Creating a new Project

Treelab

June 8, 2021

Contents

1 Planned for the future

1.1 Extend materials

Allow materials to have textures. Materials should allow for the following textures/maps:

1. Diffuse Texture - A texture that controls the color of an object

2. Occlusion Texture - Marks regions that are occluded

3. Normal Maps - Query normals from a texture instead of the vertices

4. Roughness Map - Allow for per pixel roughness for objects

5. Glow Map - Allows for objects to glow

1.2 Extend the Component System

1.2.1 State Component [Since 08.06.2021]

Allow the creation of state machines for simple behaviour with State Components

1.2.2 PhysX Components

Allow for physics calculations by providing objects with PhysX Components. Examples are

1. Static Collider Component

2. Dynamic Collider Component

3. Player Controller Component

1.3 Shadow mapping

Run a second render pass for shadows to be generated.

1.4 CPU-side frustum culling

Do not try to render objects that are not in the view frustum. Idea:
Try to query PhysX for objects that are in the view cone.

1.5 Animations

Implement simple animations. For example translational or rotational animations.

1.6 Skeletal Animations

This involves implementing skeletal objects in the first place. Allow those rigs to be animated and write a shader for vertex deformation.