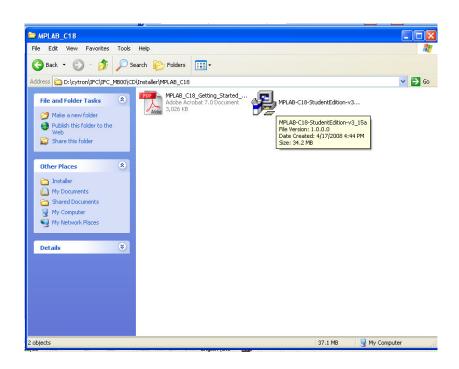


## MPLAB C18 Compiler Installation

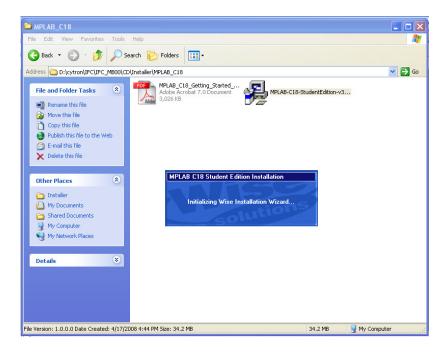
The MPLAB<sup>®</sup> C18 compiler is a full-featured ANSI compliant C compiler for the PIC18 family of PICmicro<sup>®</sup> 8-bit MCUs. Microchip offer free MPLAB C18 compiler for student with no limitation of code size and PIC type; the only drawback is the code optimization is disabled. For details description of MPLAB C18, please refer to MPLAB C18 User's Manual. Following diagrams show the installation guide of Student Version of MPLAB C18 compiler. Please install MPLAB C18 according to following step.

1. Please double click on the application file for MPLAB-C18-StudentEditionv3\_15a to start the installation.

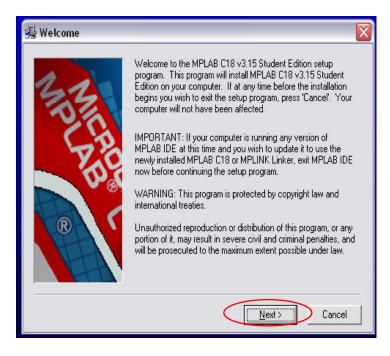




2. An Initializing Wizard that looks like the diagram below will pop out



3. After that, there will be a welcome screen displays the version number of MPLAB C18 that the setup program will install. Please click *Next>* to proceed.





4. For License Agreement, please select *I Accept* if it is not selected in the diagram below, and click *Next>* after this.

월 License Agreement 🛛 🔀
🔨 Міскоснір
IMPORTANT YOU MUST ACCEPT THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT TO RECEIVE A LICENSE FOR THE ACCOMPANYING SOFTWARE. TO ACCEPT THE TERMS OF THIS LICENSE, CLICK "I ACCEPT" OR OPEN THIS PACKAGE AND PROCEED WITH THE DOWNLOAD OR INSTALL. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, CLICK "I DO NOT ACCEPT," OR DO NOT OPEN THIS PACKAGE, DOWNLOAD, OR INSTALL THIS SOFTWARE.
MPLAB(R) C18 COMPILER LICENSE
C I Do Not Accept
< <u>B</u> ack <u>N</u> ext > Cancel

5. In the *Select Installation Directory*, user is recommended to use the default installation directory, which is *C:\MCC18* or user is also free to select the other installation directory by using the *Browse*... button to browse to the desired destination folder. After that, click *Next>* for next step.

😼 Select Installation [	Directory	X
N DUARD	MPLAB C18 v3.15 Student Edition will following folder. WARNING: Any file in this directory or might be overwritten or removed by the wish to keep any of these files, press 'C these files to another directory. To cho installation directory, press 'Browse'. Yi demo over a previous non-demo installa	one of its subdirectories setup program. If you Cancel' now and save ose a different ou cannot install the
R	Installation Directory C:\MCC18	Browse
	< Back	t> Cancel



6. User can choose the components to be installed by checking the appropriate box in *Select Components* window. Please refer to MPLAB-C18-Getting-Started document in the CD for detailed description of the available components.

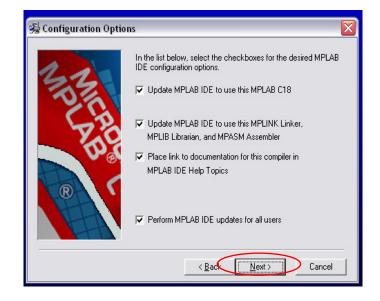
	✓ Program files	11469 k
	Assembler files	16857 k
	Linker script files	1066 k
50%	▼ Standard headers	7919 k
	▼ Standard libraries	214689 k
C C C C	C Documentation	5596 k
	✓ Examples	8245 k
	Library source code	15602 k
R	Preprocessor source code	1494 k
	Disk Space Required:	257686 k
	Disk Space Remaining:	5083599 k

7. The *Configuration Options* below allows users to select a particular set of desired environment variable configuration options for their system. Please refer to MPLAB-C18-Getting-Started document in the CD for detailed description of the available configuration options. In this example, all the options are selected. Please click *Next>* to continue.





8. There is another *Configuration Options* which allows users to select a particular set of desired MPLAB IDE configuration options for their system. Please refer to MPLAB-C18-Getting-Started document in the CD for detailed description of the available configuration options. In this example, all the options are selected. Please click *Next>* to continue.



9. Please click *Next>* for the diagram below to start installation after all the setting done.

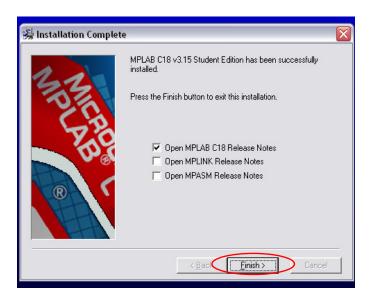




10. Please wait for awhile for the installation process shown in diagram below.

Installing
Copying file: C:MCC18\mpasm\P18F2450.INC 11%
Cancel

11. After the installation completed, a diagram as below will be shown, user can select the release notes that wish to read, in this example, the release notes for MPLAB C18 is being selected. Please click *Finish*> to exit installation.





12. The release notes MPLAB C18 is being shown after the installation process since it was being selected in the last step.

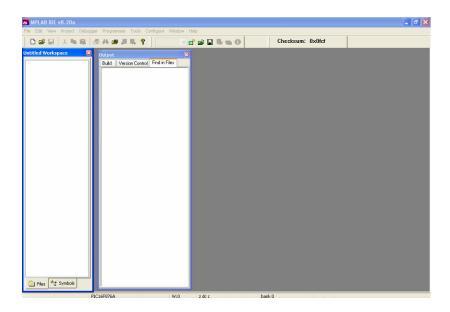




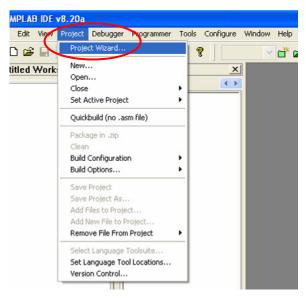
## **Open Project for PIC18F series.**

To start MPLAB IDE and open project for PIC18F series, please follow the step below:

1. Double click on the icon installed on the desktop after installation or select *Start>Programs>Microchip> MPLAB IDE v8.20a>MPLAB IDE*. A screen will display the MPLAB IDE logo followed by the MPLAB IDE desktop as in diagram below.



2. The next step is to create a project using the Project Wizard. A project is the way the files are organized to be compiled and assembled. We Choose *Project>Project Wizard*.

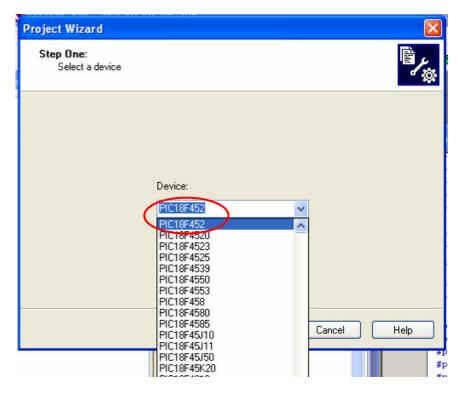




3. From the Welcome dialog, click on Next to proceed.



4. The next dialog (Step One) allows you to select the device. In this example, PIC18F452 was selected from the drop down menu. Click *Next*>.





5. The next step of the Project Wizard is sets up the language tools that are used with this project. Select "Microchip C18 Toolsuite" in the Active Toolsuite list box. Then select "MPLAB C18 C Compiler (mcc18.exe)" in the Toolsuite Contents box. When you are finished, click *Next*.

Project Wizard	X
Step Two: Select a language toolsuite	le 资
Active Toolsuite: Microchip C18 Toolsuite	<b>×</b>
MPASM Assembler (mpasmwin.exe) MPLINK Object Linker (mplink.exe) MPLAB C18 C Compiler (mcc18.exe)	
Location	
C:\MCC18\bin\mcc18.exe	Browse
Store tool locations in project	
Help! My Suite Isn't Listed!	Show all installed toolsuites
< Back Next >	Cancel Help

6. Step three of the project wizard allows user to create new project file.

oject Wizard	
Step Three: Create a new project, or reconfigure the active project?	Ē
Create New Project File	Browse
Reconfigure Active Project	
Make changes without saving	
Save changes to existing project file	
O Save changes to another project file	
	Browse
<back next=""> C</back>	ancel Help
(Back Next > C	



7. For an example, a folder named *Project\_18F* was first created at Desktop.

roject Wizard Step Three: Create a new project, or reconfigure the activ	re project?	Check
Create New Project File	Save Project	t As
Reconfigure Active Project     Make changes without saving     Save changes to existing project file     Save changes to another project file	Save in: P2_1 Packages Part 3 PIC sticker Pololu 3pi project	Project_18F
	<b>K</b> File name:	Copen
< Back	Save as type: Jump to:	MPLAB IDE Project Files (*.mcp) Cancel

8. Then open the folder, *Project\_18F*. Project named "*project\_18F*" can be created by typing the project name in the column for "File name", and click *Save*.

roject Wizard Step Three:			Check
Create a new project, or reconfigure the act	ive project?		GIECK
Create New Project File	Save Project As		?
	Save in: 🗁 Project_18F	- ×	3 🕫 📂 🛄 -
C Reconfigure Active Project			
O Make changes without saving			
Save changes to existing project file			
Save changes to another project file			
	File name: project_18		Save
			Save
< Back	Save as type: MPLAB ID	E Project Files (*.mcp)	Cancel
	Jump to: C:\Docum	ents and Settings\Ruey\Desk	<top\ td="" 🗸<=""></top\>



9. Diagram below shown the Project "*project*" had been created and the directory. Click *Next*>.

Project Wizard
Step Three: Create a new project, or reconfigure the active project?
Create New Project File
C:\Documents and Settings\Ruey\Desktop\Project_18F\project_1 Browse
Reconfigure Active Project
O Make changes without saving
Save changes to existing project file
Save changes to another project file Browse
< Back Next > Cancel Help

10. Step four of the project wizard allow user to add existing file to the project, however, for this example, no files will be added. Please click *Next>* to proceed.

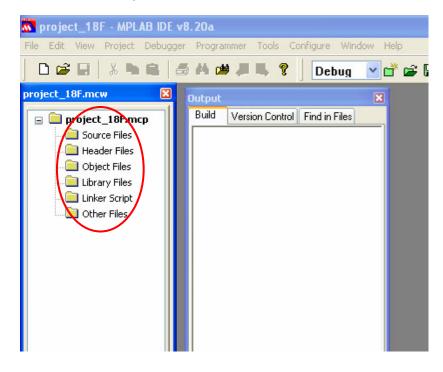
Project Wizard 🛛 🛛
Step Four: Add existing files to your project
Add >> MB00 MP08A(Multi PWI MP14A(Multi PWI P2_1 Packages Part 3 PIC sticker Pololu 3pi Project Project_18F PWM16channels
< Back Next > Cancel Help



11. A summary will be shown at the end of project wizard, all the project parameters are shown. Please click *Finish* to exit from project wizard.

Project Wizard		
33	Summary	
SE	Click 'Finish' to create/configure the project with these parameters.	
D'A	Project Parameters	-ji
Contraction of the second seco	Device: PIC18C452	
8 6 <sup>1</sup>	Toolsuite: Microchip C18 Toolsuite	
	File: C:\Documents and Settings\Ruey\Desktop\Project_18F\project_	<u>.</u>
LAR	A new workspace will be created, and the new project adde to that workspace.	:d
	K Back Finish Cancel He	lp D

12. After pressing the *Finish* button, review the Project Window on the MPLAB IDE desktop. It should look like the diagram below. If the Project Window is not open, please select *View>Project*.

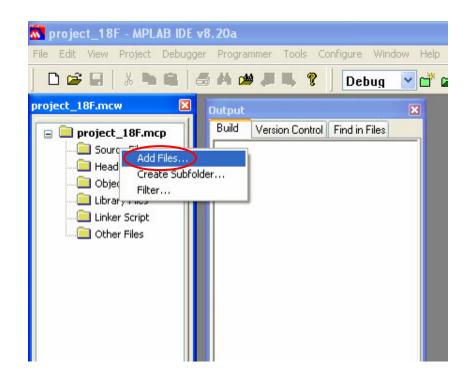




13. In this example, sample source code for Cytron DIY project, PR21 will be added to this project. The sample source code can be downloaded at <a href="http://www.cytron.com.my/PR21.asp">http://www.cytron.com.my/PR21.asp</a> . Diagram below show the sample source code, pr21.c being copied and pasted in the folder, *project*.

File Edit View Favorites Tools Help		
🕝 Back 👻 🕥 - 🎓 🔎 Search 🍋 I	Folders 🔝 -	
Address 🛅 C:\Documents and Settings\Ruey\Desktop	\Project_18F	
Name 🔺	Size	Туре
File and Folder Tasks 🔕 就 project_	18F.mcp 1 KB	Microchip MPL
Rename this file	18F.mcs 1 KB	MCS File
M protect	18F.mcw 32 KB	Microchip MPL
Move this file	35 KB	C File
Copy this file	AL SECOND	
😣 Publish this file to the Web		
🔗 E-mail this file		
X Delete this file		

14. To add file in *Source Files*, right click on the *Source Files*, then click on *Add Files*..., diagram below shown the example for add file to *Source Files* 

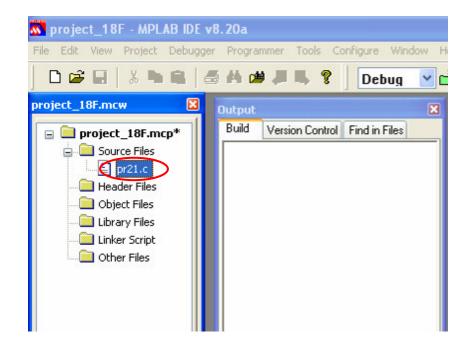




15. After clicking on *Add Files...*, a window pop out, do make sure the *Files of type* is *All Source Files(\*.asm;\*.c)*, then browse to the folder *Project* to add in "pr21.c". User can select the file, "pr21.c", and click open to add the file.

Add Files to	Project ?X			
Look in: ն	Project_18F 🛛 🕑 🧭 🖾 -			
🎒 pr21.c				
File name:	pr21.c Open			
Files of type:	All Source Files (*.asm;*.c)			
Jump to:	C:\Documents and Settings\Ruey\Desktop\ 🗸			
Remember this setting				
<ul> <li>Auto: Let MPLAB IDE guess</li> <li>User: File(s) were created especially for this project, use relative path</li> </ul>				
O System: File(s) are external to project, use absolute path				

16. Diagram below shown pr21.c added to the project.





17. After added the source file, user can open pr21.c file in this workspace and try to compile it. Diagram below shown opened pr21.c file. To compile, user can go *Project>Build All* or the build icon (in red circle) on menu bar as shown in diagram below.

🔭 project_18F - MPLAB IDE v8.20a					
File Edit View Project Debugger Programmer Tools Configure Window Help					
▏D┏┙┓╡ѧ┑┓╡	ð 👫 🗯 🚚 📕 💡 📗 Debug	🔽 🗗 🖨 🖩 କ 🚺 🤹	📺 🖬 🖍 📔 Checksun		
project_18F.mcp* project_18F.	Output Build Version Control Find in Files	//====== // Author // Project // Project	description :Gaming wit		

18. After build success, a message *BUILD SUCCEEDED* will appear in output window like shown in diagram below.

