

OpenGL - Lab Session 2

Transformations and Hierarchical modeling

During this lab session, we will model a complex object using hierarchical modeling.

1 Introduction

The program created last time is the basis of this week's work.

The result of these 2 lab sessions must be handed in before Monday, March 16th, 2009, 10am at this e-mail address :

`estelle.duveau@inria.fr`

It must contain :

- the code (`main.cpp`)
- the corresponding Visual Studio project (`.vcproj`)
- the diagram of the graph scene.

2 Complex model

Model a complex object (a human being, a quadruped, a monster with a tail or 3 arms, a car, a robot, a device of any kind, ...) using the high-level primitives created on last lab session (sphere, cone, cube, cylinder). The process is :

1. Choose an object to model
2. Create its graph scene
3. Create the function :

```
void drawRobot()
```

and call it in `renderScene(...)` instead of the drawing of the objects of last week.

4. Draw the model in `drawRobot(...)` using the matrix stack and the primitives created last time.

This model will be used in the next lab sessions for rendering and animation so the chosen object must have several components (e.g. arms, legs, wheels, ...) and it must make sense to animate it.