

ASSIGNMENT 2

GRAPHICS spring 2019

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3D Jet Fighter Plane Game using OpenGL

1) Running instructions:

- Unzip a2_20171019.tar.gz
- cd a2_20171019
- mkdir build
- cd build
- cmake ..
- make
- ./graphics_asgn1

2) Versions implemented:

- All(V1, V2, V3, V3.5, V4)

3) Controls:

- Move Forward : W
- Turn right : D
- Turn left : A
- Shoot missiles : M
- Drop bombs : B
- Tilt left : left arrow key
- Tilt right: right arrow key
- Decrease height: down arrow key
- Increase height: up arrow key
- Zoom in: scroll up
- Zoom out: scroll down
- L: Loop the loop plane movement
- 1: Plane view
- 2: Top view
- 3: Tower view
- 4: Follow cam view
- 5: Helicopter view(use cursor movements to explore all angle views in this)

4) Features:

- 3D world with land, sea, airplane.
- Airplane dash board with altitude, speed, fuel remaining displayed
- Airplane dashboard has a functioning compass.
- All movements of the plane implemented (yaw, pitch, roll, move up, move down)
- Obstacle course with 5 check points. Arrows point to the next check point to guide the player.
- All 5 views implemented (plane, top, tower, follow cam, helicopter)
- Enemy at check points that shoot the player to try to kill it.
- Cannons enemy shoots can be destroyed with missiles and enemy can be destroyed with bombs.
- Special enemy present all over the sea. Can be killed with bombs.
- Flying parachutes that can be shot with missiles to earn points.
- Islands with volcano which is a no flying zone.
- Fuelups to refill tank.
- Smoke rings with after passing through add to players score.
- Control to perform looping the loop manoeuver.

5) Bonus implemented

- Airplane dash board has a functioning compass

- Airplane control to perform looping the loop manoeuver.
- Special enemies present all over the sea that can be killed with bombs to increase score.
- Land - a special take off and landing platform for the plane before it starts flying over the ocean this is an obstacle free zone.