Demo Project Setup in Visual Studio 2005

By Frank Luna

The demos for this book can be opened simply by double clicking the corresponding project file (.vcproj). This section describes how to create and build a project from scratch using the book's demo application framework using Visual Studio 2005 (VS05). As a working example, we will show how to recreate and build the *Init Direct3D* demo of Chapter 4.

It is assumed that the reader has already successfully downloaded and installed the latest version of the DirectX SDK (available at http://msdn.microsoft.com/directx/), which is needed to program DirectX applications. The installation of the SDK is straightforward, and the installation wizard will walk you through it.

1 Create a Win32 Project

First launch VS05, then go to the main menu and select **File->New->Project,** as shown in Figure 1.
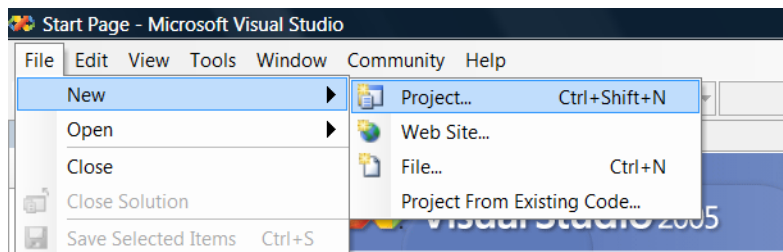

Figure 1

The New Project dialog box will appear (Figure 2). Select **Win32** from the Visual C++ Project Types tree control on the left. On the right, under Visual Studio installed templates, select **Win32 Project.** Next, give the project a name and specify the location you wish to store the project folder. Also uncheck **Create directory for solution,** if it is initially checked by default. Now hit **OK.**

A new dialog box will appear. On the left, there are two options: Overview and Application Settings. Select **Application Settings,** which produces the dialog box shown in Figure 3. From here, be sure that **Windows application** is chosen, and the **Empty project** box is checked. Now press the **Finish** button. At this point, you have successfully created an empty Win32 project, but there are still some things to do before you can build a DirectX project demo.
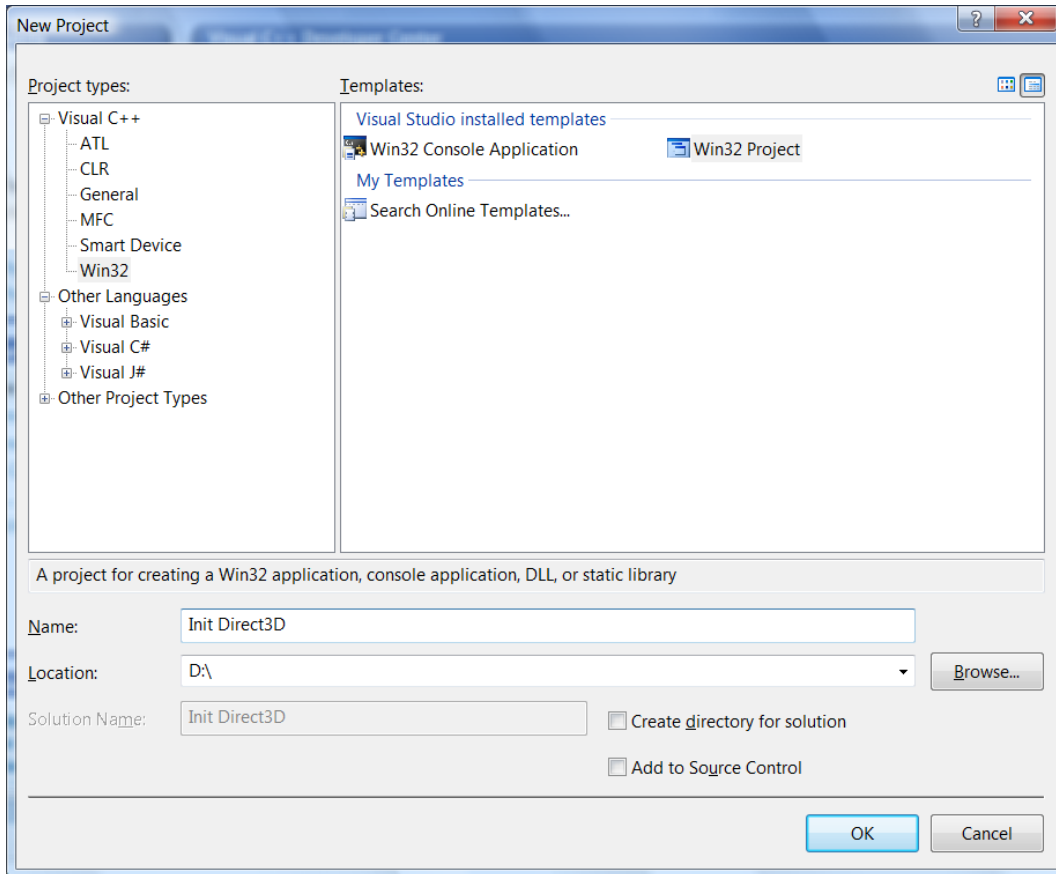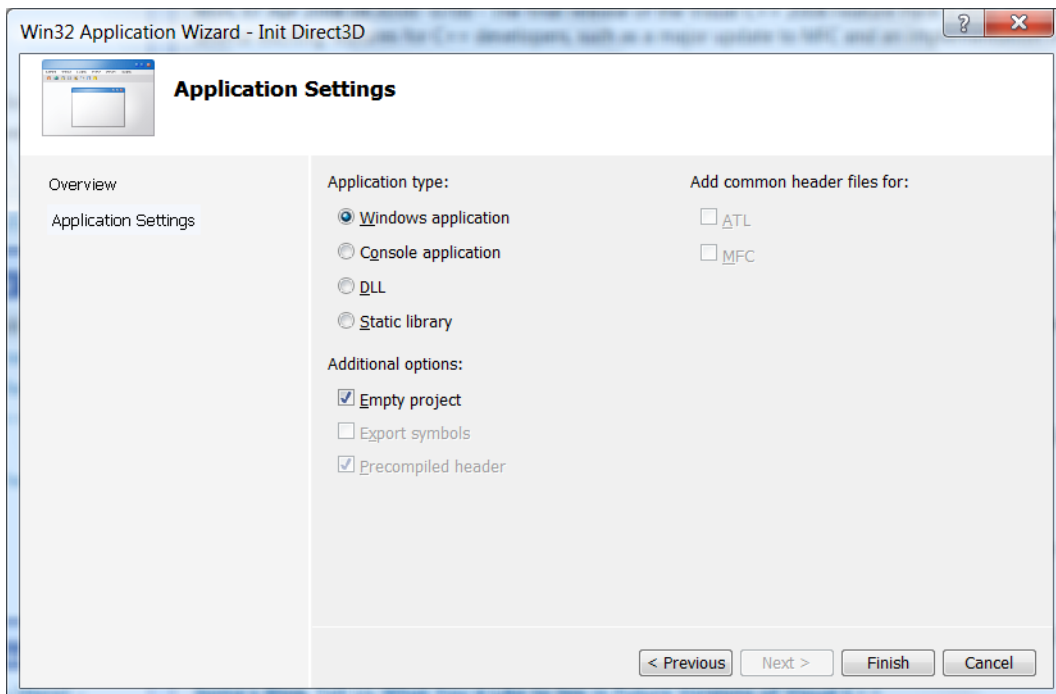
Figure 2

Figure 3

2 Setting up Libraries and Headers

We now need to link the following DirectX libraries to our project: *d3d10.lib d3dx10d.lib dxerr.lib dxguid.lib*. Note that *d3dx10d.lib* is the debug version of the D3DX library. For release projects, just use *d3dx10.lib*.

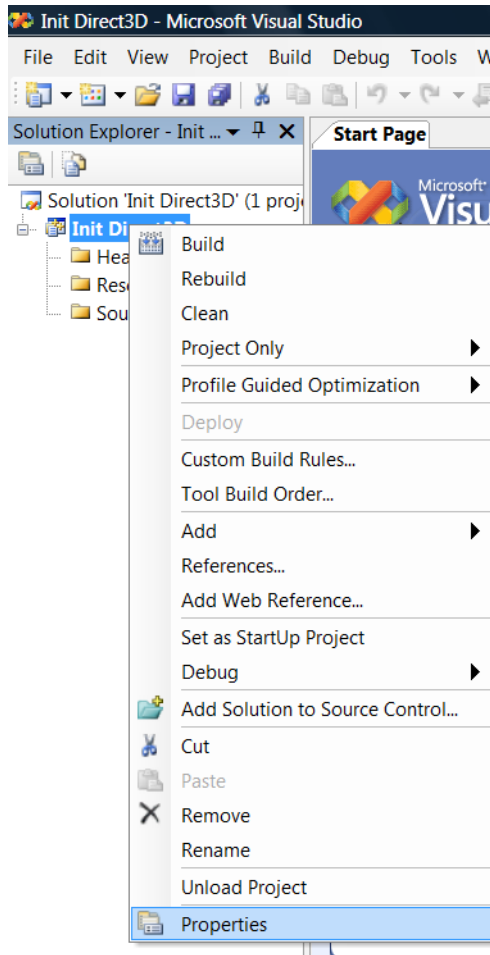To link the library files, right click on the project name under the Solution Explorer and select **Properties** from the dropdown menu (Figure 4). This launches the dialog box shown in Figure 5. From the left-hand-side tree control, select **Configuration Properties->Linker->Input.** Then on the right-hand-side, specify the library file names on the **Additional Dependencies** line. Press **Apply** and then **OK.**

We now need to make sure Visual Studio knows the directories in which to search for DirectX header and library files. If you installed the DirectX SDK after you installed VS05, the DirectX installation should automatically configure VS05 to include the necessary paths for the DirectX header and library files. Nevertheless, to make sure, or to specify the directories manually, go to the VS05 main menu, and select **Tools->Options.** From the left-hand-side tree control, scroll down and select **Projects and Solutions->VC++ Directories.** Then on the right-hand-side, select **Include files** and **Library files** from the **Show directors for** combo box, and make sure the correct DirectX path is set, as in Figure 6 and 7. Note that the exact path depends on where you installed the DirectX SDK.

We have now linked the necessary DirectX library files to our project, and have configured the VS05 search paths so that it knows where to find the necessary DirectX library and header files on your system. We are almost ready to build the demo.
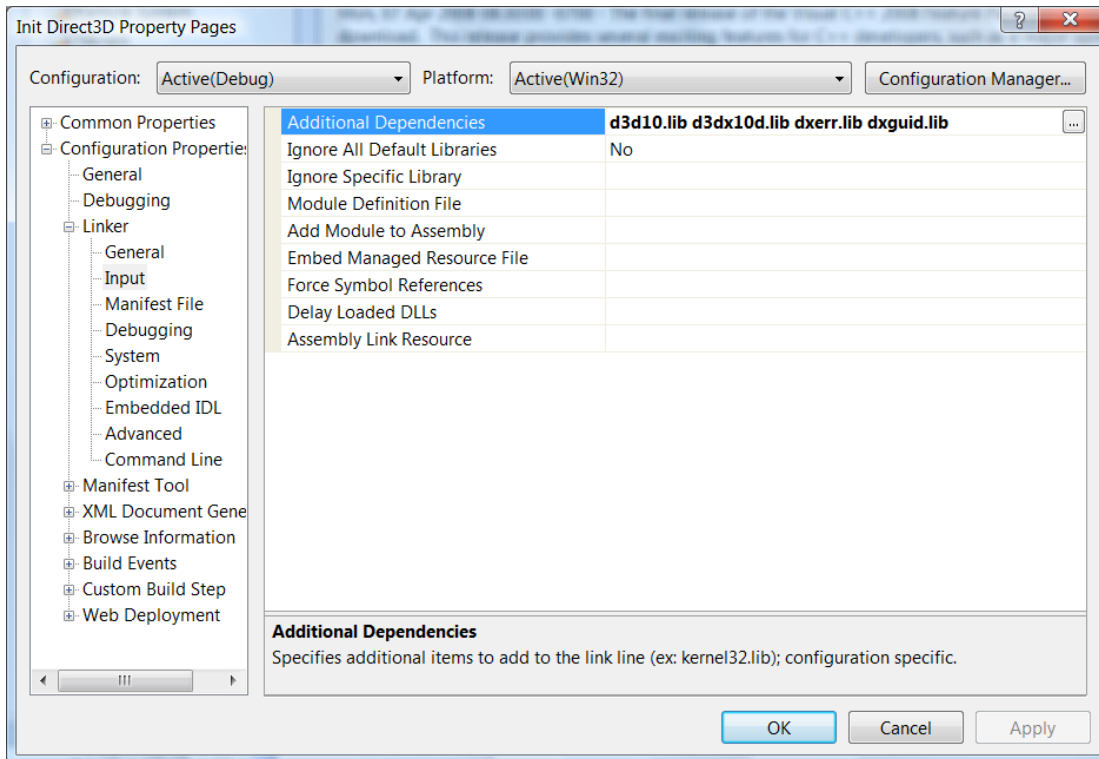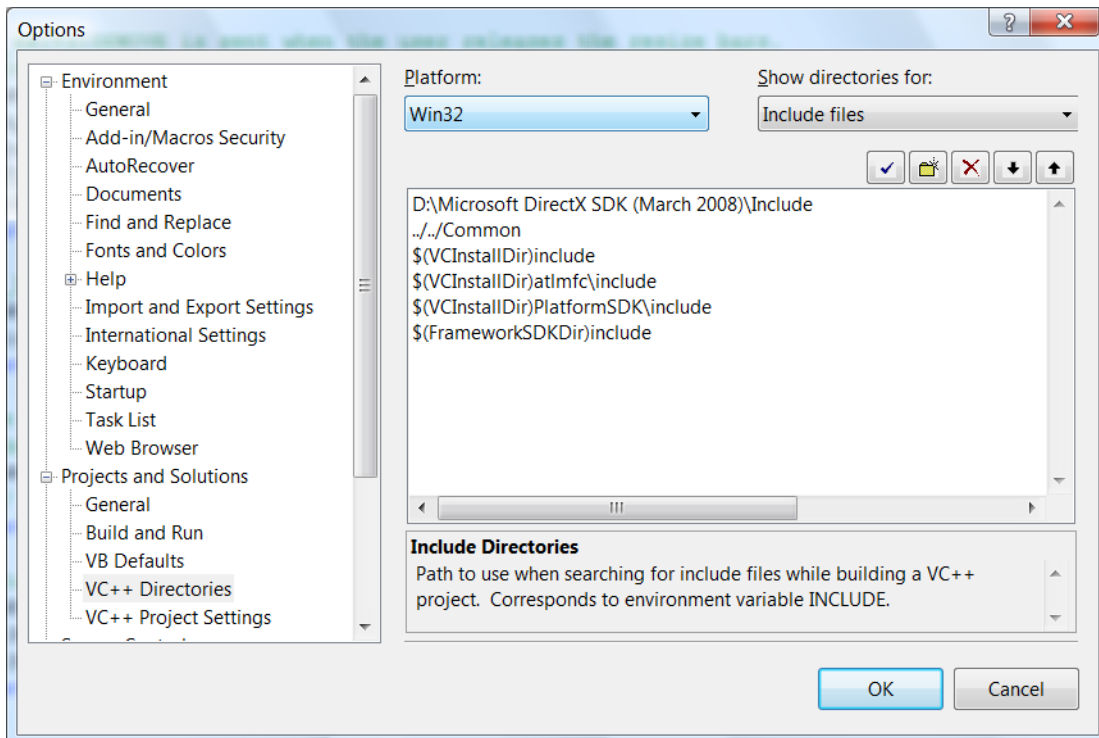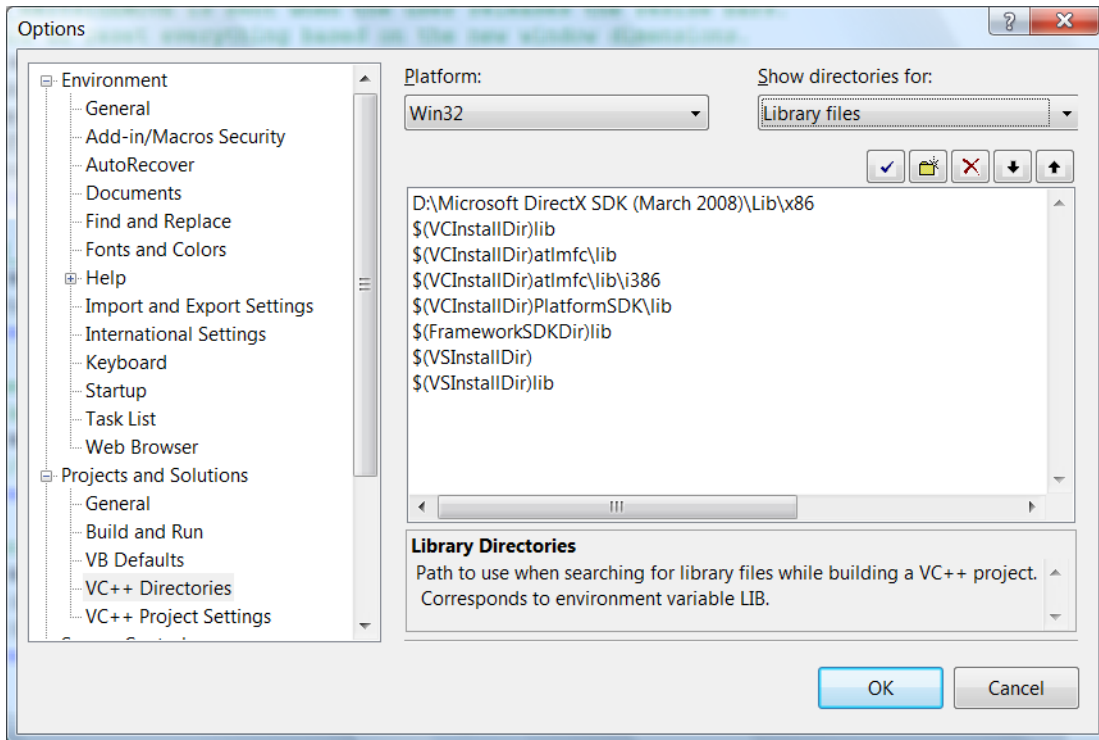
Figure 4

Figure 5

Figure 6

Figure 7

3 Adding the Source Code and Building the Project

Finally, our project setup is complete. We can now add our source code files to the project and build it. First, copy the *Init Direct3D* source code files to your project's directory; also copy the source code files from Part II's *Common* directory to your project's directory.

> **Note:** When you download the book's source code, Part II and Part III each have their own common directory. All the samples in Part II share the code in the *Common* directory; likewise for Part III. This prevents duplication of source code files that all demos share. You may notice from Figure 6, the additional include path: ../../Common. This is a path relative to each demo that tells VS05 to also search the *Common* directory for header files.

After you copy the files, your project directory should look like the one in Figure 8. Now, in VS05, go to the main menu and select **Project->Add Existing Item.** From the dialog box (Figure 9), select all six source code files and press **Add.** The source code files are now part of the project. You can now to the main menu, and select **Debug->Start Debugging** to compile, link, and execute the demo.

This concludes the tutorial. If you have any further questions, please post in the forums of the book's website.
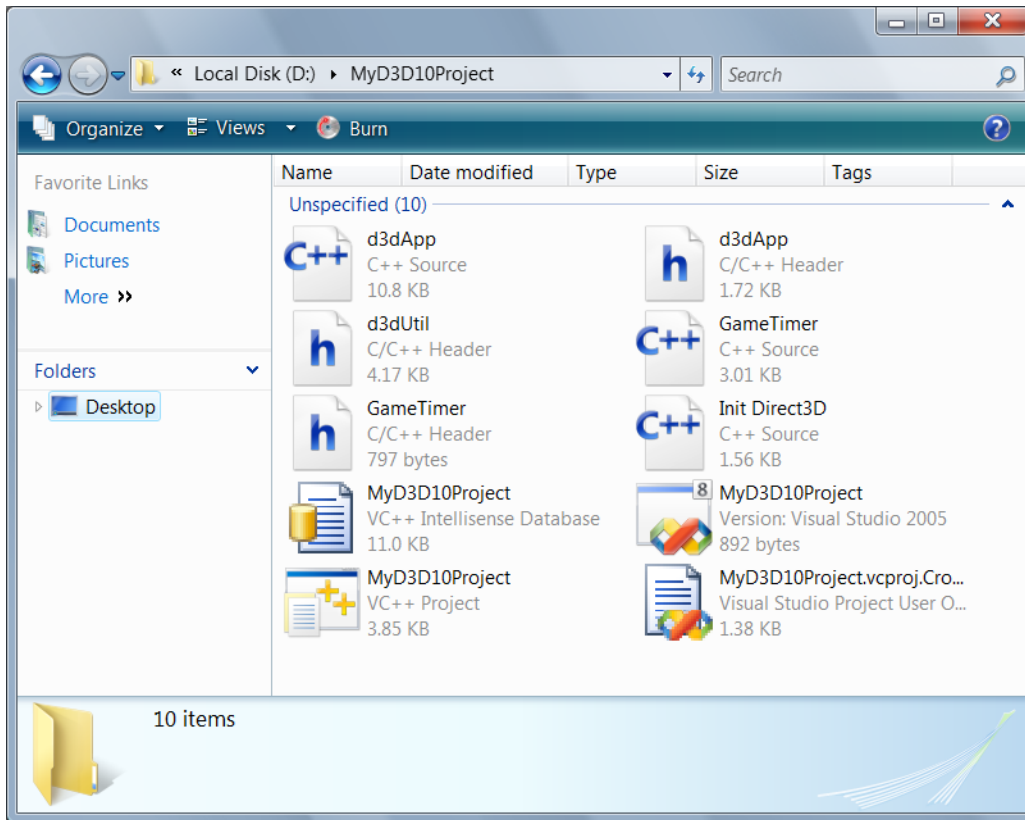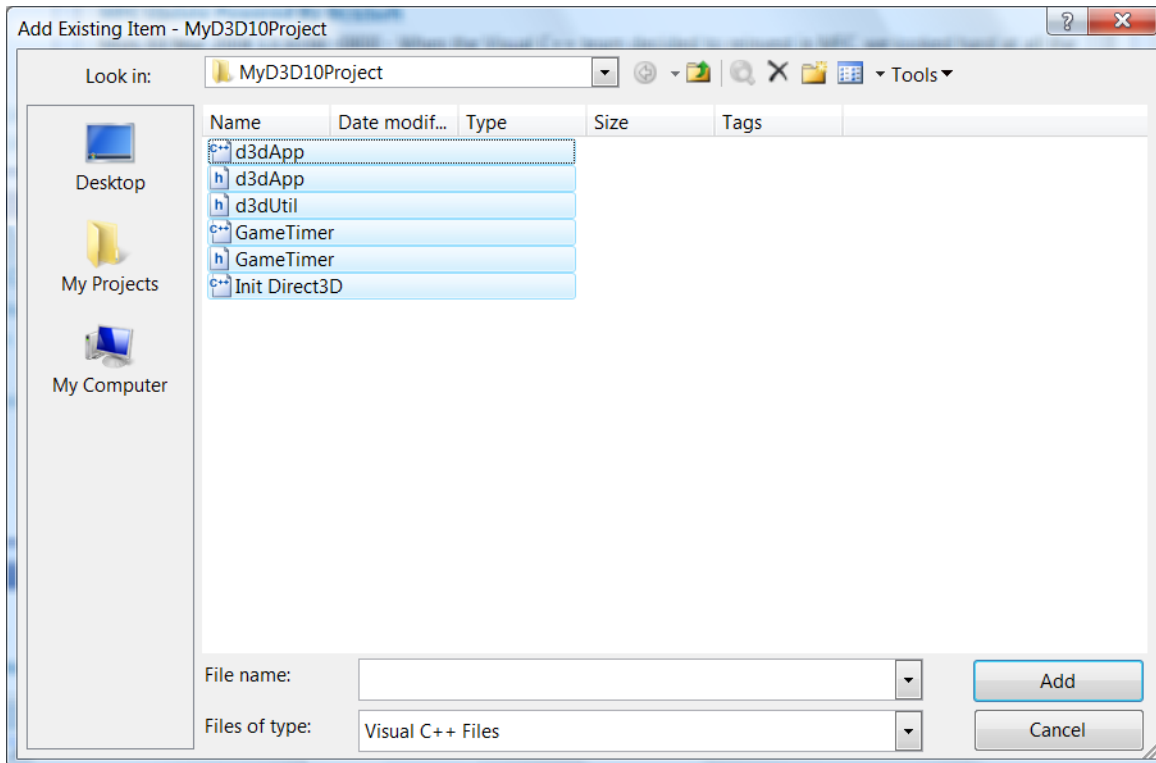
Figure 8

Figure 9