

NTUST: 2020 Advanced Computer Graphics

Final Project : Write a program to render an ultra-high resolution picture for OBJ files

Date Due : 2020. Dec. 18th Thu. **PM11:55**, and upload to Moodle. (around 2.5 weeks)

Description :

1. Write a program (python or C/C++) to read the OBJ file and store data into your own data structure.
2. Carefully locate your virtual camera to observe the color model in the OpenGL environment.
3. Rendering a “big” color picture as large as at least 6000 (w) by 8000 (h) (or 8000 by 6000) pixels based on the “**perspective**” projection.
4. In the picture, you need to arrange the object to roughly fit the picture.
5. You need to hand in **3** items, **(1)**. Source code in python (or C/C++/C#/java et. al.), **with simple comment**, **(2)**. Execute file (including all necessary dynamic link files), and **(3)** Output images as JPG. **No need to write a report**.
6. Reference Grade: Correctly rendering a big color picture for one model (90%). Be able to deal with all given models and the picture’s width and height are user adjustable (10%).

Hint:

- You may need to decompose the picture into several tiles then merge them again.
- The original models for your reference:



- One example for your reference (in file).

[blank below this line]