



# Visual Studio 安裝

林靖紳

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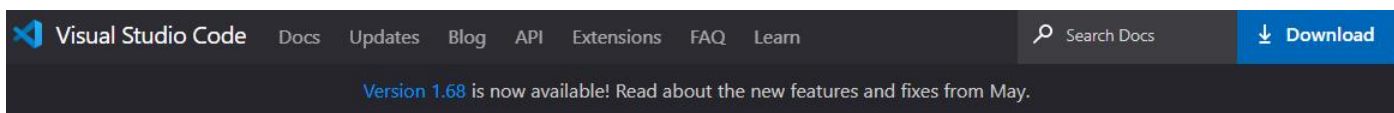
# 安裝步驟

01

# 安裝步驟

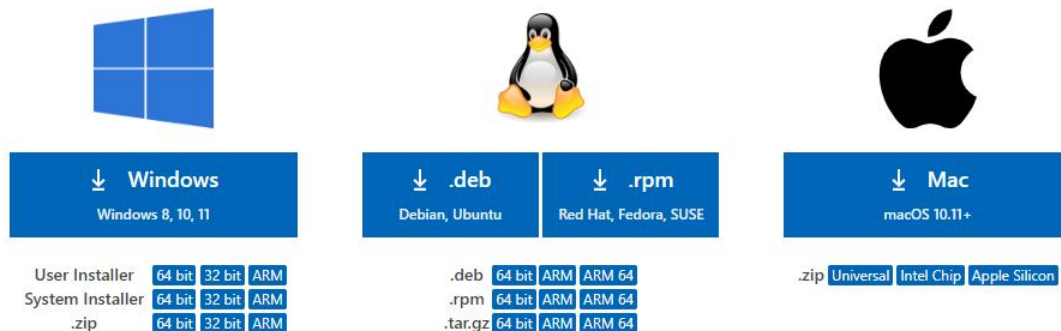
- 下載網址:
  - <https://code.visualstudio.com/Download>

- 畫面:

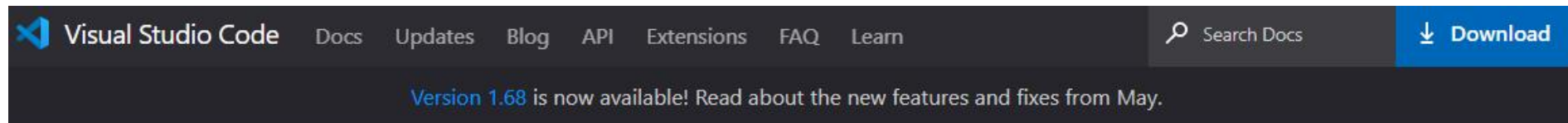


## Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



# 安裝步驟



## Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.

直接點選下載  
下載後直接開起



User Installer	64 bit	32 bit	ARM
System Installer	64 bit	32 bit	ARM
.zip	64 bit	32 bit	ARM



.deb	64 bit	ARM	ARM 64
.rpm	64 bit	ARM	ARM 64
.tar.gz	64 bit	ARM	ARM 64

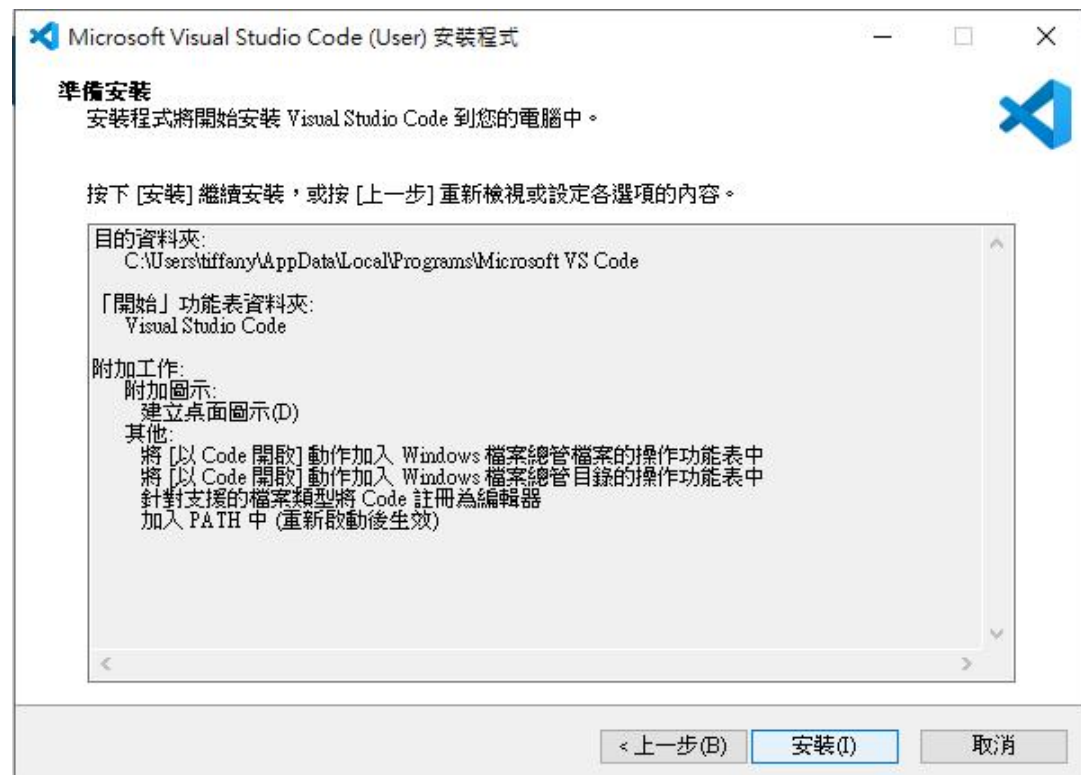
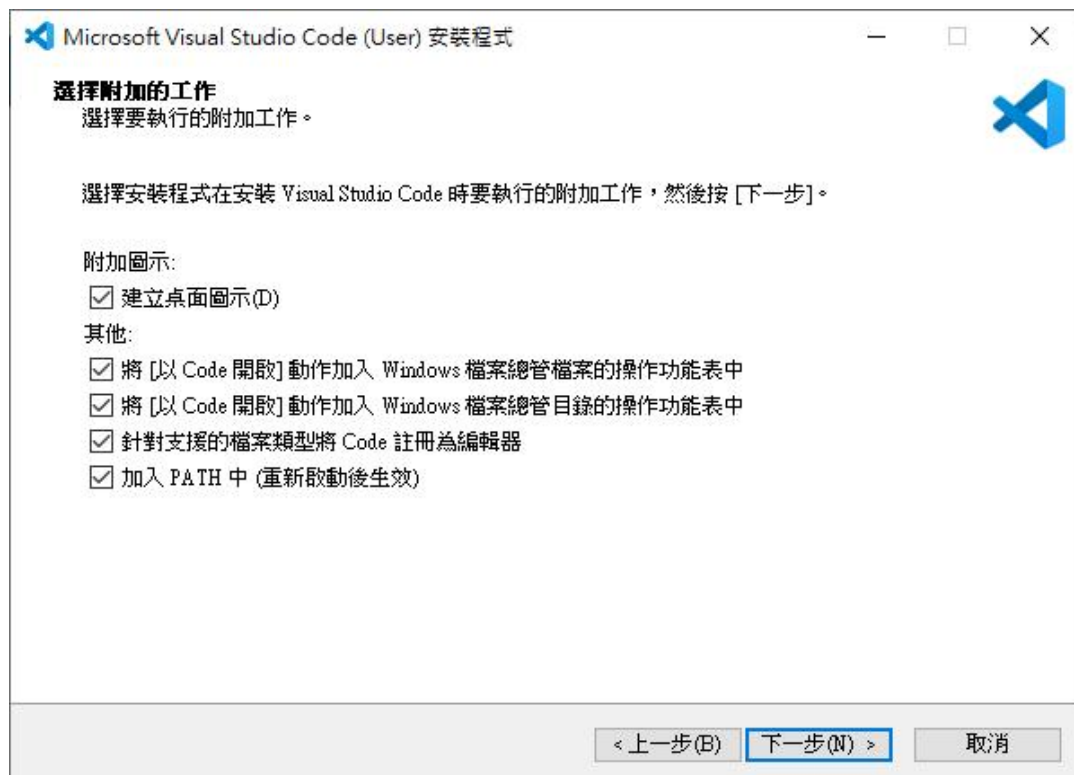


.zip Universal Intel Chip Apple Silicon

# 安裝步驟

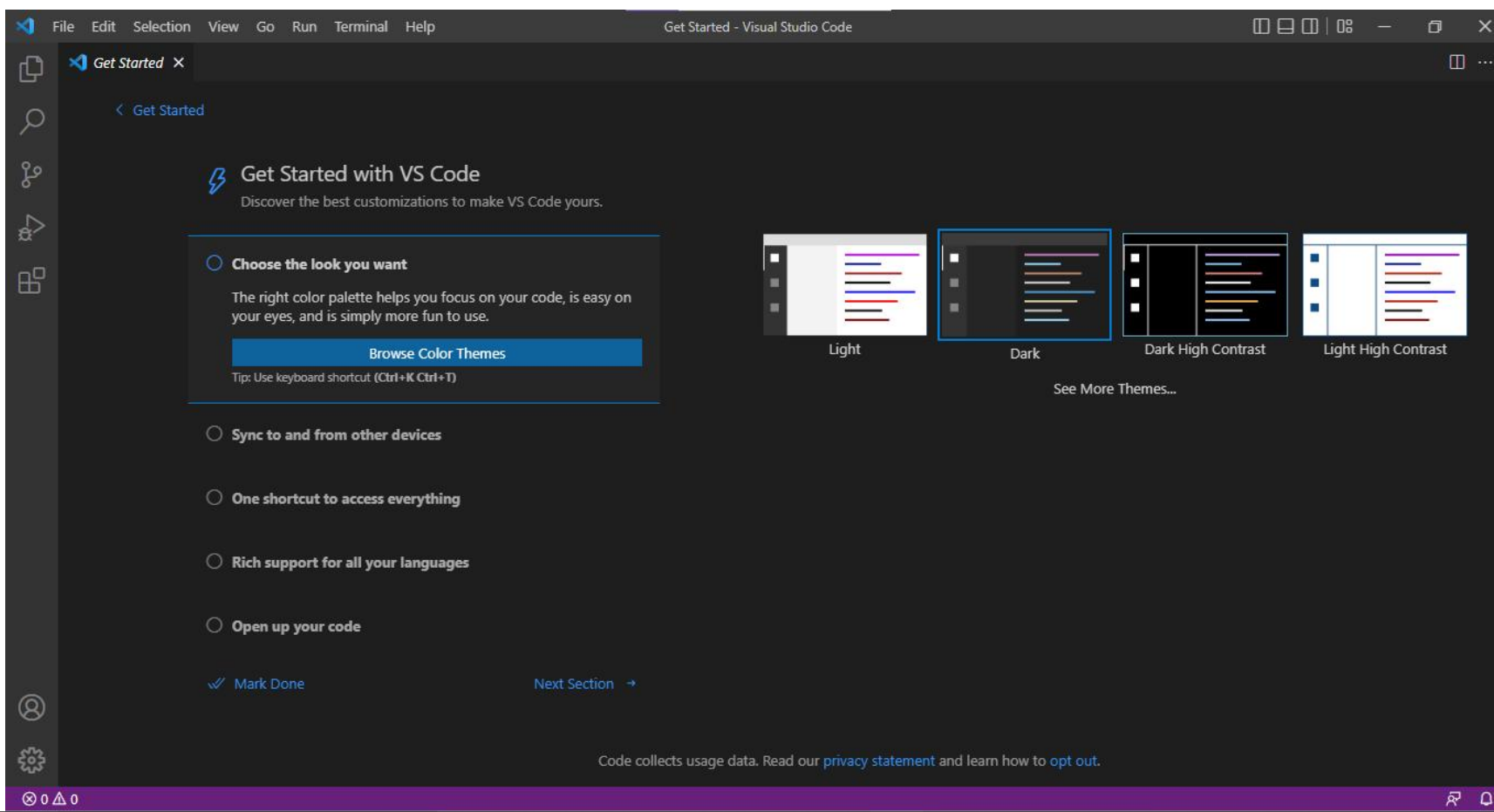


# 安裝步驟



# 安裝步驟

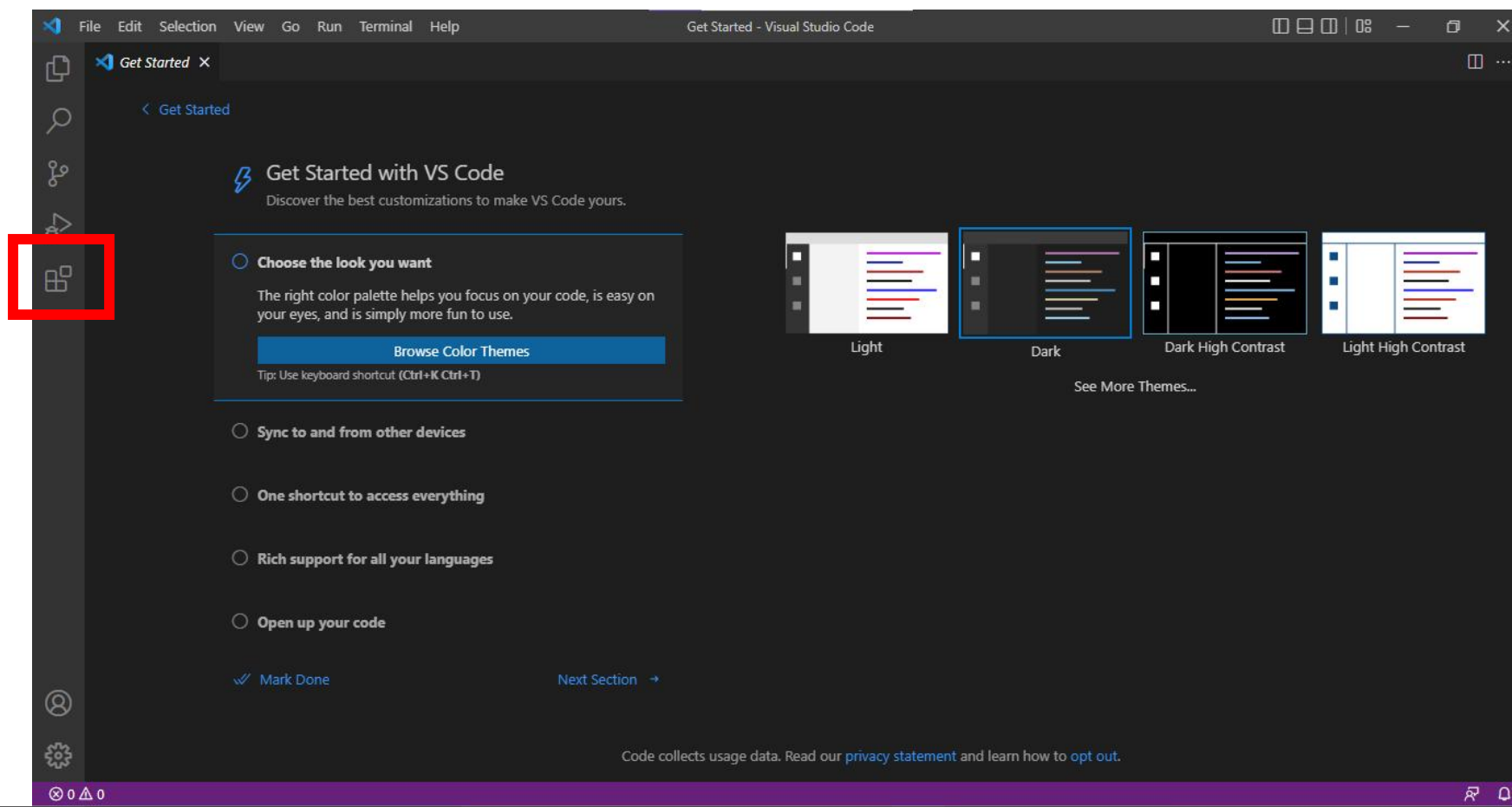
- 安裝完成後，會進入 VS Code 介面





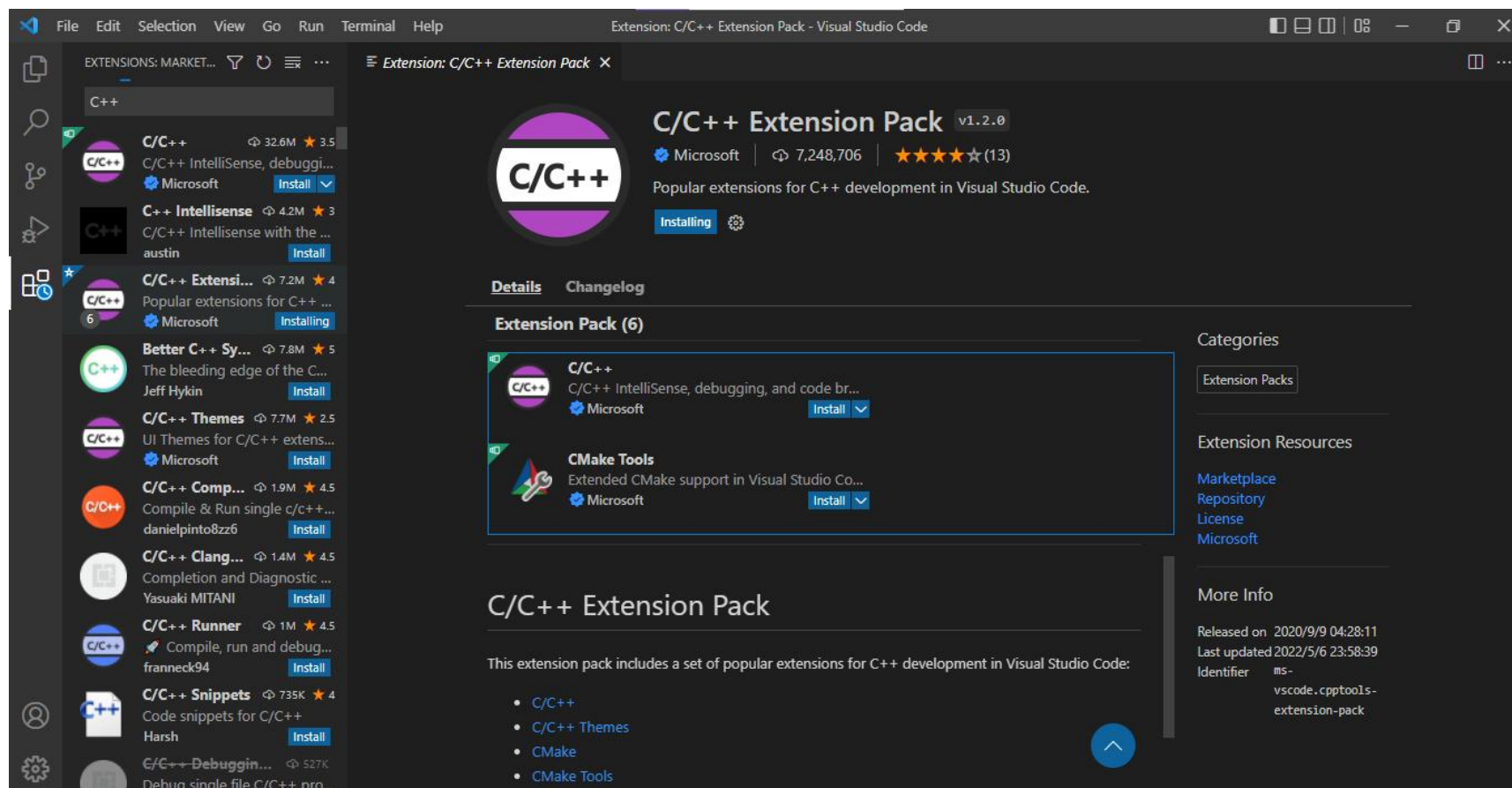
# 安裝步驟

- 選擇左側欄位的 Extensions，下載相關的 C/C++ 內建套件



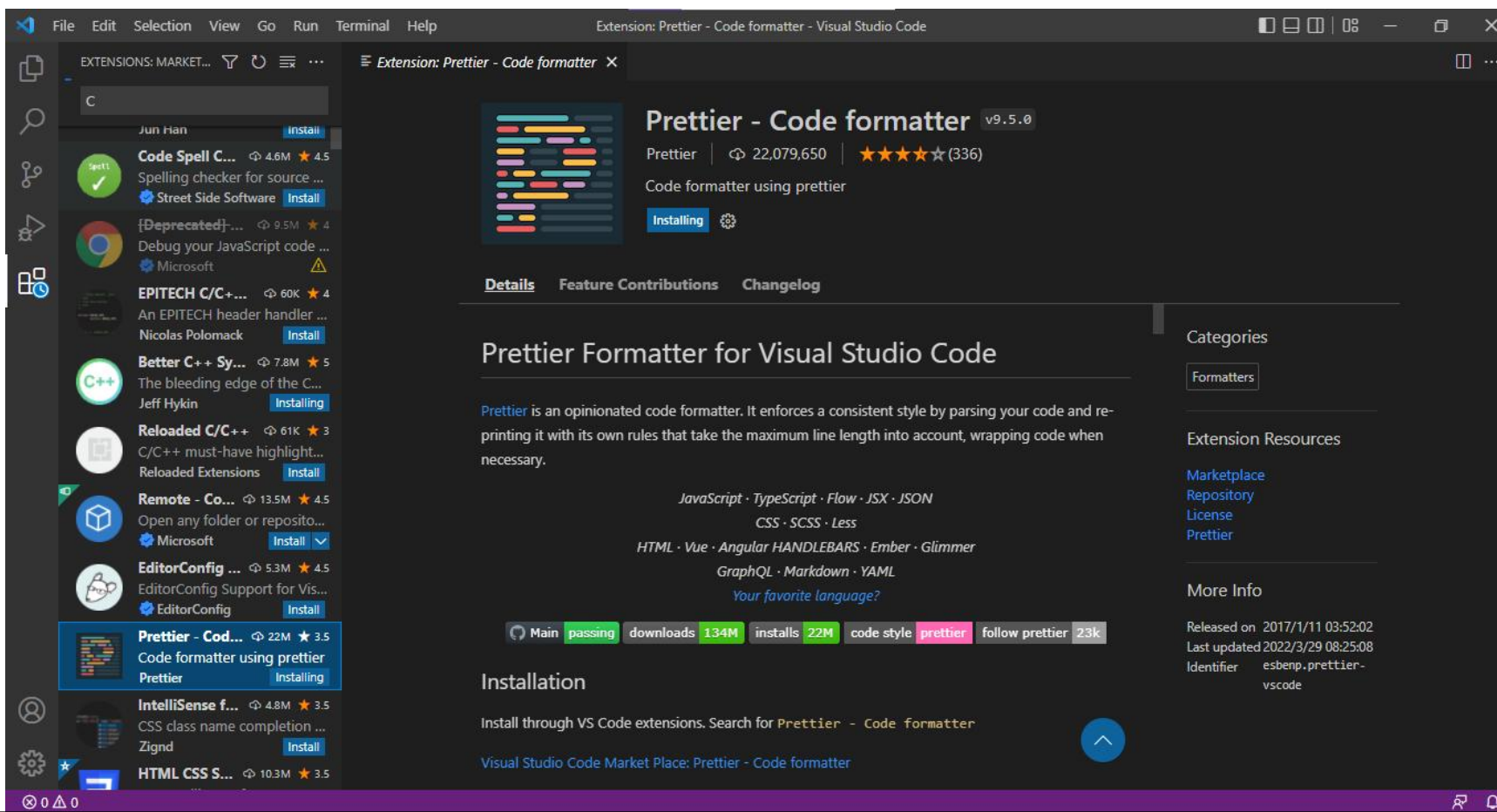
# 安裝步驟

- 選擇左側欄位的 Extensions，下載相關的 C/C++ 內建套件



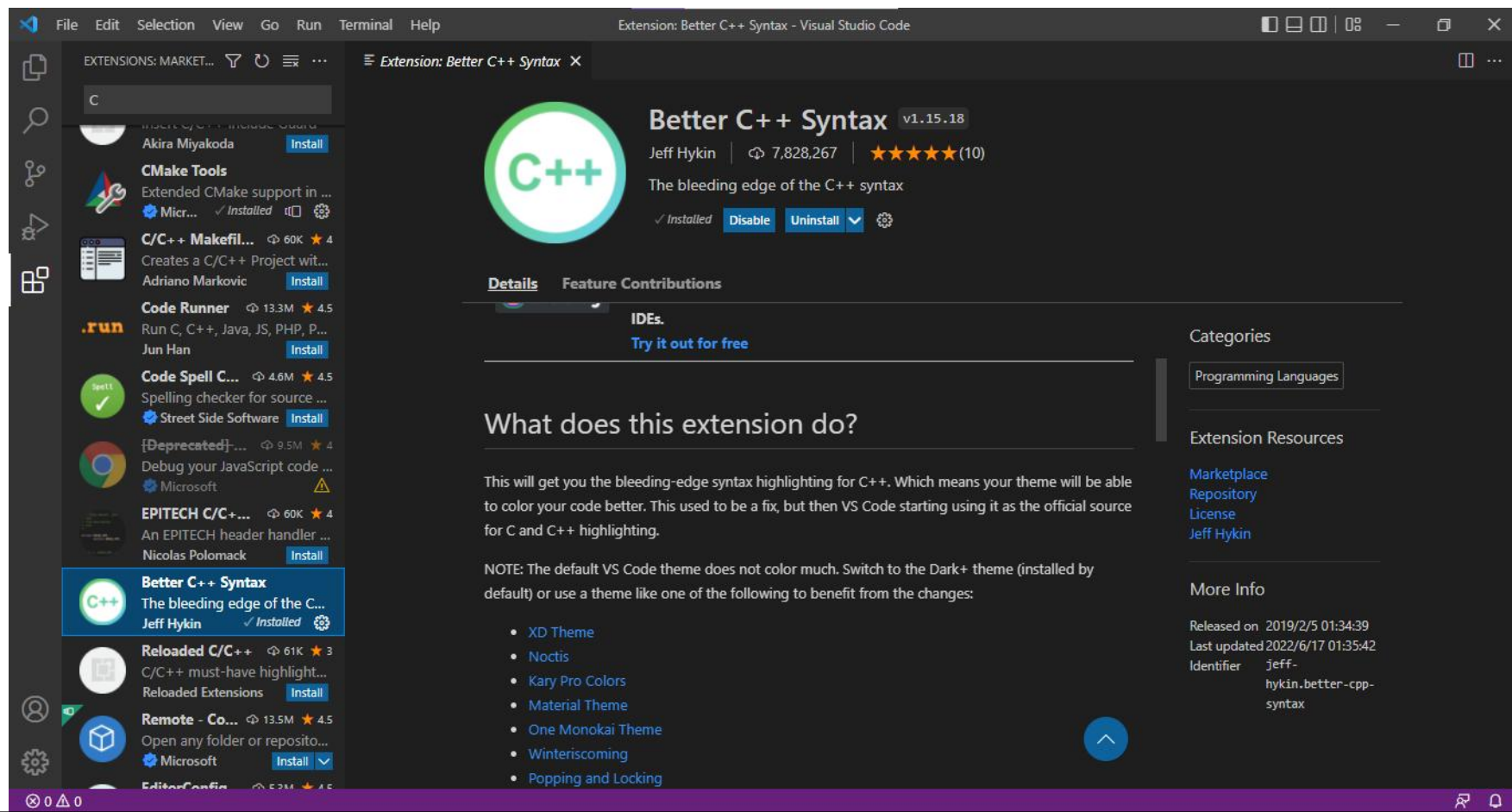
# 安裝步驟

- 選擇左側欄位的 Extensions，下載相關的 C/C++ 內建套件



# 安裝步驟

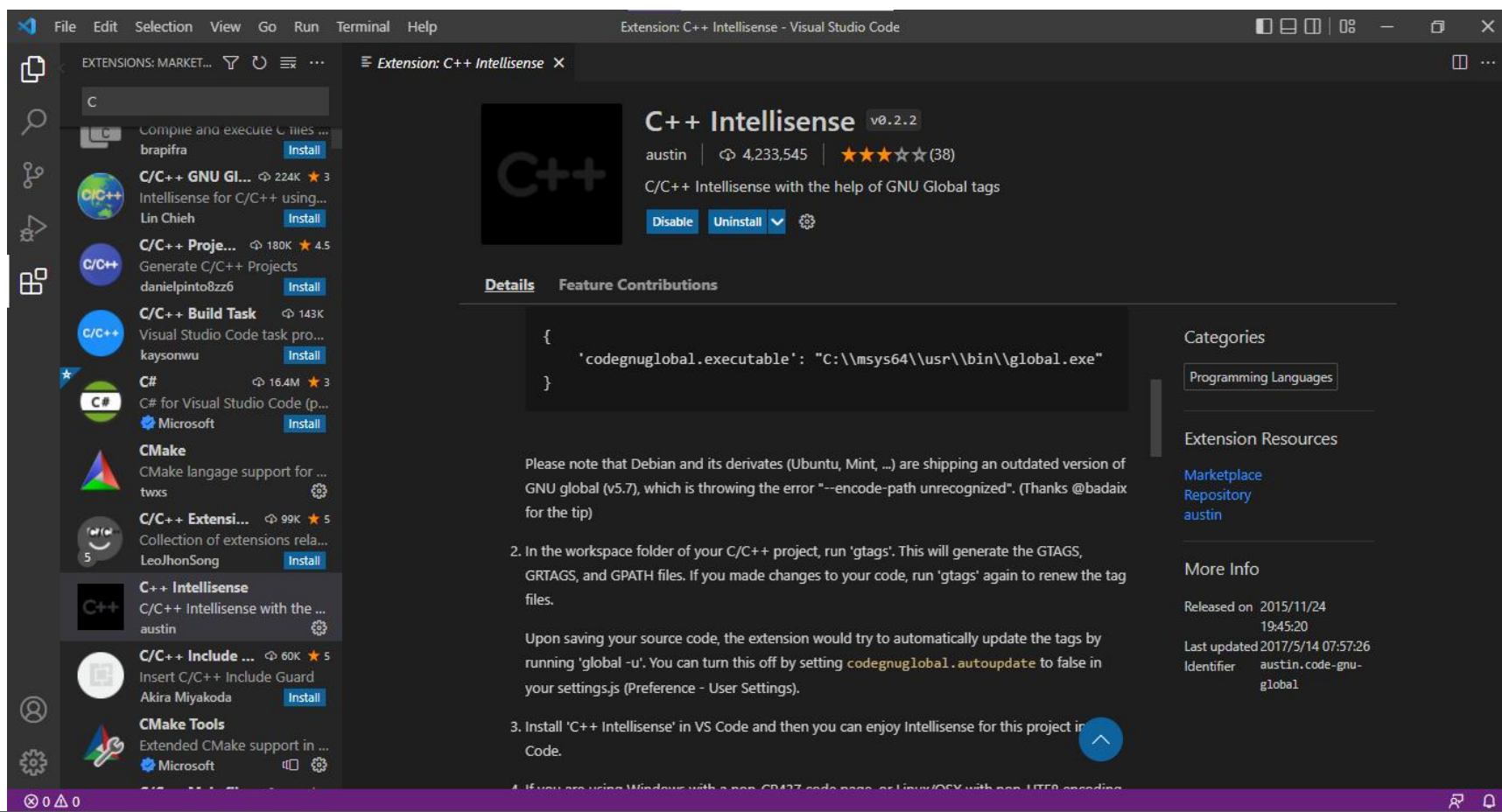
- 選擇左側欄位的 Extensions，下載相關的 C/C++ 內建套件





# 安裝步驟

- 選擇左側欄位的 Extensions，下載相關的 C/C++ 內建套件



# 安裝步驟

- VS Code 需要自行安裝 MinGW
  - 下載網址:

- <https://osdn.net/projects/mingw/>

- 畫面:

The screenshot shows the MinGW.org website. At the top, there's a navigation bar with links like 'Get RSS', 'Write How to Install', and 'Write How to Use'. Below the navigation bar, there's a section titled 'Download' which is highlighted with a red box. This section lists the latest release of MinGW, including the 'mingw-get-setup.exe' file (Date: 2017-09-06, Size: 91.00 KB). Below the download section, there's a 'Latest Release' section with links to various MinGW components. At the bottom of the page, there's a 'Download File List' button. A cookie consent banner is visible at the bottom left of the screenshot.

MinGW is a native Windows port of the GNU Compiler Collection (GCC), with freely distributable import libraries and header files for building native Windows applications; includes extensions to the MSVC runtime to support C99 functionality. Although (currently) offering only a 32-bit compiler suite, all of MinGW's software will execute on the 64bit Windows platforms.

MinGW is a registered trademark of [Software in the Public Interest Inc.](#), registration number 86017856; this trademark has been registered on behalf of the [MinGW.OSDN Project](#), and its use by any other project is unauthorized.

Download

Windows [mingw-get-setup.exe](#) (Date: 2017-09-06, Size: 91.00 KB)

Latest Release

- [MinGW.org Windows System Libraries \(WSL\) Windows API \(32-bit\), Version 5.4.2](#) (Date: 2021-04-12)
- [MinGW.org Windows System Libraries \(WSL\) C-Runtime Library \(32-bit\), Version 5.4.2](#) (Date: 2021-04-12)
- [MinGW.org Windows System Libraries \(WSL\) C-Runtime Library \(32-bit DLL\), Version 5.4.2](#) (Date: 2021-04-12)
- [MinGW.org Compiler Collection \(GCC\) GCC-9.2.0 Licence](#) (Date: 2021-02-02)
- [MinGW.org Compiler Collection \(GCC\) GCC-9.2.0 Source Code \(includes MinGW.org patches\)](#) (Date: 2021-02-02)

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mingw-get-setup.exe

2022-06-20 03:43

**Registered**  
2008-11-28 19:42

**Project Ranking**  
Activeness Ranking: 3 (11198 point)  
Download Ranking: 2 (47243)

**Developer Member**  
[cstrauss](#), [earnie](#), [keith](#), [texasgaidheal](#)  
[Member List](#)

**Software Map**

Development Status  
6 - Mature

Target Users  
Developers

License  
[BSD 3-Clause License](#) (aka "BSD New" or "BSD Simplified" License),  
[GNU General Public License v2](#) (GPLv2)

Natural Language  
[English](#)

Operating System  
[Windows](#)

Programming Language

[全部顯示](#)

# 安裝步驟

- 打開剛剛下載的安裝檔

MinGW Installation Manager Setup Tool

mingw-get version 0.6.3-pre-20170905-1



Written by Keith Marshall

Copyright © 2009-2013, MinGW.org Project

<http://mingw.org>

This is free software; see the product documentation or source code, for copying and redistribution conditions. There is NO WARRANTY; not even an implied WARRANTY OF MERCHANTABILITY, nor of FITNESS FOR ANY PARTICULAR PURPOSE.

This tool will guide you through the first time setup of the MinGW Installation Manager software (mingw-get) on your computer; additionally, it will offer you the opportunity to install some other common components of the MinGW software distribution.

After first time setup has been completed, you should invoke the MinGW Installation Manager directly, (either the CLI mingw-get.exe variant, or its GUI counterpart, according to your preference), when you wish to add or to remove components, or to upgrade your MinGW software installation.

View Licence

Install

Cancel

MinGW Installation Manager Setup Tool

mingw-get version 0.6.3-pre-20170905-1



Step 1: Specify Installation Preferences

Installation Directory

C:\MinGW

Change

If you elect to change this, you are advised to avoid any choice of directory which includes white space within the absolute representation of its path name.

User Interface Options

Both command line and graphical options are available. The command line interface is always supported; the alternative only if you choose the following option to ...

☒ ... also install support for the graphical user interface.

Program shortcuts for launching the graphical user interface should be installed ...

☒ ... just for me (the current user), or ... ☐ ... for all users \* ...

☒ ... in the start menu, and/or ... ☒ ... on the desktop.

\* selection of this option requires administrative privilege.

View Licence

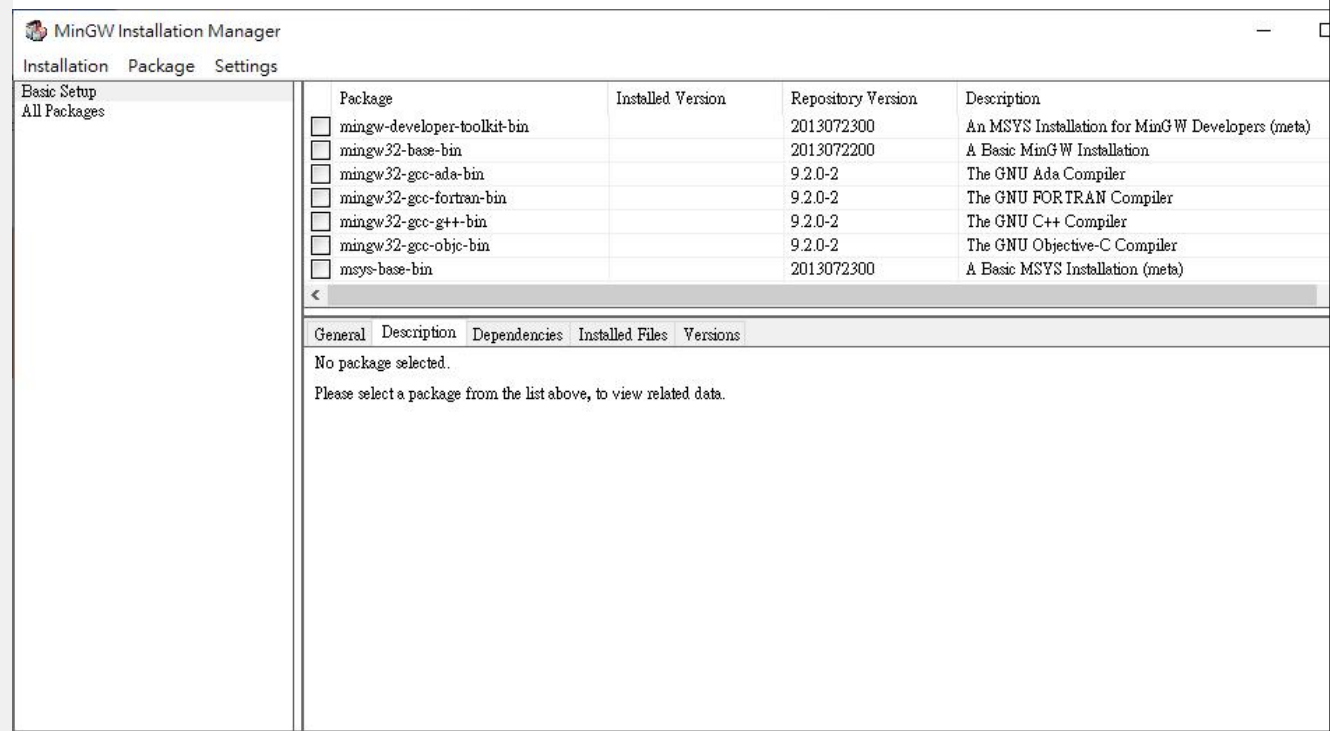
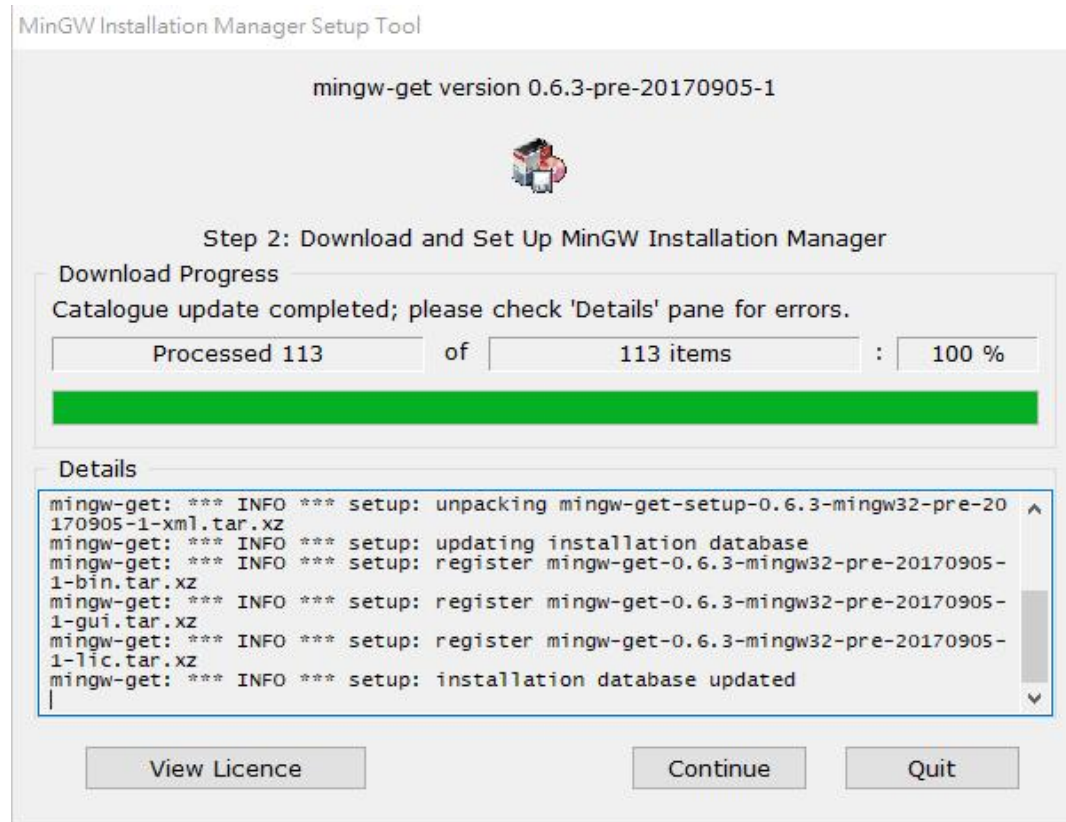
Continue

Cancel



# 安裝步驟

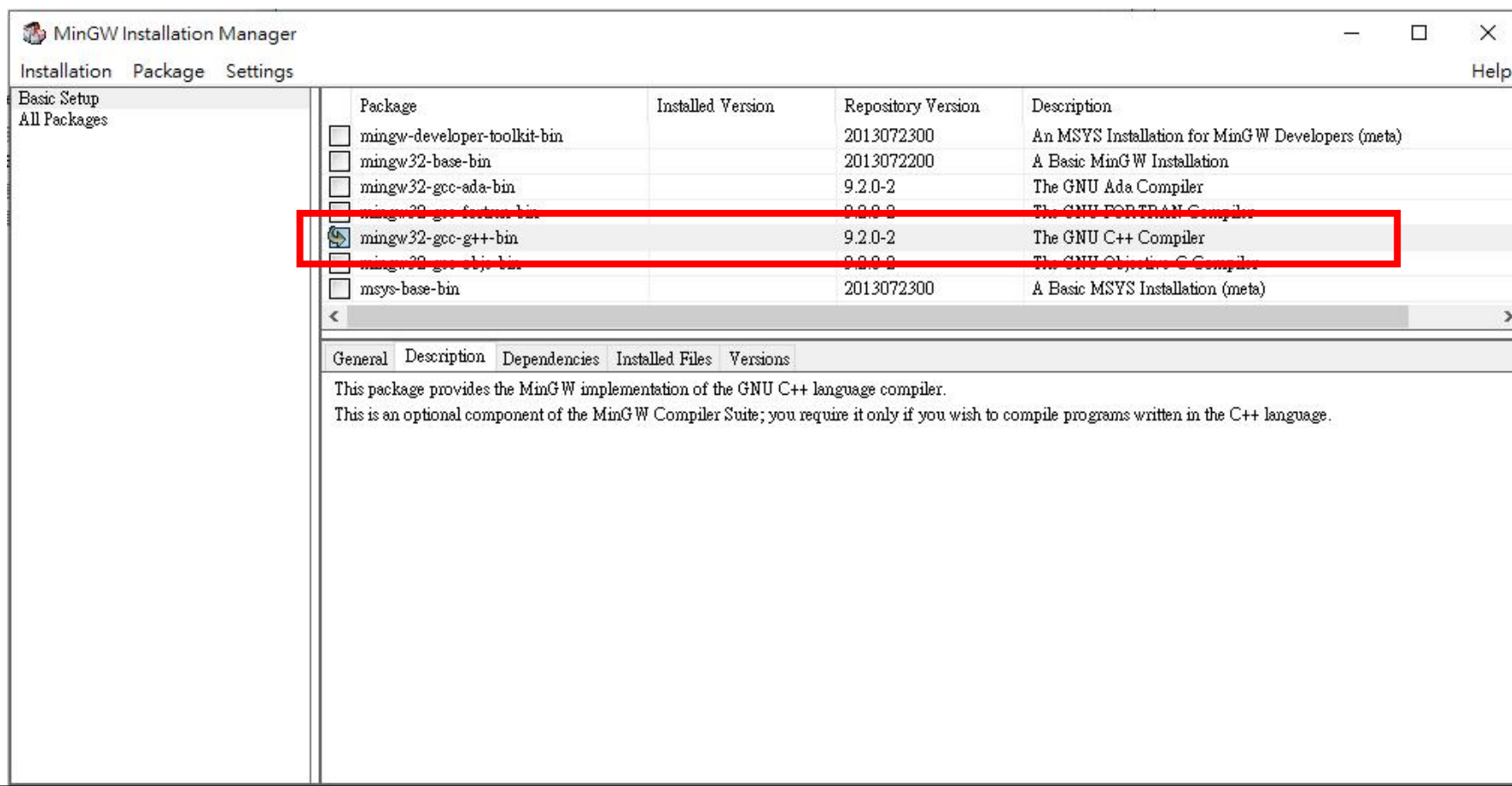
- 打開剛剛下載的安裝檔





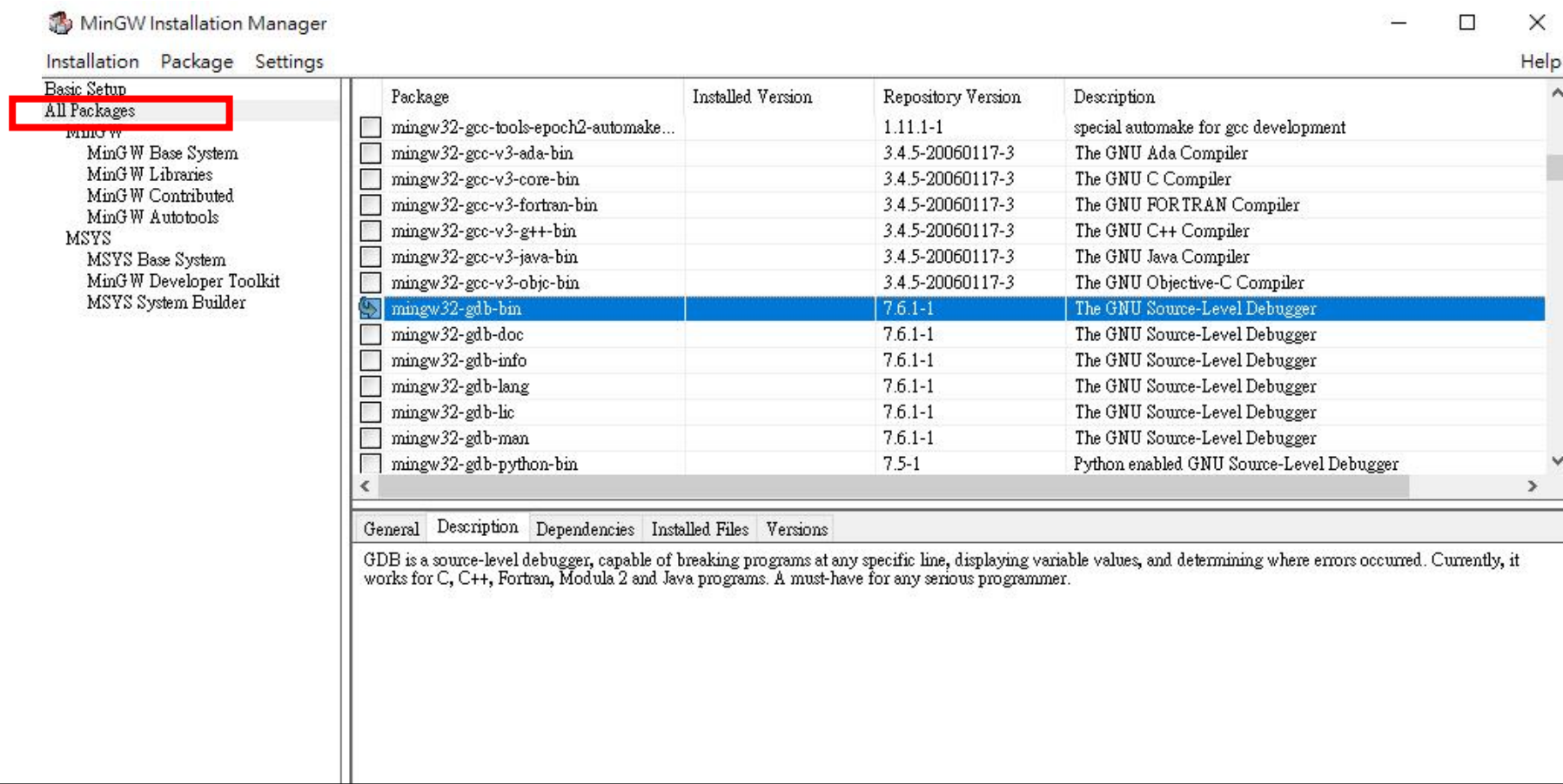
# 安裝步驟

- 安裝完後會啟動 MinGW Installer Manager，找到 mingw32-gcc-g++-bin 點取左方窗格，選擇 Mark for Installation



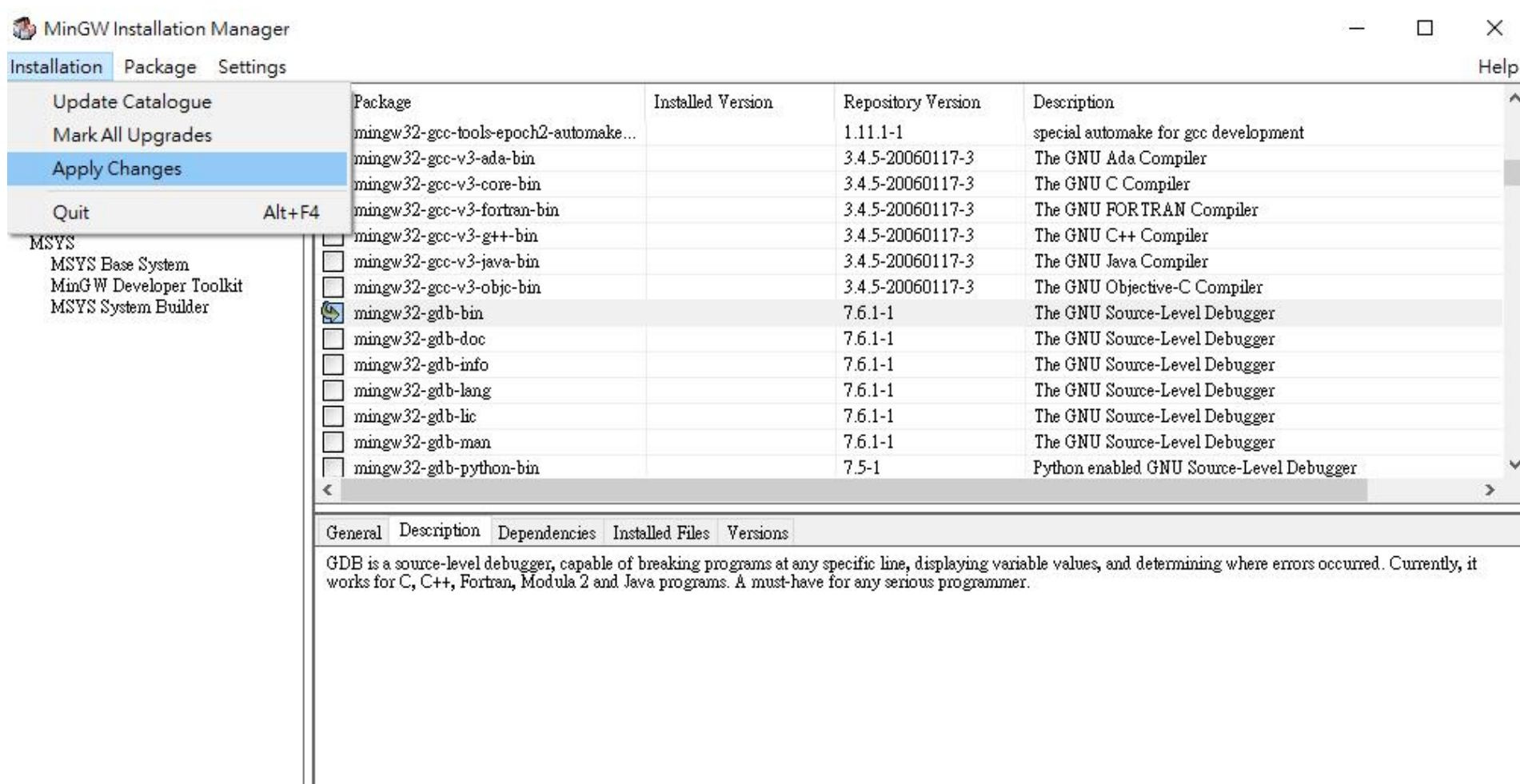
# 安裝步驟

- 選左側 All Packages，找到 mingw32-gdb-bin 點取左方窗格，選擇 Mark for Installation



# 安裝步驟

- 選擇 Installation --> Apply Change



# 安裝步驟

- Apply

Schedule of Pending Actions

Okay to proceed?  
The package changes itemised below will be implemented when you choose "Apply"

0 installed packages will be removed

0 installed packages will be upgraded

21 new/upgraded packages will be installed

- libiconv-1.14-4-mingw32-dll-2.tar.xz
- libatomic-9.2.0-2-mingw32-dll-1.tar.xz
- libgcc-9.2.0-2-mingw32-dll-1.tar.xz
- libgmp-6.1.2-3-mingw32-dll-10.tar.xz
- libintl-0.18.3.2-2-mingw32-dll-8.tar.xz
- libmpfr-4.0.2-1-mingw32-dll-6.tar.xz

## Applying Scheduled Changes

All changes were applied successfully; you may now close this dialogue.

☐ Close dialogue automatically, when activity is complete.

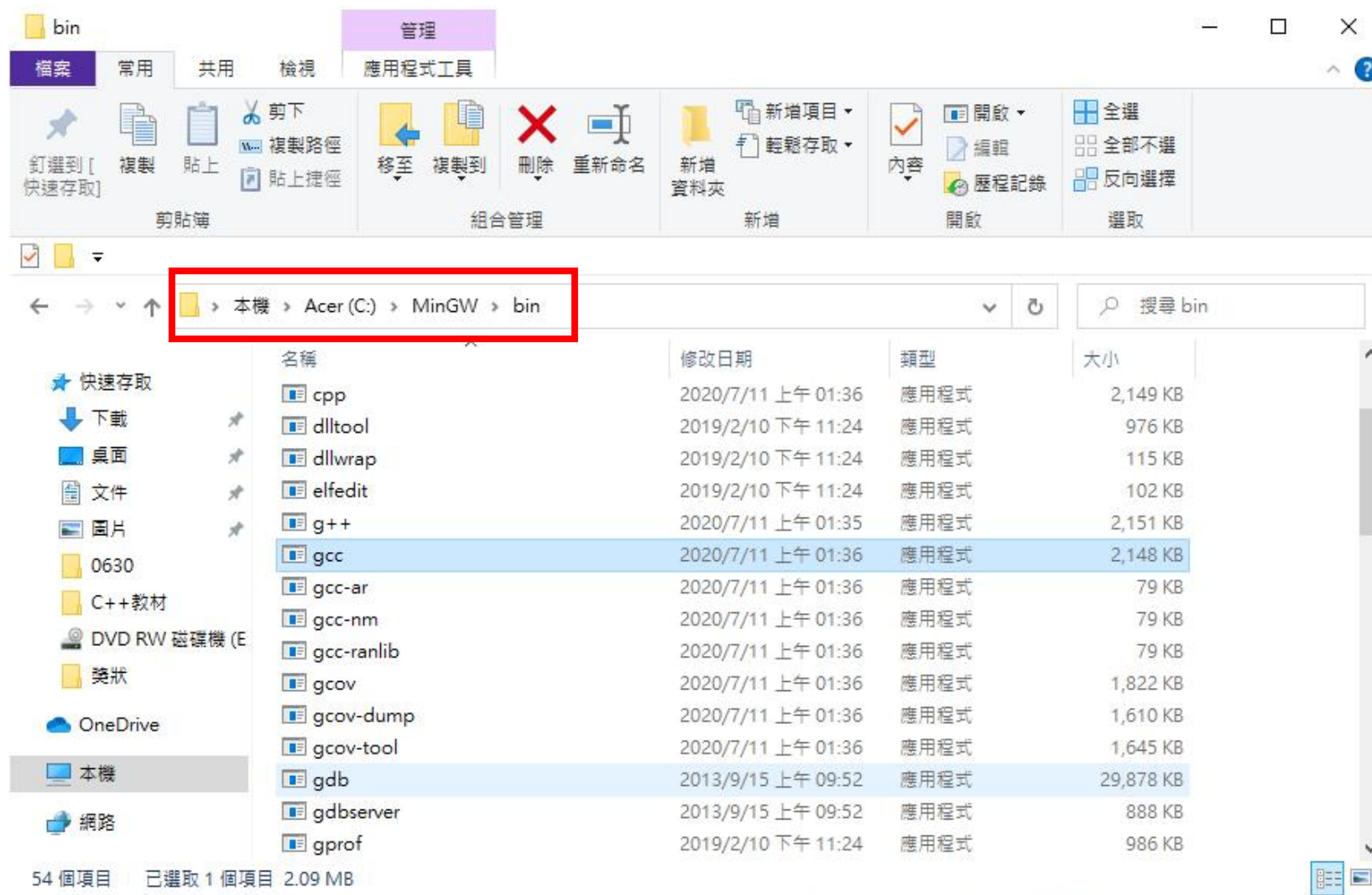
### Details

```
install: libquadmath-9.2.0-2-mingw32-dll-0.tar.xz
installing libquadmath-9.2.0-2-mingw32-dll-0.tar.xz
install: libgomp-9.2.0-2-mingw32-dll-1.tar.xz
installing libgomp-9.2.0-2-mingw32-dll-1.tar.xz
install: libssp-9.2.0-2-mingw32-dll-0.tar.xz
installing libssp-9.2.0-2-mingw32-dll-0.tar.xz
install: w32api-5.4.2-mingw32-dev.tar.xz
installing w32api-5.4.2-mingw32-dev.tar.xz
install: mingwrt-5.4.2-mingw32-dev.tar.xz
installing mingwrt-5.4.2-mingw32-dev.tar.xz
install: libmpc-1.1.0-1-mingw32-dll-3.tar.xz
installing libmpc-1.1.0-1-mingw32-dll-3.tar.xz
install: binutils-2.32-1-mingw32-bin.tar.xz
installing binutils-2.32-1-mingw32-bin.tar.xz
install: libisl-0.21-2-mingw32-dll-21.tar.xz
installing libisl-0.21-2-mingw32-dll-21.tar.xz
install: gcc-core-9.2.0-2-mingw32-bin.tar.xz
installing gcc-core-9.2.0-2-mingw32-bin.tar.xz
install: gcc-c++-9.2.0-2-mingw32-bin.tar.xz
installing gcc-c++-9.2.0-2-mingw32-bin.tar.xz
install: libz-1.2.11-1-mingw32-dll-1.tar.xz
installing libz-1.2.11-1-mingw32-dll-1.tar.xz
install: gdb-7.6.1-1-mingw32-bin.tar.lzma
installing gdb-7.6.1-1-mingw32-bin.tar.lzma
```



# 安裝步驟

- 確認安裝

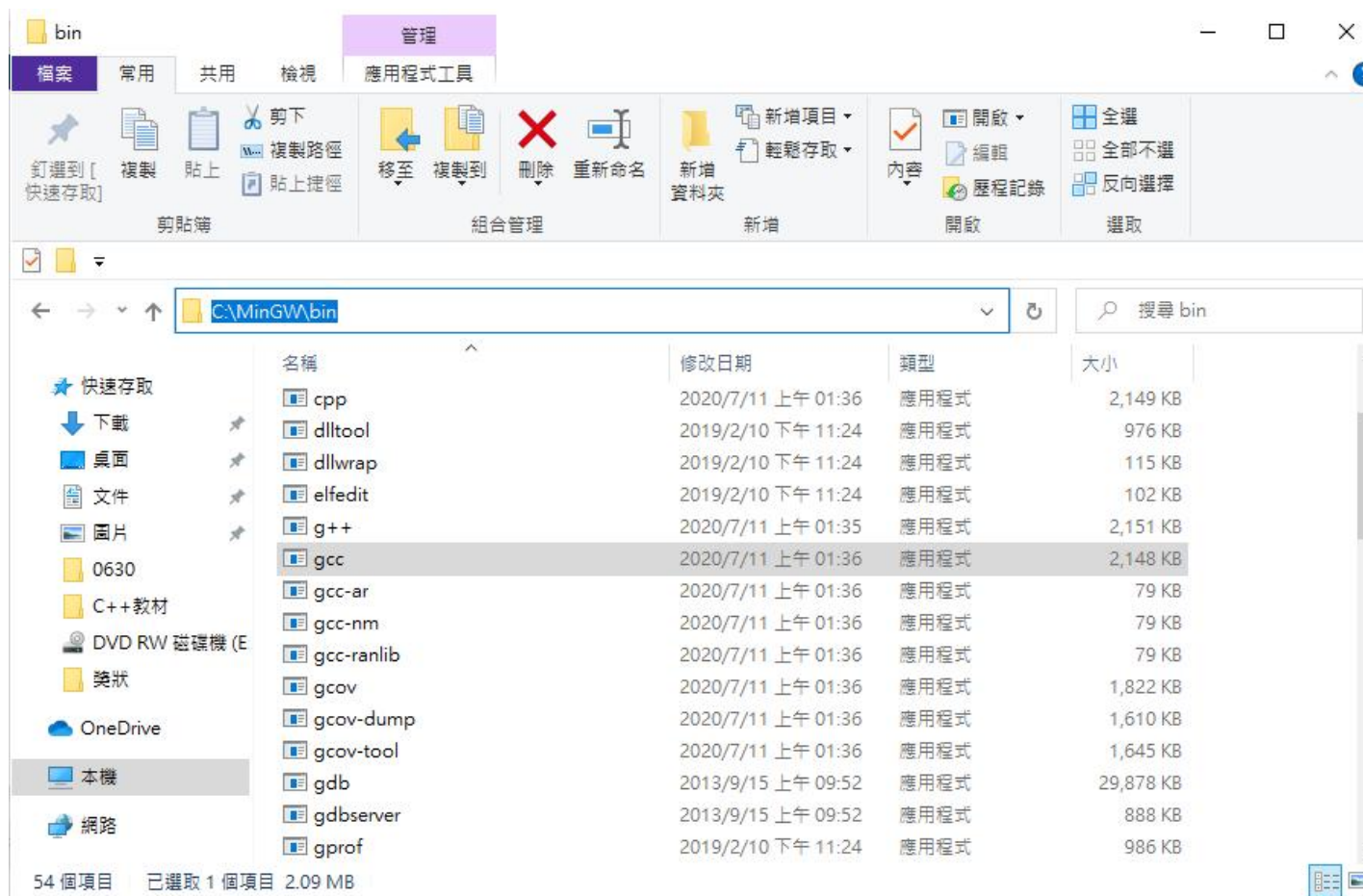


# 安裝步驟

- 複製路徑: C:\MinGW\bin 到系統環境變數中

- 步驟一

- 複製

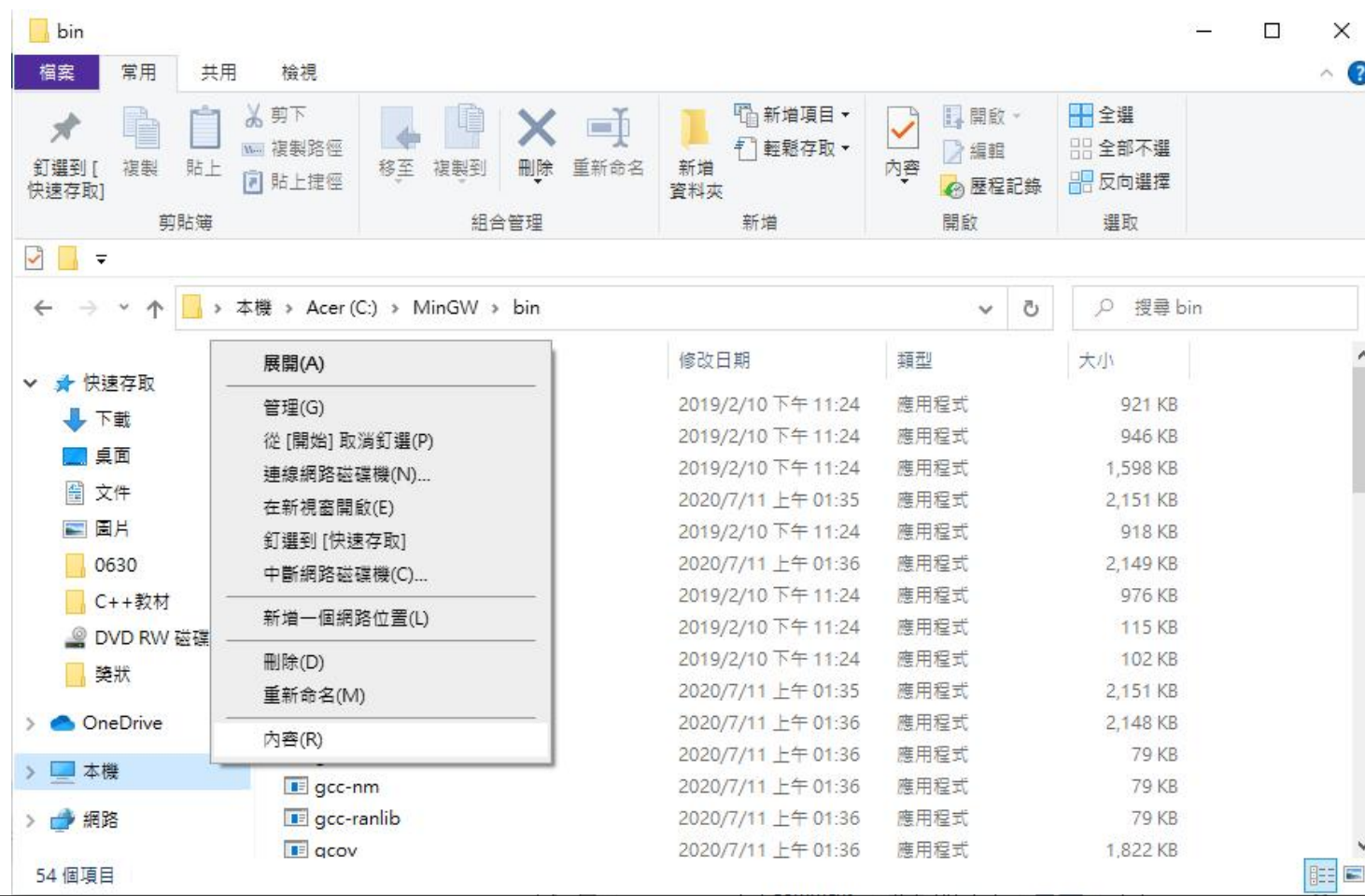


# 安裝步驟

- 複製路徑: C:\MinGW\bin 到系統環境變數中

- 步驟二

- 點選檔案總管
- 右鍵 本機 --> 內容



# 安裝步驟

- 複製路徑: C:\MinGW\bin 到系統環境變數中

- 步驟三

- 進階系統設定



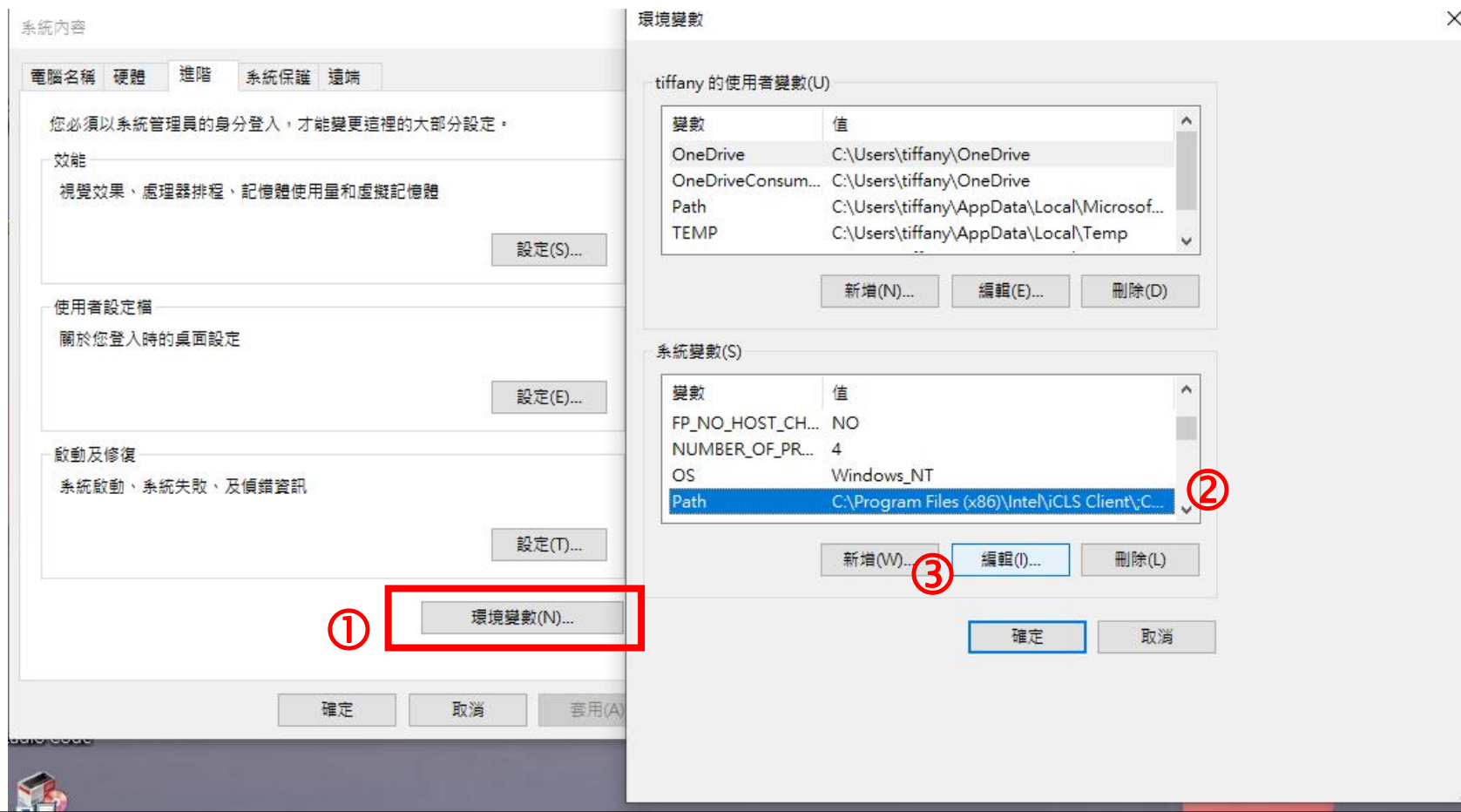


# 安裝步驟

- 複製路徑: C:\MinGW\bin 到系統環境變數中

- 步驟四

- 環境變數 --> 選取 系統變數 Path --> 編輯

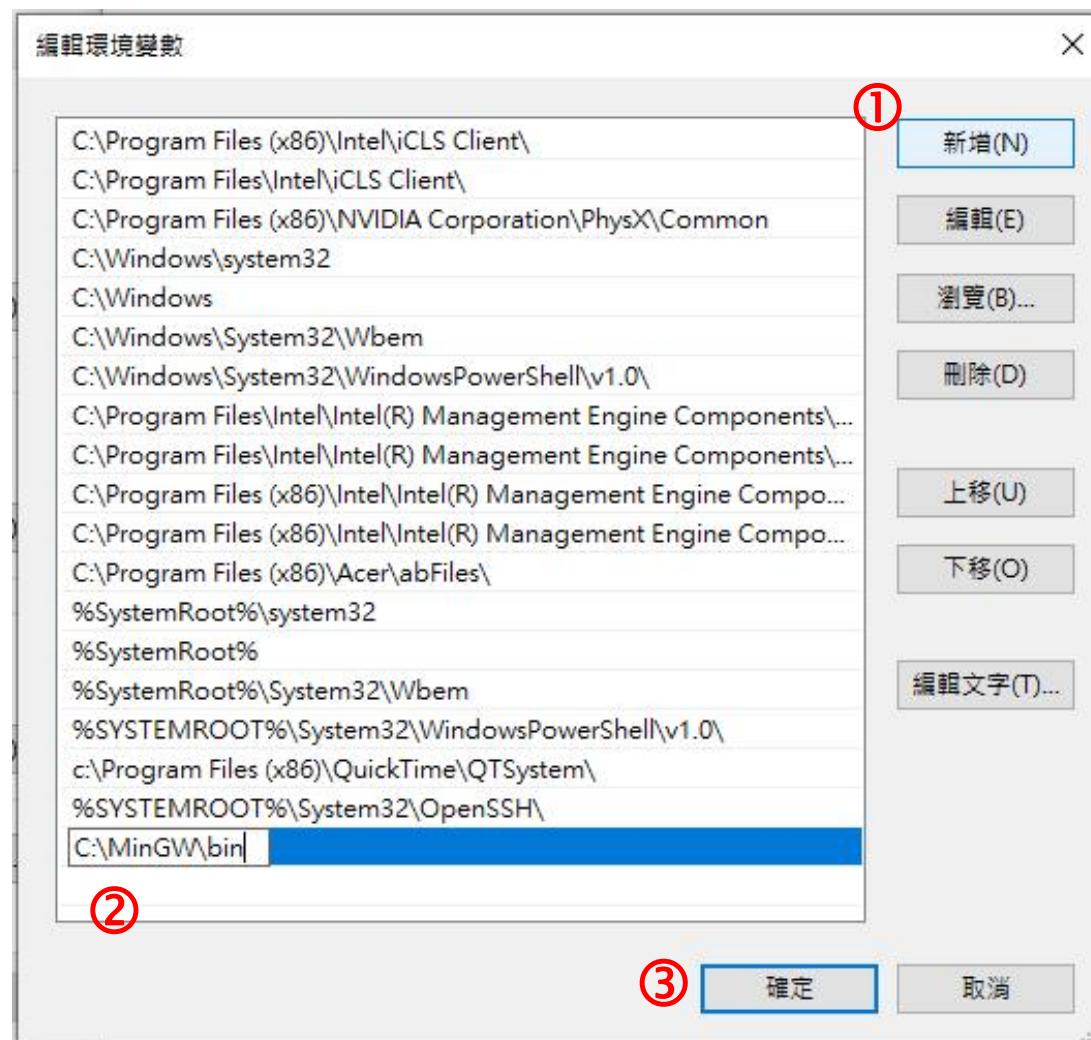


# 安裝步驟

- 複製路徑: C:\MinGW\bin 到系統環境變數

- 步驟五

- 新增
- 貼上剛剛複製的路徑  
C:\MinGW\bin
- 確定
- 將剛剛開起的每一個有確定按鈕的視窗都按「確定」





安裝完成！

01

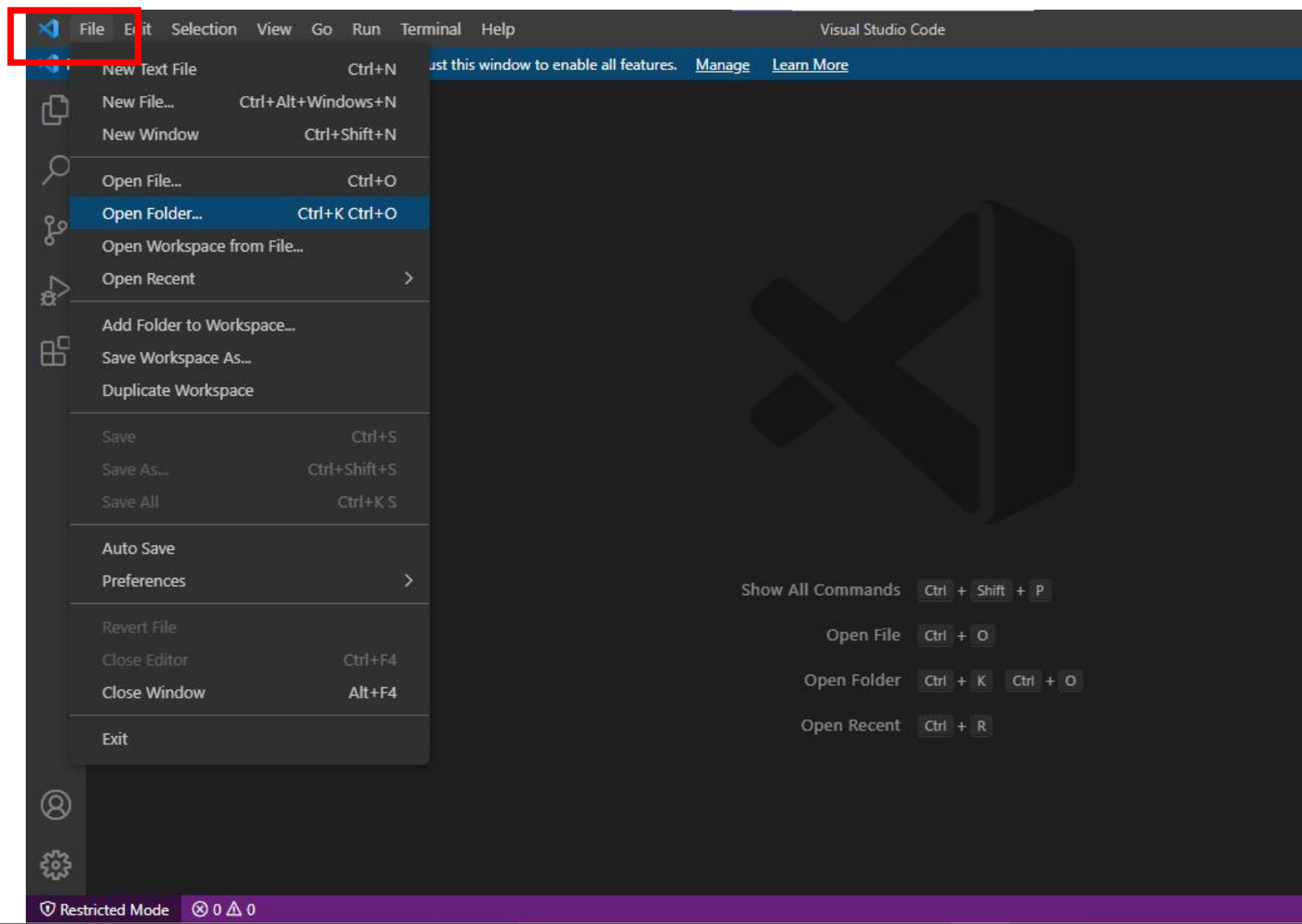


# 介面說明

02

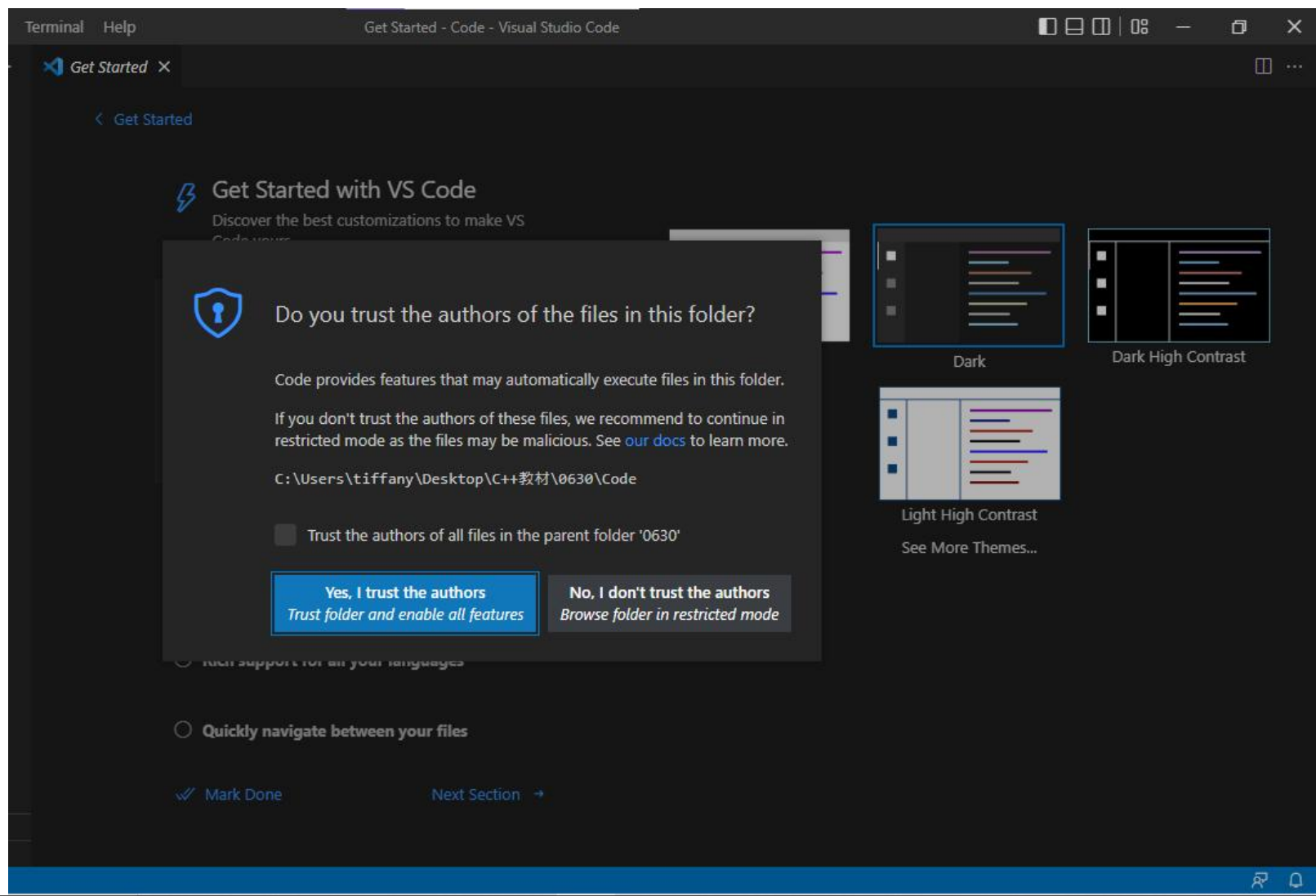
# 介面說明

- 開啟資料夾
  - 可以先開啟自己打算存放檔案的資料夾:
  - file -> open folder



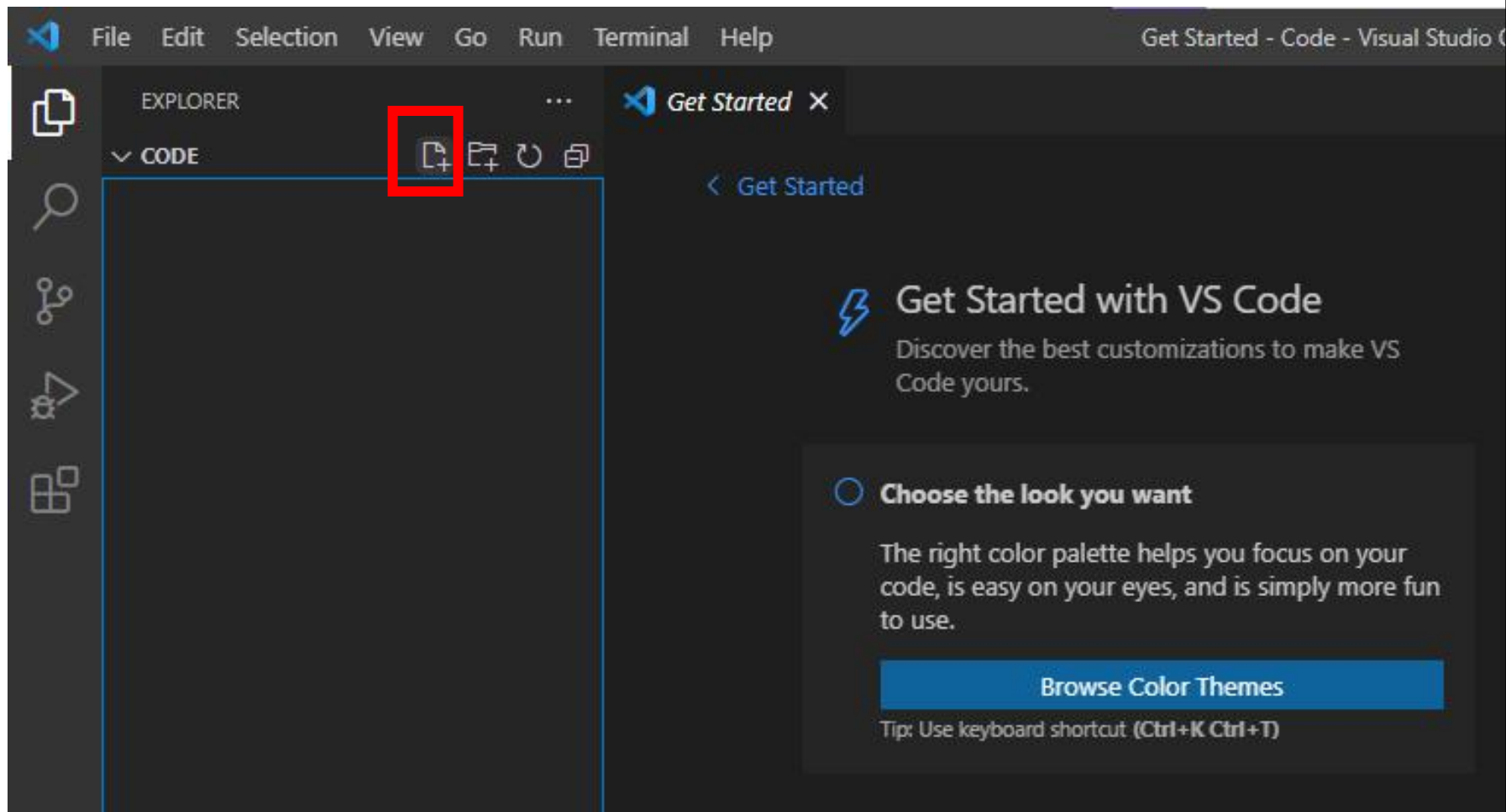
# 介面說明

- 開啟資料夾
  - 可能會跳出出於資訊安全考量的詢問



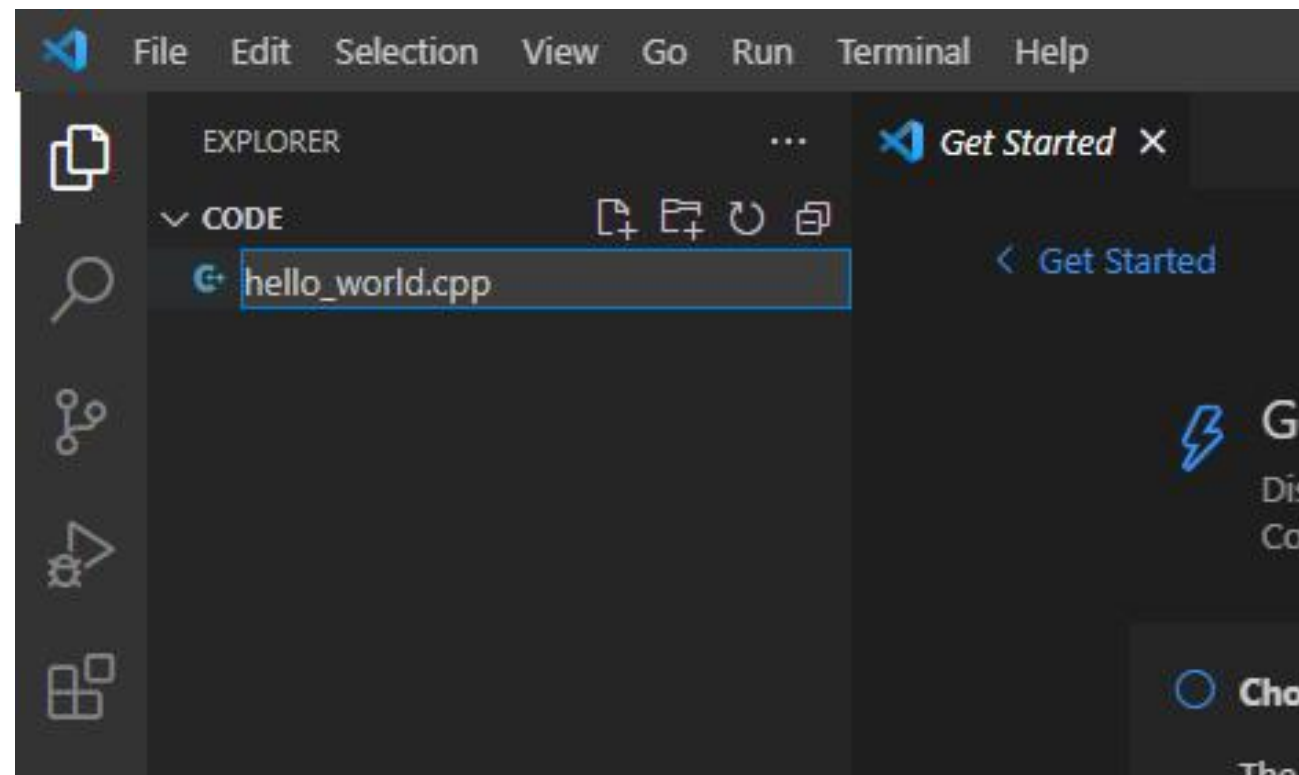
# 介面說明

- 在本資料夾中  
開啟新檔



# 介面說明

- 儲存檔案
  - 檔名命名習慣:
    - 英文命名
    - 除了 `_`，盡量不要有其他特殊符號
    - 檔名可以盡量和內容相關
    - C++ 檔案的副檔名為 `.cpp`





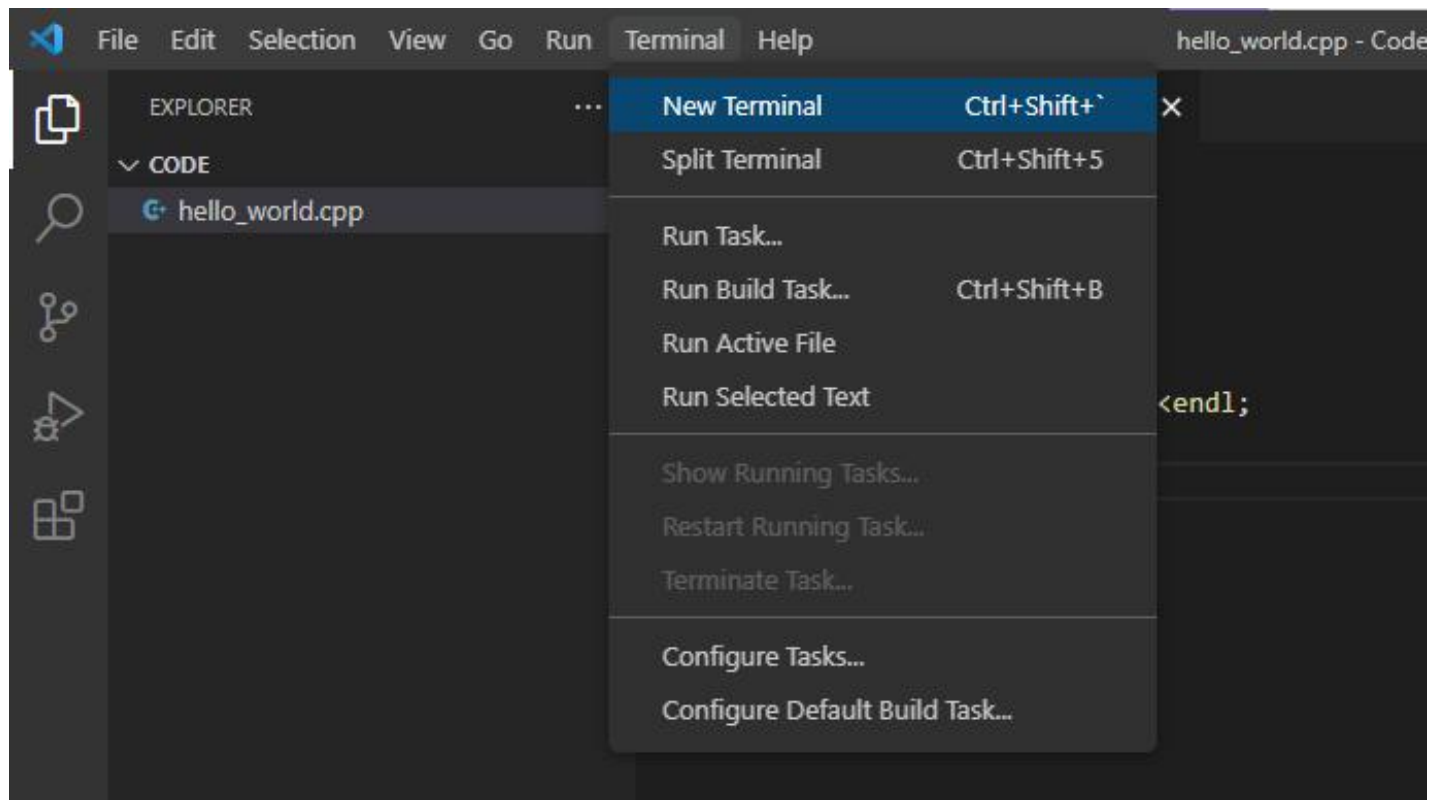


# 介面說明

- 編譯
  - 首先要叫出終端機
  - 因為 VS Code 內操作環境有點類似於 Linux 系統
  - 需要使用指令操作編譯並執行

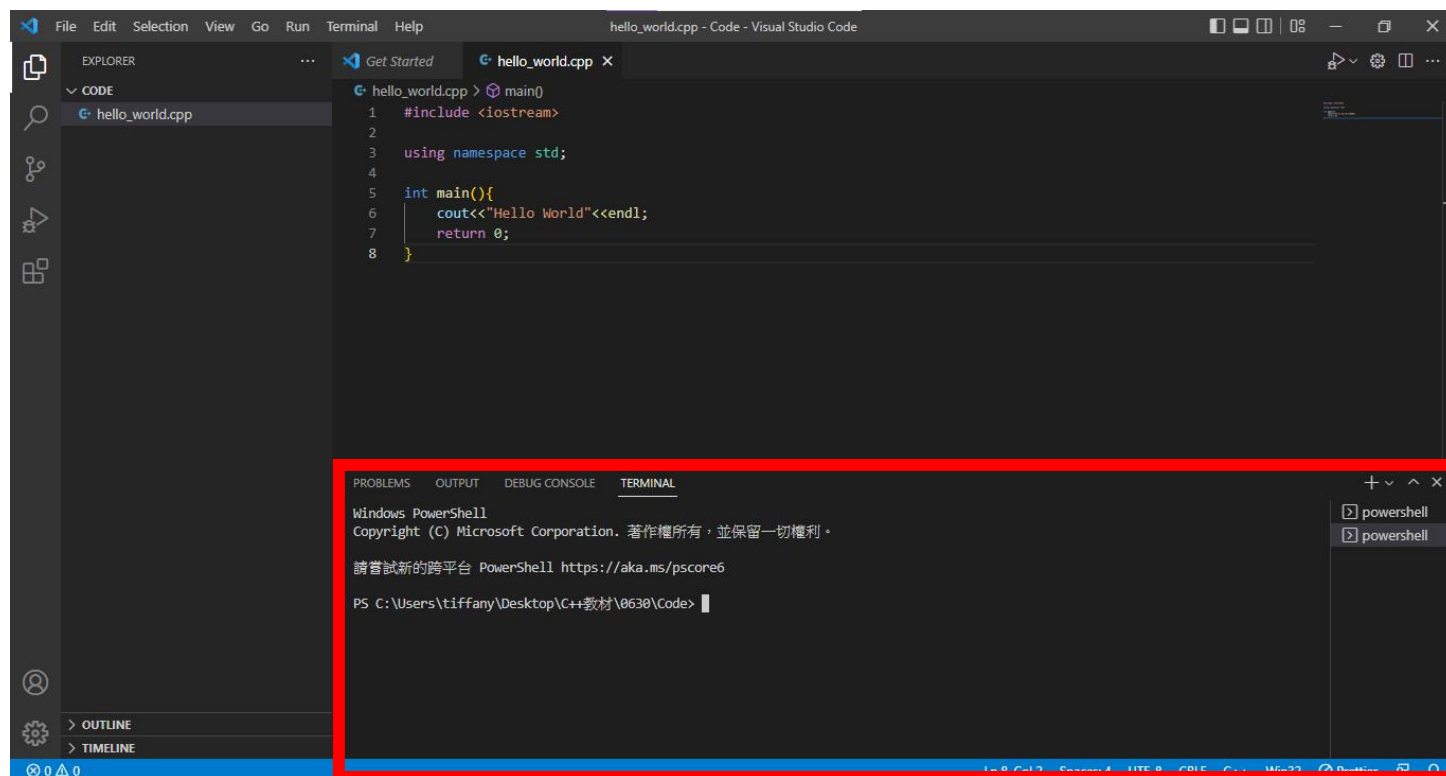
# 介面說明

- 編譯
  - 首先要叫出終端機
    - Terminal --> new terminal
    - 快捷鍵:
      - Ctrl + ~ (鍵盤 esc 下方那顆)



# 介面說明

- 編譯
  - 首先要叫出終端機
    - Terminal --> new terminal
    - 快捷鍵:
      - Ctrl + ~ (鍵盤 esc 下方那顆)



下方這個區塊就是我們的終端機  
可以看到所在的檔案位置已經設置好了，因為前面開起  
新檔前先開了資料夾

# 介面說明

- 編譯

- C++ 檔案的編譯指令:

- 要先注意所在的位置是否為當前資料夾

```
PS C:\Users\tiffany\Desktop\C++教材\0630\Code>
```

- g++ [file name] -g -o [編譯完後產生的執行檔案的名稱]

- e.g.

> g++ hello\_world.cpp -g -o hello\_world.exe

- 如沒有設定 -o [] 則編譯出來的執行檔會被自動命名為 a.exe

# 介面說明

- 編譯

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> g++ hello_world.cpp -g -o hello_world.exe  
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> |
```

- g++ 是 C++ 的編譯器名稱，如果是 C 語言的話則是用 gcc
- -g 是一個參數，編譯完成後可能會產生一些調適訊息（警告）
- -o 是一個參數，用來規定編譯完產生的執行檔名稱 (p38, p39)

# 介面說明

- 查看編譯完之後的檔案 (有 -o)
- ls 可以查看當前資料夾底下的所有檔案

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\tiffany\Desktop\C++教材\0630\Code> g++ hello_world.cpp -g -o hello_world.exe
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> ls

目錄: C:\Users\tiffany\Desktop\C++教材\0630\Code

Mode                LastWriteTime         Length Name
----                -
-a----             2022/6/24 下午 09:21           108 hello_world.cpp
-a----             2022/6/24 下午 10:02          65976 hello_world.exe

PS C:\Users\tiffany\Desktop\C++教材\0630\Code> |
```

# 介面說明

- 查看編譯完之後的檔案(沒有 -o)
- ls 可以查看當前資料夾底下的所有檔案

```
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> g++ hello_world.cpp -g
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> ls
```

目錄: C:\Users\tiffany\Desktop\C++教材\0630\Code

Mode	LastWriteTime	Length	Name
-a----	2022/6/24 下午 10:23	65976	a.exe
-a----	2022/6/24 下午 09:21	108	hello_world.cpp
-a----	2022/6/24 下午 10:02	65976	hello_world.exe

# 介面說明

- 如果程式碼編譯有錯誤

```
Get Started hello_world.cpp 1 x
hello_world.cpp > main()
1  #include <iostream>
2
3  using namespace std;
4
5  int main(){
6      cout<<"Hello World"<<endl;
7      return 0
8  }
```

```
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> g++ hello_world.cpp -g -o hello_world.exe
```

```
hello_world.cpp: In function 'int main()':
```

```
hello_world.cpp:7:13: error: expected ';' before '}' token
```

```
7 |         return 0
```

```
8 |     }
```

```
PS C:\Users\tiffany\Desktop\C++教材\0630\Code>
```



# 介面說明

- 執行
  - ./[file name]

```
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> ./hello_world.exe  
Hello World  
PS C:\Users\tiffany\Desktop\C++教材\0630\Code> |
```



The end

Thank You