# **SPG-Project**

Based on my EZG-project.

# Controls

|  |  |
| --- | --- |
| W | Move forward |
| A | Move left |
| S | Move backward |
| D | Move right |
| Mouse X | Control camera yaw |
| Mouse Y | Control camera pitch |
| Q | Rotate camera roll anticlockwise |
| E | Rotate camera roll clockwise |
| F1 | Reset camera roll |
| F2 | Toggle wireframe |
| F4 | Toggle free-cam/cinematic-mode |
| Comma | Reduce speed |
| Period | Enhance speed |
| Strg comma | Reduce sample count (antialiasing) |
| Strg period | Enhance sample count (antialiasing) |
| Alt comma | Steps- - |
| Alt period | Steps++ |
| Alt strg comma | Finesteps- - |
| Alt strg period | Finesteps++ |
| Esc | Quit game |

# Important program segments

almost everything of interest is found in the Chunk-class.additionally there are four shader files of interest:

generateChunk\_CS.glsl : generating the density volume.

Chunk\_VS.glsl   
Chunk\_GS.glsl : rendering pipeline, containing the marching cubes algorithm.  
Chunk\_FS.glsl

Chunk\_FS.glsl : displacement mapping.