**Graphics Project 2 README**

Daniel Maclam && Kristian Kerrigan

To run the project, do the following:

* Ensure that KrisBryGame is set as the start up project
* Build the solution in Debug or Release in x86 or x64
* Run the Project (CTRL + F5)
* The current scene will be loaded from the JSON file specified on line 33 of loadScene.cpp

**Camera Controls**

|  |  |
| --- | --- |
| Key | Action |
| W | Move camera forward (z-axis) |
| S | Move camera backwards (z-axis) |
| A | Move camera left (x-axis) |
| D | Move camera right (x-axis) |
| Q | Move camera up (y-axis) |
| E | Move camera down (y-axis) |
| CTRL + Q | Roll camera to the left |
| CTRL + E | Roll camera to the right |
| Clicking and moving the mouse will change the camera Yaw(left/right) and Pitch (up/down) positions | |

**Light Controls**

|  |  |
| --- | --- |
| Key | Action |
| SHIFT + Up Arrow | Select next light |
| SHIFT + Down Arrow | Select previous light |
| SHIFT + W | Move light forwards |
| SHIFT + S | Move light backwards |
| SHIFT + A | Move light left |
| SHIFT + D | Move light right |
| SHIFT + Q | Move light up |
| SHIFT + E | Move light down |
| Clicking the mouse while performing above actions will increase the speed | |
| SHIFT + 1 | Decrease constant attenuation |
| SHIFT + 2 | Increase constant attenuation |
| SHIFT + 3 | Decrease linear attenuation |
| SHIFT + 4 | Increase constant attenuation |
| SHIFT + 5 | Decrease quadratic attenuation |
| SHIFT + 6 | Increase quadratic attenuation |
| SHIFT + 7 | Turn light “debug spheres” on/off |
| SHIFT + Space | Turn light on/off |

**Other Controls**

|  |  |
| --- | --- |
| Key | Action |
| P | Pause/Un pause the scene |
| B | Start particle generation |
| N | Stop particle generation |
| CTRL + S | Save current scene |
| CTRL + D | Toggle display selected models normals |

**Model Controls**

|  |  |
| --- | --- |
| Key | Action |
| Up arrow | Select next model |
| Down arrow | Select previous model |
| ALT + W | Move model forwards |
| ALT + S | Move model backwards |
| ALT + A | Move model left |
| ALT + D | Move model right |
| ALT + Q | Move model up |
| ALT + E | Move model down |
| Clicking the mouse while performing above actions will increase the speed | |
| ALT + I / SHIFT + K | Increase / Decrease model rotation around x-axis |
| ALT + J / SHIFT + L | Increase / Decrease model rotation around z-axis |
| ALT + U / SHIFT + O | Increase / Decrease model rotation around y-axis |
| ALT + COMMA (Greater than) | Increase model scale |
| ALT + PERIOD (Less than) | Decrease model scale |
| ALT + Keypad ADD | Increase model specular (shiny-ness) |
| ALT + Keypad SUBTRACT | Decrease model specular (shiny-ness) |
| ALT + SPACE | Toggle model wireframe on/off |