

Description:

Instruction of how to compile QT applications(C++) into standalone of executable file

Environment:

Operating system: Windows 10 64 bits

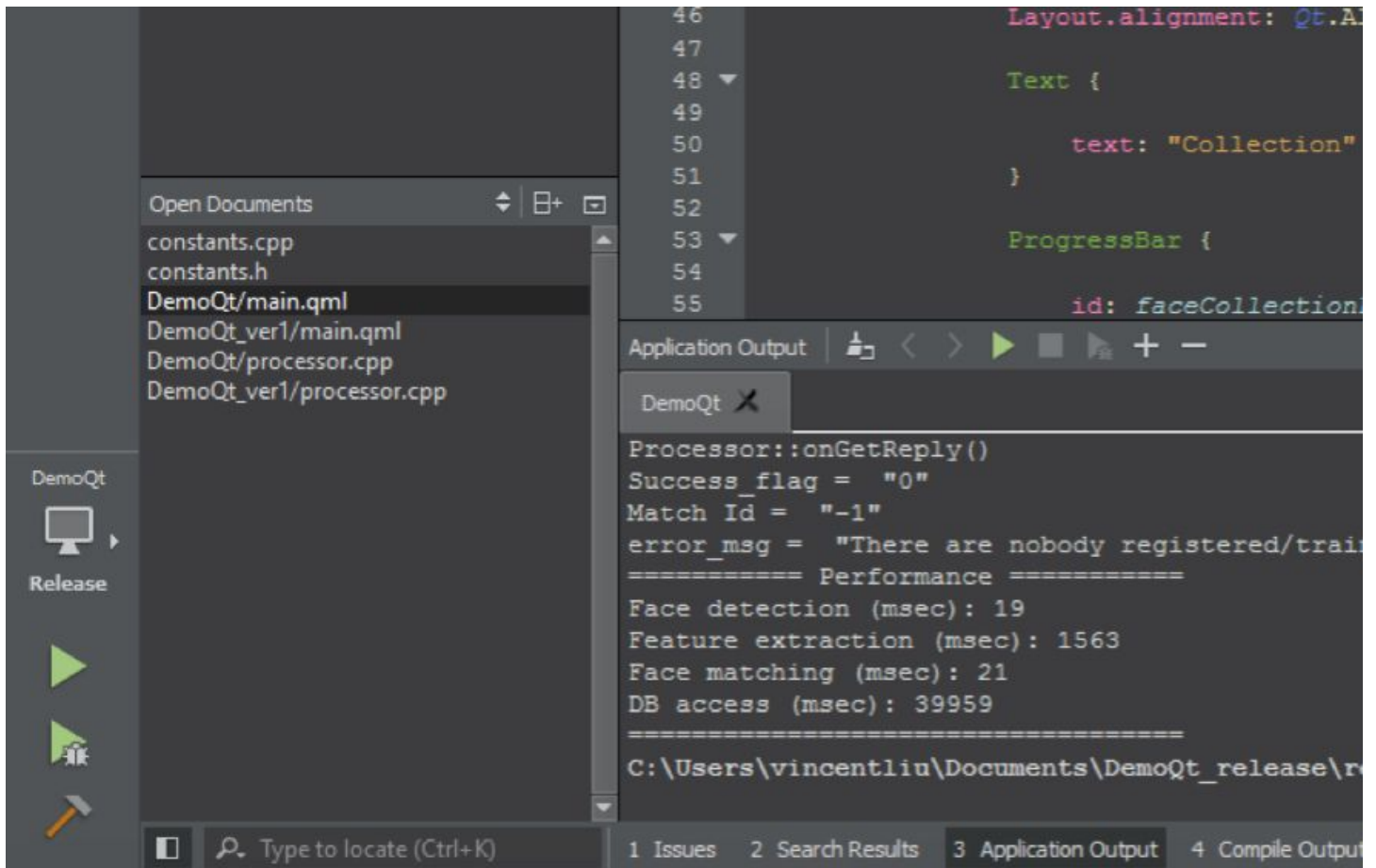
Qt version: 5.8

Qt Creator version: 4.2.1

Visual Studio 2015

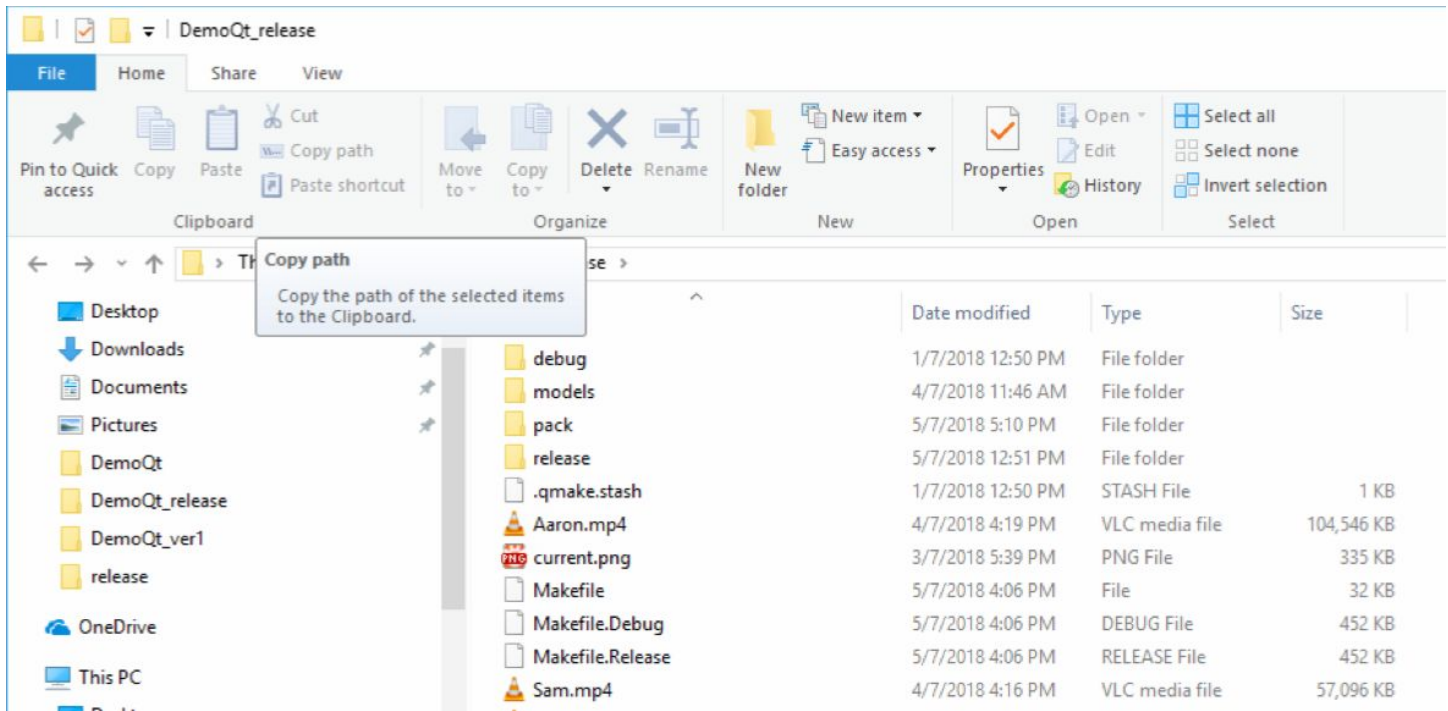
Steps:

Step 1: Change to release mode in Qt Creator and build the *DemoQt.exe* file



Step 2: Create a new folder pack and copy the *DemoQt.exe*

(C:\Users\vincentliu\Documents\DemoQt_release\release\DemoQt.exe) file under the release folder to the new folder pack (C:\Users\vincentliu\Documents\DemoQt_release\pack\DemoQt.exe)



Step 3: Open *Qt 5.8 64-bit for Desktop (MSVC 2015)* and change the directory to the new folder *pack* by typing:

```
cd C:\Users\vincentliu\Documents\DemoQt_release\pack
```

Step 4: Use QT windeployqt tool to collect all dependencies. Type:

```
windeployqt DemoQt.exe --qmlDir C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml
```

to collect all the dependencies to this folder. Please kindly change the *\qml* path based on your environment. For non-qml application, simply type:

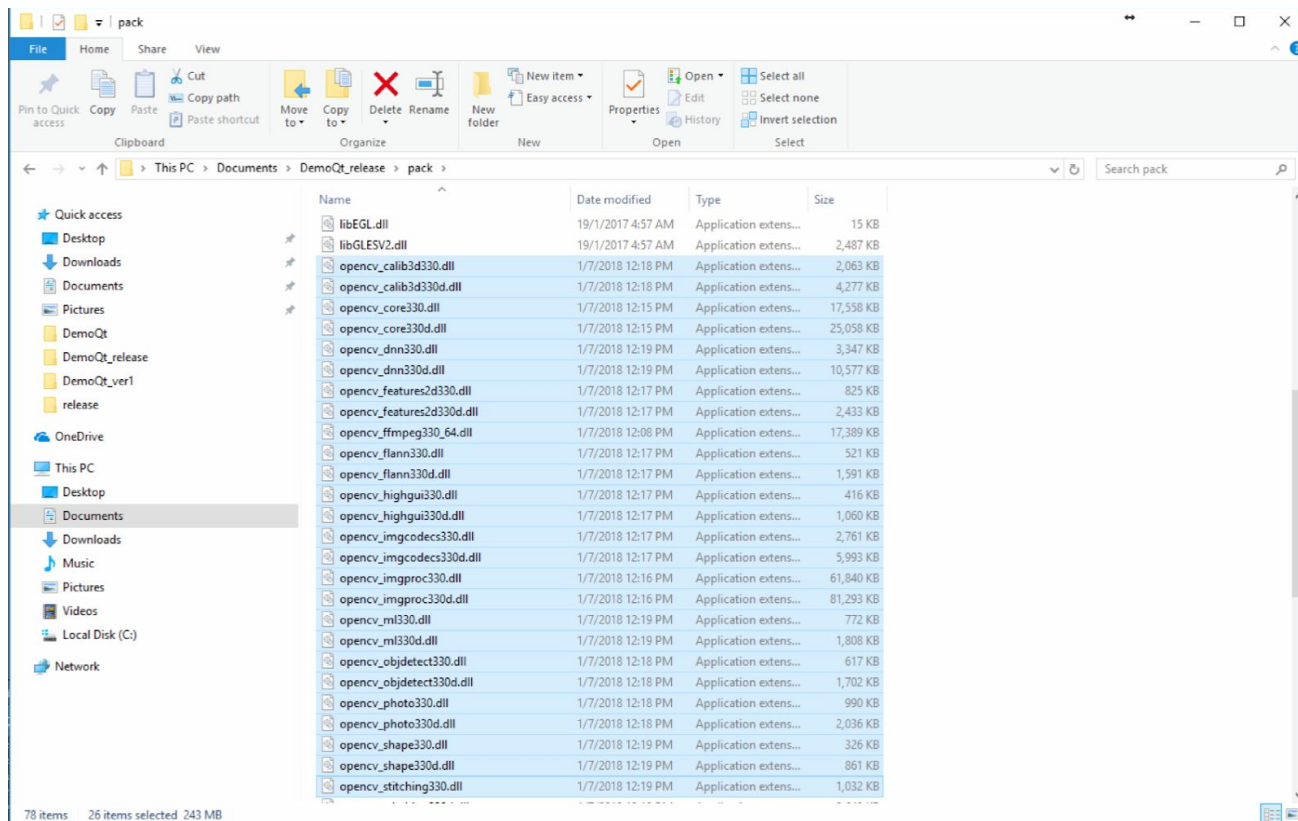
```
windeployqt DemoQt.exe
```

```

C:\Users\vincentliu\Documents\TestQt_release\release>windeployqt TestQt.exe --qml C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml
C:\Users\vincentliu\Documents\TestQt_release\release>TestQt.exe 64 bit, release executable [QML]
Scanning C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml:
QML imports:
'QtQuick' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick.2
'Qt.labs.calendar' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\Qt\labs\calendar
'QtGraphicalEffects.private' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtGraphicalEffects\private
'QtQuick.Window' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Window.2
'QtGraphicalEffects' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtGraphicalEffects
'QtMultimedia' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtMultimedia
'QtQuick.Controls' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Controls
'QtQuick.Layouts' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Layouts
'QtQuick.Controls.Private' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Controls\Private
'QtQml.Models' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQml\Models.2
'QtQuick.Extras' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Extras
'QtQuick.Templates' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Templates.2
'QtQuick.Controls' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Controls.2
'QtQuick.Controls.Material' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Controls.2\Material
'QtQuick.Controls.Universal' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Controls.2\Universal
'QtQuick.Dialogs' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Dialogs
'Qt.labs.folderlistmodel' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\Qt\labs\folderlistmodel
'Qt.labs.settings' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\Qt\labs\settings
'QtQuick.Dialogs.Private' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\Dialogs\Private
'QtQuick.PrivateWidgets' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtQuick\PrivateWidgets
'QtTest' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtTest
'QtWinExtras' C:\Qt\Qt5.8.0\5.8\msvc2015_64\qml\QtWinExtras
Adding Qt5Svg for qsvgicon.dll
Direct dependencies: Qt5Core Qt5Gui Qt5Qml
All dependencies : Qt5Core Qt5Gui Qt5Multimedia Qt5MultimediaQuick_p Qt5Network Qt5Qml Qt5Quick Qt5Test Qt5Widgets Qt5WinExtras
To be deployed : Qt5Core Qt5Gui Qt5Multimedia Qt5MultimediaQuick_p Qt5Network Qt5Qml Qt5Quick Qt5Svg Qt5Test Qt5Widgets Qt5WinExtras
Warning: Cannot find Visual Studio installation directory, VCINSTALLDIR is not set.
Updating Qt5QuickTemplates2.dll.
Updating Qt5QuickControls2.dll.
Updating Qt5QuickTest.dll.

```

Step 5: Manually copy other 3rd party libraries to this new folder like OpenCV .dlls (Not sure why it is not collected by windeployqt)



Step 6: Install compile tools like *Enigma Virtual Box* (<https://enigmaprotector.com/en/downloads.html>) to compressed all the files into final executable file.

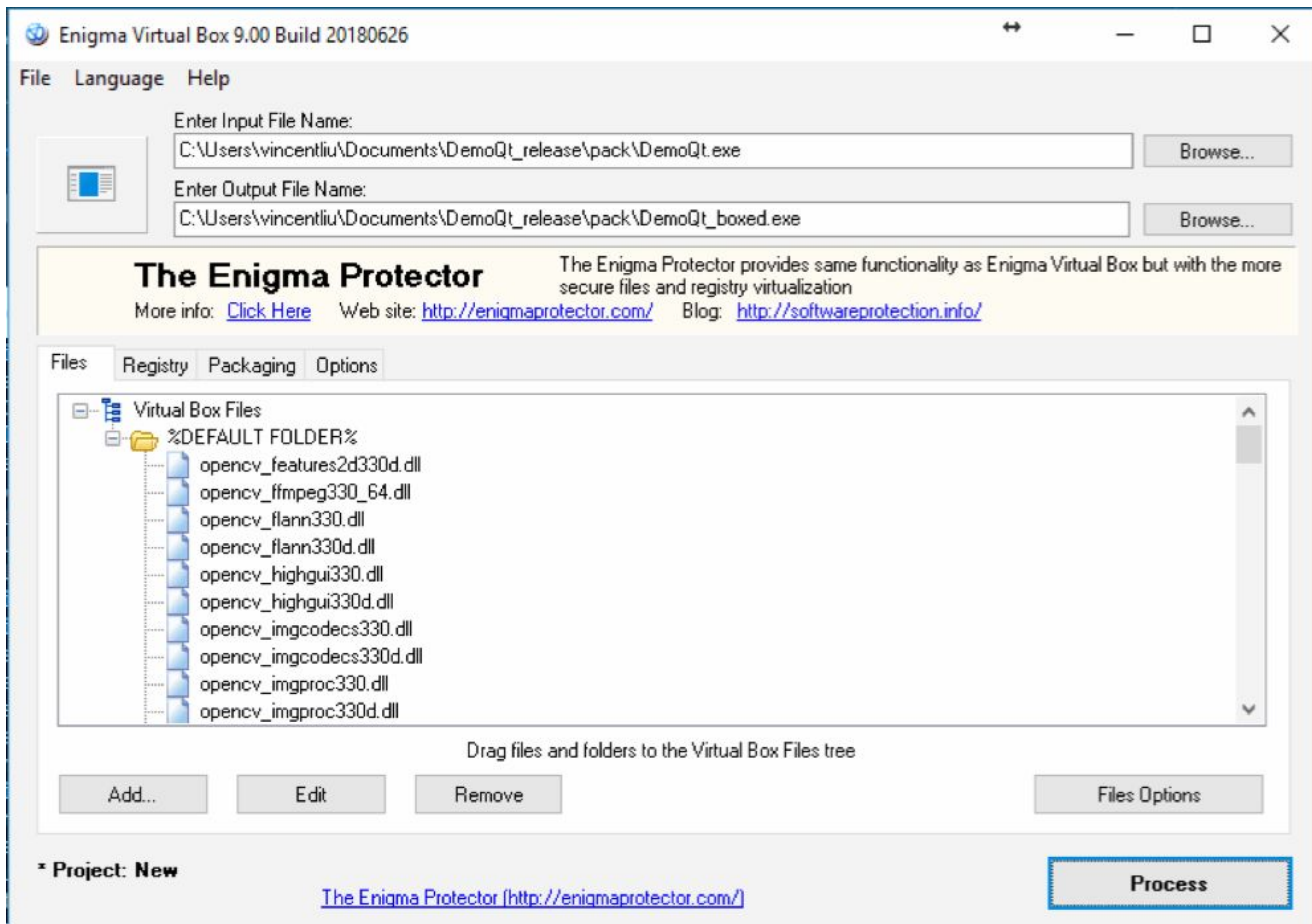
Step 7: After installation, run *Enigma Virtual Box* and complete the following steps and click Process at the bottom to start the compression.

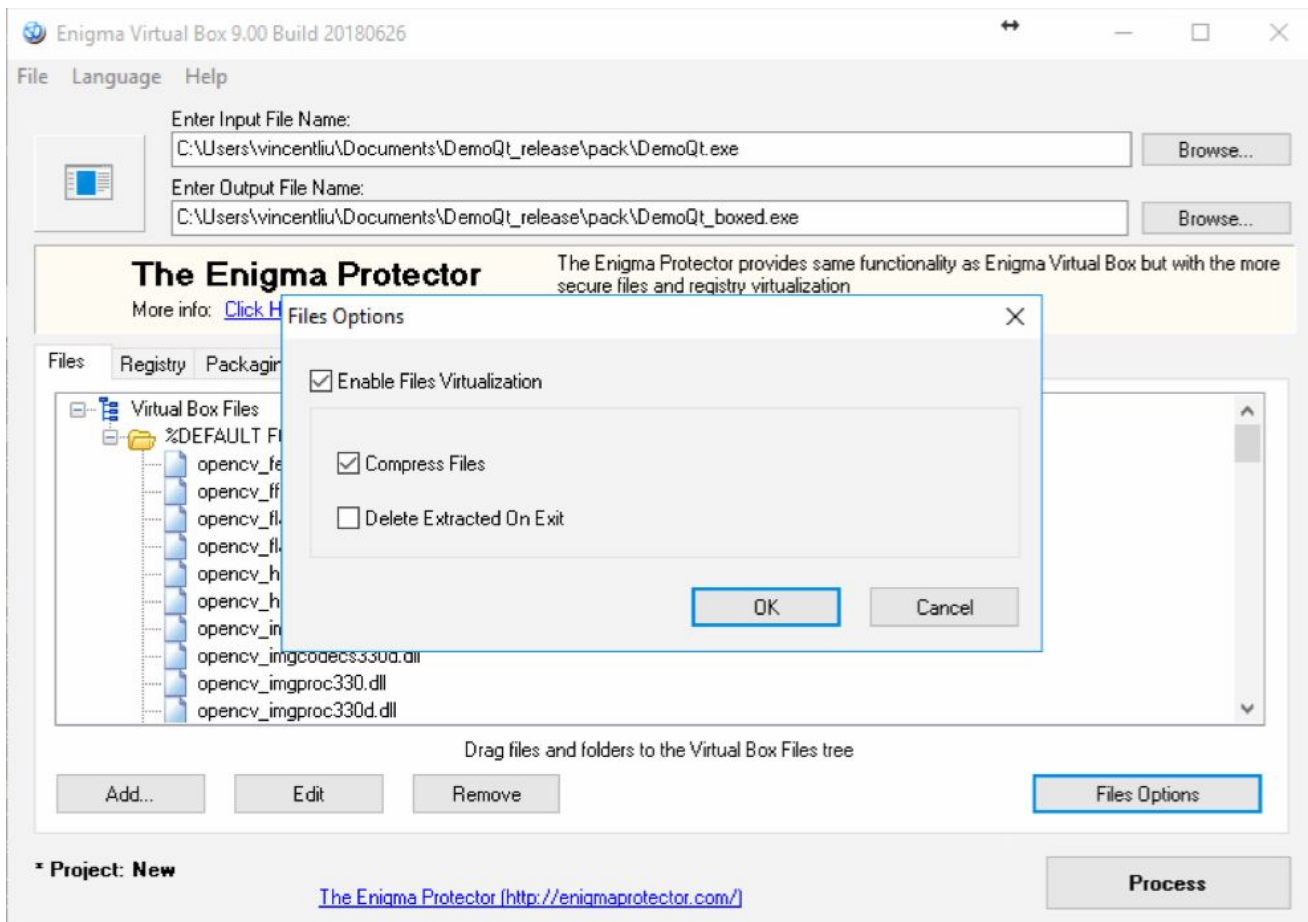
Enter Input File Name: select the .exe file generated in Step 1 and 2

Enter Output File Name: automatically filled in by the application

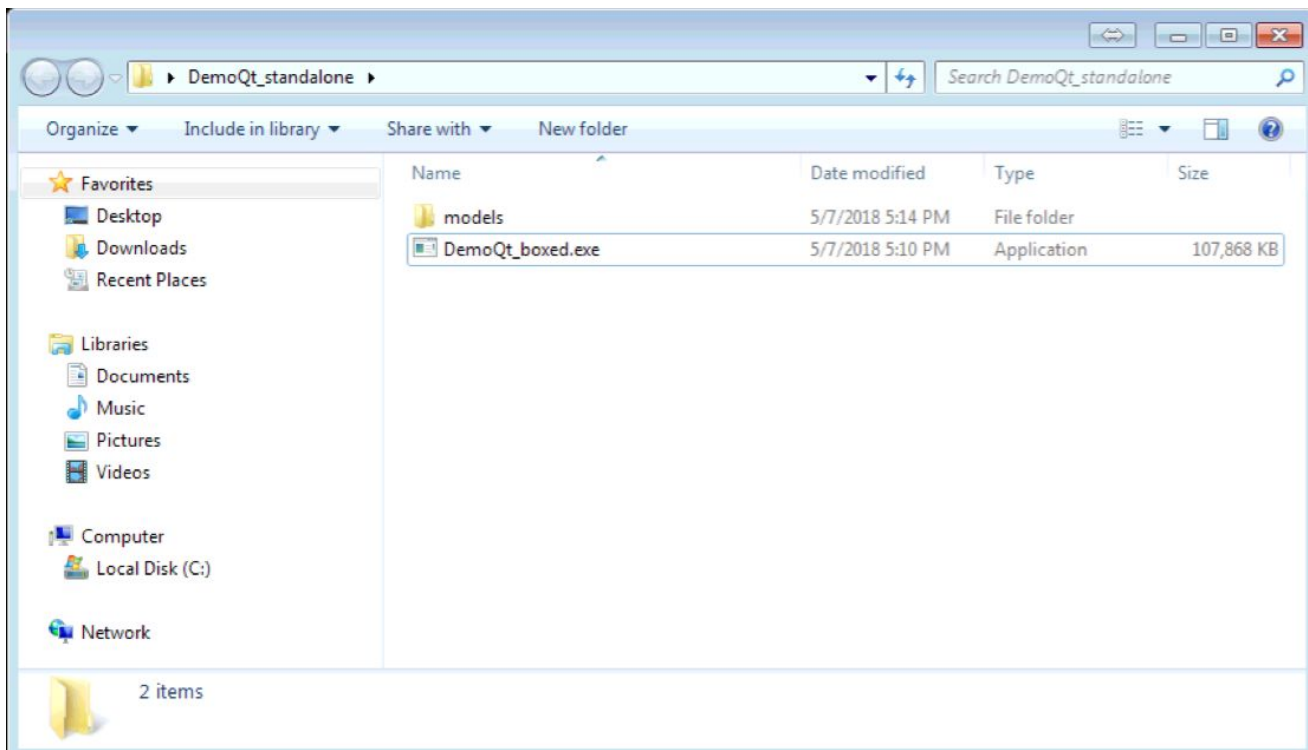
Files: select all the files and subfolders under new folder (including the .exe)

Files Options: select Compressed Files in the pop-up options





Step 8: Create new folder *DemoQt_standalone* and copy *DemoQt_boxed.exe* and all the necessary files like neural network models.



Step 9: Copy the compressed *DemoQt_boxed.exe* to another PC without QT installed and test.