## **Computer Graphics**

## Homework#04:

3D Graphics

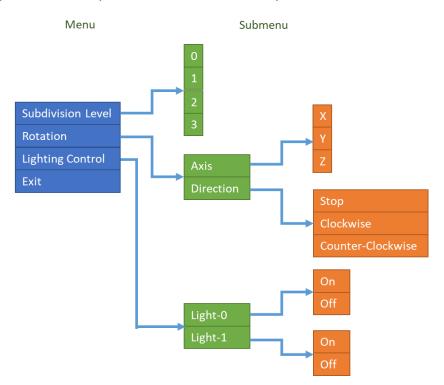
Input and Interaction

Transformation

**Shading** 

## **Requirements:**

- O 3D Gasket Regular tetrahedron with volume subdivision
- O Input Devices Mouse
  - Trigger the menu by pressing the right mouse button
  - Keyboard
    - Using the "q" or "Q" to quit the program
- O Pop Menu The specification of the hierarchy menu is as follows



- O Initial Subdivision Level = 0
- The initialization of lighting control is "On"
- The window title is your Student ID.
- Cocate the camera position in spherical coordinates and orient the camera to the sphere, as shown in the following figure. Press the left mouse button and move the mouse to change  $\theta$  and  $\varphi$  according to changes in x and y. Press both the left and right mouse buttons and move the mouse to change r according to changes in x and/or y.

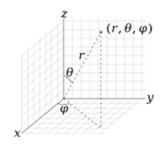


Fig. Spherical Coordinates

## 注意事項:

1. 程式驗收時間:

**2025/01/03 am 9:00~11:50** 於 **ZB301** 實驗室 (If absent, the score of the part, 40%, will be 0!)

助教: 黃展宏

2. 報告繳交期限: 2025/01/09 (No late submission will be accepted!)

繳交項目 (請壓縮成單一 ZIP 檔上傳 E-Course,檔案名稱為學號):

I. Source Code

II. Report (含:問題描述、實作/程式說明、程式編譯環境說明、實作畫面、心得)