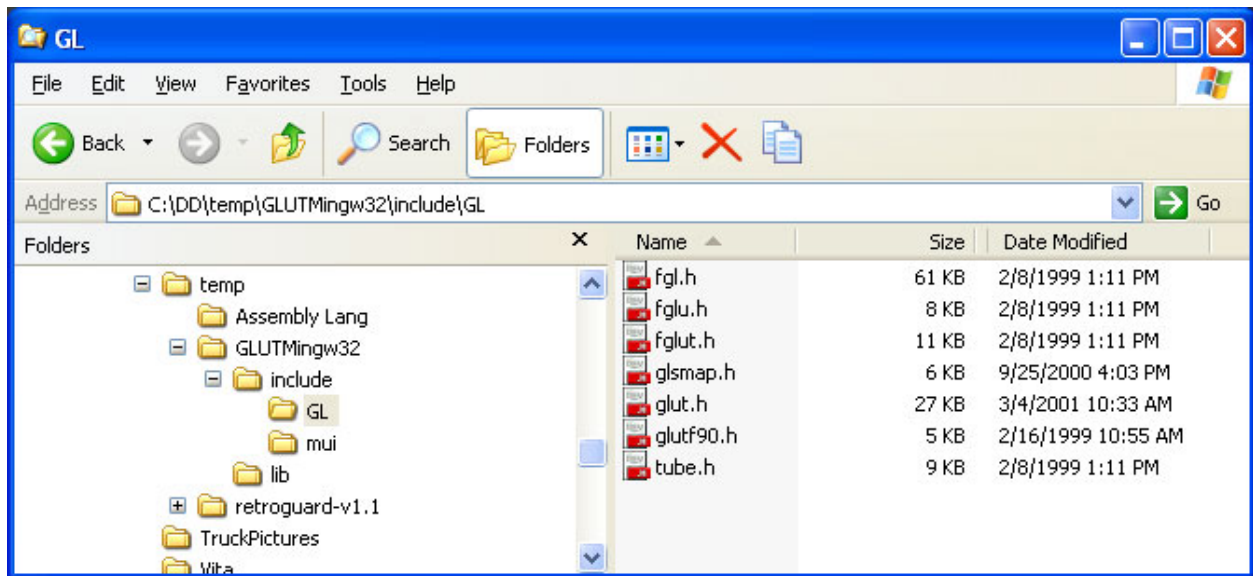# How to add glut libraries in Dev cpp (Opengl Programming)

1. Download and save the glut libraries (glutming.zip) from course download section.
2. Extract the files.
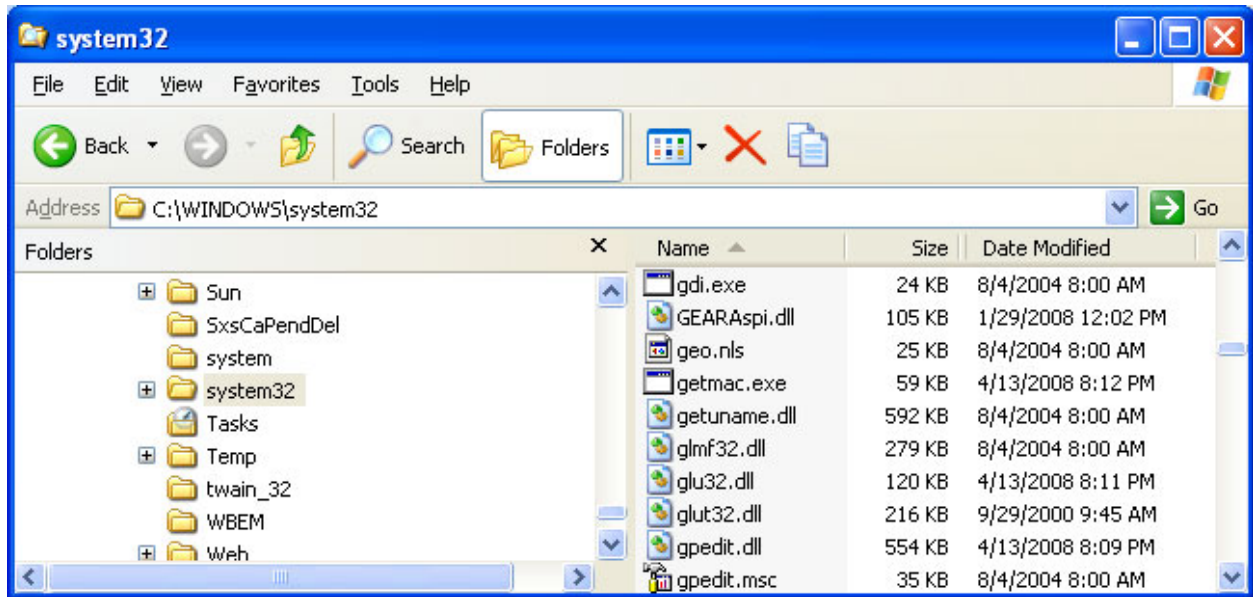3. Go to glutming > include > GL and copy the **glut.h** file to C:\Dev-Cpp\include\GL

4. **libglut32.a** -- copy this file from your lib folder of gluming to C:\Dev-Cpp\lib.

5. There may be a newer version of this file there, already. Replace that version with the one you unzipped (if you keep the newer version your programs will not link correctly.)
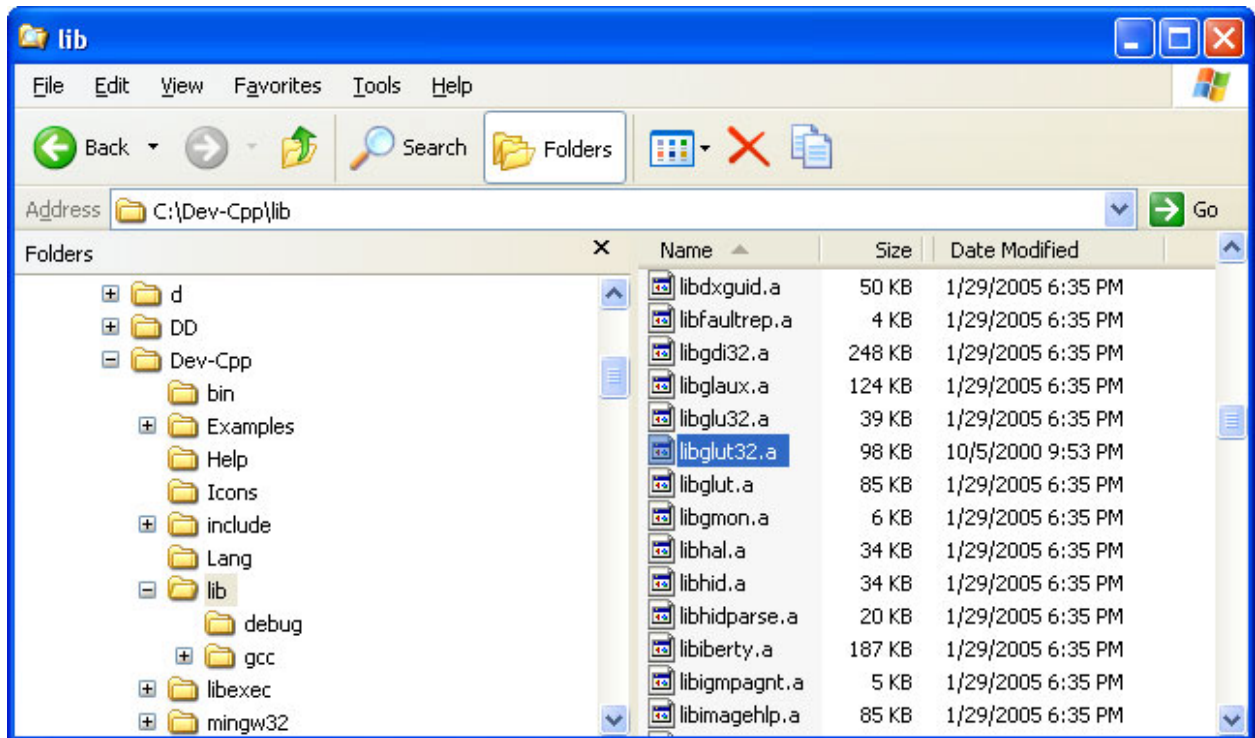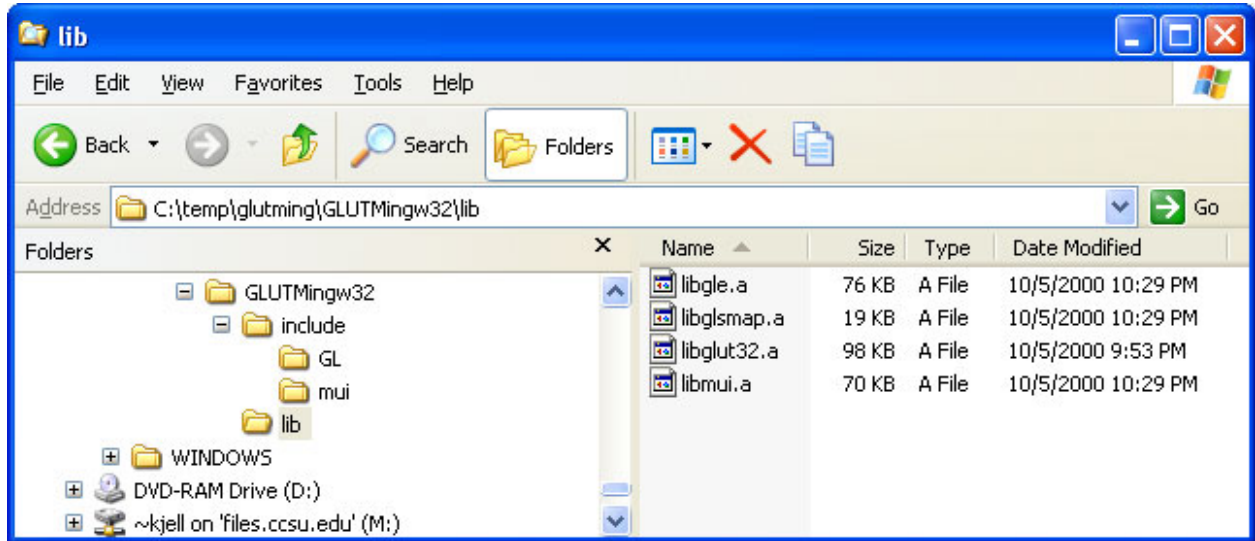
6. **glut32.dll** -- move this file to C:\WINNT\System32,

Test Dev-cpp with GLUT

The essential step in compiling and running a C program that contains OpenGL and GLUT functions is to tell the linker where the libraries are. This is done by clicking Project/Project Options/Parameters/Add Library or Options and then navigating to the libraries you need to include: libopengl32.a, libglu32.a, and libglut32.a. The libraries should be added in that order.

Details:

1. Create a project and .cpp file.
2. Tell Dev-cpp what libraries need to be linked. Click "Project/Project Options."
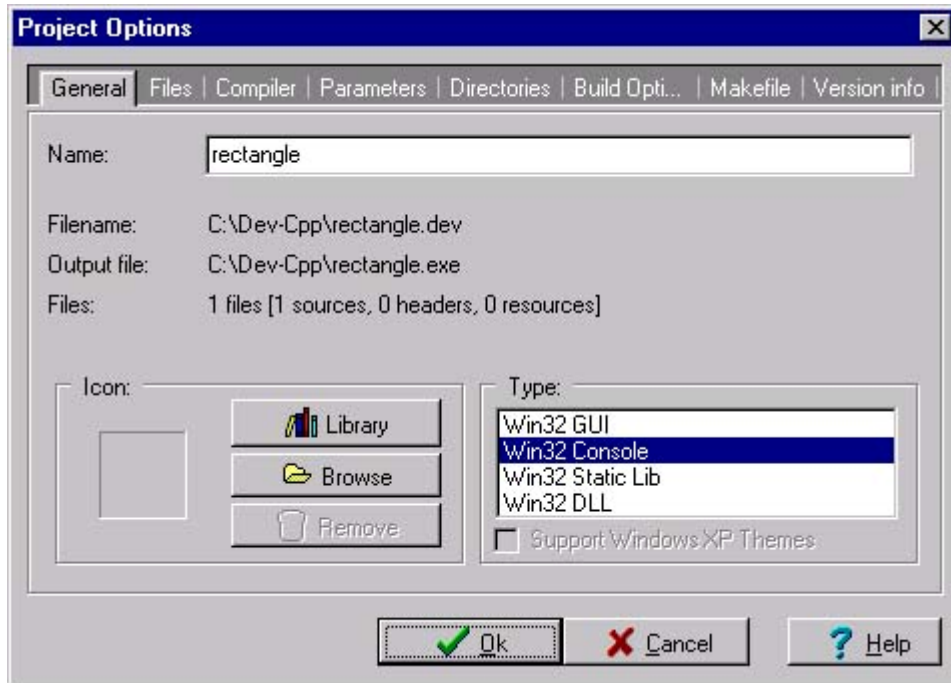
3. Now click "Parameters". Click the "Add Library or Object" button and navigate to the libraries that should be added, found under C:\Dev-cpp\lib

   - ../lib/libopengl32.a
   - ../lib/libglu32.a
   - ../lib/libglut32.a

4. Give complete path of these libraries placed under C:\Dev-cpp\lib in Parameter tab.
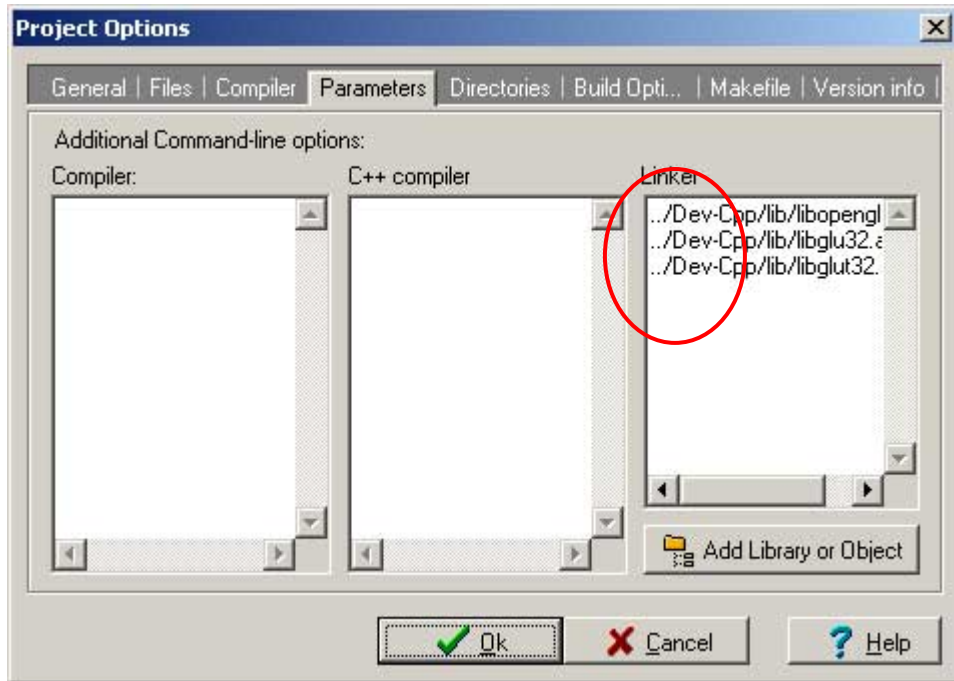
5. The exact pattern of "../../.." you see depends on how deep in the directory structure your source file lies.
6. Click "OK".
7. Click "Execute/Compile and Run". The program should compile, link, and run.