

Technical Note

Grayhill Vehicle Solutions

Date: September 6, 2019
Revision: A
Subject: Windows 10 - Upgrade existing Qt 5.9.3 Libraries to Qt 5.12.2
Reference: VSTN2019-02

Intended Audience

This technical note is intended for customers who are currently using Qt 5.9.3 libraries on a computer running Windows 10. Previous Windows versions while still operational are **not** supported.

Please note that the name of the kit is 5.9.3 and was named as such as to indicate that this kit was released to support Qt 5.9.3. The upgrade updates/replaces files in the necessary folders (e.g. qmakeInstall). So, while the name of kit remains the same;, its actual contents have been updated to utilize the Qt 5.12.2 libraries. Juliet said it best “What’s in a name? That which we call a rose by any other name would smell as sweet”¹

Introduction

This technical note provides the necessary instructions for migrating a Windows 10 computer with Qt 5.9.3 libraries to Qt 5.12.2 libraries.

Prerequisites

The following conditions must be true:

- Computer running Windows 10 with Qt 5.9.3 installed
- Existing 3Dxx display also configured for Qt 5.9.3
- Ethernet connection to the 3Dxx display
- RS232 (or serial) connection to the 3Dxx display

¹ Romeo and Juliet (II, ii, 1-2)

Procedure

While these instructions make every attempt to be complete; certain discrepancies may occur based on the actual development environment being used.

[PC] Download Qt 5.12.2 files

- Launch your favorite internet browser
- Navigate to www.grayhill.com/qt43d and download
 - QtGhUpgrade5122Win10.exe

[3Dxx] Determine the IP address of the 3Dxx display

Using the serial (RS232) connection to the 3Dxx display

- `ifconfig eth0`

[PC] Update “gmd” reference to the display’s IP address

Using Notepad++ (or another editor with admin right capabilities) edit `C:\Windows\System32\drivers\etc\hosts` and add/update the following line

```
net.net.net.host gmd
```

where `net.net.net.host` is the IP address discovered above

[PC] Unarchive the files

- Open the folder with **QtGhUpgrade5122Win10.exe** (most likely Downloads folder)
- Double click to run the program (self-extracting archive)

N.B. If a “Program Compatibility Assistant” window appears; click “Close”

[PC] Install Qt 5.12.2 libraries on the 3Dxx display remotely

- Navigate to the `C:\QtGhSupport` folder
- Double click on **QtGhUpgradeWin10Install.bat**

To update additional displays, connect the 3Dxx and update **gmd** (see above) with the IP address then re-run the script

[PC] Verify Qt Creator is configured for “gmd” vs. hard coded IP

- Launch Qt Creator (C:\Qt\Tools\QtCreator\bin\qtcreator.exe)
- Verify “Host name:” is set to gmd (Tools→ Options → Devices (left hand column) → Devices (tab))

[PC] Verify sample project builds and runs on target

- Launch Qt Creator (if not running)
- Open Project (GrayhillExamples/ghQmlDemo/ghQmlDemo.pro)
- Select Projects (wrench icon)
- Select Build under Qt-5.9.3-3Dxx
- Expand qmake
- Verify qmake “Additional arguments:” is set to “**hw_present=yes target=3D70**”.
N.B. use 3D50 or 3D2104 based on actual display
- Build, deploy and run the project by clicking on the green triangle

[PC] (optional) Verify sample project builds and runs on desktop

- Terminate previously running application (Application Output tab → red square)
- Select Projects(wrench icon)
- Select Build under Desktop Qt 5.9.3 MinGW 32bit
- Verify qmake “Additional arguments:” is set to “**target=3D70 windowsOnly=true**”.
N.B. use 3D50 or 3D2104 based on desired display simulation
- Build, deploy and run the project by clicking on the green triangle