NTUST: 2023 Advanced Computer Graphics (CI5326701)

Homework#1: Using tools to create Textured **OBJ** and **GLTF** files

Date Due: 2023 Oct. 03, PM11:55 (around 2 weeks)
Please upload to Moodle2, http://moodle2.ntust.edu.tw/

## Description:

- 1. Use any 3D tool to create a BOX as a textured OBJ file and to export as glTF format. **Texture OBJ** (wavefront) file includes \*.obj, \*.mtl and pictures. **glTF** is a kind color -texture model data format with additional makeup-language.
- 2. Please take a photo for a box (cake-box, candy-box, gift, living goods, et. al) in real-world by yourself. Import your box-photo into a 3D software. In the 3D software, please create a box, whose ratio is similar to the real object, and then attach the photo on this 3D box as a part of texture. Note: To accomplish a box, you may need at least two images.
- 3. Carefully assign the 3D coordinates and texture UV coordinate to each vertex of the box. And, please use image editor (ex. photoshop) to add your student-ID on the texture image, which can be seen in 3D model.
- 4. Deliverable (2 items):
  - 1) Submit **Two** 3D models (obj with relevant files, and glFT). Name those files as your ID, for example: "m10025001.obj, m10025001.mtl and m10025001.jpg" as a correct OBJ file (note: if you rename xxx.jpg, you should modify the corresponding file-link in .mtl file), and m10025001.glFT as another.
  - 2) Provide two screenshot images to proof your files can be correctly viewed in Emb3D (or equivalent software).
- 5. Please ZIP all files into single (m10025001.zip), the submit to https://moodle2.ntust.edu.tw, by due date.
- 6. Score evaluation rule: Files can be correctly viewed in 3D software (ex. Emb3D in cell-phone): 100%

## Hint:

- 1. Please refer to OBJ file format, and practice how to create a 3D textured model, then convert it into gltf (.glb) format.
- 2. Your results should look similar to bottom images.



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