IU International Hochschule – Fernstudium

Modul : Programmierung mit C/C++ (DLBROEPRS01_D)

Tutor : Prof. Dr. Hajck Karapetjan

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Hex,Bin,Text Editor C++_Project Conception Phase

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Introduction

- In this Presentation we will introduce the Hex,Bin,Text Editor C++ App designed to convert a file content between Hexadecimal , binary and text

- We will list the method and concept used to build it as well as how we will make it easy for the user to try it

- And how to use the app and run it

Qt framework

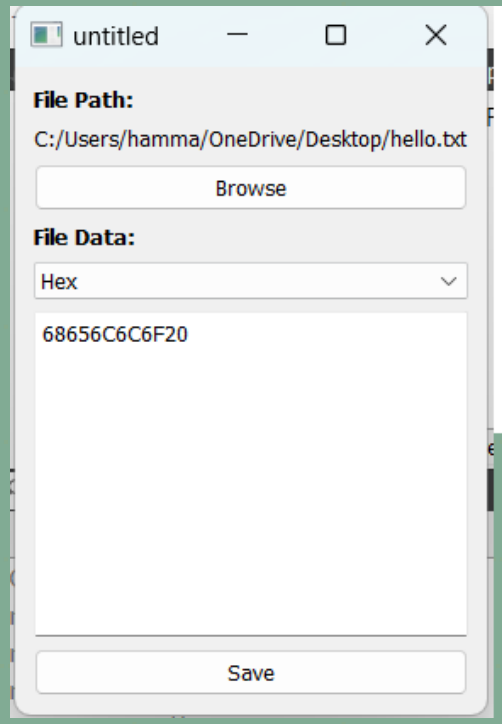
- Qt frame work provides libraries and tools that makes it easier to develop an app with a graphical user interface GUI like widgets
- File I/O : we used QFile and QTextStream classe to read with files and write on them
- QRegularExpression : this class allow us to detect the file type

Qt Test frame work

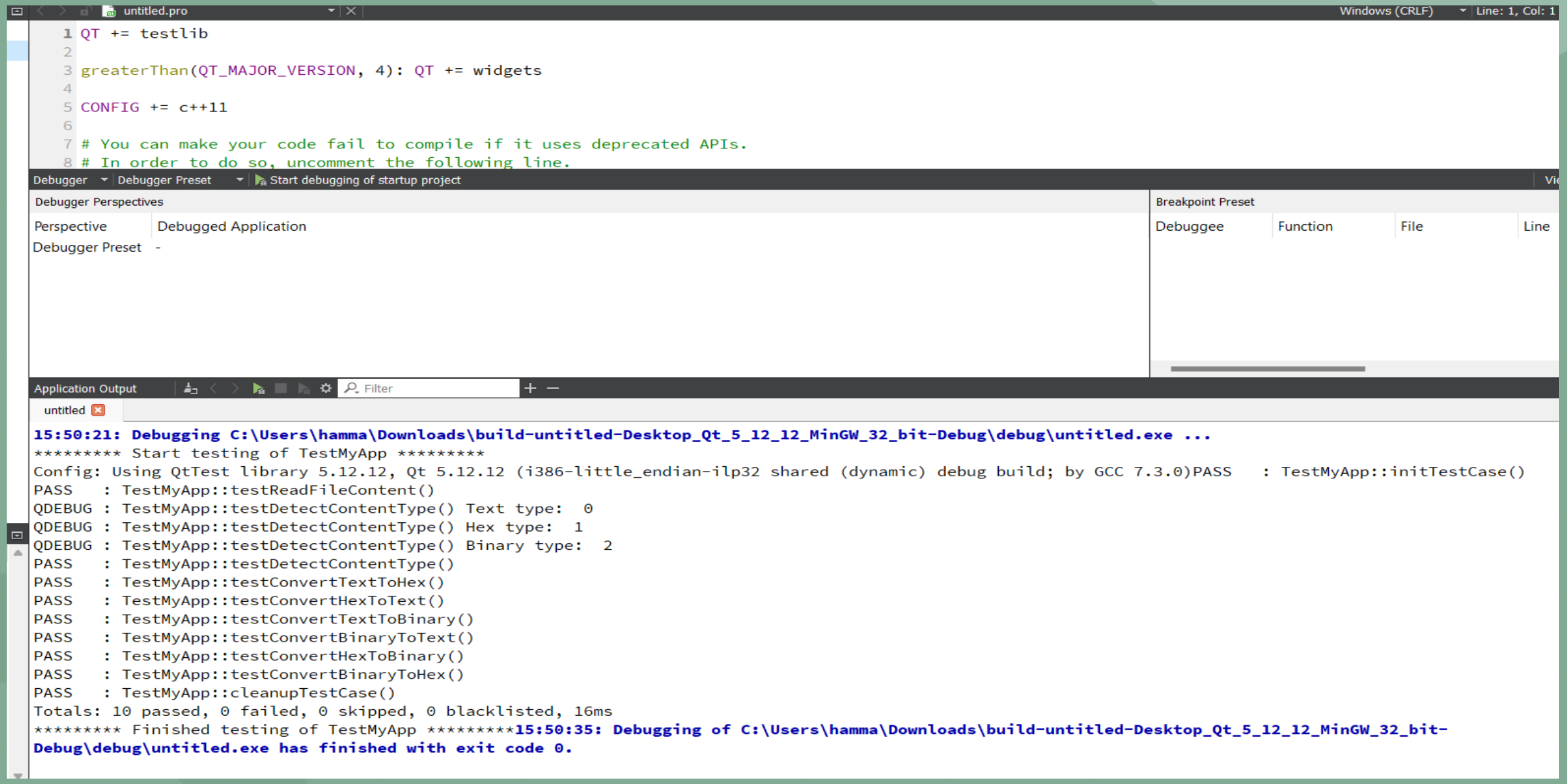
- Is a Qt frame work to run UnitTests
- We used the QTest class to assure the functionality of our code and tools like QCompare

Running the App

- Navigating the app is easy and understandable to the user thanks to the simplified GUI
- We need first to made a .txt file containing our content
- When launched , the app will show a browse button , which allow us to chose the
- File that we are going to operate on
- After opening the file we will see under file data the option that allow us to choose
- The type that we want to convert into



Unit Tests


untitled.pro
Windows (CRLF)
Line: 1, Col: 1
1 QT += testlib
3 greaterThan(QT_MAJOR_VERSION, 4): QT += widgets
5 CONFIG += c++11
7 # You can make your code fail to compile if it uses deprecated APIs.
8 # In order to do so, uncomment the following line.
Debugger
Debugger Preset
Start debugging of startup project
Debugger Perspectives
Perspective
Debugged Application
Debugger Preset -
Breakpoint Preset
Debuggee
Function
File
Line
Application Output
Filter
untitled
15:50:21: Debugging C:\Users\hamma\Downloads\build-untitled-Desktop_Qt_5_12_12_MinGW_32_bit-Debug\debug\untitled.exe ...
********* Start testing of TestMyApp *********
Config: Using QtTest library 5.12.12, Qt 5.12.12 (i386-little_endian-ilp32 shared (dynamic) debug build; by GCC 7.3.0)PASS : TestMyApp::initTestCase()
PASS : TestMyApp::testReadFileContent()
QDEBUG : TestMyApp::testDetectContentType() Text type: 0
QDEBUG : TestMyApp::testDetectContentType() Hex type: 1
QDEBUG : TestMyApp::testDetectContentType() Binary type: 2
PASS : TestMyApp::testDetectContentType()
PASS : TestMyApp::testConvertTextToHex()
PASS : TestMyApp::testConvertHexToText()
PASS : TestMyApp::testConvertTextToBinary()
PASS : TestMyApp::testConvertBinaryToText()
PASS : TestMyApp::testConvertHexToBinary()
PASS : TestMyApp::testConvertBinaryToHex()
PASS : TestMyApp::cleanupTestCase()
Totals: 10 passed, 0 failed, 0 skipped, 0 blacklisted, 16ms
********* Finished testing of TestMyApp *********15:50:35: Debugging of C:\Users\hamma\Downloads\build-untitled-Desktop_Qt_5_12_12_MinGW_32_bit-Debug\debug\untitled.exe has finished with exit code 0.