How to Install OpenGL

WINDOWS

Install your favorite integrated development environment (IDE). This tutorial assumes that you have Microsoft Visual Studio installed on your machine.

1. Install OpenGL

OpenGL software runtime is included as part of operating system. So you only need to download this if you think your copy is somehow missing. The OpenGL libraries are also available as the self-extracting archive file from the Microsoft.

OpenGL libraries and header files are

- opengl32.lib
- glu32.lib
- gl.h
- glu.h

2. Install GLUT

If you do not have GLUT installed on your machine you can download it from:
http://www.xmission.com/~nate/glut/glut-3.7.6-bin.zip

GLUT Libraries and header files are

- glut32.lib
- glut.h

3. Use OpenGL & GLUT in your source code

Use the three header files (gl.h, glu.h and glut.h) in your source code. Please check the path of your project to see if these files are found by your compiler.

4. Change project settings

In Visual C/C++ and .NET you'll have to do the following in order to link an application using GLUT:

- Select Project/Settings.
- Go to linker settings.
- Add the following files to the Object/library modules:
  opengl32.lib, glut32.lib, glu32.lib.

5. Changes in code

Use the include file <windows.h> in your source code.

To learn how to use OpenGL and GLUT with Microsoft Visual Studio, see http://www.cosc.brocku.ca/Offerings/3P98/course/OpenGL/3P98Examples/GettingStarted/msvcnetglut.html

MAC OS X

Install Project Builder. If you are using Mac OS 10.1 to 10.5 download and install the April 2002 version of Project Builder. For all Jaguar revisions (v10.2 to v10.2.8) use the Dec 2002 version of Project Builder. For Panther and Tiger you will use the new Xcode.

1. Install OpenGL & GLUT

These are already installed with the OS.

2. Using OpenGL and GLUT in you source

Start Project builder and create a new Cocoa Application. Delete the default files. Now go to the Target tab and make sure that no prefix headers are used. The exact location of this varies with the version of the Project Builder. However this is usually in the section on compiler settings. Now go back to the Files tab. Click on Project -> Add Frameworks and add two frameworks OpenGL Framework and the GLUT Framework. (For Xcode, click on Project -> Add to Project and add OpenGL.framework and GLUT.framework, which are located in ~/System/Library/Frameworks/.)

Finally in your source include the files as needed

- #include <OpenGL/gl.h>
- #include <OpenGL/glu.h>
- #include <GLUT/glut.h>

LINUX

1. Install OpenGL

OpenGL and GLX and the X server integration of GLX, are Linux system components, and should be part of the Debian, RedHat, SuSE, or Caldera distribution you use.

2. Install GLUT

Download glut source from
http://www.opengl.org/resources/libraries/glut/glut_downloads.php
and follow the instructions in the package
Files to be included
#include <GL/glut.h> // Header File For The GLUT Library
#include <GL/gl.h> // Header File For The OpenGL32 Library
#include <GL/glu.h> // Header File For The GLu32 Library

3. Linker settings in Makefile

LIBRARIES = -lX11 -lXi -lXmu -lglut -lGL -lGLU -lm