OpenGL Labs

Introduction

In these tutorials we will use OpenGL 3.0 to explore some basic rendering, and common techniques. The tutorials 1 to 6 progress from a very simple framework through some important techniques. Along the way we also make use of increasingly complex geometry, to make the appearance more interesting. At the end you should be ready to apply the techniques on your own. This is indeed what the last tutorial (the 'project' or '3D world') is about.

Getting Started

First of all, read through this **entire** document, there will be an exam at the end. The labs each have a pm in word and pdf format in the associated folder (`lab1`...`lab6` and `project`). Print a copy of this (only one copy per group is needed), as you will be required to answer some questions in writing.

Read the document '`VC++ for dummies.doc`' which explains how Visual Studio 2008 is used with our project files. If you are a linux user, refer to the '`LabPM-linux-instruction.txt`' text file.

General Instructions

Always strive to ensure that you understand the code used in the tutorial, you *will* run into problems later during the project tutorial otherwise. Obviously, when we tell you code can be ignored, you can do so safely, but it never hurts to try to understand (*may* sometimes hurt brain, this is good sign, though; adaption will follow)!

Should you have trouble understanding some part, please ask the assistants! That is what they are for. This may also be a good idea if you just need to verify that you understand something correctly. Also please believe us when we say that the OpenGL specification is actually quite readable, try it. Learning how to find information about OpenGL is after all the knowledge most likely to be useful to you in the future.

Handing in labs

When done with a lab, show it to the assistants as soon as possible. Do **not** batch them up. We will only do more than one at a time if there are no other students waiting. This is important to ensure the lab sessions flow smoothly.

If there are assignments in the lab pm, make sure to have those filled in on paper before showing. Also the finished program should always running when you ask to show it. This is to make sure we do not have to wait for you compiling.

Good Luck

Now go forth and start with lab1, as stated elsewhere: always open the `all.sln` file (**not** the individual `.vcproj` files) to access the code. If you do not, the code will not link properly.