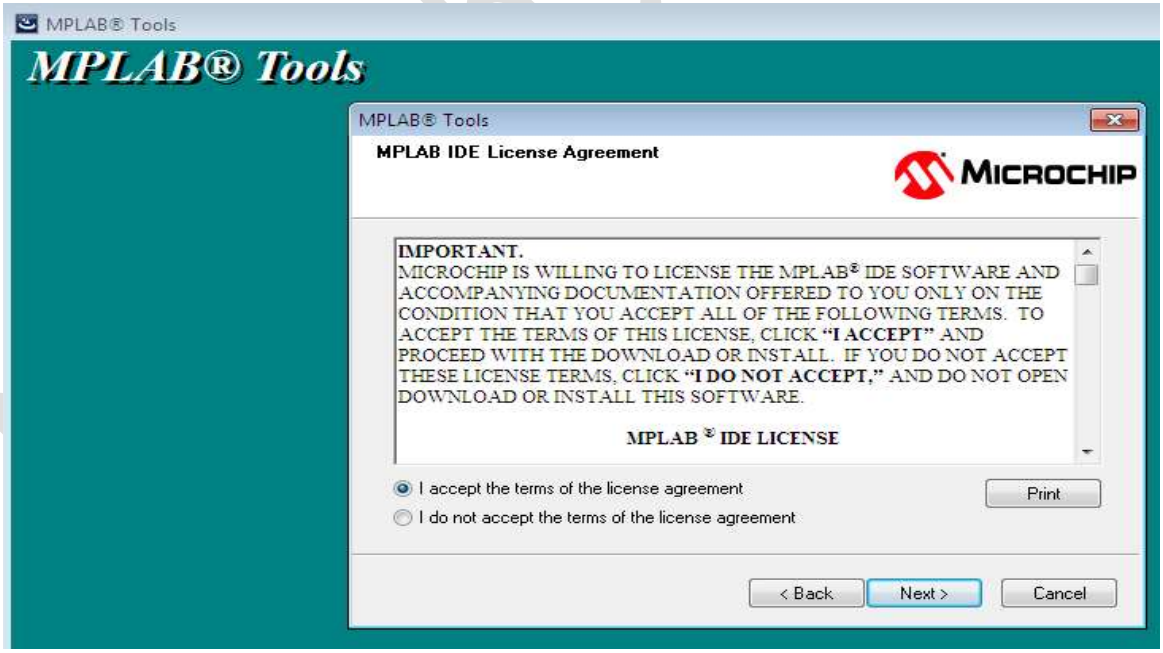
User Guide for PIC Software

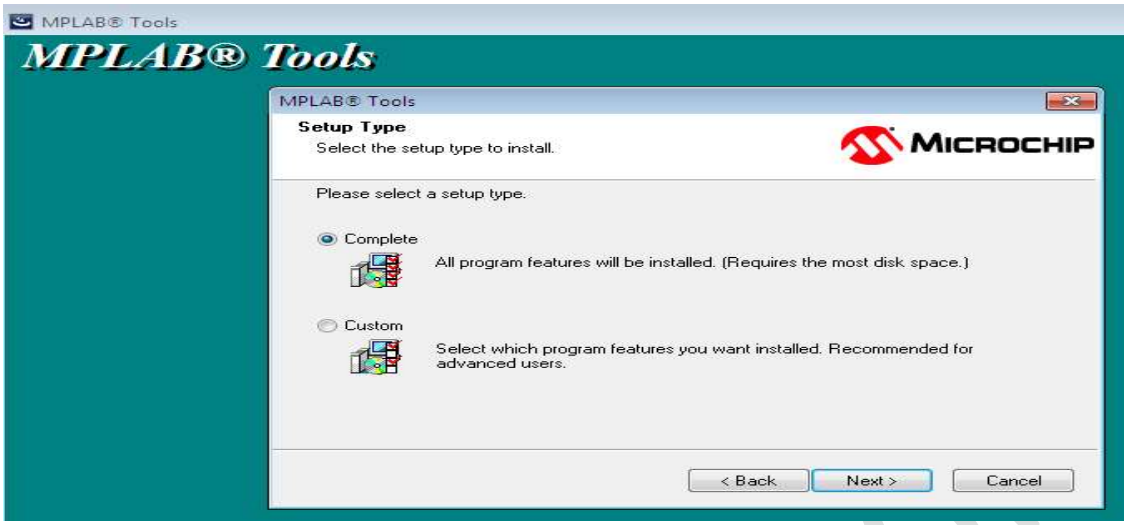
Steps for Installation of MPLAB IDE software

1. Double click on setup.exe file of MPLAB IDE.
2. Click Next>.

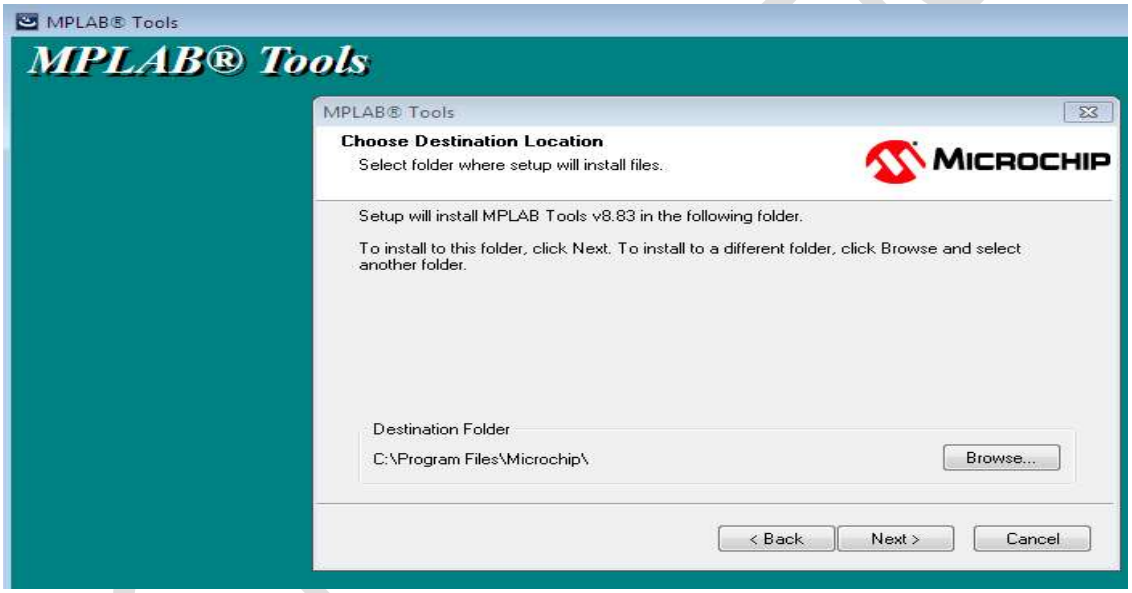
3. Accept the license agreement and click on Next>.



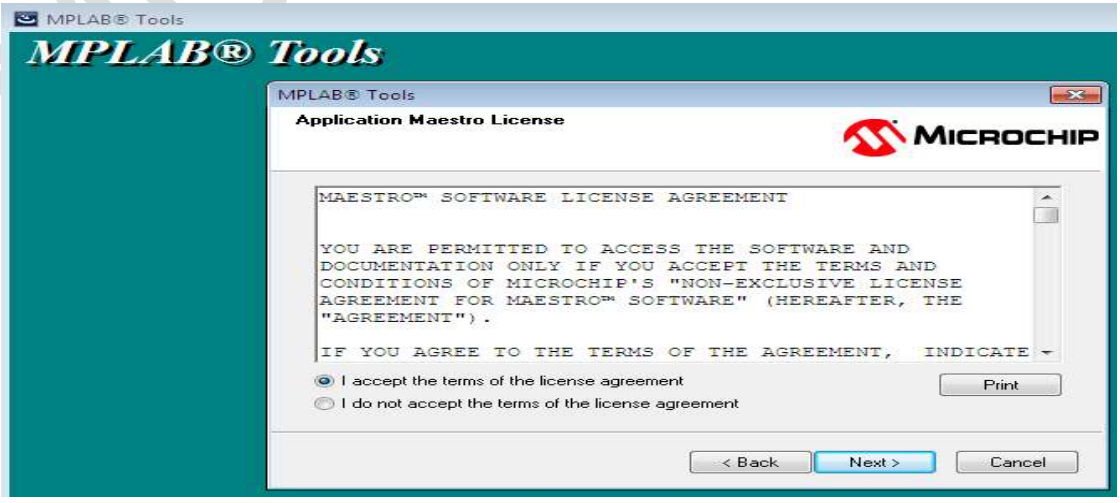
4. Select the setup type to install as a complete and click on Next>.



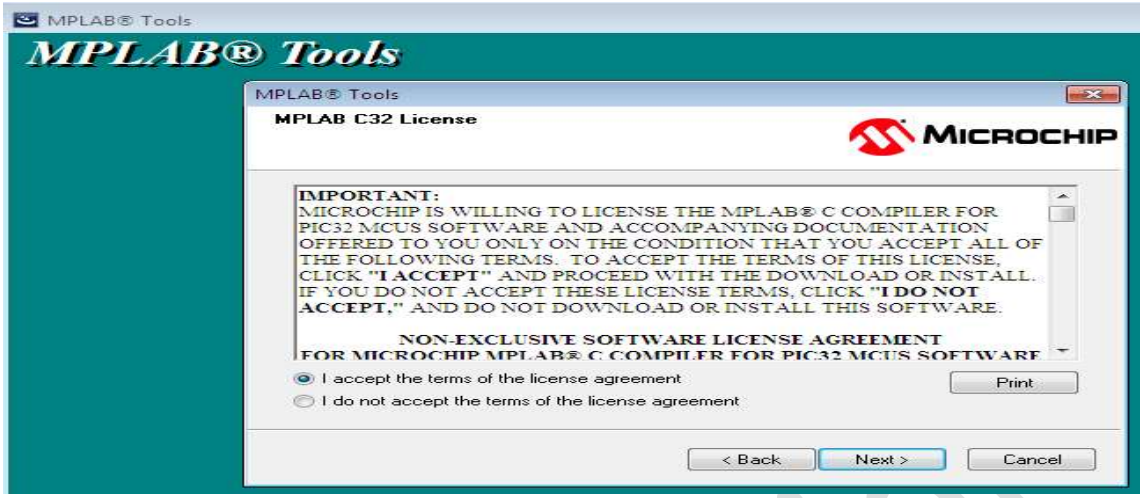
5. Select the folder for installation and click on Next>.



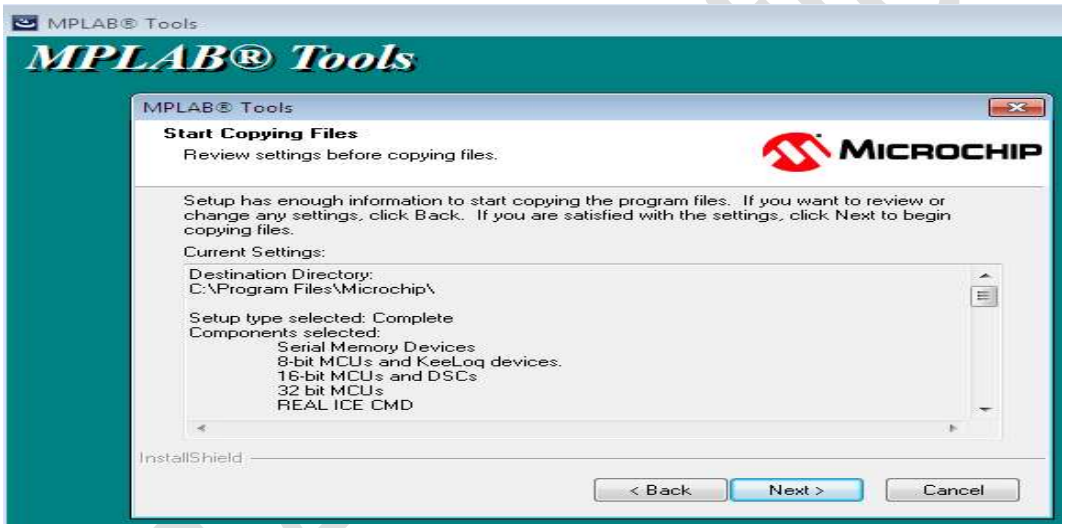
6. Accept the license agreement and click on Next>.



7. Accept the license agreement for MPLAB C32 and click on Next>.



8. Review settings before copping file and click on Next>.



9. Installation begins.
10. After installation is complete, click on Finish.

11. The icon for MPLAB IDE is appeared on the desktop.

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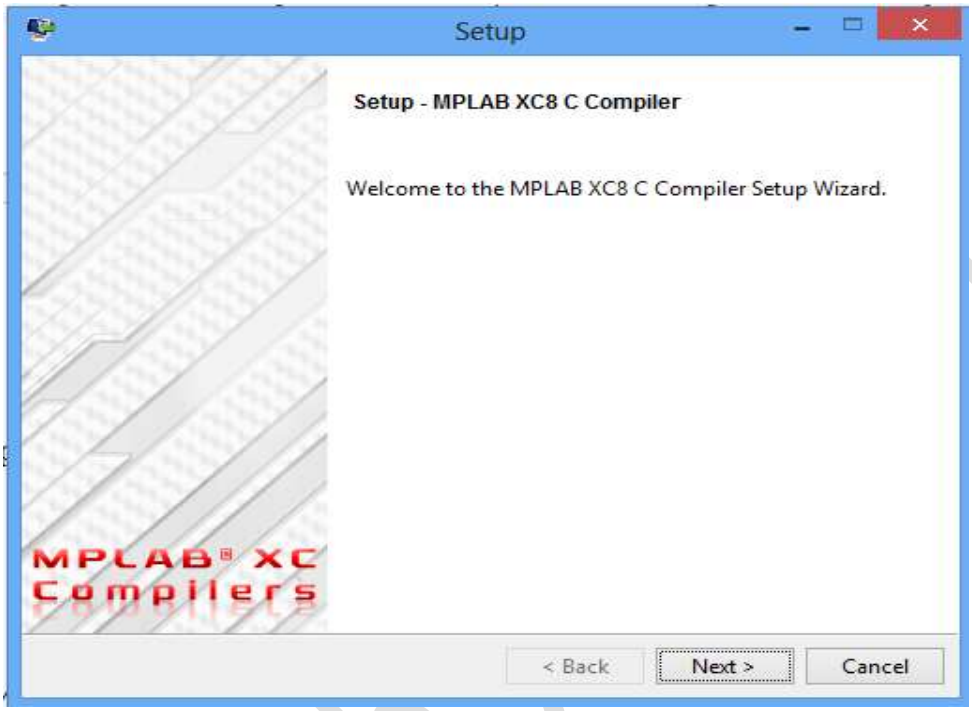
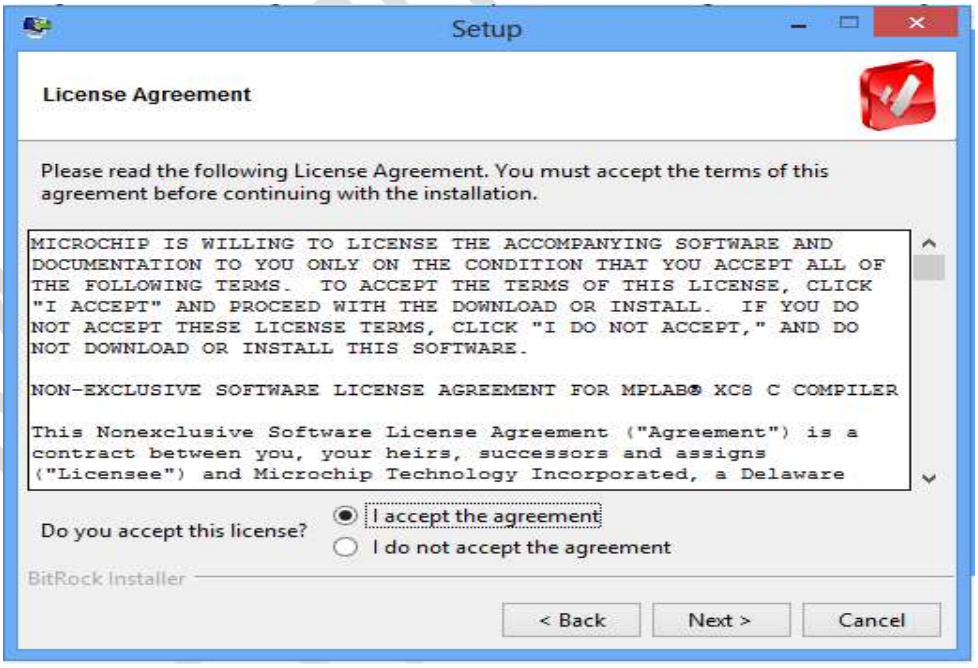
Steps for installation of C-compiler

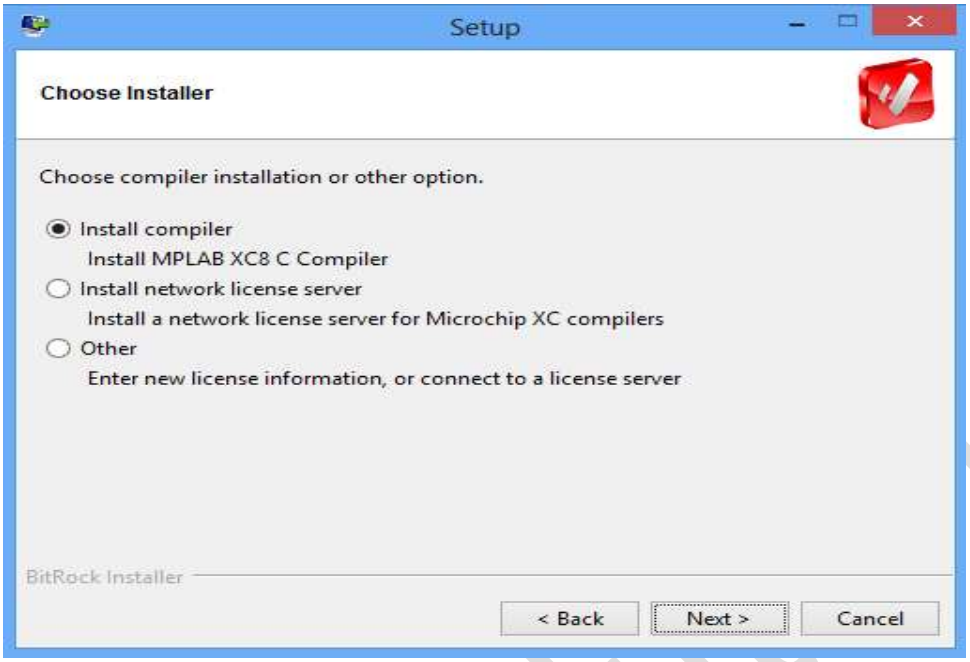
1. Double click on application file of XC8 compiler.
2. Click Next>.



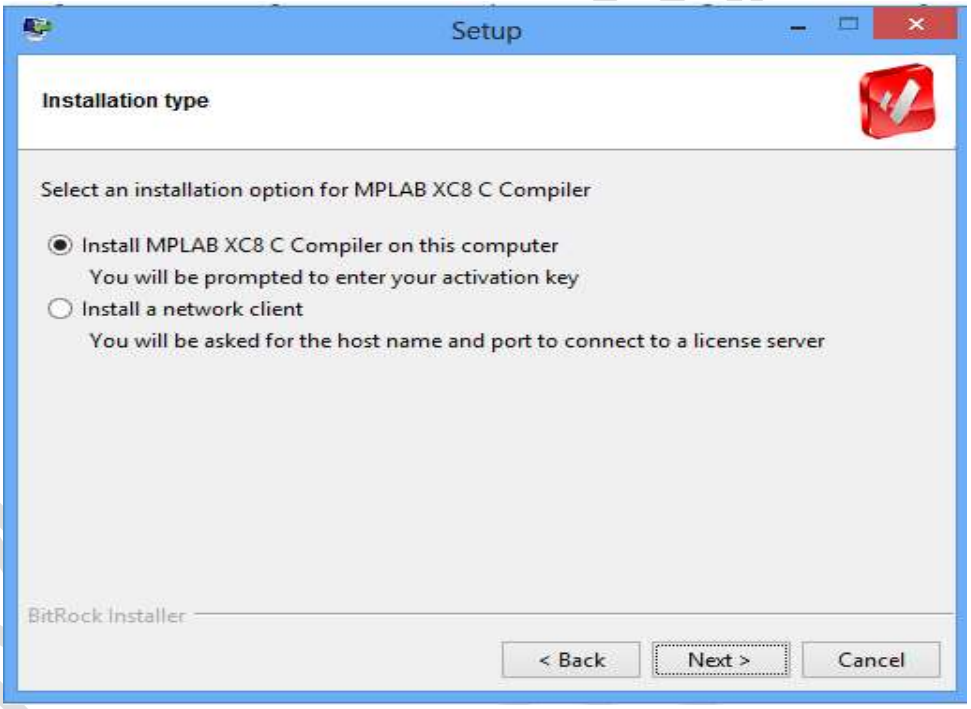
3. Select “I accept the agreement” and Click on Next.



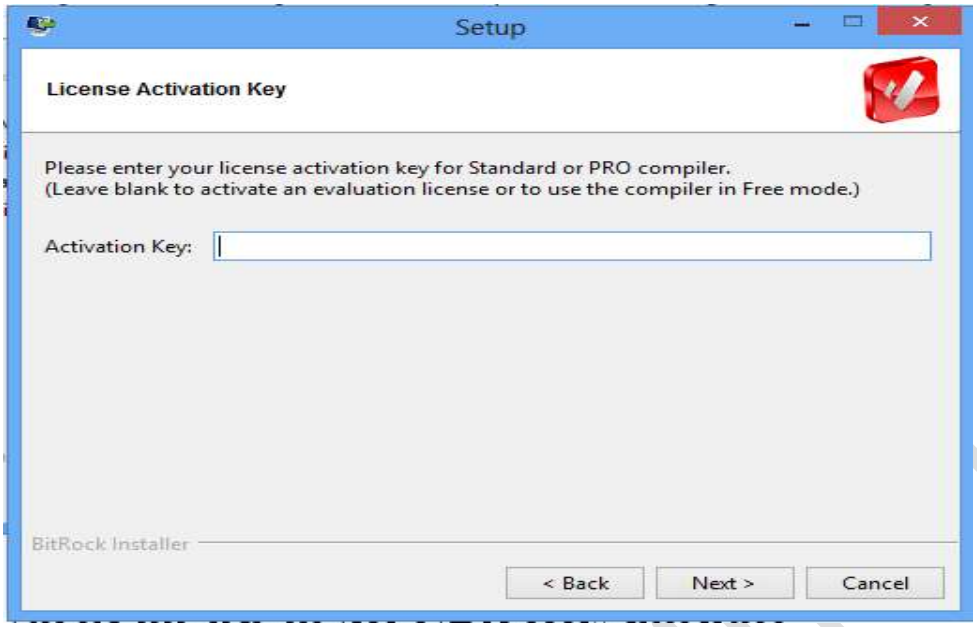
4. Select “Install Compiler” option and click on next.



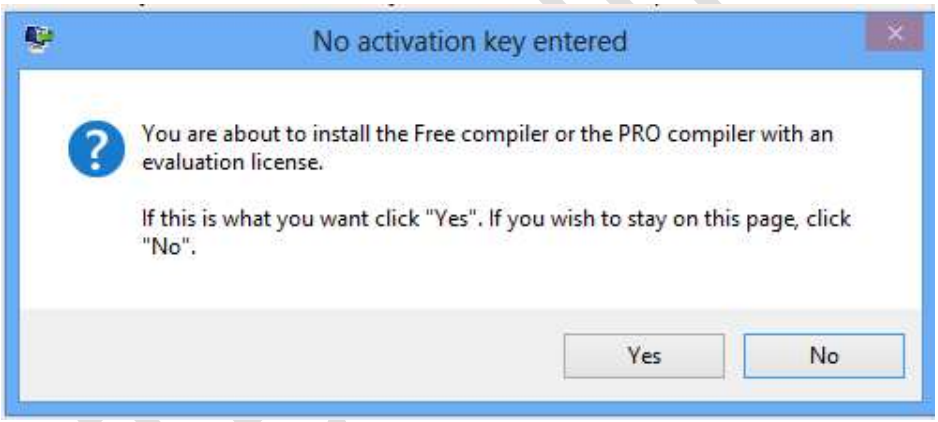
5. Select first option and click on Next.



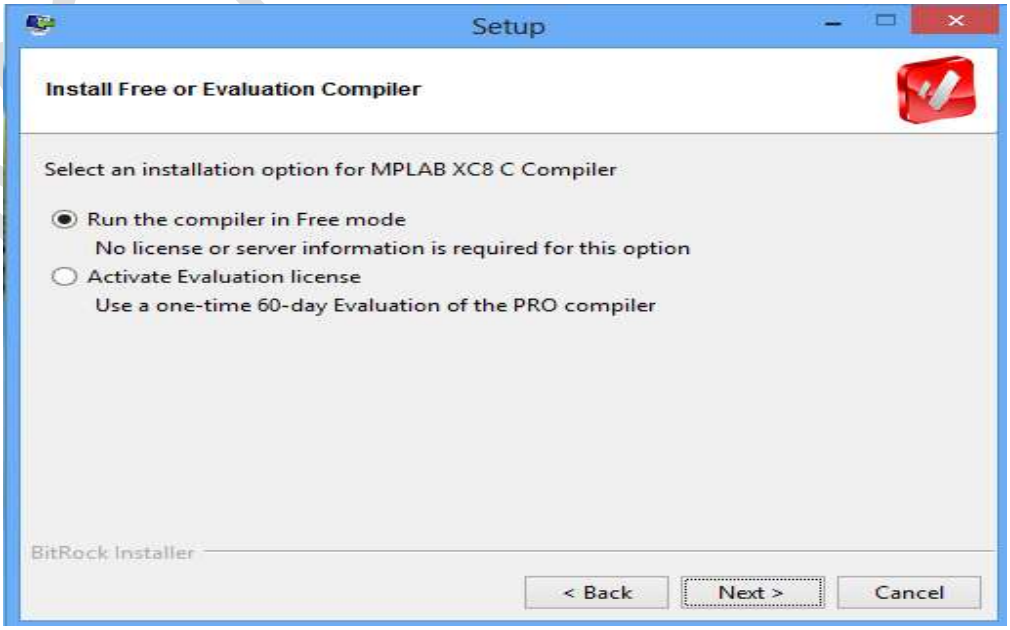
6. Click on Next without any Activation key.



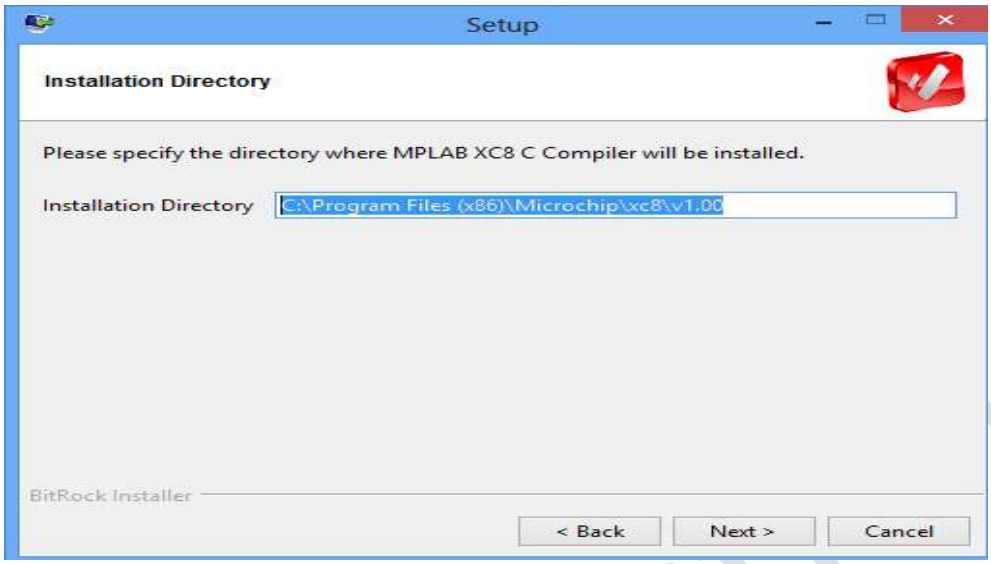
7. Select “Yes” to install evaluation license.



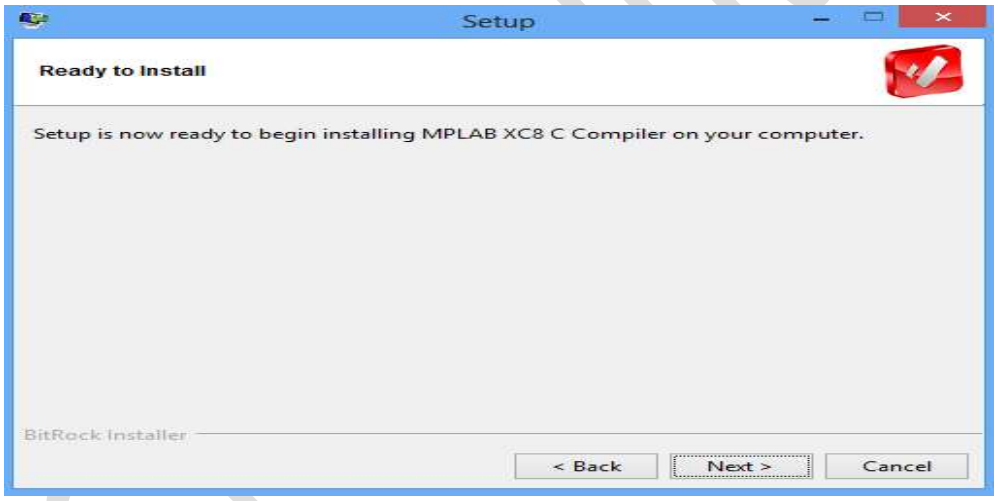
8. Select first option and click on Next.



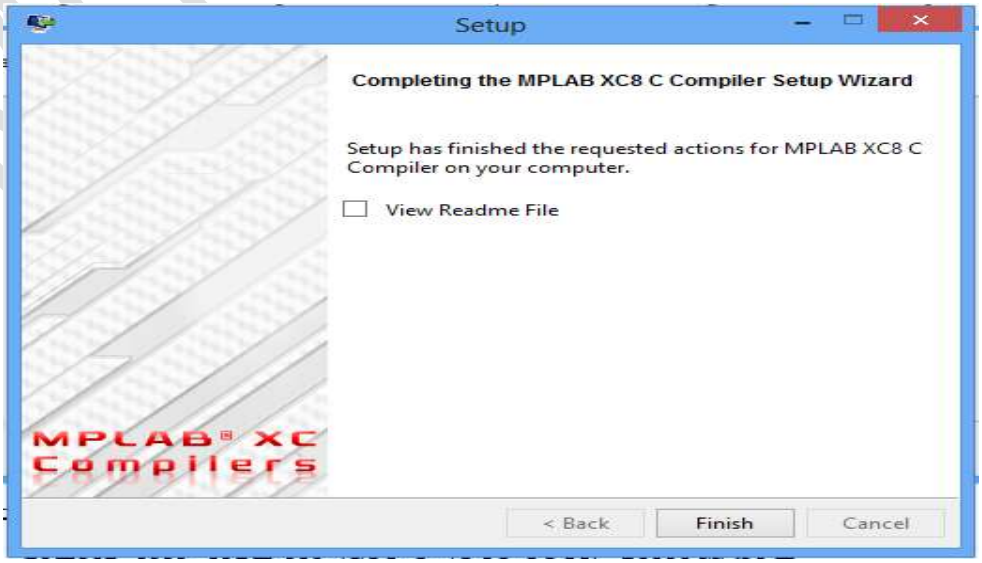
9. Select installation directory and click on Next.



10. Click on Next.

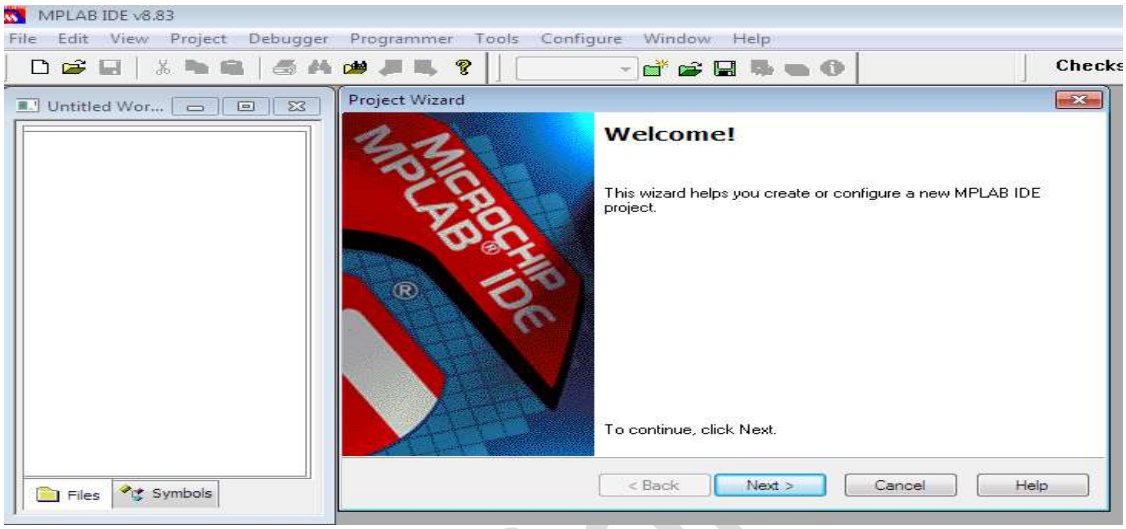


11. After installation completed, click on Finish.

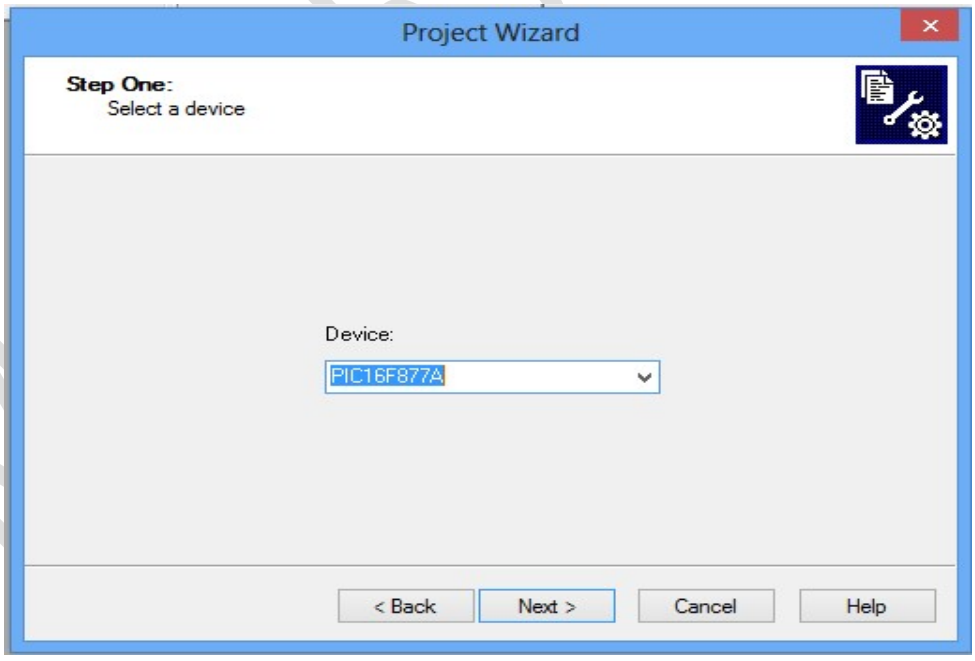


Steps for use of MPLAB IDE software

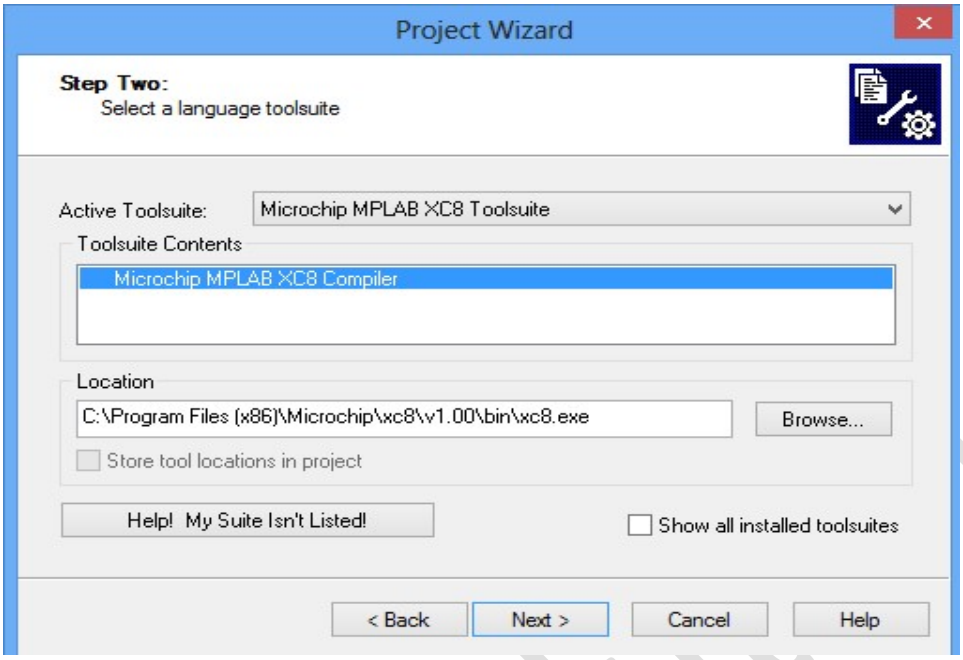
1. Double click on MPLAB IDE v8.83 icon on the desktop.
2. Close the project if any open. Go to Project -> Close Project.
3. To create new project, go to Project -> Project Wizard. Project Wizard window will open.



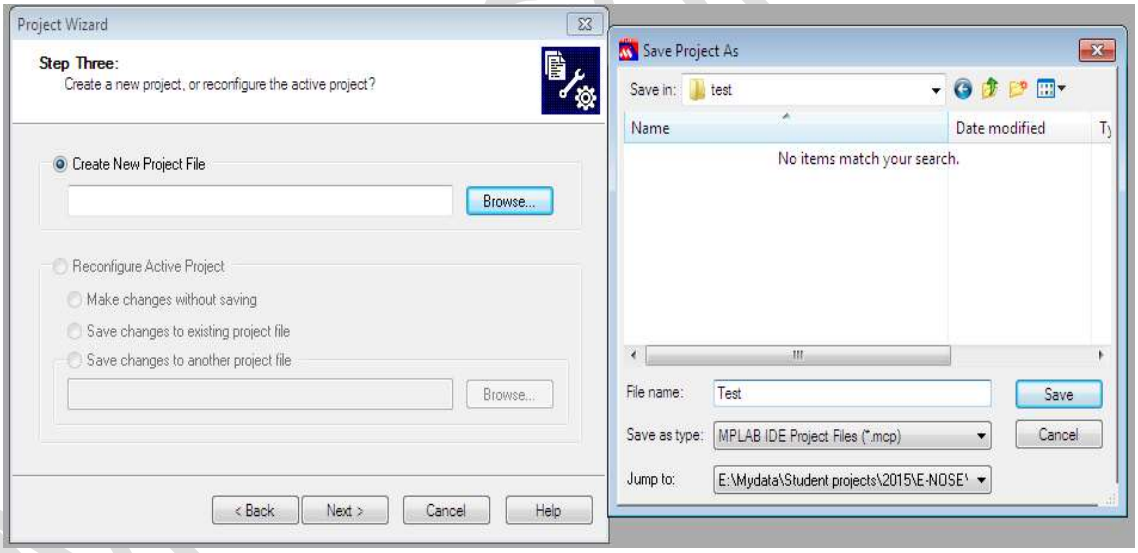
4. To continue, click on Next>.
5. Select device -> PIC16F877A. Click on Next>.



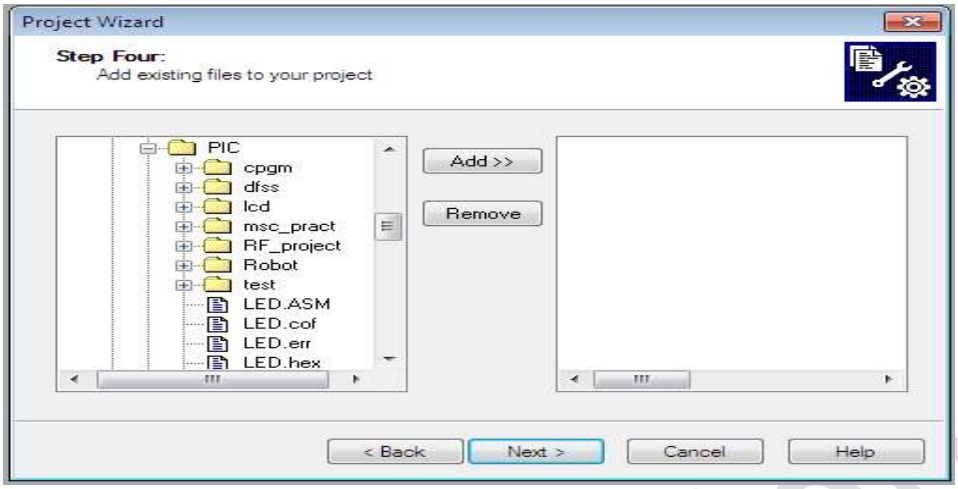
6. Select a Language Tool suite. For C language select Microchip MPLAB XC8 Tool suite. Click on Next>.



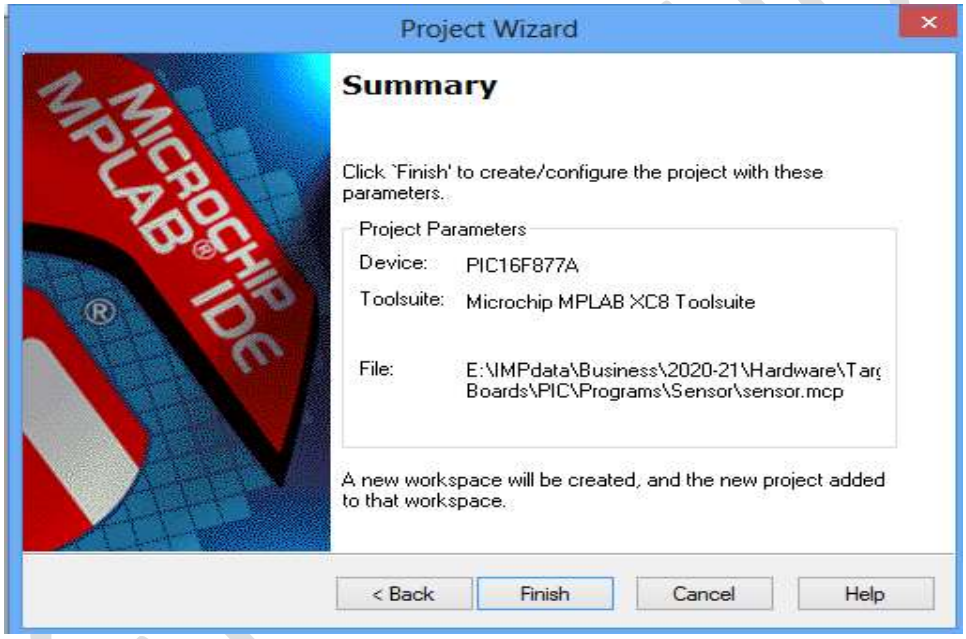
7. Click on Browse select the destination folder for new project, give name and save. Then click on Next>.



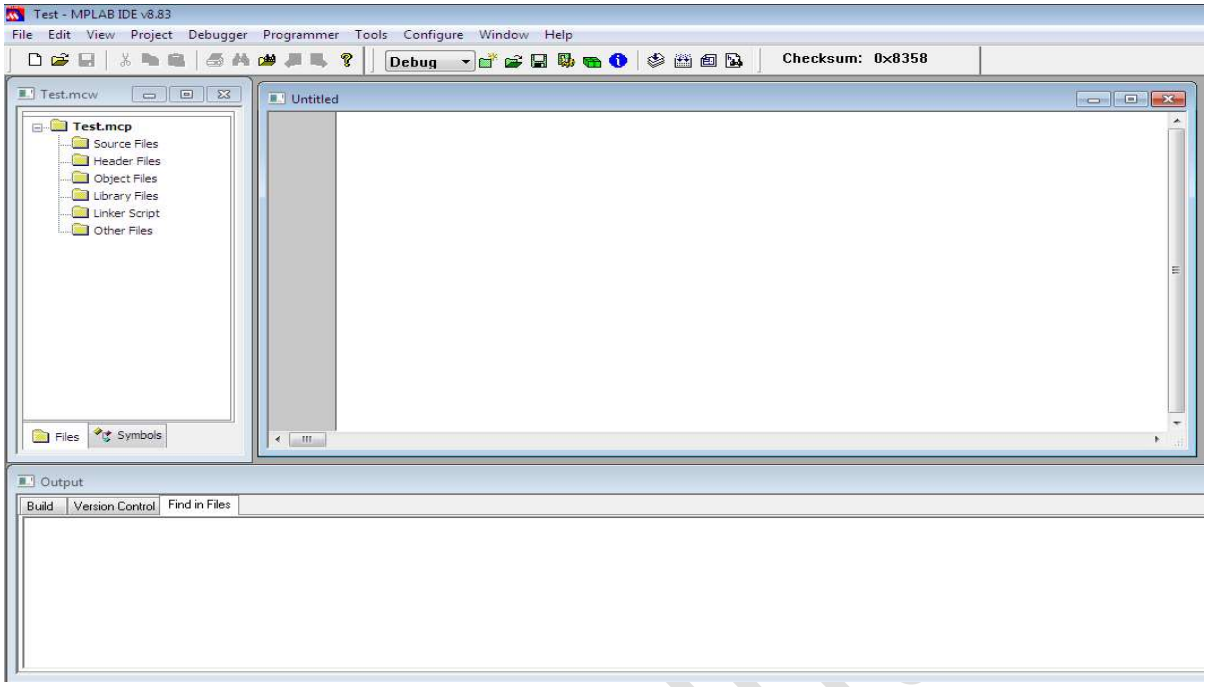
8. Add existing files to your project (if any). Click on Next>.



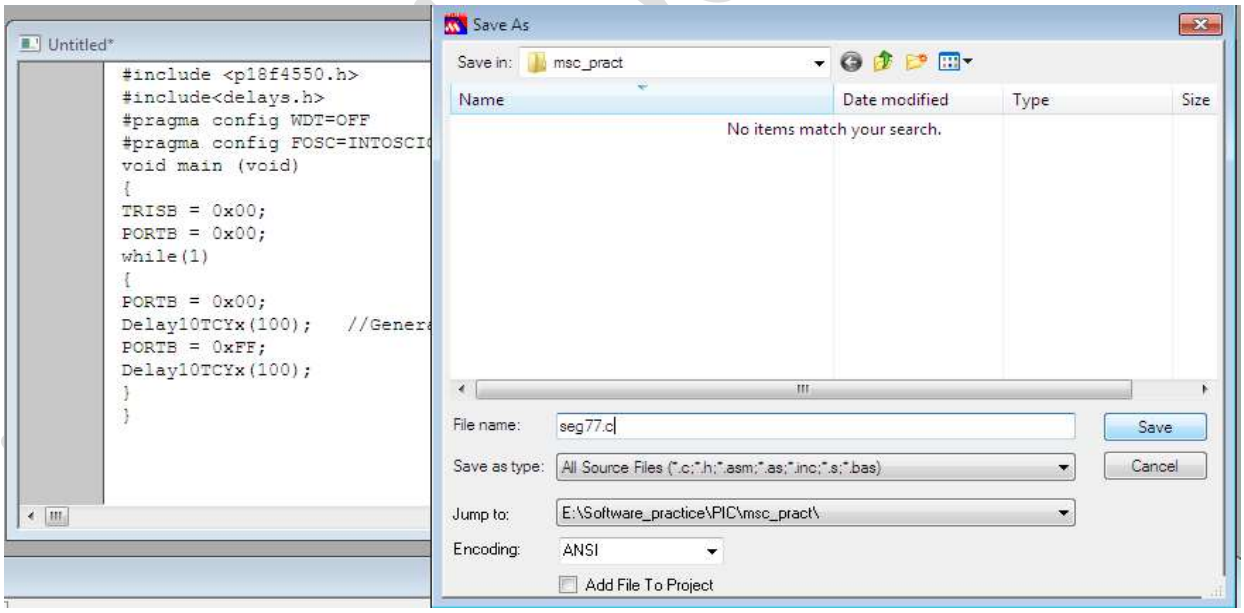
9. Check summary and click on Finish.



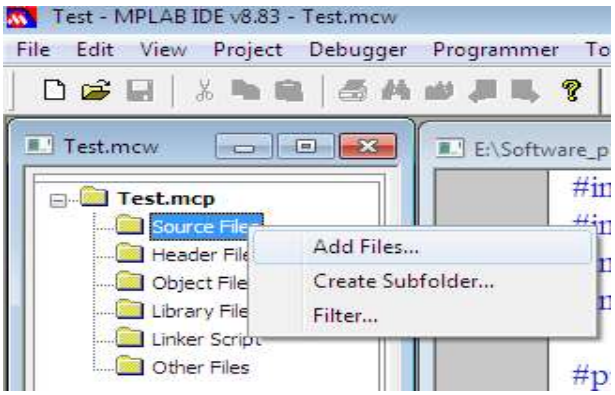
10. New project is created. Now there are two different windows are open: Project window & output window.
11. To create new program file go to File-> New. The three windows shown below:



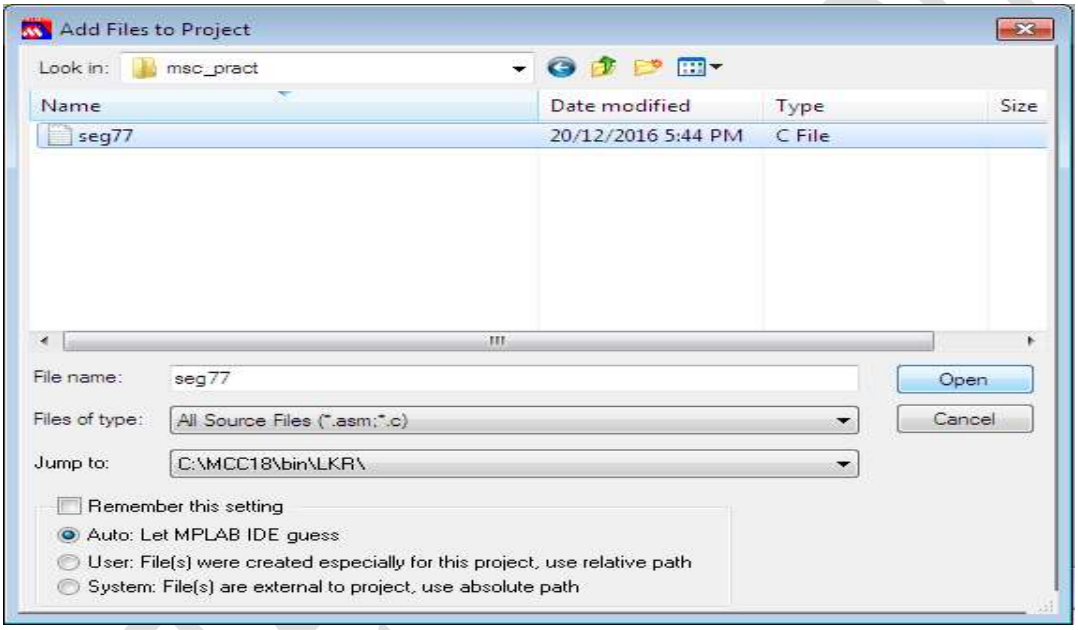
12. Write a program in program file. Then to save the file go to File-> Save. Select the same folder where project is save and give the file name with **.c extension** if program is written in 'C' language and with **.asm extension** if program written in assembly language.



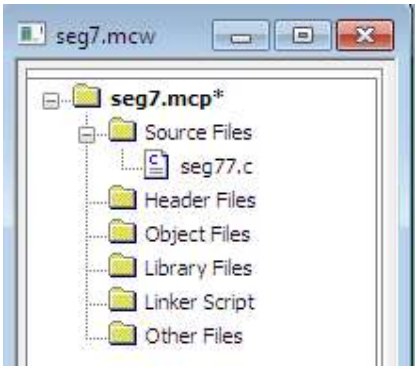
13. After program is save successfully it becomes colorful.
14. Then go to project window and right click on **Source Files**, select Add Files….



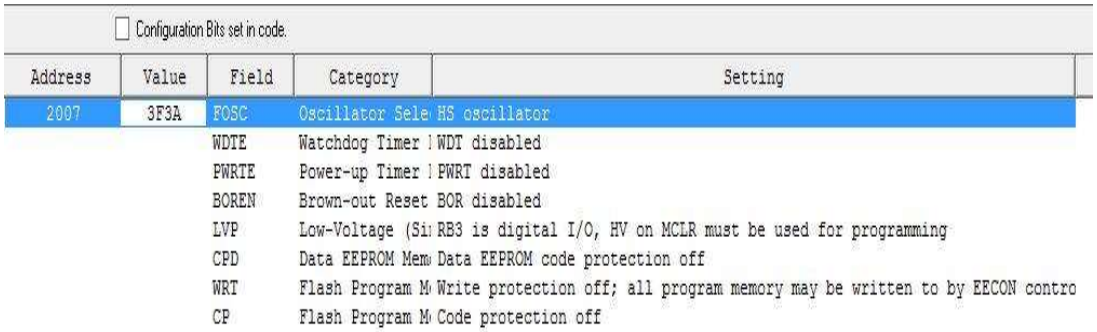
15. Then select the **.asm or .c** file saved in previous steps from the same folder. Click on Open.



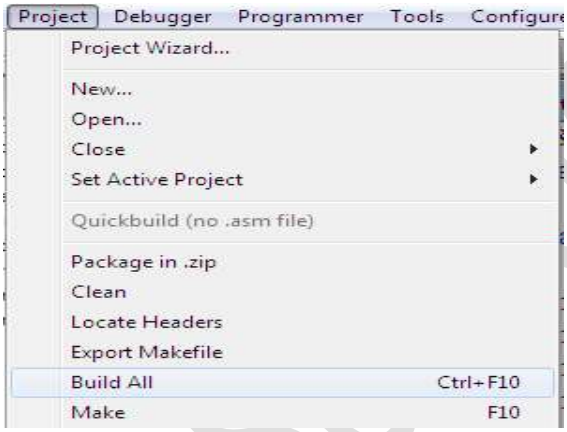
16. After program file is added, Project window looks like below.



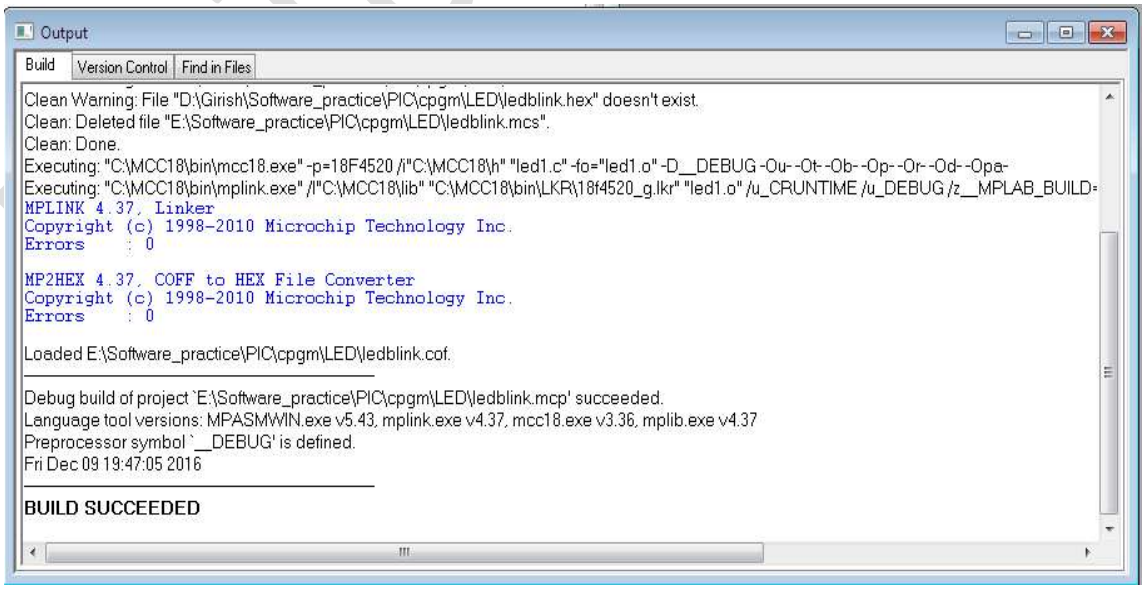
17. After all this perform the configuration settings. Go to Configure -> Configuration bits and perform following settings.



18. Go to Project-> Build All.



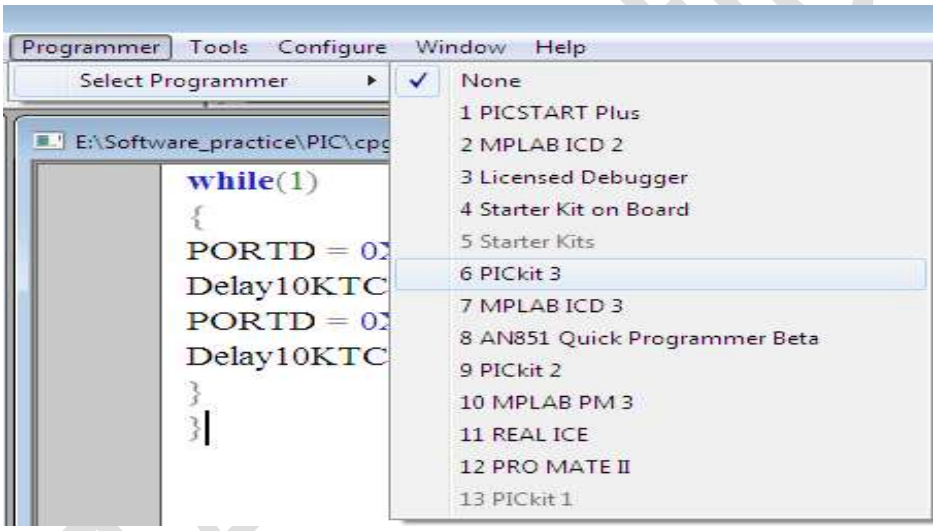
19. After project is build, it check for any errors by the compiler and if there are no errors it is converted into machine language and save in a file by .hex extension in the same folder where project is save.
20. The output window shows the errors or warnings if any; if not it shows the message **BUILD SUCCEEDED**.



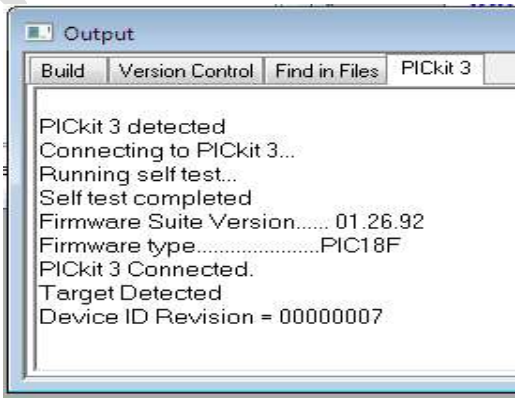
21. After program is successfully build and .hex file is created, its time load this .hex file into the program memory of microcontroller using a programmer.

22. Connect the PICkit3 programmer to the target board. Make power supply ON.

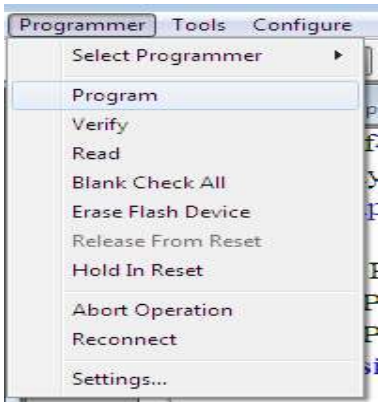
23. To select a programmer go to Programmer -> Select Programmer -> **PICkit3**.



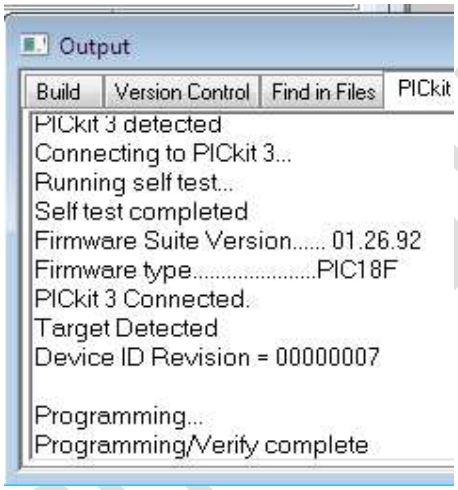
24. If programmer is connected to the device successfully and target device is found, the output window shows the following message.



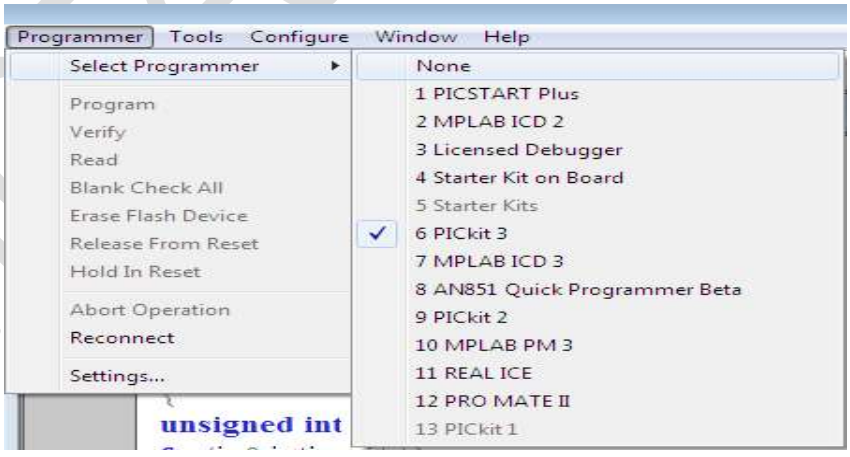
25. If there is any error while connecting programmer it shows in output window.
26. After connecting the device successfully you can program the device. To program go to Programmer and select **Program**.



27. The project window shows following message.



28. After completing the programming successfully, go to Programmer -> Select Programmer -> None. In order to remove the programmer.



29. Now you are ready to run the program on target board.

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