

Document Title : Procedure to build AceXtreme SDK Samples in Qt 6

Document No : AN0001

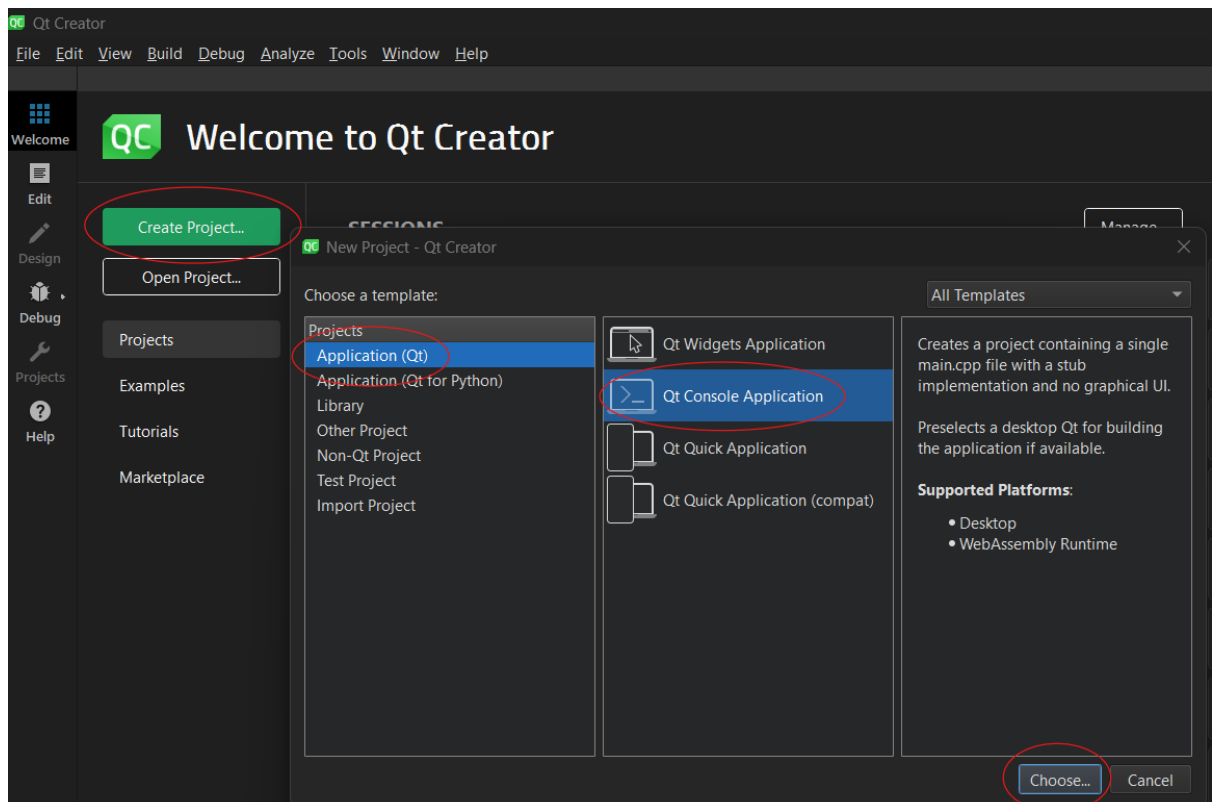
Author : Ganesh Okade, RTips Technologies

Last edited : Oct 05, 2024

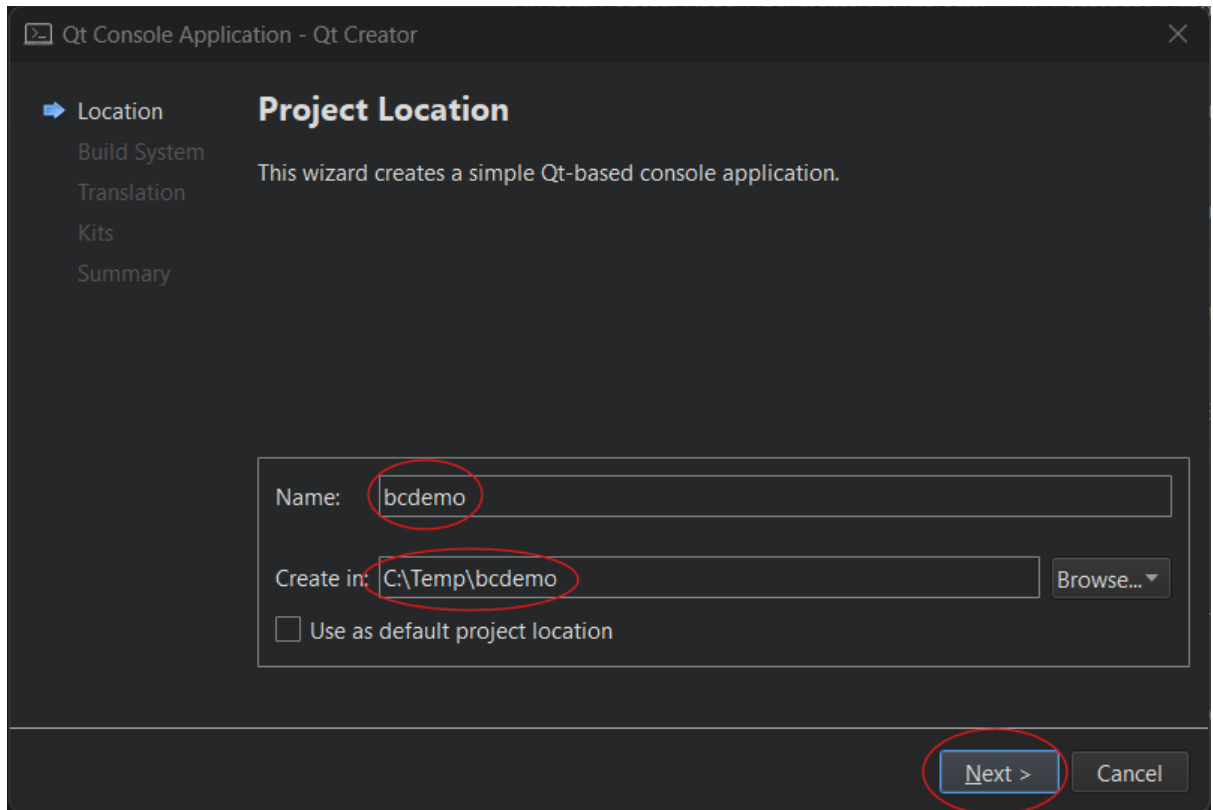
Introduction : This document explains the steps for creating a Qt console project to build the samples provided by DDC's AceXtreme 'C' SDK (BU-69092S0). Steps described are for Qt 6.x but may be followed for other versions as well. The document is applicable to BU- 69092S0 ver 4.9.x and above for building 64-bit versions of the sample code.

Procedure :

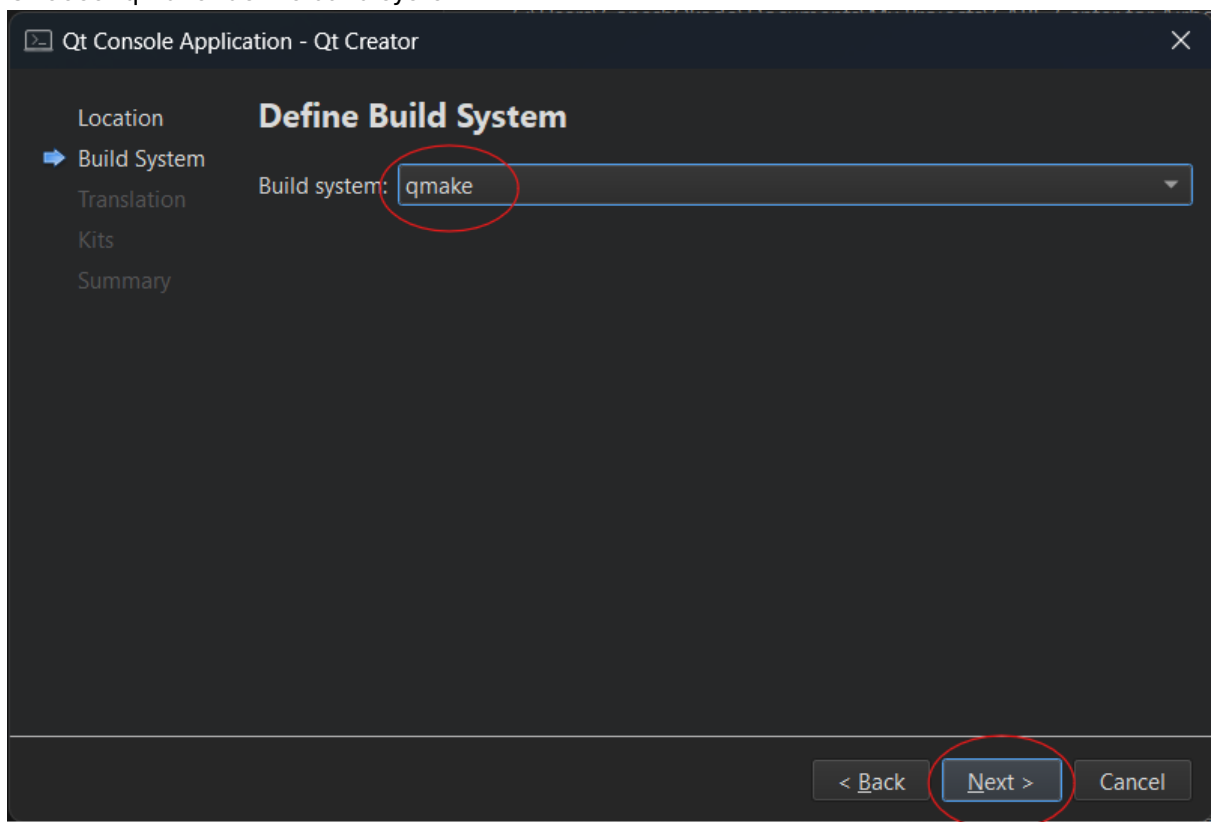
- 1) Open Qt and create a new "Qt Console Application" project using the "Create Project" button.



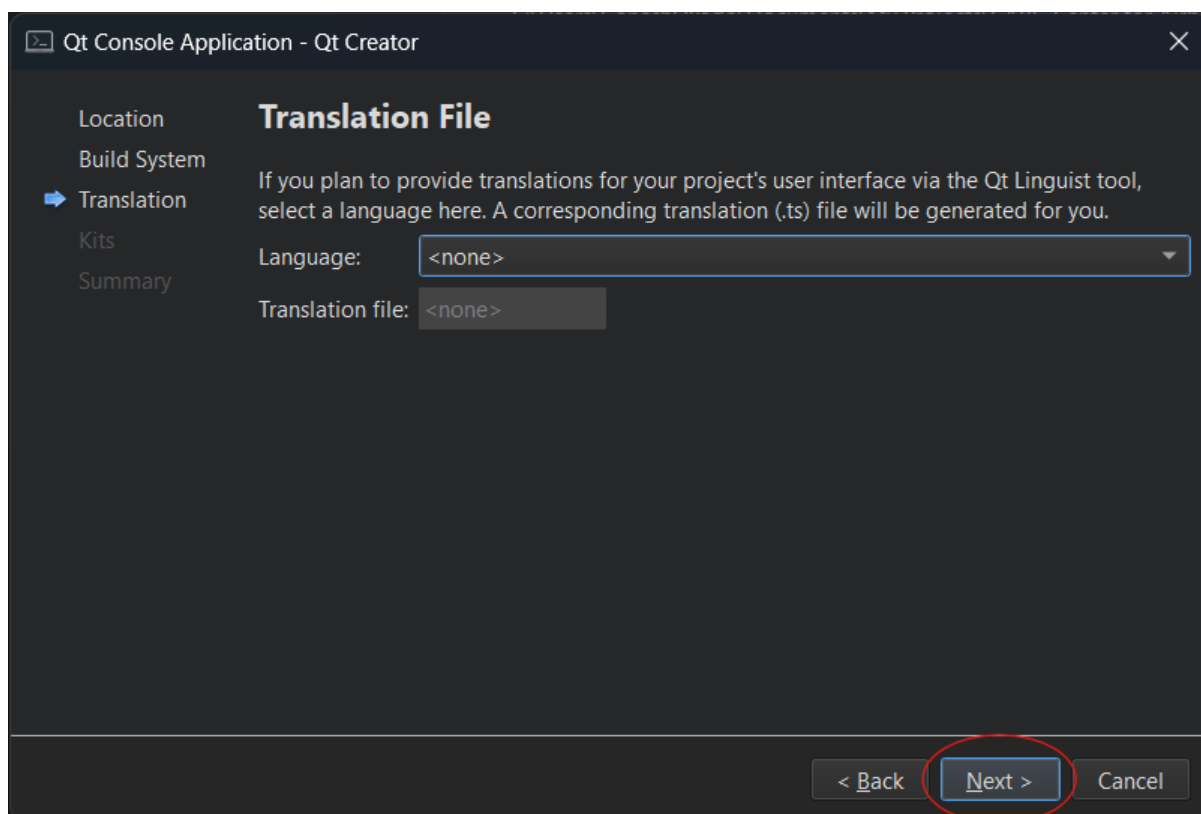
- 2) Choose an appropriate path for the project and name the project as "bcdemo" (or any other name of your choice).



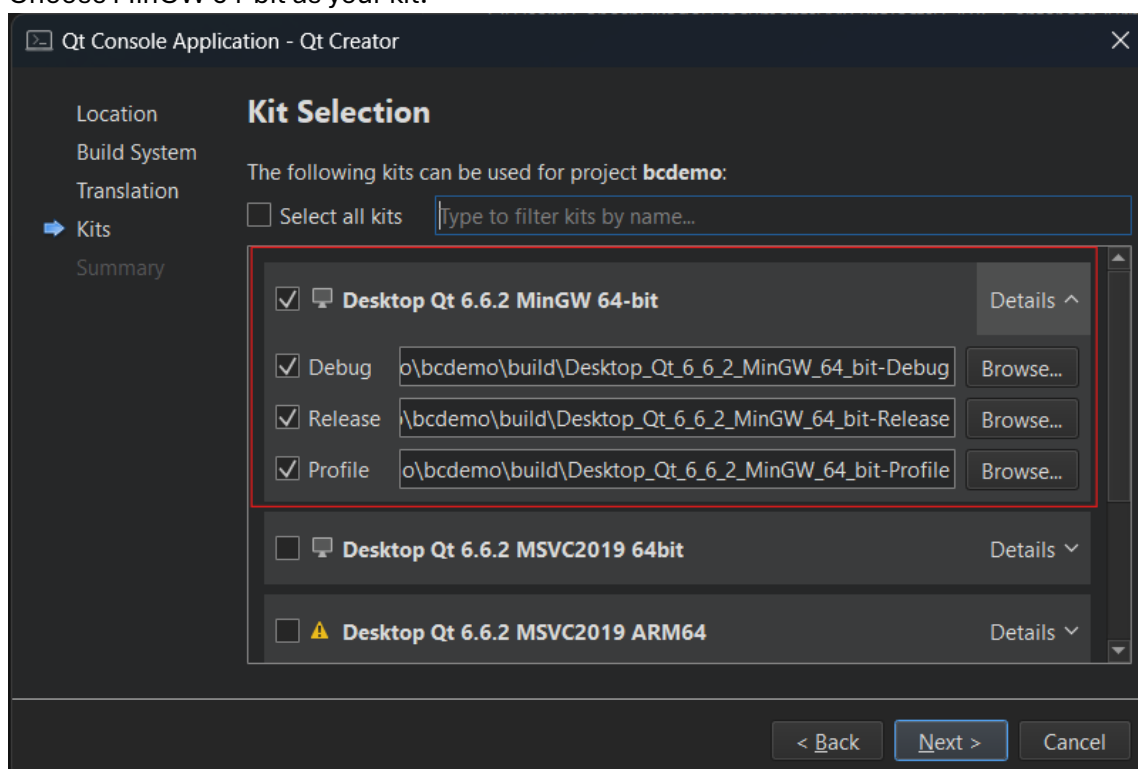
- 3) Choose “qmake” as the build system



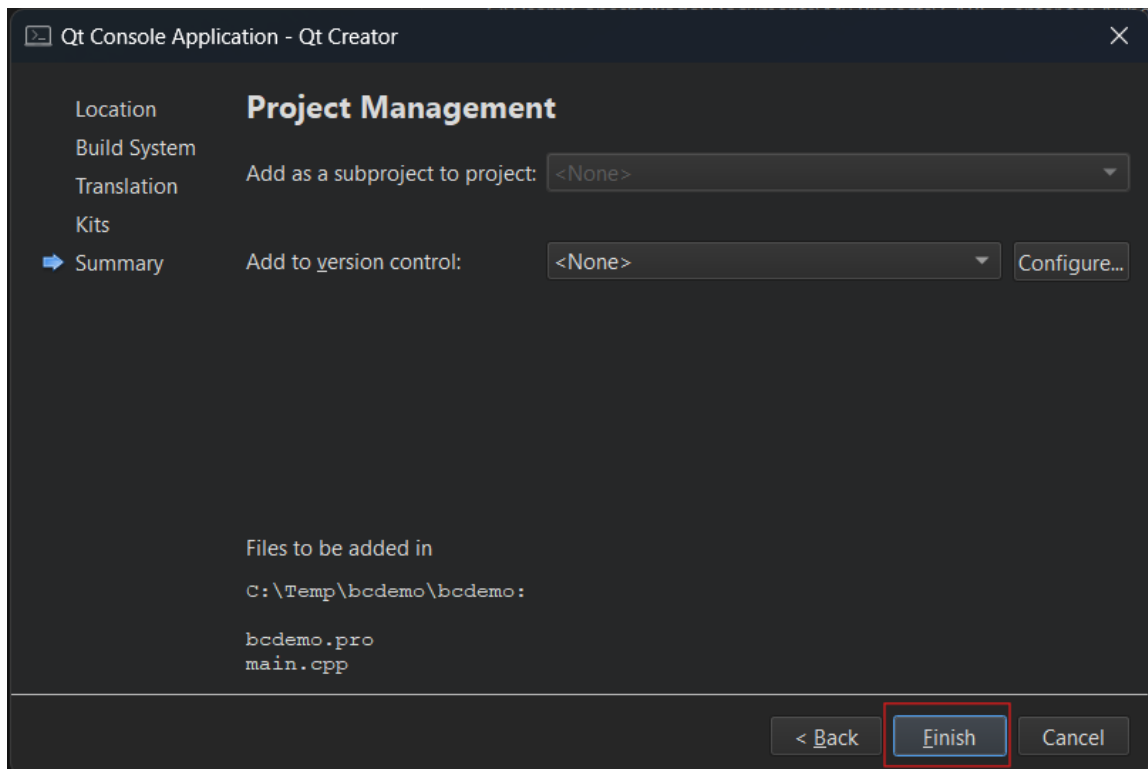
- 4) Press Next in the following window without making any changes



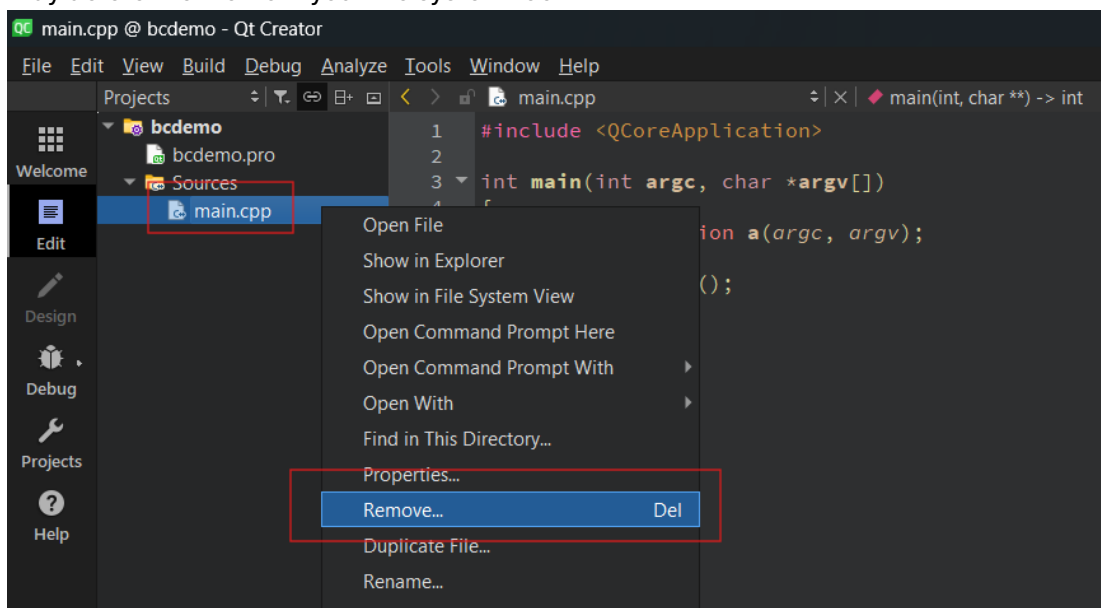
- 5) Choose MinGW 64-bit as your kit.



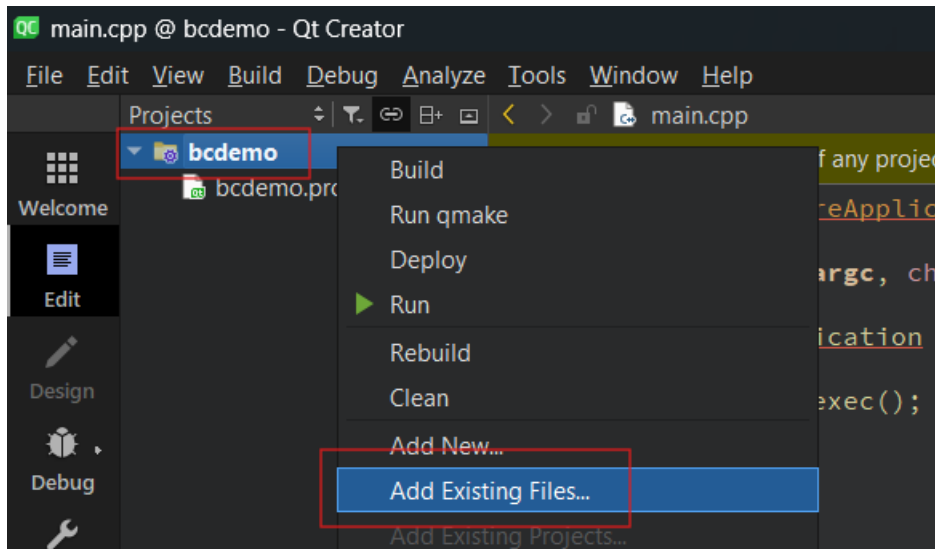
- 6) Press "Finish" to create the project.



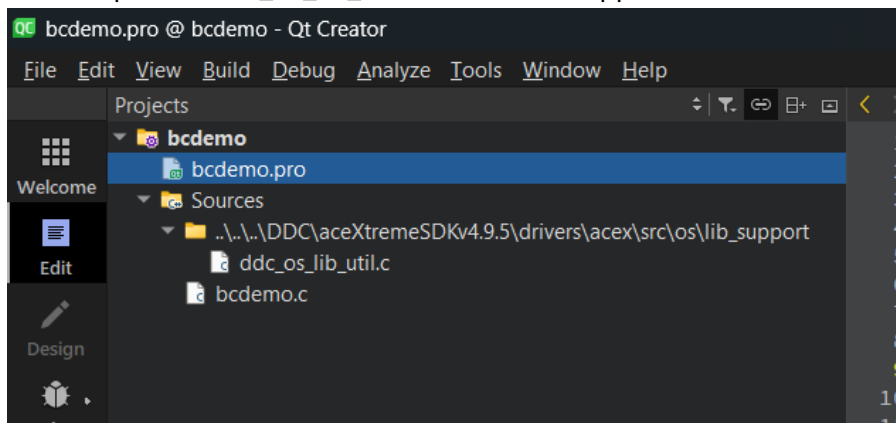
- 7) Once the project is created, remove the “main.cpp” file from the project as below. You may delete the file from your file system too.



- 8) Make a copy of the AceXtreme SDK sample that you wish to build, in your project folder. Add this sample file to your project by choosing the Add Existing Files menu option as below and browsing to your project folder and selecting the sample file.



- 9) Similarly, add the following file to the project:
`<AceXtreme SDK Path>\drivers\acex\src\os\lib_support\ddc_os_lib_util.c`
- 10) The sample and `ddc_os_lib_util.c` files should appear as below under the project.



- 11) Open the project file in the editor by double-clicking the .pro file. Add a variable "ACEX_SDK_PATH" at the end of the file and set it to the location of the AceXtreme SDK folder as below.

```
ACEX_SDK_PATH = C:/DDC/aceXtremeSDKv4.9.5
```

- 12) Link the project to the `emacepl.lib` library file. Following code snippet can be copied to your pro file. This code snippet detects the build type (i.e. 32-bit or 64-bit) and correctly links to the 32-bit or 64-bit version of the AceXtreme SDK Library.

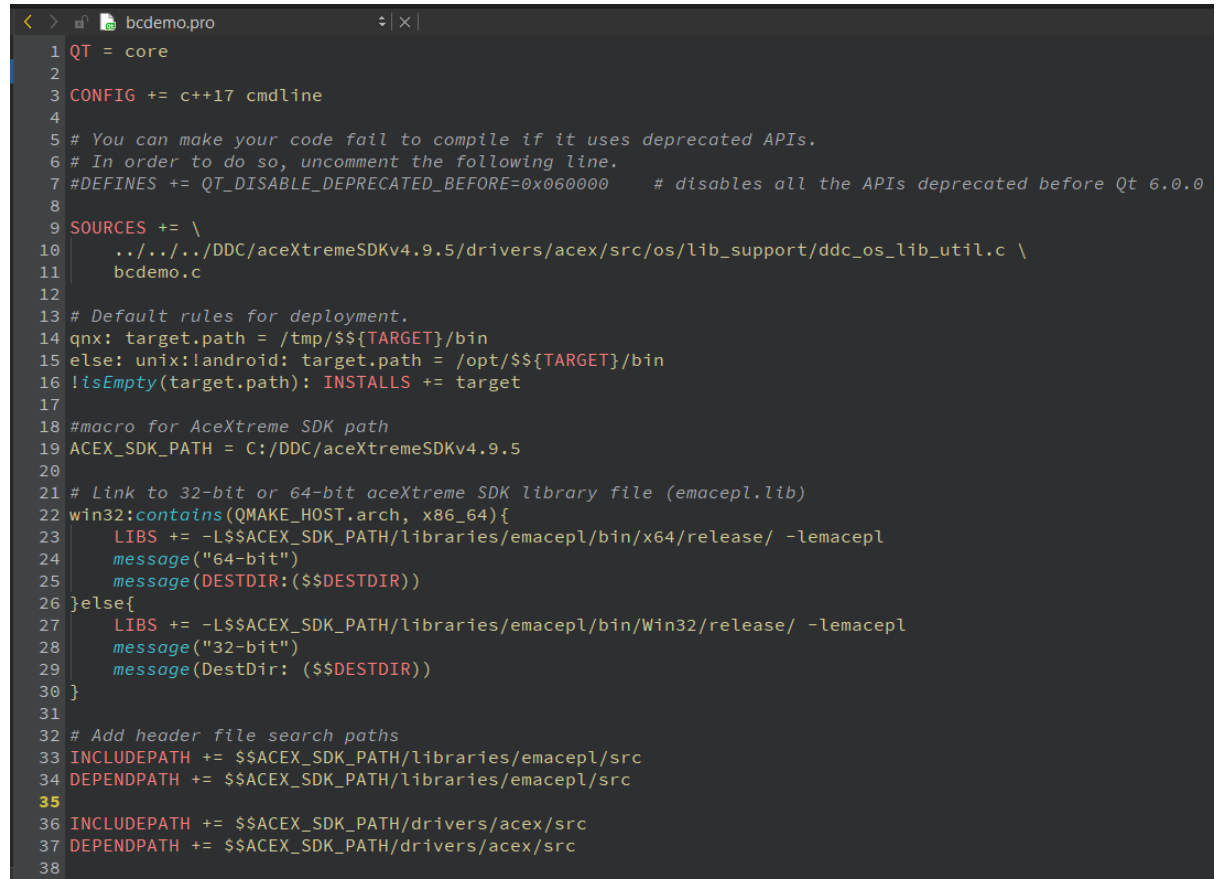
```
win32:contains(QMAKE_HOST.arch, x86_64){
    LIBS += -L$ACEX_SDK_PATH/libraries/emacepl/bin/x64/release/ -lemacepl
    message("64-bit")
    message(DESTDIR: ($$DESTDIR))
}else{
    LIBS += -L$ACEX_SDK_PATH/libraries/emacepl/bin/Win32/release/ -lemacepl
    message("32-bit")
    message(DESTDir: ($$DESTDIR))
}
```

13) Add include file search path to the .pro file

```
INCLUDEPATH += $$ACEX_SDK_PATH/libraries/emacepl/src
DEPENDPATH += $$ACEX_SDK_PATH/libraries/emacepl/src

INCLUDEPATH += $$ACEX_SDK_PATH/drivers/acex/src
DEPENDPATH += $$ACEX_SDK_PATH/drivers/acex/src
```

14) The project file should look like the one below:



```
< > bcdemo.pro
1 QT = core
2
3 CONFIG += c++17 cmdline
4
5 # You can make your code fail to compile if it uses deprecated APIs.
6 # In order to do so, uncomment the following line.
7 #DEFINES += QT_DISABLE_DEPRECATED_BEFORE=0x060000 # disables all the APIs deprecated before Qt 6.0.0
8
9 SOURCES += \
10     ../../DDC/aceXtremeSDKv4.9.5/drivers/acex/src/os/lib_support/ddc_os_lib_util.c \
11     bcdemo.c
12
13 # Default rules for deployment.
14 qnx: target.path = /tmp/${TARGET}/bin
15 else: unix:!android: target.path = /opt/${TARGET}/bin
16 isEmpty(target.path): INSTALLS += target
17
18 #macro for AceXtreme SDK path
19 ACEX_SDK_PATH = C:/DDC/aceXtremeSDKv4.9.5
20
21 # Link to 32-bit or 64-bit aceXtreme SDK library file (emacepl.lib)
22 win32:contains(QMAKE_HOST.arch, x86_64){
23     LIBS += -L$$ACEX_SDK_PATH/libraries/emacepl/bin/x64/release/ -lemacepl
24     message("64-bit")
25     message(DESTDIR: ($$DESTDIR))
26 }else{
27     LIBS += -L$$ACEX_SDK_PATH/libraries/emacepl/bin/Win32/release/ -lemacepl
28     message("32-bit")
29     message(DESTDir: ($$DESTDIR))
30 }
31
32 # Add header file search paths
33 INCLUDEPATH += $$ACEX_SDK_PATH/libraries/emacepl/src
34 DEPENDPATH += $$ACEX_SDK_PATH/libraries/emacepl/src
35
36 INCLUDEPATH += $$ACEX_SDK_PATH/drivers/acex/src
37 DEPENDPATH += $$ACEX_SDK_PATH/drivers/acex/src
38
```

15) Build the project using menu “*Build->Build All Projects*” or by pressing Ctrl+B. Verify that there are no errors. Run the application using Ctrl+R.