Chawah

- **Description**:

Chawah is a 2 Player Split Screen SpaceCraft - Shooter.
2 Players fight eachother in a game arena. hitpoints and frag-count are displayed in the OSD. The Game runs best with Gamepads, but Keybord Controls are also provided.

- **Controls:**
  - **General**:

F1 … Toggle EnvironmentMapping
F2 … Toggle FPS / Triangle Counter
F3 … Toggle WireframeMode
F4 ... Toggle Linear/NN Texture Filtering
F5 … Toggle Mipmapping
F6 … Toggle Vertex Arrays vs. Vertex Buffer Objects
F7 … Browse Skyboxes
F8 … Toggle View Frustum Culling(uses bounding spheres)
F9 … Toggle Transparency
F10 … Toggle Bullet Debugging
F11 … Toggle Bloom
F12 … Toggle Lensflares
Pause … Toggle Pause Game
V … Toggle Vsync
N … Toggle JetEngine Streams
H … Suicide Button

  - **Player1 Controls:**

W,A,S,D,Q,E … move Ship
Left CTRL … Fire Bullet
R … Fire Rocket
Left Shift … brake
1,2 … zoom in/out
3,4 … rotate Camera L/R

  - **Player2 Controls**

UP,DOWN,LEFT,RIGHT,DEL,PAGE_DOWN … move Ship
Right CTRL… Fire Bullet
L .. Fire Rocket
Right Shift … brake
7,8 … zoom in/out
9,10 … rotate Camera L/R

- Objects and their graphic effects:
  - **Ships:** Textured Ships, Use Phong illumination & environment Mapping
    - textures, Phong illumination, environment Mapping
  - **Space Stations:** when hit by bullets or even by the ship they bounce off
    - textures, Phong illumination, environment Mapping
  - **Space Dust:** Slowly floating donut-shaped Particles in Space
    - PointSprite Textures, Transparency

- **Skybox:** a Skybox providing the Background
  - CubeMap, made of 6 textures
- **The Game Arena**:Whenever a Ship, or a Spacestation collides with the Arena-border it reappears on the opposite side of the arena
- **The sun**: Lights the Arena and produces Lensflares whenever you look into it
- **Jet/Rocket** Engine Streams: Particle Systems
- **Explosions**: Particle Systems
- **PowerUps**:
  - **RocketPlus**: Player gets +1 Rocket
  - **ArmorPlus**: Player gets full Armor
  - **Boost**: Player flies 4 times faster than usual for a few seconds

- **Libraries used:**
  - **Maths**: GLM (glm.g-truc.net/)
  - **Physics**: Bullet (www.bulletphysics.com/)
  - **GUI**: CeGUI (www.cegui.org.uk/)
  - **Model-Loader**: Assimp (http://assimp.sourceforge.net/)
  - **Sound**: FMOD (www.fmod.org/)
  - Glew (glew.sourceforge.net/)
  - Glfw (www.glfw.org/)

- **Tools used:**
  - Blender (www.blender.org)
  - Paint.net (http://www.getpaint.net/)
  - FRAPS (http://www.fraps.com/)

- **Effects implemented:**
  - Bloom
  - Environment Mapping using a Cube Map
  - Lensflares by using Occlusion Culling
  - Particle GasBeams for ships and rockets
  - Particle Explosions, triggered whenever a ship is destroyed

Legal Info:

This game uses Content (especially sounds) not created by us, for which the licence status is unfortunately unknown. That's why it is not intended to be publicly distributed in any kind of way. maybe we will release a copy for public distribution in the near future.

- **Source Info:**
  - Two Skyboxes taken from http://forums.mapcore.net/viewtopic.php?t=3127
  - Ship Mesh from http://vegastrike.sourceforge.net/
  - Ship's camo texture is from the cg2 texture repository
  - Sounds were downloaded from unknown sources