COMP3170 Assignment 1 Report

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Your development environment

Please record your Eclipse settings and your software & hardware configuration below.

|  |  |
| --- | --- |
| Java JDK version used for compilation |  |
| Java compiler compliance level used for compilation |  |
| Java JRE version used for execution |  |
| Eclipse version |  |
| Your screen dimensions (width x height) |  |
| Your computer type (Mac/PC) |  |
| Your computer make and model |  |
| Your computer Operating System and version |  |

Your program features for marking.

Features to be marked in this assignment.

|  |  |  |
| --- | --- | --- |
| Feature | Completeness | Indicate “Yes” if feature is to be marked |
| Building – Mesh | 5% |  |
| Building – Colour | 5% |  |
| Building – Height/Floors | 5% |  |
| Skyline | 5% |  |
| Starfield | 5% |  |
| UFO – Mesh | 10% |  |
| UFO – Vertex Colouring | 5% |  |
| UFO – Animation/Movement | 5% |  |
| UFO – Tractor beam Animation | 5% |  |
| World camera | 10% |  |
| World camera – resizing | 10% |  |
| Instancing | 10% |  |
| Parallax scrolling | 5% |  |
| Ripples on tractor beam | 5% |  |
| Animated ripples on tractor beam | 5% |  |
| Mouse-guided Tractor Beam | 5% |  |
| TOTAL (max 100%) |  |  |

Scene Graph

Add an illustration of your scene graph here. E.g.

Meshes

Add an illustration of each of the meshes in your assignment, including:

* the origin
* the x and y axes
* the coordinates of each vertex
* the triangles that make the mesh

Use graph paper and make sure your drawing is to scale. If you are drawing by hand, use a ruler to draw lines and make sure all labelling is legible.

Cameras

World camera

Show an example of your camera calculations when the UFO is at position (20, 30) in world coordinates and the window has dimensions 500x400. Show the coordinates of each corner of the window and the centre point, illustrating:

* Viewport Coordinates in green
* NDC coordinates in blue
* View coordinates in red
* World coordinates in black

**The diagram below is an example diagram only. Change this to match your code.**