

**Brief description:**

We used OpenGL with C++ to create our game. Functionality like the camera or geometry are separated in their own classes. Main.cpp is just used to set up various things and run the render loop. Some of the Logic is based on the ECG-Framework while e.g. sound is outsourced to a library.

**Features:**

- Music Playback
- Moving Objects
- Textured Objects
- External Models – there is a separate Mesh Class for external Models which has to be merged with our own Vertex Class
- Moving Camera
- Collision Detection between player and obstacles
- Fixed movement (switching between lanes)

**Controls:**

You control the character with the “A” and “D” key. Pressing “Shift” will increase the movement speed and “esc” will close the game. “F8” toggles the wireframe view. “F2” toggles backface culling.

**Textured Objects:**

The character, the obstacles and the floor on which you move are textured. Currently the textures are a placeholder and not final.

**Libraries:**

- Assimp: <http://www.assimp.org/>
- GLFW: <https://www.glfw.org/download.html>
- GLAD: <https://glad.dav1d.de/>
- GLM: <https://glm.g-truc.net/0.9.8/index.html>
- Irrklang: <https://www.ambiera.com/irrklang/>

**Tutorials:**

- <http://ogldev.atspace.co.uk/index.html>
- <https://learnopengl.com/>
- ECG Framework & Slides
- Various stackoverflow threads
- (renderdoc)