

COMPUTER GRAPHICS

Assignment-4 Readme File

Running the Assignment 4 Application

For running the application, you need to serve the static files using any server.

- Using Visual Studio Code:

- If you are using VS Code, open the 'source_code' folder using VS code.
- Then, you can simply use the 'live server' plugin.
[<https://www.freecodecamp.org/news/vscode-live-server-auto-refresh-browser/>]
- Click on 'Go live'.
- It will host the application on a port and open it on the browser.

- Using Python (from linux terminal):

- Ensure that python is installed. If not, first install python.
- Navigate to 'source_code' folder using 'cd' command.
- If using python3, run following command to host a local server.

```
python3 -m http.server
```

- If using python 2, run following command to host a local server.

```
python -m SimpleHTTPServer
```

- By default, this will run the contents of the directory on a local web server, on port 8000. You can go to this server by going to the URL localhost: 8000 in your web browser or directly click the link provided in the terminal.

Using the Assignment 4 Application

Controls for different features:-

World Controls

‘Mouse Drag with left button’: Rotating whole scene using virtual trackball

‘Mouse Drag with right button’: Panning whole scene using virtual trackball

‘Mouse wheel up/down’: Zoom in/out whole scene using virtual trackball

‘Spacebar’: Toggle Camera between default, player 1 VR, player 2 VR camera

‘1’, ‘2’, ‘3’, ‘4’, ‘5’, ‘6’: Toggle On/Off different Stadium Lights

‘0’: Toggle On/Off Ball light

‘7’: Toggle On/Off Obstacles light

‘8’, ‘9’: Toggle On/Off Player 1, Player 2 Spotlights

Player 1 Controls

‘Numpad 8’:

When ball is captured: Carry ball on head and walk forward

When ball is not captured: Walk (lesser speed than run)

‘Numpad 5’:

When ball is captured: Dribble ball on ground and run forward

When ball is not captured: Run forward

‘Numpad 4’: Rotate left

‘Numpad 6’: Rotate right

‘Numpad 2’:

When ball is captured: Kick ball in forward direction

When ball is not captured: If fell down: get up, else: kick in air

‘Numpad 7’: Move head left (If in VR Mode of player 1)

‘Numpad 9’: Move head right (If in VR Mode of player 1)

Player 2 Controls

‘W’:

When ball is captured: Carry ball on head and walk forward

When ball is not captured: Walk (lesser speed than run)

‘S’:

When ball is captured: Dribble ball on ground and run forward

When ball is not captured: Run forward

‘A’: Rotate left

‘D’: Rotate right

‘X’:

When ball is captured: Kick ball in forward direction

When ball is not captured: If fell down: get up, else: kick in air

‘Q’: Move head left (If in VR Mode of player 2)

‘E’: Move head right (If in VR Mode of player 2)