A decorative graphic on the left side of the slide consists of a series of light blue lines and circles, resembling a circuit board or a stylized tree structure, extending from the top to the bottom of the frame.

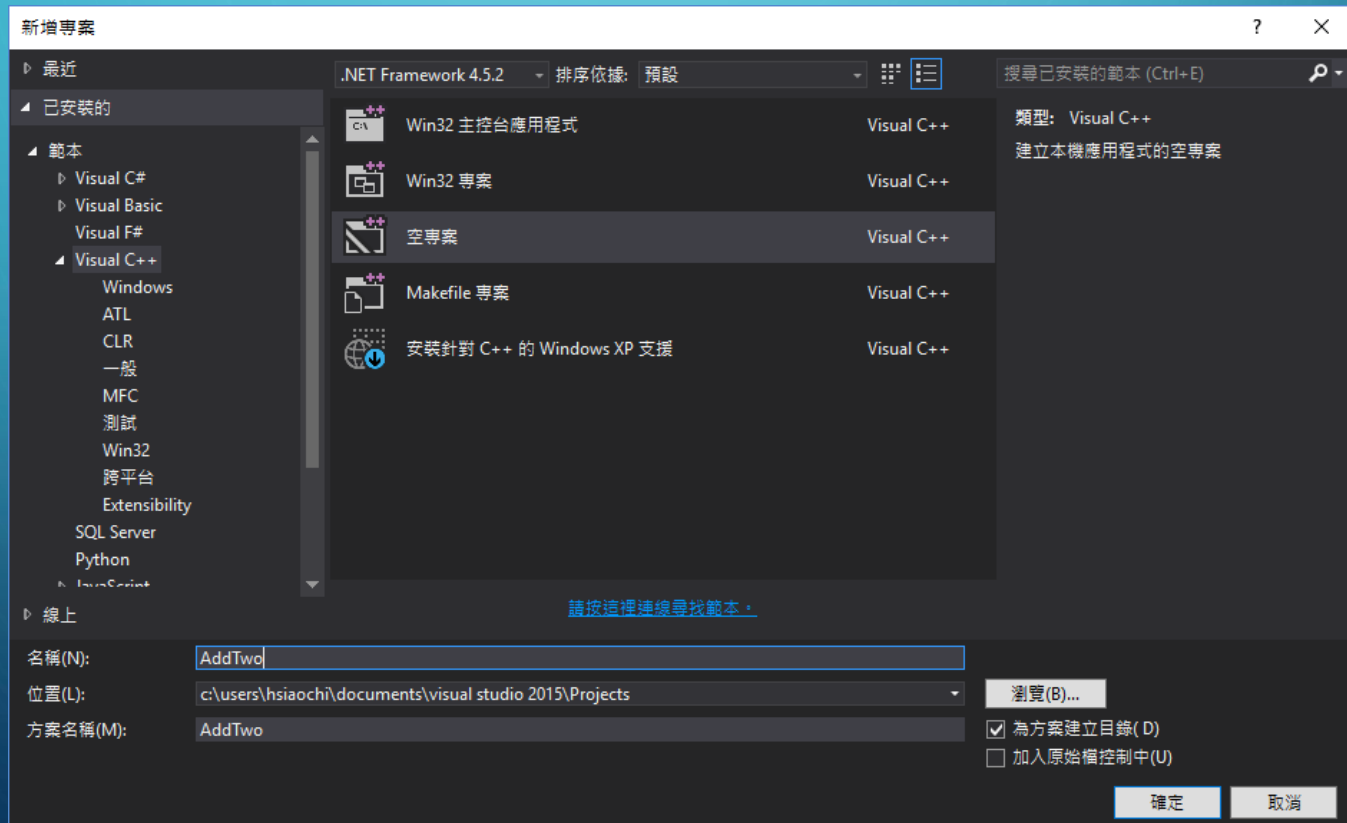
INTRODUCTION TO ASSEMBLY LANGUAGE PROGRAMMING – SET UP PROGRAMMING ENVIRONMENT

WHAT WILL YOU NEED?

- Visual Studio 2015up (VS) – you can download it from Microsoft website.
 - When installing Visual Studio, be sure to select Visual C++ under the *Programming Languages* category.
 - MASM is the main assembler (ASM) that will be used in this course.
- Irvine's Library: provided by Kip Irvine
 - you can download the library from <http://kipirvine.com/asm/examples/>
 - Install the library and you are getting close to your first .asm program

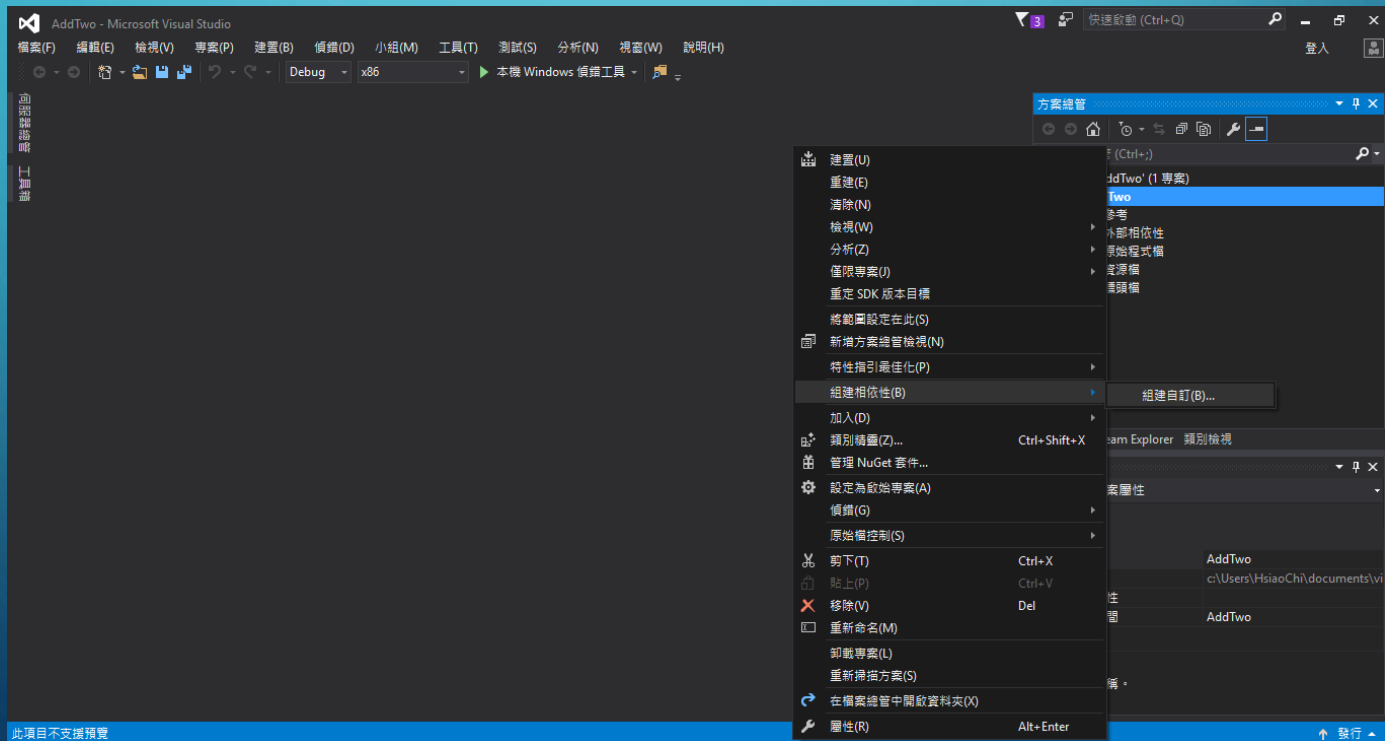
HOW TO CREATE AN ASSEMBLY PROGRAM?

- Create a new visual C++ project.

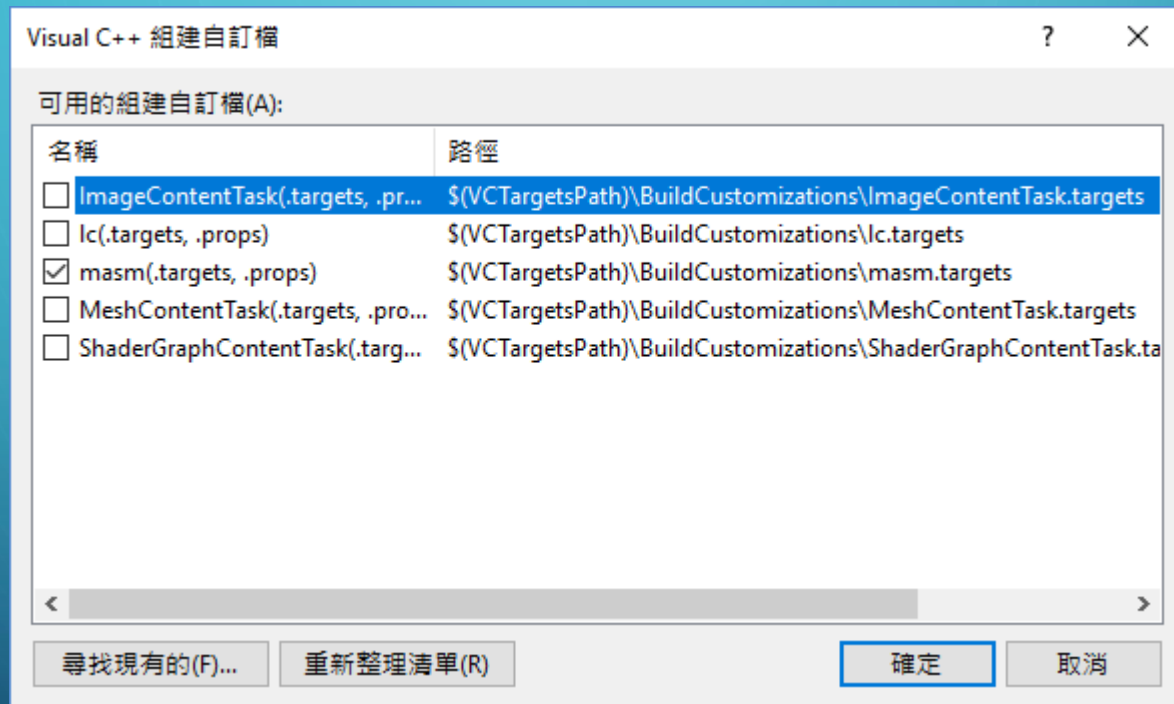


CHOOSE ASSEMBLER - MASM

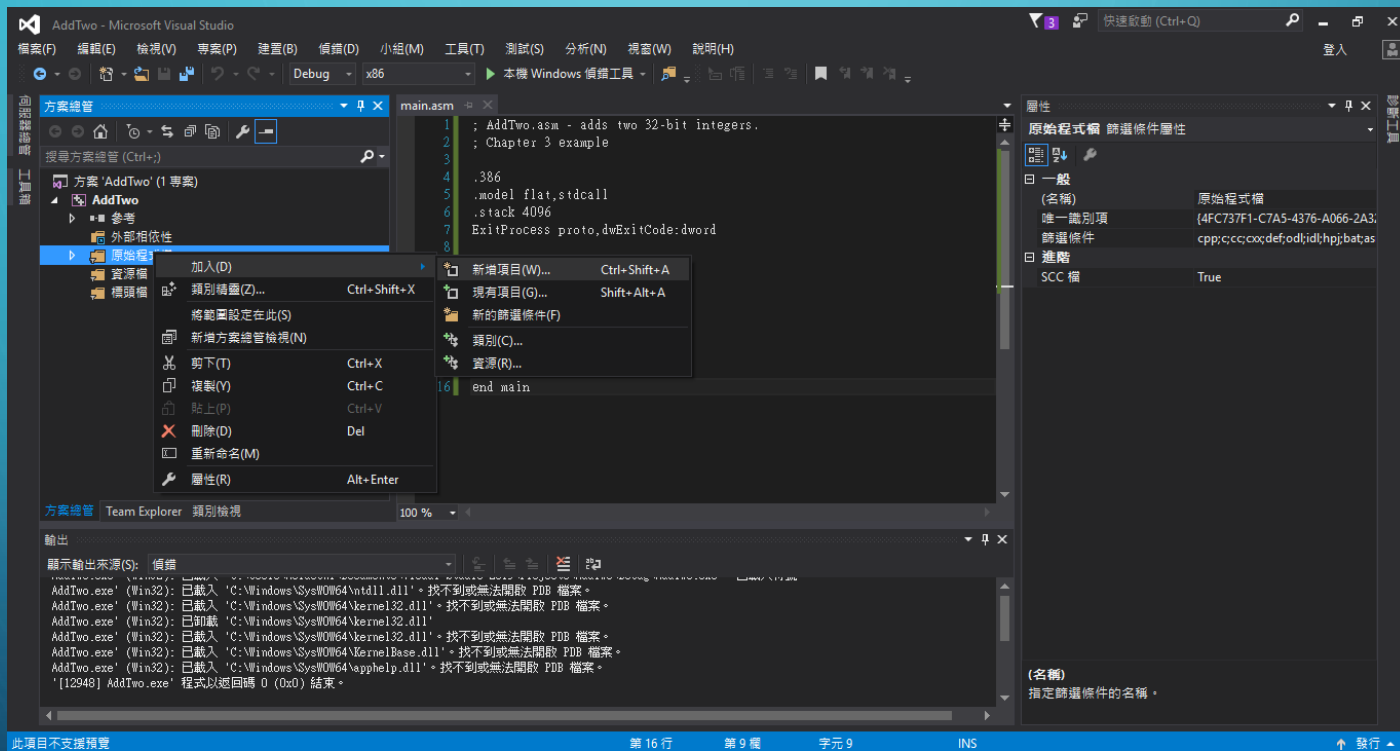
- Right Click



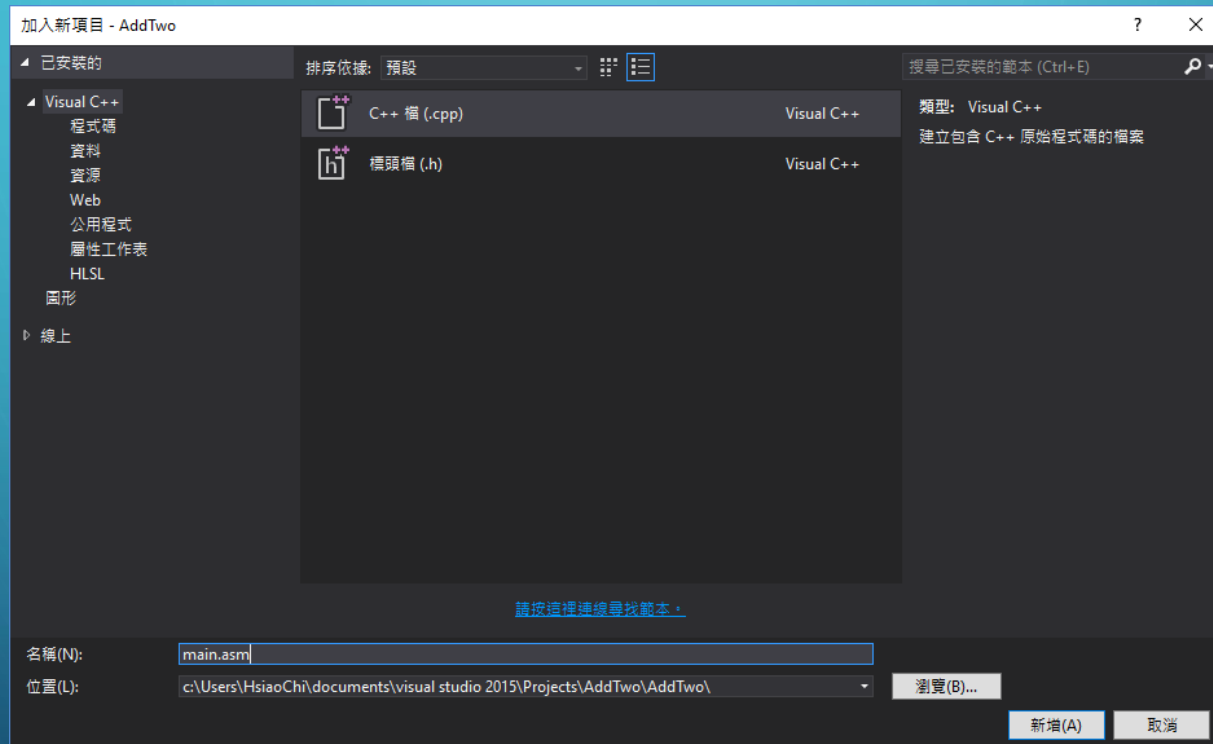
CHOOSE ASSEMBLER – MASM (CONT'D)



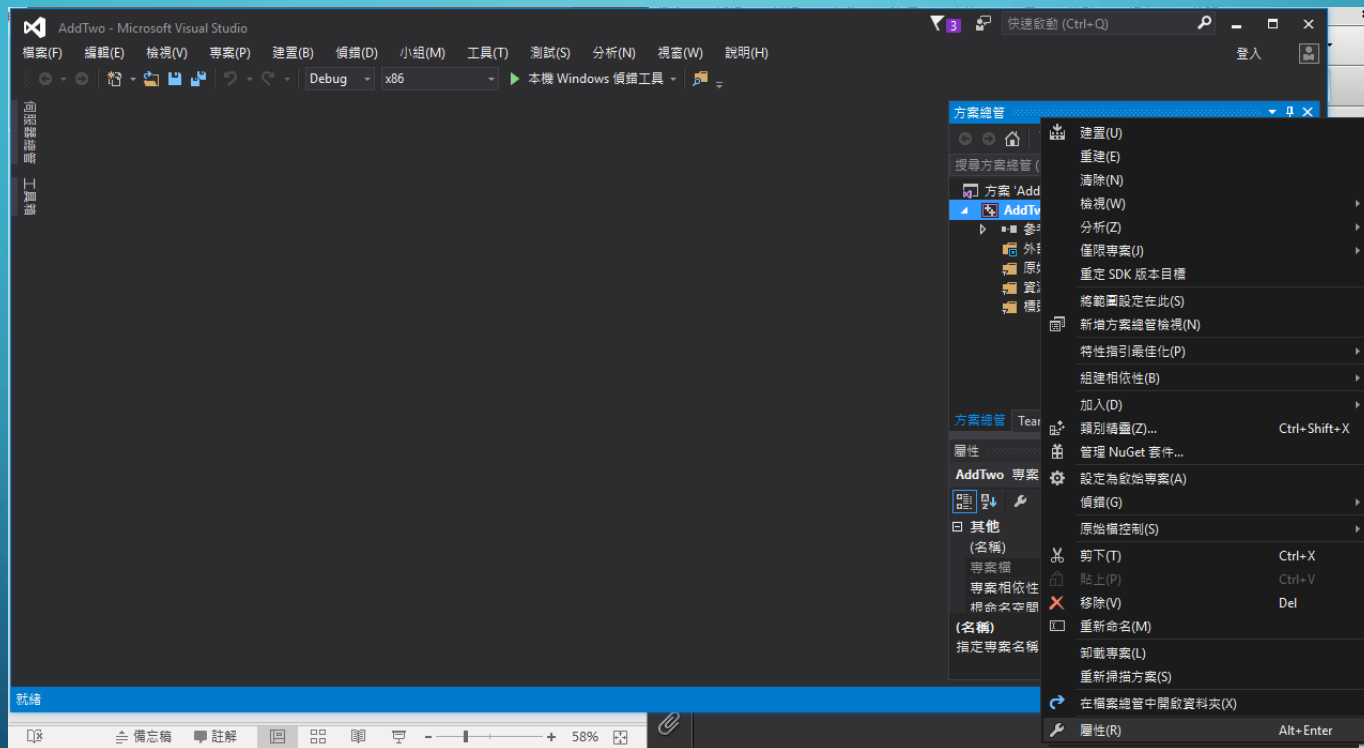
ADD A NEW ITEM — MAIN.ASM



ADD A NEW ITEM — MAIN.ASM (CONT'D)

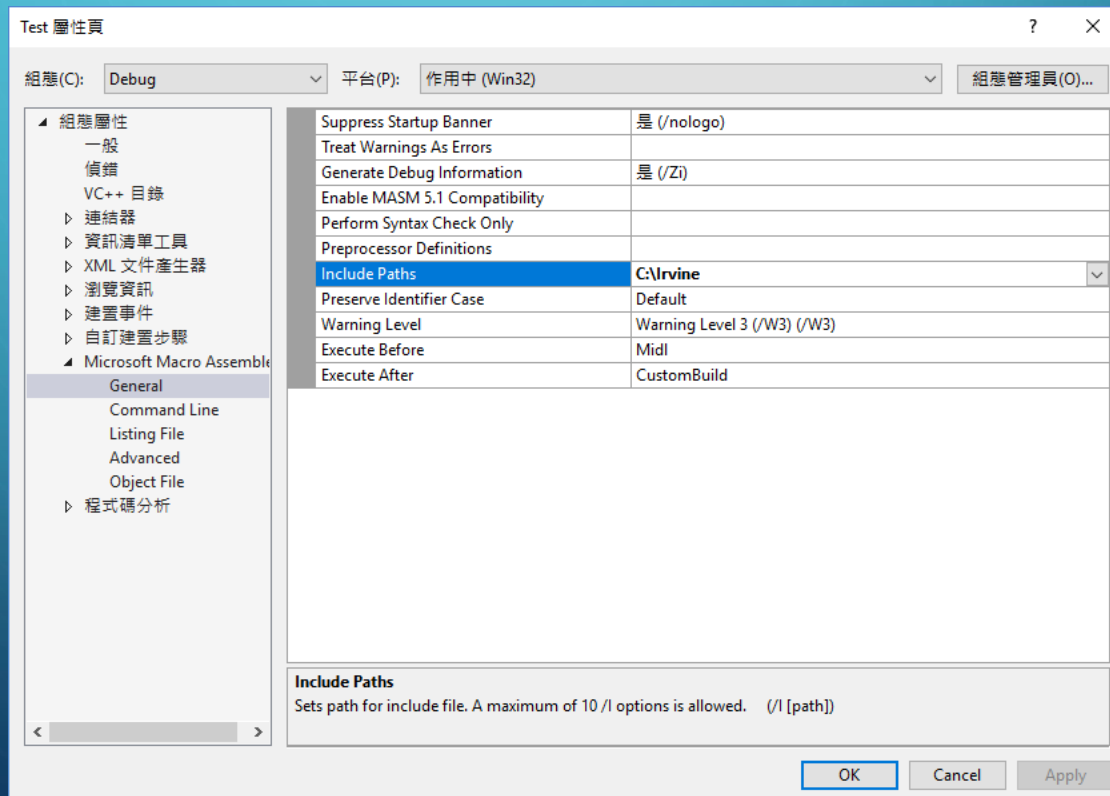


LINK IRVINE LIBRARY



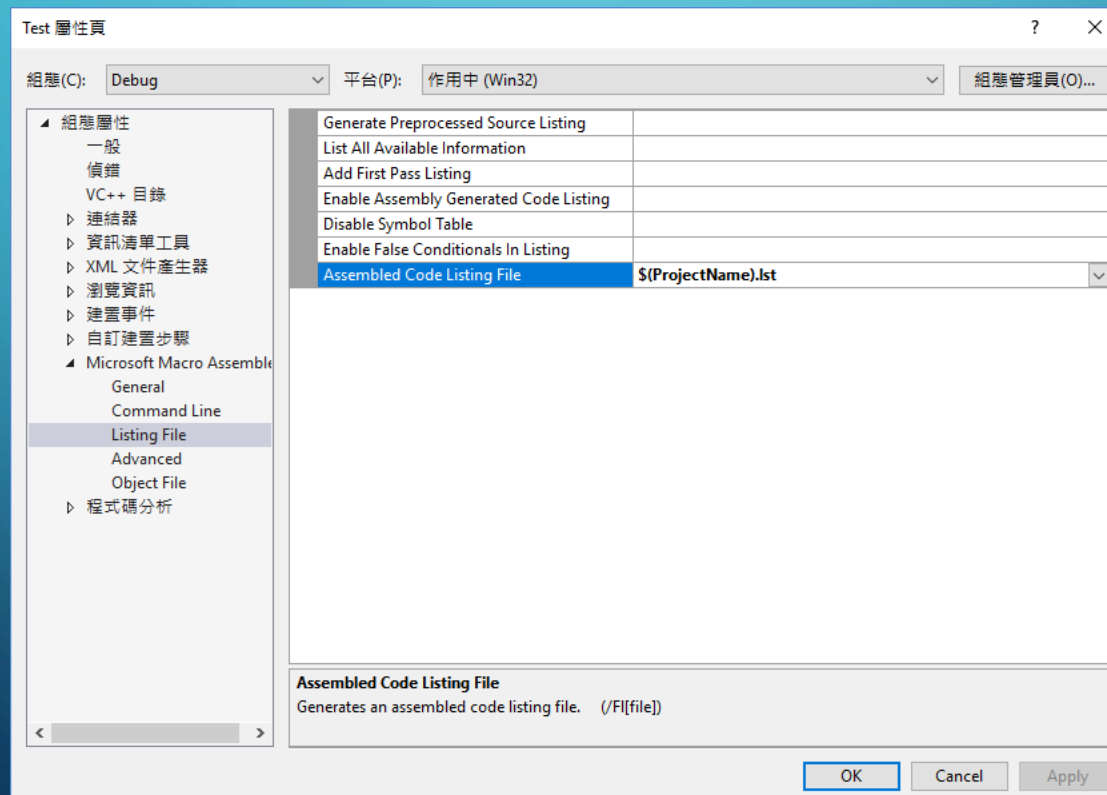
LINK IRVINE LIBRARY (CONT'D)

- Enter the path where Irvine's Library is installed. (Default: C:\Irvine)

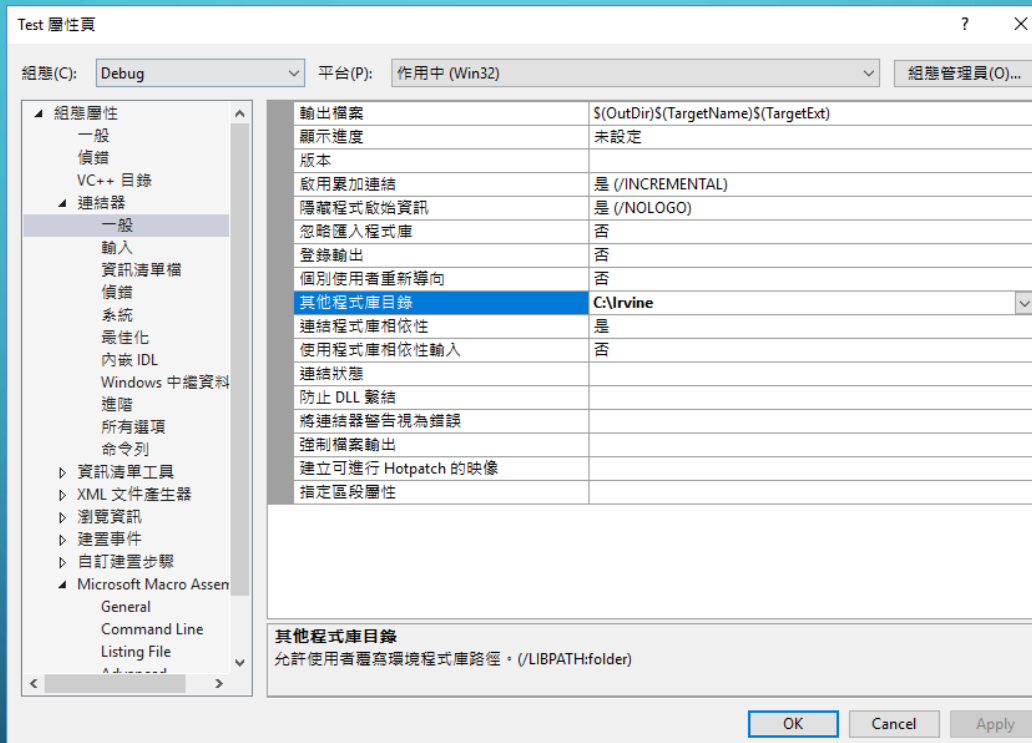


LINK IRVINE LIBRARY (CONT'D)

- Enter **\$(ProjectName).lst** into Assembled Code Listing File

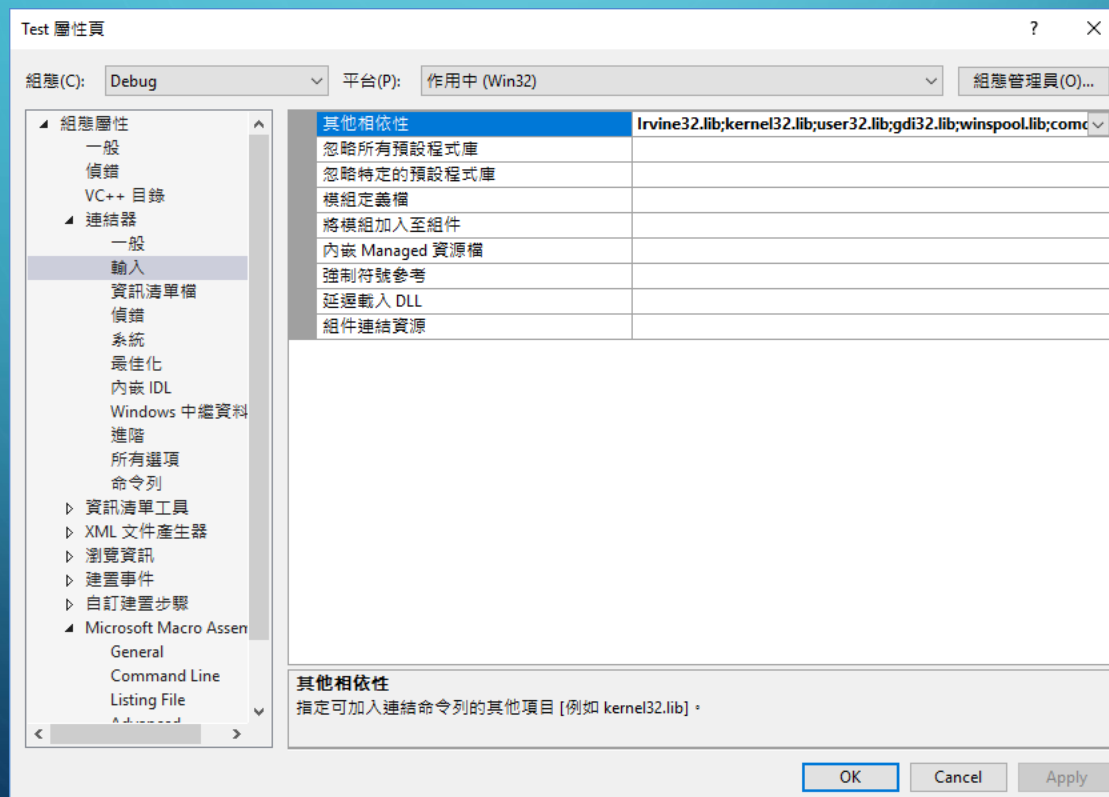


LINK IRVINE LIBRARY (CONT'D)

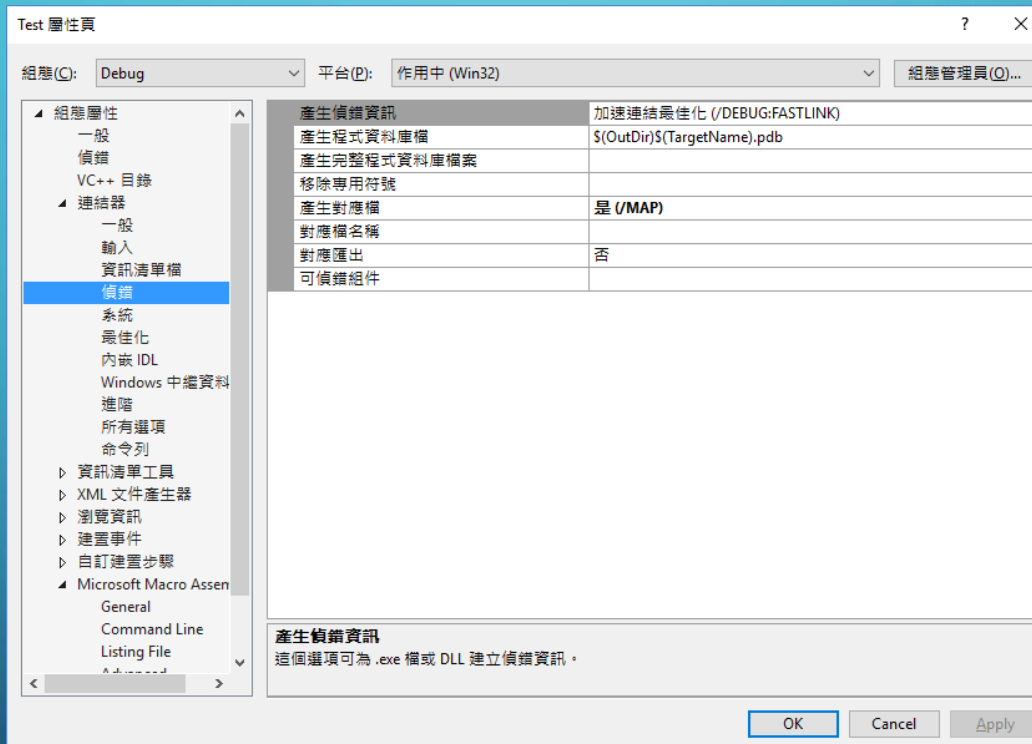


LINK IRVINE LIBRARY (CONT'D)

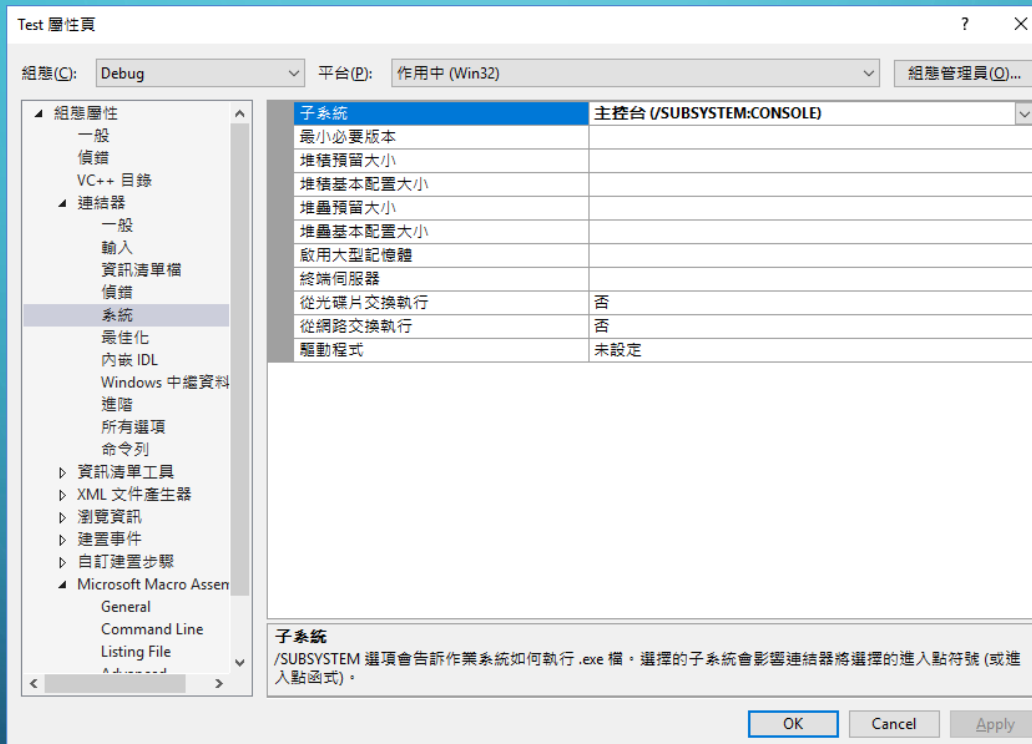
- Enter **Irvine32.lib;** in the front



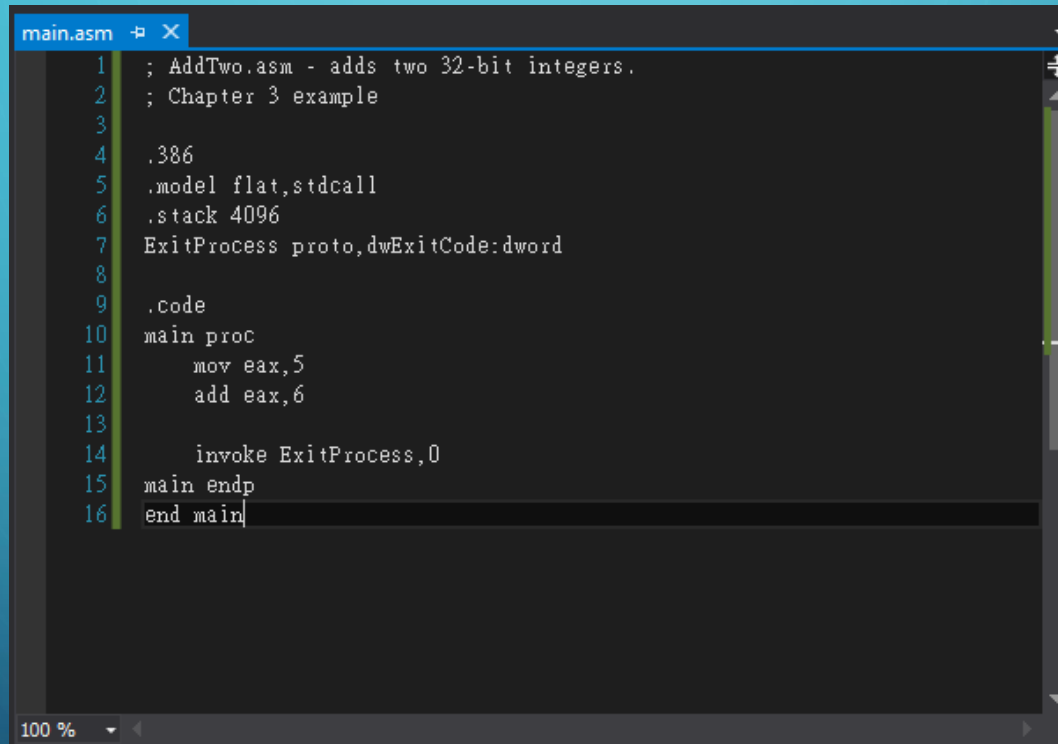
LINK IRVINE LIBRARY (CONT'D)



LINK IRVINE LIBRARY (CONT'D)



CREATE YOUR FIRST .ASM CODE



```
main.asm  X
1  ; AddTwo.asm - adds two 32-bit integers.
2  ; Chapter 3 example
3
4  .386
5  .model flat,stdcall
6  .stack 4096
7  ExitProcess proto,dwExitCode:dword
8
9  .code
10 main proc
11     mov eax,5
12     add eax,6
13
14     invoke ExitProcess,0
15 main endp
16 end main
```

100 %