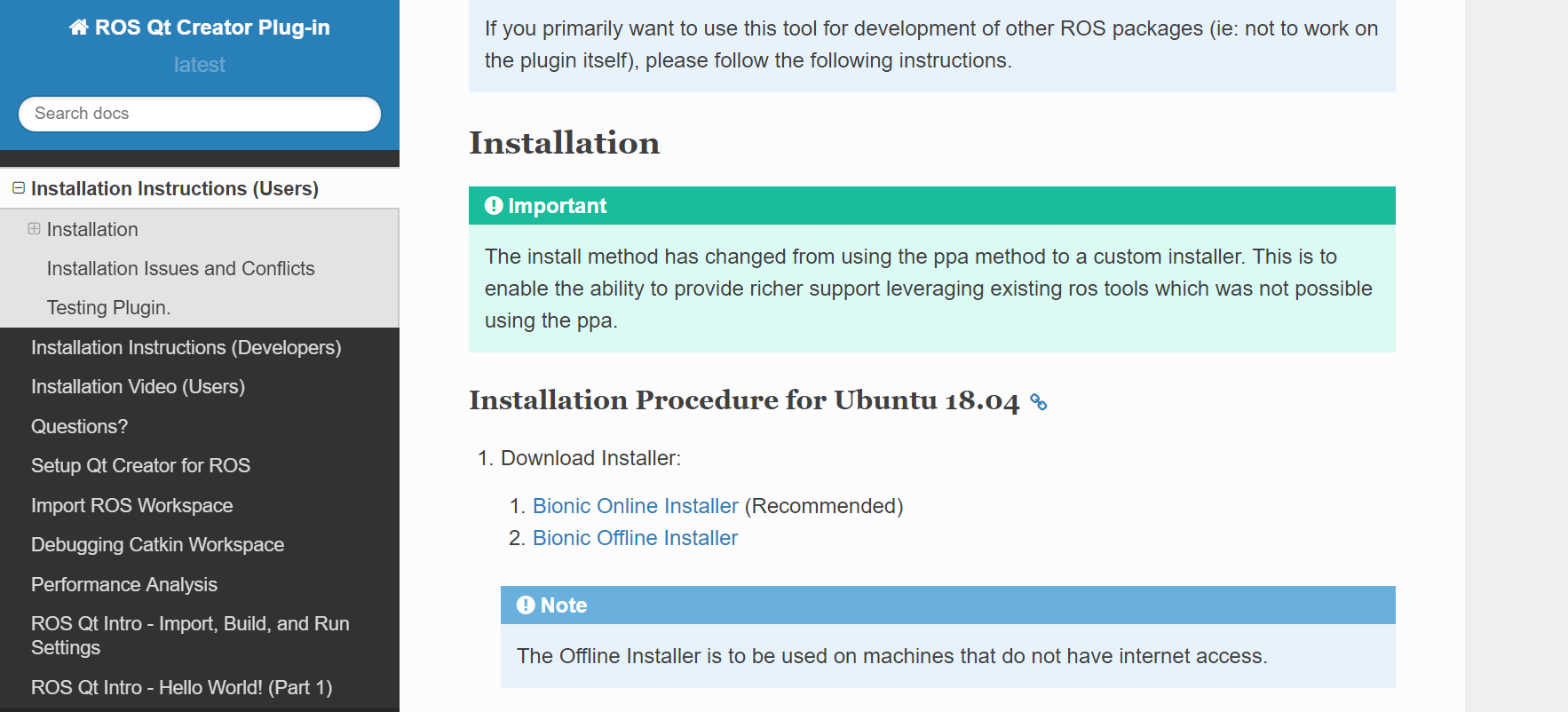
Qt使用ros

<https://github.com/wetwilliam/tracked_robot_3/wiki>

# Qt安裝

## <https://ros-qtc-plugin.readthedocs.io/en/latest/_source/How-to-Install-Users.html>

## 下載.run



## 開啟權限

sudo chmod 777 <檔名> //r=4 w=2 x=1

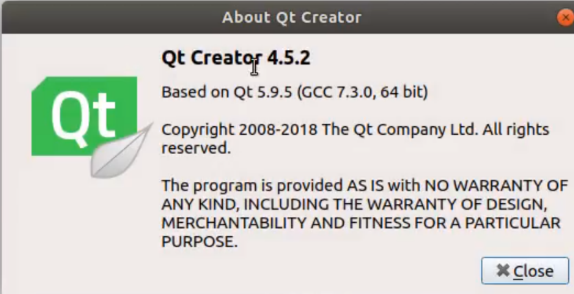
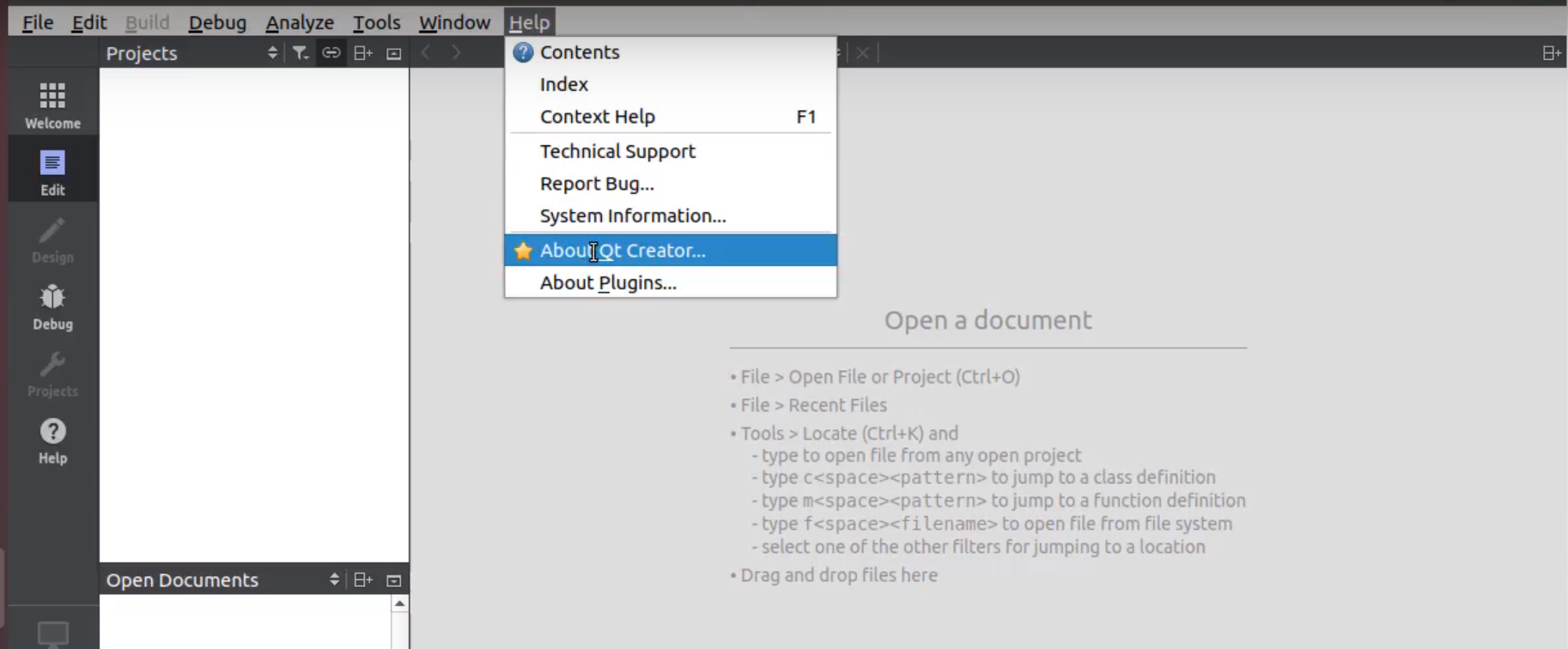
## 執行run

./<檔名.run>

## 執行 qt

qtcreator-ros

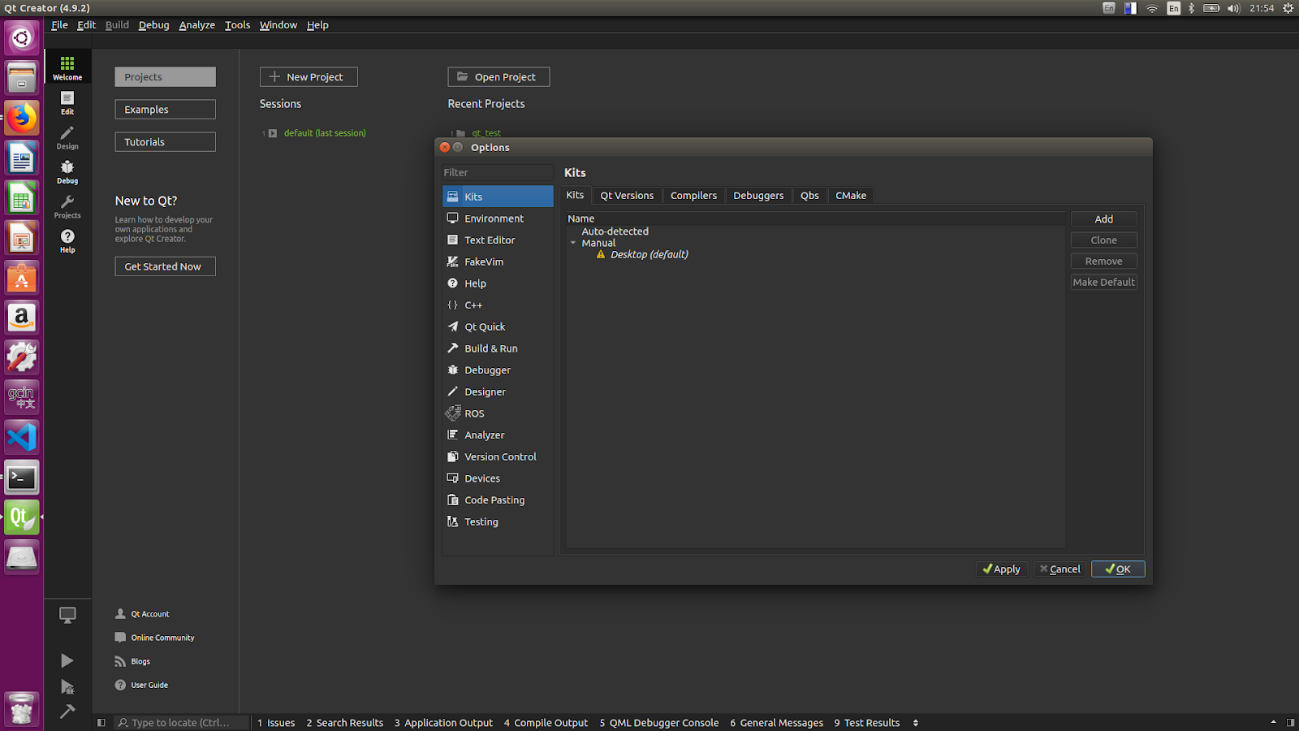
## 檢查版本



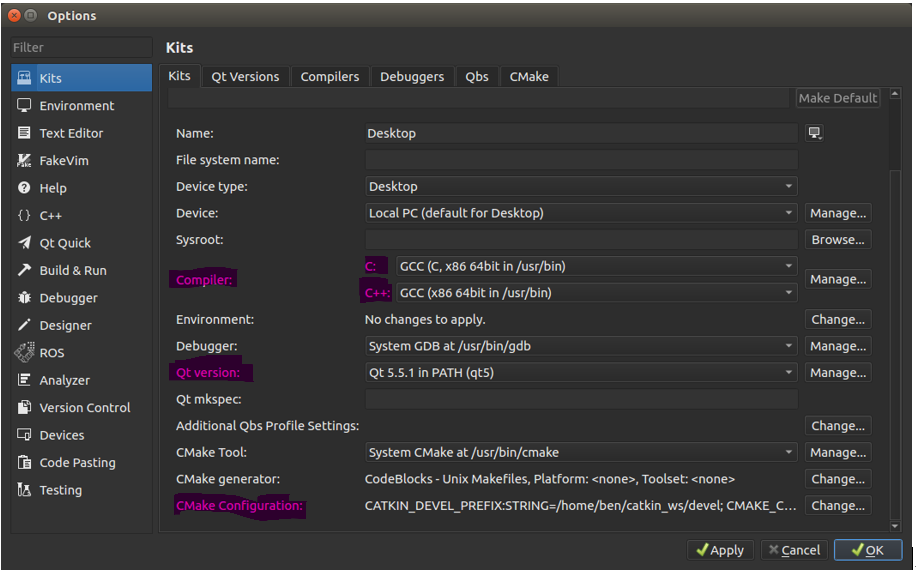
# 更改參數

## 開啟參數介面

Tools->options

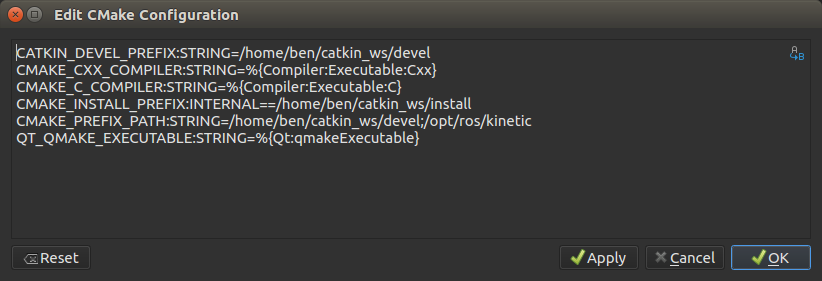


## 更改參數



|  |  |
| --- | --- |
| Compiler  1.c:GCC(/usr/bin)  2.c++:GCC(/usr/bin) | Qt Version :  Qt5 |

## 更改 CMake configuration



CATKIN\_DEVEL\_PREFIX:STRING=/home/nvidia/catkin\_ws/devel

CMAKE\_CXX\_COMPILER:STRING=%{Compiler:Executable:Cxx}

CMAKE\_C\_COMPILER:STRING=%{Compiler:Executable:C}

CMAKE\_INSTALL\_PREFIX:INTERNAL==/home/nvidia/catkin\_ws/install

CMAKE\_PREFIX\_PATH:STRING=/home/nvidia/catkin\_ws/devel;/opt/ros/kinetic

QT\_QMAKE\_EXECUTABLE:STRING=%{Qt:qmakeExecutable}

# 建立Qt ROS Package 與 範例程式

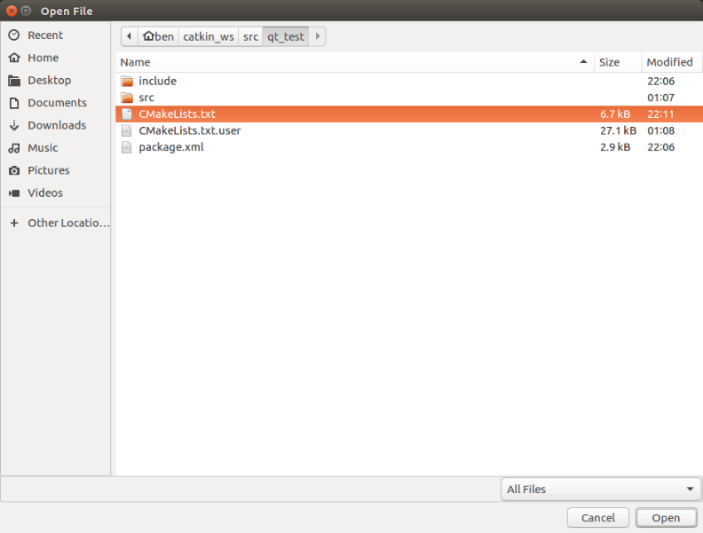
## 建立Package

catkin\_create\_pkg <<package 名稱>> std\_msgs rospy roscpp

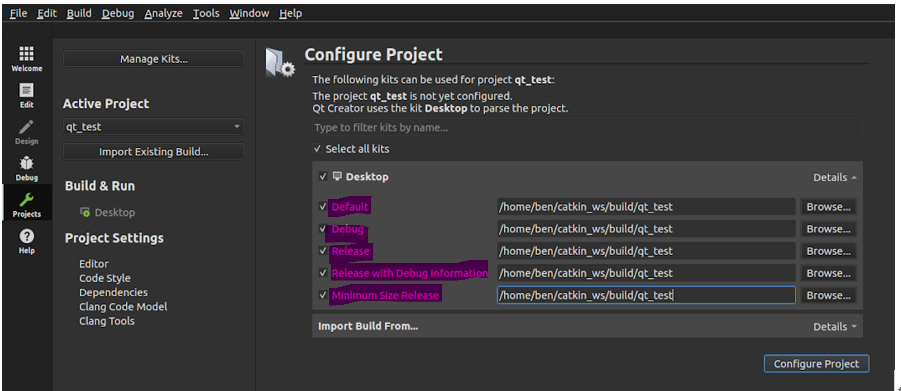
## 開啟package

File-> open file or project

開啟 Package 內的CMakeLists.txt



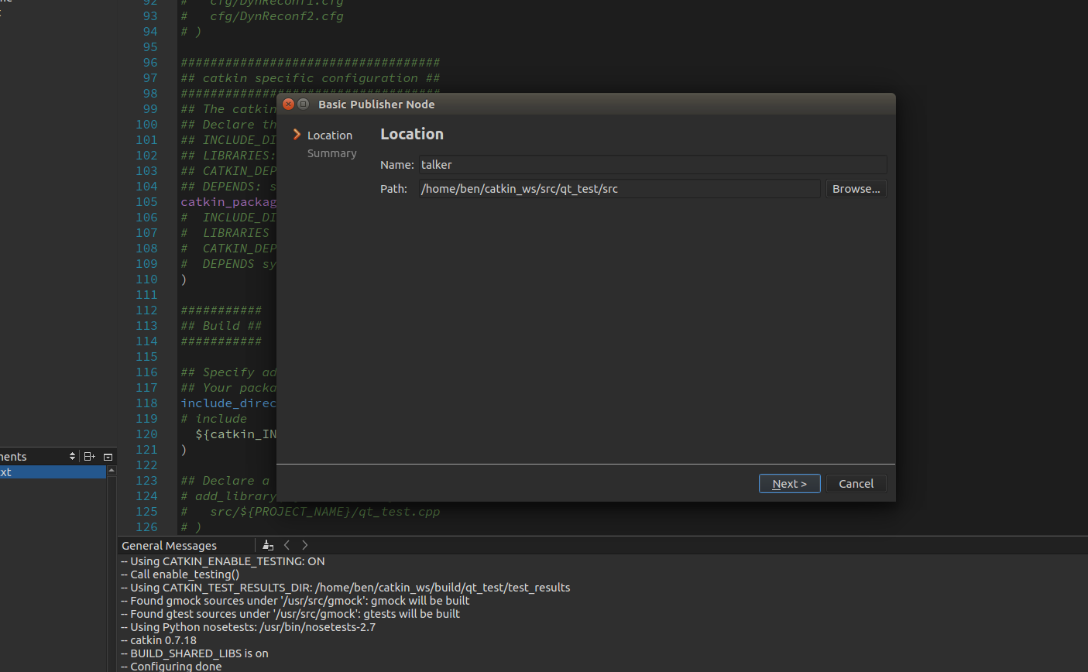
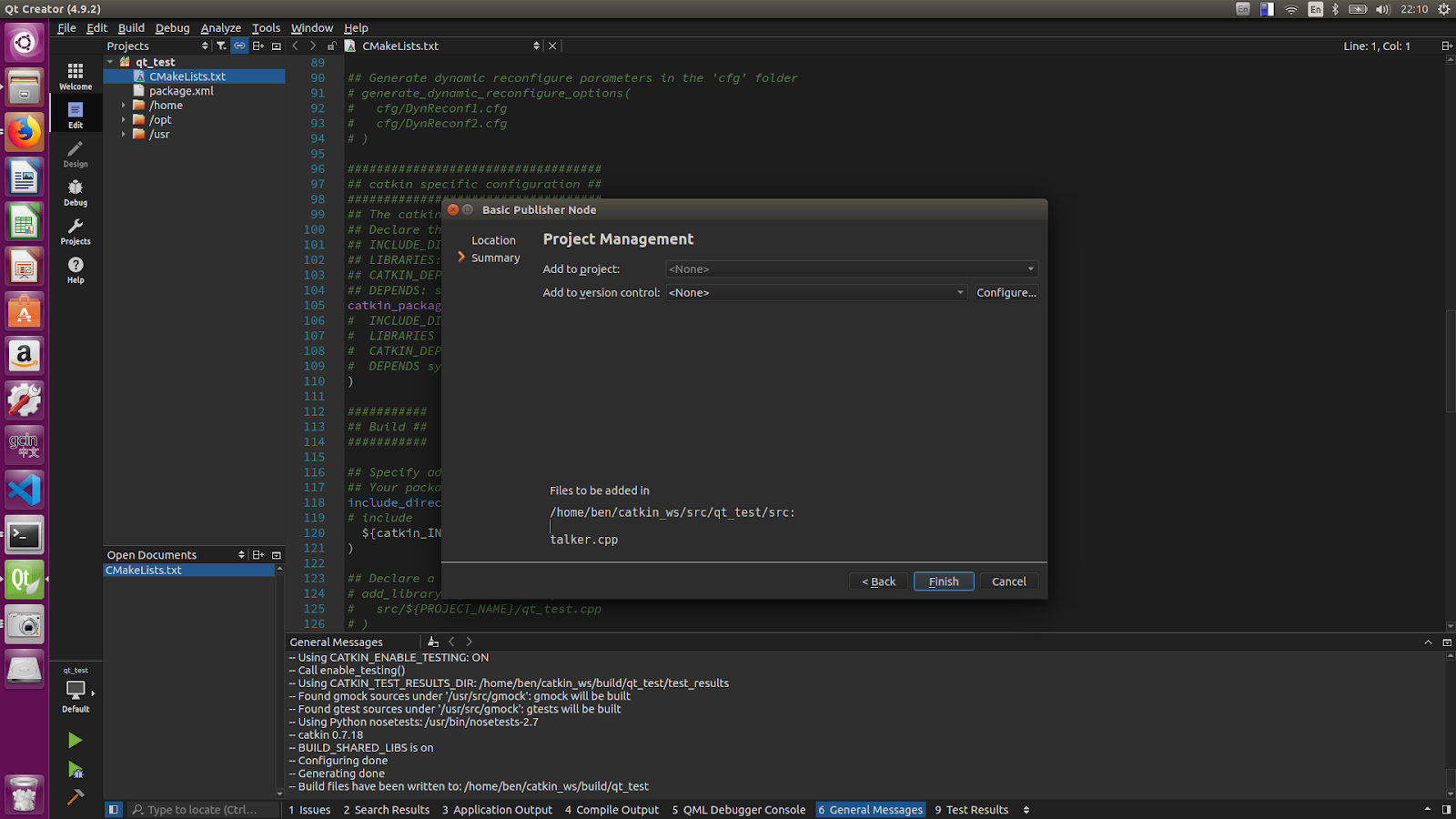
## 更改configure project



/home/ben/catkin\_ws/build/<<package 名稱>>

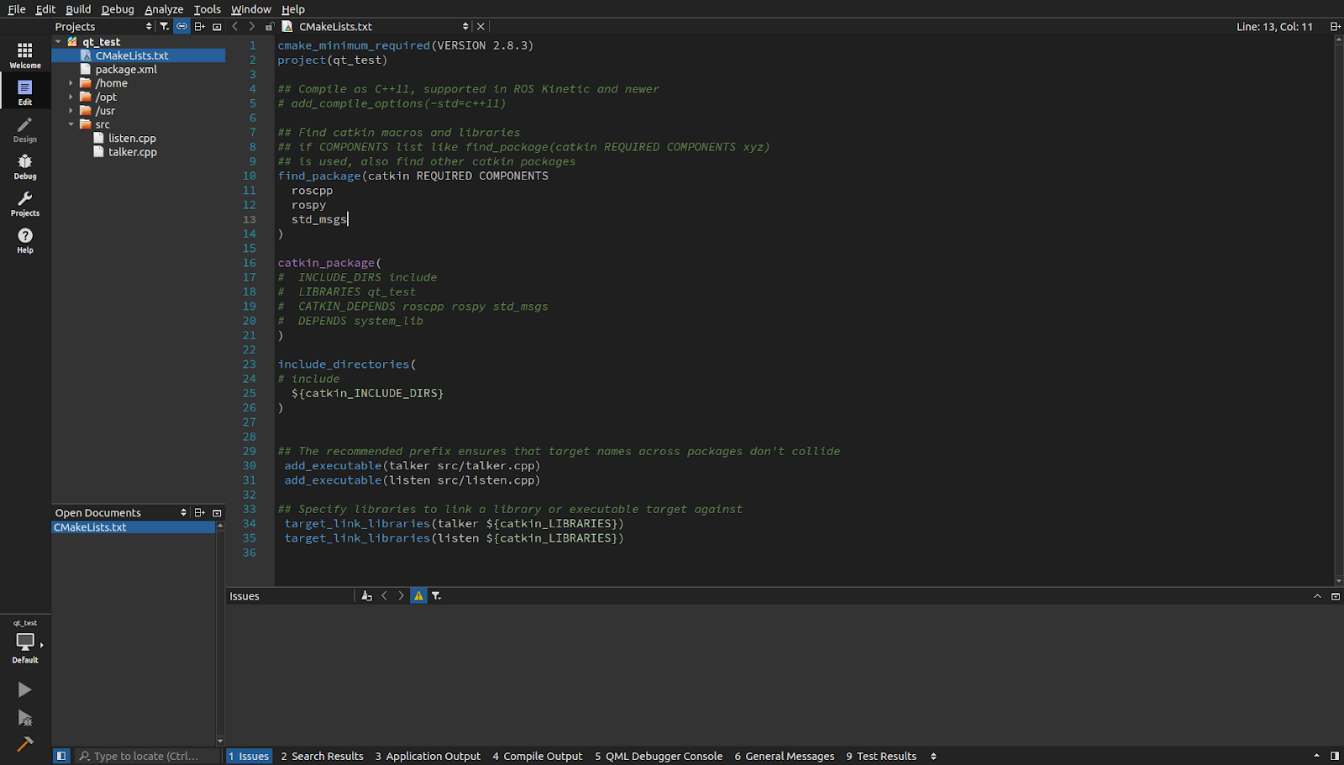
## 建立範例程式

File-> New file or project

Name: CPP 檔名

## 更改CMakeLists.txt



cmake\_minimum\_required(VERSION 2.8.3)

project(qt\_test)

find\_package(catkin REQUIRED COMPONENTS

roscpp rospy std\_msgs )

catkin\_package( )

include\_directories( ${catkin\_INCLUDE\_DIRS})

add\_executable(talker src/talker.cpp)

add\_executable(listen src/listen.cpp)

target\_link\_libraries(talker ${catkin\_LIBRARIES})

target\_link\_libraries(listen ${catkin\_LIBRARIES})

# 建立QT UI Package

## 安裝插件

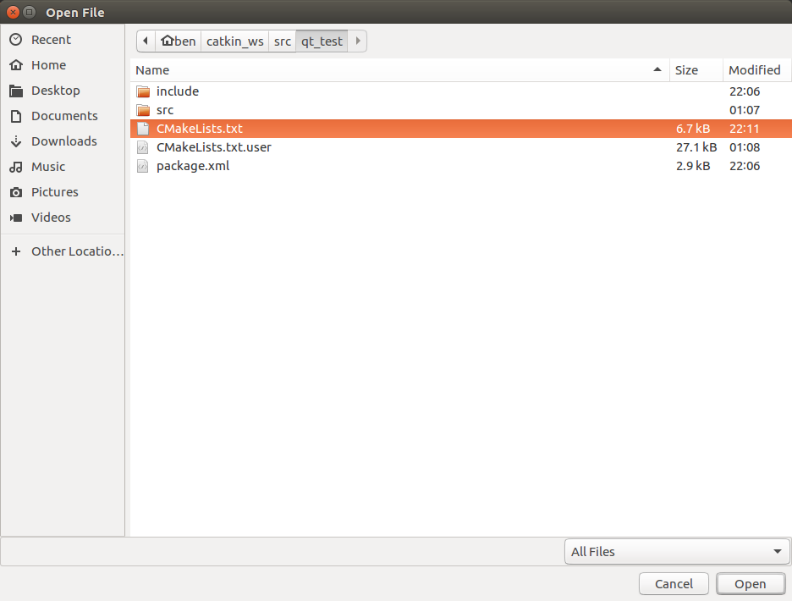
sudo apt-get install ros-kinetic-qt-create

sudo apt-get install ros-kinetic-qt-build

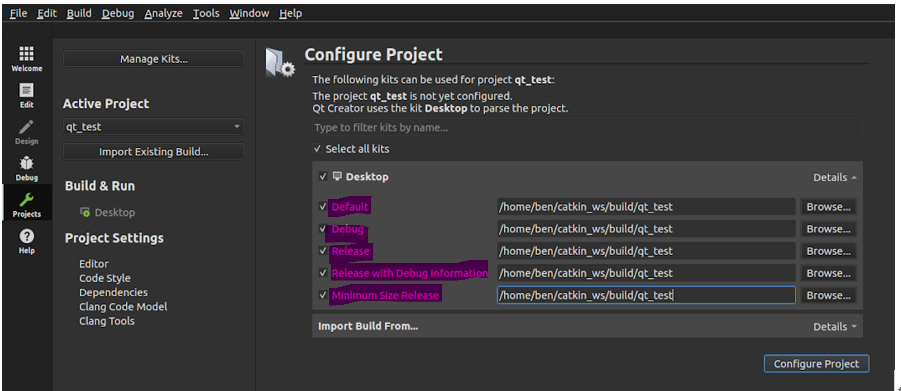
## 建立UI Package

catkin\_create\_qt\_pkg <<package 名稱>>

## 開啟package

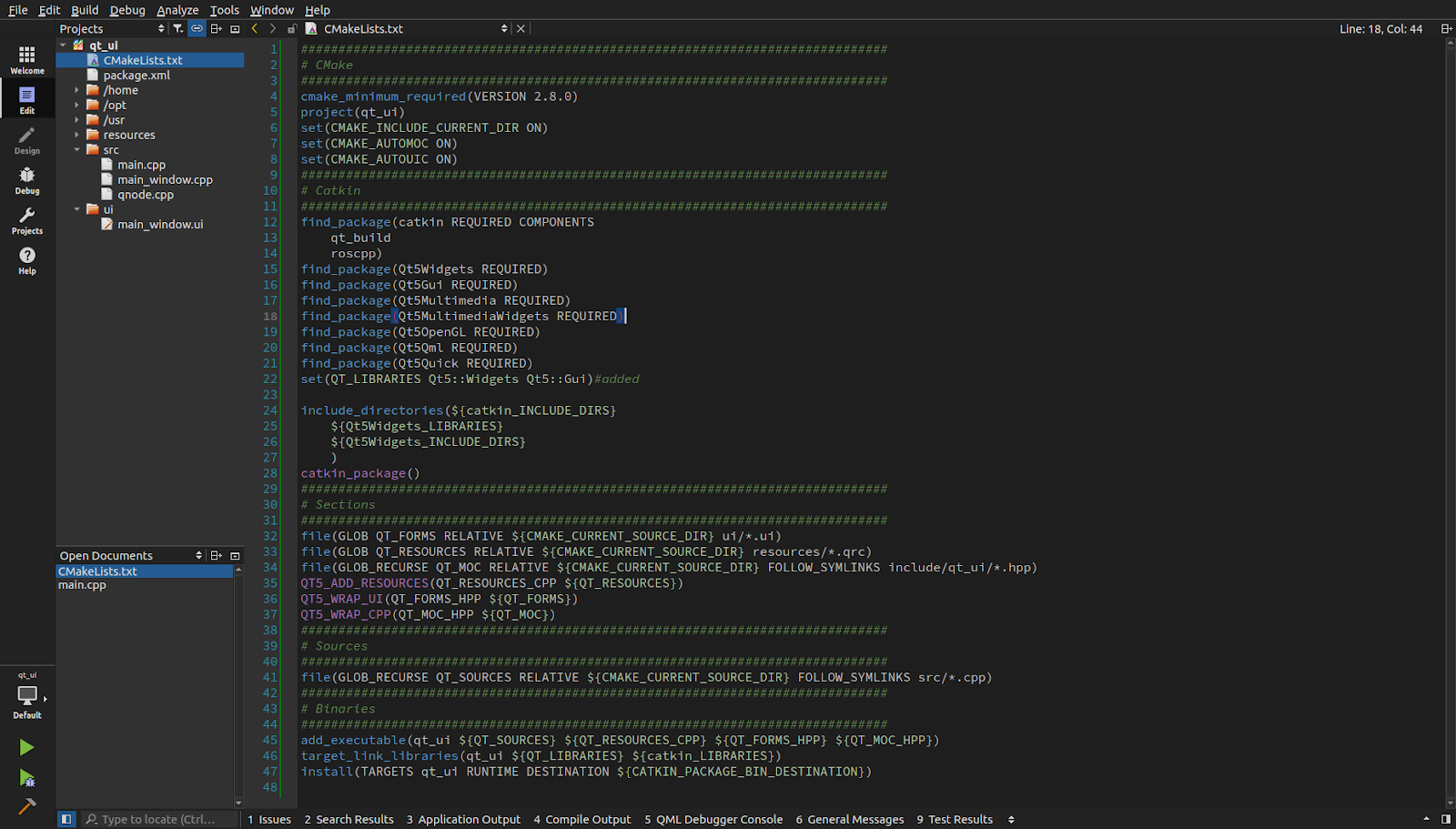


## 更改configure project



/home/ben/catkin\_ws/build/<<package 名稱>>

## 更改CMakeLists.txt



cmake\_minimum\_required(VERSION 2.8.0)

project(qt\_ui)

set(CMAKE\_INCLUDE\_CURRENT\_DIR ON)

set(CMAKE\_AUTOMOC ON)

set(CMAKE\_AUTOUIC ON)

##############################################################################

# Catkin

##############################################################################

find\_package(catkin REQUIRED COMPONENTS

qt\_build

roscpp)

find\_package(Qt5Widgets REQUIRED)

find\_package(Qt5Gui REQUIRED)

find\_package(Qt5Multimedia REQUIRED)

find\_package(Qt5MultimediaWidgets REQUIRED)

find\_package(Qt5OpenGL REQUIRED)

find\_package(Qt5Qml REQUIRED)

find\_package(Qt5Quick REQUIRED)

set(QT\_LIBRARIES Qt5::Widgets Qt5::Gui)#added

include\_directories(${catkin\_INCLUDE\_DIRS}

${Qt5Widgets\_LIBRARIES}

${Qt5Widgets\_INCLUDE\_DIRS}

)

catkin\_package()

##############################################################################

# Sections

##############################################################################

file(GLOB QT\_FORMS RELATIVE ${CMAKE\_CURRENT\_SOURCE\_DIR} ui/\*.ui)

file(GLOB QT\_RESOURCES RELATIVE ${CMAKE\_CURRENT\_SOURCE\_DIR} resources/\*.qrc)

file(GLOB\_RECURSE QT\_MOC RELATIVE ${CMAKE\_CURRENT\_SOURCE\_DIR} FOLLOW\_SYMLINKS include/qt\_ui/\*.hpp)

QT5\_ADD\_RESOURCES(QT\_RESOURCES\_CPP ${QT\_RESOURCES})

QT5\_WRAP\_UI(QT\_FORMS\_HPP ${QT\_FORMS})

QT5\_WRAP\_CPP(QT\_MOC\_HPP ${QT\_MOC})

##############################################################################

# Sources

##############################################################################

file(GLOB\_RECURSE QT\_SOURCES RELATIVE ${CMAKE\_CURRENT\_SOURCE\_DIR} FOLLOW\_SYMLINKS src/\*.cpp)

##############################################################################

# Binaries

##############################################################################

add\_executable(qt\_ui ${QT\_SOURCES} ${QT\_RESOURCES\_CPP} ${QT\_FORMS\_HPP} ${QT\_MOC\_HPP})

target\_link\_libraries(qt\_ui ${QT\_LIBRARIES} ${catkin\_LIBRARIES})

install(TARGETS qt\_ui RUNTIME DESTINATION ${CATKIN\_PACKAGE\_BIN\_DESTINATION})

# QT UI 基本教學

<https://www.bbsmax.com/A/RnJW7r6wJq/>