

COMP220 WORKSHEET B: BASIC SCENE

Version 1.0
Computing
COMP220

Brian McDonald

Introduction

In this worksheet you are going to build on the work completed in Worksheet A. In this worksheet you will be building up a basic scene which will involve loading and rendering of 3D models, these models should be textured mapped. There should also be some form of interactivity which will allow the user to navigate the scene.

To complete this worksheet, build an application which implements the following:

- (a) **Loading** of 3D Models
- (b) **Placement** of 3D Objects in the scene
- (c) **Loading** of Textures
- (d) **Rendering** of Objects with basic shaders
- (e) **First Person Controls** using keyboard and mouse

Submission instructions

Continue using the repository from Worksheet A, you should consider creating a new branch for this worksheet

You should complete a pull request before the hand-in on **Monday by 1pm on Week 6**. Feedback will be given in the pull request and in class.

Marking criteria

Remember that **it is better to submit incomplete work than to submit nothing at all**. If you do not manage to finish all assigned task, then you can complete this before the submission of Worksheet B

To demonstrate **basic competency**, complete the following:

- Loading of 3D Models
- Placement of 3D Models
- Rendering of objects

To demonstrate **basic proficiency**, complete the following:

- Achieve **basic competency**
- Loading of Textures

To demonstrate **novice competency**, complete the following:

- Achieve **basic proficiency**
- Keyboard and mouse controls

To demonstrate **novice proficiency**, complete the following:

- Achieve **novice competency**

- Some evidence of software design
- Some evidence of reusability (functions, classes, inheritance)
- Additional joypad controls

To demonstrate **professional competency**, complete the following:

- Achieve **novice proficiency**
- Evidence of good software design (unit tests, static code analysis)
- Evidence of reusability (Framework is compiled into a library and can be reused)