



QY-IMX8 QT 5.10.1 Environment Setup Manual

Ver. : V1.0

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Preface

Manual Description:

This manual mainly introduces how to setup the environment for QT5.10.1.

Target Readers:

Manual is target to company insider including:

- Research & Development Engineers
- Test Engineers
- Technical Support Engineers

Products Version Explanation:

Products Name	Products Version
IAC-IMX8MM-KIT	OS Version: Linux 4.14.98

Version Update:

Version	Description	Date	Fixer
V1.0	Version Published	2020/04/17	Zhujh

I .Preparation

1. Setup the Host

[Install 64-bit Ubuntu 14.04 desktop]

2. Cross-Compiler Environment

[`$./fsl-imx-wayland-glibc-x86_64-fsl-image-qt5-validation-imx-aarch64-toolchain-4.14-sumo.sh`]

Input the installation path and press [Enter], adopting default path

Input [Y], then confirm.

```
./fsl-imx-wayland-glibc-x86_64-fsl-image-qt5-validation-imx-aarch64-toolchain-4.14-sumo.sh
NXP i.MX Release Distro SDK installer version 4.14-sumo
=====
Enter target directory for SDK (default: /opt/fsl-imx-wayland/4.14-sumo):
You are about to install the SDK to "/opt/fsl-imx-wayland/4.14-sumo". Proceed[Y/n]? Y
[sudo] password for zhujh:
Extracting SDK.....done
Setting it up...done
SDK has been successfully set up and is ready to be used.
Each time you wish to use the SDK in a new shell session, you need to source the environment setup script e.g.
$ . /opt/fsl-imx-wayland/4.14-sumo/environment-setup-aarch64-poky-linux
```

II . Install QT creator

1. Installation Steps

Attention: Red boxed text has to be clicked or filled in the screenshot.

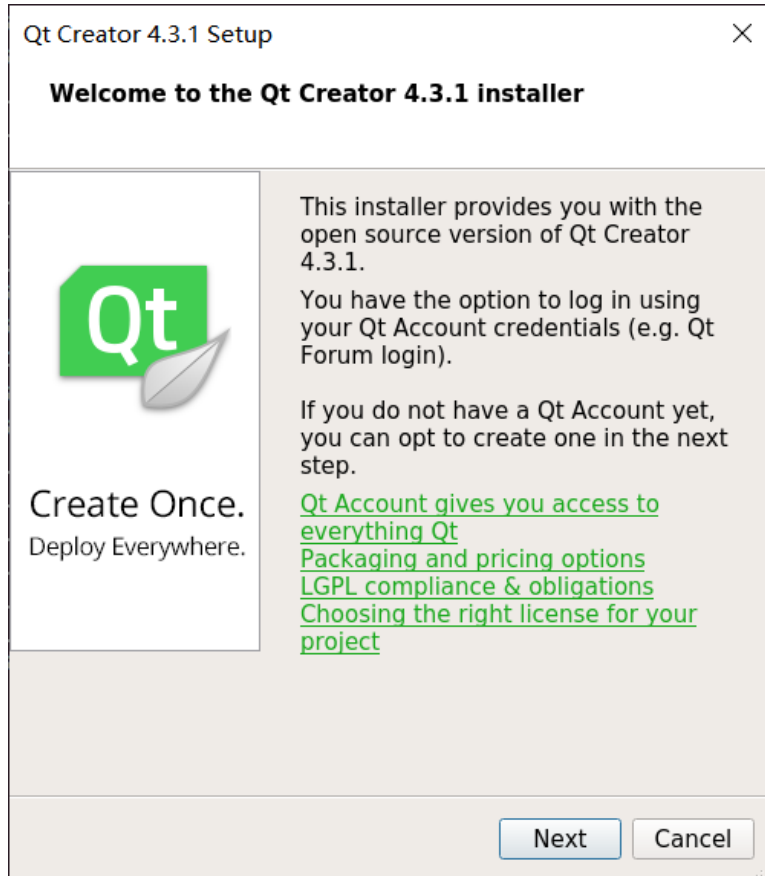
Click or fill in the red box in screenshot .

Copy [`qt-creator-opensource-linux-x86_64-4.3.1.run`] to Ubuntu, then

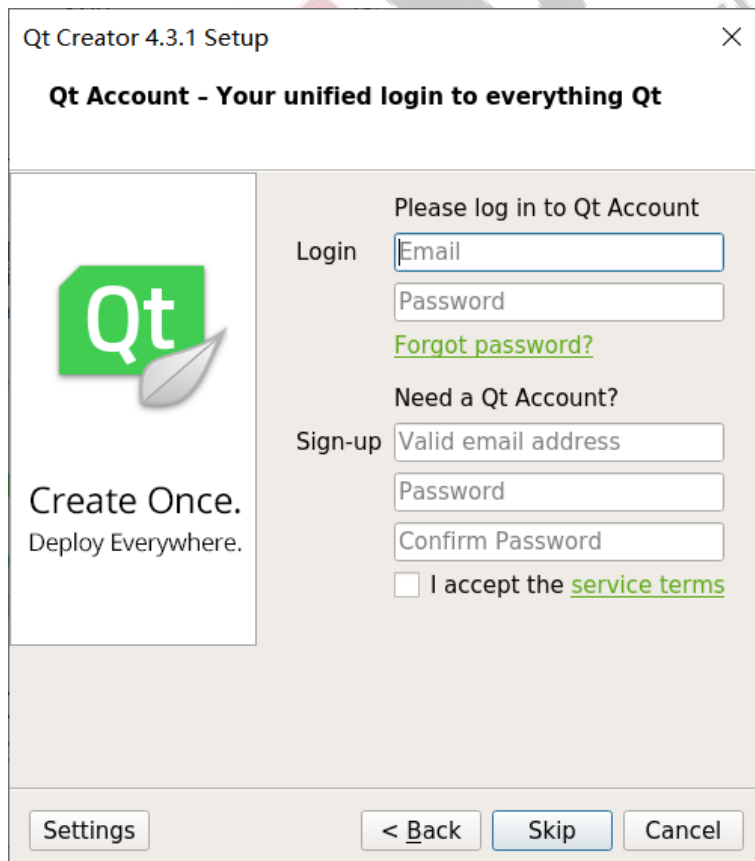
run [`qt-creator-opensource-linux-x86_64-4.3.1.run`]:

```
zhujh@zhujh-virtual-machine:~/work/source/qtcreator$ ./qt-creator-opensource-linux-x86_64-4.3.1.run
```

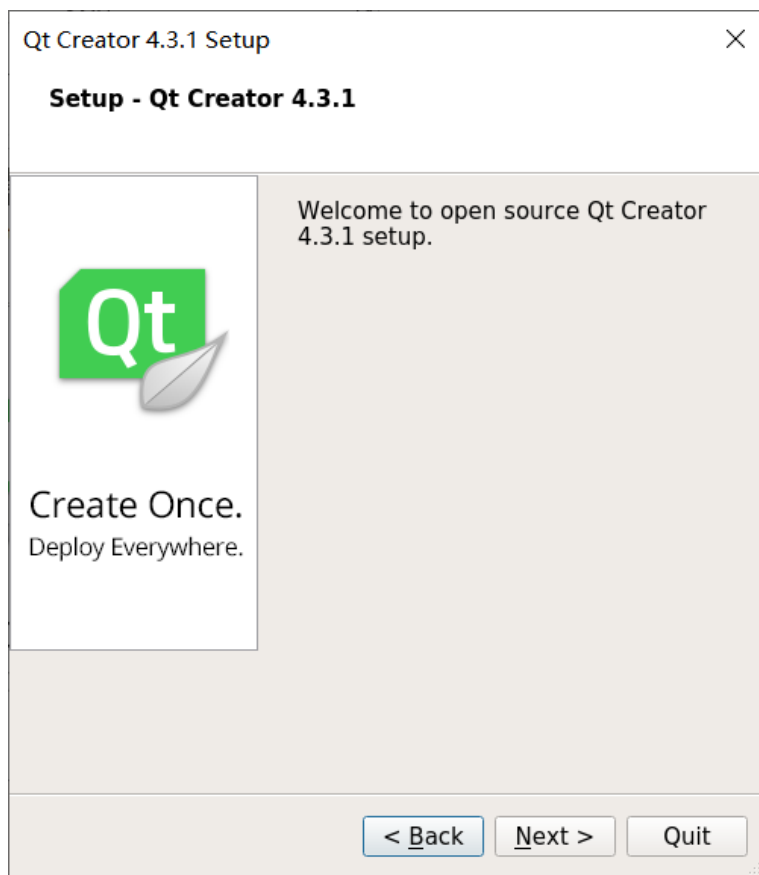
When the interface shown as below, please click [Next]:



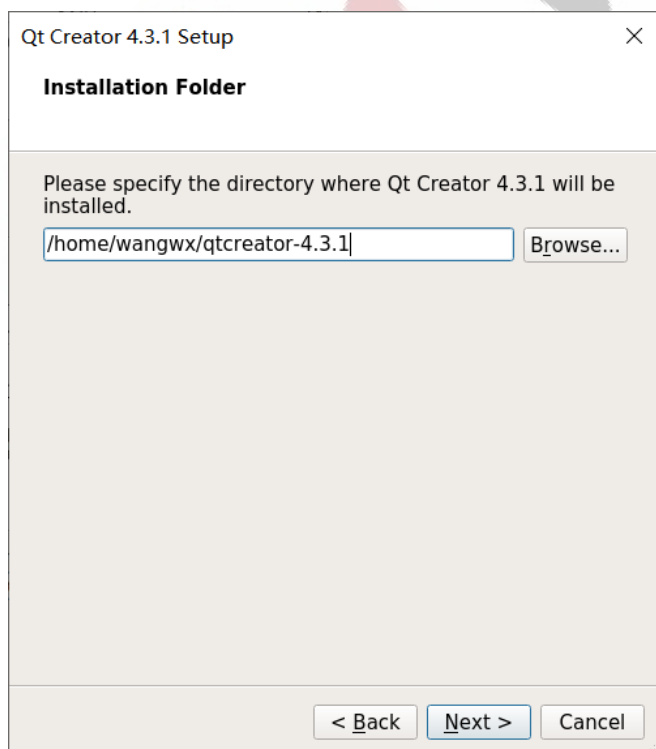
When the interface shown as below, please click [Skip]:



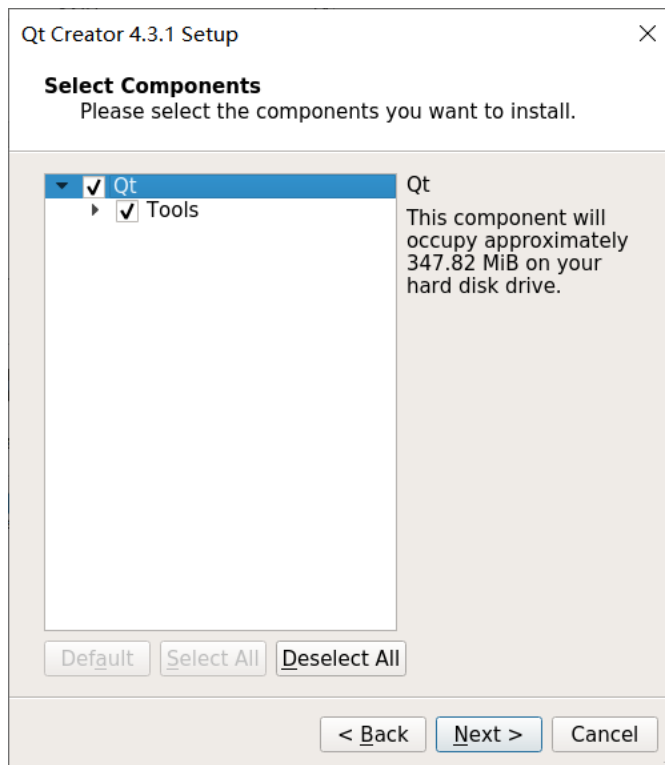
When the interface shows as below, please click [Next]:



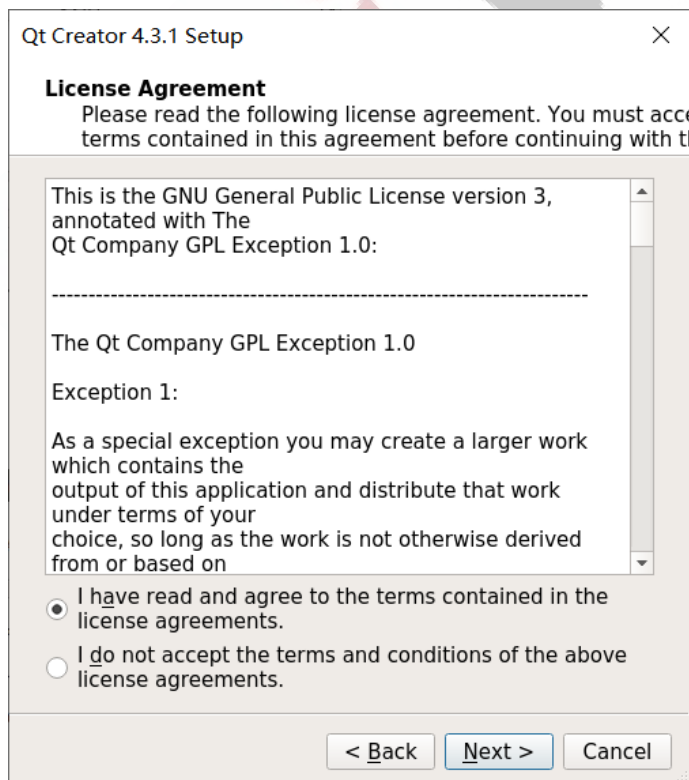
When then interface shows as below, choose the installation path. Here is the Author's installation path, then click [Next]:



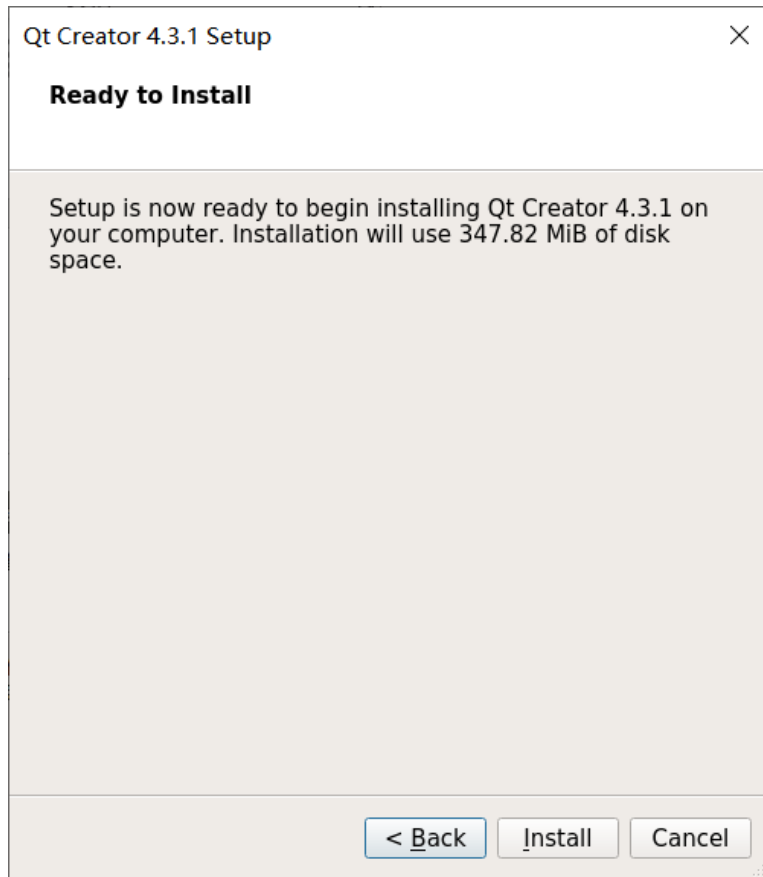
When the interface shows as below, please click [Next]:



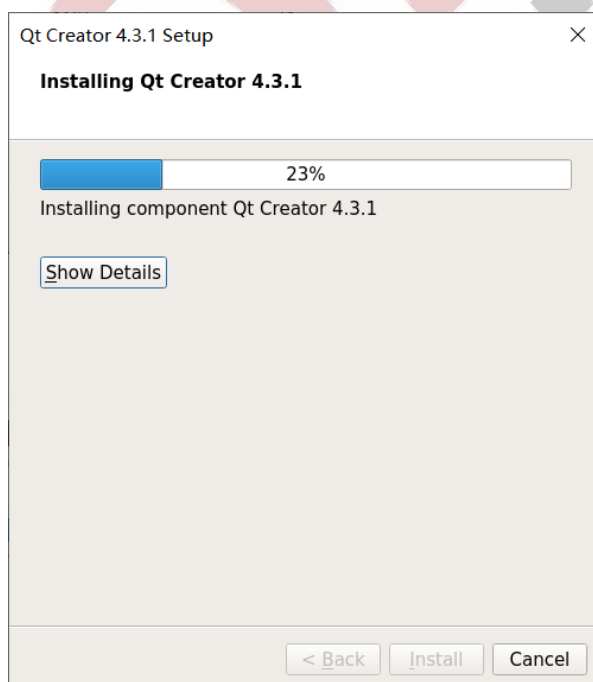
When the interface shows as below, please select [Agree], then click [Next]:



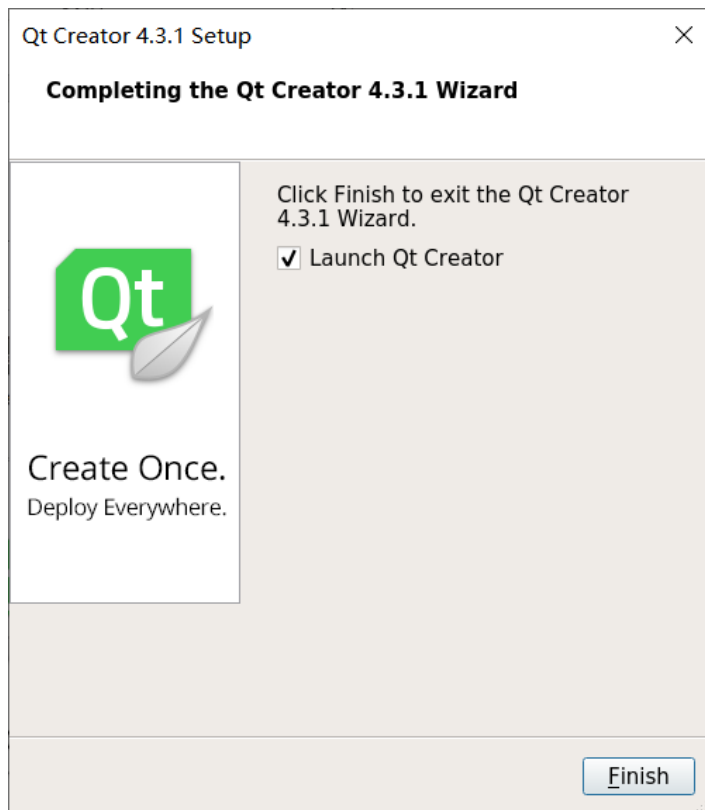
When the interface shows as below, please click [Install]:



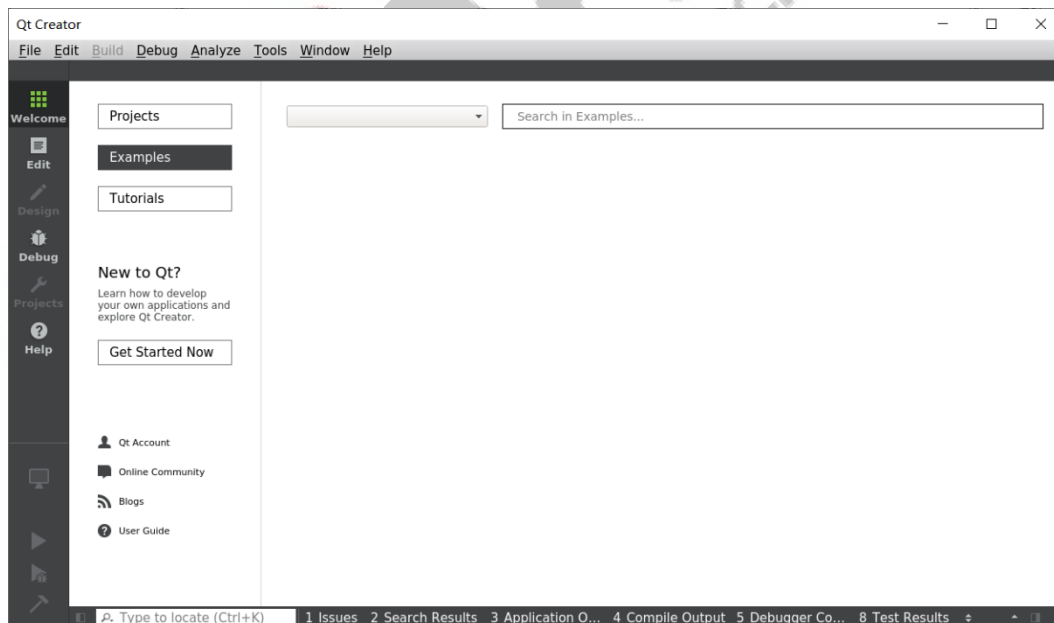
When the interface shows as below, it will take one minute to finish:



When the interface shows as below, please click [Finished]:



When the interface shows as below, it means the installation succeed:

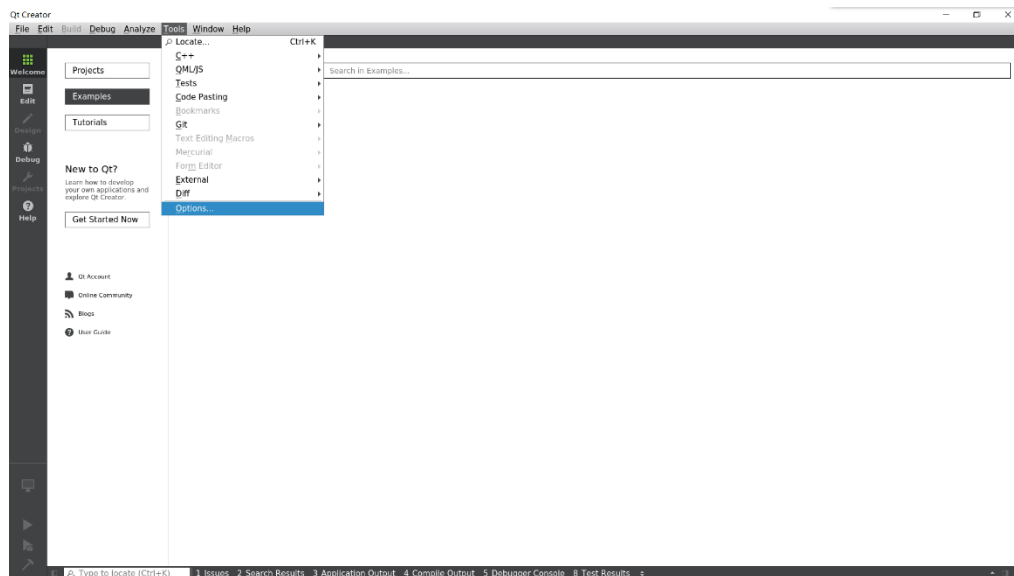


Remark: QT Creator executable file is in: [<Install Directory>/bin/qtcreator]

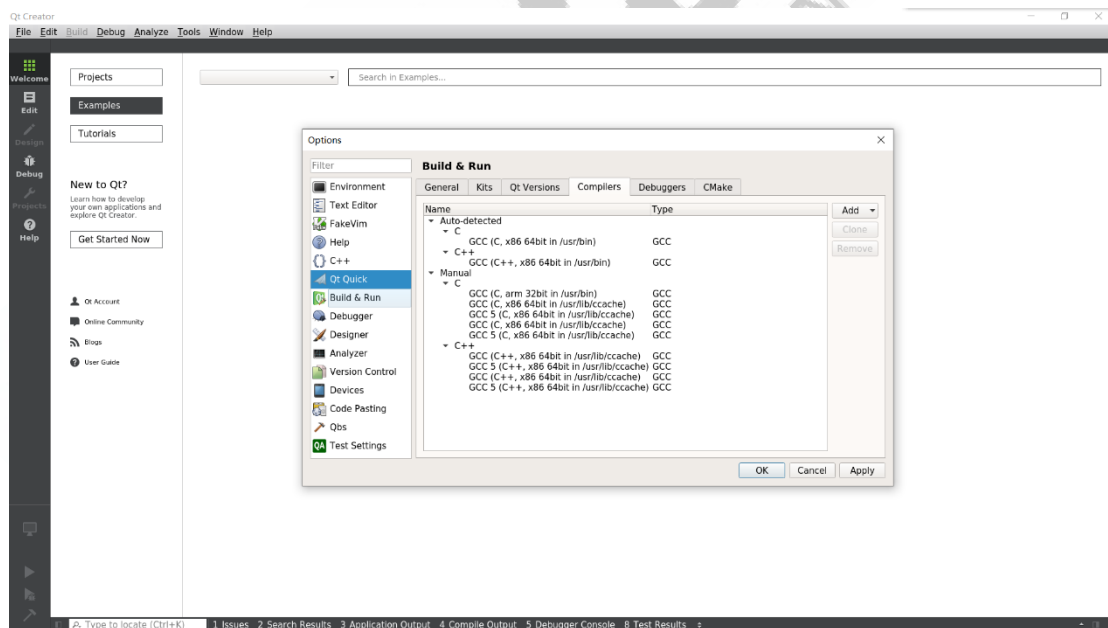
III. Setup QT Creator

1. Configurable Steps:

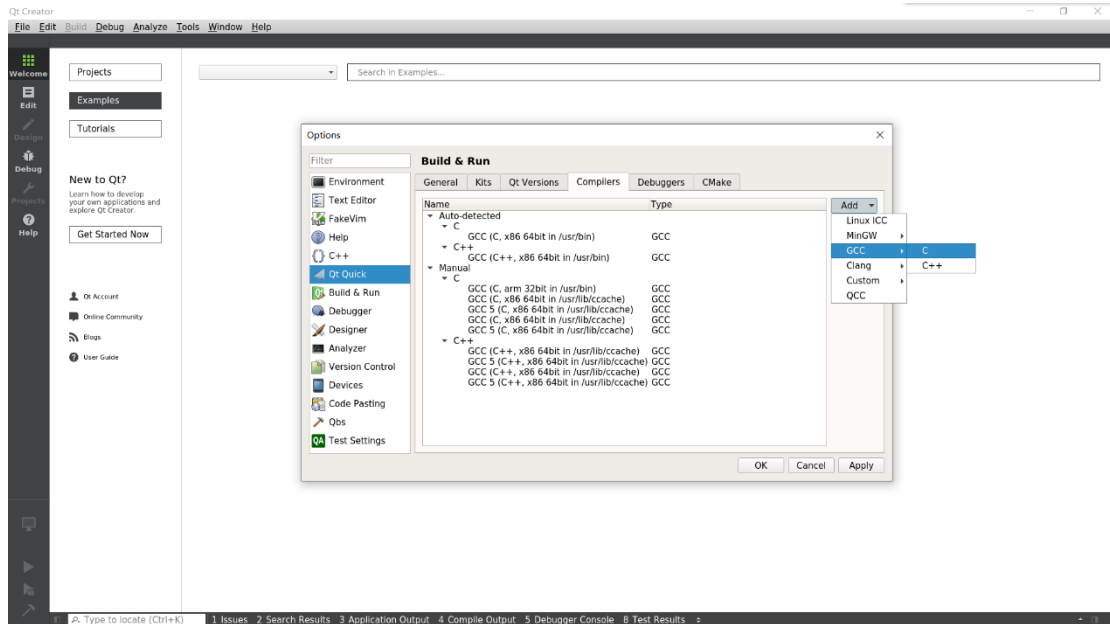
Click Tools->Options:



Click setup and run, then click compiler:



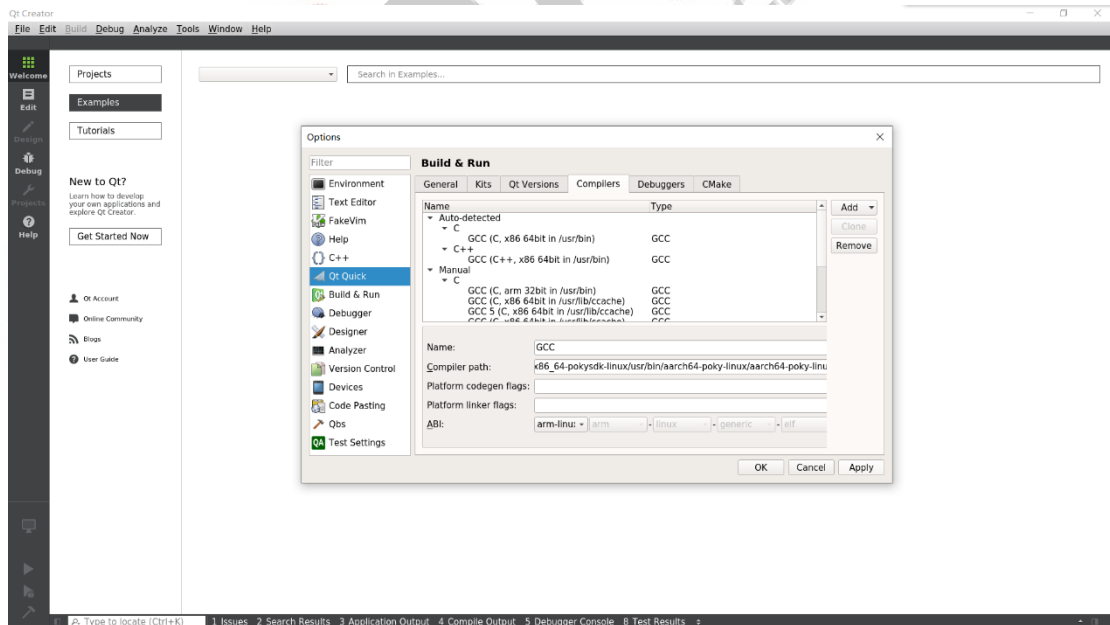
Click: [Add->GCC->C]:



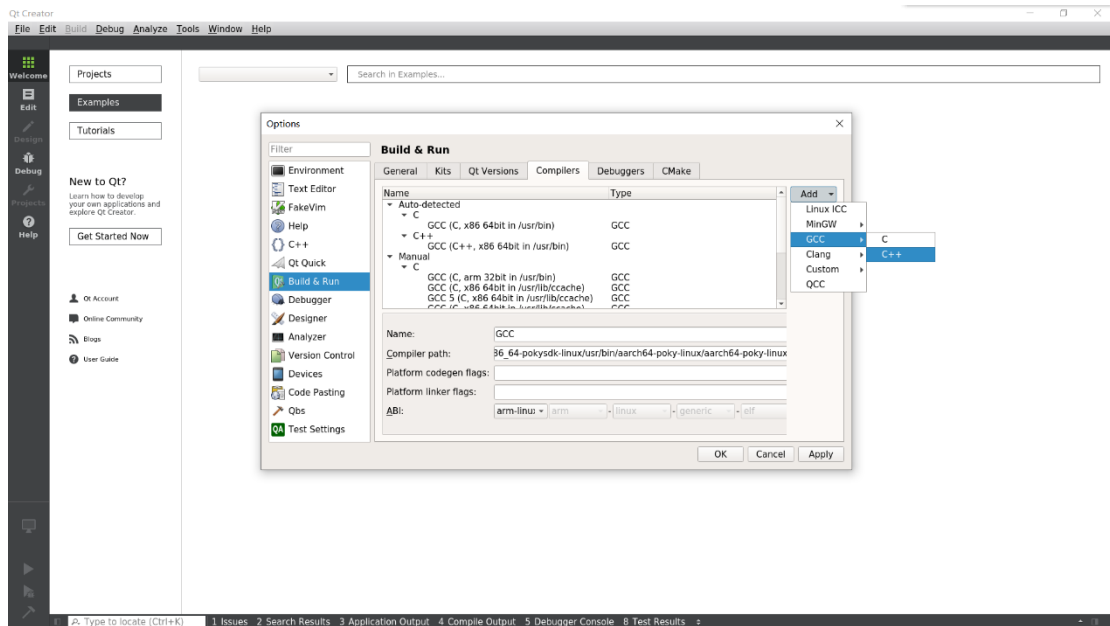
Fill in the compilation path as shown:

[/opt/fsl-imx-wayland/4.14-sumo/sysroots/x86_64-pokysdk-linux/usr/bin/
aarch64-poky-linux/aarch64-poky-linux-gcc]

Then click [Apply]:



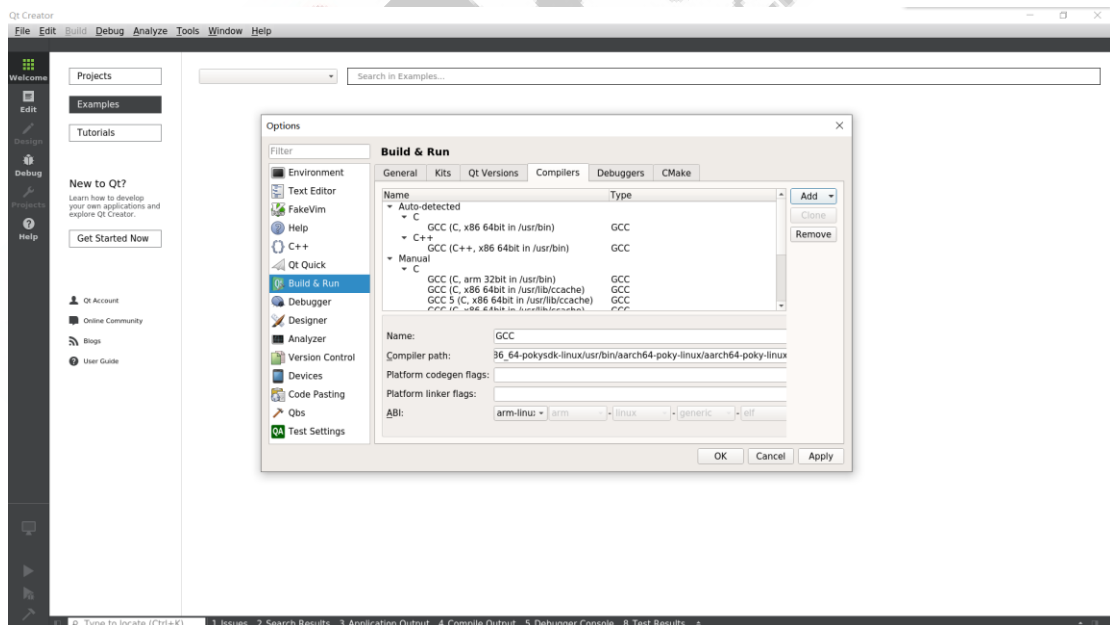
Click:[Add->GCC->C++]:



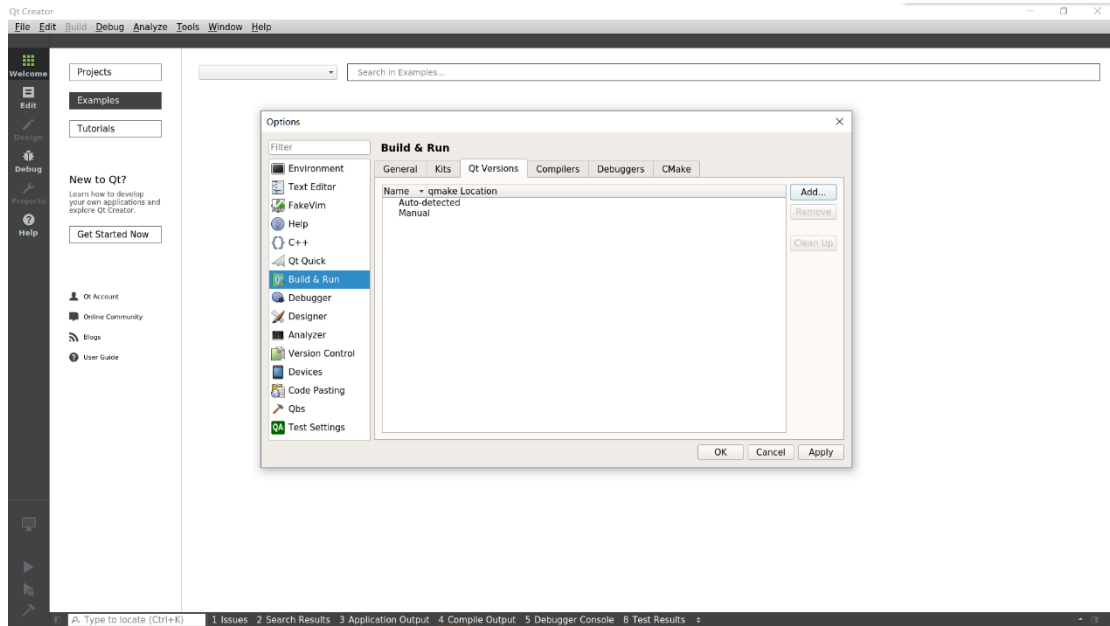
Fill in compilation path as shown:

[/opt/fsl-imx-wayland/4.14-sumo/sysroots/x86_64-pokysdk-linux/usr/bin/aarch64-poky-linux/aarch64-poky-linux-g++]

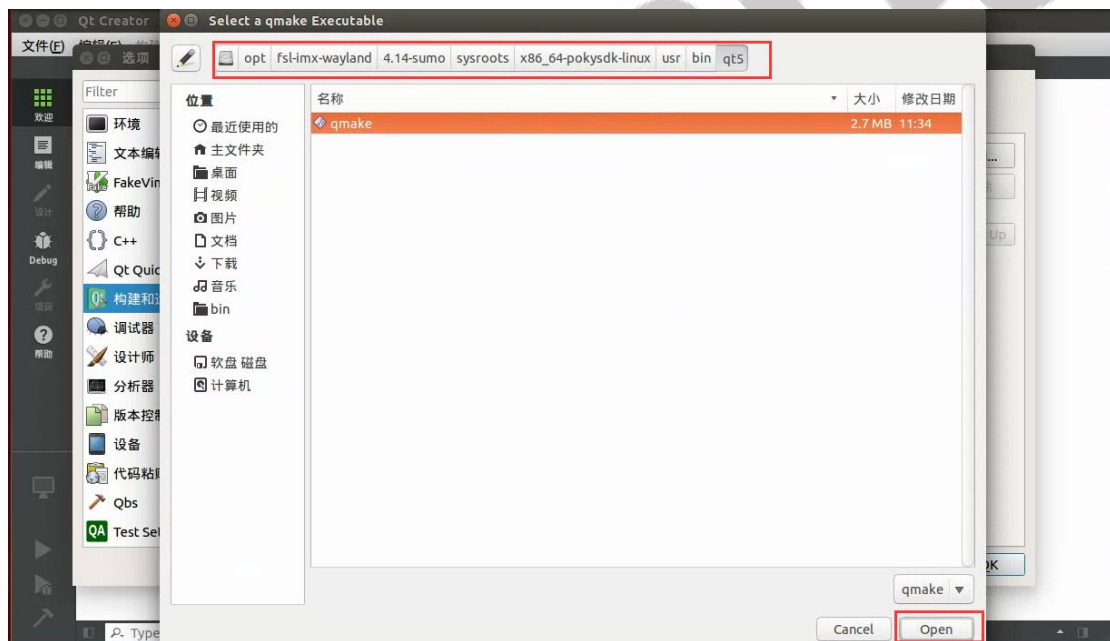
Then click [Apply]:



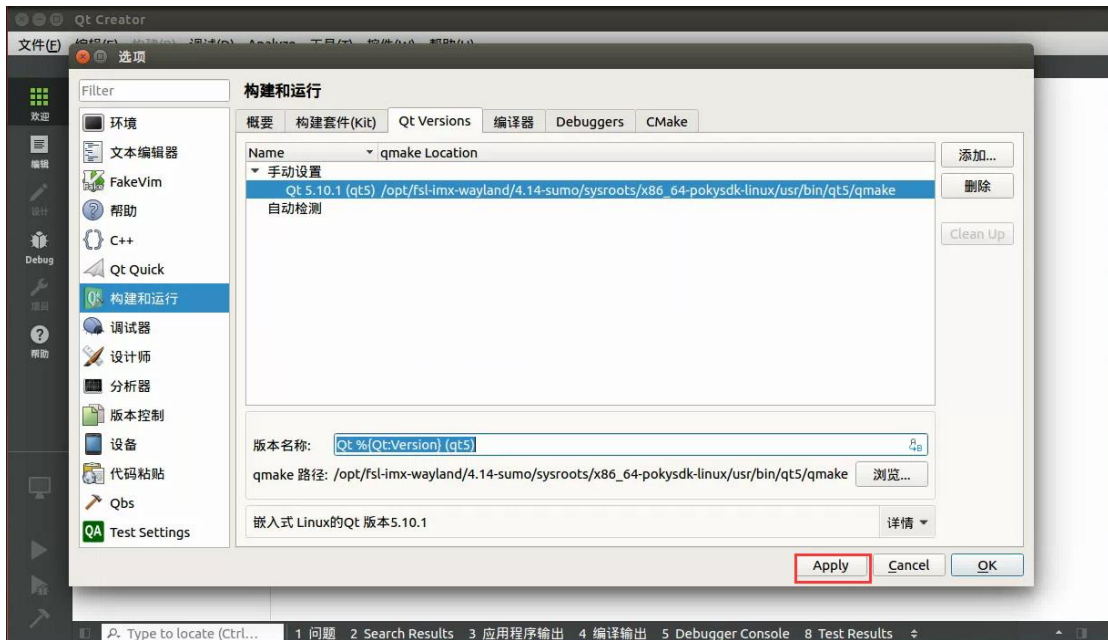
Click [Qt Versions], then click [Add]:



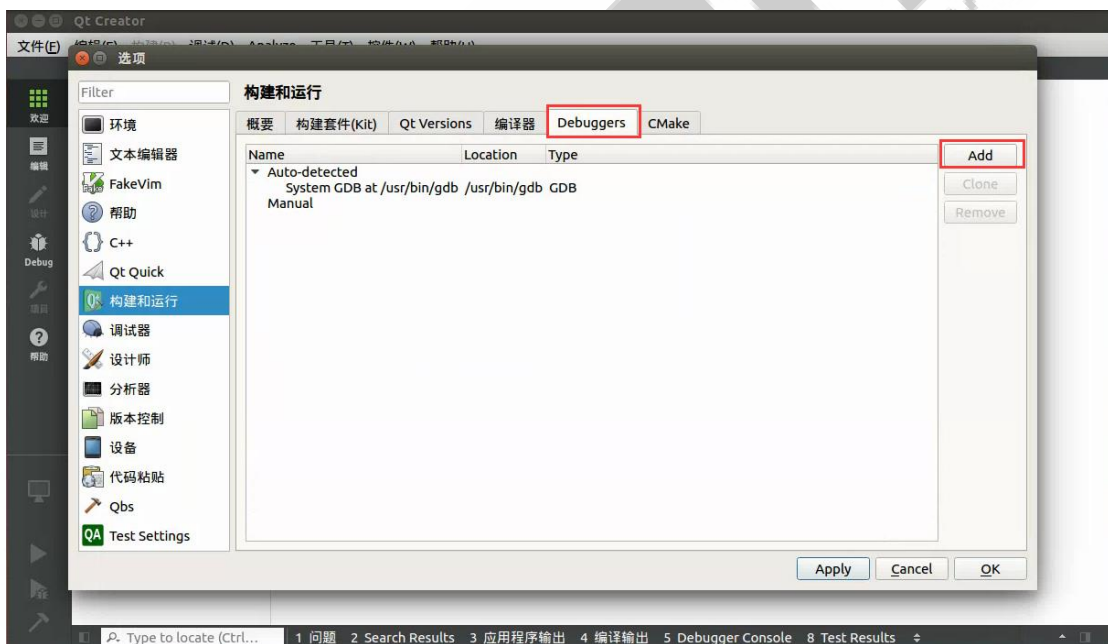
Select the path[*qmake*], as shown, then click [Open]:



Click [Apply]:



Click [Debuggers], then click [Add]:

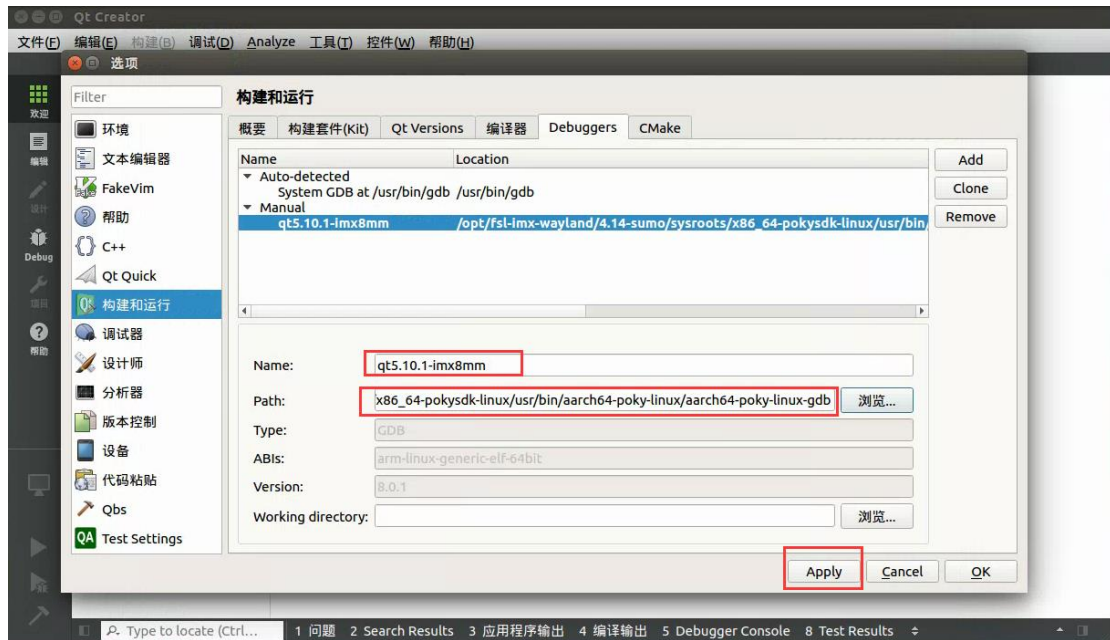


Fill in Name:qt5.10.1-imx8mm

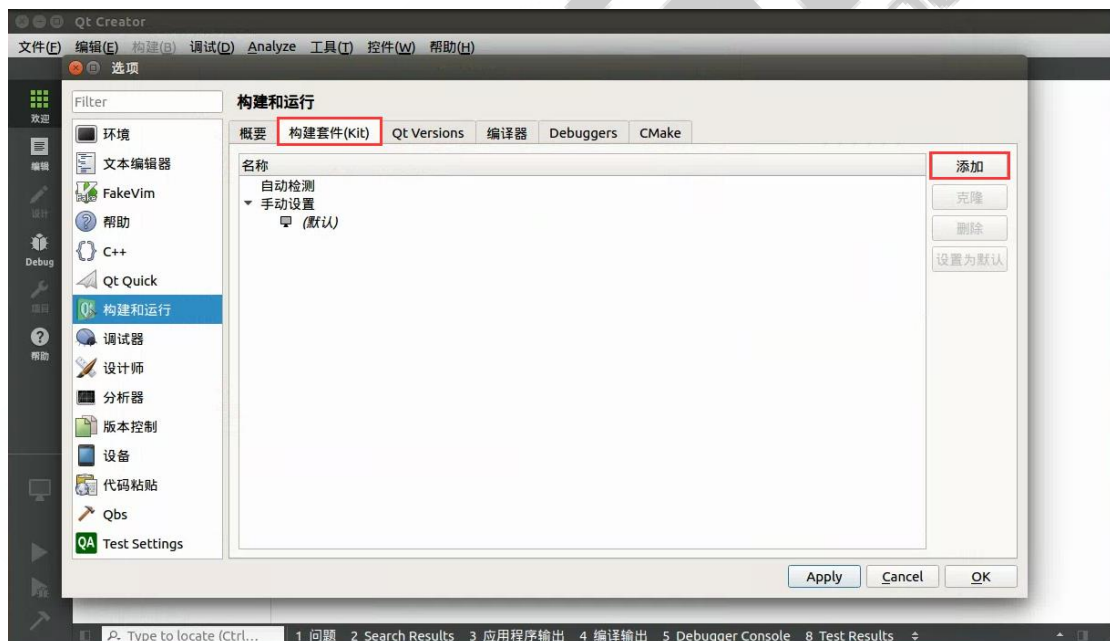
Fill in Path:

[/opt/fsl-imx-wayland/4.14-sumo/sysroots/x86_64-pokysdk-linux/usr/bin/
aarch64-poky-linux/aarch64-poky-linux-gdb]

Then click [Apply]:



Click Setup [Kit], then click [Add]:



Fill in Name:[qt5.10.1-ix86mm]

Fill in Sysroot:

[/opt/fsl-ix86-wayland/4.14-sumo/sysroots/aarch64-poky-linux

Compiler C chooses GCC

Compiler C++ chooses GCC

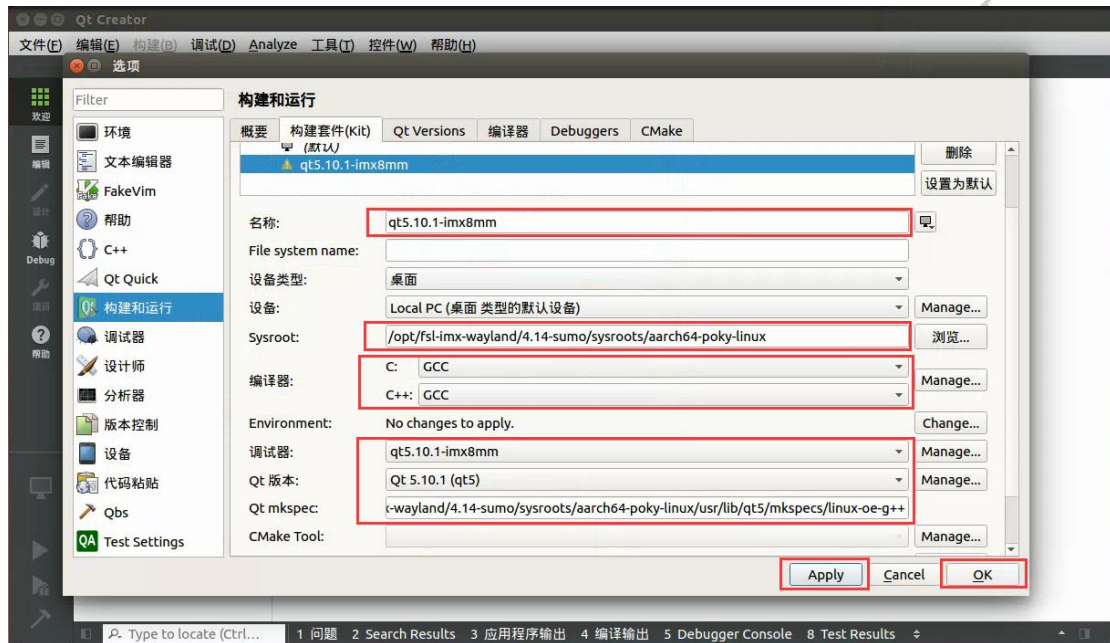
Debuggers chooses qt5.10.1-ix86mm

Qt version chooses Qt 5.10.1(qt5)

Qt mkspec chooses:

/opt/fsl-imx-wayland/4.14-sumo/sysroots/aarch64-poky-linux/usr/lib/qt5/mkspecs/linux-oe-g++]

Click [Apply], then click [OK]。



Finishing setup, shut [qtcreator] down.

IV. Program QT

1. Import compiler environment :

Import compiler environment to terminal, command shown as below:

```
[$ source /opt/fsl-imx-wayland/4.14-sumo/environment-setup-aarch64-poky-linux]
```

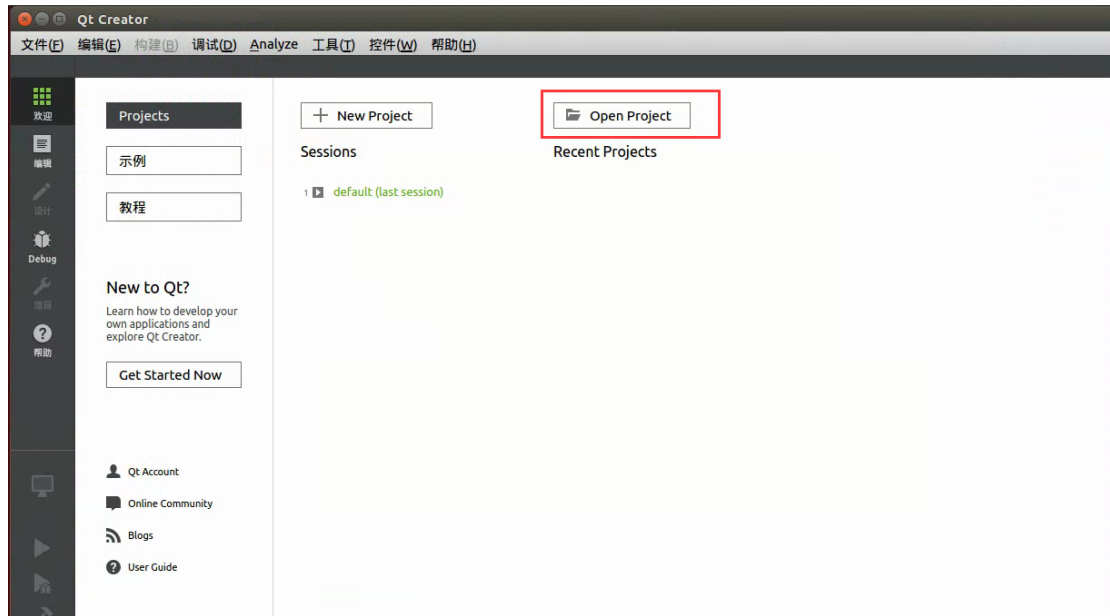
2. Run qtcreator

Run on the terminal:[<Install Directory>/bin/qtcreator.sh]

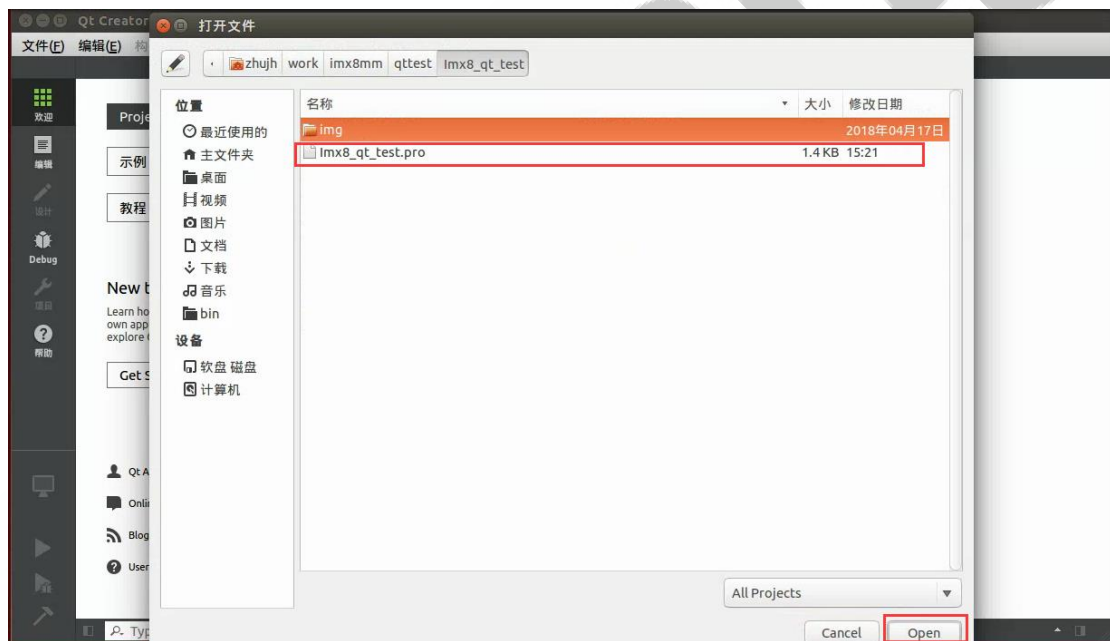
```
zhujh@zhujh-virtual-machine:~/qtcreator-4.3.1/bin$ source /opt/fsl-imx-wayland/4.14-sumo/environment-setup-aarch64-poky-linux
zhujh@zhujh-virtual-machine:~/qtcreator-4.3.1/bin$ ./qtcreator.sh
```

3. Setup QT Project

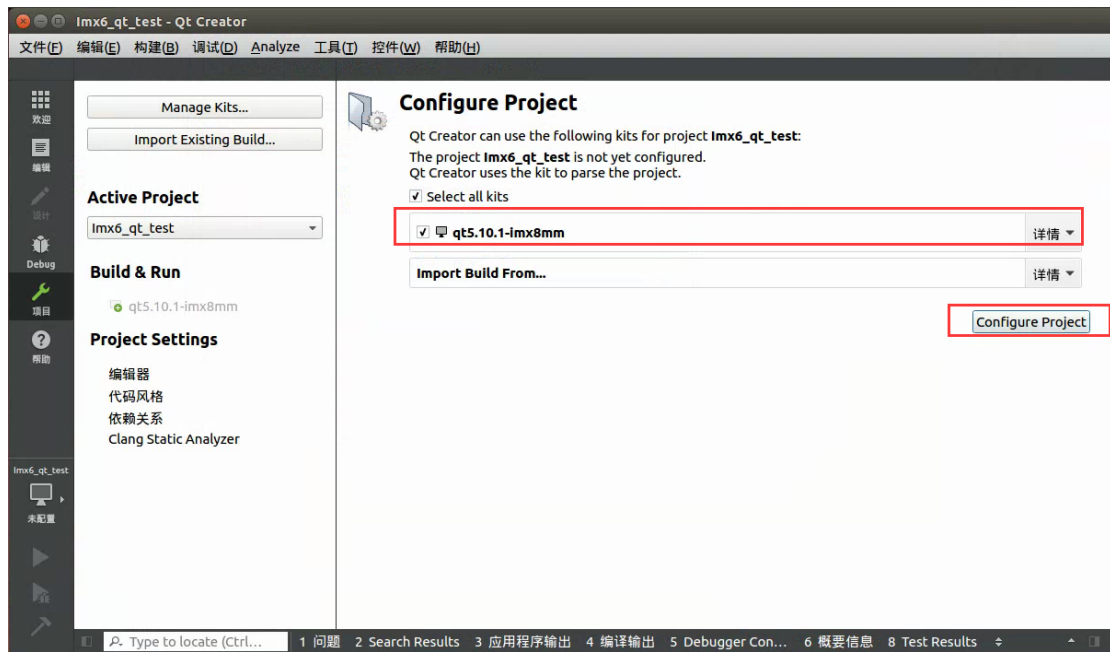
Click Open Project. Take[imx8_qt_test] for example here.



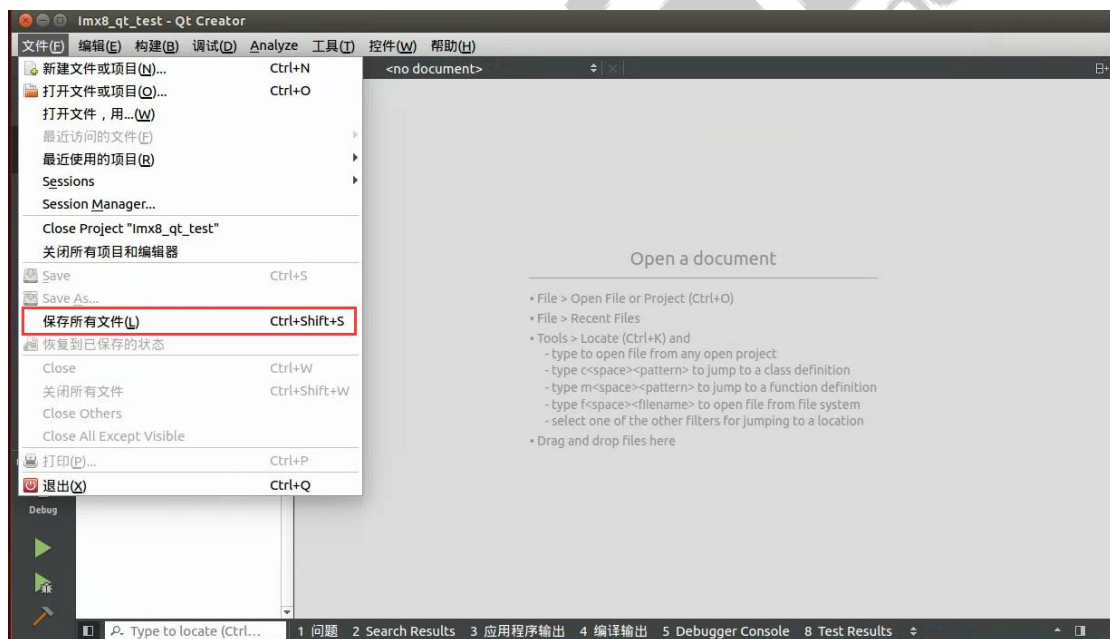
Click [Imx8_qt_test.pro], then click [Open]:



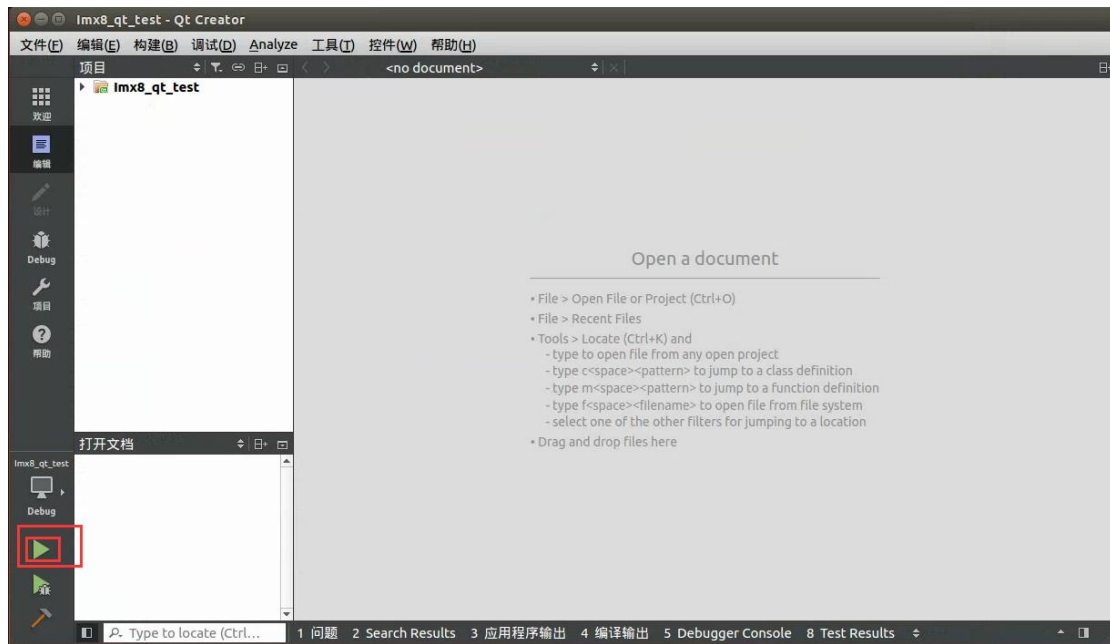
Choose [qt5.10.1-imx8mm], then click [Configure Project]:



Click [Files], then click [Save All]:



Click [Run] which is a green triangle button on the lower left, then wait for about 30 seconds, there would be a green bar on the lower right, which means QT Project matched for IMX8MM is generated successfully.



4. Run QT Program

1. Deploy

Plug in network and check IP Configuration.

With mounting NFS to Ubuntu, copy the file to motherboard:

```
[mount -o nolock 192.168.1.75:/home /mnt/]
```

```
[cp/mnt/'QT' Project Path
```

```
"/build-Imx8_qt_test-qt5_10_1_imx8mm-Debug/Imx8_qt_test].
```

2.Run

```
[./ Imx8_qt_test]
```

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