**COSC422 Assignment 2 Report**

**The Scene**

**Model Enhancement**

\* Modify render() from SkeletonAnimation.cpp

\* Detailed model is the Manager, the employee is just made of GLUT objects

\* Toggle between skelaton model and glut object model. E/e.

\* Assimp 3rd party animation loader was used, used .bvh animation text files.

**Character’s Environment**

\* Simple Enviroment with GLUT objects – COSC363

\* Phyisics based enviroment motion. Threading was implemented to help stabalise efficiency for the physics based motions.

**Extra features**

\* Planar shadows on glut *employee* character model.

\* Camera motion & view – Moving around the sceen with arrow keys. (First person camera), And top down view.

\* Animation looping – resets the period back to start.

**Control Functions**

|  |  |
| --- | --- |
| ↑  Move forwards | ‘+’  Zoom in – top down view |
| ↓  Rotate backwards | '-'  Zoom out – top down view |
| ←  Rotate left | E/e  Toggle *manager* model enhancement |
| →  Rotate right | ‘q’ or 'ESC'  Exit application |
| Spacebar  Fires the cannon |  |
| D/d  Toggle door |  |
| V/v  Toggle view (topdown or normal) |  |

**Compiling & Running Application**

On a Linux Machine, on the Makefile level, type:

‘make && make program’

**References to Sources**

* Model animations were from the lab.
* Enviroment Textures - <https://www.textures.com/>