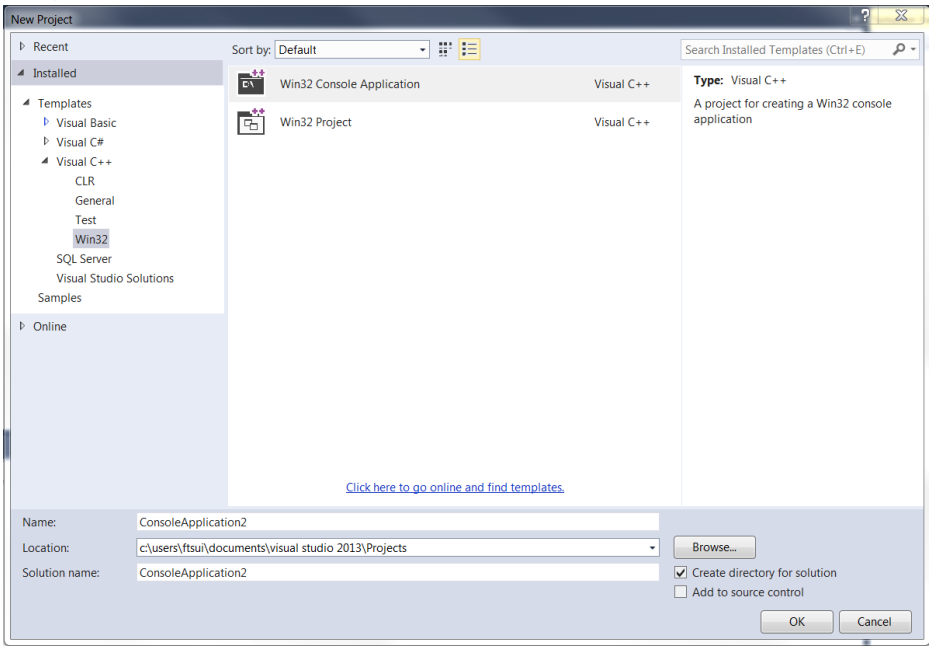
Compiling the SDK in C++ (Using Visual Studio Express 2013)

Installed on local machine:

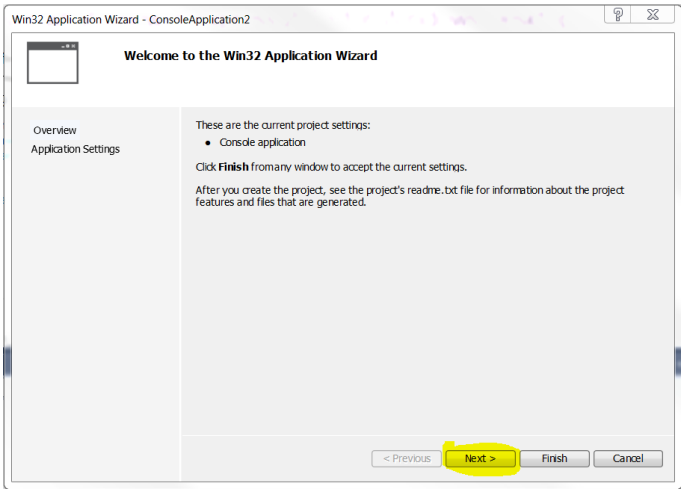
- Windows SDK 7.1
- Datastream SDK 1.3 (x86) and Datastream SDK 1.3 (x64)
- Visual Studio Express 2013 for Desktop

For Datastream SDK 1.3 (x64)

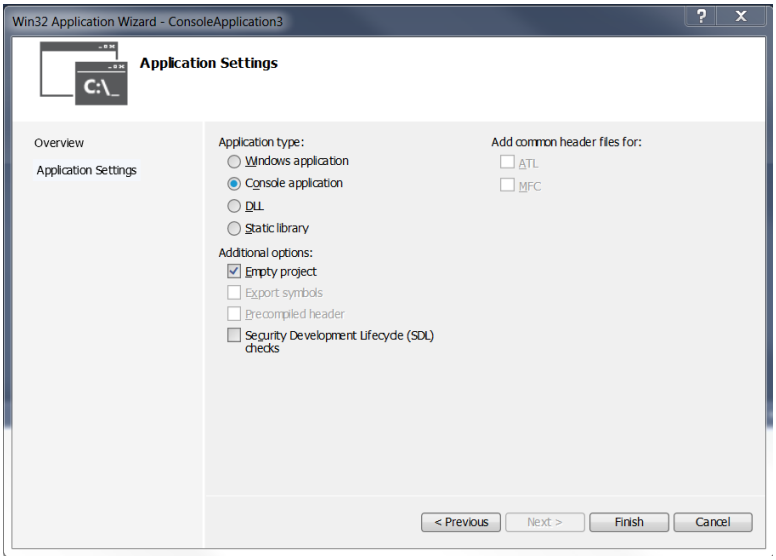
1. Open Visual Studio Express 2013.
2. Click `File -> New Project.`
3. Select `Win 32 Console Application`, and specify a name (currently "Console Application2"). Click OK.



4. Click `Next` on the following screen.



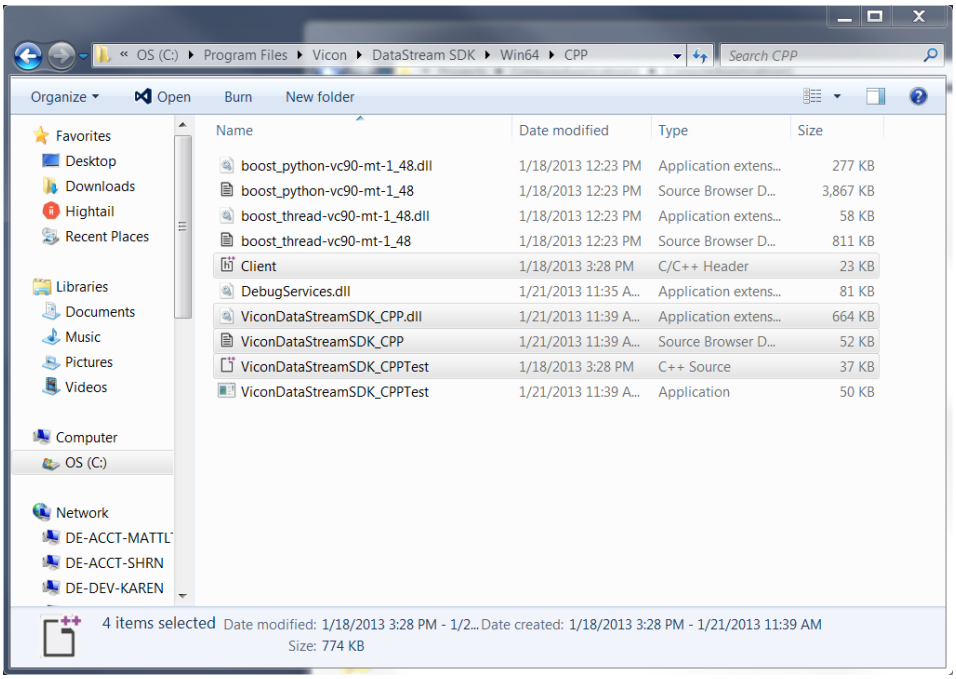
5. Uncheck `Precompiled header` and `Security Development Lifecycle (SDL) checks`. Select `Empty Project`. Click `Finish`.



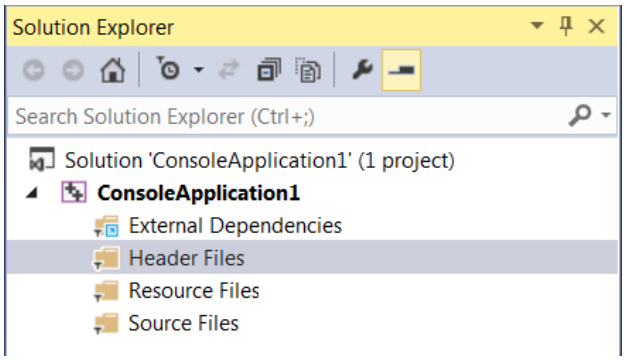
6. Open the folder location for the DataStreamSDK (`C:\Program Files\Vicon\DataStream SDK\Win64\CPP`)

7. Open the project folder where this latest project is (default location, for example: `C:\Users\FTsui\Documents\Visual Studio 2013\Projects\ConsoleApplication1\ConsoleApplication1`)

8. Copy over the following four files (`Client`, `ViconDataStreamSDK_CPP.dll`, `ViconDataStreamSDK_CPP` and `ViconDataStreamSDK_CPPTest`) from the DataStreamSDK folder into the project folder.

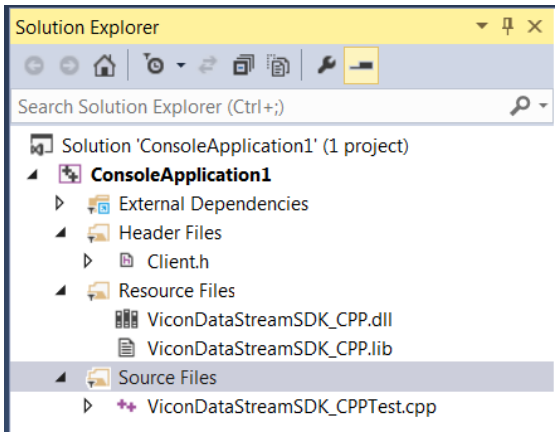


9. In VSE 2013, right-click on `Header Files` and select `Add->Existing Item`. Select `Client`.

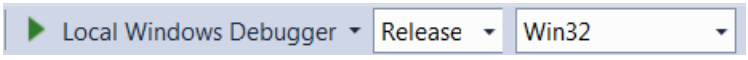


10. Right-click on `Resource Files` and select `Add->Existing Item`. Select `ViconDataStreamSDK_CPP.dll` and `ViconDataStreamSDK_CPP`.

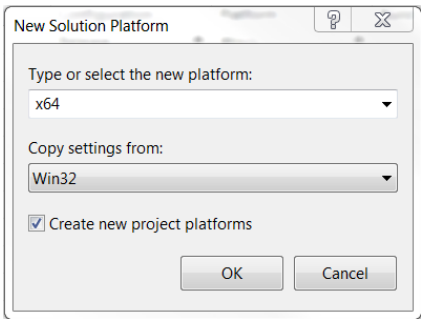
11. Right-click on `Source Files` and select `Add->Existing Item`. Select `ViconDataStreamSDK_CPPTest`. Your Solution Explorer should now look like the following.



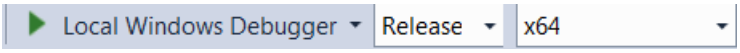
12. At the top, change `Debug` to `Release`. Change `Win32` to `Configuration Manager`.



13. Change the `Active Solution Platform` from `Win32` to `New`. Select `x64` as the platform. Select OK. Select Close.



14. Change `Win32` to `x64` so the top should now look like this:

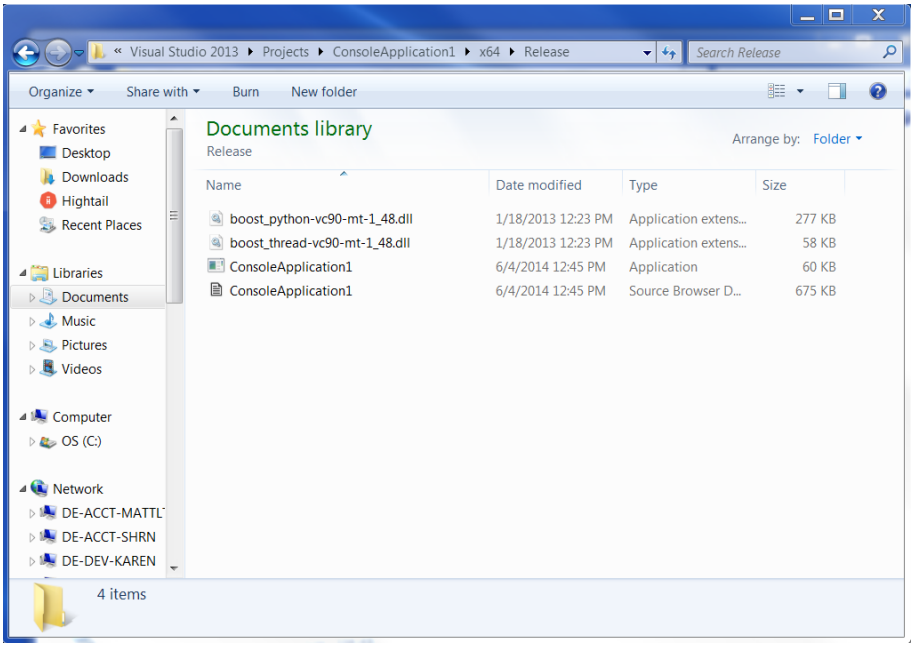


15. Under `Build`, select `Build Solution`. The last line of the output window should be:

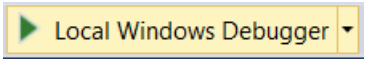
```
1>  Finished generating code
1>  ConsoleApplication1.vcxproj -> c:\users\ftsui\documents\visual studio 2013\Projects\ConsoleApplication1\x64\Release\ConsoleApplication1.exe
========== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped ==========
```

16. Navigate to the folder where the build is. In this instance, it was in: "`C:\Users\FTsui\Documents\Visual Studio 2013\Projects\ConsoleApplication1\x64\Release`".

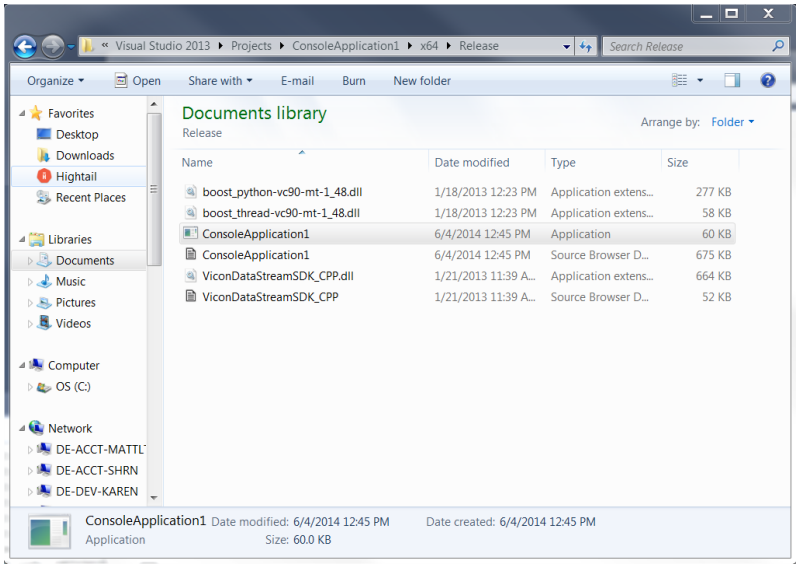
    You will know due to the presence of the `Console Application` of Type `Application`. From the DataStreamSDK folder, copy the `boost_python-vc90-mt-1_48.dll` and `boost_thread-vc90-mt-1_48.dll` into the folder specified above. Your application folder should look like below now.



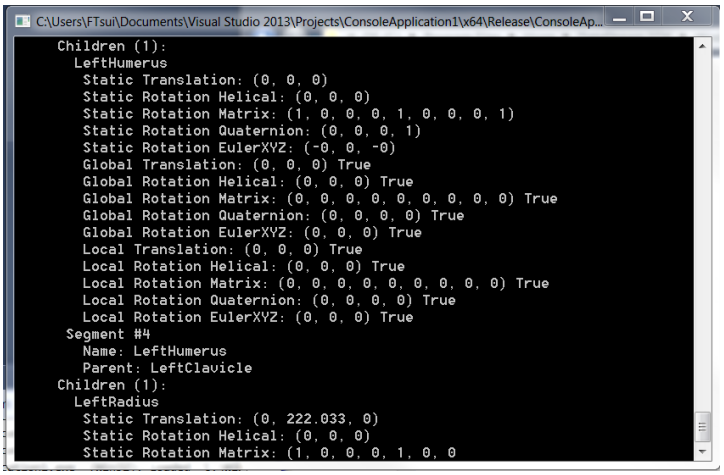
17. Now click `Local Windows Debugger` to start compiling.



Alternatively, you can run it from the folder (above), but you will need to copy in the DLLs like before.



18. The command prompt will start streaming data. To pause, hit the `pause` key on keyboard. To resume, hit `Enter`.



For Datastream SDK 1.3 (x86)

1. It will be the same steps as above except that you will get all the necessary files from:

`C:\Program Files (x86)\Vicon\DataStream SDK\Win32\CPP`

2. You will not need to change the compiler to x64 in Steps 12-14.
3. Your build will not be under an x64 folder as it is in Step 16. Simply look for the Application File type, and copy in the DLLs (`boost_python-vc90-mt-1_48.dll` and `boost_thread-vc90-mt-1_48.dll`). Again, if you want to run the executable from this folder, also copy in `ViconDataStreamSDK_CPP.dll` and `ViconDataStreamSDK_CPP`.