

Caribbeans - E2_EN

Checkpoint 1

Info

Islands in the Caribbean sea. In the middle of the biggest island is a palm tree, under which is a being (model). The sun and clouds are visible in the sky. The sea level fluctuates over time. Allow the user to turn the clouds on/off using the keyboard. Place the camera so that the whole scene is visible.

IMPORTANT

Aesthetics are **NOT** graded. Make the scene with simple polygons.

Settings - 2pts

1. Enable the following:
 1. Depth testing
 2. Backface culling

Camera - 5pts

1. Use perspective projection with reasonable settings (use the window's aspect ratio, a FOV of from 45 to 90, near value of 0.1 and a render distance of at least 100 or however much is required for the entire scene to be visible)
2. Position it, so the entire scene is visible (from the ground if possible)

User input - 5pts

1. The clouds can be toggled

Model - 3pts

Important

Model scales vary vastly and it helps to first draw something to make sure everything's working and **then** to try and load the model. If it's not visible, it probably needs to be scaled down or up. The scaling factor can be in the thousands sometimes! Visual Studio has a model viewer built in and can be used to scale the model down or see it's scale.

1. Single 3D model (.obj file preferably, but others are acceptable)

Scene - 10pts

1. Parts of the scene should be realized via simple primitives (e.g. triangle) in 3D (cubes, pyramids, etc...)
2. The scene should be 3D!
3. The sea level rises/falls over time (Check week 3, example 6, main.cpp:95 - https://github.com/L4v/computer_graphics/tree/week-3)
4. Everything should be coloured