GAMES PROGRAMMING 3

LAB 1: CAMERAS

In this lab you will examine the basics of programming cameras that update both view-targets and movement. The goal of the lab is to program a camera the follows the model as viewing-target and consider cameras that update their movement as model positions change.

**Starting - SDL**

The required SDL functions are as follows:

SDL\_Event evnt;

while (SDL\_PollEvent(&evnt)) //get and process events

{

switch (evnt.type)

{

case SDL\_MOUSEBUTTONDOWN:

switch (evnt.button.button)

{

case SDL\_BUTTON\_LEFT:

break;

case …

}

case SDL\_MOUSEWHEEL:

switch (evnt.wheel.y)

{

myCamera.MoveBack(evnt.wheel.y);

}

case SDL\_KEYDOWN:

switch (evnt.key.keysym.sym)

{

case SDLK\_a:

…

**ToDo**:

* Complete the function (processInput())

**Camera Movement**

All the code needed to move the camera & models is already in the application, although you will need to create some new functions.

**ToDo:**

* Update the camera to view one of the meshes a target
* Write code to switch the target between mesh1 and mesh2 using an input
* Zoom into the mesh using the mouse wheel
* Circle the selected mesh using an input

**Model Movement**

All to the code needed to move the meshes is already in the application, although you will need to create some new functions and take code from other classes: Vector \*based code\*

**Extension Material for Coursework:**

* Program the models to move using key inputs
* Program the models to move using vectors as opposed to changing world coordinates
* Program a chase camera
* Program a 1st person camera
* Update the movement to use quaternions (1st class level coursework)