

PORTABLE DVRK SIMULATOR: VISUAL STUDIO CONFIGURATION SETTINGS

To build the source code and run the DVRK simulator application, the distributed files need to be configured as a Visual Studio (VS) project. The following instructions and settings refer to the Configuration panel options that have to be set from the *Properties* page of the VS project.

The distributed simulator has been successfully built and executed under **Visual Studio 2015**, with **Platform Toolset v140**, along with all other required settings listed in the following. Any other combination of VS version / Platform toolset / settings is not granted to succeed and has not been tested. Please refer to the configuration described in the following.

Required Dependencies

Chai3d-3.2.0

OpenHaptics 3.4.0

OpenCV 2.4

Boost 1.66.0

GLEW

SDL

OculusSDK

Eigen

1. Add source files to the project

(Right click on Project -> Add -> Existing Item)

2. Set Build configuration: Release – x86

3. From **Properties Pages** *(Right click on Project -> Properties)*

a. General

Target Platform Version: 8.1

Platform Toolset: Visual Studio 2015 (v140)

Configuration Type: Application (.exe)

b. VC++ Directories

Include Directories

Path-To-OpenHaptics\OpenHaptics\Developer\3.4.0\utilities\include

Path-To-OpenHaptics\OpenHaptics\Developer\3.4.0\include

Path-To-Opencv\opencv\build\include

Path-To-Boost\boost\boost_1_66_0

Path-To-Glew\glew\include\GL

Path-To-SDL\sdl\include

Path-To-OculusSDK\OculusSDK\LibOVRKernel\Src

Path-To-OculusSDK\OculusSDK\LibOVR\Include

Path-To-V-REP\V-REP_PRO_EDU\programming\remoteApi

Path-To-V-REP\V-REP_PRO_EDU\programming\include

Library Directories

Path-To-Opencv\opencv\build\x86\vc14\lib

Path-To-Boost\boost\boost_1_66_0\stage\lib

Path-To-Glew\glew\lib\Release\Win32

Path-To-SDL\sdl\lib\x86

Path-To-OculusSDK\OculusSDK\LibOVR\Lib\Windows\Win32\Release\VS2015

c. C/C++ - General

Additional Include Directories

Path-To-Chai3D\chai3d-3.2.0\extras\GLFW\include

Path-To-Chai3D\chai3d-3.2.0\external\glew\include

Path-To-Chai3D\chai3d-3.2.0\src

Path-To-Chai3D\chai3d-3.2.0\external\Eigen

SDL Checks: Yes

d. C/C++ - Preprocessor

Preprocessor Definitions

NON_MATLAB_PARSING

MAX_EXT_API_CONNECTIONS=255

_CRT_SECURE_NO_WARNINGS

e. Linker – General

Additional Library Directories

Path-To-OpenHaptics\OpenHaptics\Developer\3.4.0\lib\Win32\Release

Path-To-OpenHaptics\OpenHaptics\Developer\3.4.0\utilities\lib\Win32\Release

Path-To-Chai3D\chai3d-3.2.0\extras\GLFW\lib\Release\Win32

Path-To-Chai3D\chai3d-3.2.0\lib\Release\Win32

f. Linker – Input

Additional Dependencies

opencv_core2413.lib

opencv_highgui2413.lib

opencv_imgproc2413.lib

opencv_video2413.lib

boost_thread-vc140-mt-x32-1_66.lib

glew32.lib

Opengl32.lib

4. Paste the following libraries in the Release folder (where the executable is generated)

boost_chrono-vc140-mt-x32-1_66.dll

boost_system-vc140-mt-x32-1_66.dll

boost_thread-vc140-mt-x32-1_66.dll

glew32.dll

hd.dll

hl.dll

hdPhantom32.dll

Leap.dll

opencv_core2413.dll

opencv_highgui2413.dll

opencv_imgproc2413.dll

SDL2.dll

sixense.dll

tdLeap32.dll

