Install Qt compiled with MSVC2015

Install Visual Studio 2015

Install Cmake-gui

Adjust the system environment variables (or similar path…):

- Add ”C:\Qt\Qt(version)\(version)\msvc2015 64\bin” to path
- Add new variable QT_QPA_PLATFORM_PLUGIN_PATH ”C:\Qt\Qt(version)\(version)\msvc2015 64\plugins\platforms\”

INSTALLING PCL

Download PCL 1.8 all-in-one installer x64 and the .pdb files (for Visual Studio 2015): http://unanancyowen.com/en/pcl18/

Install the PCL all-in-one executable. Then extract the pdb files in the .zip file and copy them inside the bin folder of PCL C:\Program Files\PCL 1.8.0\bin (or similar).

Update your user environment variable to include:

- PCL_ROOT as ”C:\Program Files\PCL 1.8.0

And add to path:

- %PCL_ROOT%\bin;
- %PCL_ROOT%\3rdParty\FLANN\bin;
- %PCL_ROOT%\3rdParty\VTK\bin;
- %OPENNI2 REDIST64%;

Restart the computer for variables update.

INSTALLING VTK

Download vtk 7.0.0 (Not 7.1.0!!!)

https://github.com/Kitware/VTK/tree/v7.0.0

1. Specify the input destination of the source code and the output destination of the solution file.
- Where is the source code: F:\VTK-7.0.0\(or where you unzipped it)
- Where is build the binaries: F:\VTK-7.0.0\build
2. Press [Configure] and select the target Visual Studio. Select MSVC 2015 x64!
3. Perform various settings.

BUILD

- BUILD_SHAREED_LIBS ☐ (uncheck)
- BUILD_TESTING ☐ (uncheck)

CMAKE

- CMAKE_CONFIGURATION_TYPES Debug; Release
- CMAKE_CXX_MP_FLAG ☑ (check)
- CMAKE_INSTALL_PREFIX C: \ Program Files \ VTK (or C: \ Program Files (x86) \ VTK)

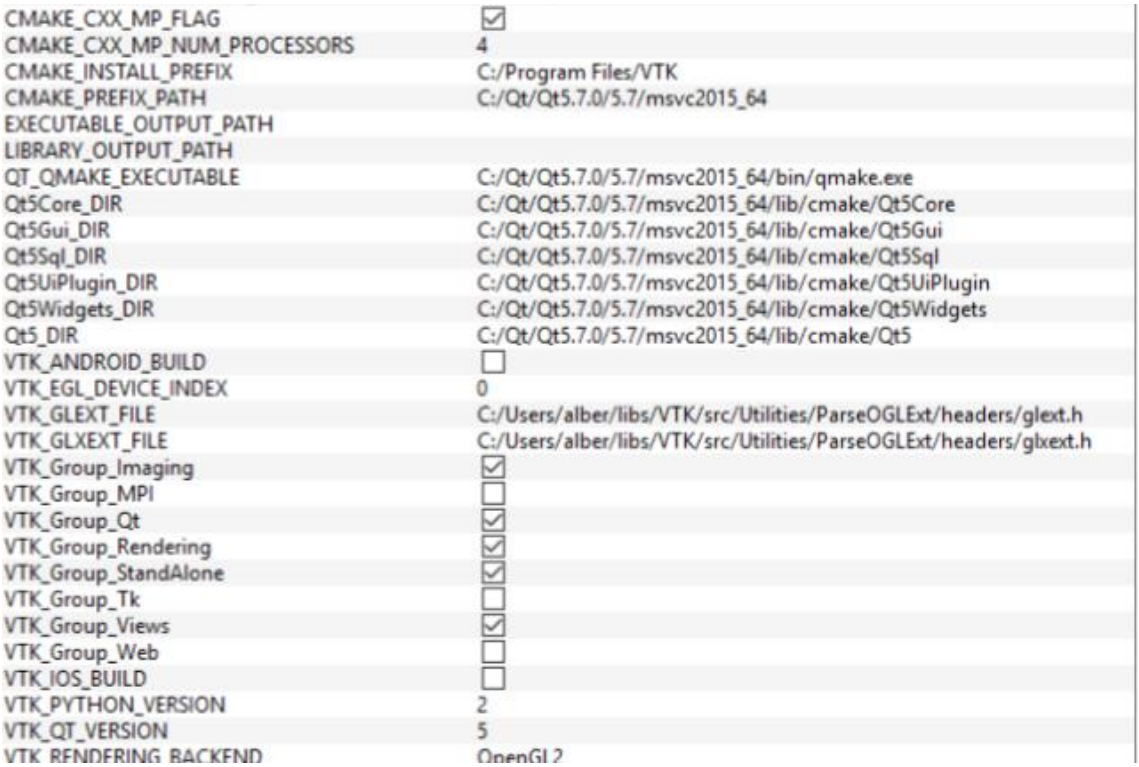
4. Press [Add Entry] and add the following settings.

Name:	CMAKE_DEBUG_POSTFIX
Type:	STRING
Value:	-gd
Description:	

* Debug A character string to be added to the file name (last) of the generated file of the build.

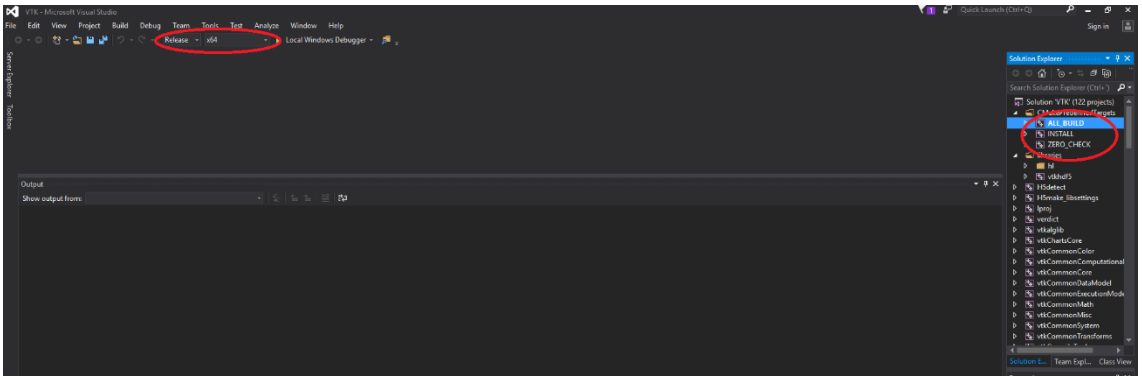
5. Qt

- Select the qt options as the next figure. Click configure if there is some parameter missing, click configure and try to update the new ones. You can se the search tool to find them.



Maybe Qt5UiPlugin_Dir is not showing, depending on what version of cmake do you have, don't worry. The number of processors are not important.

6. Press [Configure] again and then [Generate] to output the solution file.
7. Open visual studio 2015 as administrator. Open the project VTK that you will find in the build folder inside vtk (F:\VTK-7.0.0\build).



Select Release mode. The compiler should be x64, if x86 means that you didn't selected x64 in cmake (go to cmake, file, delete cache and start over).

Go to build-> build All_build
Then Build -> build install

This will create a installation folder in CMAKE_INSTALL_PREFIX path you selected in cmake. I used C:\Program Files\VTK
Update your user environment variable to include:

- VTK_DIR: "C:\Program Files\VTK

Add to path:

- %VTK_DIR%\bin

Restart your computer.

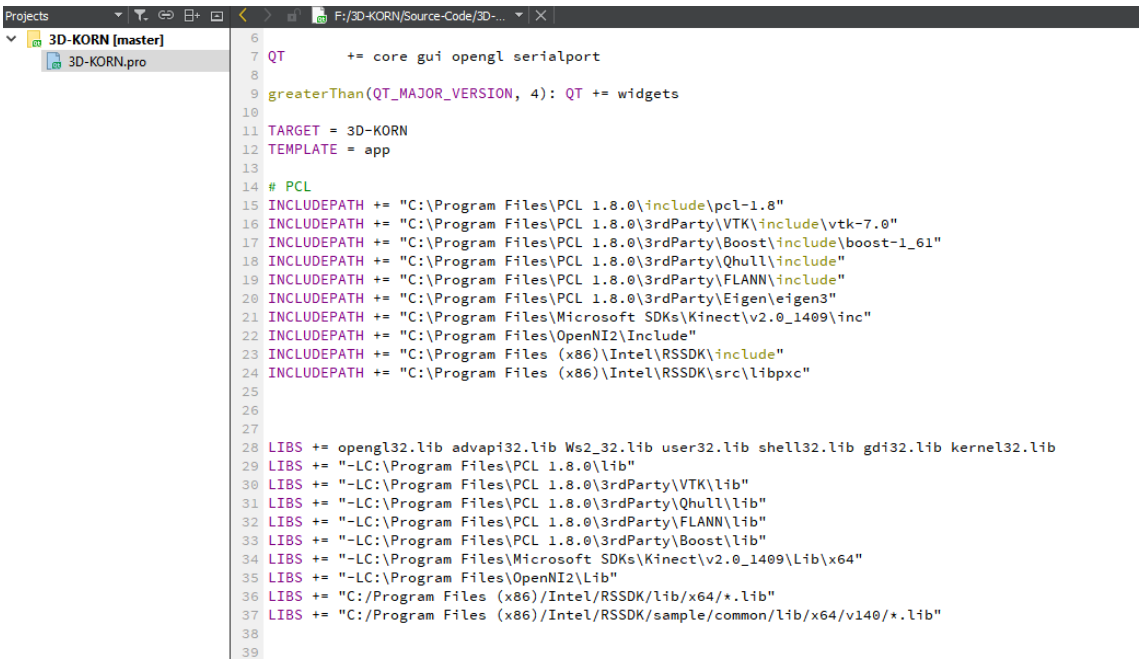
8. Copy header and source files…
   - Now copy all headers and source files from F:\VTK-7.0.0\GUISupport\Qt to C:\Program Files\PCL1.8.0\3rdParty\VTK\include\vtk-7.0
   - Copy vtkGUISupportQtmodule.h from F:\VTK-7.0.0\build\GUISupport\Qt to C:\Program Files\PCL1.8.0\3rdParty\VTK\include\vtk-7.0
   - Copy vtkrenderingopengl2module.h from F:\VTK-7.0.0\build\Rendering\OpenGL2 to C:\Program Files\PCL1.8.0\3rdParty\VTK\include\vtk-7.0

9. Copy libraries
   - Copy all libraries (overwriting) from F:\VTK-7.0.0\build\lib\Release to C:\Program Files\PCL1.8.0\3rdParty\VTK\lib
   - Copy openni2.dll from C:\Program Files\OpenNI2\Tools to C:\Program Files\PCL1.8.0\bin

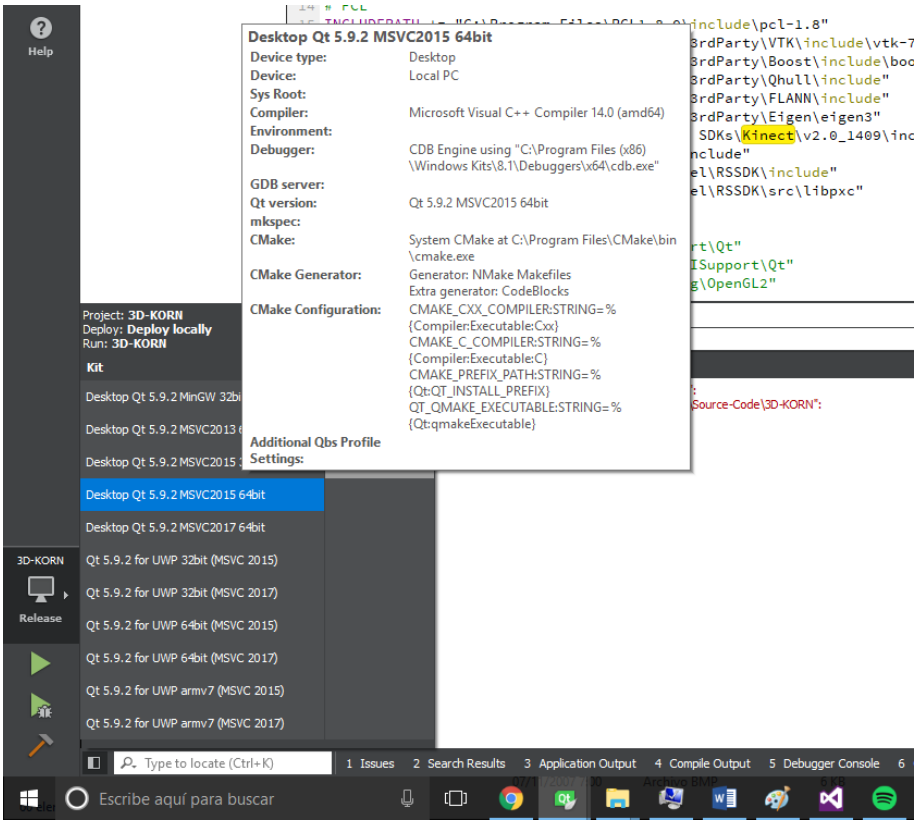
Note: The copy-paste origin folder is the one you unzipped (In my case F:\VTK-7.0.0…) not where vtk is installed (VTK_DIR).

Opening the projects

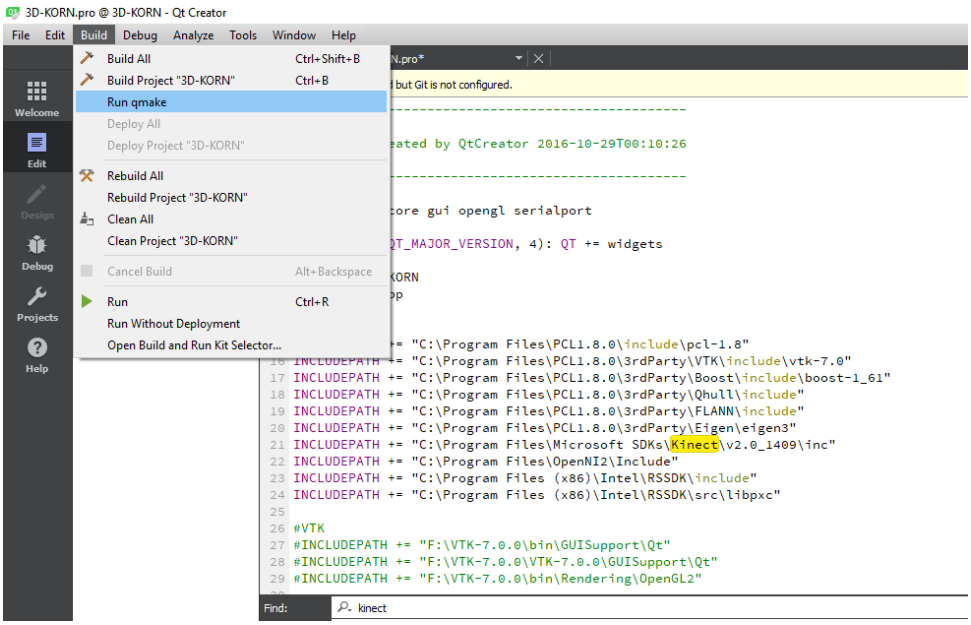
Now, donwload any of the projects and open it using Qt.



Check all paths are correct, maybe you are using diferent names…



Select Release mode using msvc2015 64 bit



Run qmake.
Run the project.