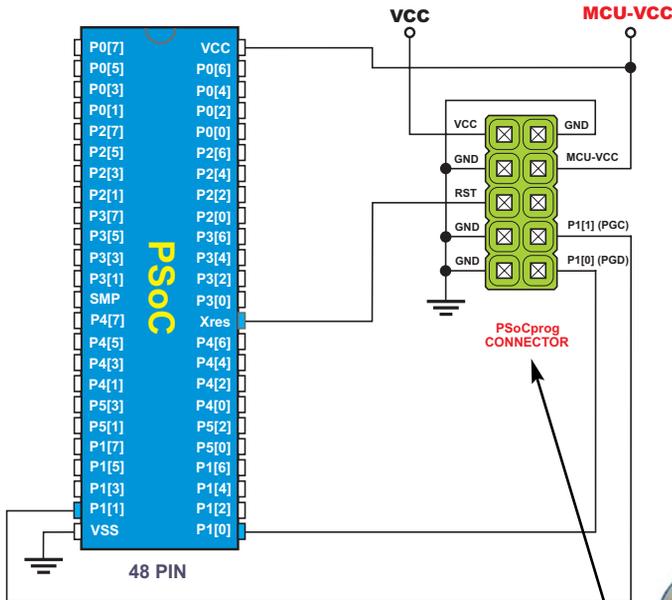
2. **psocprog2.exe -r -pCY8C27643**

This will read the PSoC contents into on screen buffer

3. **psocprog2.exe -e -pCY8C27643**

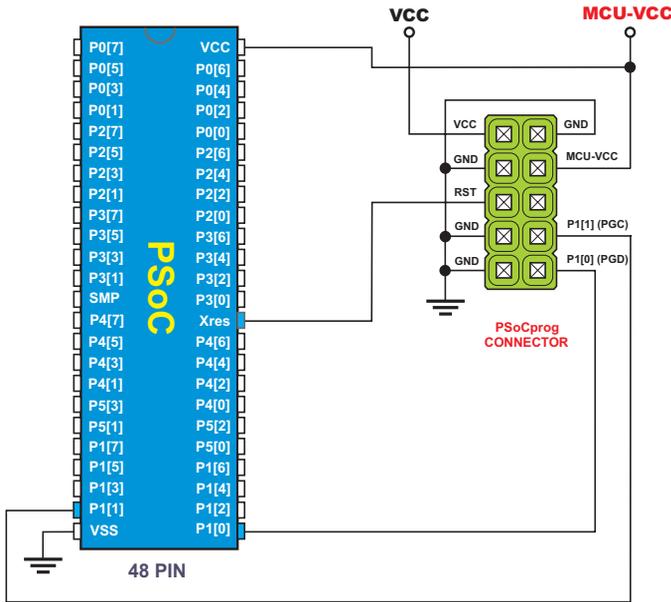
This will erase the PSoC

## EXTERNAL PSoCprog PROGRAMMER CONNECTION SCHEMATICS

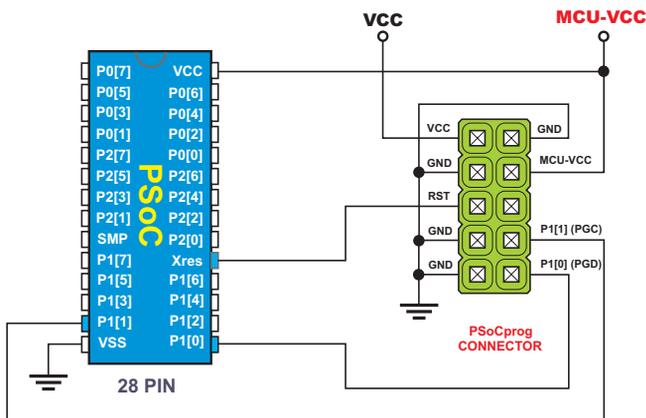


One of the possibilities for connecting PSoCprog to a microcontroller PSoC is by using an IDC10 connector as shown on the picture on the left. All you have to do is to put one 2x5 connector on the target board connected as shown on the scheme. Once you plug in the PSoCprog connector you will be able to program PSoC In System.

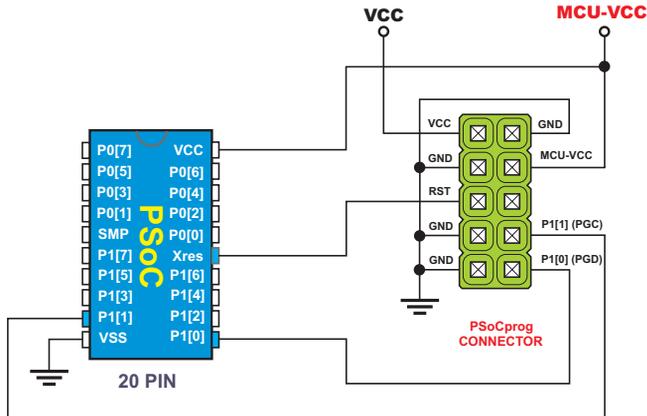




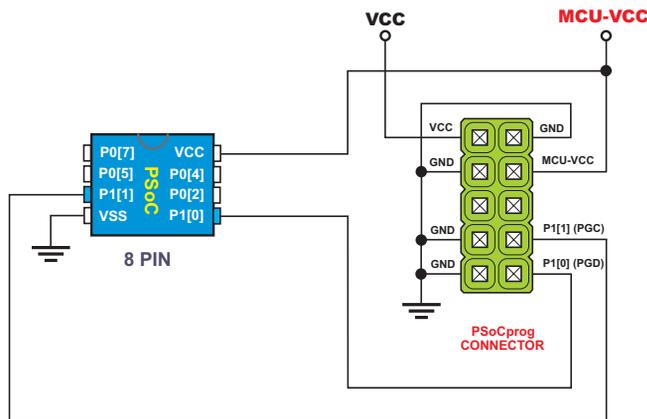
Connection schematic for 48 pin PSoC Microcontrollers. The scheme applies to: CY8C27643...



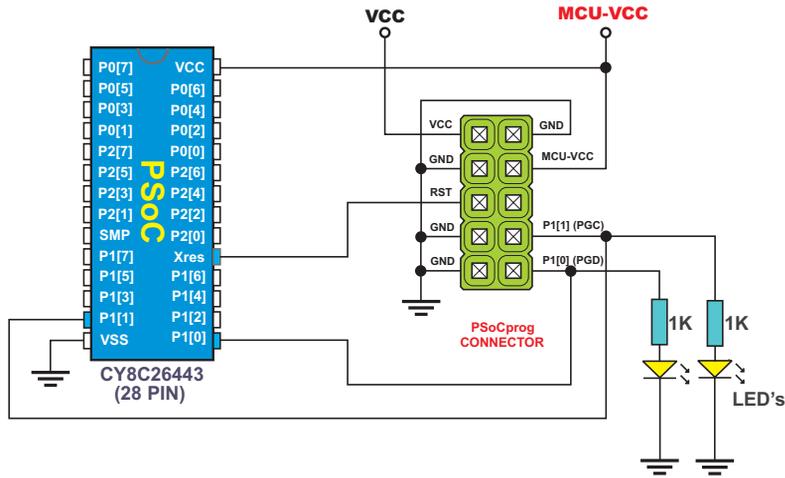
Connection schematic for 28 pin PSoC Microcontrollers. The scheme applies to: CY8C26443...



Connection schematic for 20 pin PSoC Microcontrollers.  
The scheme applies to:  
CY8C26233...



Connection schematic for 8 pin PSoC Microcontrollers.  
The scheme applies to:  
CY8C25122...



The picture on the left shows how to connect two LED's on P1[0] and P1[1] pins.

If you are experiencing problems with any of our products or you just want additional information, please let us know. We are committed to meeting your every need.

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