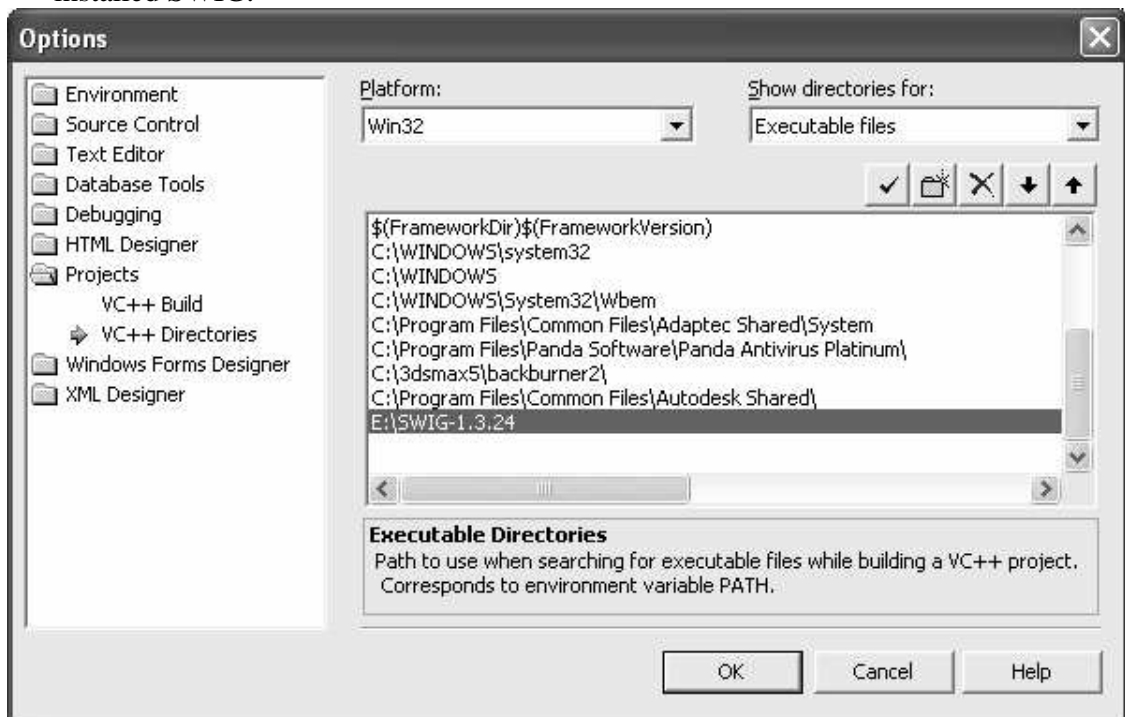


Howto Use SWIG for building Python extensions in C++

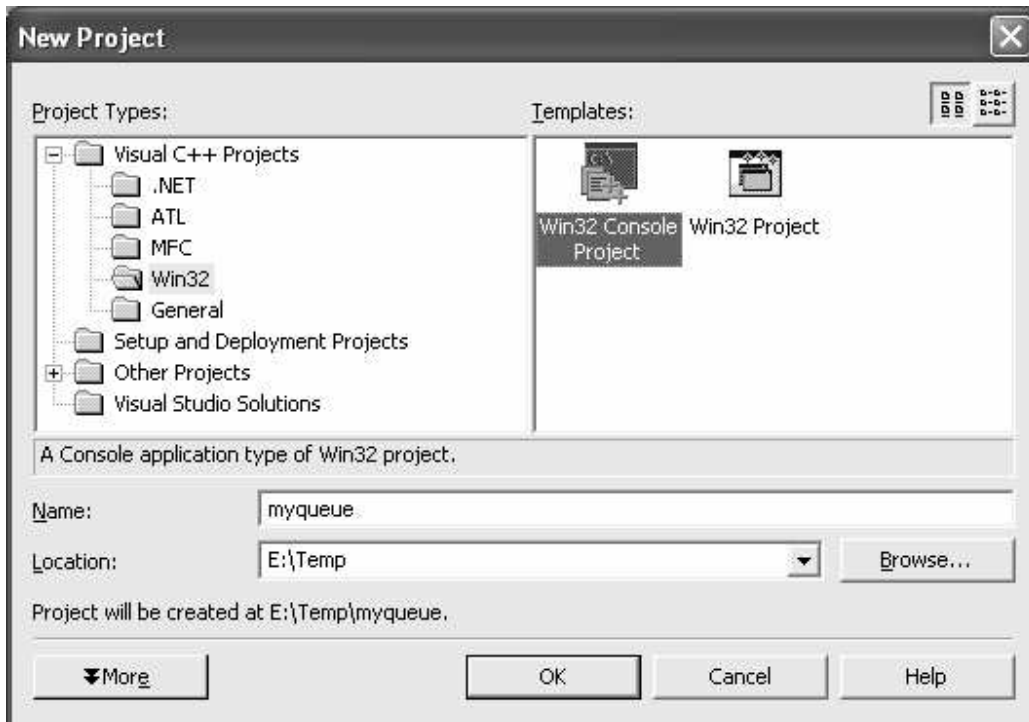
Install SWIG

1. Download swigwin-1.3.24.zip from the course home page:
<http://www.itu.dk/courses/SSPG/F2005/panda3dITURelase/swigwin-1.3.24.zip>
2. Unzip the file swigwin-1.3.24.zip (e.g. using winzip) into e.g. H:
3. Now you have to setup the Visual Studio path: Choose Tools -> Options -> Projects->VC++ Directories->Executable files and add the path to where you installed SWIG.

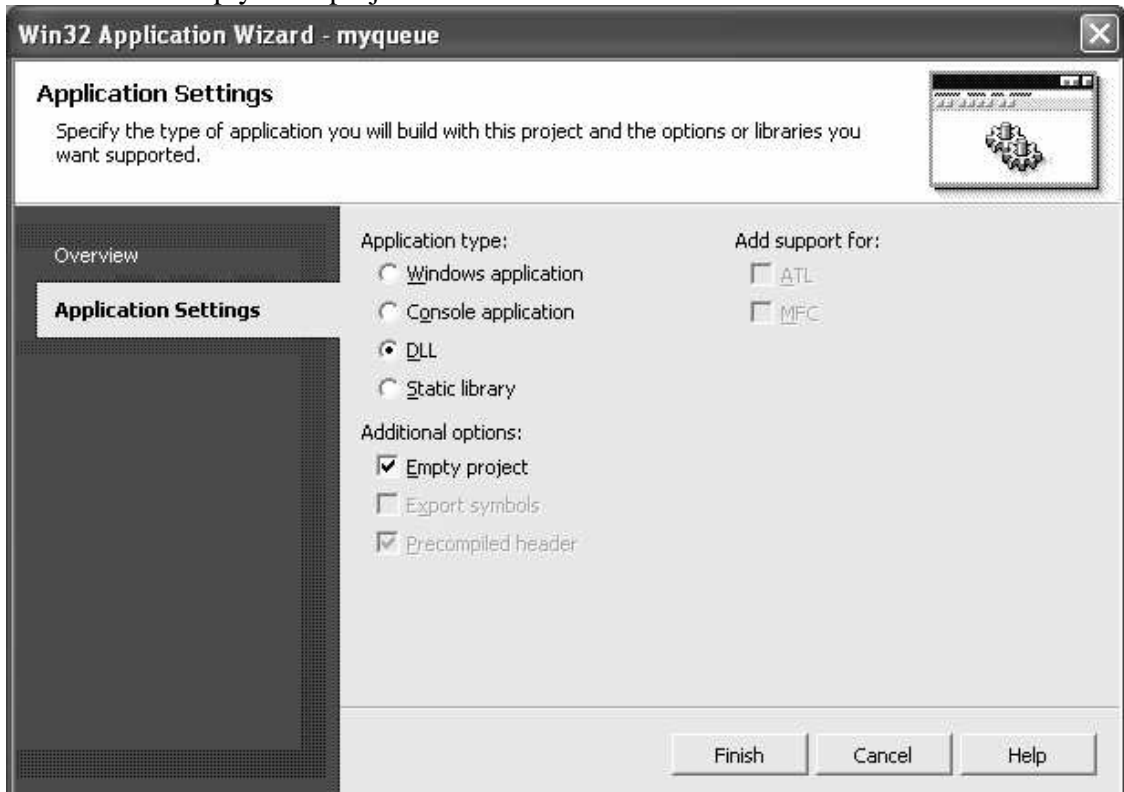


Create a DLL Visual Studio Project

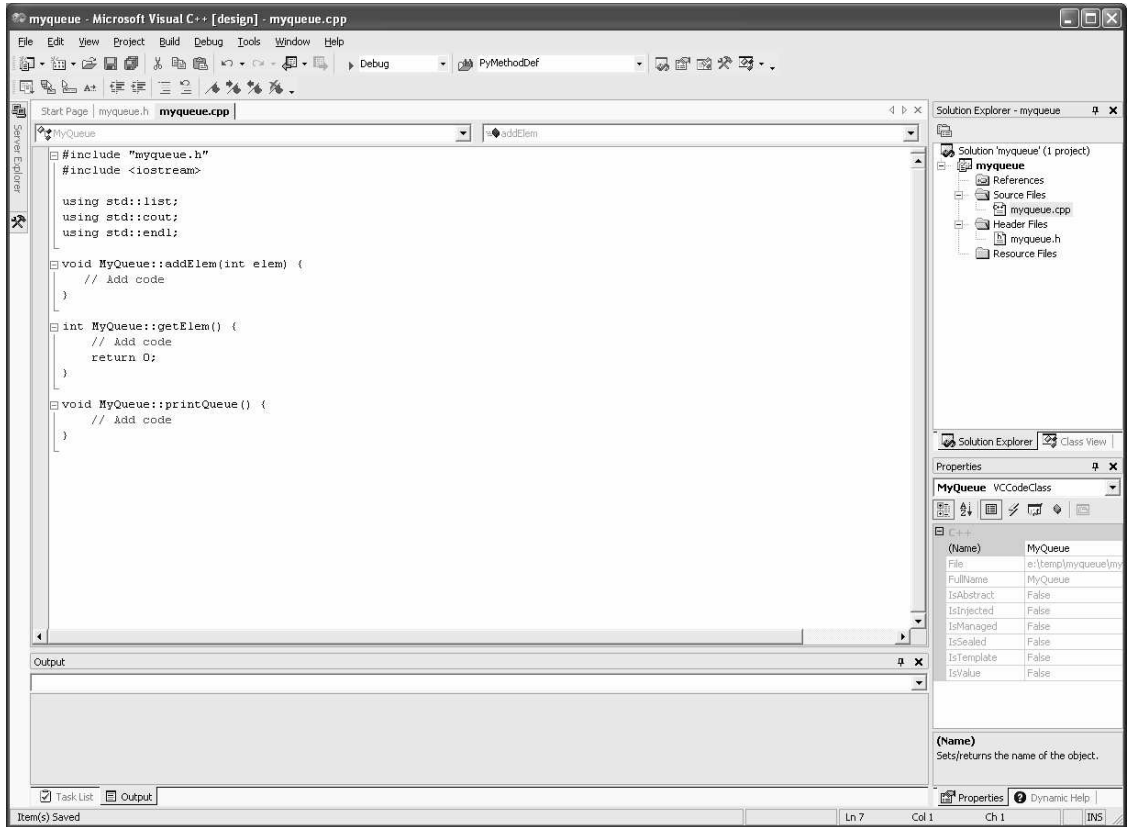
1. Create an empty DLL Win32 console application: File->New->project->VC++ ->Win32->Win32 console project



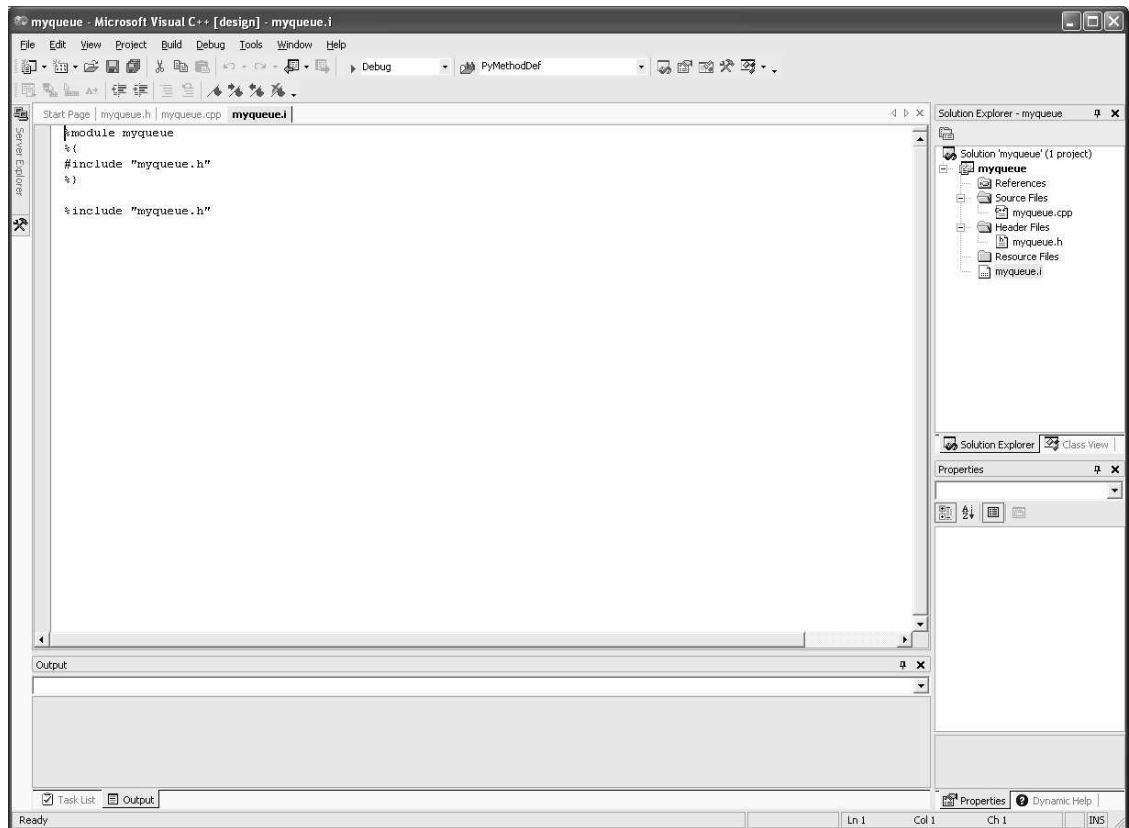
2. Choose an empty DLL project



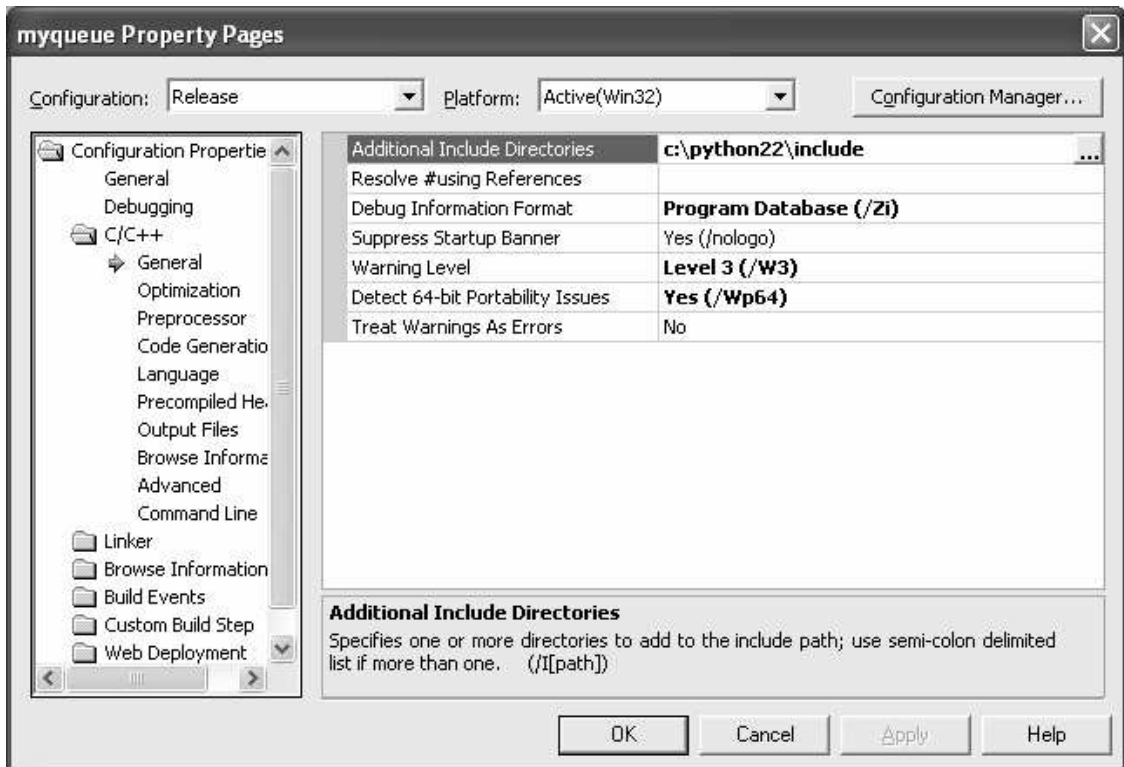
3. Add your source files



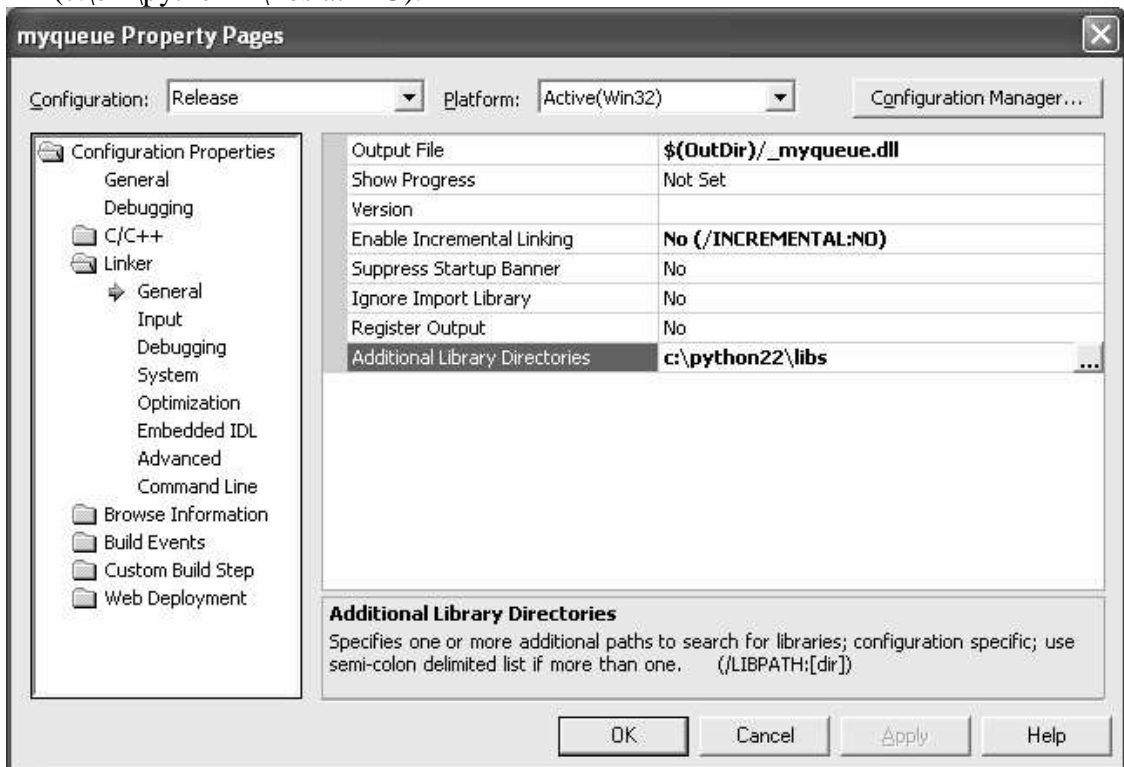
4. Add a SWIG interface definition file



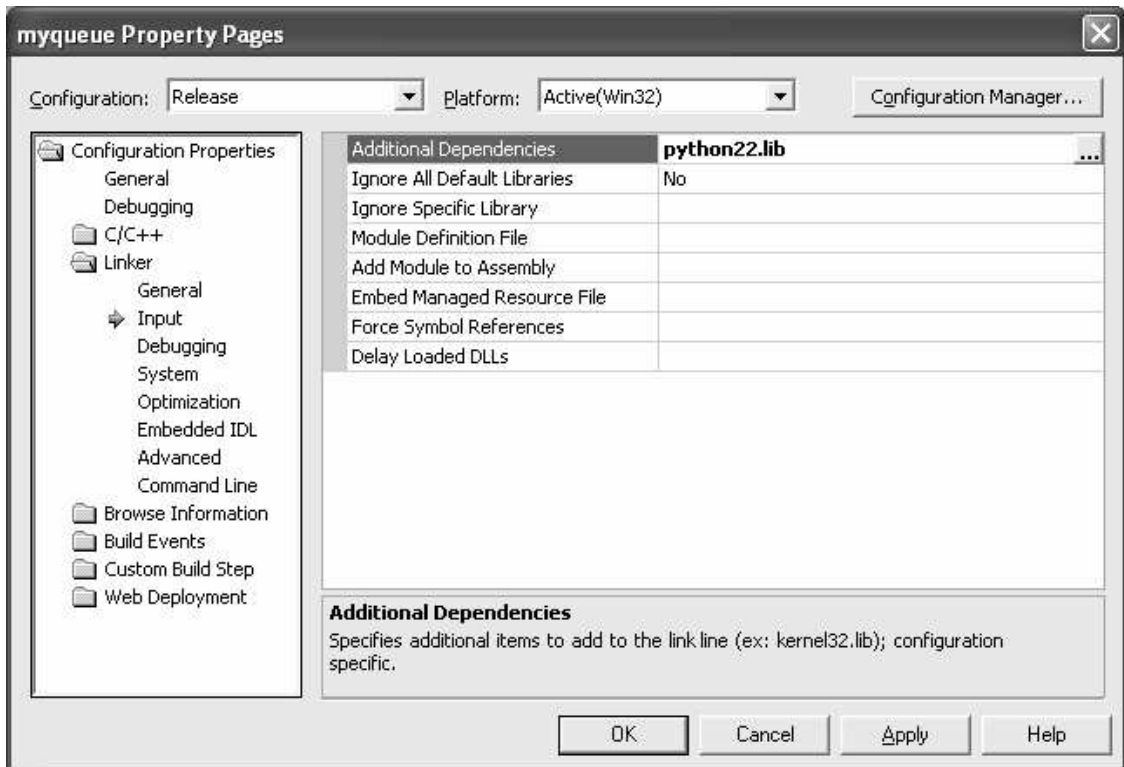
5. Now we have to configure the project linking with python: Project->properties->Release->C++ ->general->Additional include directories add the path to python include (c:\bin\python22\include at ITU)



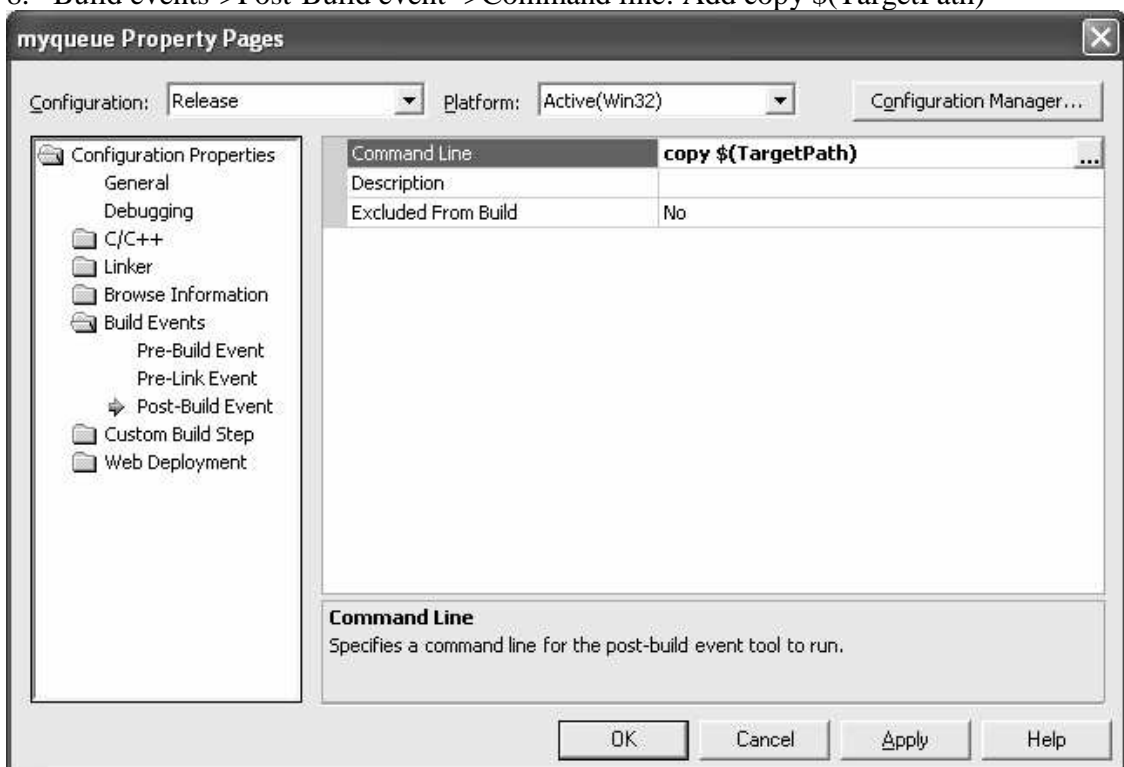
- Linker->General->Output file: Change to \$(OutDir)/_<modulename>.dll
Linker->General->Additional Library Directories: Add python path to libs (c:\bin\python22\libs at ITU).



- Linker->Input->Additional Dependencies: Add python22.lib



8. Build events->Post-Build event ->Command line: Add copy \$(TargetPath)

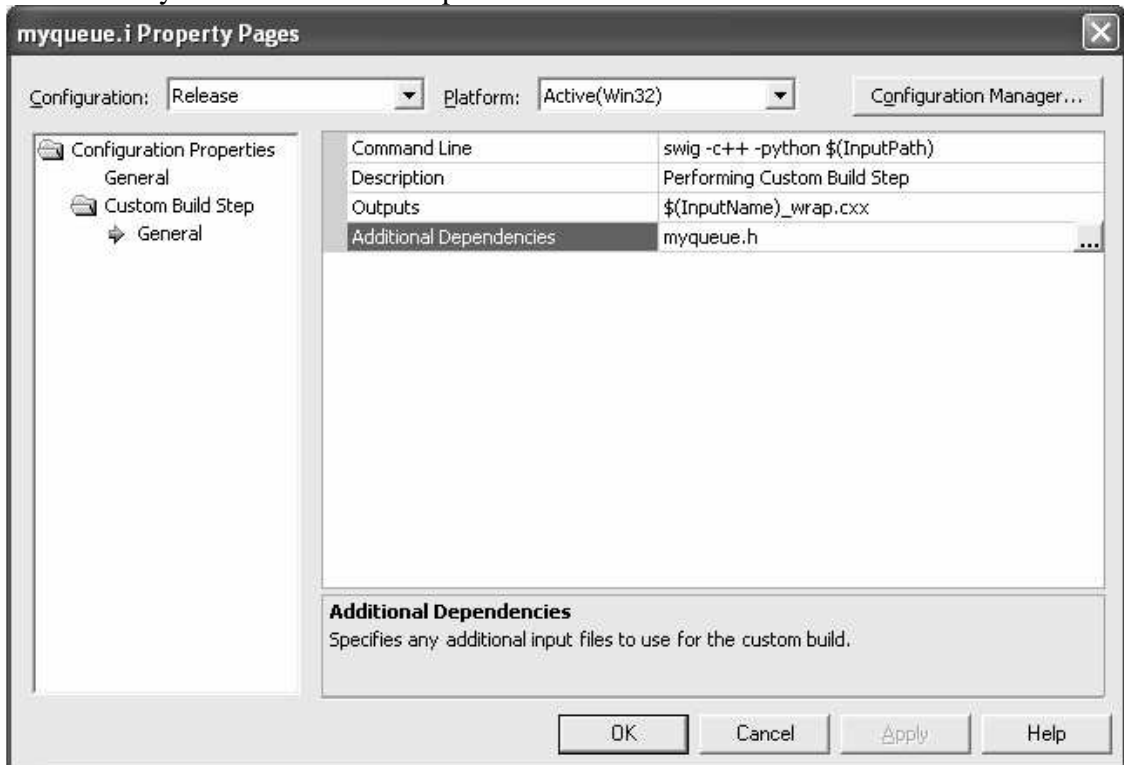


9. Right click on the SWIG interface file (myqueue.i) in the solution explorer and choose properties:

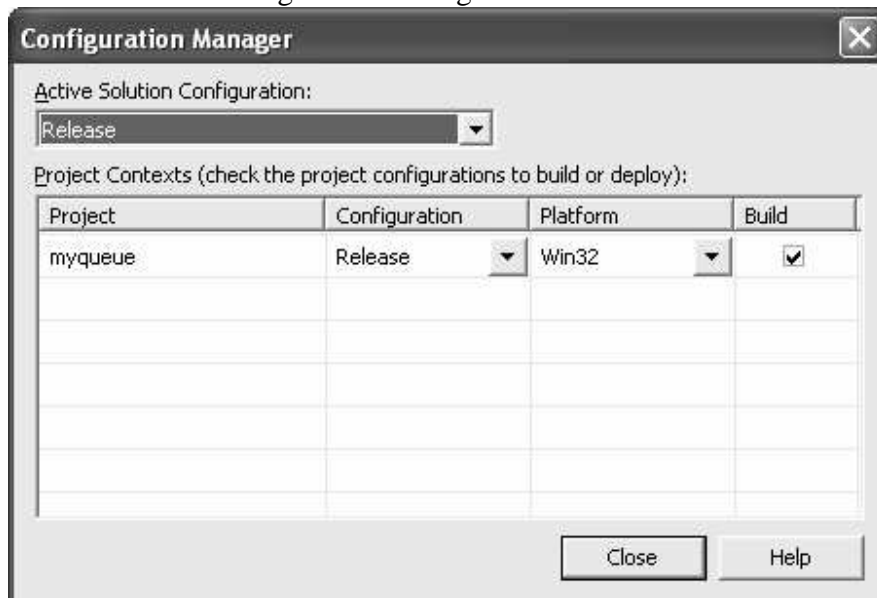
Release->Custom Build Step->General->Command line: Add swig -c++ -python \$(InputPath)

Release->Custom Build Step->General->Outputs: Add \$(InputName)_wrap.cxx

Release->Custom Build Step->General->Additional Dependencies: Add any header files your SWIG .i file is dependent on.

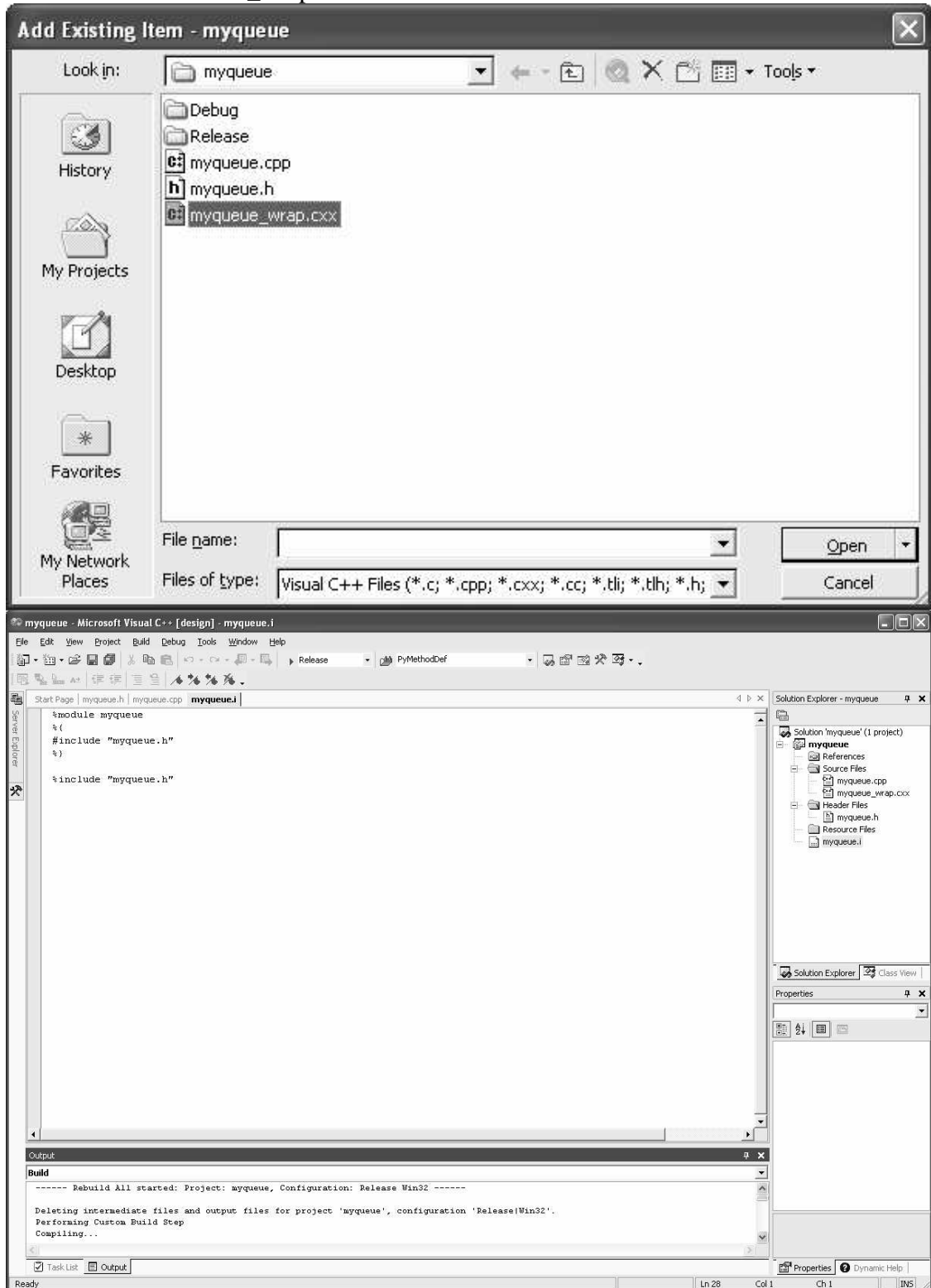


10. Choose Build->Configuration manager->Release



11. Right click on the SWIG interface file (myqueue.i) in the solution explorer and choose compile.

12. Add the <modulename>_wrap.cxx source file to the project. Right click on the project name in the solution explorer: Choose Add->Existing item and choose the file <modulename>_wrap.cxx



13. Build the project by choosing Build->Rebuild project. This should create two files <modulename>.py and _<modulename>.dll. You can now use your Python module by importing the module into python.

For more information read the SWIG manual <install_dir>\doc\Manual\index.html .