



2016

Interfacing PC with MPLAB Xpress Evaluation Board



Siva A

Tenet Technetronics

Contents

Introduction	2
Component Requirement.....	2
Procedure	3
Output:	14



Introduction

MPLAB Xpress IDE cost free development platform. It's cloud Based IDE available from microchip supporting PIC-based microcontrollers. The platform is comprised of code editor, build automation tools, debugger, code configurator. MPLAB Xpress IDE is an end-to-end solution enabling engineers to develop their applications from initial evaluation to final production.

Component Requirement

➤ Hardware:

- MPLAB Xpress evaluation tool
- Personal computer

➤ Software:

- MPLAB Xpress IDE



Procedure

Step 1: Open your Browser and go to following link

<https://mplabxpress.microchip.com/mplabcloud/ide>

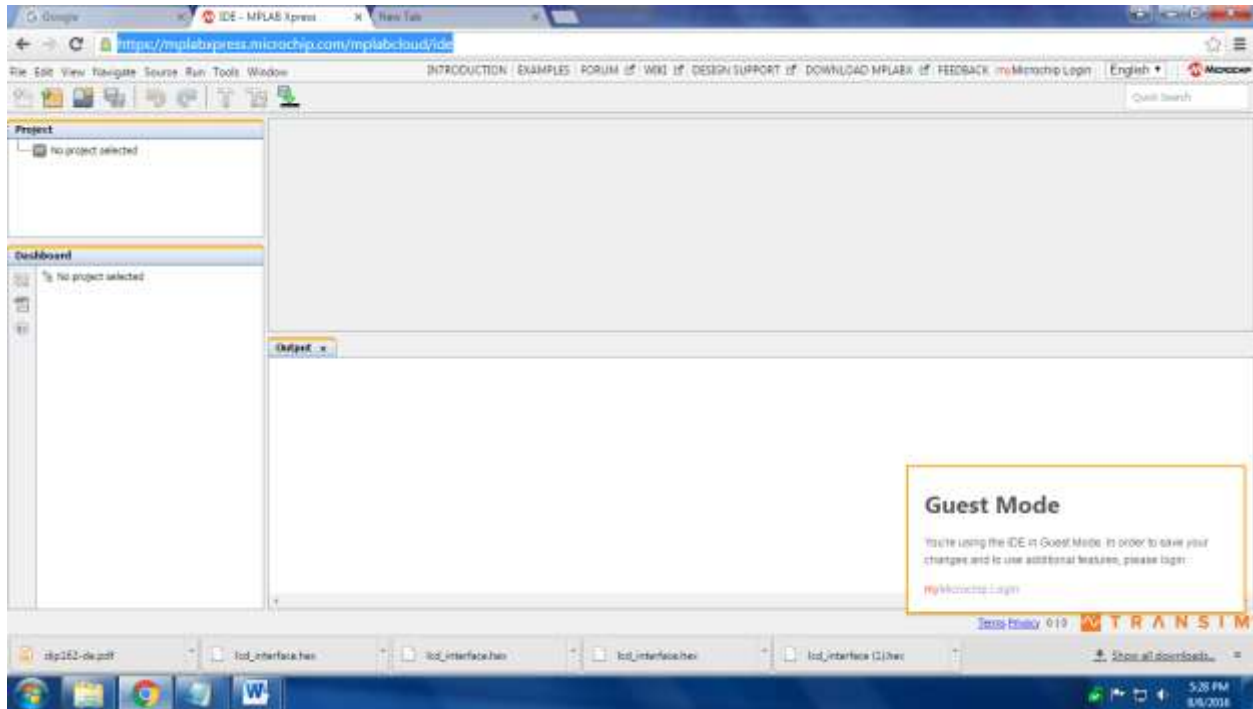


Figure 1 MPLAB Xpress IDE main window

Step 2: start creating our new project. Go to **File >> New Project**. Select **microchip embedded** as well as **standalone project** then click **next**

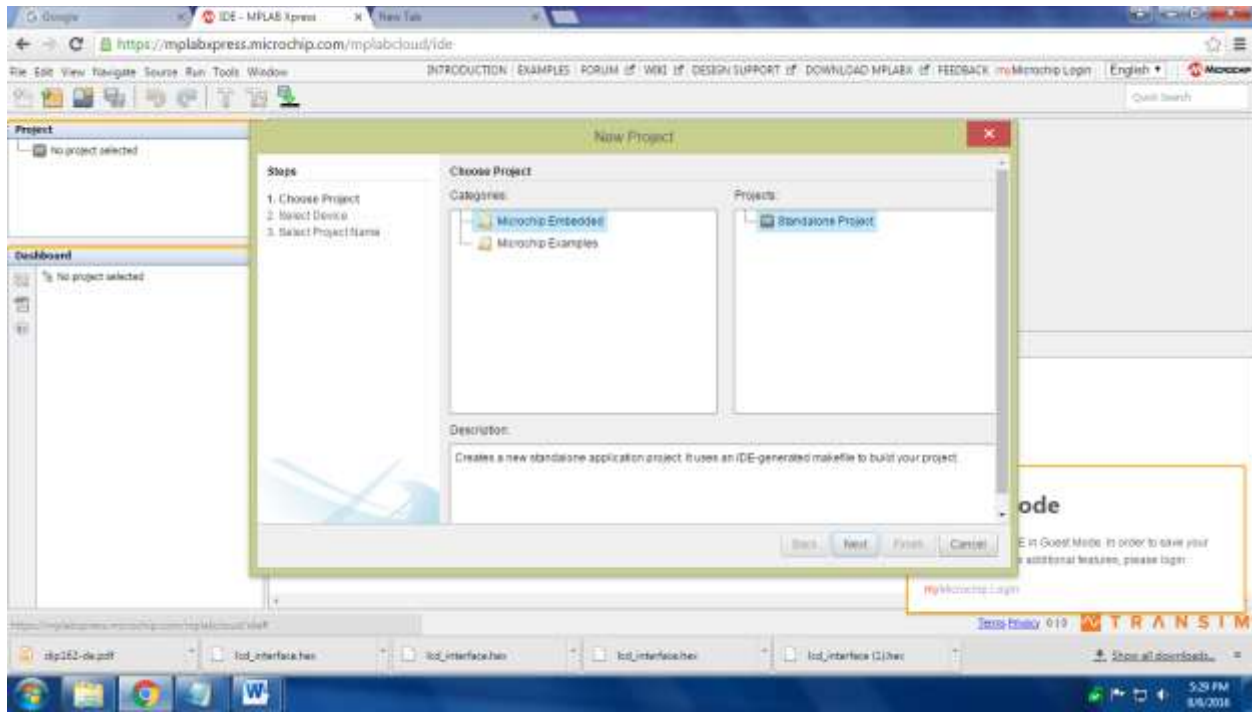


Figure 2 Open new project

Step 3: Select device **pic16f18855**, and click **next** .

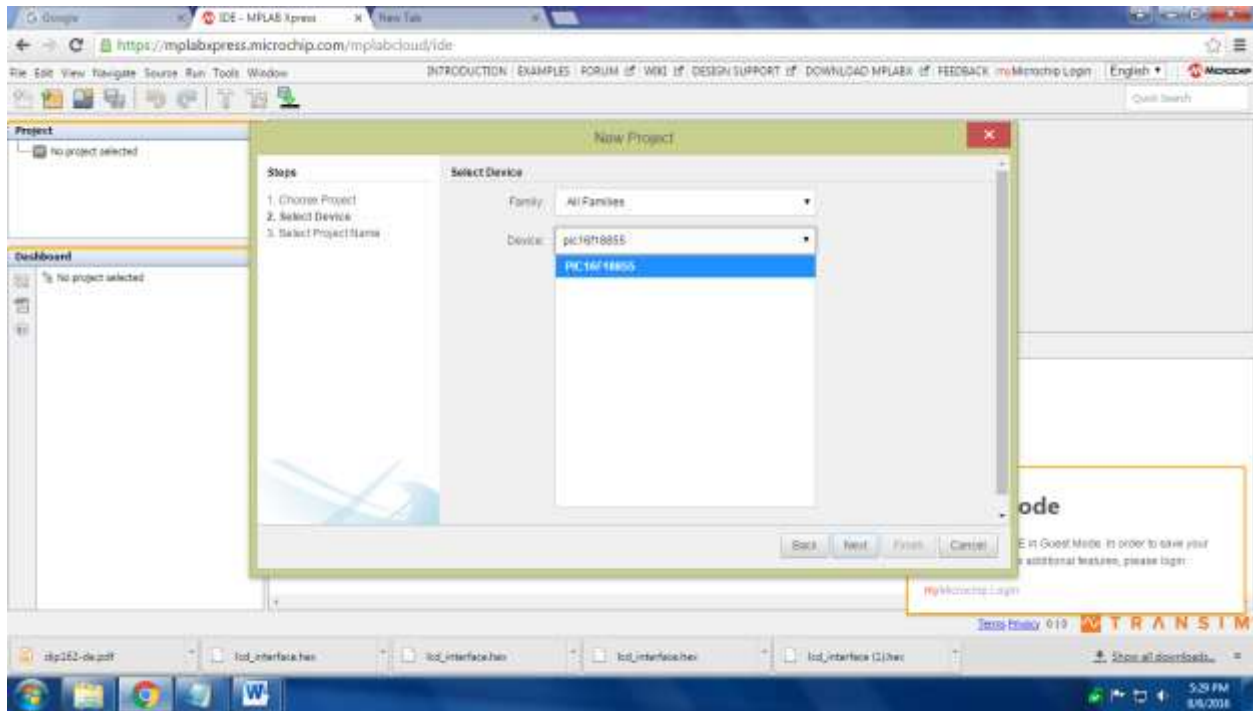


Figure 3 select Device

Step 4: then give project name and click finish.

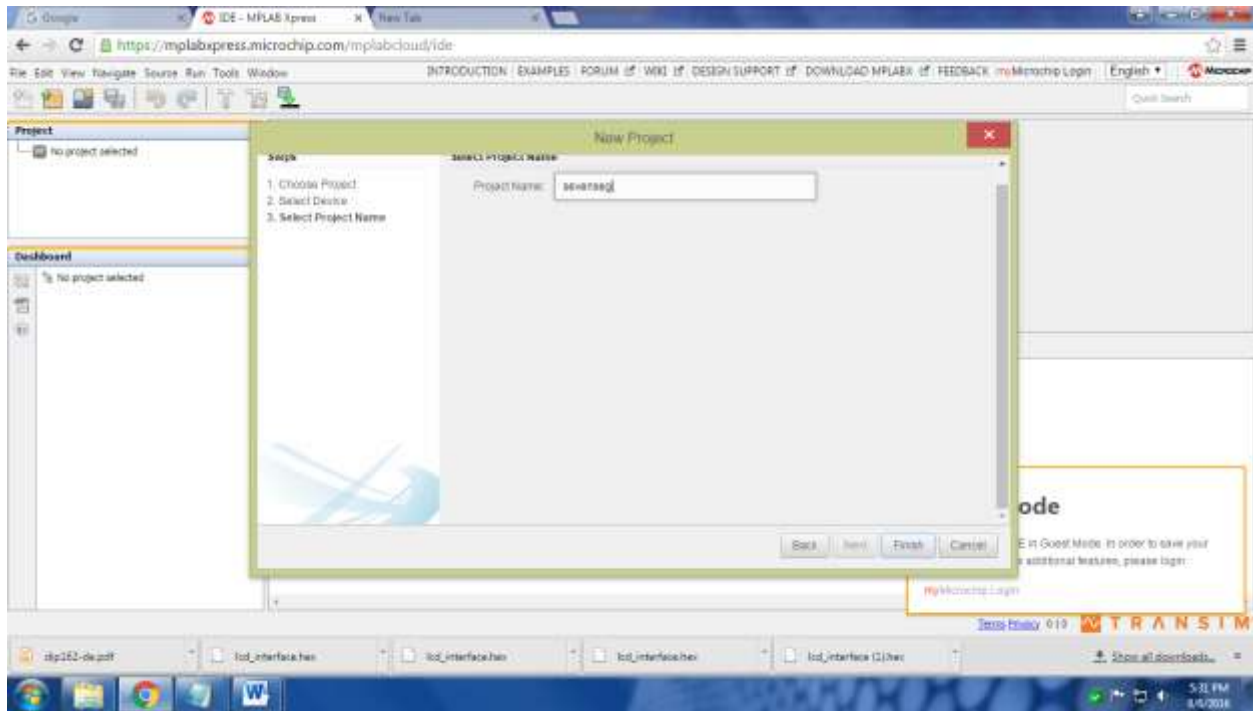


Figure 4 give project name

Step 5: Now choose mplab xpress code configurator if its not present in your Device please Download and install from following link. <http://www.microchip.com/mplab/mplab-code-configurator>

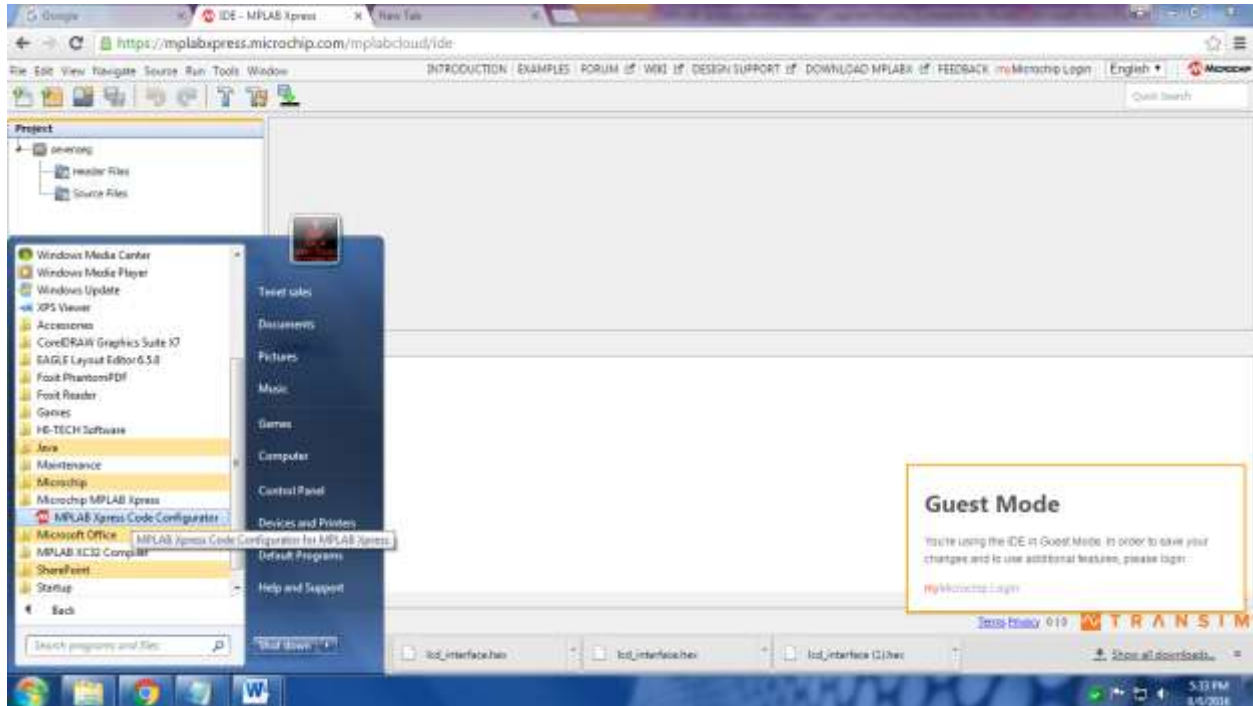


Figure 5 Select mplab xpress code configurator

Step 6: Now we can see our mlab xpress configuration window and select system module in mlab xpress configuration window .

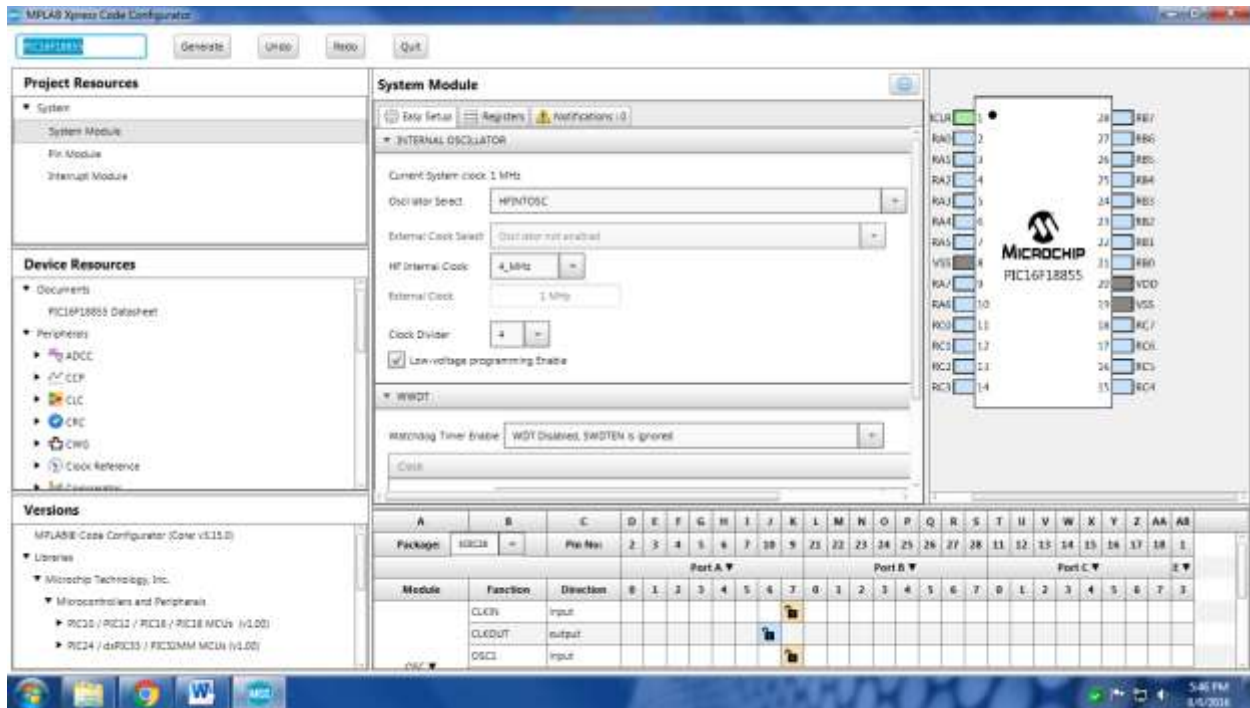


Figure 6 select pin

Step 7: select pin module in mplab xpress configuration window and make deselect Analog in pin module window.

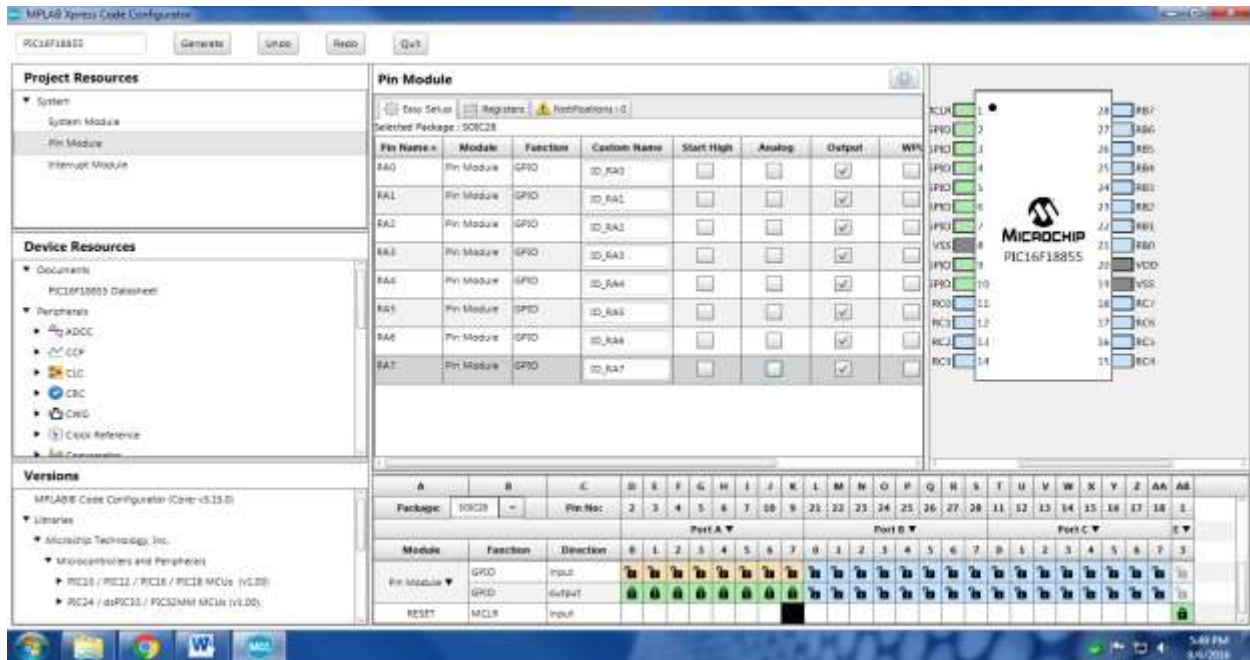


Figure 7 pin configuration set

Step 8:Now click Generate option.

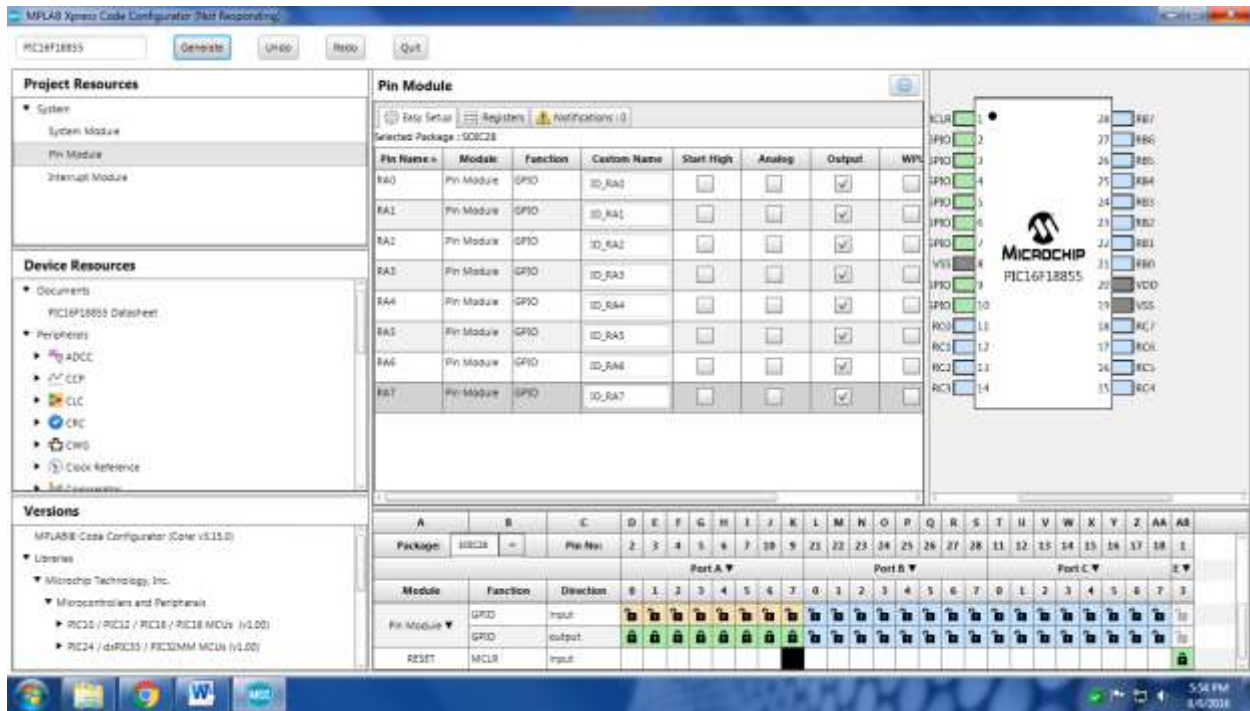


Figure 8 click Generate

Note: **If you didn't done above things please add all library files. You can also get from our website.**

SOURCE CODE:

```
#include "mcc_generated_files/mcc.h"

void main(void)

{

    // initialize the device

    SYSTEM_Initialize();

    while (1)

    {

        printf("Hello!\n\r");

    }

}
```



The screenshot displays the MPLAB IDE environment. On the left, the 'Project' pane shows a tree structure for 'mcp3202adc_write_using_adc_in_isr', including 'Header Files', 'Source Files', and 'MCC Generated Files'. Below it, the 'Dashboard' pane provides a summary of the project components: Device (PIC32M1000S), Compiler Toolchain (XC32 (1.37)), Memory, Debug Tool, Simulator / Xpress Board, and Debug Resources. The main area is the 'Source' editor, which displays the C code for 'mcp3202adc_write_using_adc_in_isr.c'. The code includes comments and function calls for initializing the device, enabling/disabling interrupts, and writing to the ADC. The 'Output' pane at the bottom shows the compilation process, indicating that the program is being compiled and linked.

TENET TECHNETRONICS | VARSITY

Step 10: Now, if all goes well connect the Micro B cable to pic16f18855 (mplab xpress demonstration board) and connect it to your computer. If you done you can see your devise. And copy that Hex file to your device. And make hardware connection.

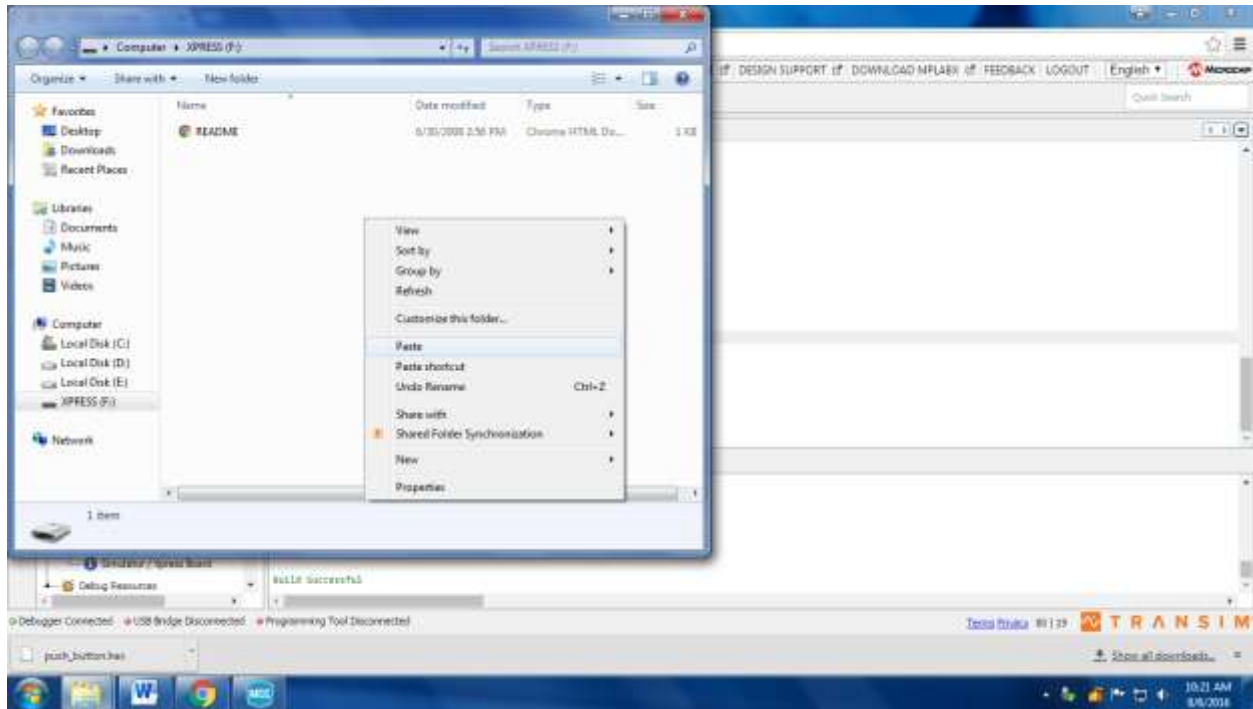


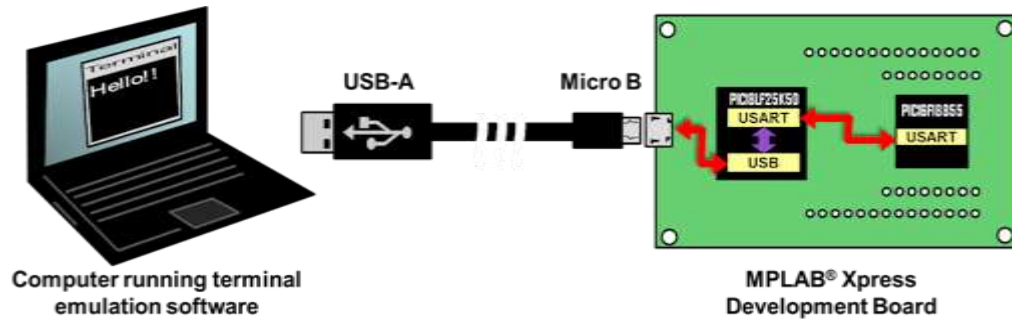
Figure 11 Run the project

Output:



Figure 12 output

Circuit connection



For product link:

<http://www.tenettech.com/product/8828/mplab-xpress-development-board>

For more information please visit: www.tenettech.com

For technical query please send an e-mail: info@tenettech.com

