DWIN Linux LCD Screen (35 series) QT Cross-compile Configuration

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1 Install Qt Creator

1.1 System Requirements

This document is based on Ubuntu 14.04 system for verification. Other versions of Ubuntu systems should work but are not verified.

1.2 Download Qt Creator

The version of Qt Creator used in this document is 2.7.2. Please download the version that matches the operating system.

source/	02-Jul-2013 19:43	-	
qt-creator-windows-opensource-2.7.2.exe	02-Jul-2013 19:43	53M	Details
qt-creator-mac-opensource-2.7.2.dmg	02-Jul-2013 19:43	53M	Details
qt-creator-linux-x86_64-opensource-2.7.2.bin	02-Jul-2013 19:43	62M	Details
qt-creator-linux-x86-opensource-2.7.2.bin	02-Jul-2013 19:43	63M	Details
qt-creator-2.7.2-src.zip	02-Jul-2013 19:43	27M	Details
qt-creator-2.7.2-src.tar.gz	02-Jul-2013 19:43	22M	Details

1.3 Install Qt Creator

Copy the installer to your Ubuntu system and add execute permissions to the file:

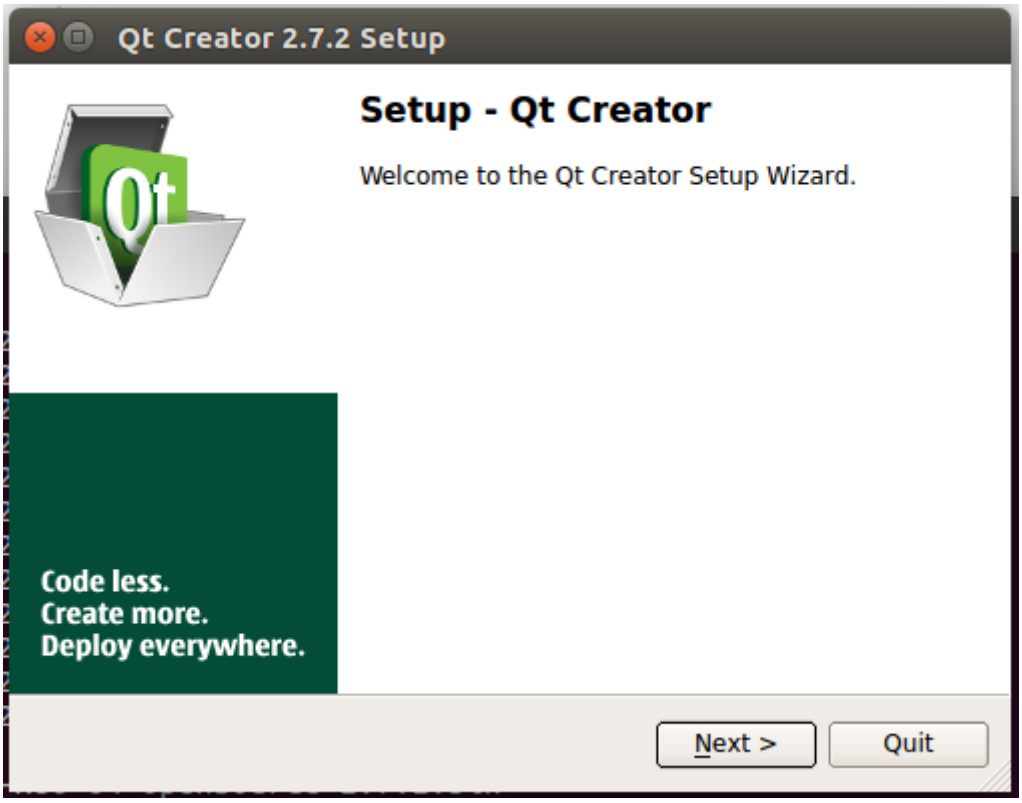
chmod +x qt-creator-linux-x86_64-opensource-2.7.2.bin

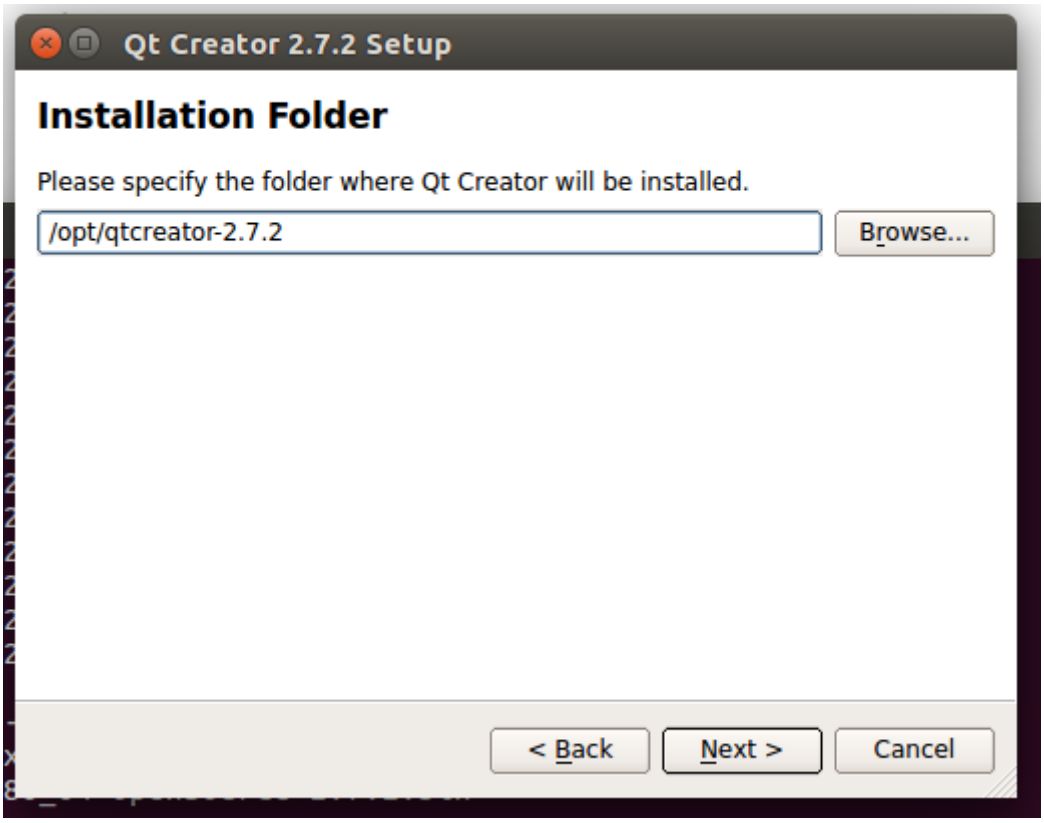
```
dwinvm@ubuntu:~$ chmod +x qt-creator-linux-x86_64-opensource-2.7.2.bin
```

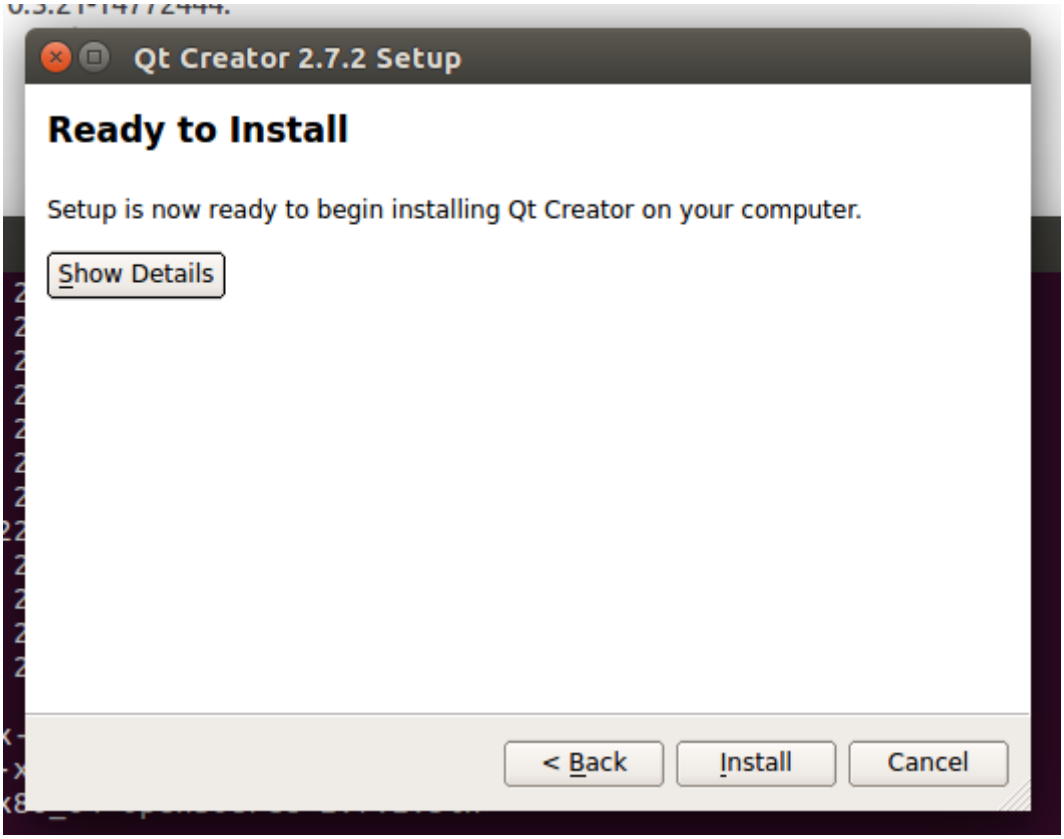
Run the installer

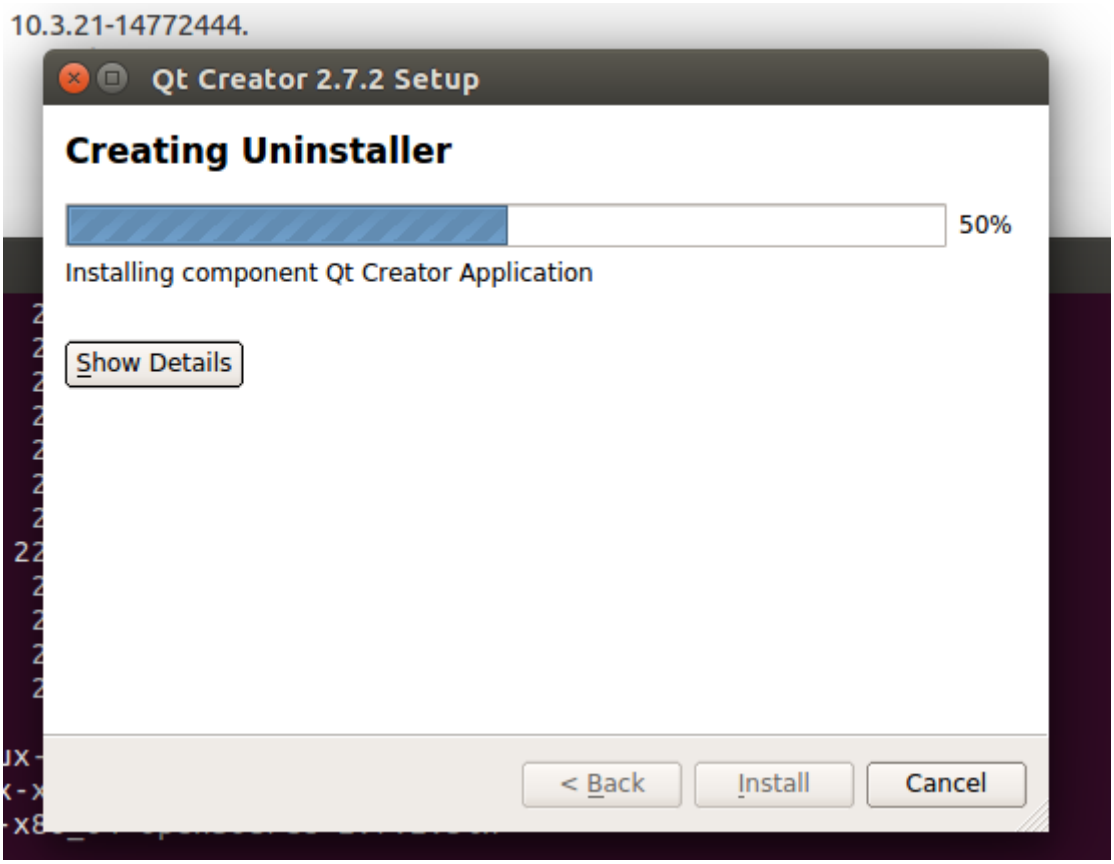
sudo ./qt-creator-linux-x86_64-opensource-2.7.2.bin

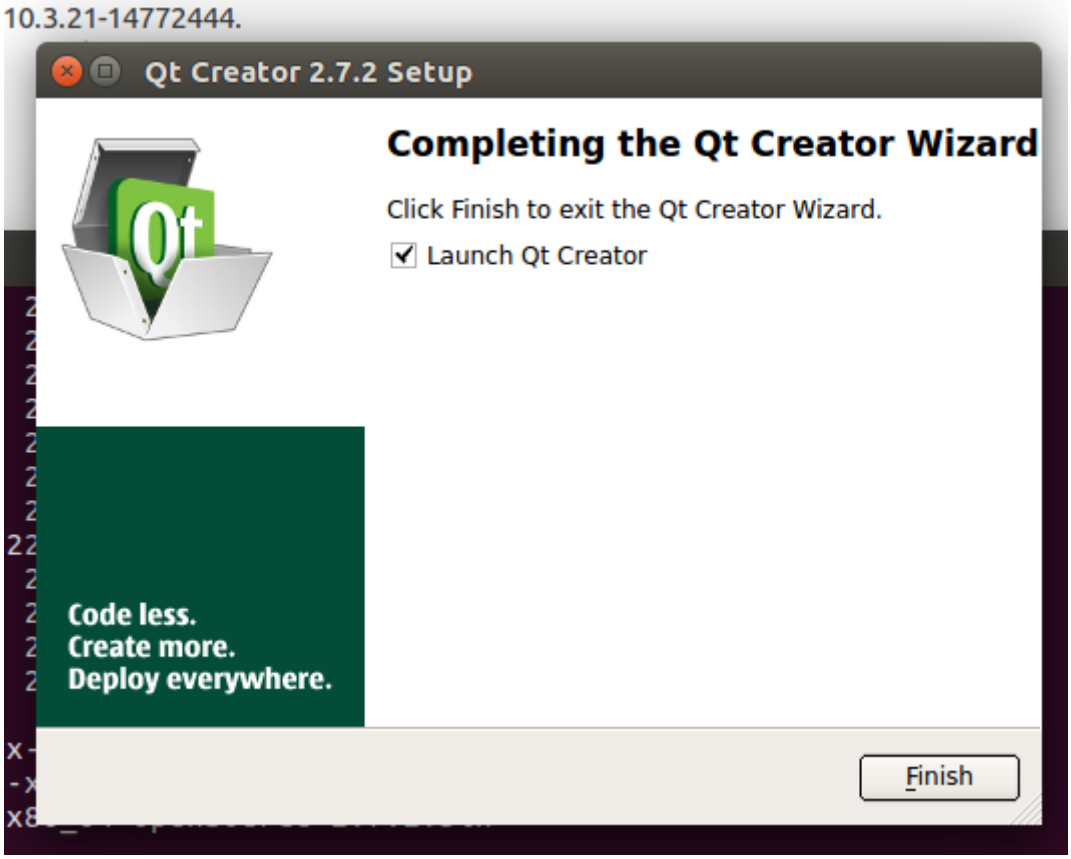
Click the “Next”:


Qt Creator 2.7.2 Setup
Setup - Qt Creator
Welcome to the Qt Creator Setup Wizard.
Code less.
Create more.
Deploy everywhere.
Next >
Quit


Qt Creator 2.7.2 Setup
Installation Folder
Please specify the folder where Qt Creator will be installed.
/opt/qtcreator-2.7.2
Browse...
< Back
Next >
Cancel


Qt Creator 2.7.2 Setup
Ready to Install
Setup is now ready to begin installing Qt Creator on your computer.
Show Details
< Back
Install
Cancel


10.3.21-14772444.
Qt Creator 2.7.2 Setup
Creating Uninstaller
50%
Installing component Qt Creator Application
Show Details
< Back
Install
Cancel

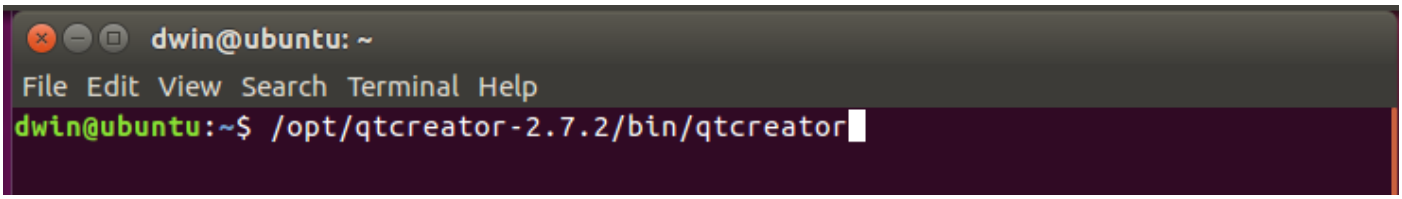

10.3.21-14772444.
Qt Creator 2.7.2 Setup
Completing the Qt Creator Wizard
Click Finish to exit the Qt Creator Wizard.
Launch Qt Creator
Code less.
Create more.
Deploy everywhere.
Finish

2 Set up the cross-compilation environment

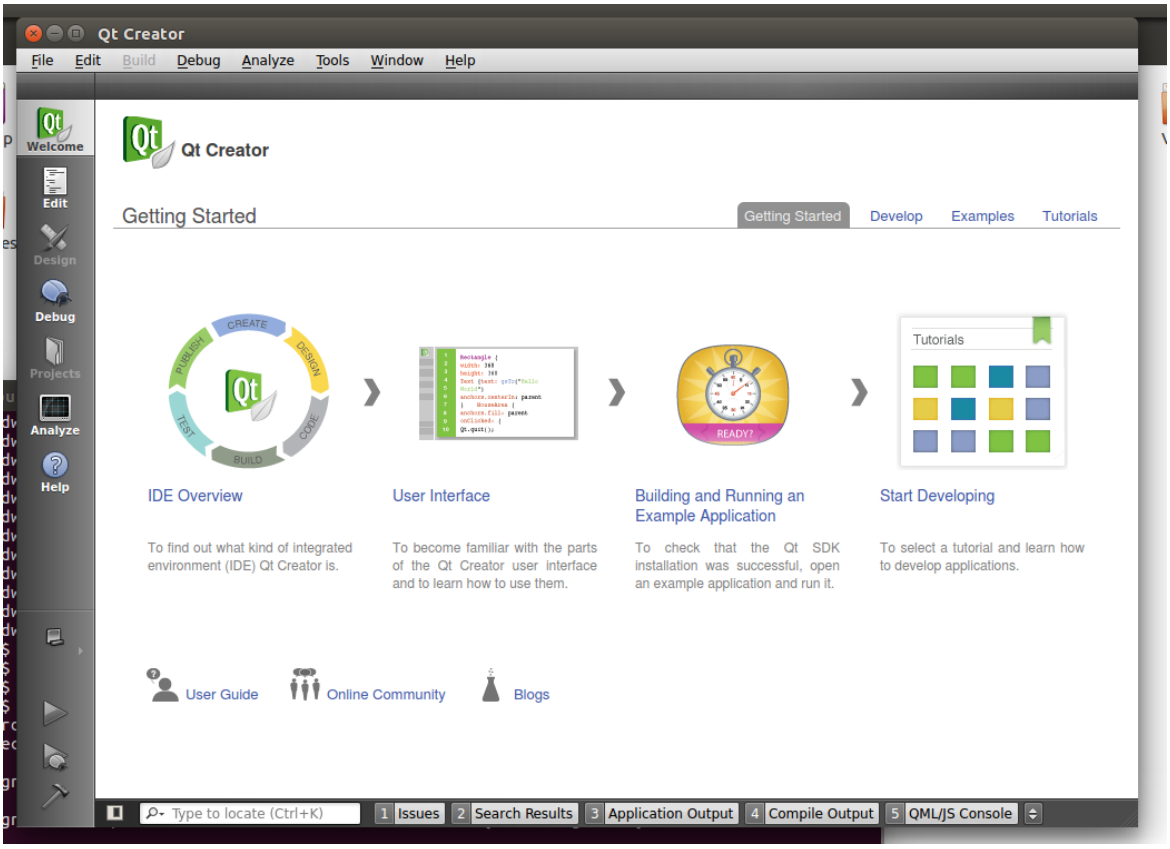
2.1 Run the Qt Creator

The Qt Creator executable file is in the bin directory of the installation directory.

/opt/qtcreator-2.7.2/bin/qtcreator

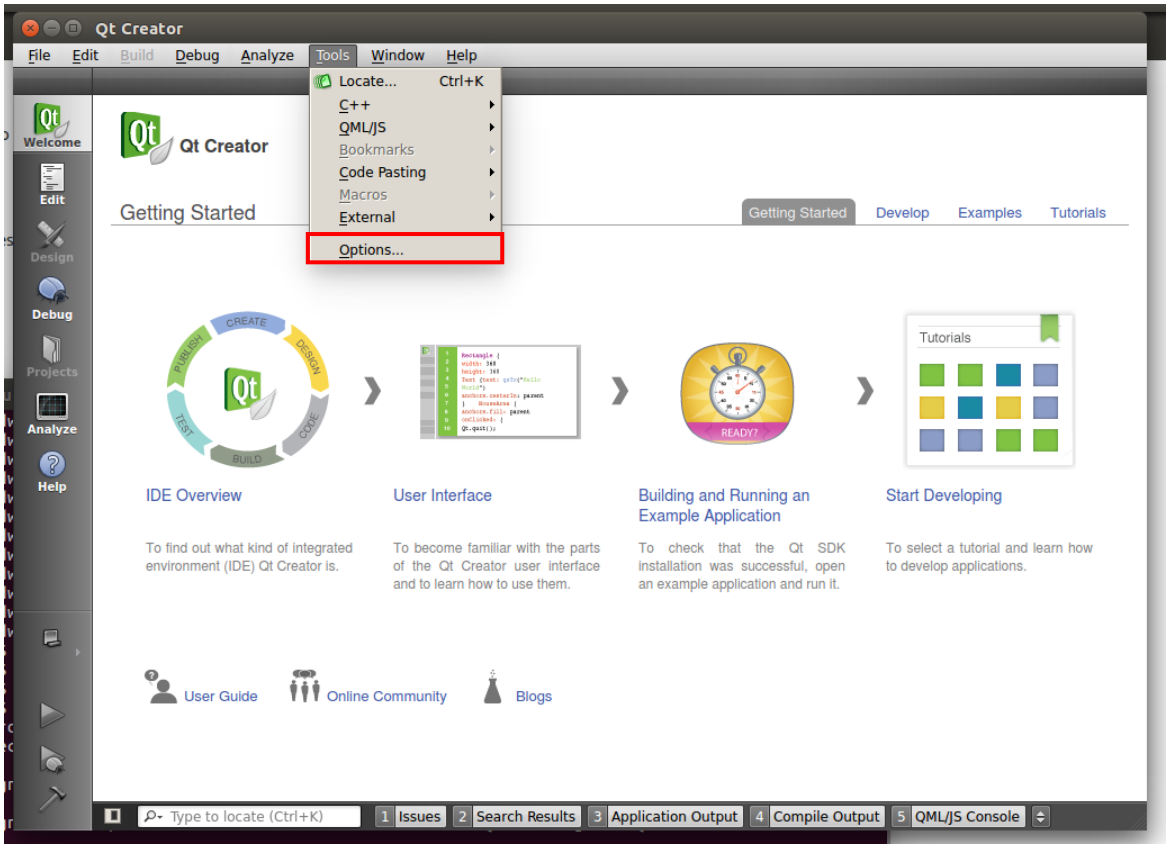


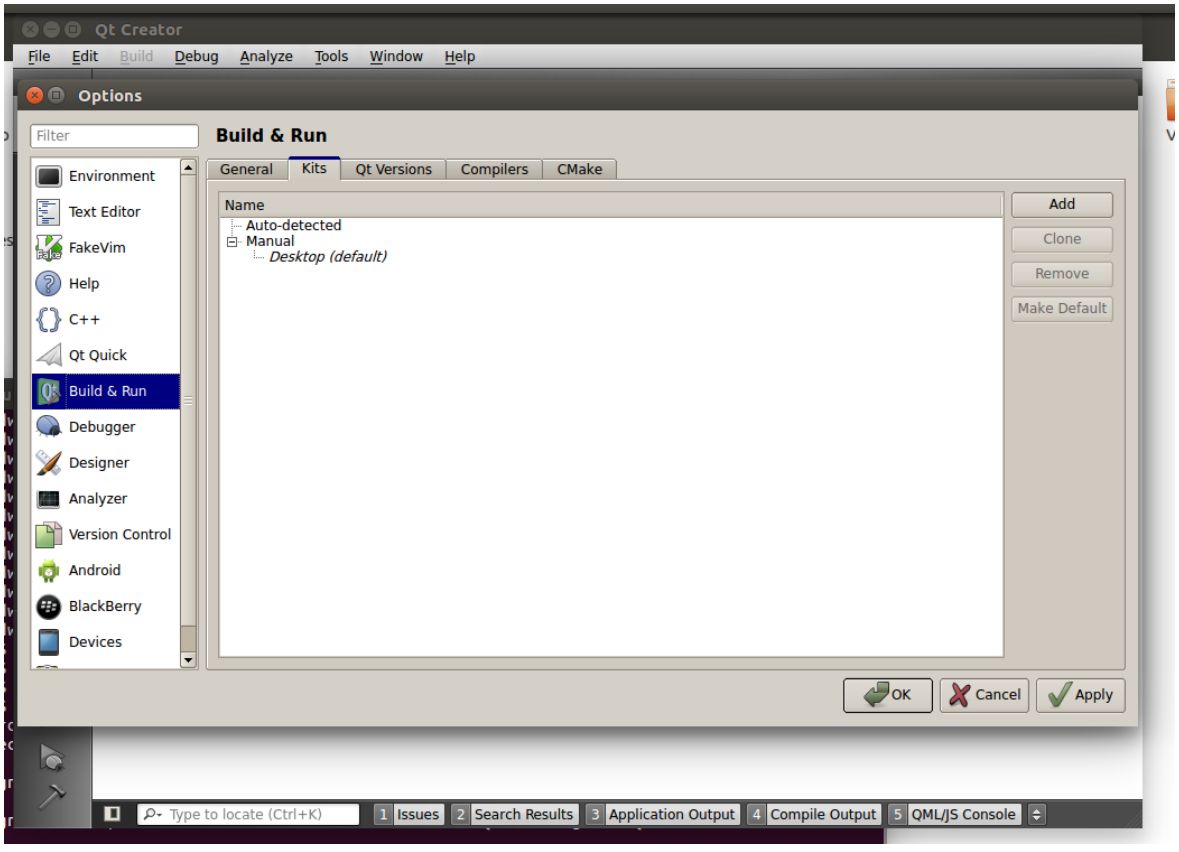
The interface of software is as below.



2.2 Set up the cross-compilation environment

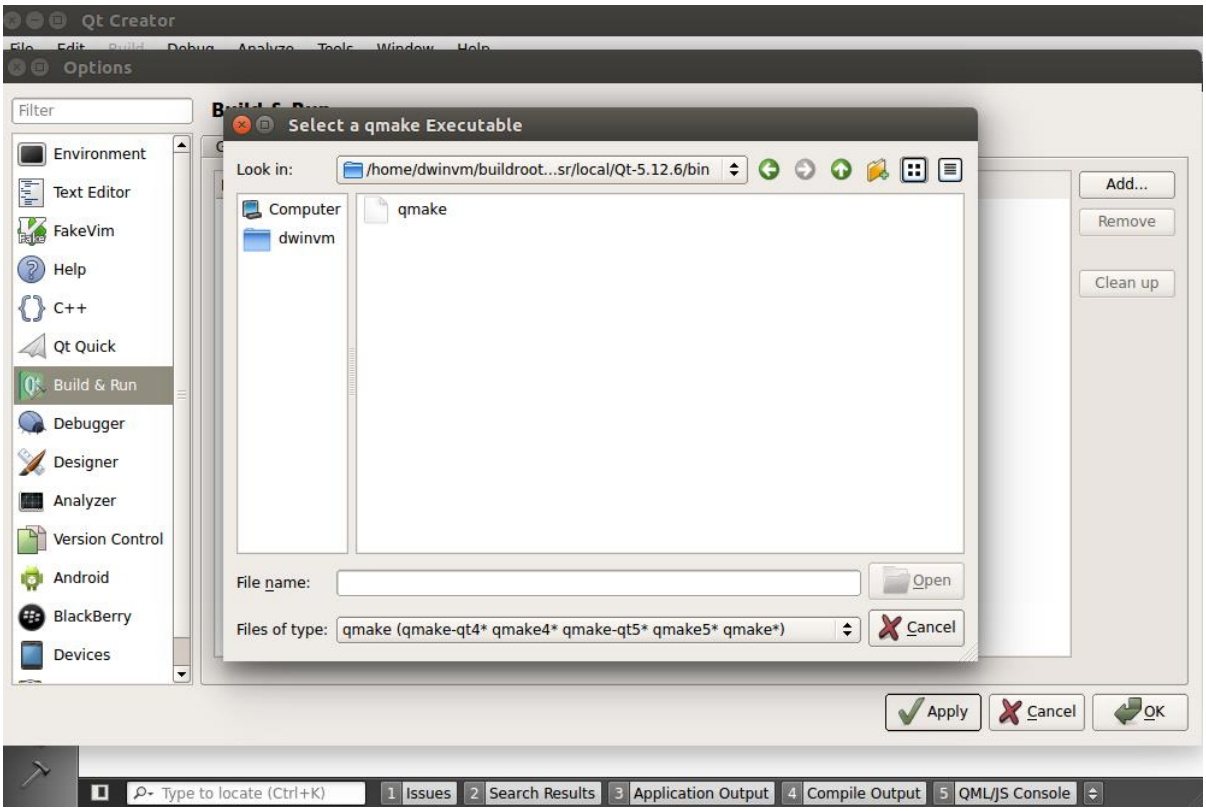
Choose [tool] – [options] as below.

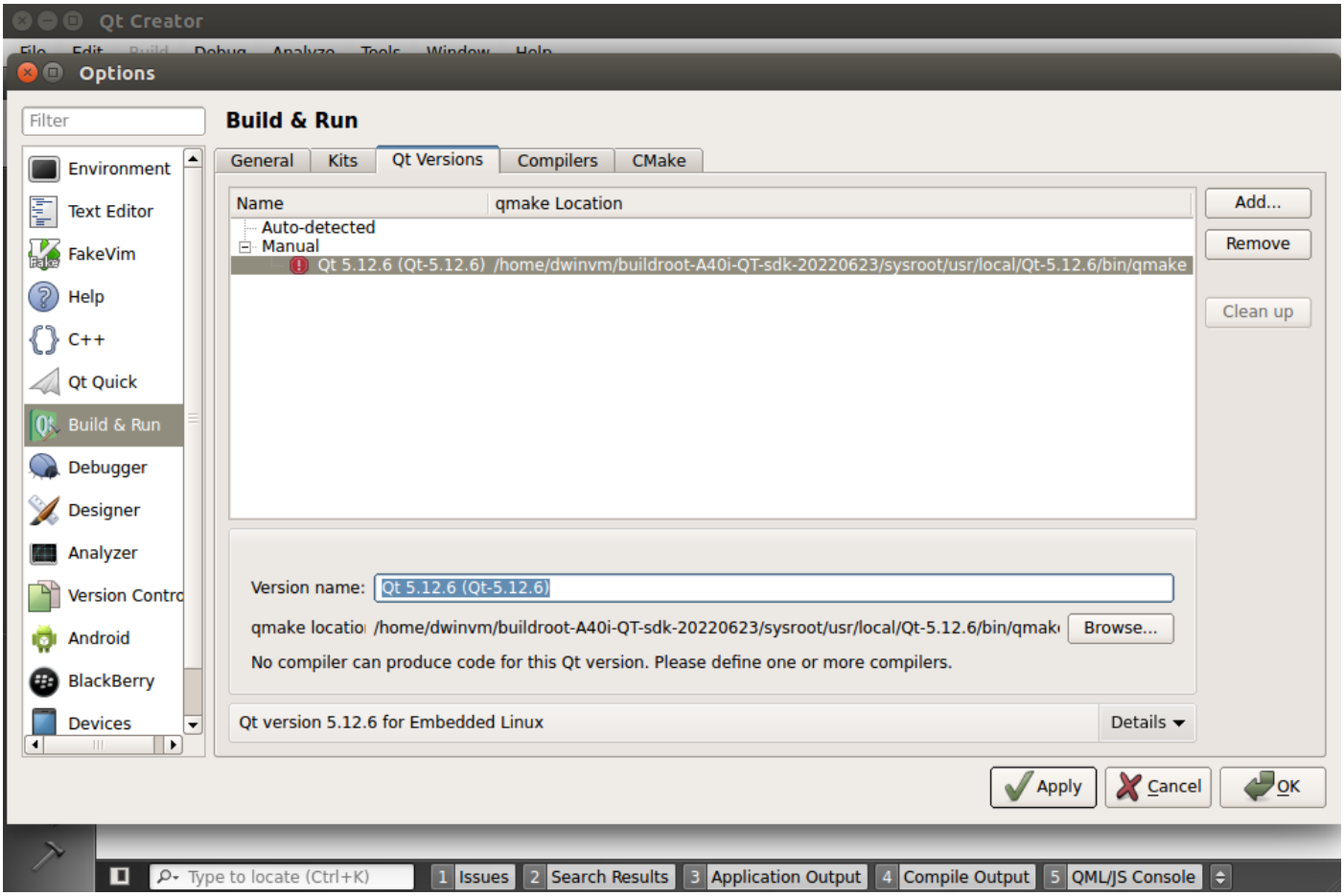




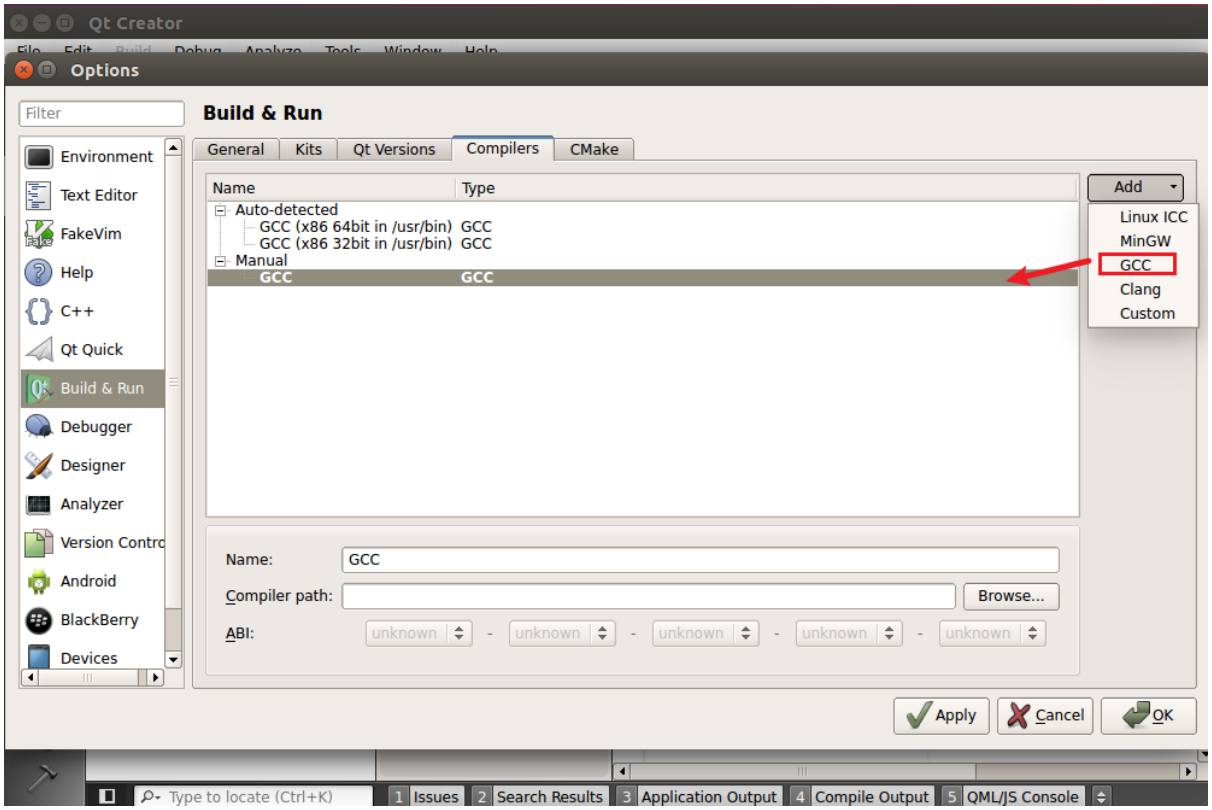
Set qmake: choose [Build & Run] – [Qt Version] – [Add],

"qmake" is in the 'sysroot/usr/local/Qt-5.12.6/bin/' directory of buildroot-A40i-QT-sdk-20220623.tar.gz

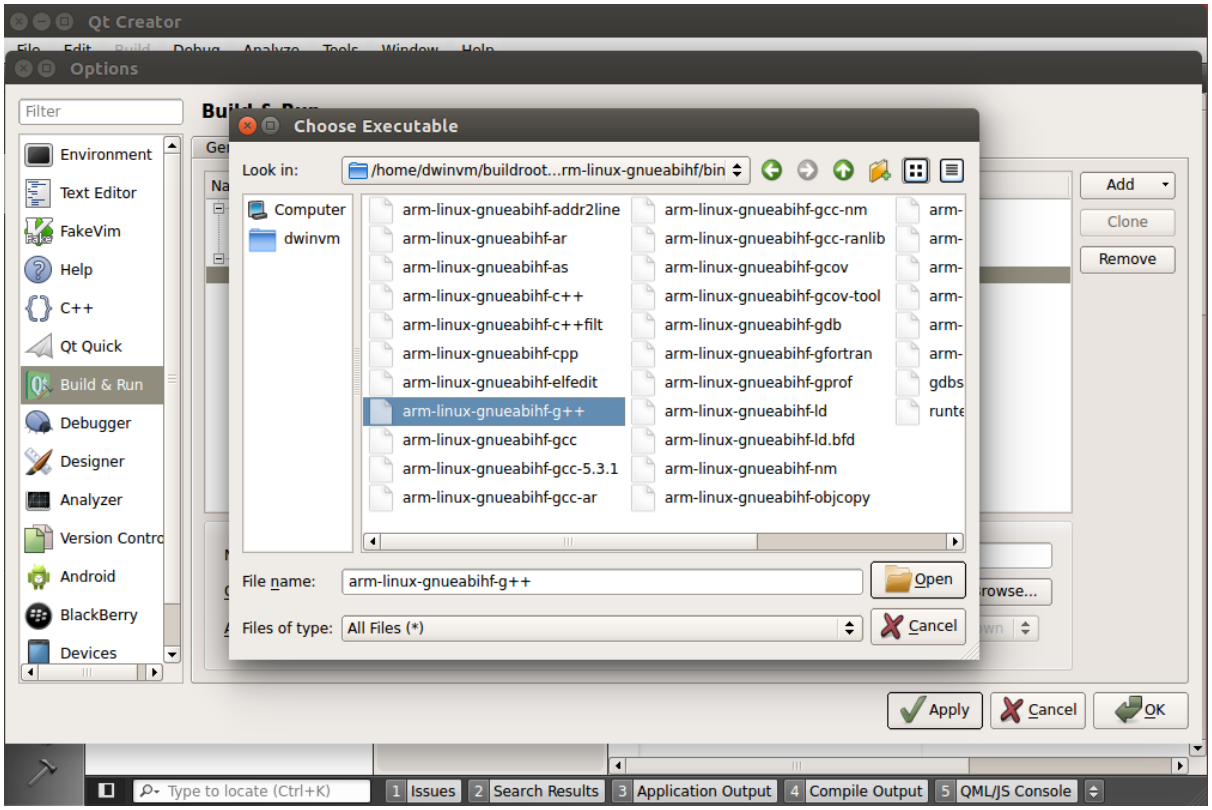


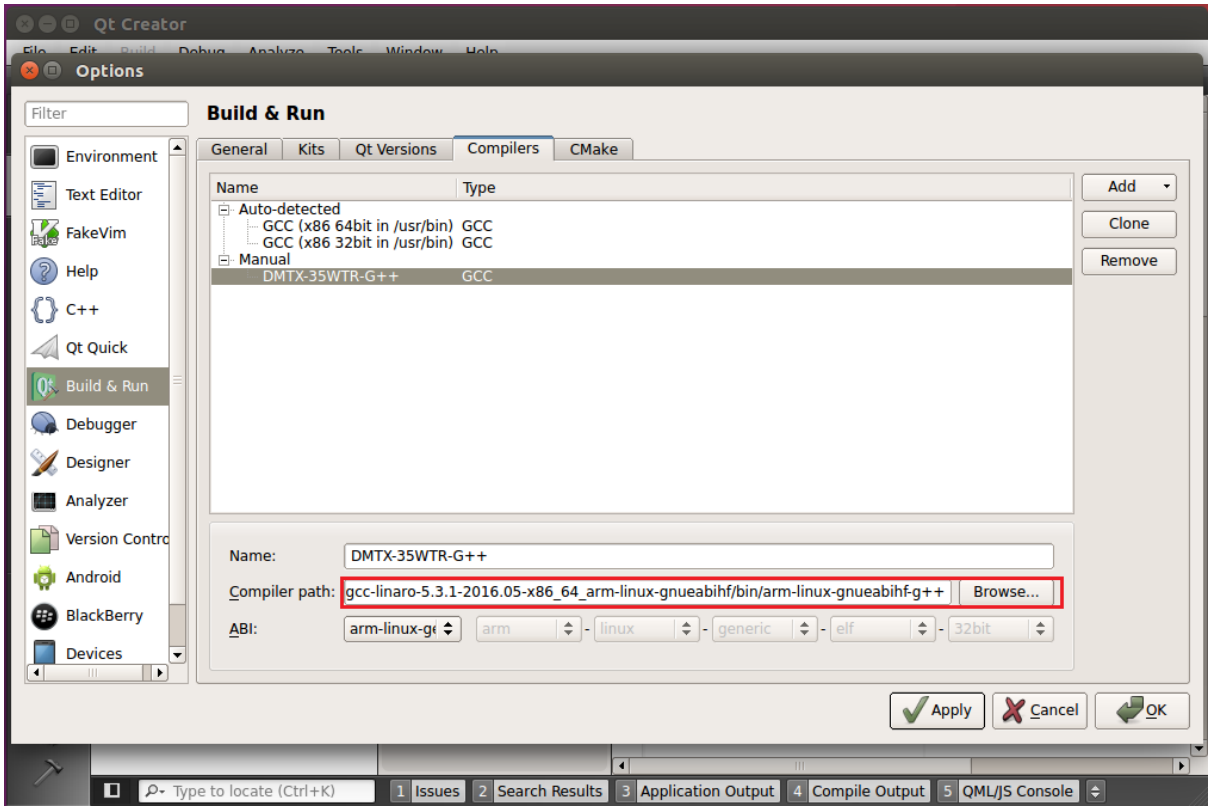


Set compilation toolchain: choose [Build & Run] – [Compilers] – [Add] – [GCC]:

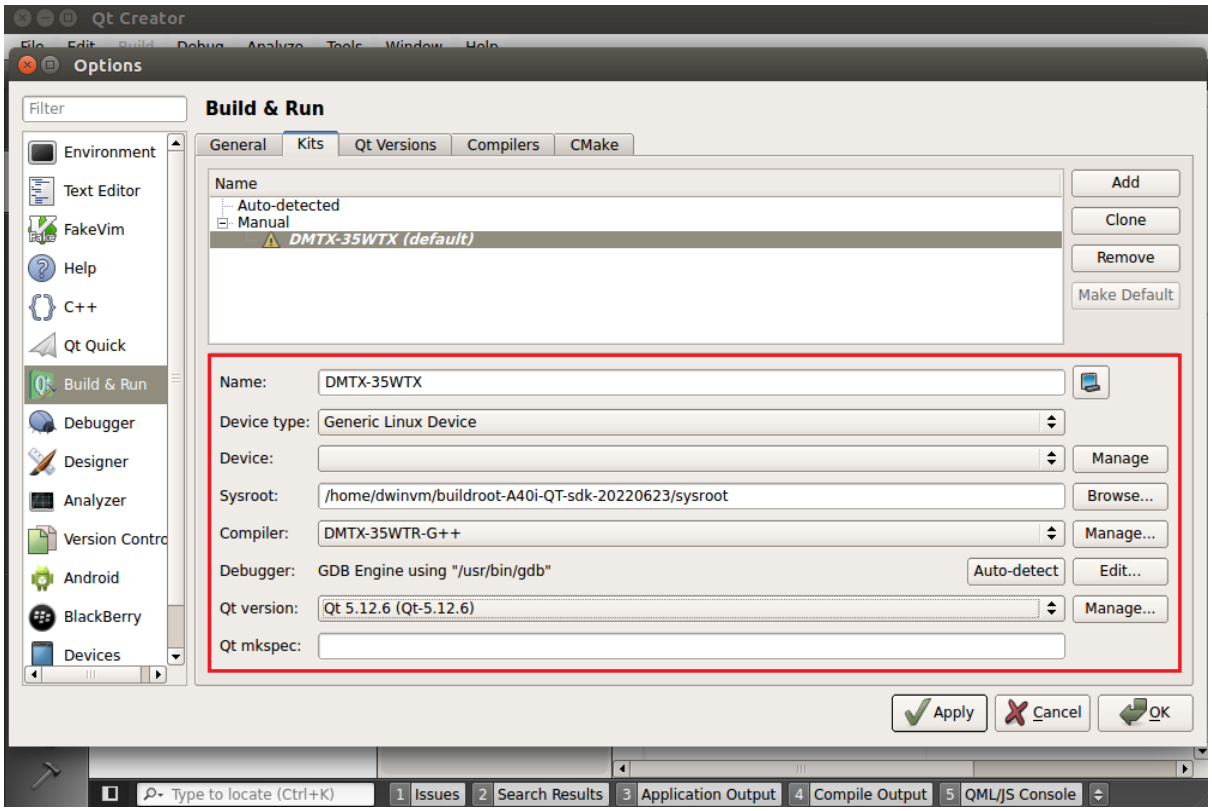


The compiler is located in the 'gcc-linaro-5.3.1-2016.05-x86_64_arm-linux-gnueabihf/bin' directory of the 'buildroot-A40i-QT-sdk-20220623.tar.gz' package.





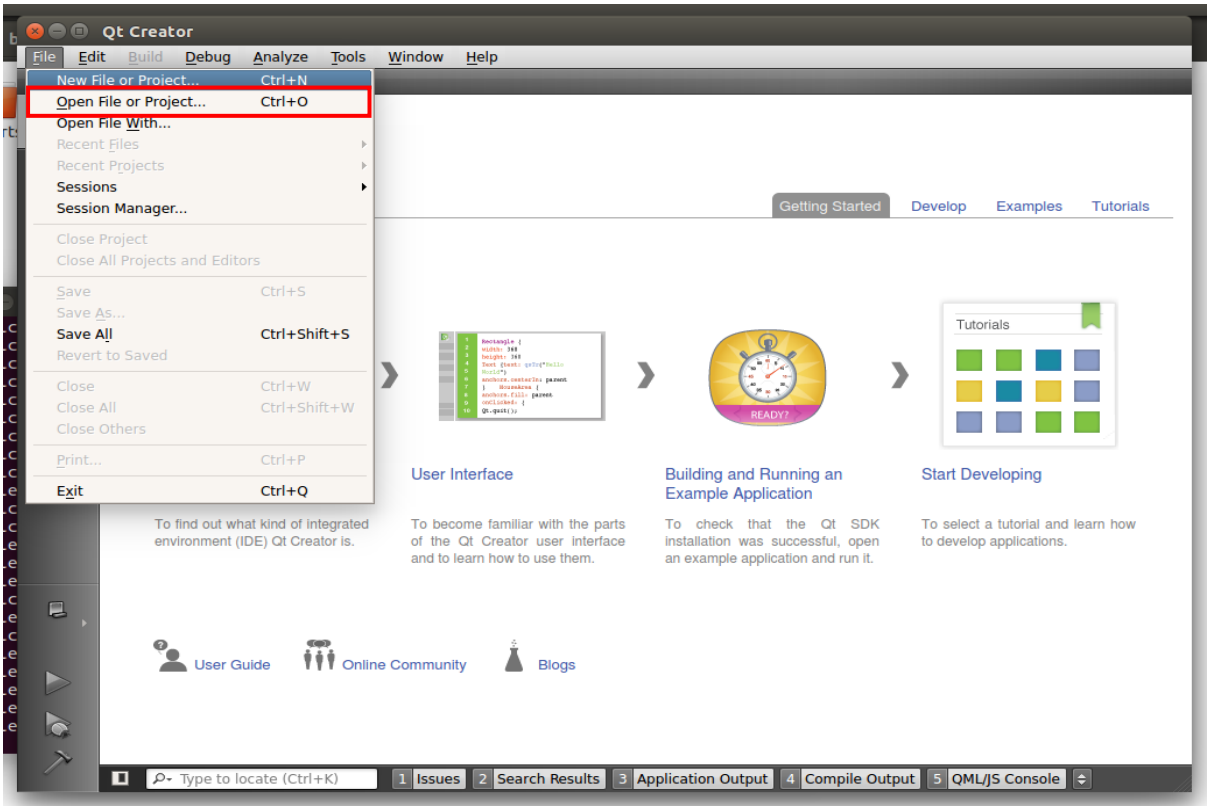
Set up the build kit: choose [Build & Run] – [Kits]:



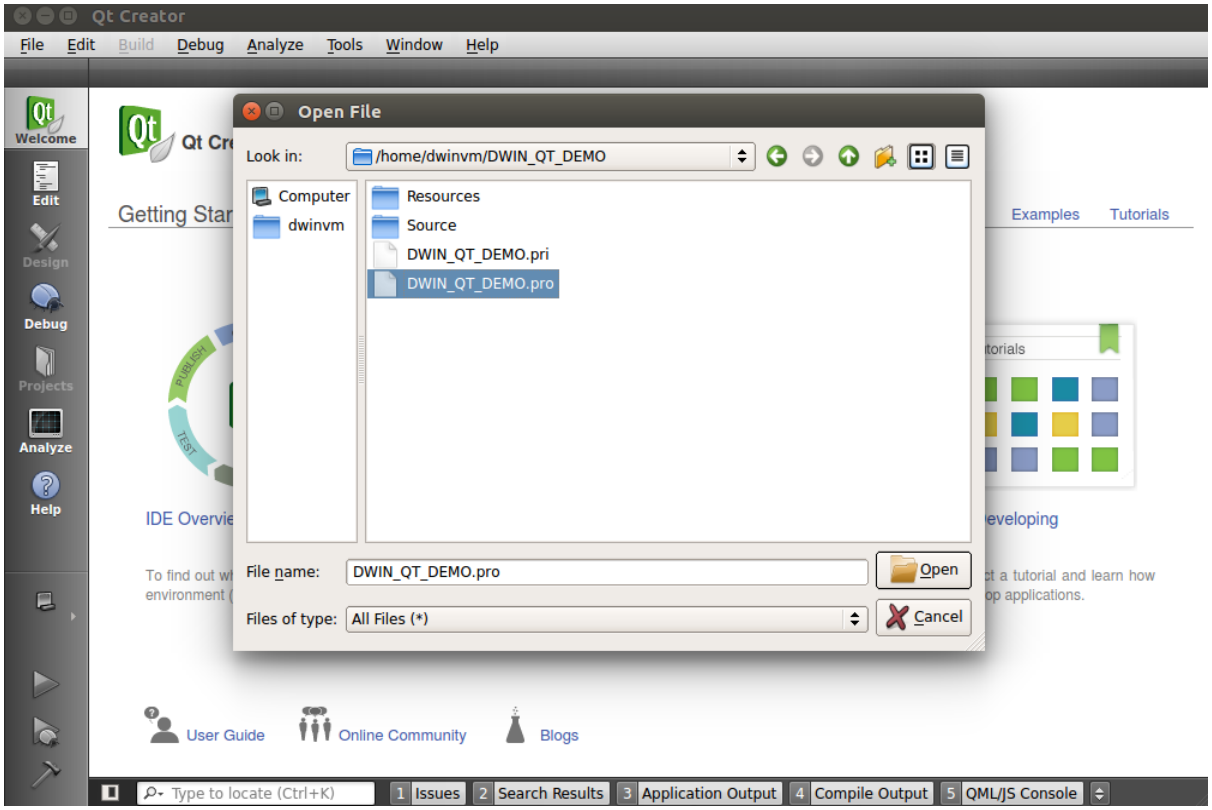
3 Compile Qt project

3.1 Open the project

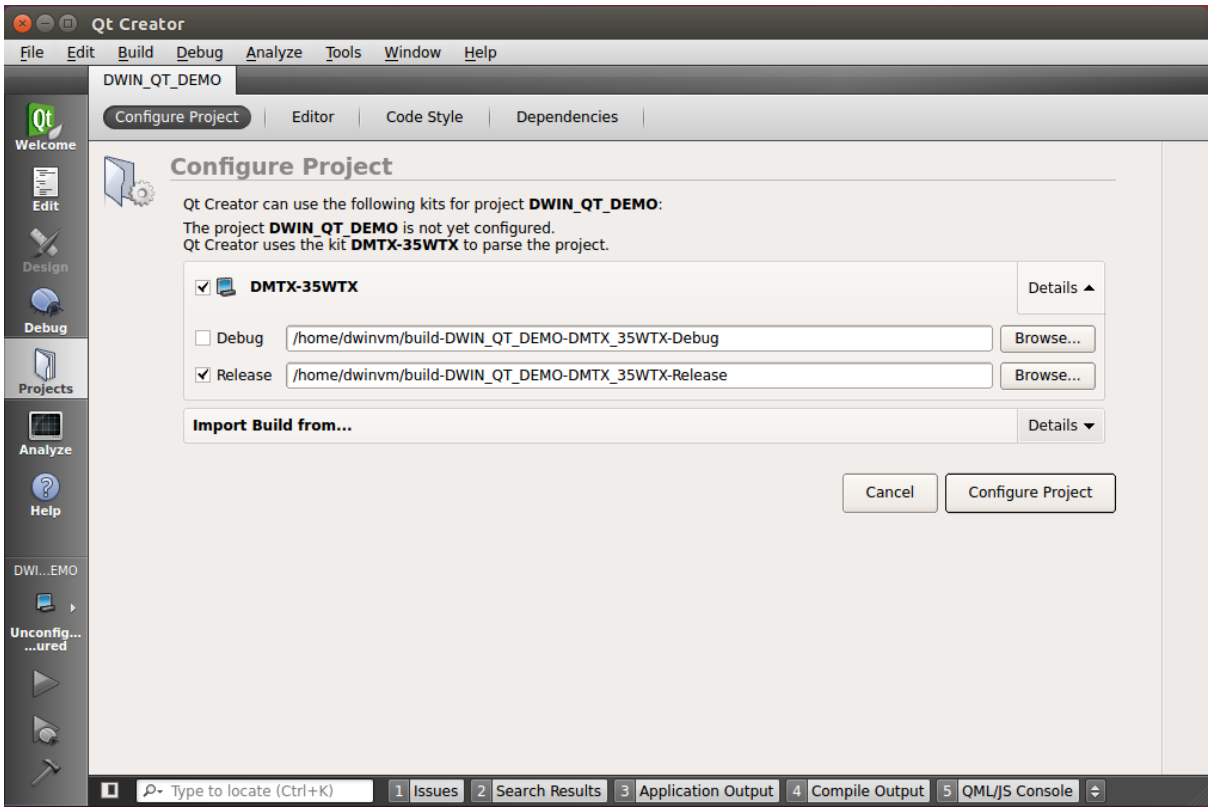
[File] – [open file or project]:



Choose the Qt project:



Configure the project:

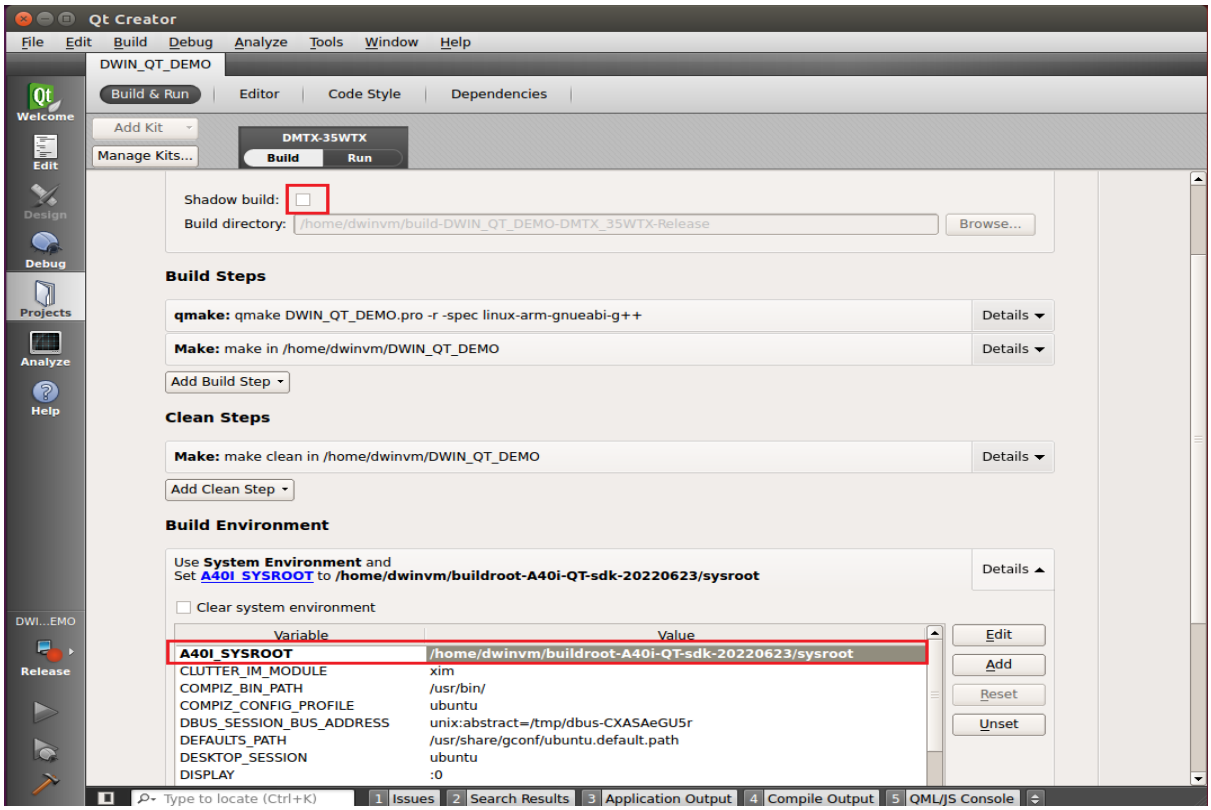


3.2 **Add environment variables**

Go to [Projects] – [Build & Run] - [Build Environment], and add a variable:

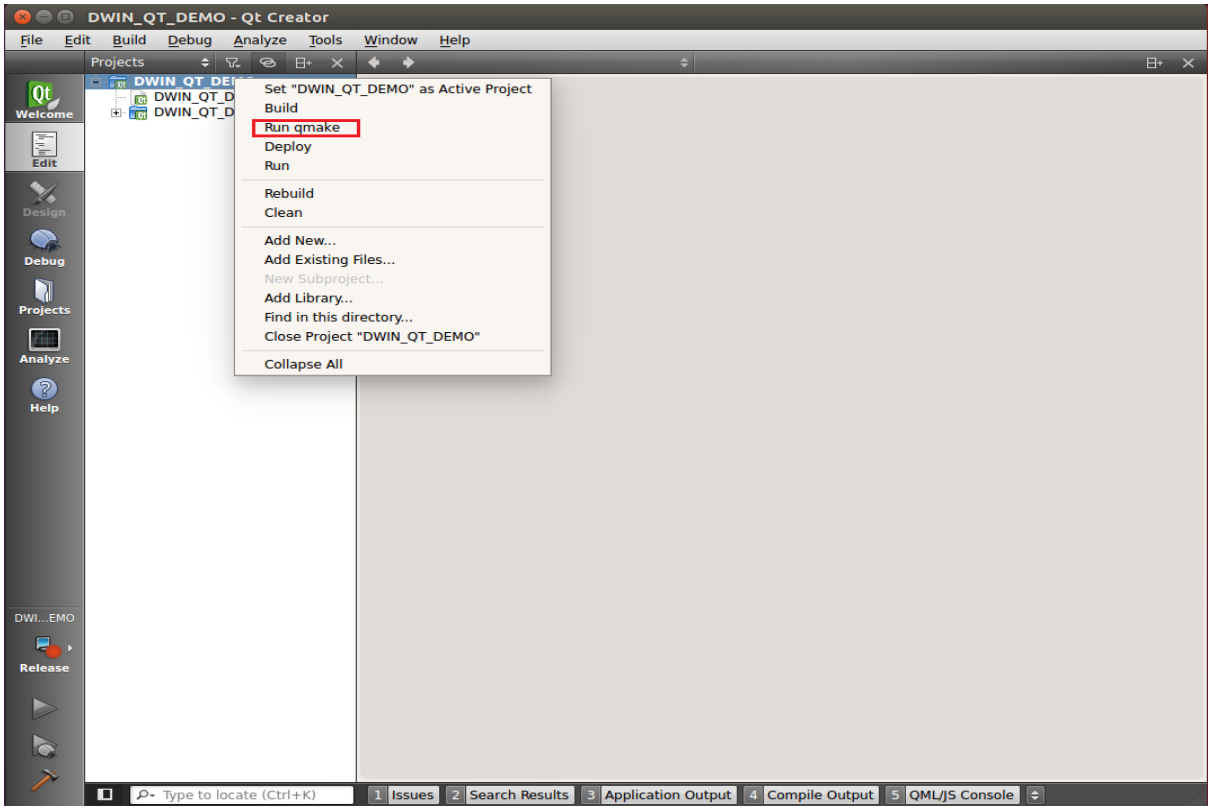
Variable Name: A40I_SYSROOT

Value: 'sysroot' directory of the 'buildroot-A40i-QT-sdk-20220623.tar.gz' package

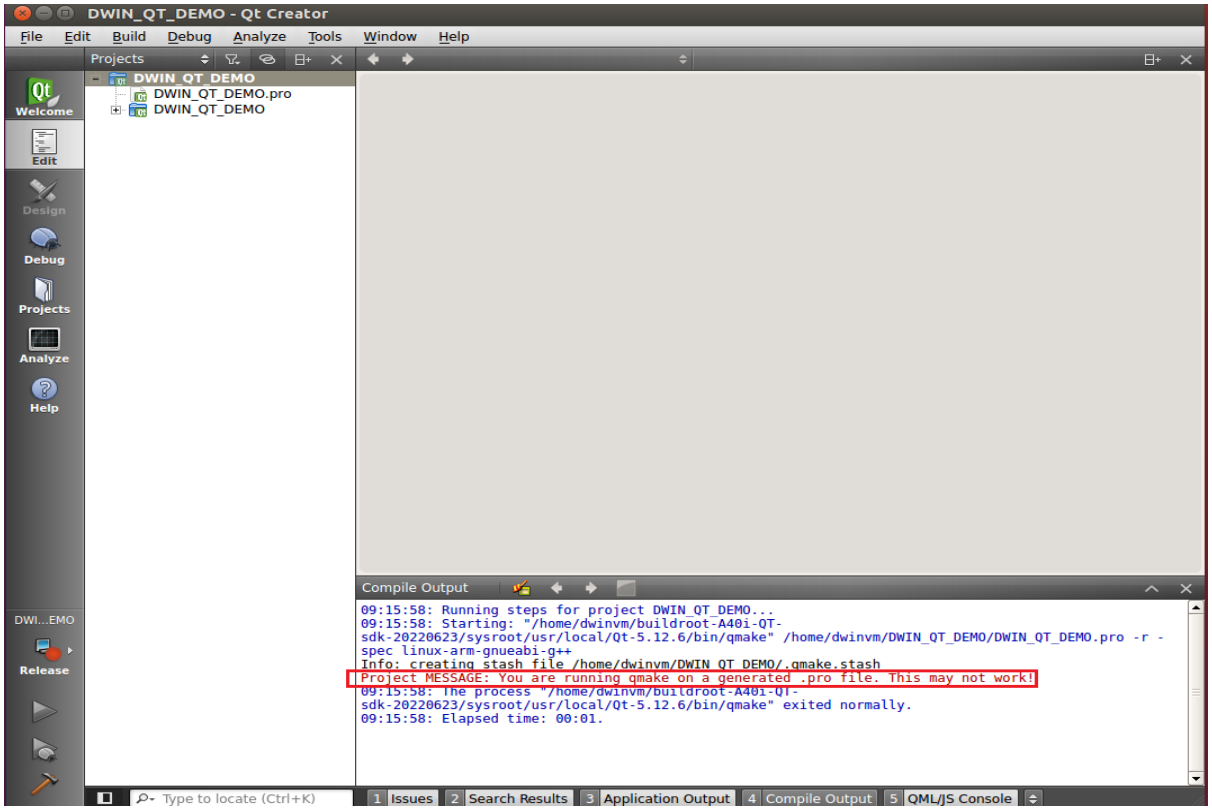


3.3 **Run qmake**

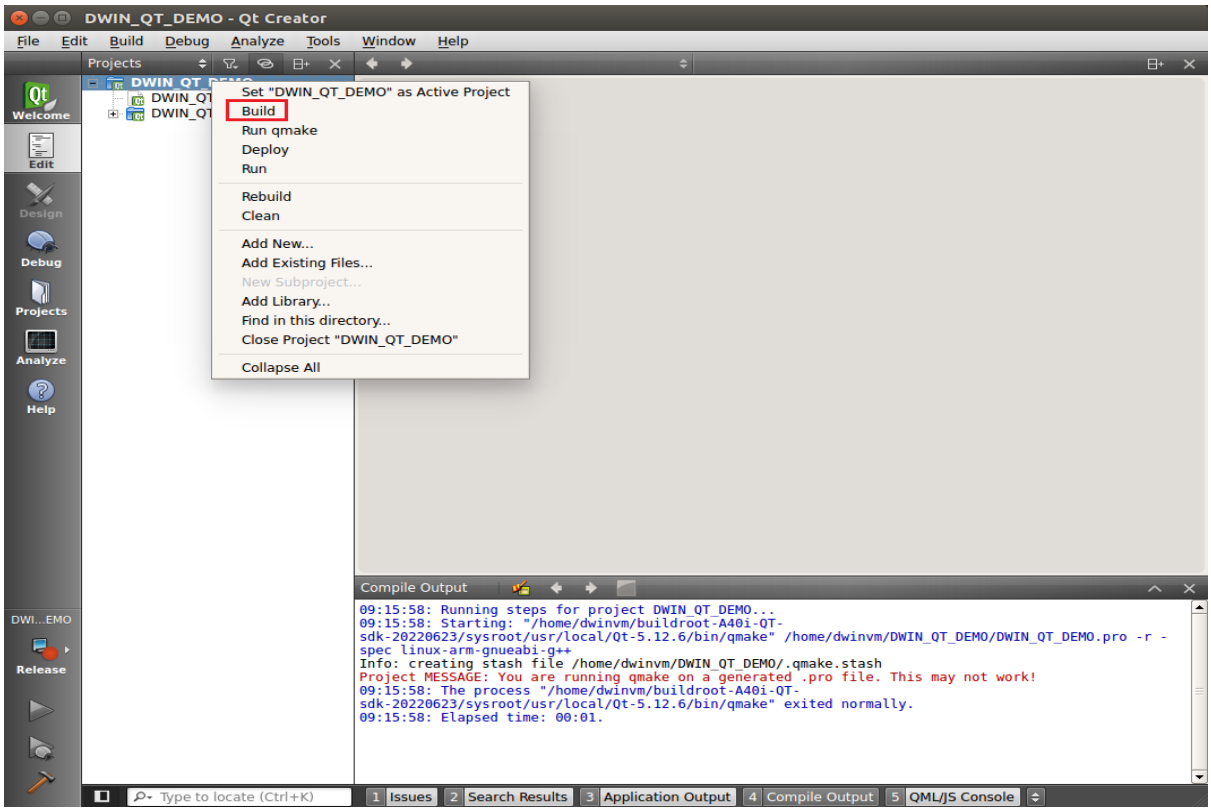
Choose project, 'right key' – run qmake



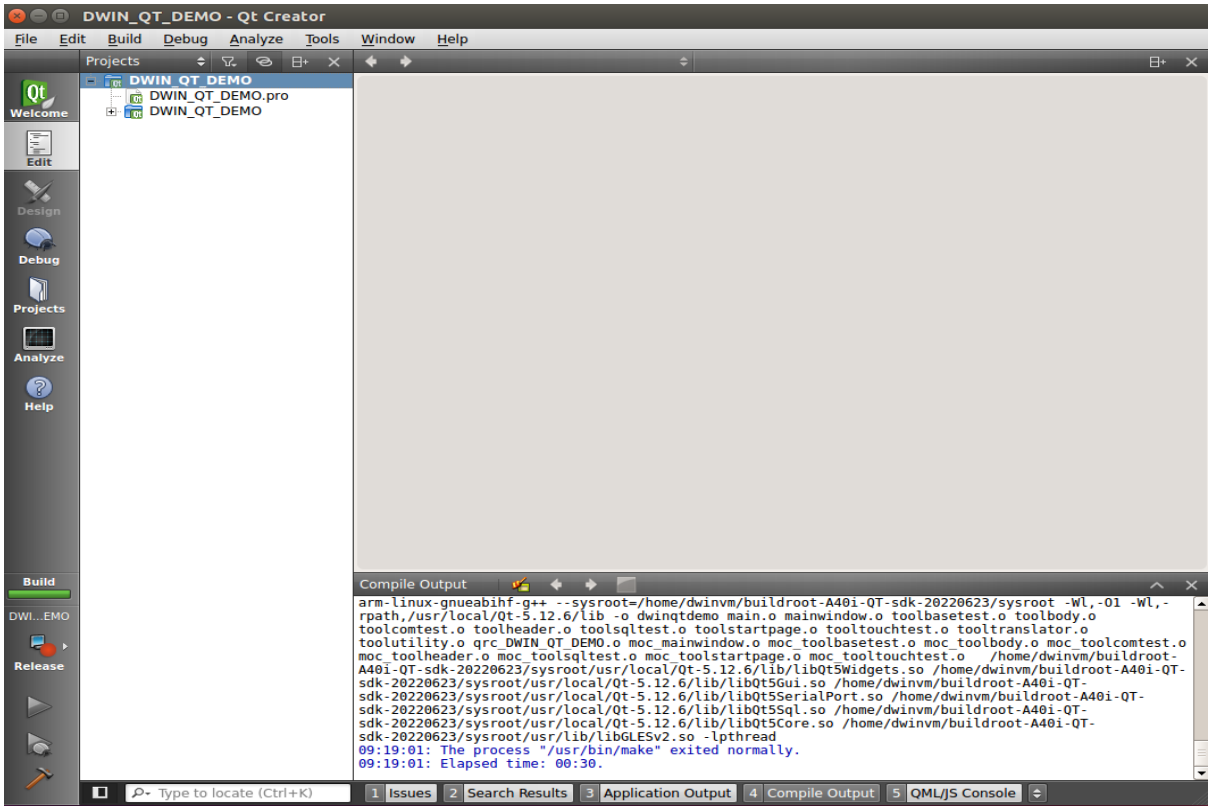
When qmake is successful, it looks like the image below (the red part is the printout of DWIN_QT_DEMO.pri, which does not affect).

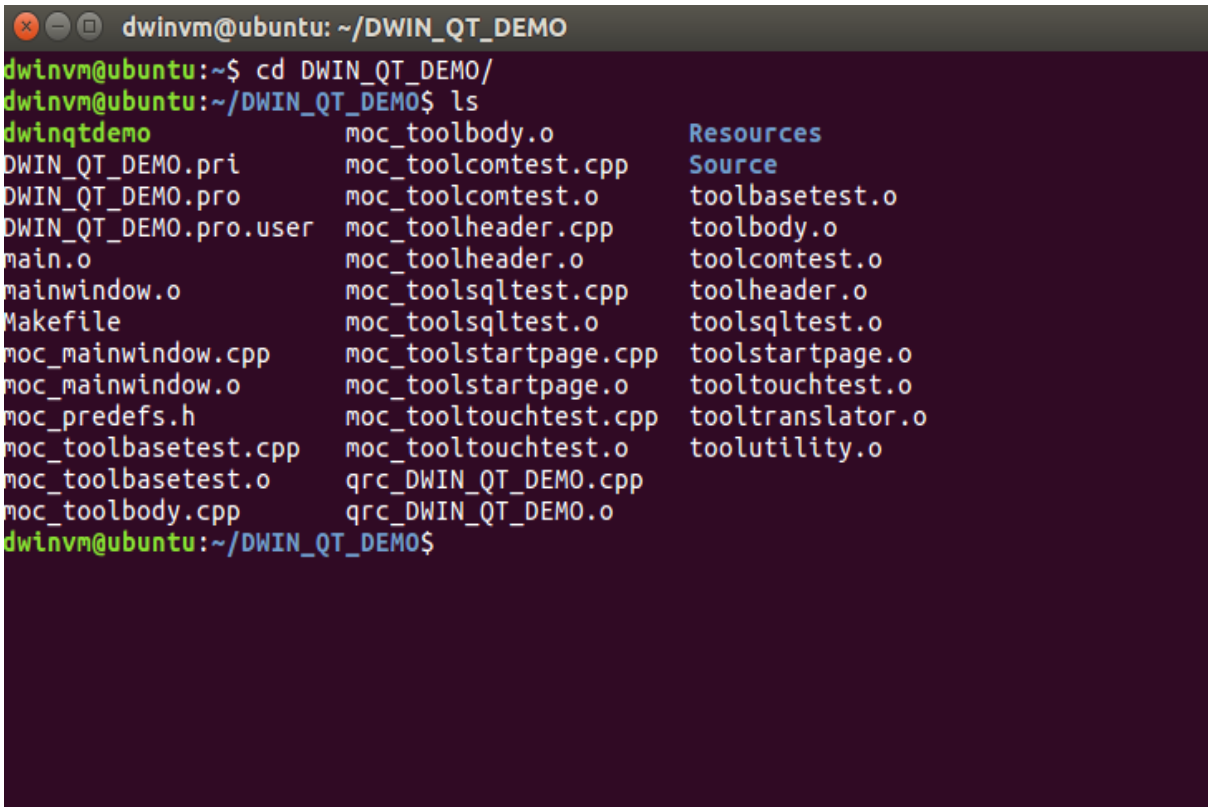


3.4 **Build**



At this point, the target files have been generated in the project directory and can be copied to the screen for execution.


DWIN_QT_DEMO - Qt Creator
File Edit Build Debug Analyze Tools Window Help
Projects
DWIN_QT_DEMO
DWIN_QT_DEMO.pro
DWIN_QT_DEMO
Welcome
Edit
Design
Debug
Projects
Analyze
Help
Build
Release
Compile Output
arm-linux-gnueabihf-g++ --sysroot=/home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot -Wl,-O1 -Wl,-rpath,/usr/local/Qt-5.12.6/lib -o dwinqtdemo main.o mainwindow.o toolbasetest.o toolbody.o toolcomtest.o toolheader.o toolsqltest.o toolstartpage.o tooltouchtest.o tooltranslator.o toolutility.o qrc_DWIN_QT_DEMO.o moc_mainwindow.o moc_toolbasetest.o moc_toolbody.o moc_toolcomtest.o moc_toolheader.o moc_toolsqltest.o moc_toolstartpage.o moc_tooltouchtest.o /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/local/Qt-5.12.6/lib/libQt5Widgets.so /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/local/Qt-5.12.6/lib/libQt5Gui.so /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/local/Qt-5.12.6/lib/libQt5SerialPort.so /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/local/Qt-5.12.6/lib/libQt5Sql.so /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/local/Qt-5.12.6/lib/libQt5Core.so /home/dwinvm/buildroot-A40i-QT-sdk-20220623/sysroot/usr/lib/libGLESv2.so -lpthread
09:19:01: The process "/usr/bin/make" exited normally.
09:19:01: Elapsed time: 00:30.
Type to locate (Ctrl+K)
1 Issues 2 Search Results 3 Application Output 4 Compile Output 5 QML/JS Console


dwinvm@ubuntu: ~/DWIN_QT_DEMO
dwinvm@ubuntu:~$ cd DWIN_QT_DEMO/
dwinvm@ubuntu:~/DWIN_QT_DEMO$ ls
dwinqtdemo
DWIN_QT_DEMO.pri
DWIN_QT_DEMO.pro
DWIN_QT_DEMO.pro.user
main.o
mainwindow.o
Makefile
moc_mainwindow.cpp
moc_mainwindow.o
moc_predefs.h
moc_toolbasetest.cpp
moc_toolbasetest.o
moc_toolbody.cpp
moc_toolbody.o
moc_toolcomtest.cpp
moc_toolcomtest.o
moc_toolheader.cpp
moc_toolheader.o
moc_toolsqltest.cpp
moc_toolsqltest.o
moc_toolstartpage.cpp
moc_toolstartpage.o
moc_tooltouchtest.cpp
moc_tooltouchtest.o
qrc_DWIN_QT_DEMO.cpp
qrc_DWIN_QT_DEMO.o
Resources
Source
toolbasetest.o
toolbody.o
toolcomtest.o
toolheader.o
toolsqltest.o
toolstartpage.o
tooltouchtest.o
tooltranslator.o
toolutility.o
dwinvm@ubuntu:~/DWIN_QT_DEMO$

Revision Records

Rev	Revise Date	Content	Editor
00	2023-06-08	First Edition	Zheng Jianxin

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DWIN Developer Forum: https://forums.dwin-global.com/index.php/forums

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