A decorative graphic featuring a complex network of blue lines that resemble a circuit board or data pathways. These lines are interconnected with small white dots, some of which are highlighted with a soft blue glow. The overall shape of the graphic is somewhat horizontal and tapers at both ends.

Computer Programming

A decorative graphic consisting of a grid of light blue lines. The lines are of varying lengths and are arranged in a way that creates a sense of depth and perspective, with some lines appearing to recede into the background.

TA Programming Session Assignment

A decorative graphic featuring a complex network of blue lines that resemble a circuit board or data pathways. These lines are interconnected with small white dots, some of which are highlighted with a soft blue glow. The overall shape of the graphic is somewhat horizontal and tapers at both ends.

**Computer
Programming**

Code::Blocks Third Party Library – PDCurses

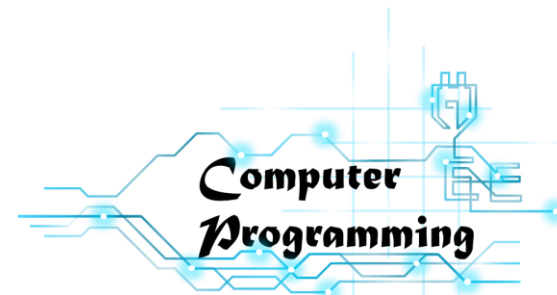
TA: 電子一 謝明倫

yans@media.ee.ntu.edu.tw

2013/10/30



臺灣大學

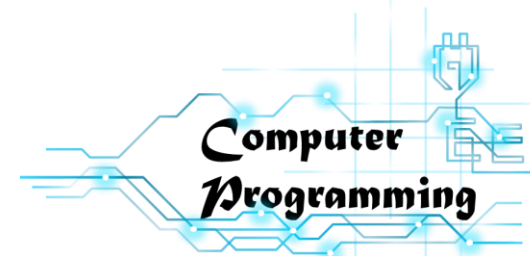


How to Install a third party library?



PDCurses 下載

- 請先至PDCurses官網:
 - <http://pdcurses.sourceforge.net/>
 - 進入下載頁面



PDCurses下載

- 進入pdcurses資料夾
 - 選擇最新的版本

[Home](#) / [Browse](#) / [User Interfaces](#) / [Public Domain Curses](#) / [Files](#)

Public Domain Curses

Brought to you by: [rexx](#), [wmcbrine](#)

[Summary](#) | [Files](#) | [Reviews](#) | [Support](#) | [Wiki](#) | [Tickets ▾](#) | [Discussion](#) | [Code](#)

Looking for the latest version? [

Home

Name ▾

📁 pdcurses

📁 sdlfonts

Totals: 2 Items

Looking for the latest version? [Download pdc25_vc_w32.zip \(156.6 kB\)](#)

[Home](#) / [pdcurses](#)

Name ▾

Modified ▾

Size ▾

Downloads ▾

↑ Parent folder

📁 3.4

2008-09-09

📁 3.3

2007-07-11

📁 3.2

2007-06-07













PDCurses下載

- 這步很重要!! 不同的作業系統從這裡開始分流

Looking for the latest version? [Download pdc25_vc_w32.zip \(156.6 kB\)](#)

Home / pdcurses / 3.4

我猜這是
Windows

Name ▾	Modified ▾	Size ▾	Downloads ▾	
↑ Parent folder				
pdcdllw.zip	2008-09-09	86.9 kB	107	 
pdcdllu.zip			11	 
pdcdlls.zip			12	 
pdcdll.zip	2008-09-09	82.0 kB	10	 
pdcurs34.zip			77	 
PDCurses-3.4.tar.gz			80	 

針對不同作業系
統的Release版本

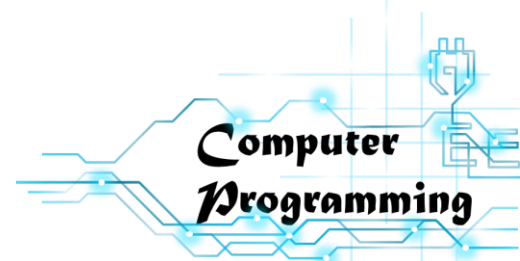
因為PDC會用到系統
的標準輸入輸出...等

這是原始檔
Source Codes

那MAC呢?

>>“ 因為我手邊沒有
MAC不太確定
但至少你可以去下
載原始檔來makefile

1. 有的時候你不希望公開source code
2. 有的時候你的程式很難compile
(或user懶得自己make file)



For MAC

- 可以依照下列網站步驟，安裝ncurses
 - <https://gist.github.com/cnruby/960344>
 - 與pdcurses有類似的功能

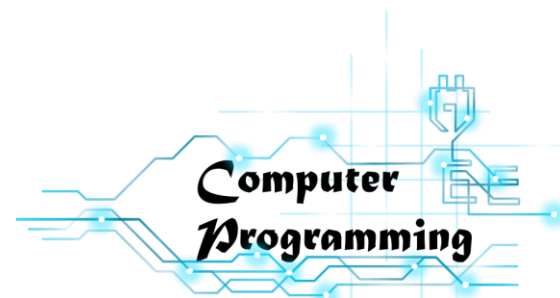
```
install ncurses on macosx

1 $ curl -O ftp://ftp.gnu.org/gnu/ncurses/ncurses-5.9.tar.gz
2 $ tar -xzf ncurses-5.9.tar.gz
3 $ cd ./ncurses-5.9
4 $ ./configure --prefix=/usr/local \
5     --without-cxx --without-cxx-binding --without-ada --without-progs --without-curses-h \
6     --with-shared --without-debug \
7     --enable-widec --enable-const --enable-ext-colors --enable-sigwinch --enable-wgetch-events \
8 && make
9 $ sudo make install
```



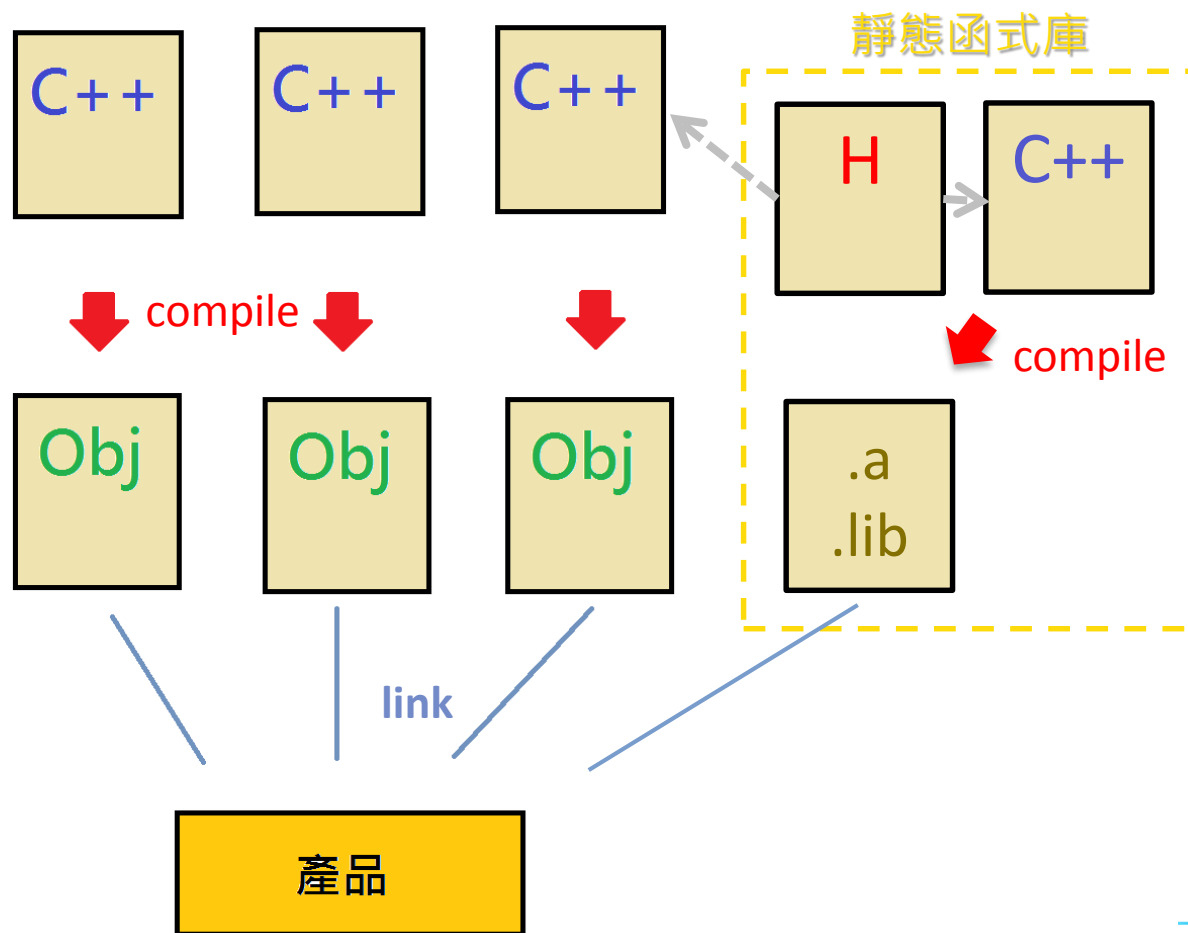
或許算比較難的方法

PDCurses安裝 - 手動編譯原始檔



如何分工寫完成程式

- 大程式的製作方式是這樣的：



手動編譯

- 如果你選擇下載Source Code

 demos ← 例題示範

 doc ← 說明文件

 dos

 os2

 pdccurses ← 重要的程式在這

 sdl1

 win32 ← For Windows

 x11 ← For Mac

 aclocal.m4

 config.guess

 config.h.in

 config.sub

 configure

 configure.ac

 curses.h ← 重要的header檔

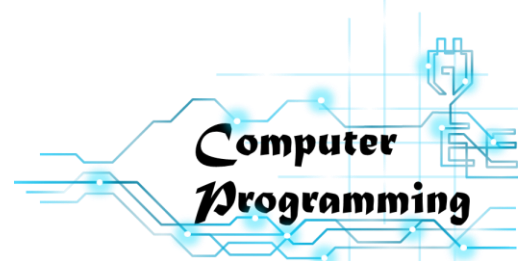
 curspriv.h

另外還有README
教你怎麼makefile

Looking for the latest version? [Download pdc25_vc_w32.zip \(156.6 kB\)](#)

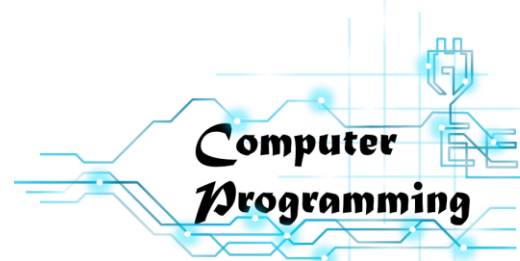
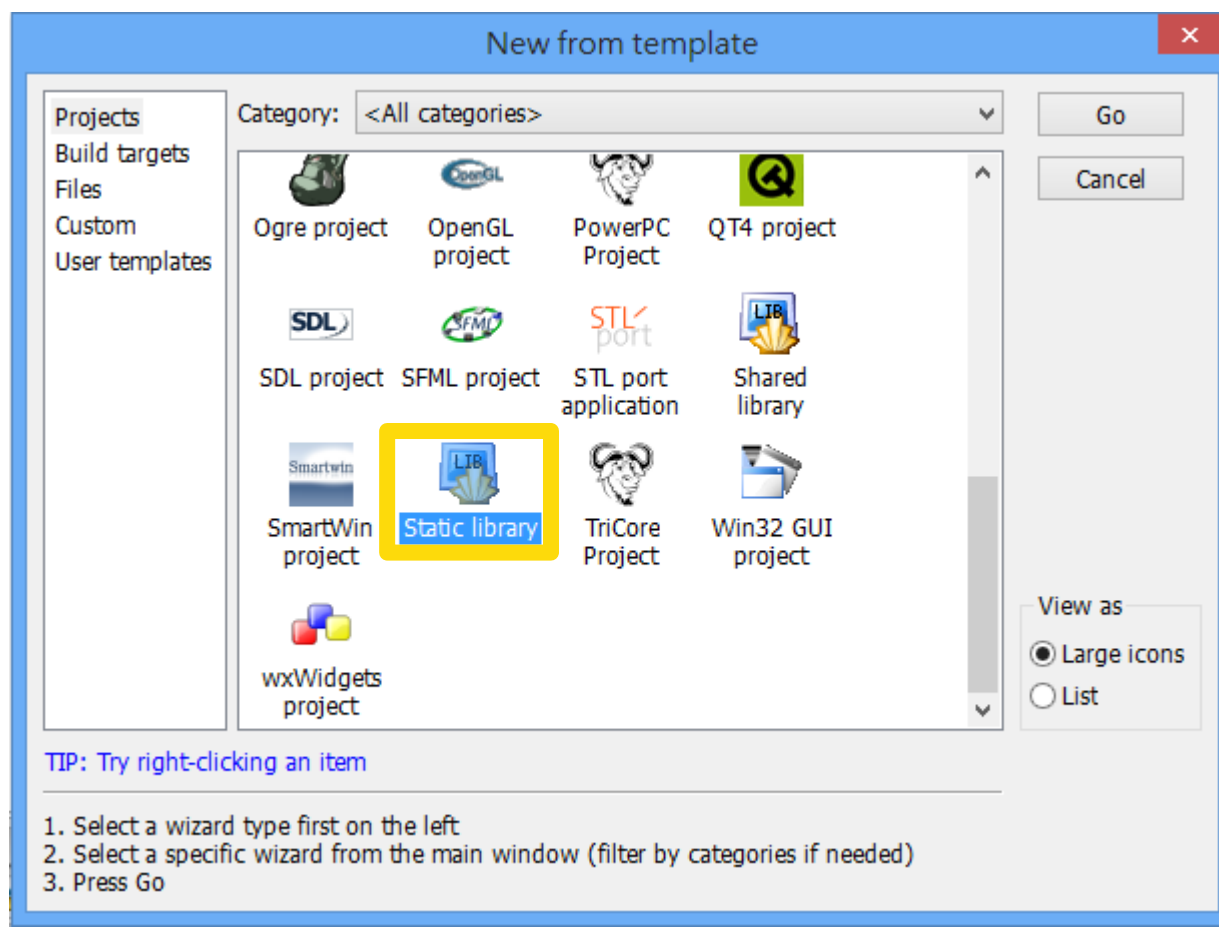
Home / pdccurses / 3.4

Name ▾	Modified ▾	Size ▾	Downloads ▾	
↑ Parent folder				
pdc34dllw.zip	2008-09-09	86.9 kB	107	i
pdc34dllu.zip	2008-09-09	86.6 kB	11	i
pdc34dlls.zip	2008-09-09	67.9 kB	12	i
pdc34dll.zip	2008-09-09	82.0 kB	10	i
pdcurs34.zip	2008-09-08	394.2 kB	77	i
PDCurses-3.4.tar.gz	2008-09-08	331.3 kB	80	i
Totals: 6 Items		1.0 MB	297	



手動編譯

- 如果你跟我一樣不會用makefile QQ...
 - 可以照下列步驟在Code::Blocks建立靜態函式庫(static library)



手動編譯 – Code::Blocks Lib

- 把需要用到的程式碼加進來

The screenshot shows the Code::Blocks IDE interface. The 'Management' panel on the left displays the project structure for 'pdc_lib_test'. The 'Sources' folder contains the 'pdcurses' and 'win32' subfolders. The 'Headers' folder contains the 'win32' subfolder. The 'Files' panel on the right lists the files in the project, including 'demos', 'doc', 'dos', 'os2', 'pdcurses', 'sdl1', 'win32', 'x11', 'aclocal.m4', 'config.guess', 'config.h.in', 'config.sub', 'configure', 'configure.ac', 'curses.h', and 'curspriv.h'. The 'curses.h' and 'curspriv.h' files are highlighted in blue. The 'win32' folder is highlighted in green. The 'pdcurses' folder is highlighted in blue. The 'curses.h' and 'curspriv.h' files are highlighted in blue. The 'win32' folder is highlighted in green. The 'pdcurses' folder is highlighted in blue. The 'curses.h' and 'curspriv.h' files are highlighted in blue.

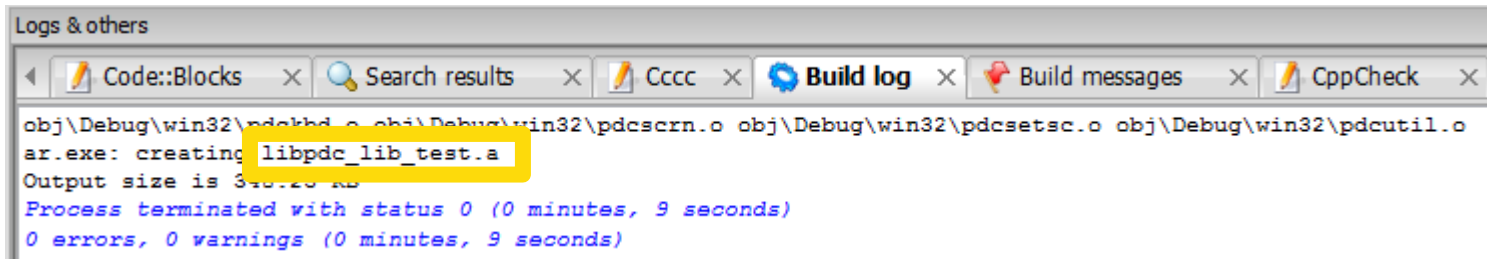
pdccurses裡面每個.c檔都加進來

你的作業系統資料夾內，每個.c, .h檔也都要加進來

每個header檔都要加過來x4

手動編譯 – Code::Blocks Lib

- Build



The screenshot shows the 'Build log' window in Code::Blocks. The window title bar includes tabs for 'Code::Blocks', 'Search results', 'Cccc', 'Build log', 'Build messages', and 'CppCheck'. The log content shows the compilation of several object files and the creation of a static library. The text 'libpdc_lib_test.a' is highlighted with a yellow box. The output size is 348.28 KB, and the process terminated successfully with status 0 in 9 seconds, with no errors or warnings.

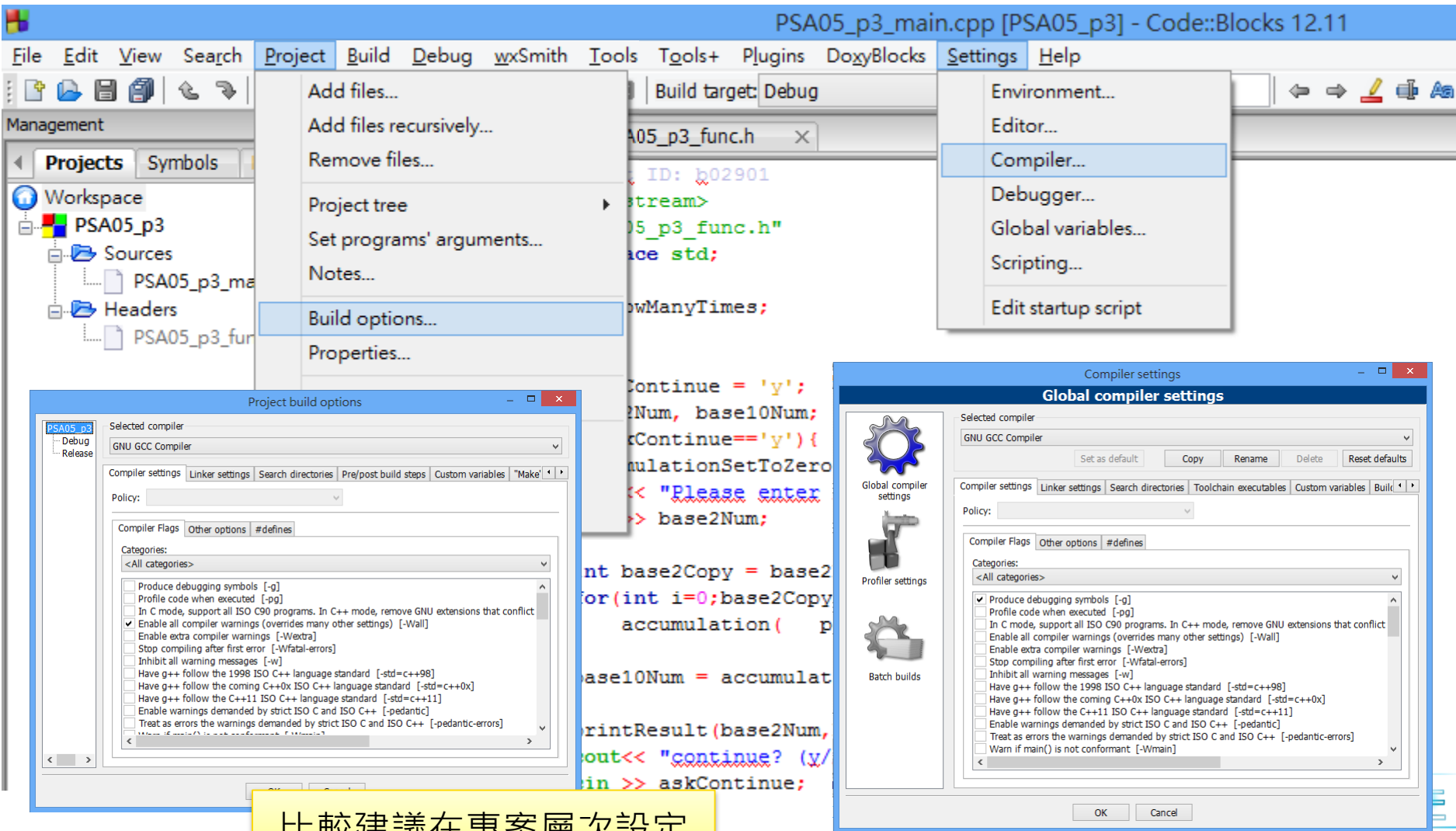
```
Logs & others
Code::Blocks x Search results x Cccc x Build log x Build messages x CppCheck x
obj\Debug\win32\pdc_kbd.o obj\Debug\win32\pdcscrn.o obj\Debug\win32\pdcsetsc.o obj\Debug\win32\pdcutil.o
ar.exe: creating libpdc_lib_test.a
Output size is 348.28 KB
Process terminated with status 0 (0 minutes, 9 seconds)
0 errors, 0 warnings (0 minutes, 9 seconds)
```



更詳細的C::B設定教學



Code::Blocks有三個層次設定Compiler



比較建議在專案層次設定

```
1 // My student ID: b02901
2 #include <iostream>
3 #include "PSA05_p3_func.h"
4 using namespace std;
5
6 extern int howManyTimes;
7
8 int main() {
9     char askContinue = 'y';
10    int base2Num, base10Num;
11    ...
12
```

用<>與用" "有甚麼區別?

你也可以手動加其他路徑

A:

用<>表示去"特別的"目錄搜尋，通常是系統目錄之類的地方。

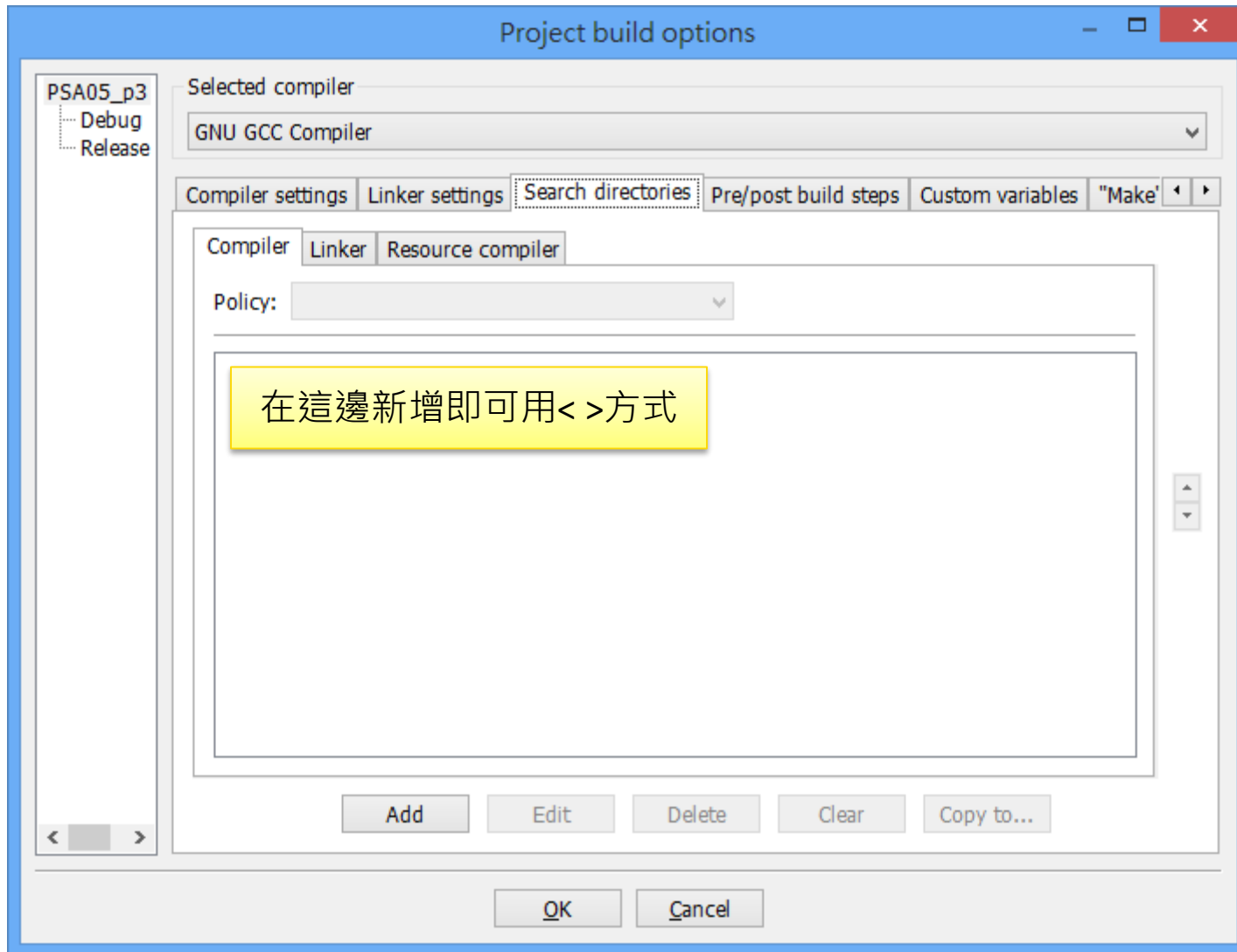
(Code::Blocks安裝的時候設定好的)

如:C:\Program Files (x86)\CodeBlocks\MinGW\lib\gcc\mingw32\4.7.1\include\c++(iostream放在這裡)

而" "表示在這個目錄下去搜尋(可以是相對位置或絕對位置)

沒有寫資料夾表示目前的資料夾，
../表示上一層，
dirName/則會進入dirName資料夾

設定include目錄



Using PDCurses library

方法一: 下載PDCurses的lib

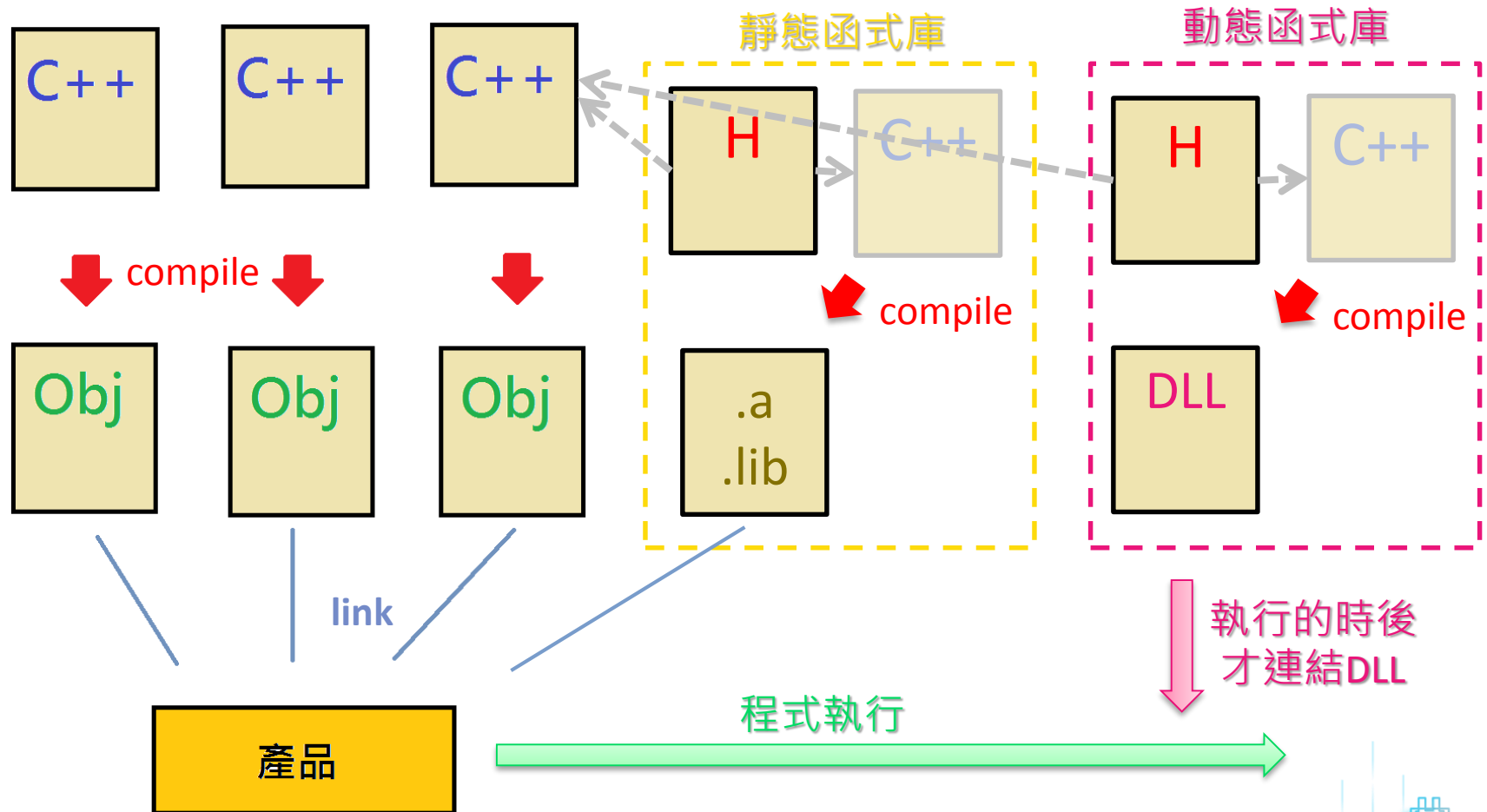


載好檔案之後

- 觀察一下...

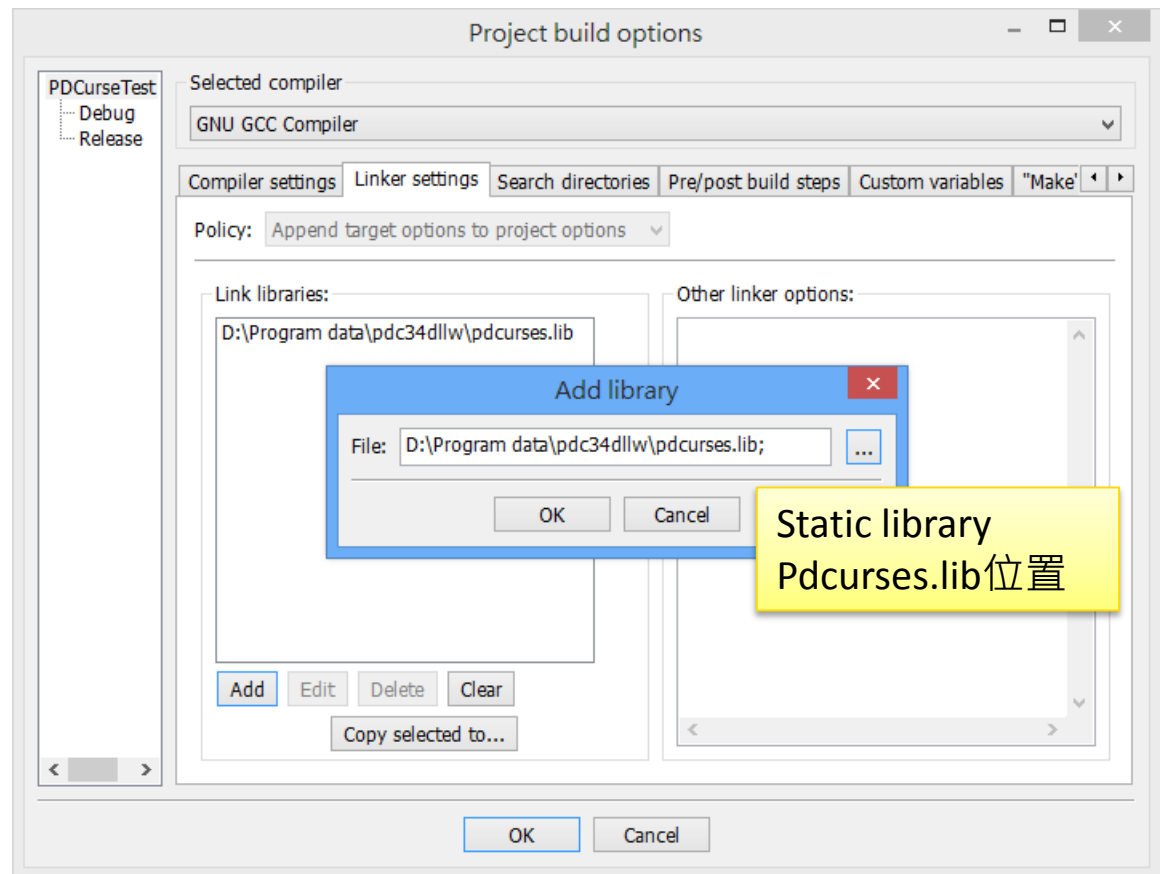
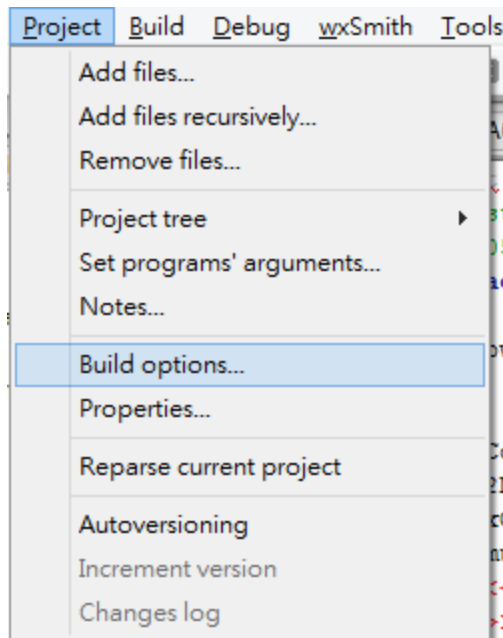


如何分工寫完成程式



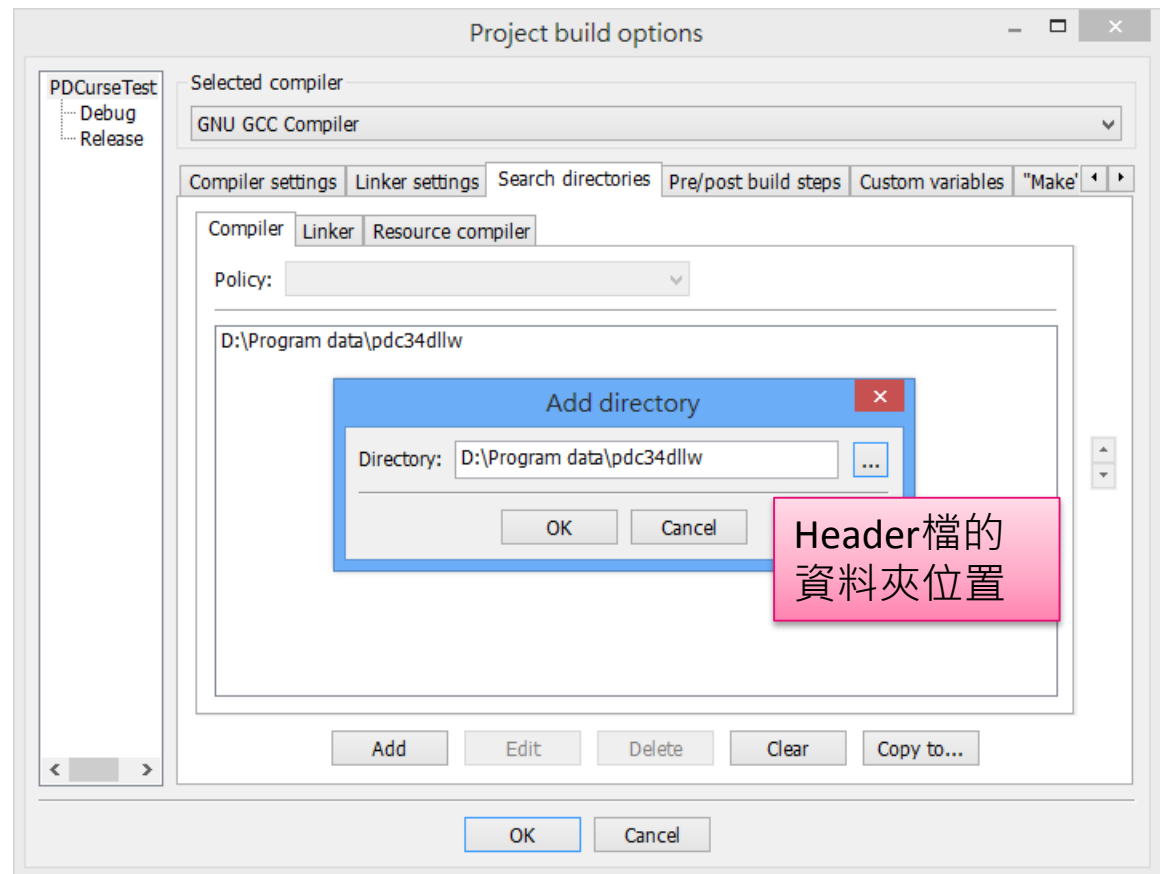
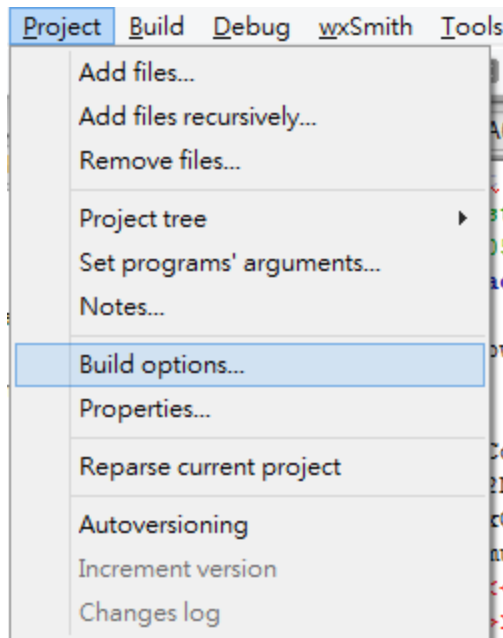
設定專案使用PDCurses

- 跟之前一樣建好專案以後...
(其實不建專案也是可以自己設定然後使用...)
- 到Build Option



設定專案使用PDCurses

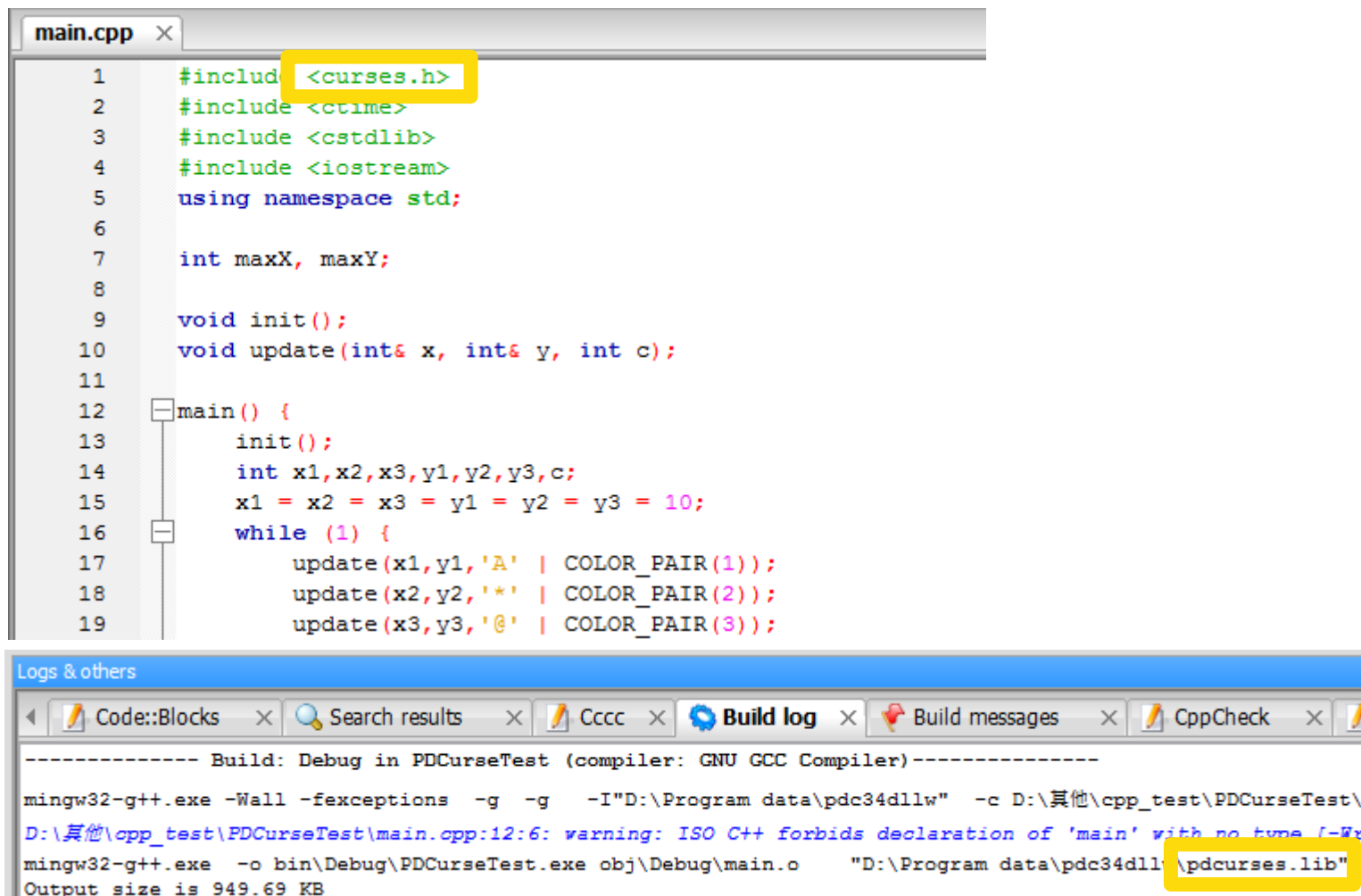
- 跟之前一樣建好專案以後...
(其實不建專案也是可以自己設定然後使用...)
- 到Build Option



Header檔的
資料夾位置

設定專案使用PDCurses

- 然後就可以正常Build了\^o^/



The screenshot displays a code editor window with a file named `main.cpp`. The code includes headers for `<courses.h>`, `<ctime>`, `<cstdlib>`, and `<iostream>`, and uses the `std` namespace. It defines `maxX` and `maxY` variables, and functions `init()` and `update(int& x, int& y, int c)`. The `main()` function calls `init()`, initializes variables `x1, x2, x3, y1, y2, y3, c` to 10, and enters a `while (1)` loop that calls `update` with characters 'A', '*', and '@' and their respective color pairs.

Below the code editor is a "Logs & others" window showing the build process. The build is for a debug configuration in a project named `PDCurseTest` using the `GNU GCC Compiler`. The command line shows the compiler flags and the path to the `pdcurses.lib` library, which is highlighted with a yellow box. A warning message is also visible: "warning: ISO C++ forbids declaration of 'main' with no type [-Werror]".

```
1  #include <courses.h>
2  #include <ctime>
3  #include <cstdlib>
4  #include <iostream>
5  using namespace std;
6
7  int maxX, maxY;
8
9  void init();
10 void update(int& x, int& y, int c);
11
12 main() {
13     init();
14     int x1, x2, x3, y1, y2, y3, c;
15     x1 = x2 = x3 = y1 = y2 = y3 = 10;
16     while (1) {
17         update(x1, y1, 'A' | COLOR_PAIR(1));
18         update(x2, y2, '*' | COLOR_PAIR(2));
19         update(x3, y3, '@' | COLOR_PAIR(3));
20     }
21 }
```

Build: Debug in PDCurseTest (compiler: GNU GCC Compiler)-----
mingw32-g++.exe -Wall -fexceptions -g -g -I"D:\Program data\pdc34dllw" -c D:\其他\cpp_test\PDCurseTest\main.cpp:12:6: warning: ISO C++ forbids declaration of 'main' with no type [-Werror]
mingw32-g++.exe -o bin\Debug\PDCurseTest.exe obj\Debug\main.o "D:\Program data\pdc34dllw\pdcurses.lib"
Output size is 949.69 KB

設定專案使用PDCurses

- 然後就可以正常Build了\^o^/



The screenshot shows a C++ IDE with a file named `main.cpp`. The code includes headers `<curses.h>`, `<ctime>`, `<cstdlib>`, and `<iostream>`, and uses the `std` namespace. It defines `maxX` and `maxY`, and implements `init()`, `update()`, and `main()`. The `main()` function calls `init()`, initializes variables, and enters a `while` loop that calls `update()` with different characters and colors.

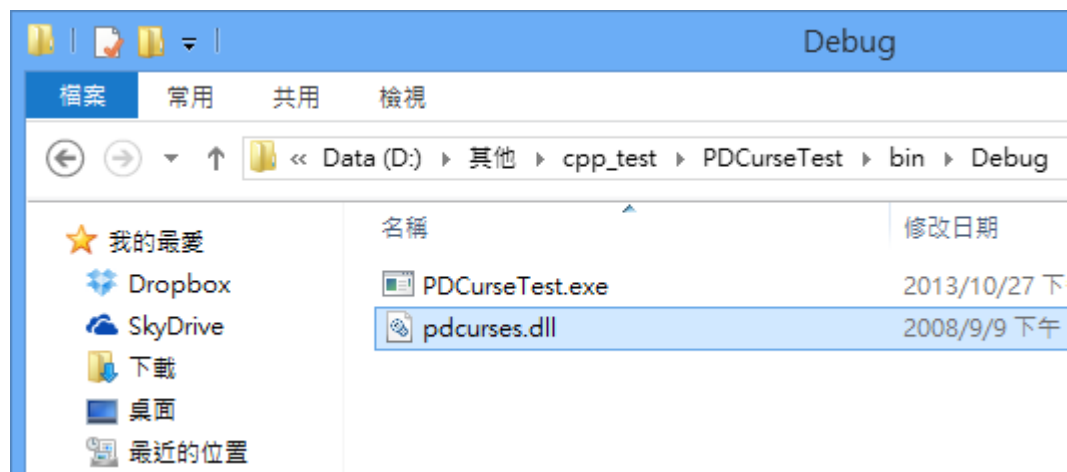
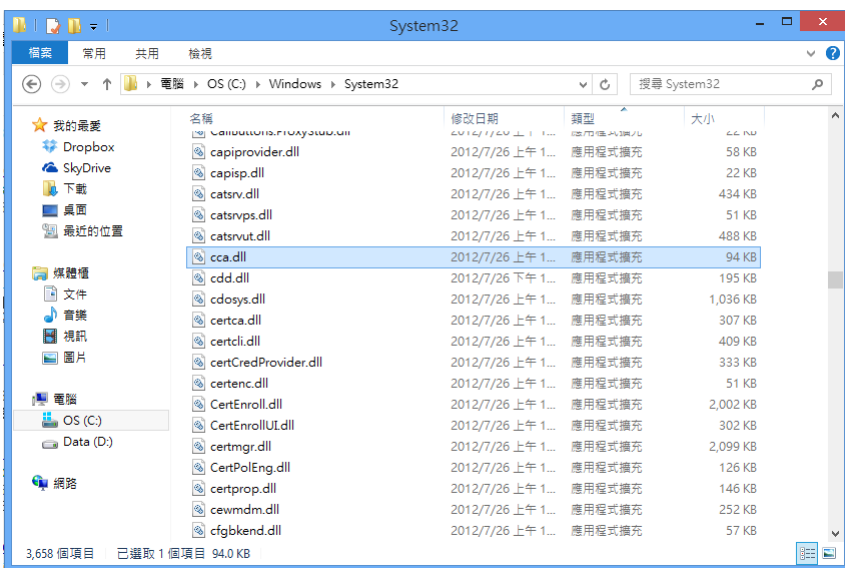
A large red "BUT!!!" is overlaid on the code. A system error dialog box titled "PDCurseTest.exe - 系統錯誤" is displayed, stating: "無法啟動程式，因為您的電腦遺失 pdcurses.dll。請嘗試重新安裝以修正這個問題。" (Cannot start the program because your computer is missing pdcurses.dll. Please try reinstalling to fix this problem.)

A green text box explains: "我們還沒設定好 Dynamic link library (在程式運作的時候才需要)" (We haven't set up the Dynamic link library (needed when the program runs)).

The bottom of the image shows the "Logs & others" window. The "Build log" tab is active, showing the build process using the GNU GCC Compiler. The output includes the command: `mingw32-g++.exe -Wall -fexceptions -g -g -I"D:\Program data\pdc34dllw" -c D:\其他\cpp_test\PDCurseTest\main.cpp`. A warning is shown: "warning: ISO C++ forbids declaration of 'main' with no type [-Werror]". The linker command is also visible: `mingw32-g++.exe -o bin\Debug\PDCurseTest.exe obj\Debug\main.o "D:\Program data\pdc34dll\pdcurses.lib"`. The output size is 949.69 KB.

使用DLL

- 法一: 你當然也可以永久安裝它
 - C:\Windows\System32 極度的不推薦!!!



- 法二: 放在.exe檔旁邊就好了



終於可以動了~

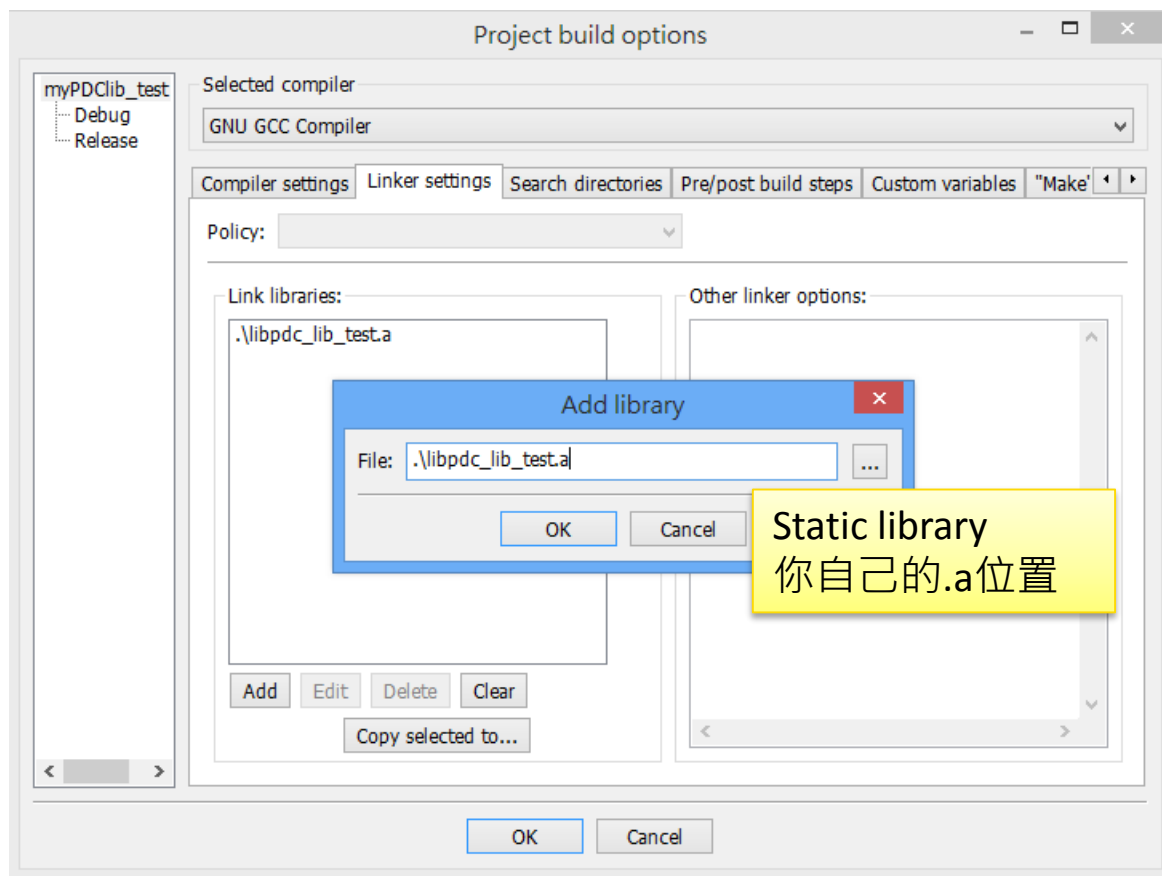
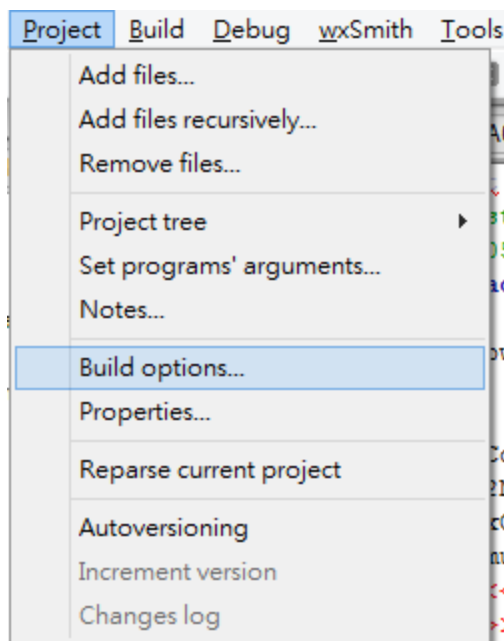


Using PDCurses library
方法二：用剛剛自己手動編的static lib



設定專案使用PDCurses

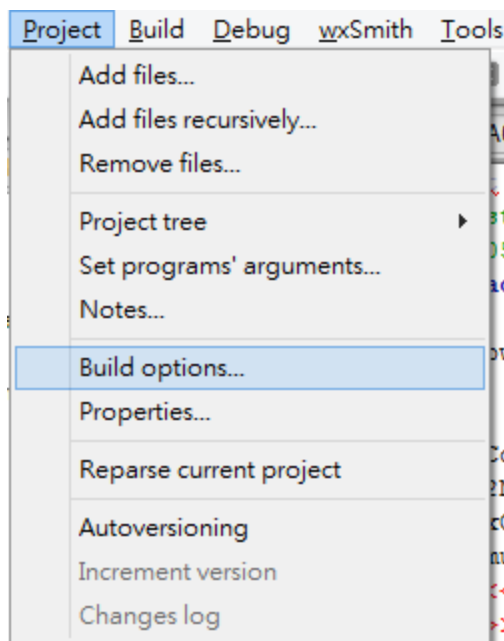
- 跟之前一樣建好專案以後...
(其實不建專案也是可以自己設定然後使用...)
- 到Build Option



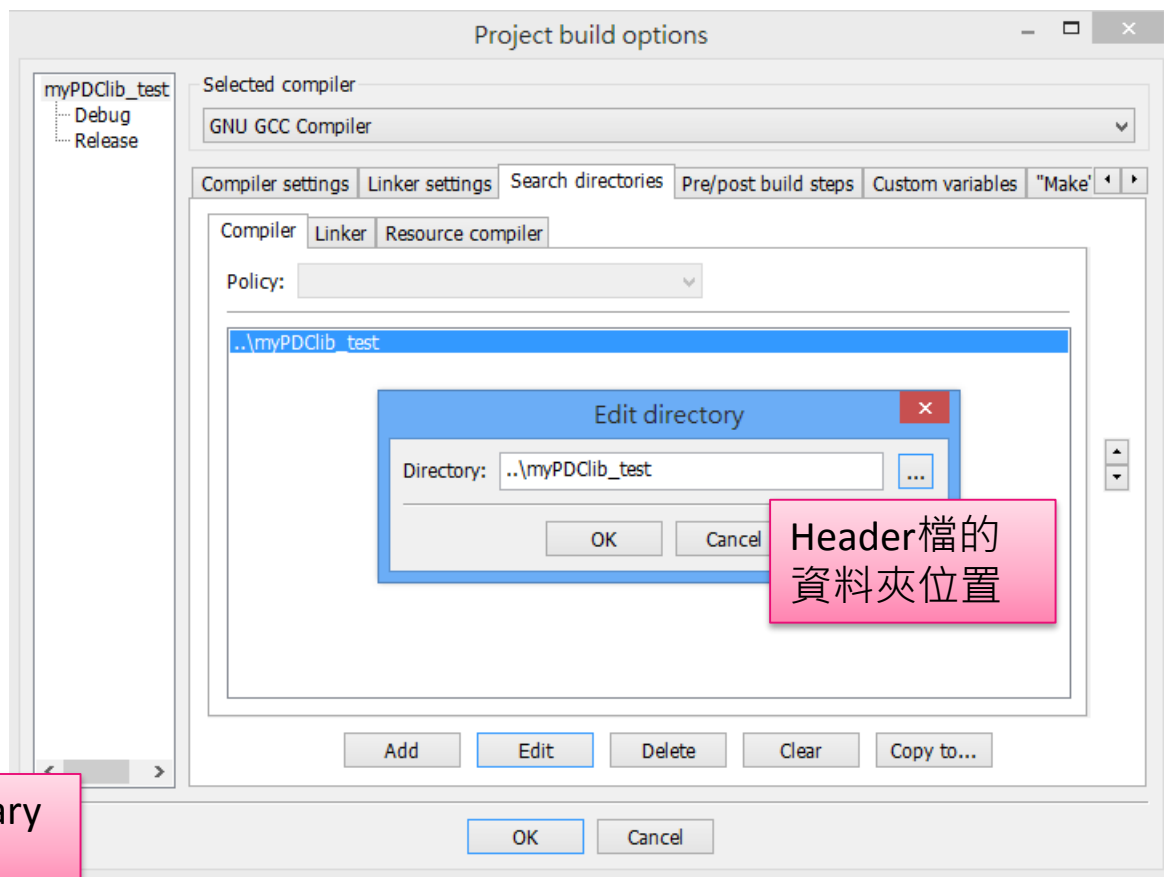
Static library
你自己的.a位置

設定專案使用PDCurses

- 跟之前一樣建好專案以後...
(其實不建專案也是可以自己設定然後使用...)
- 到Build Option



如果你自己只有建static library
就不用管DLL之類的東西了



Header檔的
資料夾位置

Better ask twice than lose you way once.

Q&A

