

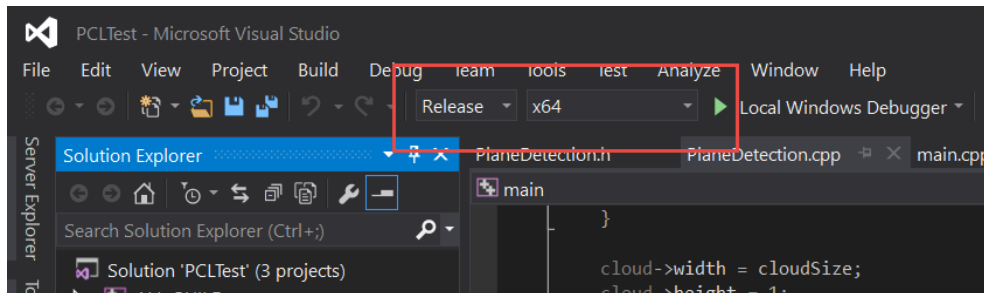
OpenARK Setup

Software Requirements

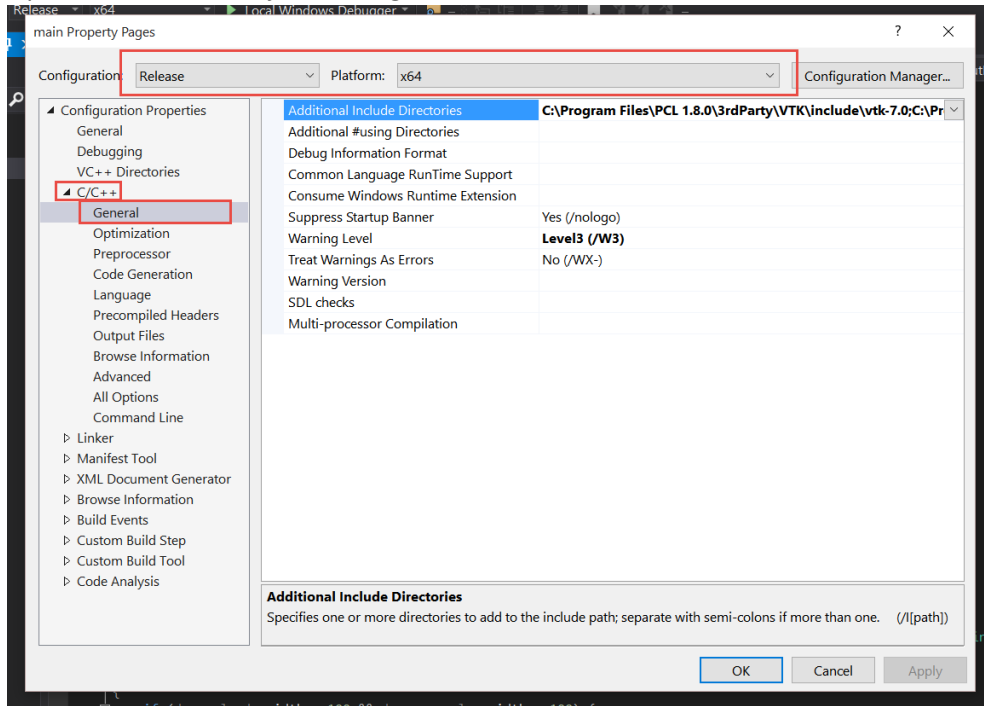
- Visual Studios 2015 (Community / Professional / Enterprise).
- OpenCV 3.00 or above
- PCL (Point Cloud Library) 1.8 or above
- PMD Drivers and SDK

Setting Up on Windows 10

1. Pull OpenARK from master branch
2. Download OpenARK.vcxproj and save it in the folder with your C++ files (if you don't have it)
3. Rename HudProject.cpp to main.cpp (if it hasn't been done already)
4. Open the project
5. Make sure the build mode is set to Release x64



6. OpenCV and PMD Project Settings



- C++ → General → Additional Include Directories (Exact path will depend your computer but mine looks like this)
 - C:\opencv\build\x64\vc12\..\include
 - C:\CS Projects\PMDS SDK\include
- Linker → General → Additional Include Directories (Exact path will depend your computer but mine looks like this)
 - C:\opencv\build\x64\vc12\lib
 - C:\CS Projects\PMDS SDK\bin
- Linker → Input → Additional Dependencies (You should have the same thing as me)
 - If you are using OpenCV version 3.00
 1. opencv_world300.lib
 2. opencv_ts300.lib
 - If you are using OpenCV version 3.10
 1. opencv_world310.lib
 - pmdaccess2.lib

7. PCL (Point Cloud Library) Project Settings

- C++ → General → Additional Include Directories (Exact path will depend your computer but mine looks like the below)
 - C:\Program Files\PCL 1.8.0\3rdParty\VTK\include\vtk-7.0
 - C:\Program Files\PCL 1.8.0\include\pcl-1.8
 - C:\Program Files\PCL 1.8.0\3rdParty\Eigen\include\ Eigen3
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\include\boost-1_60
 - C:\Program Files\OpenNI\Include
 - C:\Program Files\OpenNI2\Include
 - C:\Program Files\PCL 1.8.0\3rdParty\FLANN\include
 - C:\Program Files\PCL 1.8.0\3rdParty\Qhull\include
 - C:\Program Files\PCL 1.8.0\3rdParty\VTK\include
- Linker → General → Additional Include Directories (Exact path will depend your computer but mine looks like this)
 - C:/Program Files/PCL 1.8.0/lib
 - C:/Program Files/PCL 1.8.0/lib/Release
- Linker → Input → Additional Dependencies (You should have the same thing as me)
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_system-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_filesystem-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_thread-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_date_time-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_iostreams-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_serialization-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_chrono-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_atomic-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\Boost\lib\libboost_regex-vc140-mt-1_60.lib
 - C:\Program Files\PCL 1.8.0\lib\pcl_common_release.lib
 - C:\Program Files\PCL 1.8.0\lib\pcl_octree_release.lib
 - C:\Program Files\OpenNI\Lib64\openNI64.lib
 - C:\Program Files\OpenNI2\Lib\OpenNI2.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkglib-7.0.lib
 - C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkChartsCore-7.0.lib

- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonColor-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonDataModel-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonMath-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtksys-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonMisc-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonSystem-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonTransforms-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkInfovisCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersExtraction-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonExecutionModel-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersGeneral-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkCommonComputationalGeometry-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersStatistics-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingFourier-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingContext2D-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersGeometry-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersSources-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingFreeType-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkfreetype-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkzlib-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkDICOMParser-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkDomainsChemistry-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOXML-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOGeometry-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOXMLParser-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkexpat-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkexollc-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkNetCDF-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkNetCDF_cxx-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkhdf5_hl-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkhdf5-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersAMR-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkParallelCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOLegacy-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersFlowPaths-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersGeneric-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersHybrid-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingSources-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersHyperTree-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersImaging-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingGeneral-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersModeling-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersParallel-7.0.lib

- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersParallelImaging-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersProgrammable-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersSelection-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersSMP-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersTexture-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkFiltersVerdict-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkverdict-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkGeovisCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkInfovisLayout-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingHybrid-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOImage-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkmetaio-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkjpeg-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkpng-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtktiff-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkInteractionStyle-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkInteractionWidgets-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingAnnotation-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingColor-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingVolume-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkViewsCore-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkproj4-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkgl2ps-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingMath-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingMorphological-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingStatistics-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkImagingStencil-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkInteractionImage-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOAMR-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOEnSight-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOExodus-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOExport-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingGL2PS-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingContextOpenGL-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingOpenGL-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkRenderingLabel-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOImport-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOInfovis-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtklibxml2-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOLSDyna-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOMINC-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOMovie-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkoggtheora-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIONetCDF-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOParallel-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkjsoncpp-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOParallelXML-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOPLY-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTk\lib\vtkIOSQL-7.0.lib

- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtksqlite-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkIOVideo-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkRenderingImage-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkRenderingLIC-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkRenderingLOD-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkRenderingVolumeOpenGL-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkViewsContext2D-7.0.lib
- C:\Program Files\PCL 1.8.0\3rdParty\VTK\lib\vtkViewsInfovis-7.0.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_io_release.lib
- C:\Program Files\PCL 1.8.0\3rdParty\FLANN\lib\flann_cpp_s.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_kdtree_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_search_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_sample_consensus_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_filters_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_features_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_ml_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_segmentation_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_visualization_release.lib
- C:\Program Files\PCL 1.8.0\3rdParty\Qhull\lib\qhullstatic.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_surface_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_registration_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_keypoints_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_tracking_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_recognition_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_stereo_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_outofcore_release.lib
- C:\Program Files\PCL 1.8.0\lib\pcl_people_release.lib

8. Project is now ready to build

