Using ID TECH Universal SDK Library Files in a C++ Project

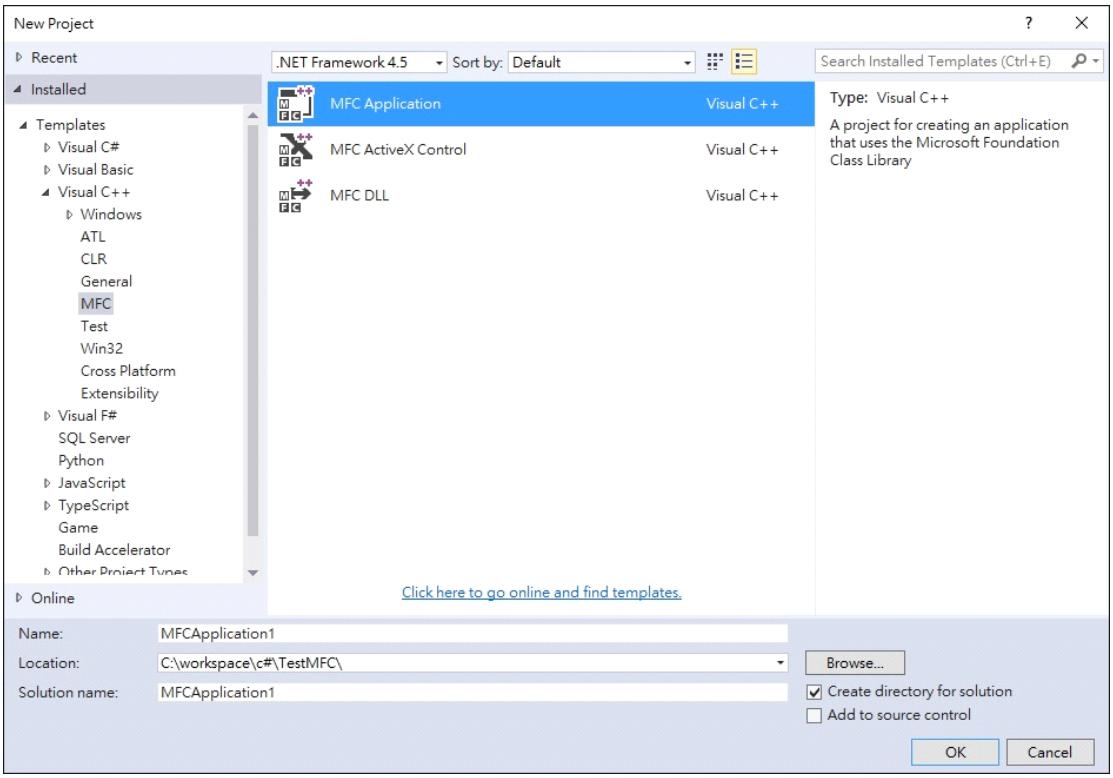
Introduction

From time to time, customers who wish to use ID TECH's Universal SDK for Windows (which is .NET-based and comes with C# code examples) ask if it is possible to do development against the SDK solely in C++ (on Windows). The answer is yes. Universal SDK library files (DLLs) are COM-visible and ready to be accessed from C++ code. (SDK runtimes require the .NET Common Language Runtime, but your C++ binaries can still use the SDK.)

Note that while the example shown in this document involves Microsoft's Visual Studio, it is also possible to use SDK libraries in C++ projects created in Eclipse or other IDEs.

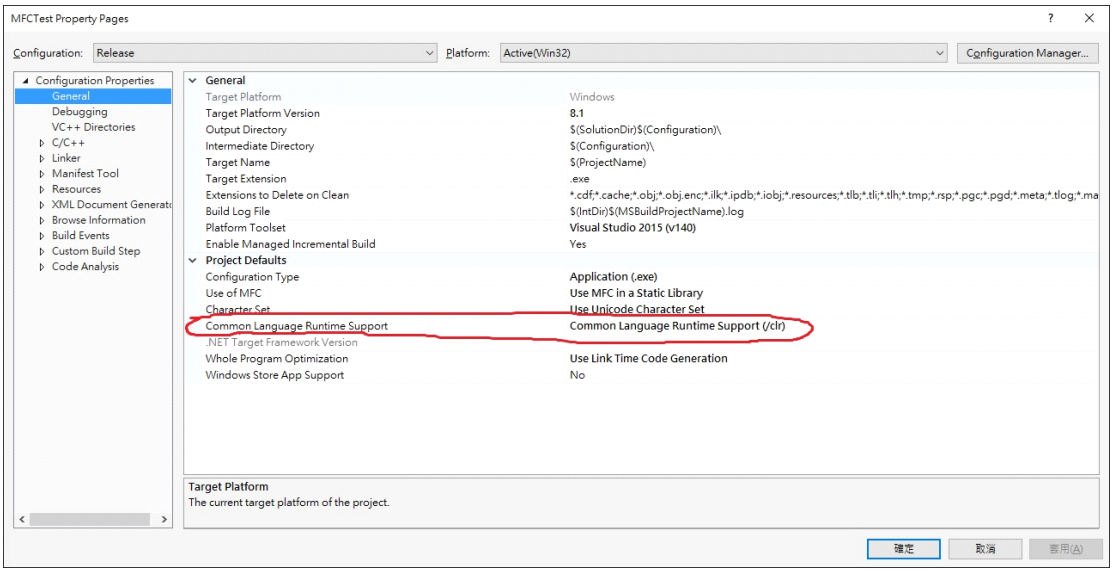
How to Use the IDTechSDK.dll File in a C++ Project:

1. Create a Visual C++ project in Visual Studio 2015 (shown below, an MFC Application as an example).

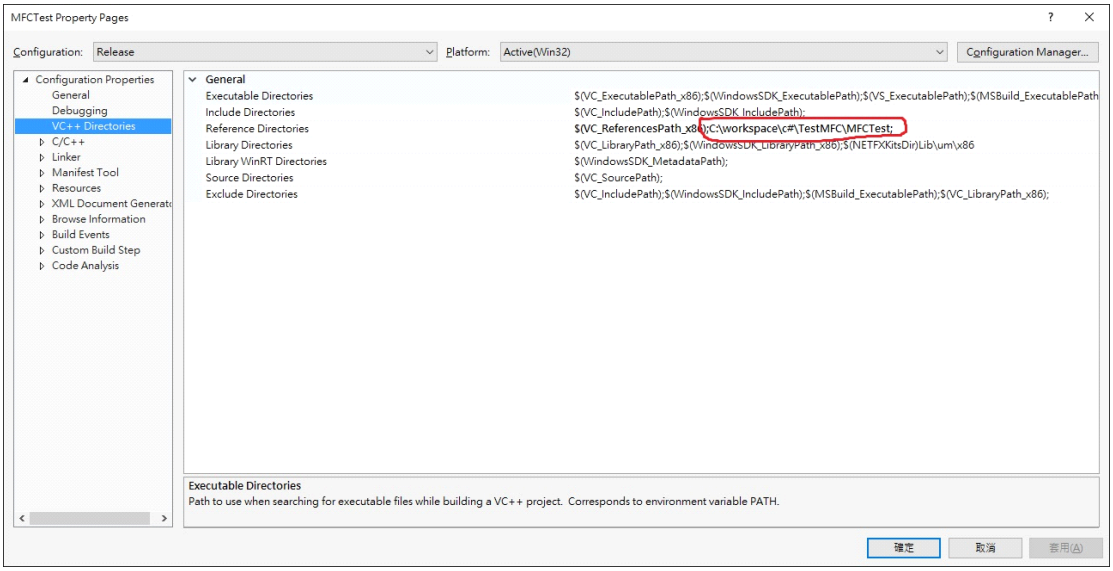


2. Change the properties of the Visual C++ project.

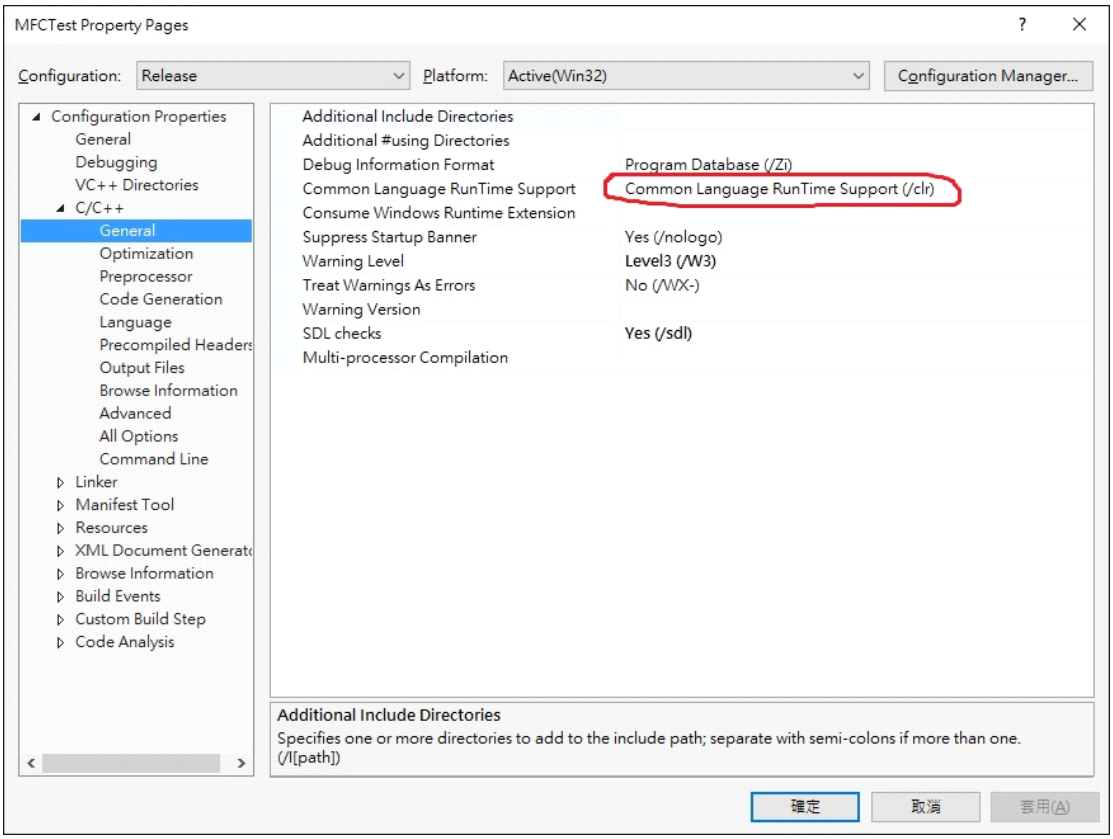
Under the **General** tag, set Commom Language Runtime Support under Target Platform to "Common Language Runtime Support (/clr)" under Windows.



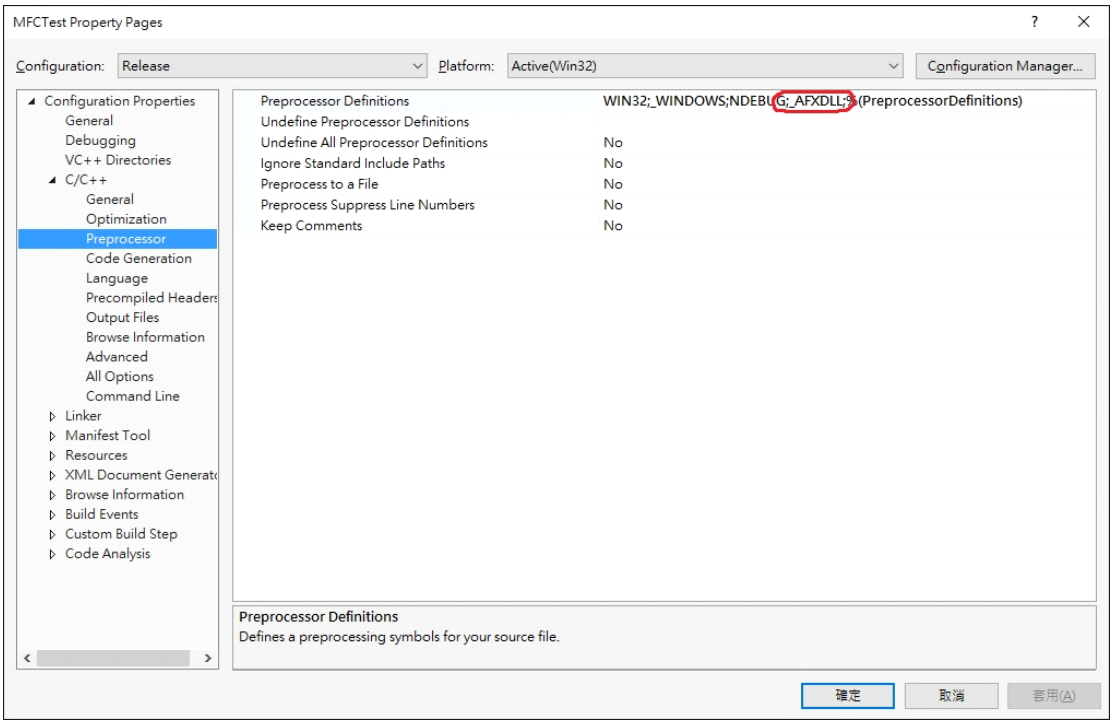
3. Under **VC++ Directories**, add the path to the C# .dll file(s) to Reference Directories.



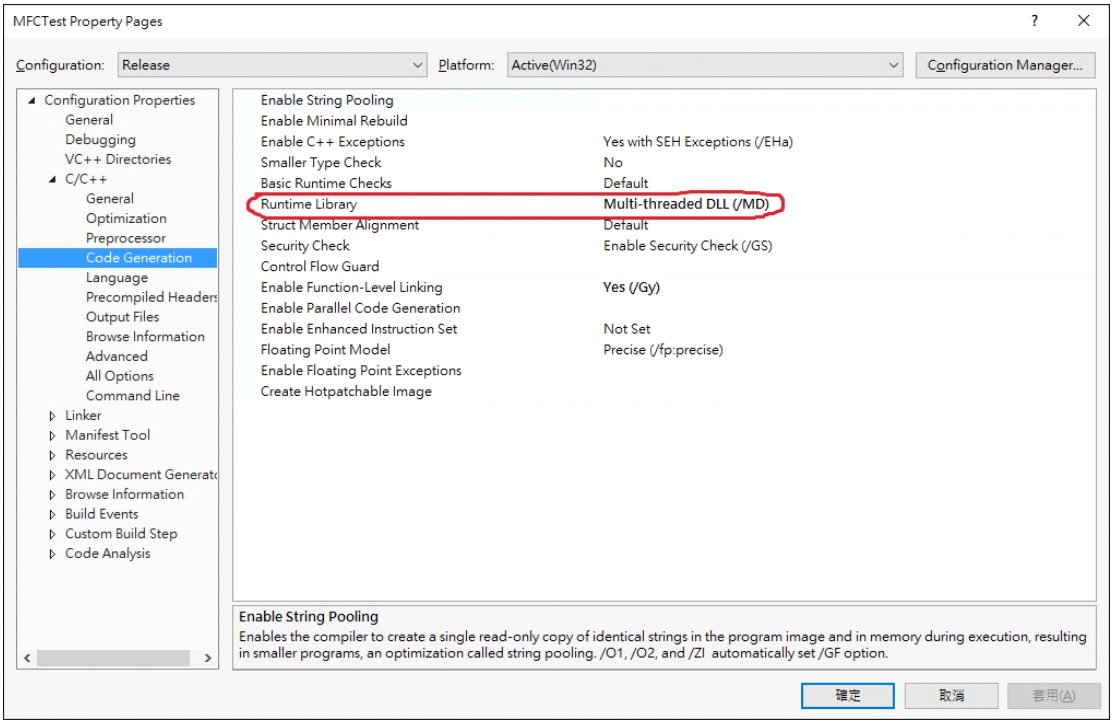
4. Under **C/C++ General**, set Commom Language Runtime Support to "Common Language Runtime Support (/clr)."



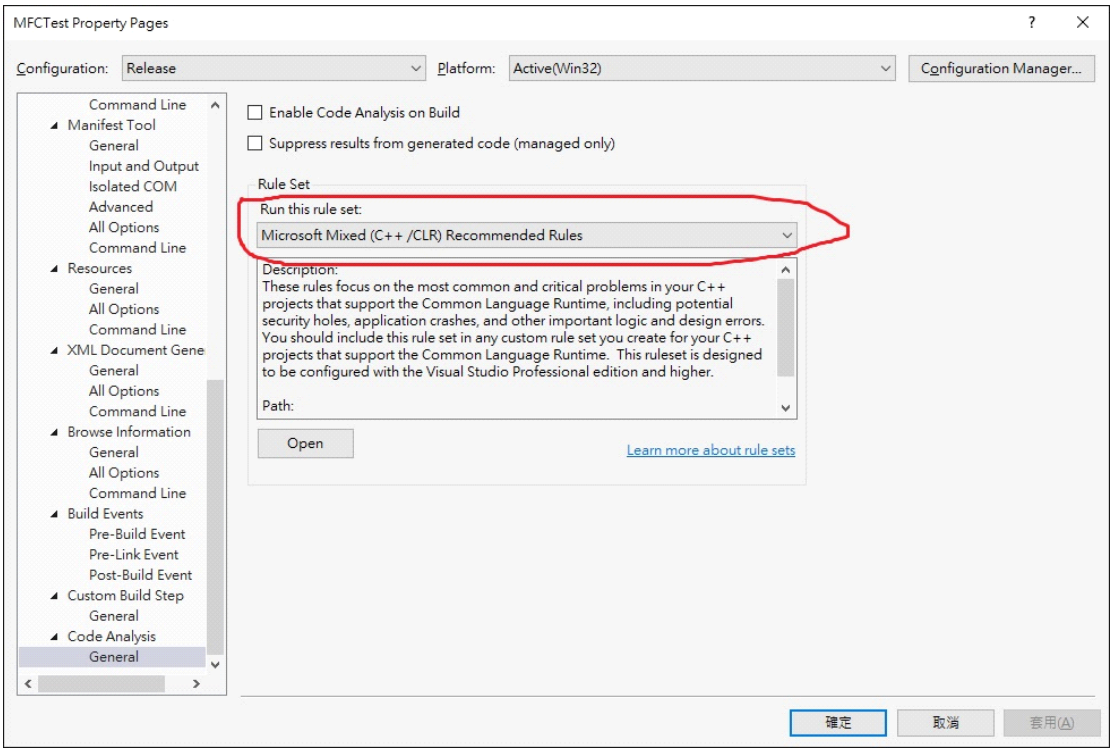
5. Under **C/C++ Preprocessor**, add _AFXDLL to Preprocessor Definitions.



6. Under **C/C++ Code Generation**, change Runtime Library to "Multi-threaded DLL (/MD)."



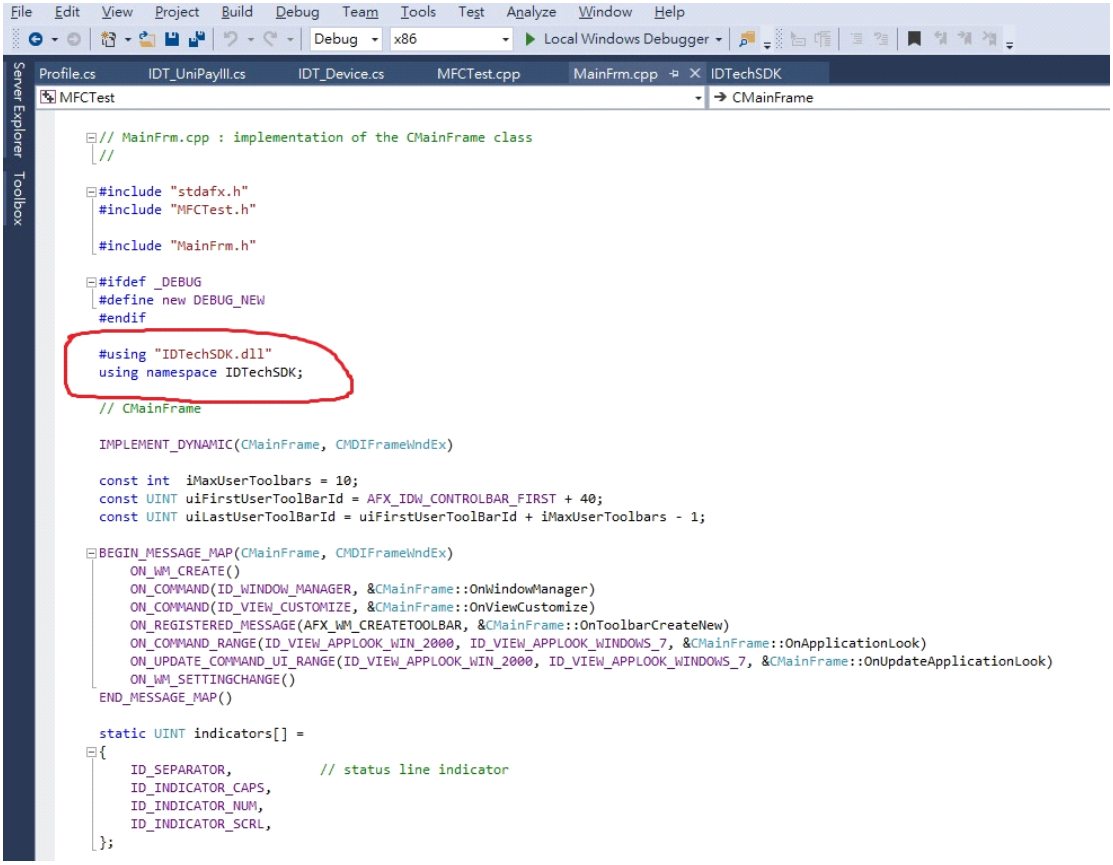
7. Under **Code Analysis General**, change Rule Set to "Microsoft Mixed (C++ /CLR) Recommended Rules."



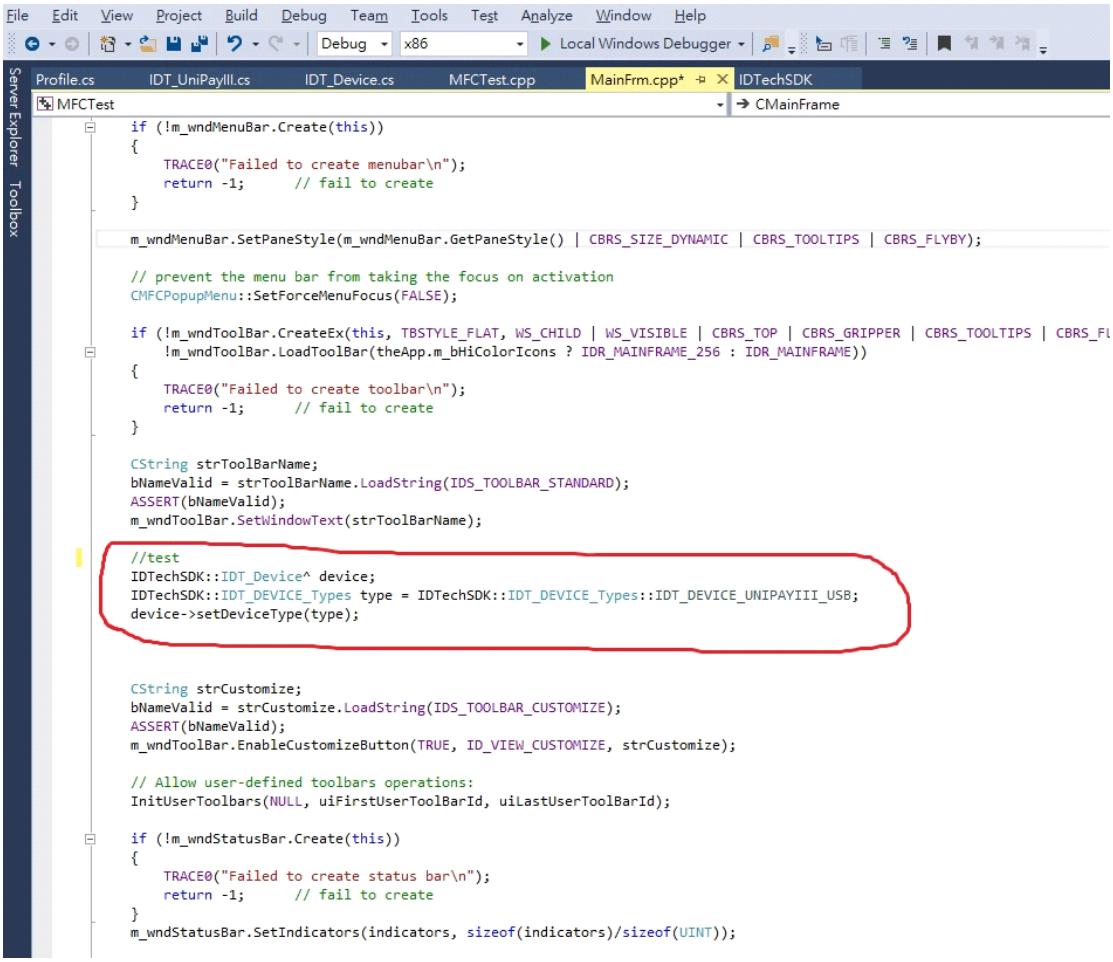
8. Use **IDTechSDK.dll** in your .cpp file.

a. Open a .cpp file in the Visual C++ project (MainFrm.cpp, for example).

b. Add `#using "IDTechSDK.dll"` and `using namespace IDTechSDK` below any #include and #define statements.



c. Declare an object and call the functions in IDTechSDK.dll.



9. Finally, clean and build the Visual C++ project. Copy IDTechSDK.dll and all the other provided SDK .dll files to Debug and Release folders in the Visual C++ project.