

Installing OpenGL and GLUT On Windows

1. Inspecting your OpenGL files

OpenGL comes preinstalled Windows 95 (OSR2) and all later versions of Windows. In your Windows system directory (see table at bottom of page) you should have the files `opengl32.dll` and `glu32.dll`. If you are not able to find them, please contact your TA.

In most cases, you will also have a 3D graphics card that supports OpenGL in hardware. If not, we recommend that you buy one. All recent graphics cards support OpenGL in hardware. Please make sure that you download the latest OpenGL drivers for your graphics card from the card or chip vendors web site.

2. Installing GLUT

There is a Windows implementation of GLUT (the OpenGL Utility Toolkit) available at <http://www.xmission.com/~nate/glut.html>. To install GLUT on your system, the following files should be moved (or copied) to the following directories:

- Copy `glut32.lib` to your compiler's library directory
- Copy `glut.h` to the `GL\` subdirectory of your compiler's include directory
- Copy `glut32.dll` to your Windows system directory. You may have to restart your system for that library to be recognized by Windows.

The locations of these directories depend on your compiler and/or operating system:

Compiler include directory	
VC++ 6.0	C:\Program Files\Microsoft Visual Studio\VC98\include\
VC++ .NET	C:\Program Files\Microsoft Visual Studio .NET 2003\Vc7\PlatformSDK\Include\
Other	(See your compiler documentation)

Compiler library directory	
VC++ 6.0	C:\Program Files\Microsoft Visual Studio\VC98\lib\
VC++ .NET	C:\Program Files\Microsoft Visual Studio .NET 2003\Vc7\PlatformSDK\Lib
Other	(See your compiler documentation)

Windows System directory	
95/98/Me	C:\Windows\System
NT/2000	C:\Winnt\System32
XP	C:\Windows\System32

Finally, to use GLUT/GLU/OpenGL, you only need to include one header file. Insert this line at the top of any source files that use GLUT, OpenGL, or GLU.

```
#include <GL/glut.h>
```