

# How to prepare Visual Studio 2005 for Maya C++ API without Maya plug-in wizard

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Maya plug-in wizard does not work properly with all versions of Visual Studio. It may fail to create a valid Visual Studio project. If this is your case, the alternative is to setup Visual Studio 2005 for Maya API manually. This document explains how to do that.

Notice that you only have to perform this configuration once, in other words you create a template project from which you will start any other Maya plug-in project.

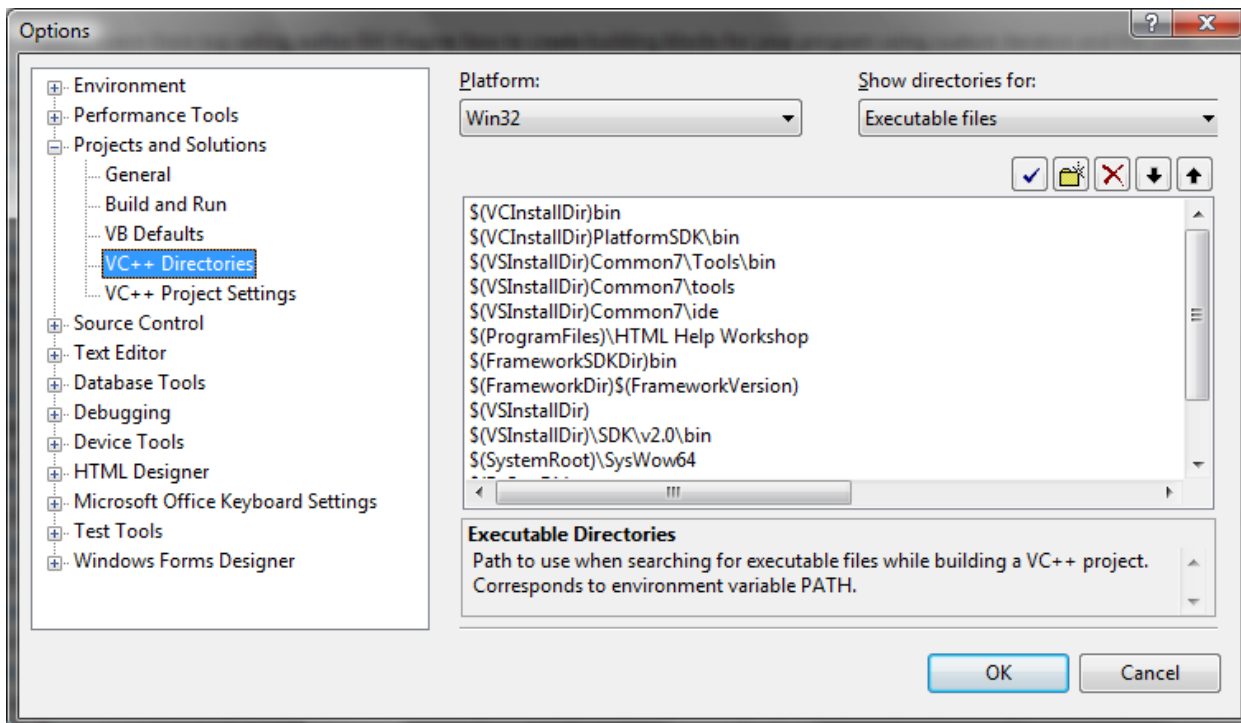
Once you have tested this template project, you can simply copy the project's directory and rename project files. All the configuration data will be preserved.

## Visual Studio 2005 set up for Maya C++ API

Open Visual Studio 2005

From the top menu select Tools > Options

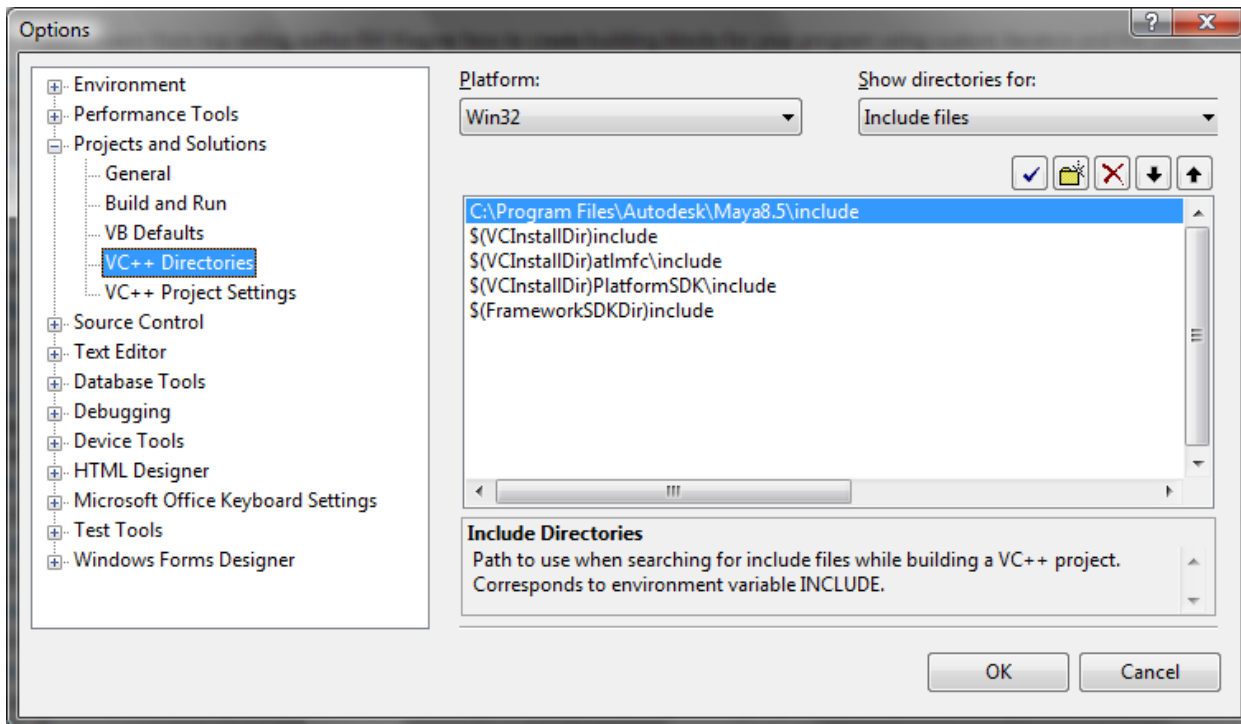
in the Options dialog: Projects and Solutions > VC++ Directories



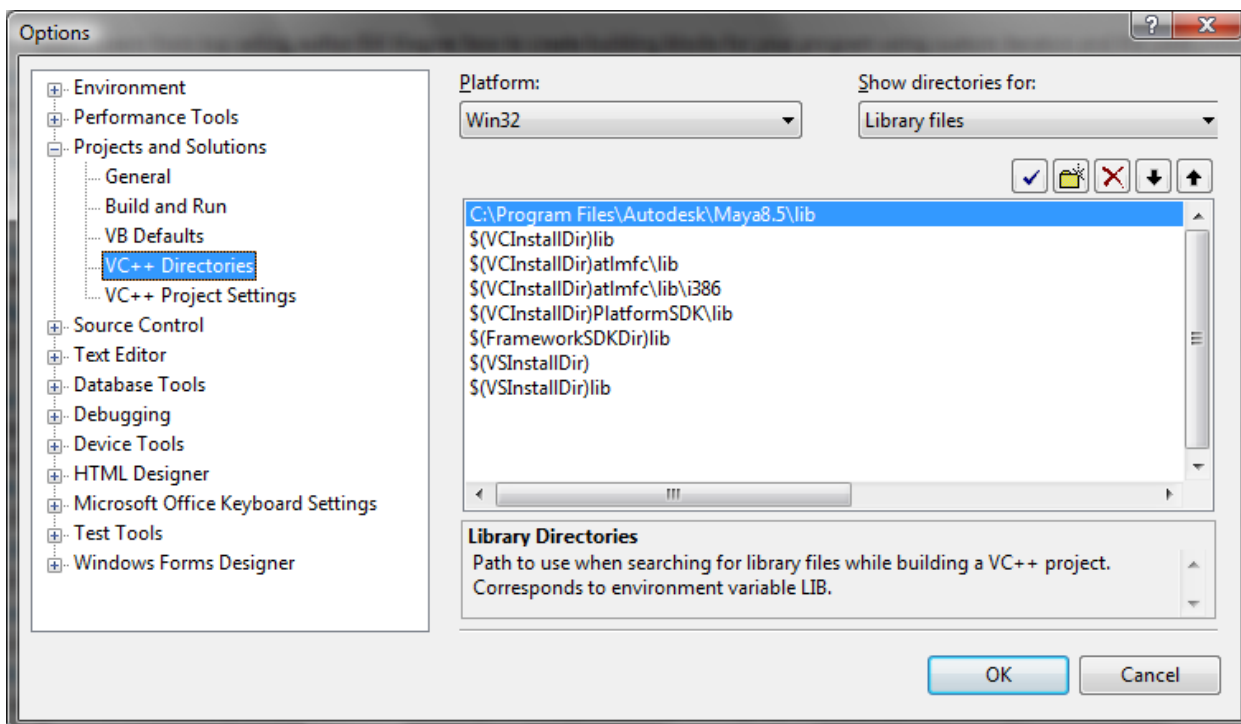
Under “Show directories for:” label, from the drop down menu select “Include files”.

Click on the folder icon to add new line.

Browse to the Maya installation directory and select the include directory.



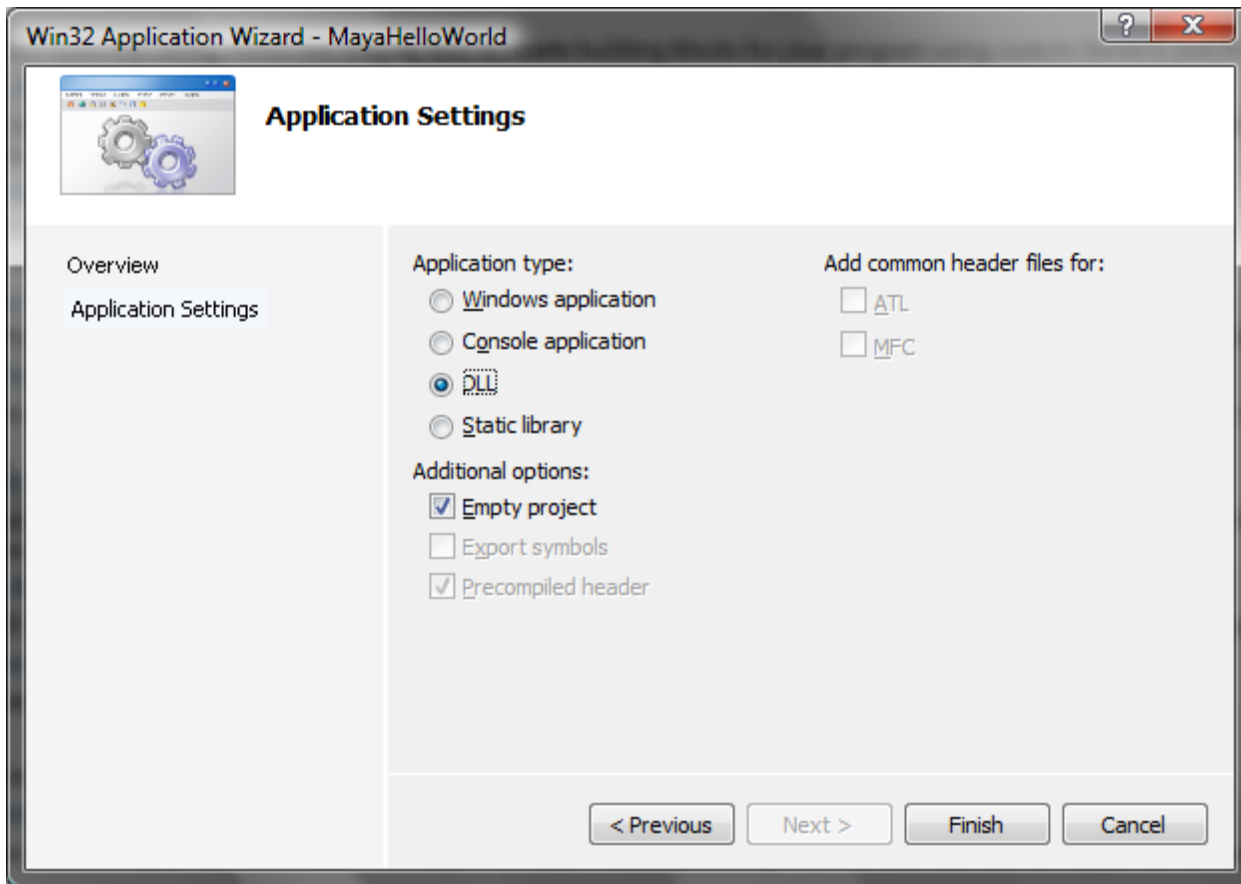
From the same drop down menu select Library files and add Maya’s lib directory.



File > New > Project > Other Languages > Visual C++ > Win32 Project

Give it a name

Then in the Win32 Application Wizard click Next, select DLL and Empty project

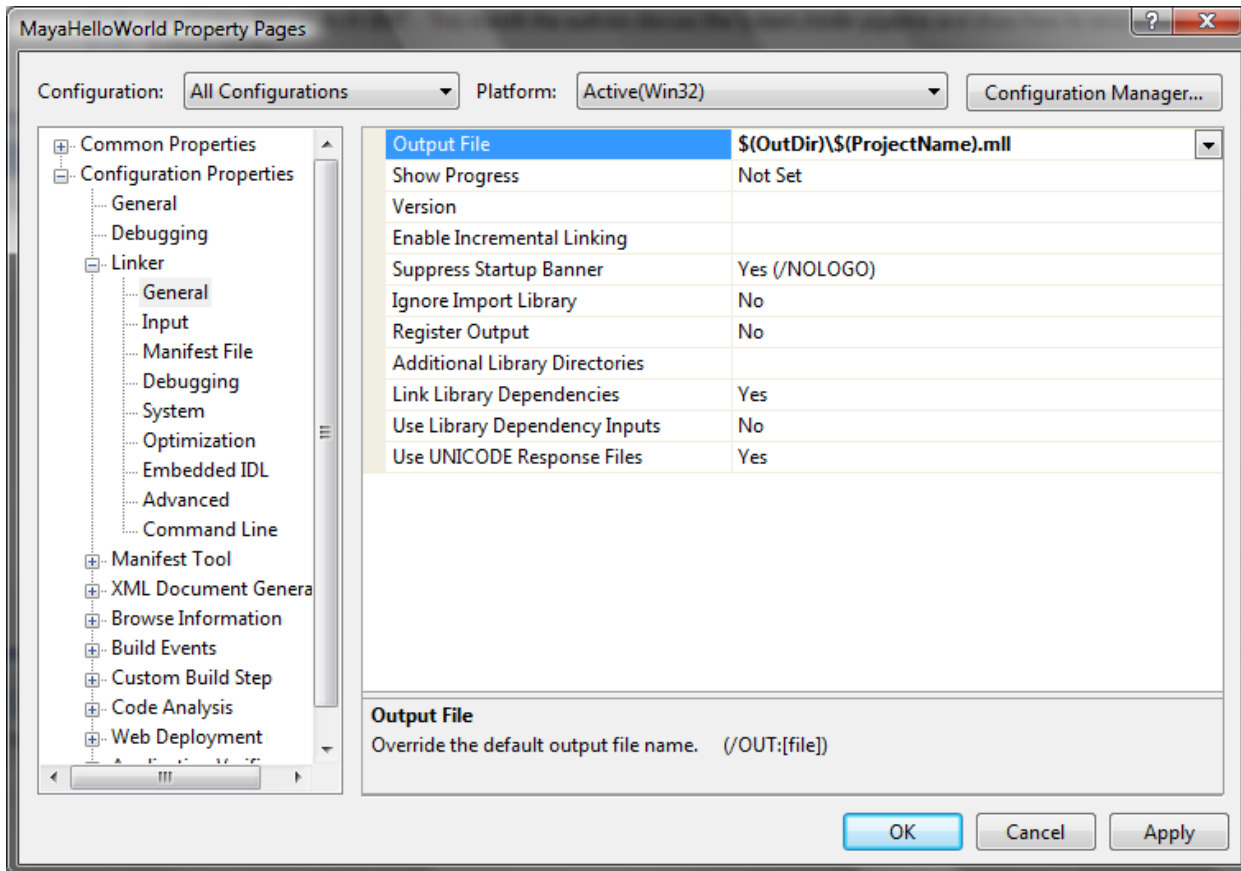


Right-click on the project (not the solution!) and select properties

From the drop down menu next to the Configuration label select "All configurations"

On the left side go to Configuration Properties > Linker > General

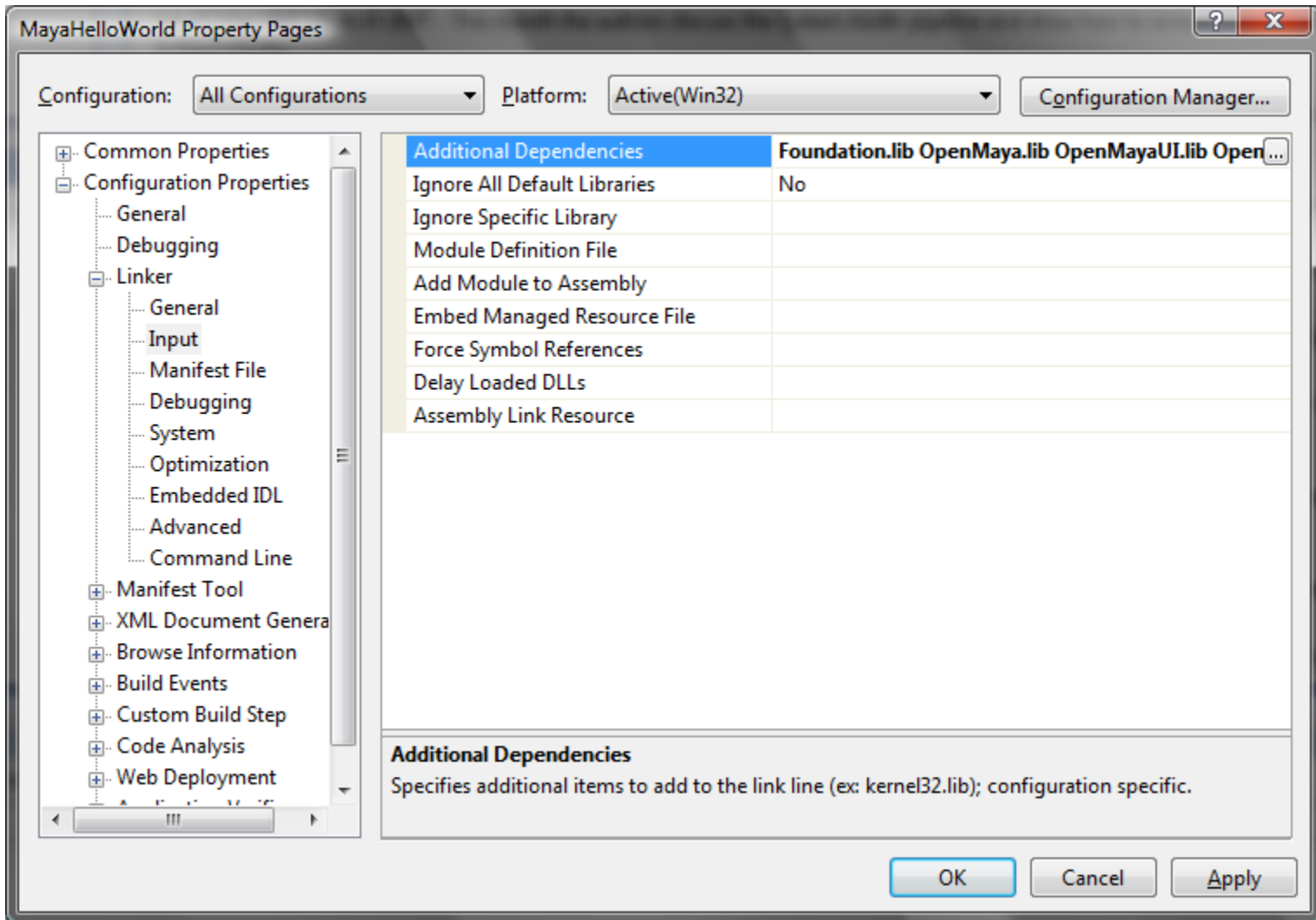
Change the extension of the Output File to .ml (instead of .dll). This is a special extension that Maya recognizes as plug-in.



Go to Linker > Input > Additional Dependencies and add the following libraries:

Foundation.lib OpenMaya.lib OpenMayaUI.lib OpenMayaAnim.lib OpenMayaFX.lib OpenMayaRender.lib Image.lib

if you work with OpenGL you should also add here opengl32.lib



Click OK to close the Project Property Pages Window.

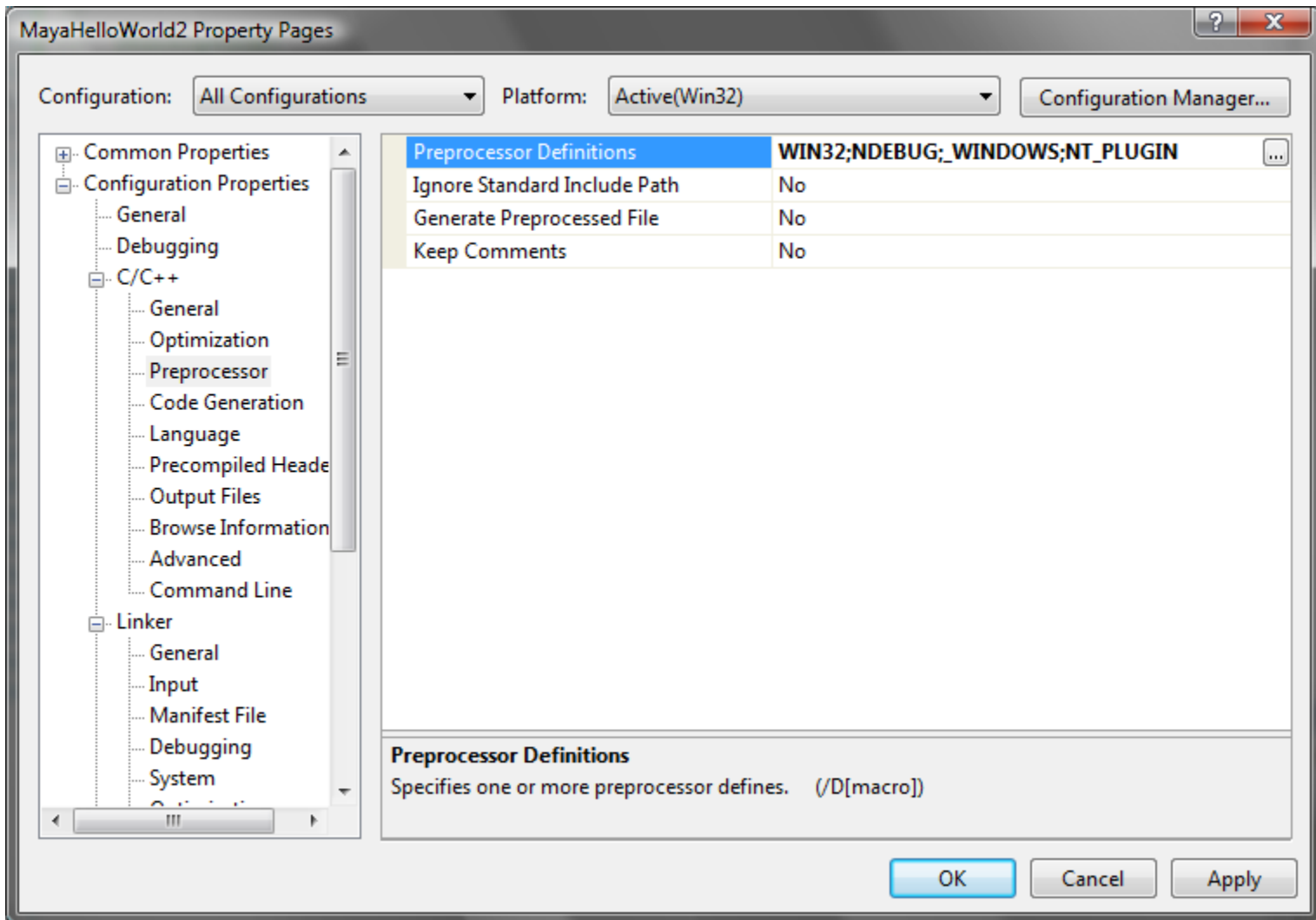
Add C++ class to your project and give it a name.

This is necessary because your project is empty and by default you will not see the C/C++ category under Configuration Properties unless you have C++ classes in your project.

After that open the Project Properties again, insure that "All Configurations" are selected as in the steps before.

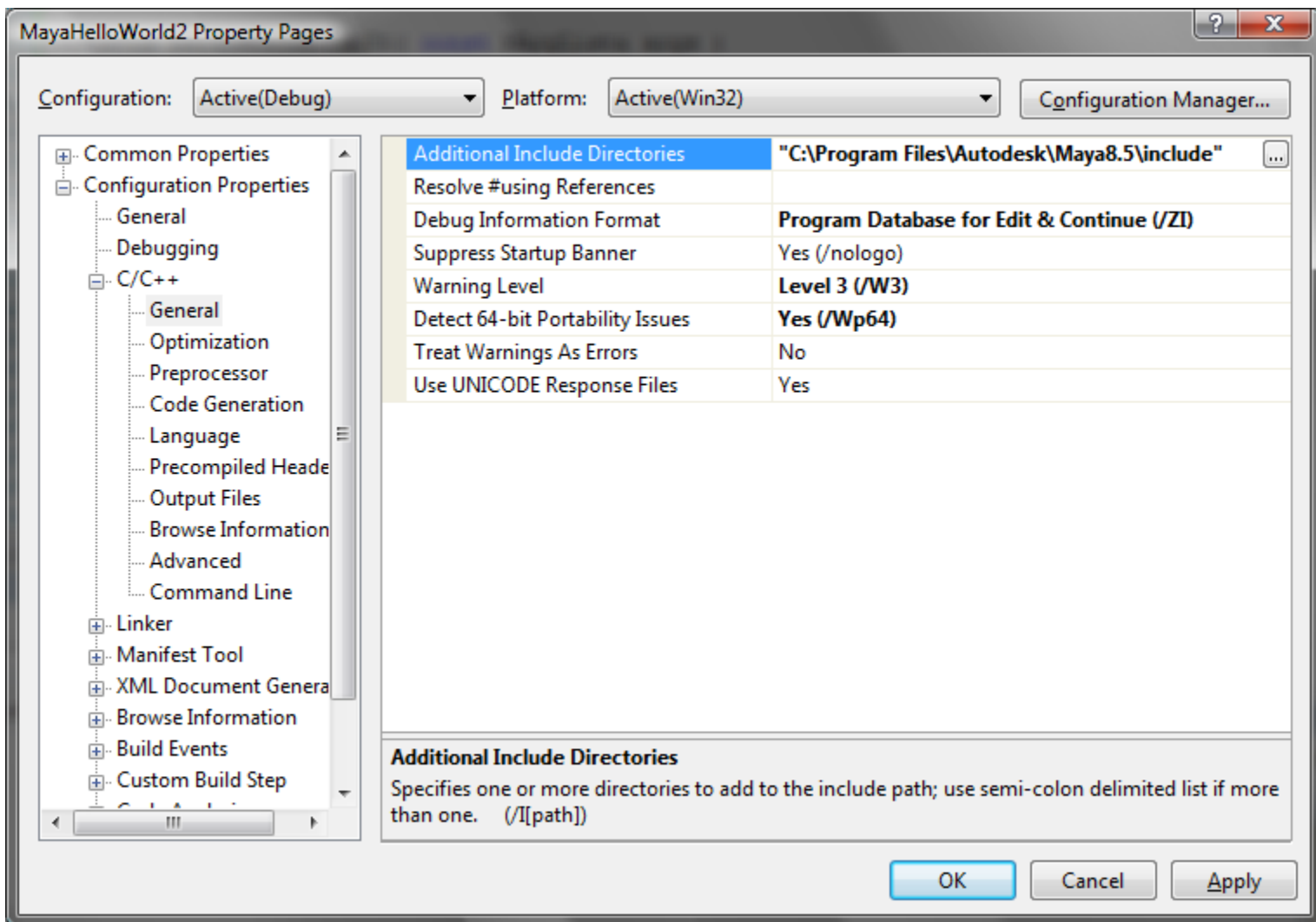
Go to Configuration Properties > C/C++ > Preprocessor > Preprocessor Definitions and add

WIN32;NDEBUG;\_WINDOWS;NT\_PLUGIN



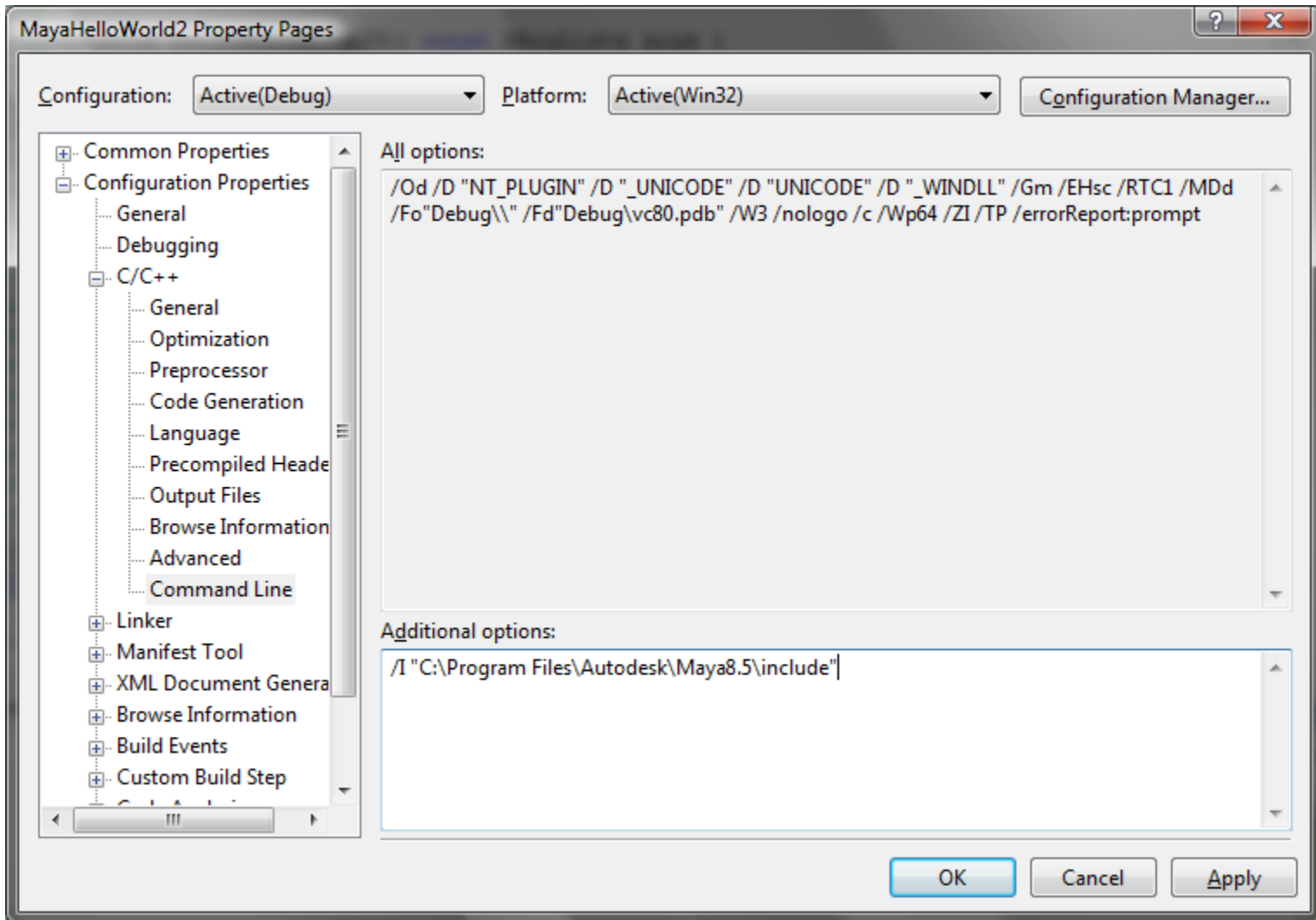
Go to C/C++ > General > Additional Include Directories and add Maya's include directory path:

"C:\Program Files\Autodesk\Maya8.5\include"



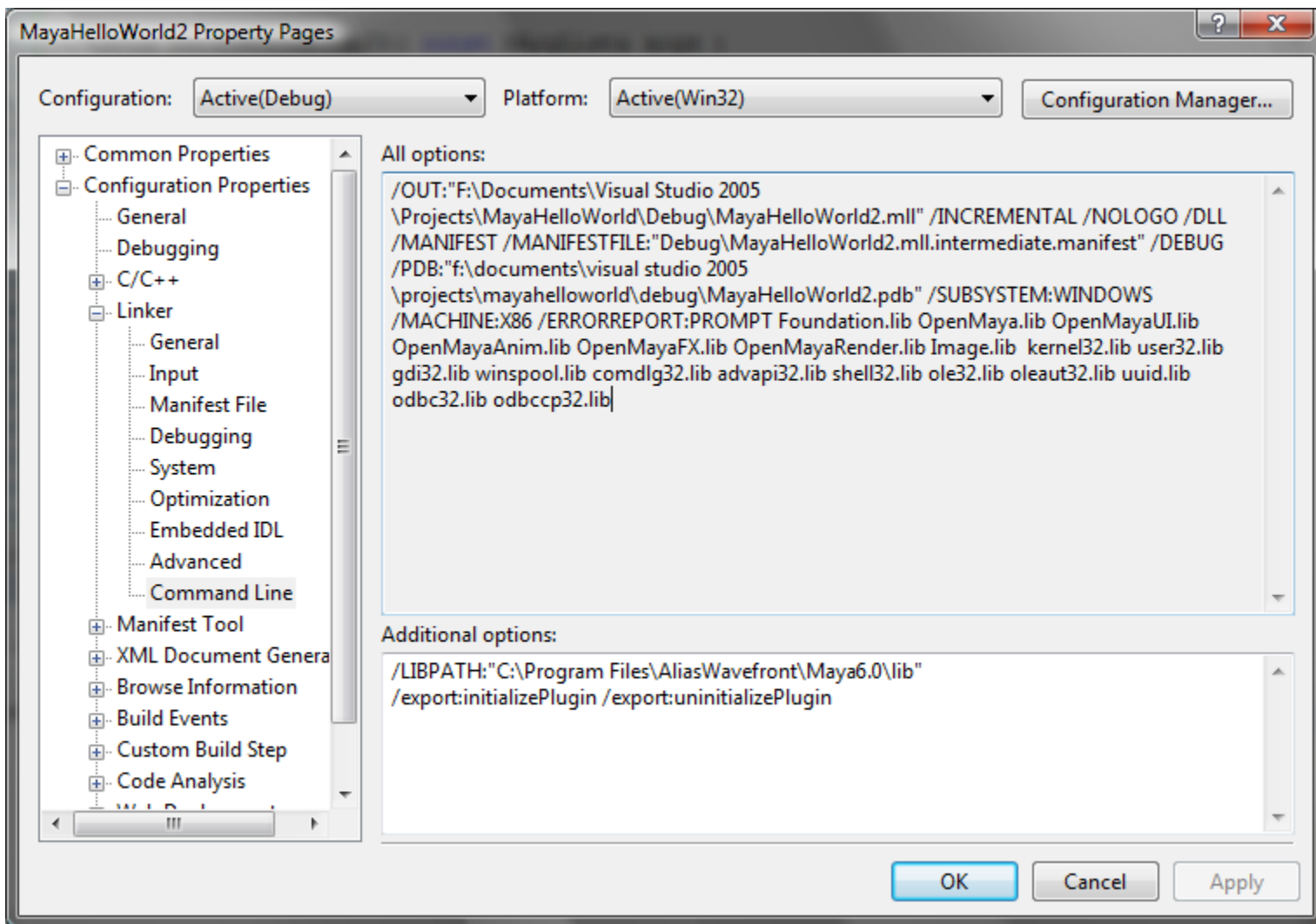
Go to C/C++ > CommandLine > Additional Options and add:

```
/I "C:\Program Files\Autodesk\Maya8.5\include"
```



Go to Linker > CommandLine > Additional Options and add:

```
/LIBPATH:"C:\Program Files\AliasWavefront\Maya6.0\lib"  
  
/export:initializePlugin /export:uninitializePlugin
```



Now your project is ready.

Don't forget to add `#include <iostream>` to your class before building your project on Windows.

When you build your project, the .mll file will be created inside the debug folder of your Solution (not inside the debug folder of your Project!).

Example: F:\Documents\Visual Studio  
2005\Projects\MayaHelloWorld\debug\MayaHelloWorld2.mll

and not: F:\Documents\Visual Studio  
2005\Projects\MayaHelloWorld\MayaHelloWorld\Debug