Hex,Bin,Text Editor C++_Project Abstract

Introduction

Hex,Bin,Text Editor C++_Project is developed using the Qt framework. It provides can read and manipulate file contentslike converting between text, hex, and binary representations. Italso includes tests to assure that all of the functionalities works properly

Project Structure

The project consists of the following folders and files:

*App folder :

- `Source.cpp`: Contains the main application code, including file operations and content conversion functions.

- `app.pro`: The project file for managing the project's configuration and running the App

*Test folder :

- `TestMyApp.h` and `TestMyApp.cpp`: Define the test class and test functions for verifying the code.

- `main.cpp`: The entry point for running the application and tests.

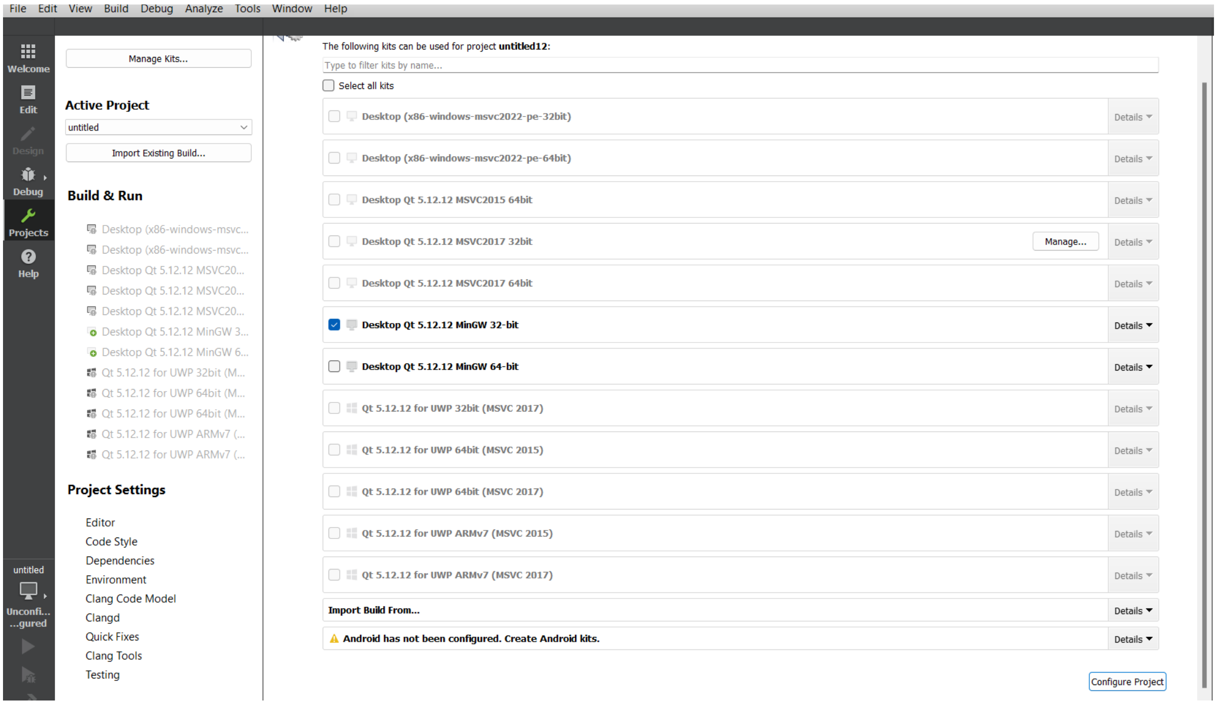
- `Untiteled.pro`: The project file for managing the project's configuration.

Building and Running the Application

To build and run the application, follow these steps:

1. Open app.pro from the App folder in Qt Creator.

2. Configure a valid kit for your project in the "Kits" settings.


File Edit View Build Debug Analyze Tools Window Help
Welcome
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Manage Kits...
Active Project
untitled
Import Existing Build...
Build & Run
Desktop (x86-windows-msvc...
Desktop (x86-windows-msvc...
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Desktop Qt 5.12.12 MSVC20...
Desktop Qt 5.12.12 MSVC20...
Desktop Qt 5.12.12 MinGW 3...
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Qt 5.12.12 for UWP ARMv7 (...
Project Settings
Editor
Code Style
Dependencies
Environment
Clang Code Model
Clangd
Quick Fixes
Clang Tools
Testing
Type to filter kits by name...
Details
Manage...
Configure Project

The following kits can be used for project **untitled12**:

☐ Select all kits

☐ Desktop (x86-windows-msvc2022-pe-32bit)

☐ Desktop (x86-windows-msvc2022-pe-64bit)

☐ Desktop Qt 5.12.12 MSVC2015 64bit

☐ Desktop Qt 5.12.12 MSVC2017 32bit

☐ Desktop Qt 5.12.12 MSVC2017 64bit

☑ Desktop Qt 5.12.12 MinGW 32-bit

☐ Desktop Qt 5.12.12 MinGW 64-bit

☐ Qt 5.12.12 for UWP 32bit (MSVC 2017)

☐ Qt 5.12.12 for UWP 64bit (MSVC 2015)

☐ Qt 5.12.12 for UWP 64bit (MSVC 2017)

☐ Qt 5.12.12 for UWP ARMv7 (MSVC 2015)

☐ Qt 5.12.12 for UWP ARMv7 (MSVC 2017)

Import Build From...

⚠ Android has not been configured. Create Android kits.

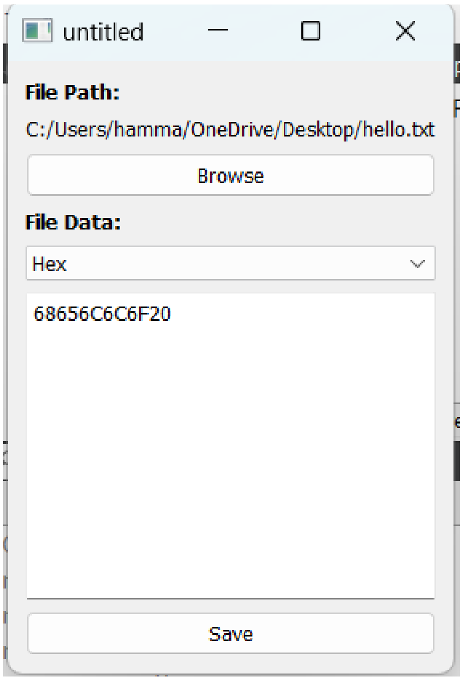
3. Select the desired build configuration (e.g., Debug) in "Projects" tab.

4. Click the "Build" button to compile the project.

5. To run the main application, click the "Run" button or use the "Ctrl+R" .

6. Using 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.



File Path:
C:/Users/hamma/OneDrive/Desktop/hello.txt

File Data:
Hex

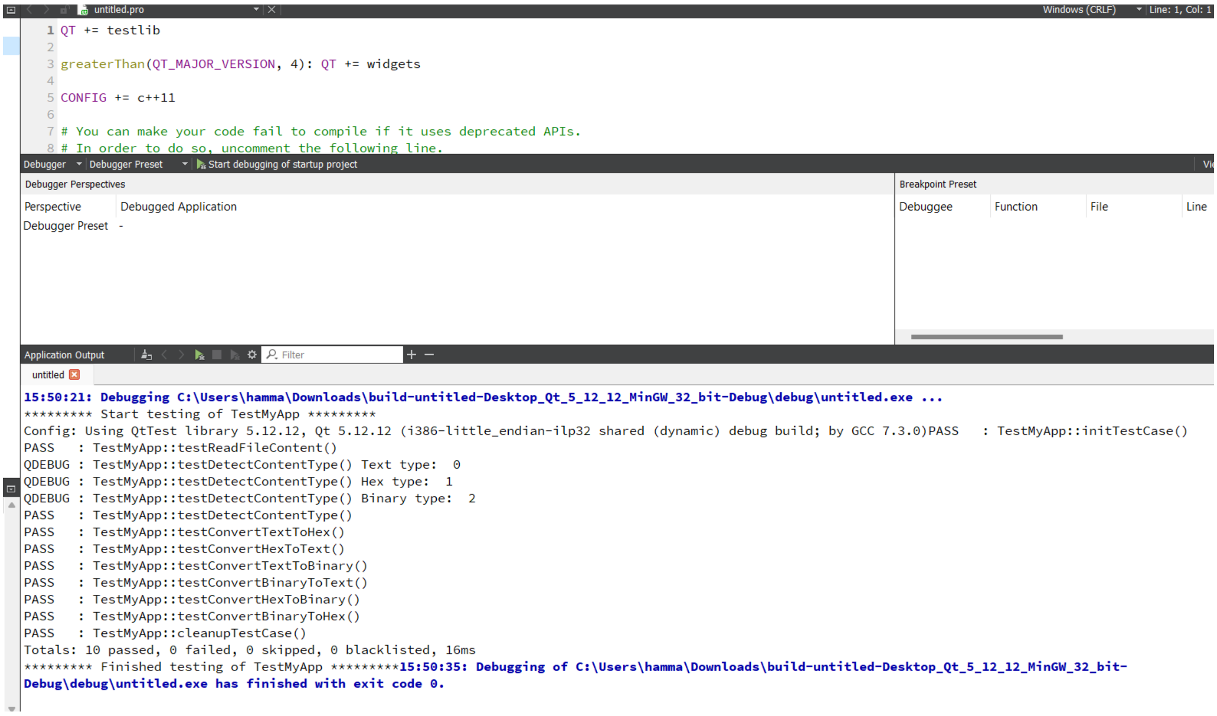
```
68656C6C6F20
```

Running Tests

To run the tests, follow these steps:

1. Open Untiteled.pro from the Test folder in Qt Creator.
2. Configure a valid kit for your project in the "Kits" settings.
3. Select the desired build configuration (e.g., Debug) in "Projects" tab.
4. Click the "Build" button to compile the project.

5. Click the "Run" button or use the "Ctrl+R" to run the tests.



```
QT += testlib

greaterThan(QT_MAJOR_VERSION, 4): QT += widgets

CONFIG += c++11

# You can make your code fail to compile if it uses deprecated APIs.
# In order to do so, uncomment the following line.
```

```
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.
```

https://github.com/Rhhamma/IU_Hex-Bin-Text-Editor-C-_Project