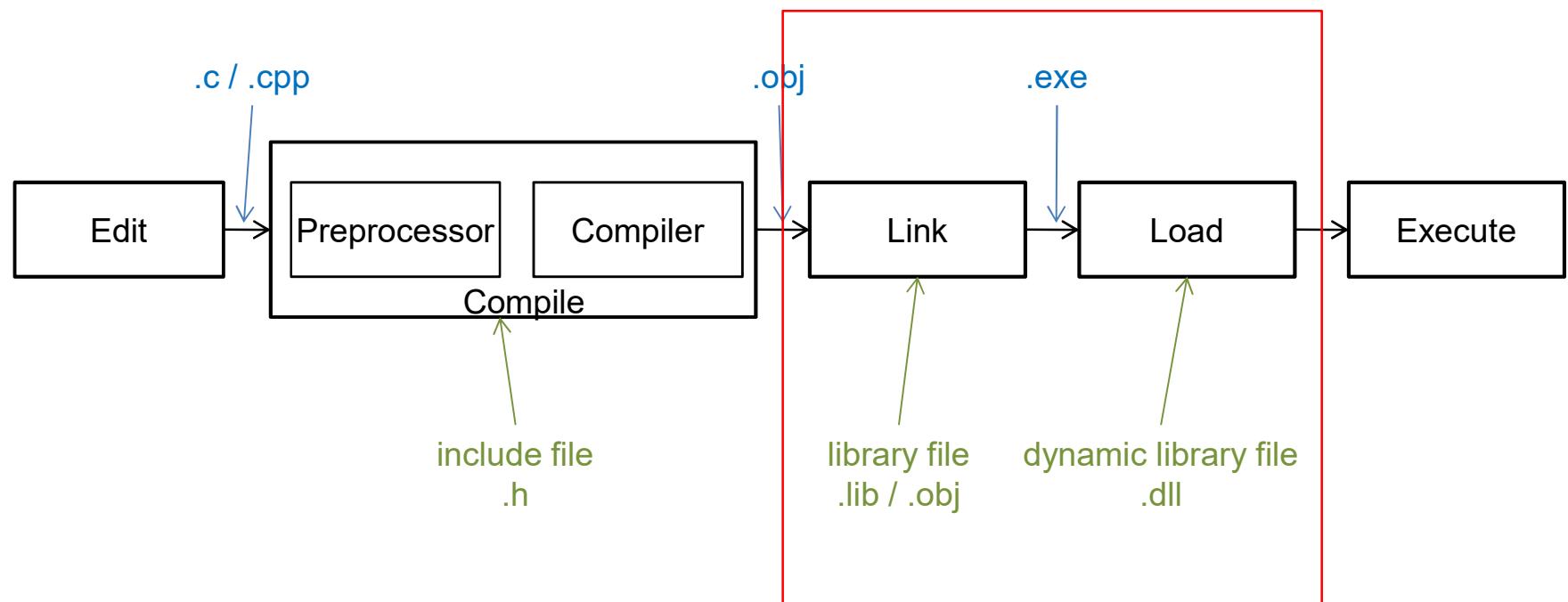


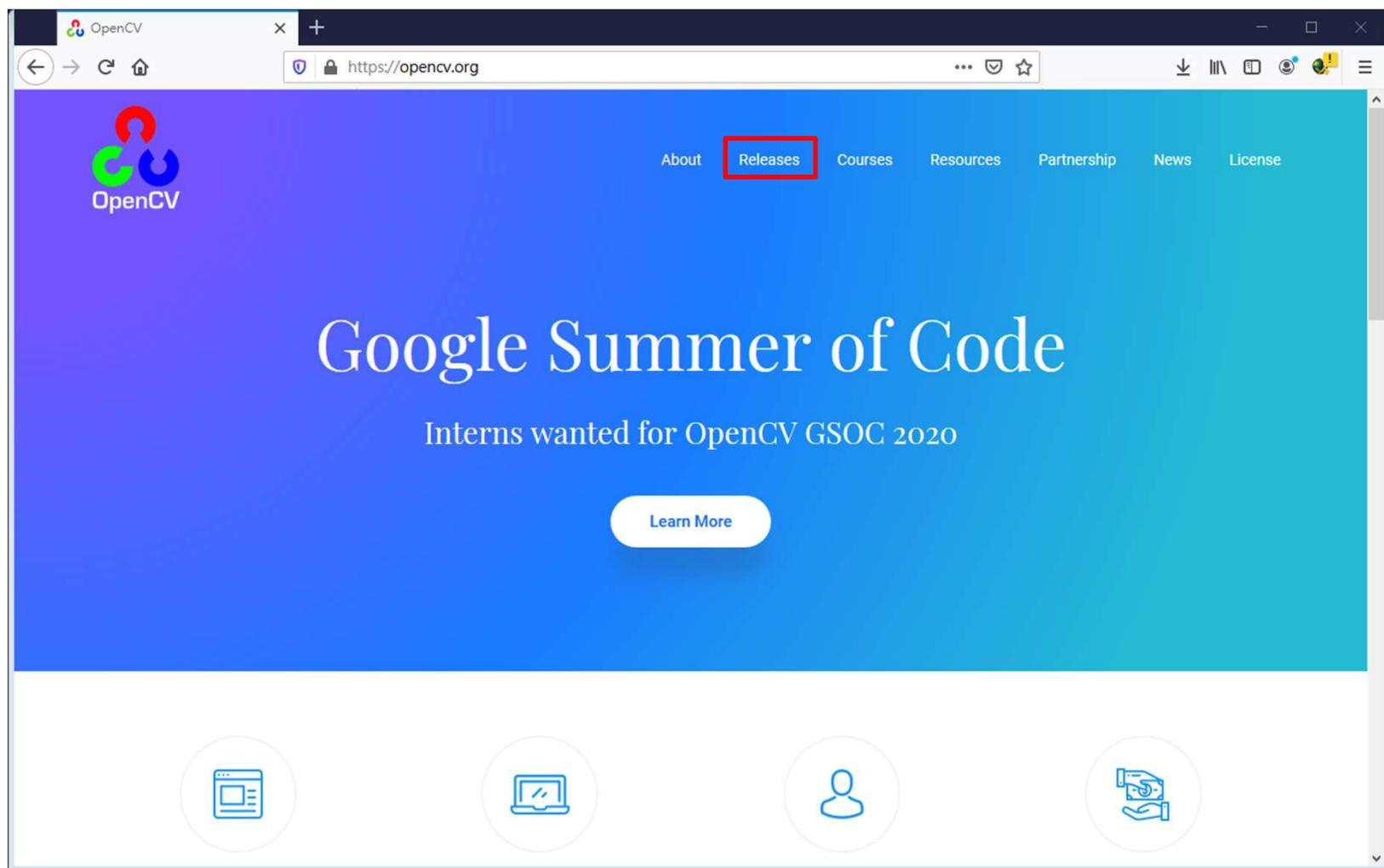
OpenCV 2.4.13



需要的軟體

- QT
 - 含mingw32/mingw64
- Cmake
 - 產生makefile
- OpenCv
 - 或是你所需要的open source

下載OpenCV



<http://www.opencv.org/>

Releases – Page 2

https://opencv.org/releases/page/2/

OpenCV

About Releases Courses Resources Partnership News License

Releases

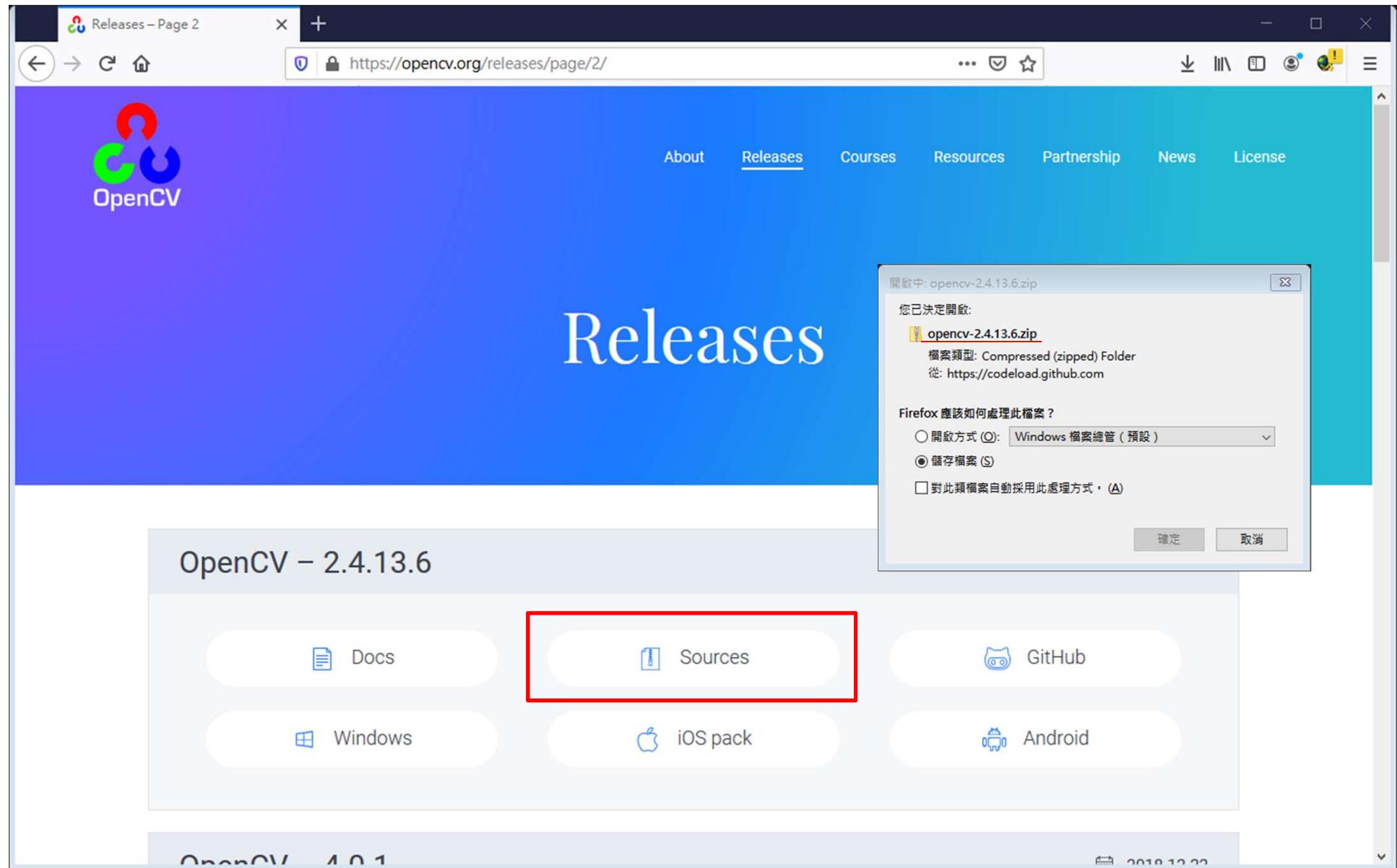
OpenCV – 2.4.13.6 2019-02-26

Docs Sources GitHub

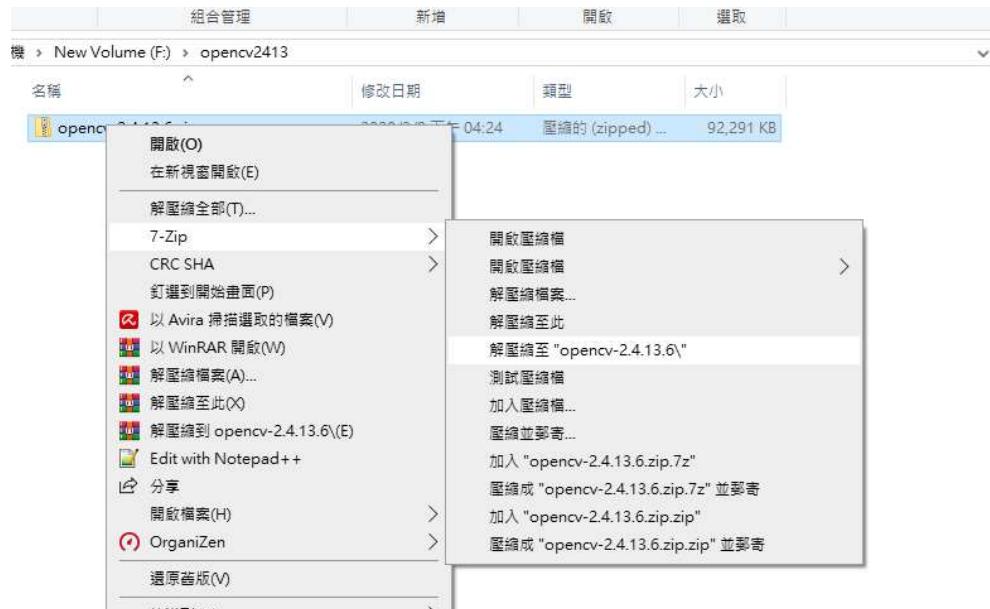
Windows iOS pack Android

OpenCV 4.0.1 2019-12-22

The screenshot shows a web browser displaying the OpenCV releases page. The main title is 'Releases'. A specific release card for 'OpenCV – 2.4.13.6' from '2019-02-26' is highlighted with a red border. The card contains links for 'Docs', 'Sources', 'GitHub', 'Windows', 'iOS pack', and 'Android'. At the bottom of the page, there is a footer for 'OpenCV 4.0.1' dated '2019-12-22'.

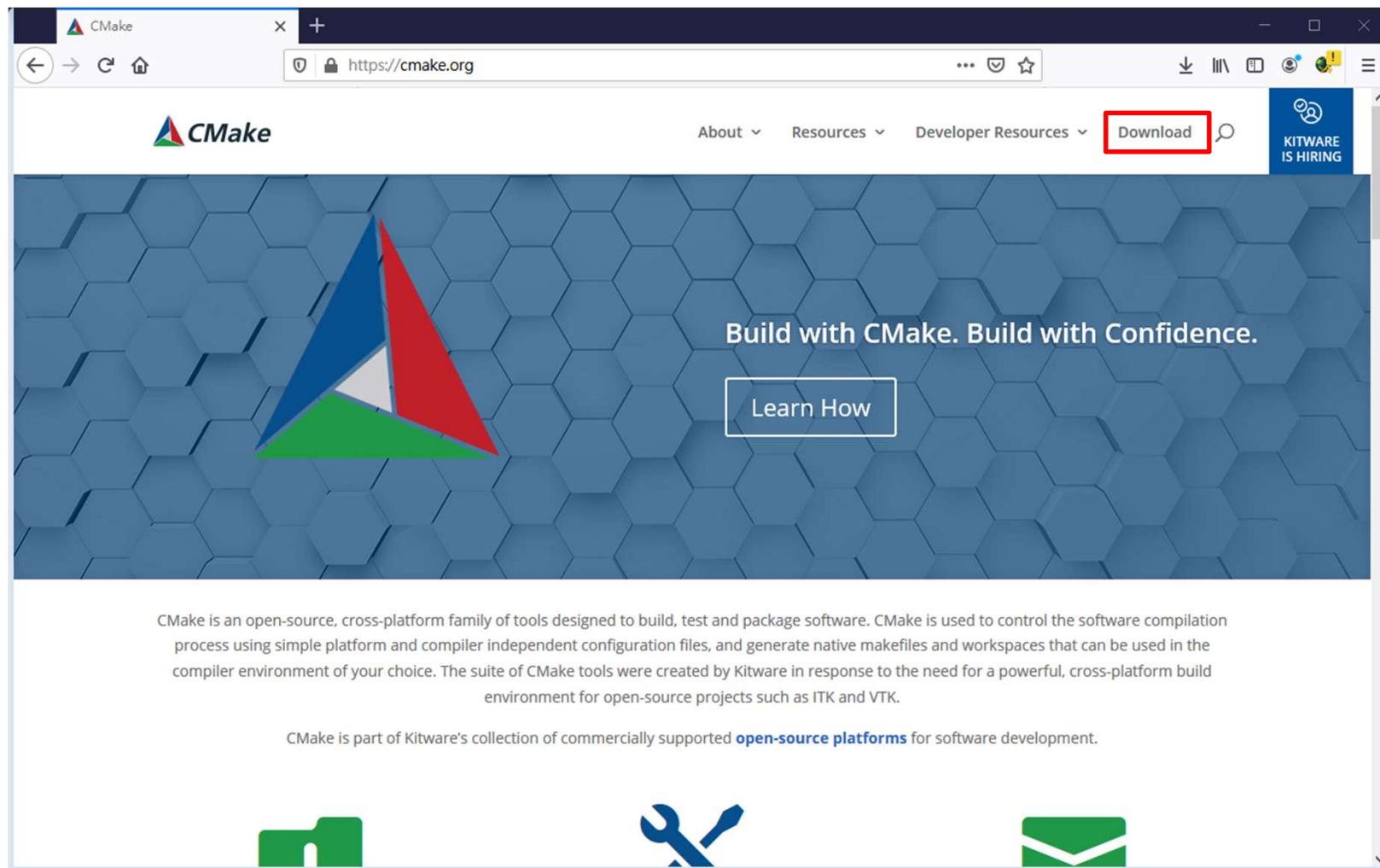


存在一個專屬的資料夾並且解壓縮



名稱	修改日期	類型	大小
3rdparty	2018/2/22 上午 02:27	檔案資料夾	
apps	2018/2/22 上午 02:27	檔案資料夾	
cmake	2018/2/22 上午 02:27	檔案資料夾	
data	2018/2/22 上午 02:27	檔案資料夾	
doc	2018/2/22 上午 02:27	檔案資料夾	
include	2018/2/22 上午 02:27	檔案資料夾	
modules	2018/2/22 上午 02:27	檔案資料夾	
platforms	2018/2/22 上午 02:27	檔案資料夾	
samples	2018/2/22 上午 02:27	檔案資料夾	
.tgitconfig	2018/2/22 上午 02:27	TGITCONFIG 檔案	1 KB
CMakeLists.txt	2018/2/22 上午 02:27	文字文件	50 KB
CONTRIBUTING.md	2018/2/22 上午 02:27	MD 檔案	1 KB
index.rst	2018/2/22 上午 02:27	RST 檔案	1 KB
LICENSE	2018/2/22 上午 02:27	檔案	2 KB
README.md	2018/2/22 上午 02:27	MD 檔案	1 KB

下載CMake



<http://www.cmake.org/>

The screenshot shows a web browser window displaying the CMake download page at <https://cmake.org/download/>. The page header includes the CMake logo, navigation links for About, Resources, Developer Resources, Download, and a search bar. A blue banner on the right side of the header says "KITWARE IS HIRING".

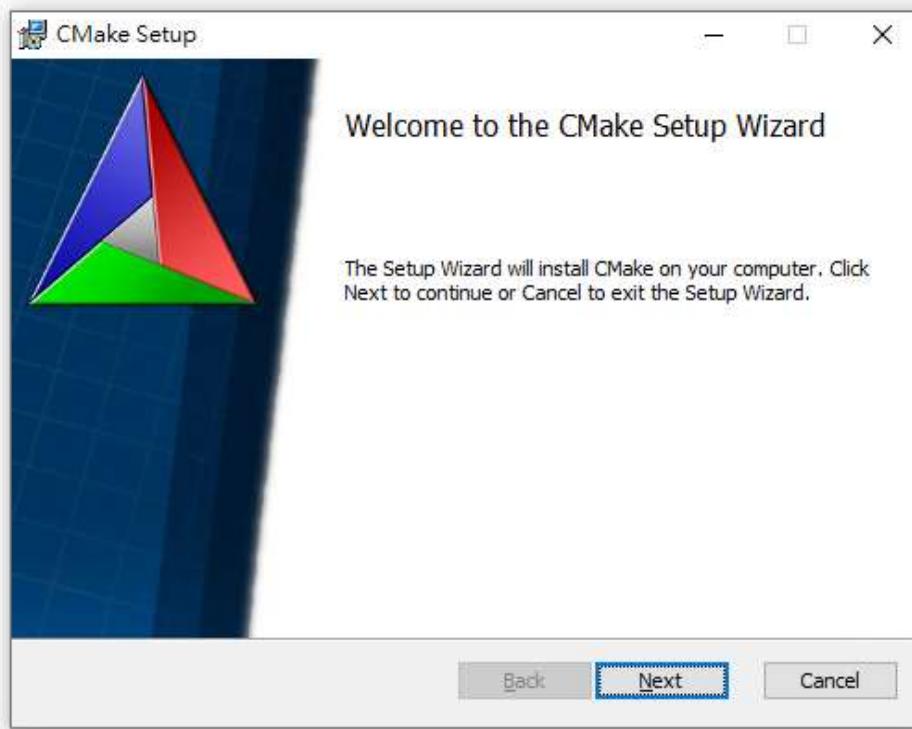
Release Candidate (3.17.0-rc2)

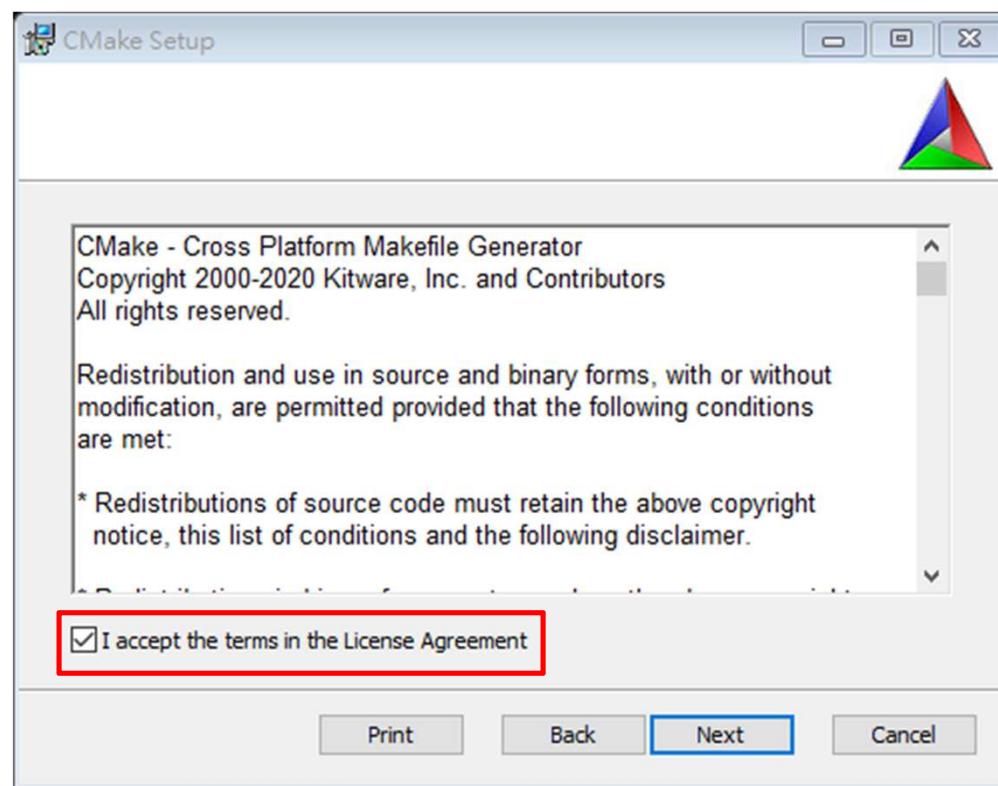
The release was packaged with CPack which is included as part of the release. The .sh files are self extracting gzipped tar files. To install a .sh file, run it with /bin/sh and follow the directions. The OS-machine.tar.gz files are gzipped tar files of the install tree. The OS-machine.tar.Z files are compressed tar files of the install tree. The tar file distributions can be untared in any directory. They are prefixed by the version of CMake. For example, the Linux-x86_64 tar file is all under the directory cmake-Linux-x86_64. This prefix can be removed as long as the share, bin, man and doc directories are moved relative to each other. To build the source distributions, unpack them with zip or tar and follow the instructions in Readme.txt at the top of the source tree. See also the [CMake 3.17 Release Notes](#). Source distributions:

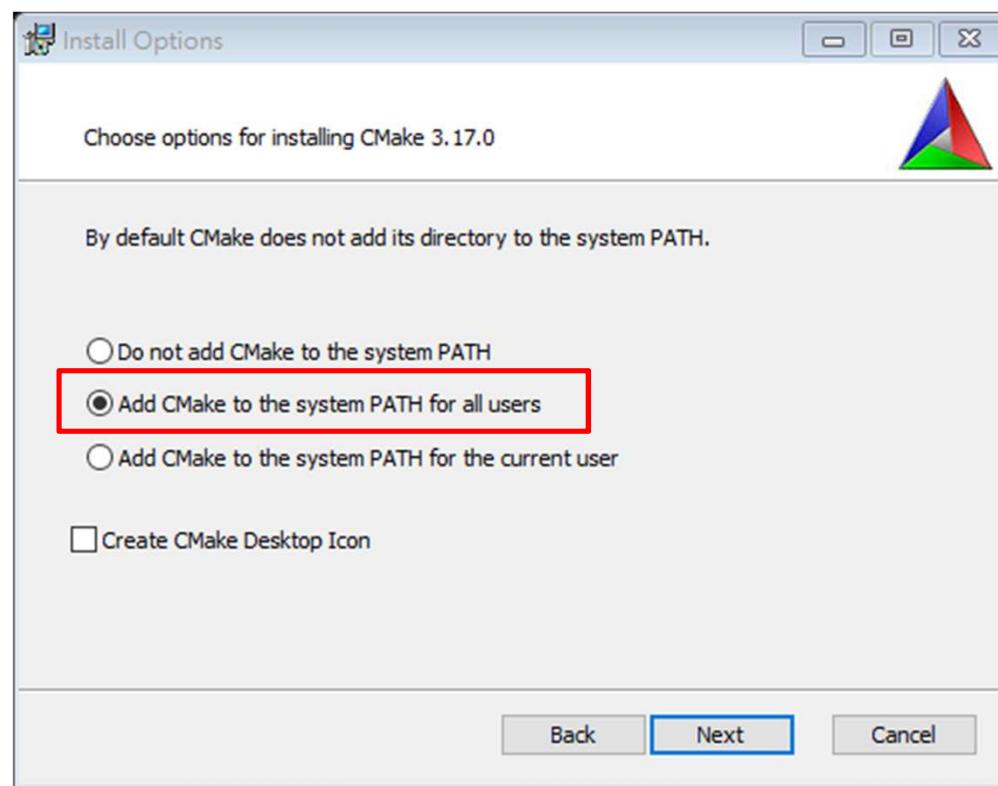
Platform	Files
Unix/Linux Source (has \n line feeds)	cmake-3.17.0-rc2.tar.gz cmake-3.17.0-rc2.tar.Z
Windows Source (has \r\n line feeds)	cmake-3.17.0-rc2.zip

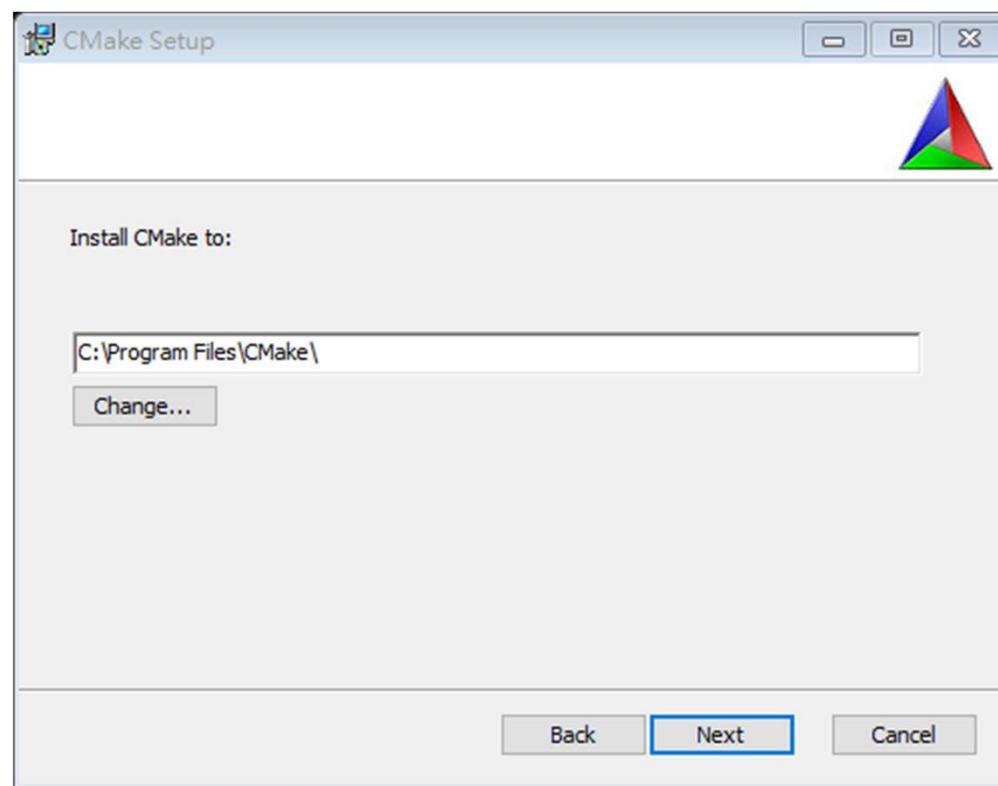
Binary distributions:

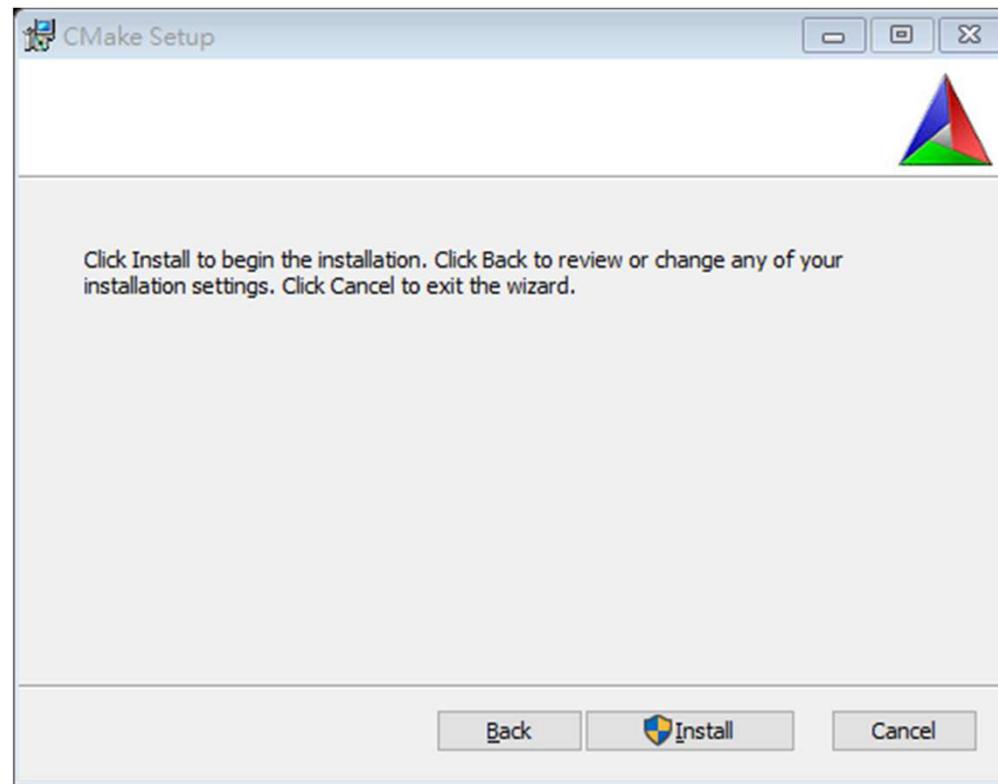
Platform	Files
Windows win64-x64 Installer: Installer tool has changed. Uninstall CMake 3.4 or lower first!	cmake-3.17.0-rc2-win64-x64.msi
Windows win64-x64 ZIP	cmake-3.17.0-rc2-win64-x64.zip
Windows win32-x86 Installer: Installer tool has changed. Uninstall CMake 3.4 or lower first!	cmake-3.17.0-rc2-win32-x86.msi
Windows win32-x86 ZIP	cmake-3.17.0-rc2-win32-x86.zip
Mac OS X 10.7 or later	cmake-3.17.0-rc2-Darwin-x86_64.dmg cmake-3.17.0-rc2-Darwin-x86_64.tar.gz

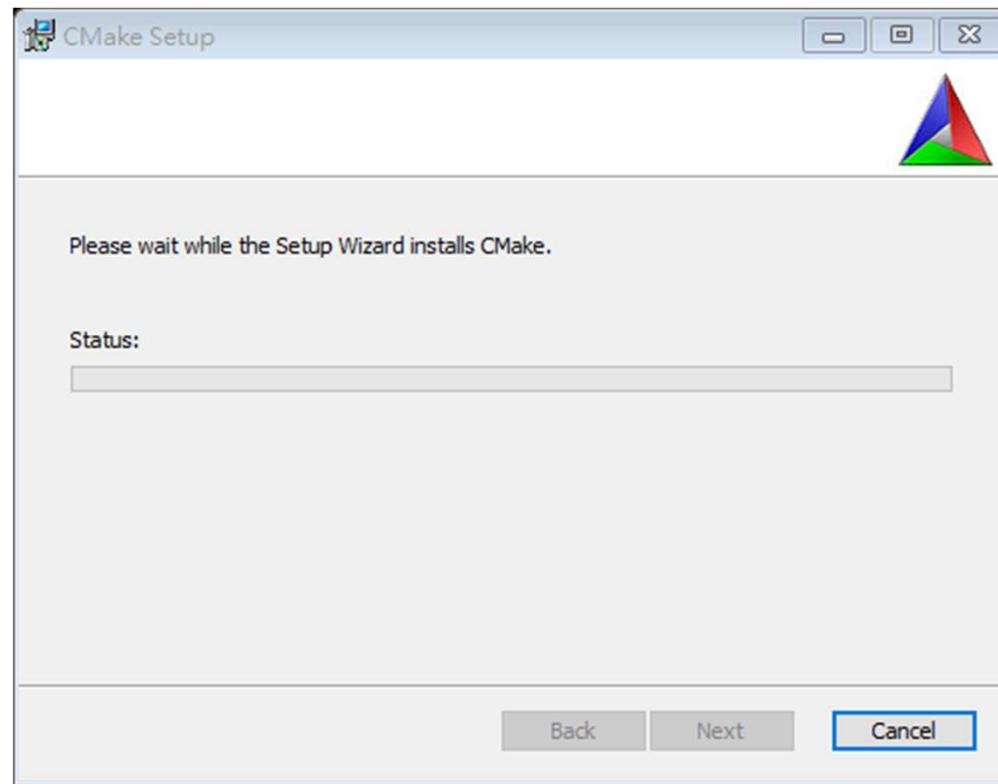


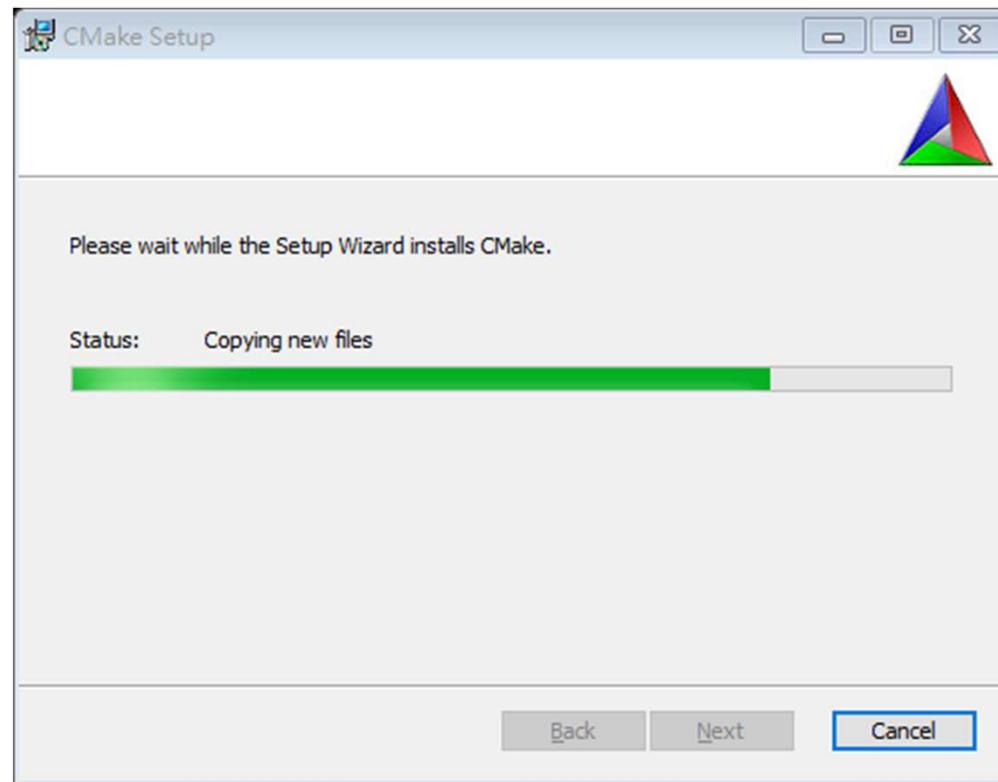


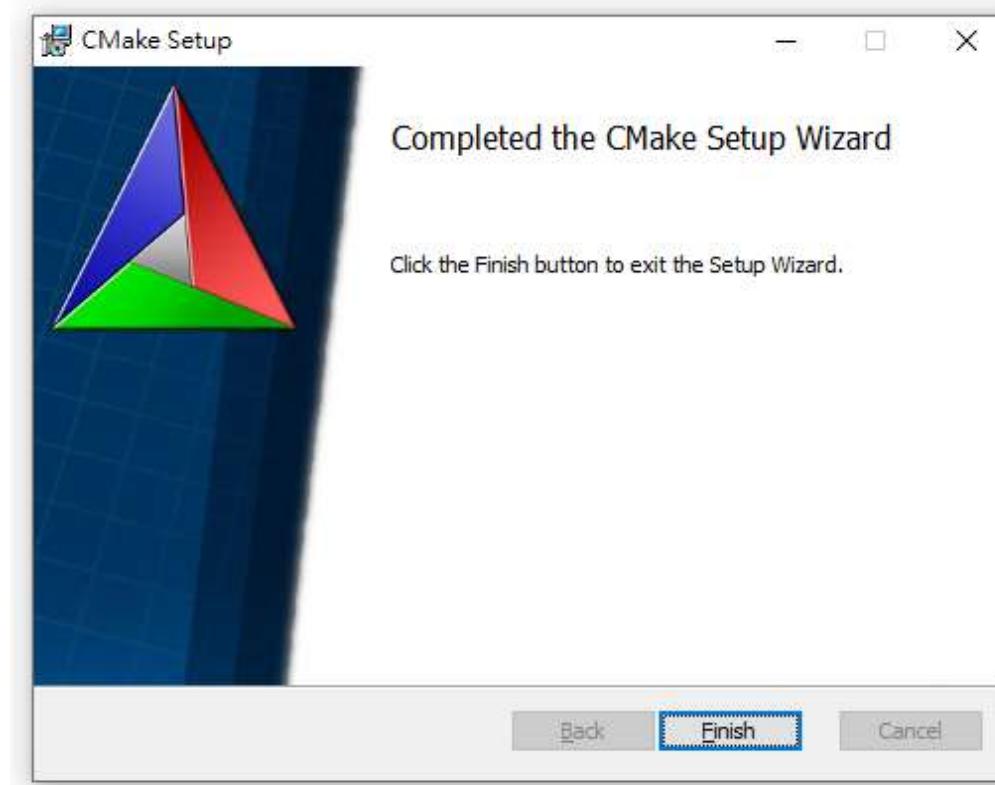












Compile OpenCV

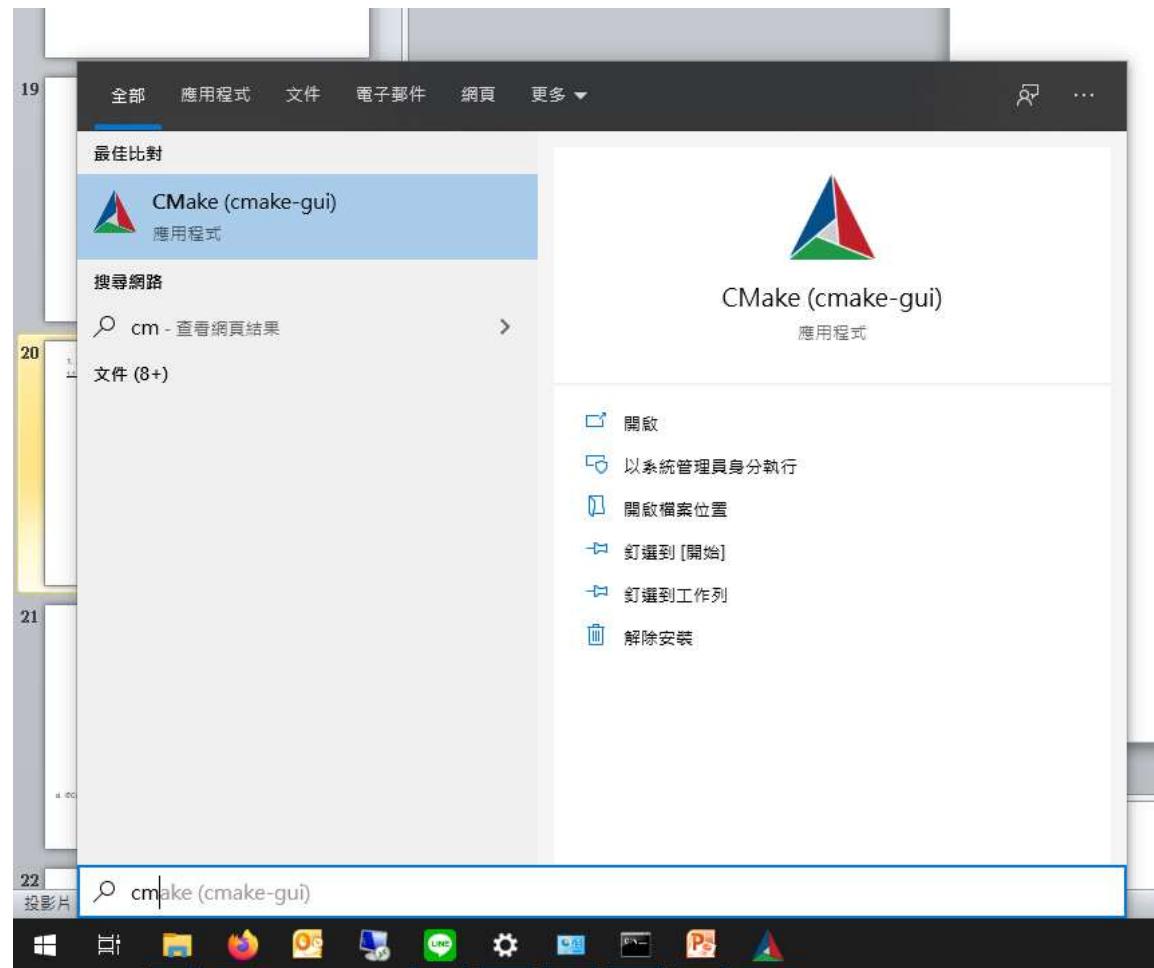
在剛剛解開opencv的資料夾當中再建立一個輸出用的資料夾



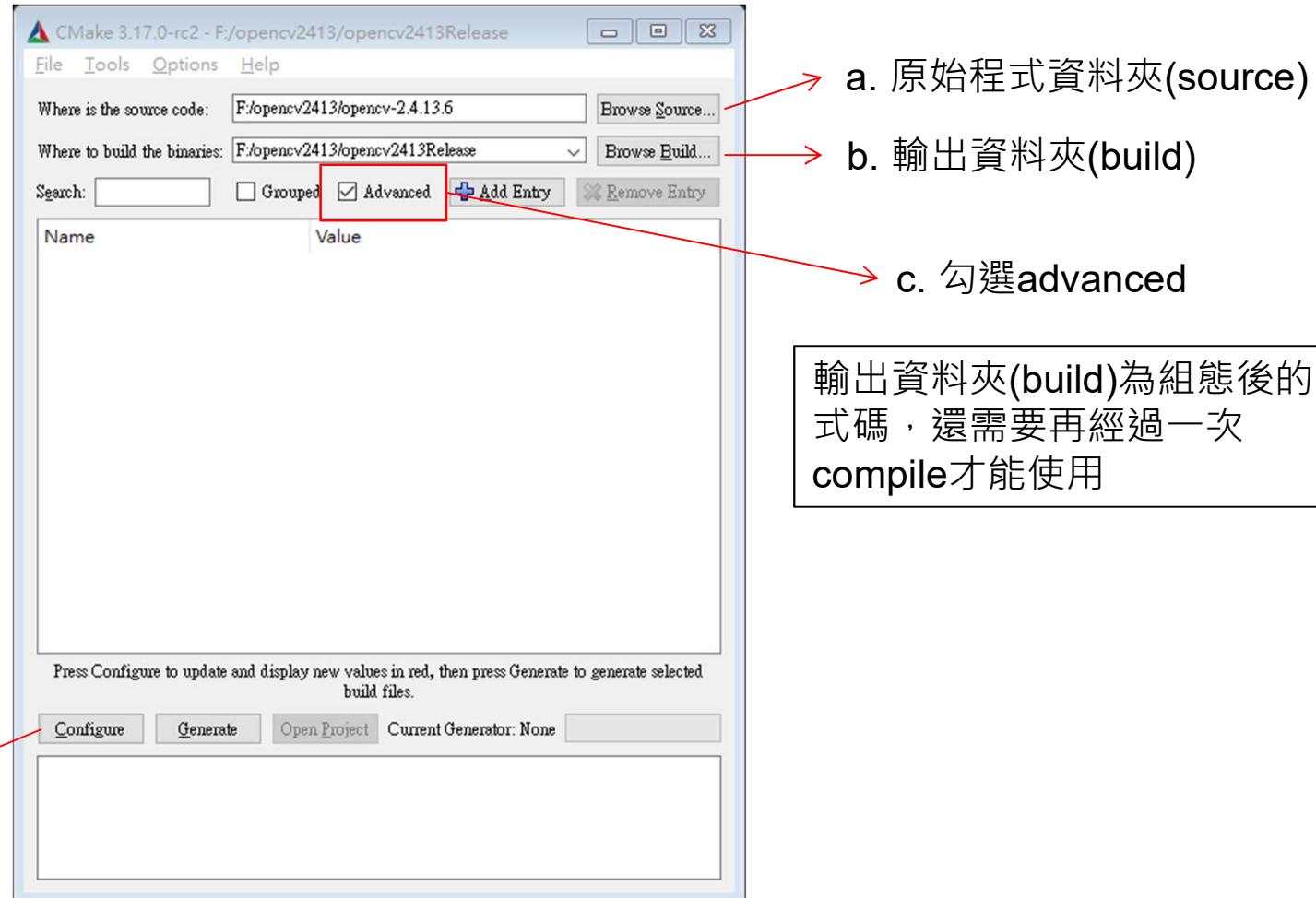
opencv2413Release

1. 產生make file

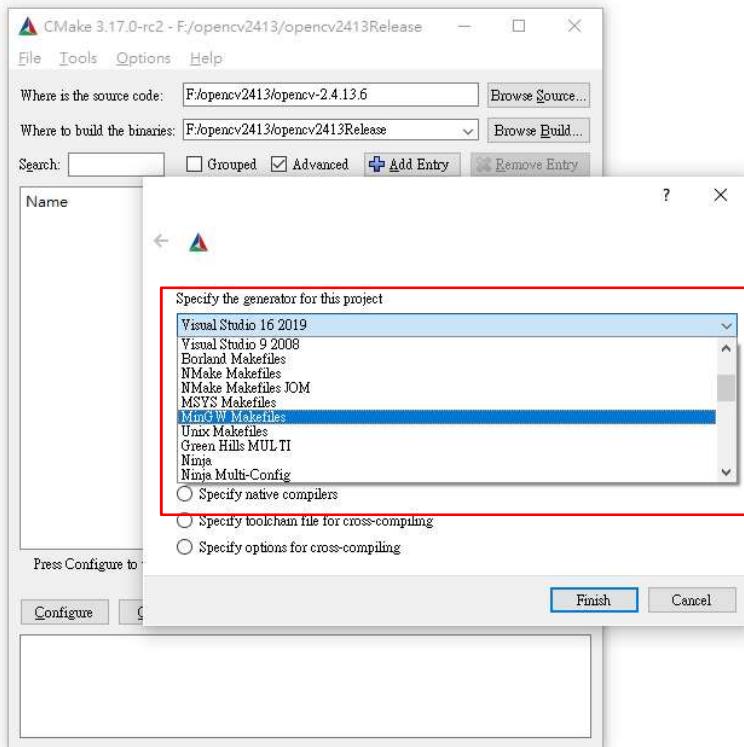
1.1 執行cmake



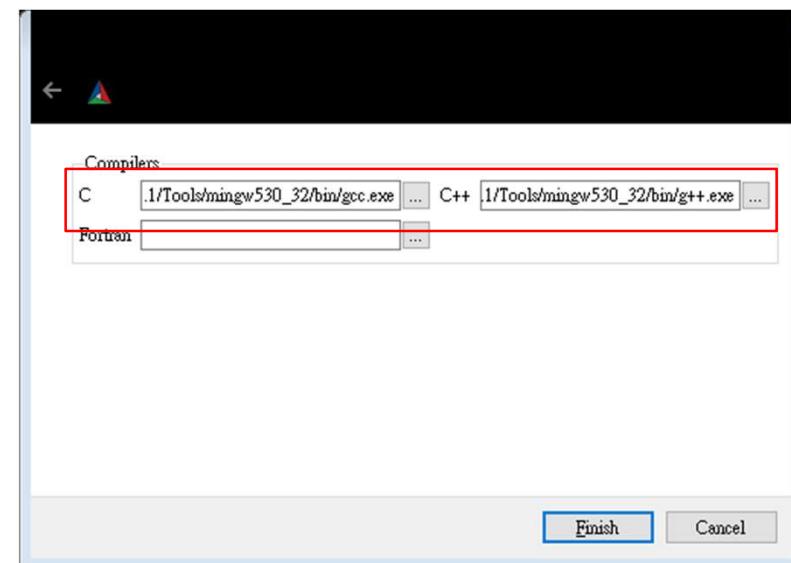
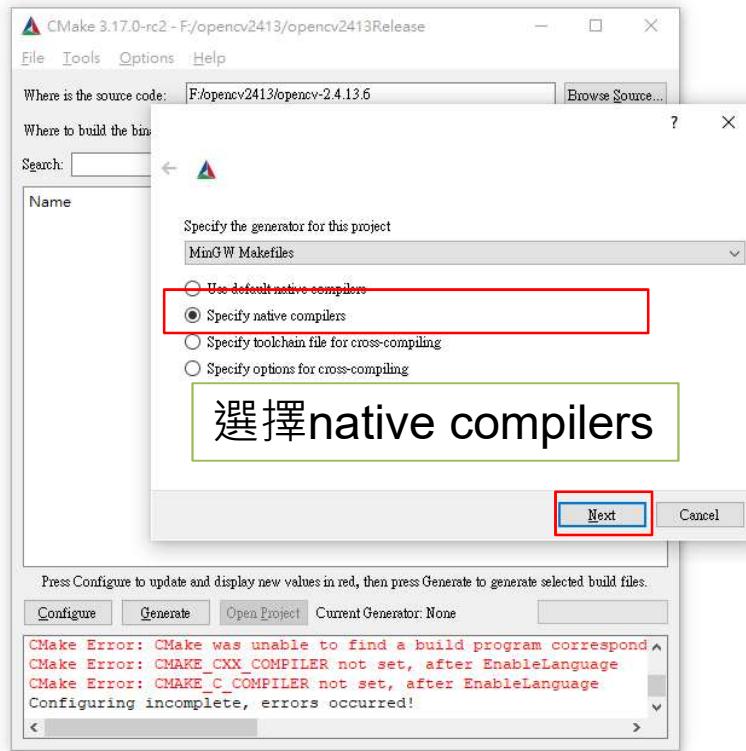
1.2 設定路徑



1.3 選擇makefile及compiler



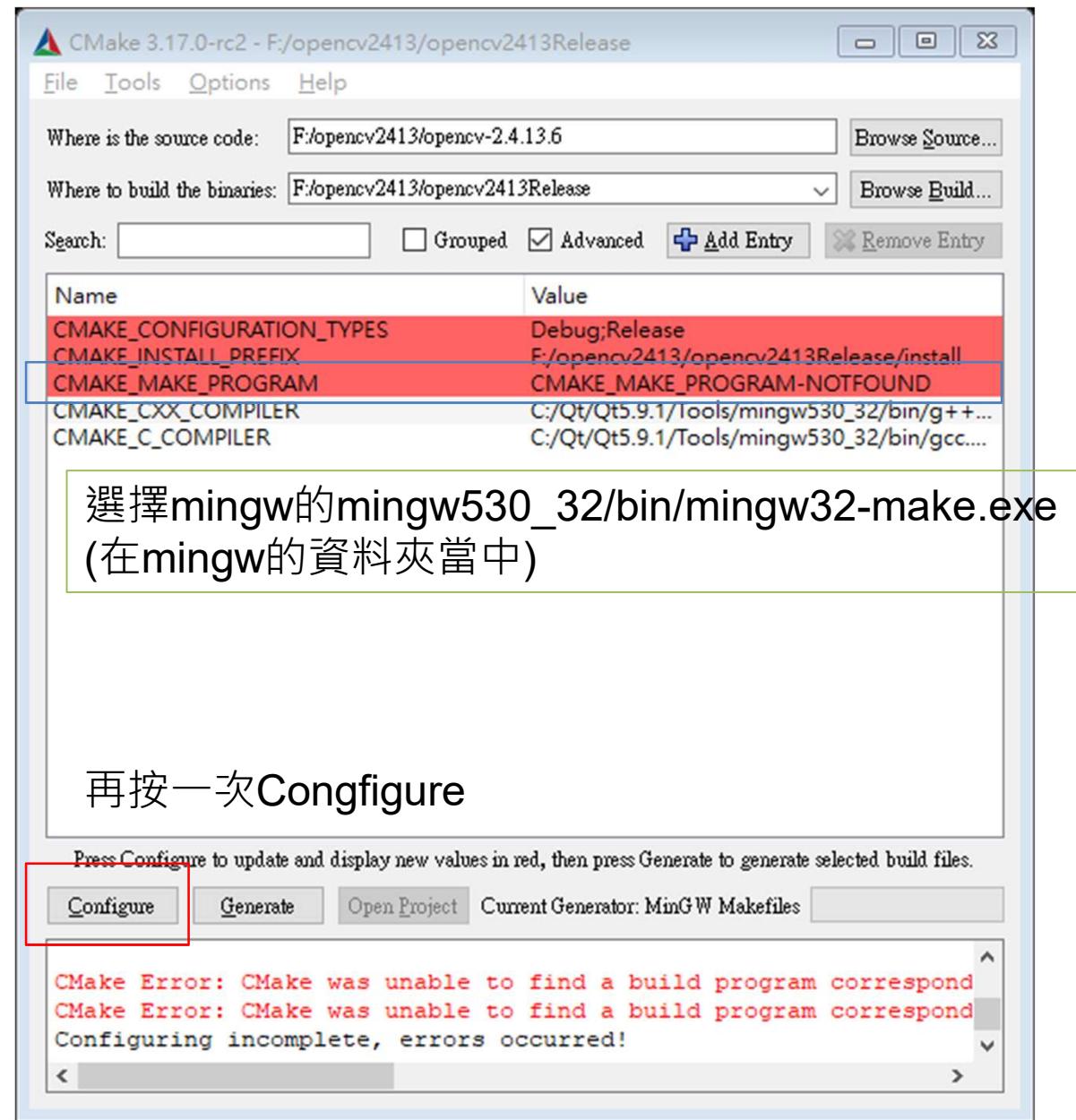
選擇產生的Makefile格式
(MinGW Makefiles)

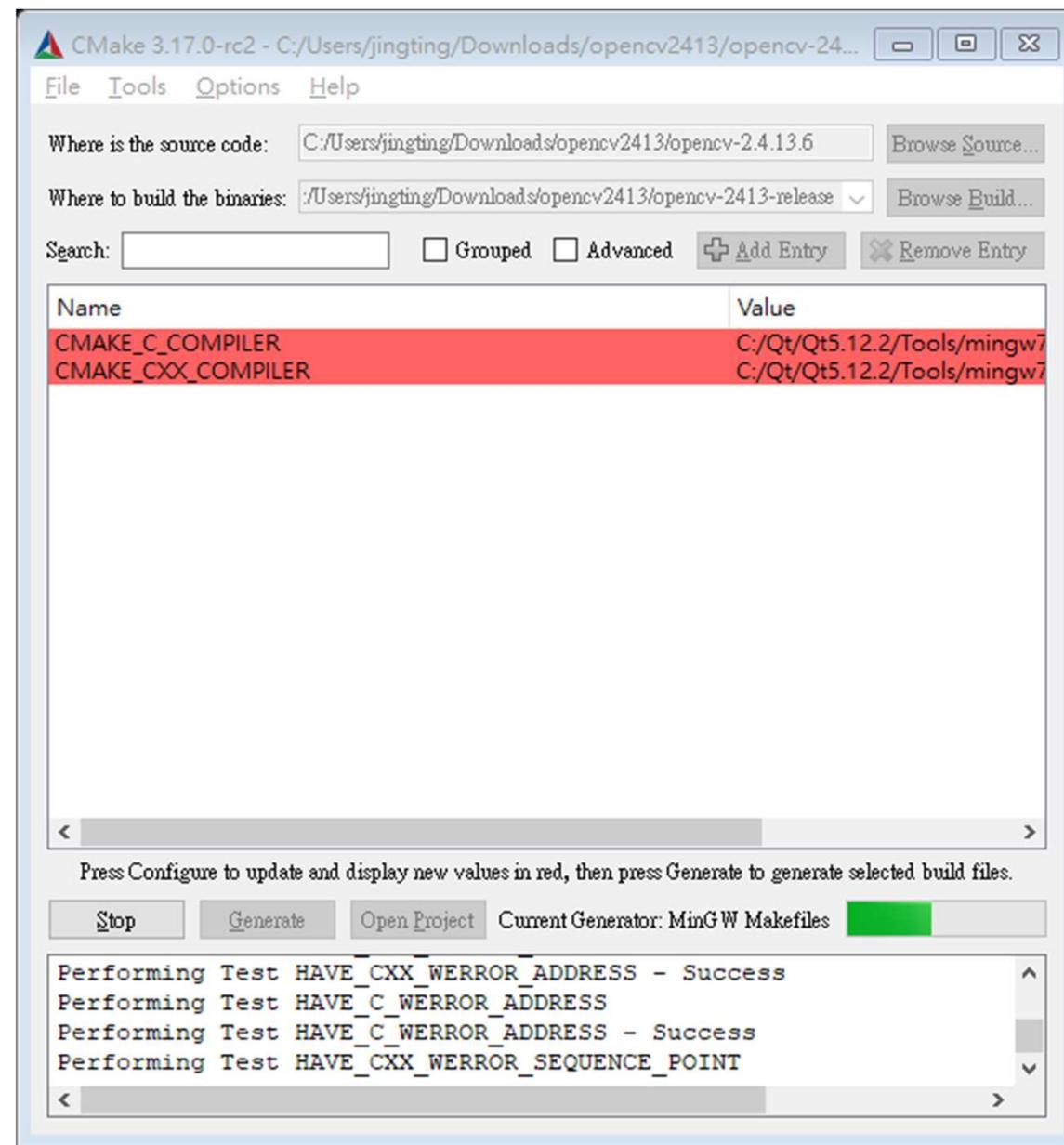


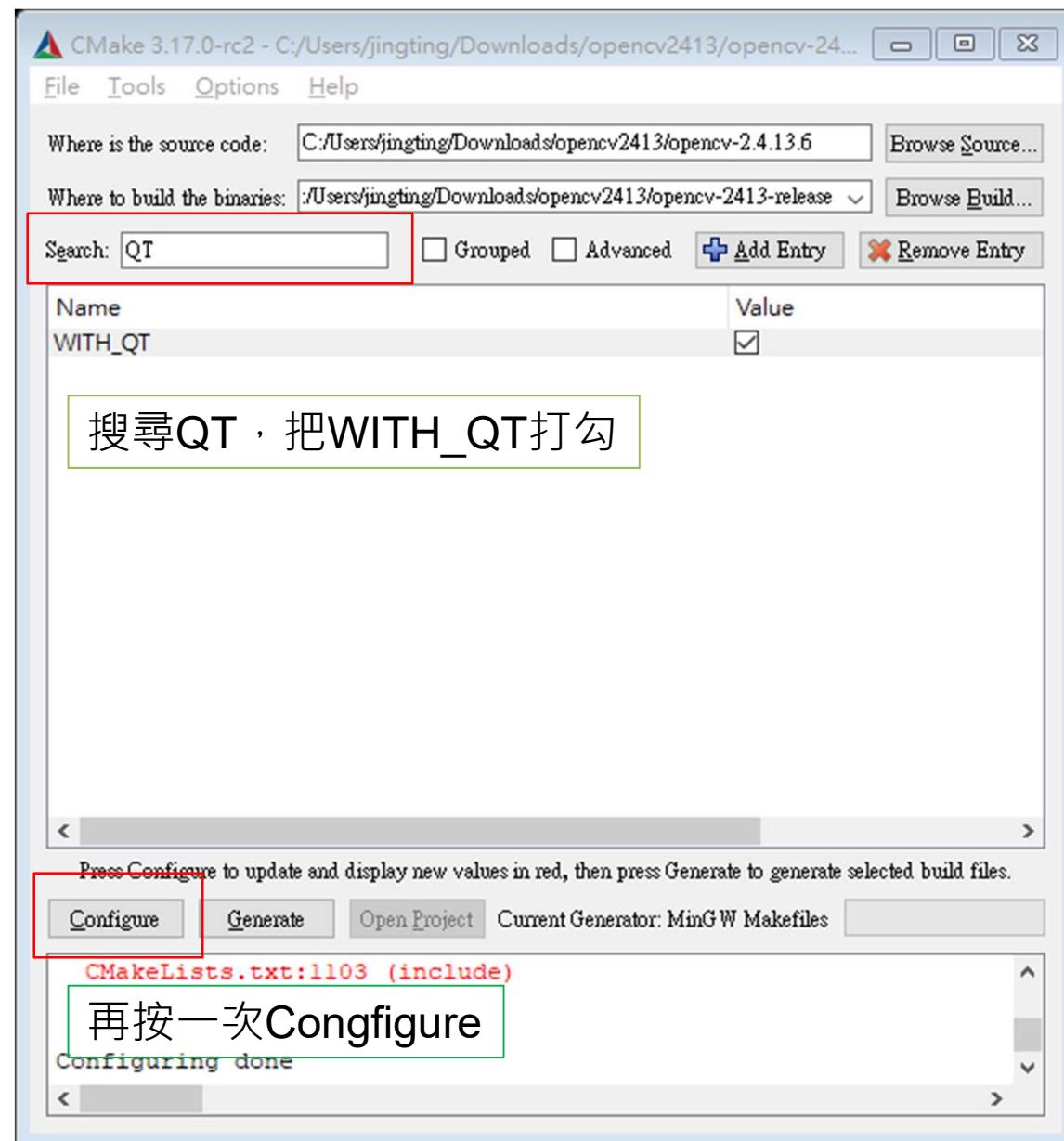
選擇qt當中MinGW所提供的
gcc.exe和g++.exe

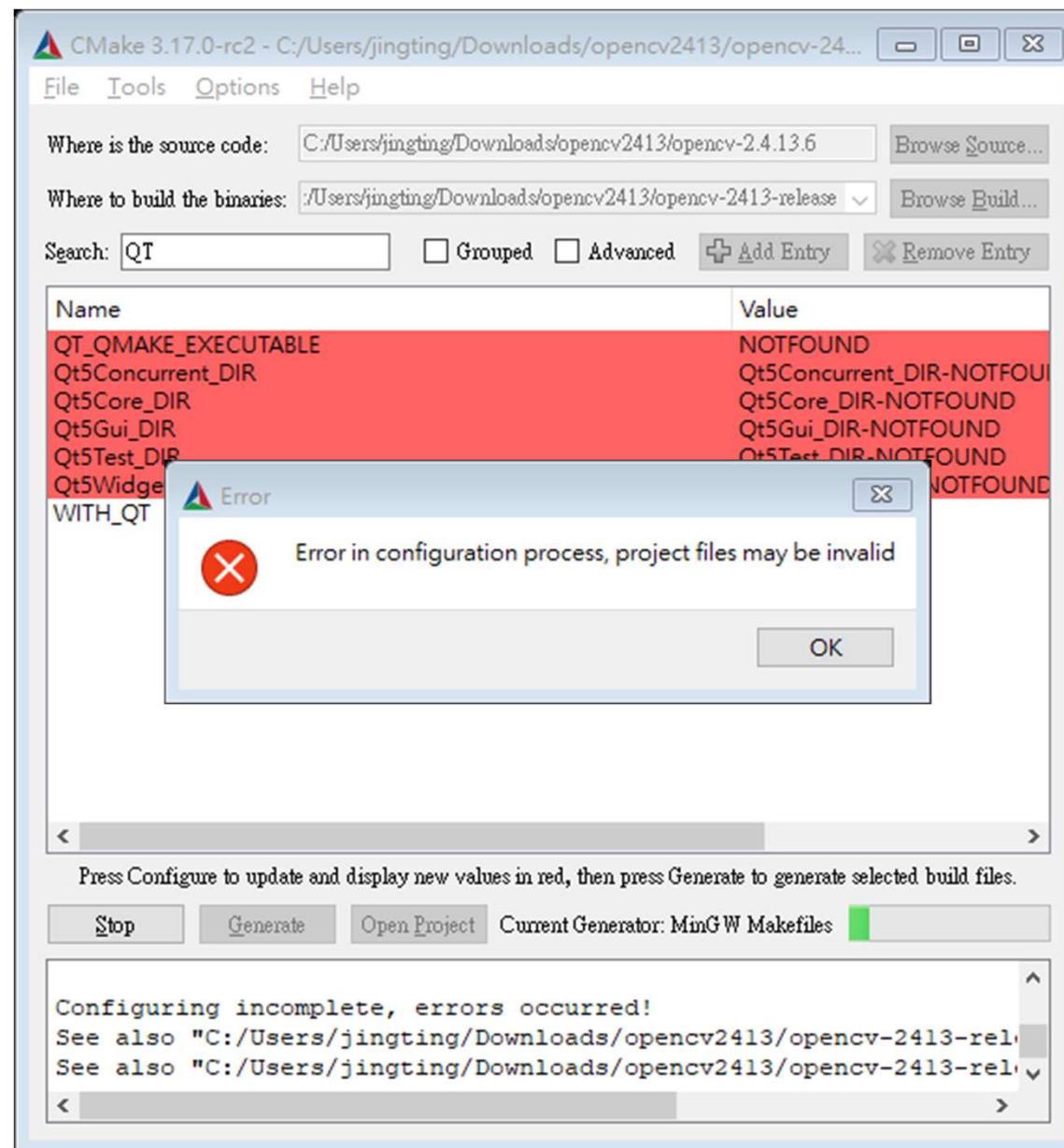
c:/Qt/Qt5.9.1/Tools/mingw530_32/

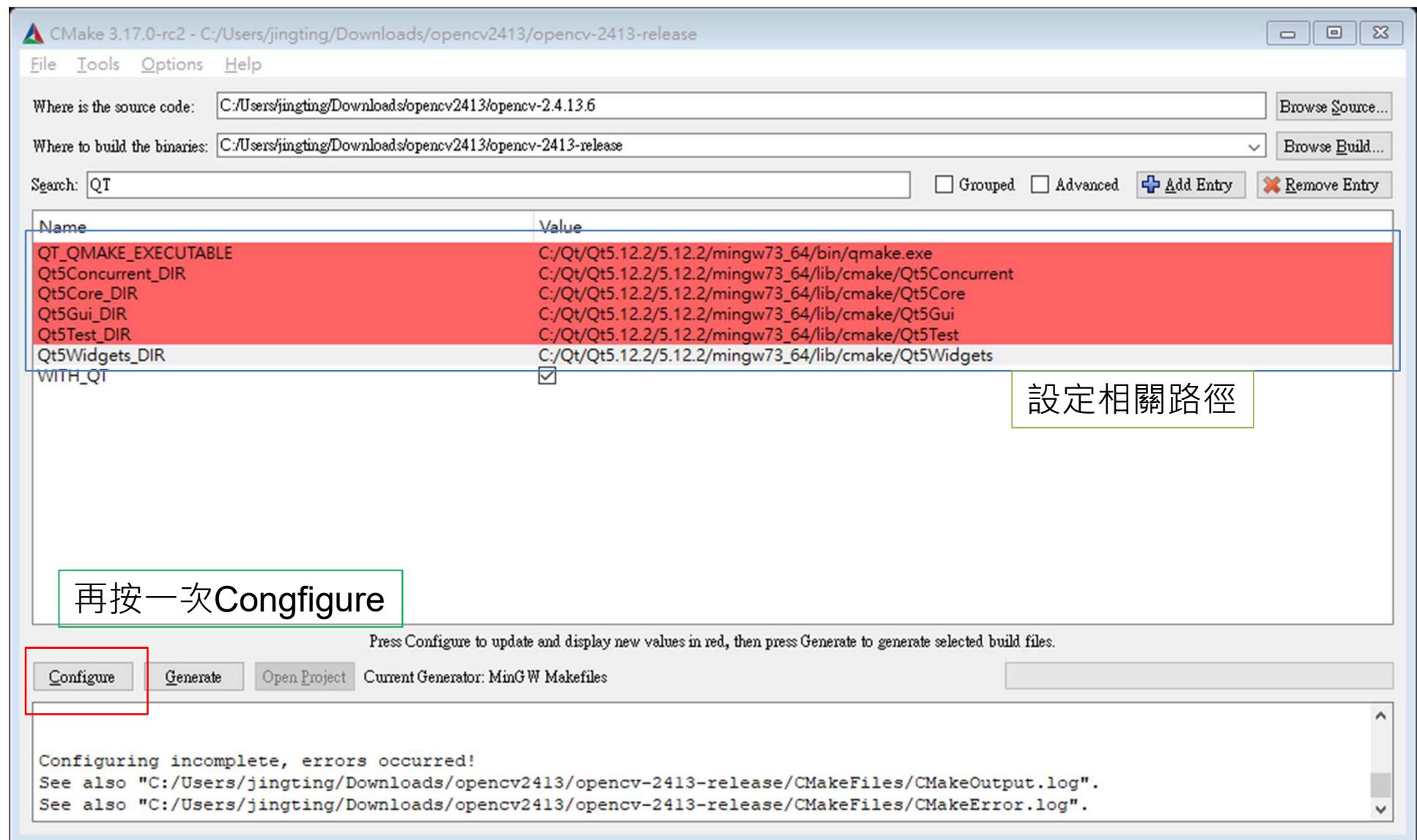
1.4 調整設定











c:/Qt/Qt5.9.1/mingw53_32/bin/qmake.exe

QT_QMAKE_EXECUTABLE
Qt5Concurrent_DIR
Qt5Core_DIR
Qt5Gui_DIR
Qt5Test_DIR
Qt5Widgets_DIR
WITH_QT

C:/Qt/Qt5.12.2/5.12.2/mingw73_64/bin/qmake.exe
C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Concurrent
C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Core
C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Gui
C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Test
C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Widgets

c:/Qt/Qt5.9.1/mingw53_32/lib/camke/

CMake 3.17.0-rc2 - C:/Users/jingting/Downloads/opencv2413/opencv-2413-release

File Tools Options Help

Where is the source code: C:/Users/jingting/Downloads/opencv2413/opencv-2.4.13.6 [Browse Source...](#)

Where to build the binaries: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release [Browse Build...](#)

Search: QT Grouped Advanced [+ Add Entry](#) [X Remove Entry](#)

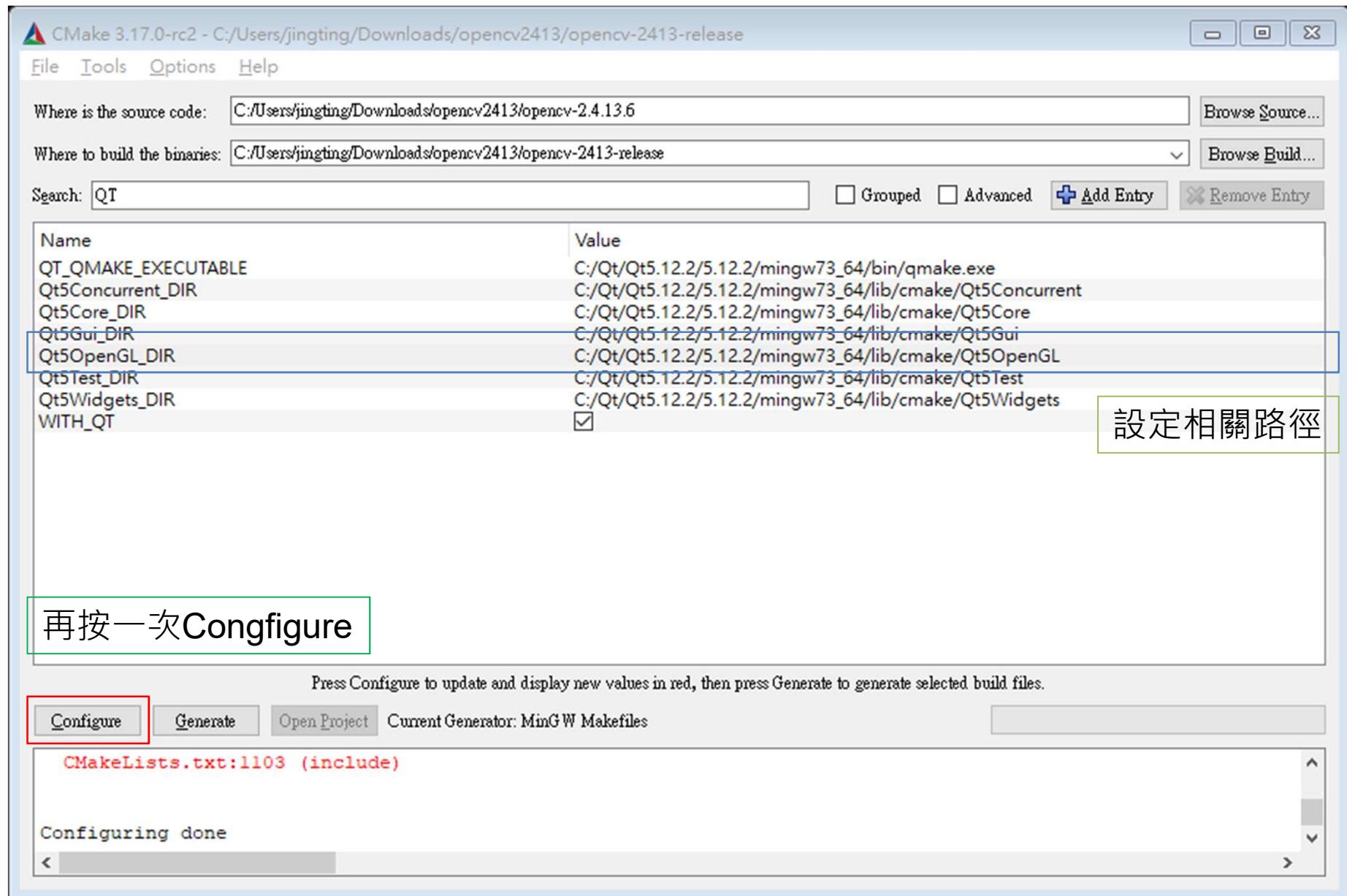
Name	Value
QtOpenGL_DIR	QtOpenGL_DIR-NOTFOUND
QT_QMAKE_EXECUTABLE	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/bin/qmake.exe
QtConcurrent_DIR	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Concurrent
QtCore_DIR	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Core
QtGui_DIR	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Gui
QtTest_DIR	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Test
QtWidgets_DIR	C:/Qt/Qt5.12.2/5.12.2/mingw73_64/lib/cmake/Qt5Widgets
WITH_QT	<input checked="" type="checkbox"/>

Press Configure to update and display new values in red, then press Generate to generate selected build files.

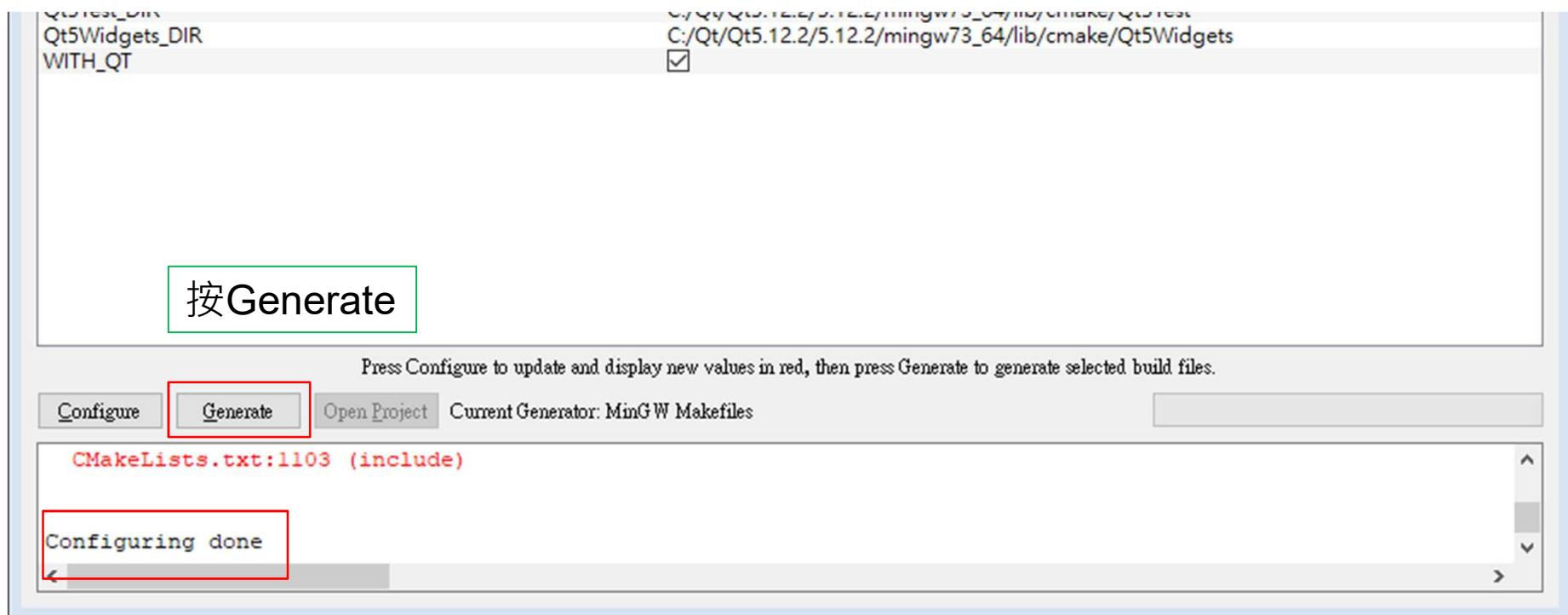
[Configure](#) [Generate](#) [Open Project](#) Current Generator: MinGW Makefiles

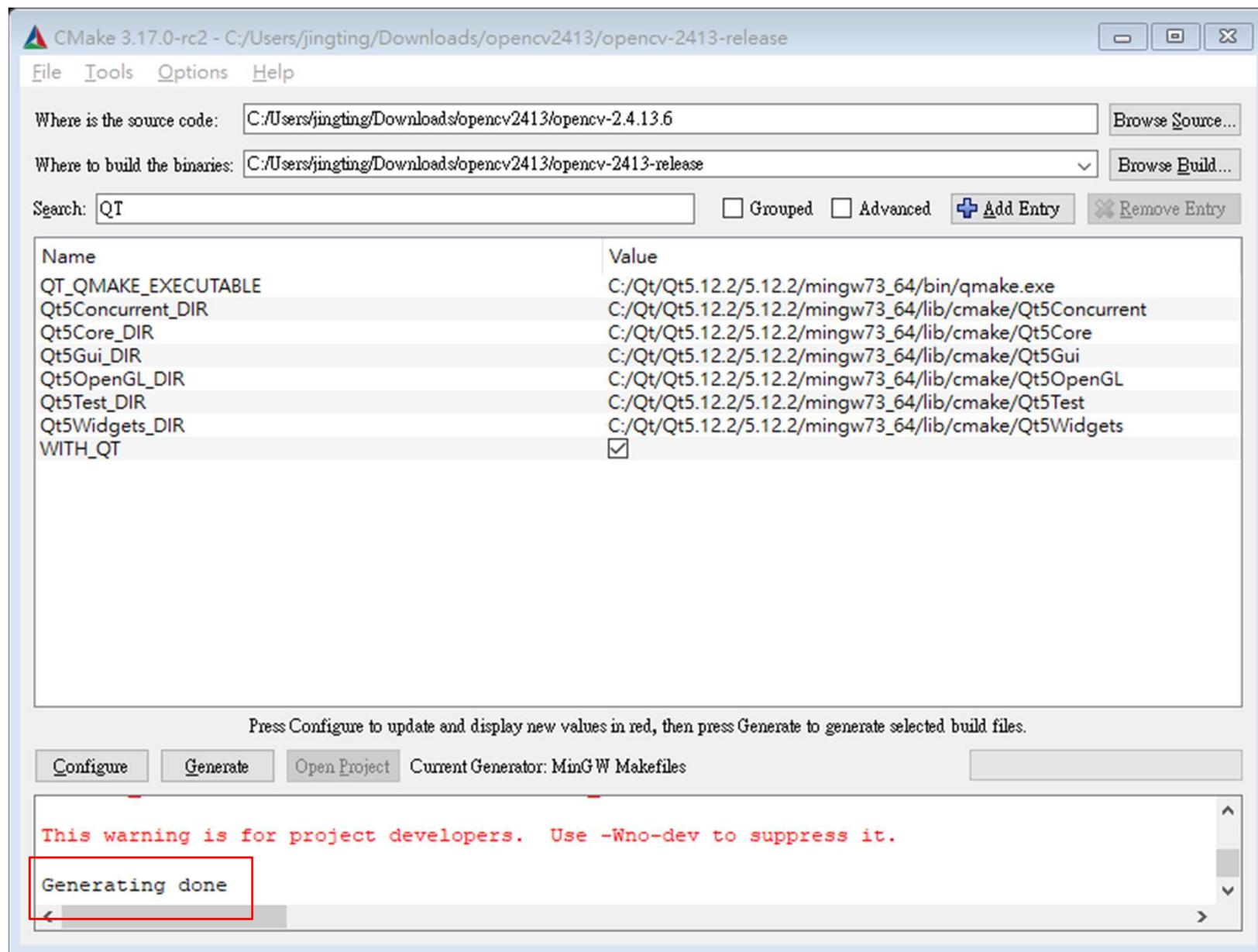
```
CMakeLists.txt:1103 (include)

Configuring done
```



1.5 產生makefiles





產生出來的資料

名稱	修改日期	類型	大小
3rdparty	2020/3/9 下午 11...	檔案資料夾	
apps	2020/3/9 下午 11...	檔案資料夾	
bin	2020/3/9 下午 11...	檔案資料夾	
CMakeFiles	2020/3/9 下午 11...	檔案資料夾	
data	2020/3/9 下午 11...	檔案資料夾	
doc	2020/3/9 下午 11...	檔案資料夾	
include	2020/3/9 下午 11...	檔案資料夾	
junk	2020/3/9 下午 10...	檔案資料夾	
lib	2020/3/9 下午 11...	檔案資料夾	
modules	2020/3/9 下午 11...	檔案資料夾	
opencv2	2020/3/9 下午 11...	檔案資料夾	
unix-install	2020/3/9 下午 11...	檔案資料夾	
win-install	2020/3/9 下午 11...	檔案資料夾	
cmake_install.cmake	2020/3/9 下午 11...	CMAKE 檔案	6 KB
cmake_uninstall.cmake	2020/3/9 下午 10...	CMAKE 檔案	2 KB
CMakeCache.txt	2020/3/9 下午 11...	文字文件	156 KB
CMakeVars.txt	2020/3/9 下午 11...	文字文件	345 KB
CPackConfig.cmake	2020/3/9 下午 10...	CMAKE 檔案	11 KB
CPackSourceConfig.cmake	2020/3/9 下午 10...	CMAKE 檔案	11 KB
CTestTestfile.cmake	2020/3/9 下午 11...	CMAKE 檔案	1 KB
cvconfig.h	2020/3/9 下午 11...	C++ Header file	4 KB
Makefile	2020/3/9 下午 11...	檔案	107 KB
OpenCVConfig.cmake	2020/3/9 下午 10...	CMAKE 檔案	17 KB
OpenCVConfig-version.cmake	2020/3/9 下午 10...	CMAKE 檔案	1 KB
OpenCVModules.cmake	2020/3/9 下午 11...	CMAKE 檔案	17 KB
version_string.tmp	2020/3/9 下午 11...	TMP 檔案	7 KB

2. make

切換至opencv-2413-release 資料夾

執行：

1. ming32-make -j8
2. ming32-make install

C:\WINDOWS\system32\cmd.exe

```
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>c:\qt\Qt5.12.2\Tools\mingw730_64\bin\mingw32-make.exe -j8
Scanning dependencies of target zlibScanning dependencies of target libjpeg
[ 0%] [ 0%] Generating opencv_ts_pch_dephelp.cxx
Generating opencv_imgproc_pch_dephelp.cxx
[ 0%] Generating opencv_core_pch_dephelp.cxx
Scanning dependencies of target libjasper
[ 0%] [ 0%] Generating opencv_features2d_pch_dephelp.cxx
Generating opencv_flann_pch_dephelp.cxx
[ 0%] Building C object 3rdparty/zlib/CMakeFiles/zlib.dir/adler32.c.obj
[ 1%] Building C object 3rdparty/libjpeg/CMakeFiles/libjpeg.dir/jcapimin.c.obj
[ 1%] Building C object 3rdparty/libjasper/CMakeFiles/libjasper.dir/jas_cm.c.obj
[ 1%] Building C object 3rdparty/zlib/CMakeFiles/zlib.dir/compress.c.obj
[ 1%] Building C object 3rdparty/libjpeg/CMakeFiles/libjpeg.dir/jcapistd.c.obj
[ 1%] Building C object 3rdparty/zlib/CMakeFiles/zlib.dir/crc32.c.obj
[ 1%] Building C object 3rdparty/libjpeg/CMakeFiles/libjpeg.dir/jccoeffct.c.obj
[ 1%] Building C object 3rdparty/libjasper/CMakeFiles/libjasper.dir/jas_debug.c.obj
Scanning dependencies of target opencv_core_pch_dephelp
Scanning dependencies of target opencv_imgproc_pch_dephelp
Scanning dependencies of target opencv_features2d_pch_dephelp
Scanning dependencies of target opencv_flann_pch_dephelp
Scanning dependencies of target opencv_ts_pch_dephelp
[ 1%] Building C object 3rdparty/libjasper/CMakeFiles/libjasper.dir/jas_getopt.c.obj
[ 2%] Building C object 3rdparty/zlib/CMakeFiles/zlib.dir/deflate.c.obj
[ 2%] Building C object 3rdparty/libjpeg/CMakeFiles/libjpeg.dir/jccolor.c.obj
[ 2%] Building C object 3rdparty/libjasper/CMakeFiles/libjasper.dir/jas_icc.c.obj
[ 2%] Building CXX object modules/imgproc/CMakeFiles/opencv_imgproc_pch_dephelp.dir/opencv_imgproc_pch_dephelp.cxx.obj
[ 2%] Building CXX object modules/features2d/CMakeFiles/opencv_features2d_pch_dephelp.dir/opencv_features2d_pch_dephelp.cxx.obj
```

使用相對應版本的min32-make

```
C:\WINDOWS\system32\cmd.exe
[ 98%] Built target opencv_stitching
[ 98%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/polyfit.cpp.obj
Scanning dependencies of target opencv_test_stitching
Scanning dependencies of target opencv_perf_stitching
[ 98%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/retina.cpp.obj
[ 98%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/retinacolor.cpp.obj
[ 98%] Building CXX object modules/stitching/CMakeFiles/opencv_test_stitching.dir/test/test_blenders.cpp.obj
[ 99%] Building CXX object modules/stitching/CMakeFiles/opencv_test_stitching.dir/test/test_main.cpp.obj
[ 99%] Building CXX object modules/stitching/CMakeFiles/opencv_perf_stitching.dir/perf/perf_main.cpp.obj
[ 99%] Building CXX object modules/stitching/CMakeFiles/opencv_test_stitching.dir/test/test_matchers.cpp.obj
[ 99%] Building CXX object modules/stitching/CMakeFiles/opencv_perf_stitching.dir/perf/perf_stich.cpp.obj
[ 99%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/retinafilter.cpp.obj
[100%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/rbgdodometry.cpp.obj
[100%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/selfsimilarity.cpp.obj
[100%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/spinimages.cpp.obj
[100%] Building CXX object modules/contrib/CMakeFiles/opencv_contrib.dir/src/stereoover.cpp.obj
[100%] Linking CXX executable ..\..\bin\opencv_test_stitching.exe
[100%] Built target opencv_test_stitching
[100%] Linking CXX executable ..\..\bin\opencv_perf_stitching.exe
[100%] Built target opencv_perf_stitching
[100%] Linking CXX shared library ..\..\bin\libopencv_contrib2413.dll
[100%] Built target opencv_contrib
Scanning dependencies of target opencv_test_contrib
[100%] Building CXX object modules/contrib/CMakeFiles/opencv_test_contrib.dir/test/test_main.cpp.obj
[100%] Linking CXX executable ..\..\bin\opencv_test_contrib.exe
[100%] Built target opencv_test_contrib
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>c:\qt\Qt5.12.2\Tools\mingw730_64\bin\mingw32-make.exe install
```

使用相對應版本的min32-make

```
C:\Windows\system32\cmd.exe
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>c:\qt\Qt5.12.2\Tools\mingw730_64\bin\mingw32-make.exe install
[ 2%] Built target zlib
[ 6%] Built target libtiff
[ 10%] Built target libjpeg
[ 12%] Built target libjasper
[ 13%] Built target libpng
[ 19%] Built target IlmImf
[ 20%] Built target opencv_core_pch_dephelp
[ 20%] Built target pch_Generate_opencv_core
[ 22%] Built target opencv_core
[ 22%] Built target opencv_ts_pch_dephelp
[ 22%] Built target pch_Generate_opencv_ts
[ 22%] Built target opencv_imgproc_pch_dephelp
[ 22%] Built target pch_Generate_opencv_imgproc
[ 25%] Built target opencv_imgproc
[ 25%] Built target opencv_flann_pch_dephelp
[ 25%] Built target pch_Generate_opencv_flann
[ 26%] Built target opencv_flann
[ 26%] Built target opencv_features2d_pch_dephelp
[ 26%] Built target pch_Generate_opencv_features2d
[ 27%] Automatic MOC for target opencv_highgui_pch_dephelp
[ 27%] Built target opencv_highgui_pch_dephelp_autogen
[ 27%] Built target opencv_highgui_pch_dephelp
[ 27%] Built target pch_Generate_opencv_highgui
[ 27%] Automatic MOC for target opencv_highgui
[ 27%] Built target opencv_highgui_autogen
[ 29%] Built target opencv_highgui
[ 30%] Built target opencv_features2d
[ 30%] Built target opencv_calib3d_pch_dephelp
[ 30%] Built target pch_Generate_opencv_calib3d
```

```
C:\WINDOWS\system32\cmd.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_mcs_upperbody.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_profileface.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_righteye_2splits.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_russian_plate_number.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_smile.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/haarcascades/haarcascade_upperbody.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/lbpcascades/lbpcascade_frontalcatface.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/lbpcascades/lbpcascade_frontalface.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/lbpcascades/lbpcascade_profileface.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/share/OpenCV/lbpcascades/lbpcascade_silveryear.xml
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_haartraining.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_createsamples.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_performance.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_traincascade.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_annotation.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_visualisation.exe
-- Installing: C:/Users/jingting/Downloads/opencv2413/opencv-2413-release/install/x64/mingw/bin/opencv_version.exe
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>
C:\Users\jingting\Downloads\opencv2413\opencv-2413-release>
```

完成檔案的路徑

3. 整理檔案並且設定環境參數

下載 > opencv2413 > opencv-2413-release > install			
名稱	修改日期	類型	大小
include 標頭檔	2020/3/9 下午 11...	檔案資料夾	
share	2020/3/9 下午 11...	檔案資料夾	
x64 函式庫 (dll/lib都有)	2020/3/9 下午 11...	檔案資料夾	
LICENSE	2018/2/22 上午 0...	檔案	2 KB
OpenCVConfig.cmake	2018/2/22 上午 0...	CMAKE 檔案	7 KB
OpenCVConfig-version.cmake	2020/3/9 下午 10...	CMAKE 檔案	1 KB

環境變數

X

編輯環境變數

X

變
O
P
TE
TM

系統
變
Co
Cl
Cl
Cl
Cl

將所有目錄加到環
境參數裡面

新增(N)

編輯(E)

瀏覽(B)...

刪除(D)

上移(U)

下移(O)

編輯文字(T)...

C:\openCvMGW\include\opencv2
C:\openCvMGW\include\opencv
C:\openCvMGW\lib
C:\openCvMGW\bin

確定

取消

測試一下

openCv與QT標準流程

開新專案→在專案當中加入opencv的路徑→存檔，開始寫程式

qtOpenCvShowImage.pro @ qtOpenCvShowImage - Qt Creator

檔案(E) 編輯(E) 建置(B) 除錯(D) Analyze 工具(I) 視窗(W) 說明(H)

專案 | 檔案 | qtOpenCvShowImage.pro | X | Line: 1, Col: 1 | B+

啟動 | 雷射 | 檔案 | 單元 | 新增 | 移除 | 檢視 | qtOpenCvShowImage.pro | qtOpenCvShowImage | Headers | Sources | main.cpp | mainwindow.cpp | Forms | mainwindow.ui | 開啟文件 | B+ | 閉啟文件 | LBPwithDSv2.2.pro | mainwindow.cpp | qtOpen...ge.pro

Qt Creator 工具列

啟動 | 雷射 | 檔案 | 單元 | 新增 | 移除 | 檢視 | qtOpenCvShowImage | qtOpenCvShowImage | Headers | Sources | main.cpp | mainwindow.cpp | Forms | mainwindow.ui | 開啟文件 | B+ | 閉啟文件 | LBPwithDSv2.2.pro | mainwindow.cpp | qtOpen...ge.pro

Qt Creator 工具列

```
1 #-----#
2 #
3 # Project created by QtCreator 2020-03-10T00:04:09
4 #
5 #-----
6
7 QT      += core gui
8
9 greaterThan(QT_MAJOR_VERSION, 4): QT += widgets
10
11 TARGET = qtOpenCvShowImage
12 TEMPLATE = app
13
14 # The following define makes your compiler emit warnings if you use
15 # any feature of Qt which has been marked as deprecated (the exact warnings
16 # depend on your compiler). Please consult the documentation of the
17 # deprecated API in order to know how to port your code away from it.
18 DEFINES += QT_DEPRECATED_WARNINGS
19
20 # You can also make your code fail to compile if you use deprecated APIs.
21 # In order to do so, uncomment the following line.
22 # You can also select to disable deprecated APIs only up to a certain version of Qt.
23 #DEFINES += QT_DISABLE_DEPRECATED_BEFORE=0x06000000    # disables all the APIs deprecated before Qt 6.0.0
24
25 CONFIG += c++11
26
27 SOURCES += \
28             main.cpp \
29             mainwindow.cpp
30
31 HEADERS += \
32             mainwindow.h
33
34 FORMS += \
35             mainwindow.ui
36
37 # Default rules for deployment.
38 qnx: target.path = /tmp/$${TARGET}/bin
39 else: unix!android: target.path = /opt/$${TARGET}/bin
40 !isEmpty(target.path): INSTALLS += target
41
```

Type to locate (Ctrl+K) | 1 問題 | 2 Search Results | 3 應用程式輸出 | 4 編譯輸出 | 5 Debugger Console | 6 一般訊息 | 7 Test Results | 8

```
qtOpenCvShowImage.pro @ qtOpenCvShowImage - Qt Creator
檔案(E) 編輯(E) 建置(B) 除錯(D) Analyze 工具(I) 視窗(W) 說明(H)
專案 < > qtOpenCvShowImage.pro Line: 43, Col: 1
qtOpenCvShowImage
  qtOpenCvShowImage.pro
  Headers
  Sources
    main.cpp
    mainwindow.cpp
  Forms
Line: 43, Col: 1
8 greaterThan(QT_MAJOR_VERSION, 4): QT += widgets
9
10
11 TARGET = qtOpenCvShowImage
12 TEMPLATE = app
13
14 # The following define makes your compiler emit warnings if you use
15 # any feature of Qt which has been marked as deprecated (the exact warnings
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24
25 CONFIG += c++11
26
27 SOURCES += \
28   main.cpp \
29   mainwindow.cpp
30
31 HEADERS += \
32   mainwindow.h
33
34 FORMS += \
35   mainwindow.ui
36
37 INCLUDEPATH += C:/openCvMGW/include/opencv\
38               C:/openCvMGW/include/opencv2\
39               C:/openCvMGW/include
40
41 LIBS += C:/openCvMGW/lib/libopencv_core2413.dll.a\
42         C:/openCvMGW/lib/libopencv_highgui2413.dll.a\
43
44 # Default rules for deployment.
45 qnx: target.path = /tmp/$${TARGET}/bin
46 else: unix:!android: target.path = /opt/$${TARGET}/bin
47 !isEmpty(target.path): INSTALLS += target
48
```

The code block shows the `INCLUDEPATH` and `LIBS` sections highlighted with a red rectangle. These sections are used to link the OpenCV libraries in the project.

```
36  
37 INCLUDEPATH += C:\openCvMGW\include\opencv\  
38             C:\openCvMGW\include\opencv2\  
39             C:\openCvMGW\include  
40  
41 LIBS += C:\openCvMGW\lib\libopencv_core2413.dll.a\  
42             C:\openCvMGW\lib\libopencv_highgui2413.dll.a\  
43
```

1. include的路徑，compiler會依照設定的路徑去找相對應的標頭檔
2. lib的路徑，linker會依照所使用到的標頭檔去找相對應的lib

The screenshot shows the Qt Creator IDE interface. On the left is the project navigation sidebar with icons for Overview, Sources, Headers, Forms, and UI Designer. The main area displays the project structure under 'qtOpenCvShowImage' and the code editor for 'mainwindow.cpp'. The code editor shows the following C++ code:

```
#include "mainwindow.h"
#include "ui_mainwindow.h"
#include "opencv/highgui.h"

MainWindow::MainWindow(QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::MainWindow)
{
    ui->setupUi(this);
    IplImage *img=cvLoadImage("d:/img_7207.jpg");
    cvNamedWindow("a");
    cvShowImage("a",img);
    cvWaitKey(0);
}

MainWindow::~MainWindow()
{
    delete ui;
}
```

開一張影像

```
3 #include "opencv/highgui.h"
4
5 MainWindow::MainWindow(QWidget *parent) :
6     QMainWindow(parent),
7     ui(new Ui::MainWindow)
8 {
9     ui->setupUi(this);
10    IplImage *img=cvLoadImage("d:/img_7207.jpg");
11    cvNamedWindow("a");
12    cvShowImage("a",img);
13    cvWaitKey(0);
14 }
```

開一個視訊(可以從檔案或是攝影機開啟)

```
3 #include "opencv/highgui.h"
4
5 MainWindow::MainWindow(QWidget *parent) :
6     QMainWindow(parent),
7     ui(new Ui::MainWindow)
8 {
9     ui->setupUi(this);
10
11    // CvCapture * cap=cvCreateCameraCapture(0); // for camera
12    CvCapture *cap=cvCreateFileCapture("d:/showDriving.mp4");
13    IplImage * img;
14    cvNamedWindow("a");
15
16    while(1){
17        img = cvQueryFrame(cap);
18        cvShowImage("a", img);
19        cvWaitKey(33);
20    }
21 }
```