

Advanced Graphics

Lab 8 – Loading models and using shaders

Maximum points: 10

Due: Demo before the end of the lab. No submissions

Objective for this lab:

One mark for esthetics

3 Marks

1½ Marks

3 Marks

1 Mark

- To be able to read and understand code
- To load external models
- To create a skybox
- To use Threejs™ built-in shaders
- Able to turn on/off shader via **dat.gui**
- The models you need and the shaders is specified by the table at the end of this document
- Do all the assigned problems on your own.

½ mark for coding styling

You will obtain the images for the skybox and models from the appropriate url (Threejs.org)

You will see sample code for the shaders from the textbook code

\\icet1vm\1vm\npershad\COMP392

<https://threejs.org/examples/>

| Student Name | Model | Skybox | Shader |
|----------------------------------|-----------------------------------|------------------------------------|--------------------------------|
| <i>Afong, Jonathan</i> | /loader/amf (rook) | /loader/ctm/material | Sepia, FilmPass |
| <i>Alexandre, Frederico B.</i> | /loader/collada (girl) | /loader/gltf | Bloom, GammaCorrection |
| <i>Bindhray, Jobandeep S.</i> | /loader/ctm (face) | /materials/cubemap | Colorify, HueSaturation |
| <i>Cai, Zhaoning</i> | /loader/gltf (machine) | /material/cubemap/balls/refraction | BrightnessContrast, vignette |
| <i>Campbell, Kristian N.</i> | /loader/gltf/extensions (boombox) | /material/cubemap/dynamic | rbgShift, LuminosityHighPass |
| <i>Chavda, Purvi D.</i> | /loader/mmd/pose (girl) | /materials/envmap | sobelOperator, vignette |
| <i>Cheang, Heng</i> | /loader/ply (angle + dolphin) | /materials/shaders/fresnel | FilmPass, rgbShift |
| <i>da Silva, Rodrigo J.</i> | /loader/vrm (girl) | /loader/gltf/extensions | BloomPass, Colorify |
| <i>Desai, Jalpen D.</i> | /materials/bumpmap (face) | /shaders/ocean | GammaCorrection, DotScreenPass |
| <i>Fernandez, Aldrin B.</i> | /materials/nodes (teapot) | /water | Sepia, sobelOperator |
| <i>Gururaja, Megha</i> | /loader/amf (rook) | /loader/ctm/material | Sepia, FilmPass |
| <i>Heraldo, Winston T.</i> | /loader/collada (girl) | /loader/gltf | Bloom, GammaCorrection |
| <i>Hunte, Gabriele C.</i> | /loader/ctm (face) | /materials/cubemap | Colorify, HueSaturation |
| <i>Koczkodaj, Winston</i> | /loader/gltf (machine) | /material/cubemap/balls/refraction | BrightnessContrast, vignette |
| <i>Koo, Brandon C.</i> | /loader/gltf/extensions (boombox) | /material/cubemap/dynamic | rbgShift, LuminosityHighPass |
| <i>Li, James</i> | /loader/mmd/pose (girl) | /materials/envmap | sobelOperator, vignette |
| <i>Lindner, Morgan W.</i> | /loader/ply (angle + dolphin) | /materials/shaders/fresnel | FilmPass, rgbShift |
| <i>Lovell, Jayce W.</i> | /loader/vrm (girl) | /loader/gltf/extensions | BloomPass, Colorify |
| <i>Ly, Aron</i> | /materials/bumpmap (face) | /shaders/ocean | GammaCorrection, DotScreenPass |
| <i>Mohsin, Mohammed</i> | /materials/nodes (teapot) | /water | Sepia, sobelOperator |
| <i>Nahapetyan, Sargis</i> | /loader/amf (rook) | /loader/ctm/material | Sepia, FilmPass |
| <i>Ngo, Trung Kien</i> | /loader/collada (girl) | /loader/gltf | Bloom, GammaCorrection |
| <i>Panchal, Shyam Aniruddha</i> | /loader/ctm (face) | /materials/cubemap | Colorify, HueSaturation |
| <i>Patel, Abhi P.</i> | /loader/gltf (machine) | /material/cubemap/balls/refraction | BrightnessContrast, vignette |
| <i>Patel, Raj J.</i> | /loader/gltf/extensions (boombox) | /material/cubemap/dynamic | rbgShift, LuminosityHighPass |
| <i>Popowski, Andrzej</i> | /loader/mmd/pose (girl) | /materials/envmap | sobelOperator, vignette |
| <i>Punia, Rekha</i> | /loader/ply (angle + dolphin) | /materials/shaders/fresnel | FilmPass, rgbShift |
| <i>Rao, Kashish</i> | /loader/vrm (girl) | /loader/gltf/extensions | BloomPass, Colorify |
| <i>Santiago, Lance Angelo A.</i> | /materials/bumpmap (face) | /shaders/ocean | GammaCorrection, DotScreenPass |
| <i>Sharma, Bhaskar</i> | /materials/nodes (teapot) | /water | Sepia, sobelOperator |
| <i>Singh, Sandeep</i> | /loader/amf (rook) | /loader/ctm/material | Sepia, FilmPass |
| <i>Sodha, Pruthvisinh J.</i> | /loader/collada (girl) | /loader/gltf | Bloom, GammaCorrection |
| <i>Stokes, Daniel</i> | /loader/ctm (face) | /materials/cubemap | Colorify, HueSaturation |

| Student Name | Model | Skybox | Shader |
|----------------------------------|-----------------------------------|------------------------------------|--------------------------------|
| <i>Sun, Yueyang</i> | /loader/gltf (machine) | /material/cubemap/balls/refraction | BrightnessContrast, vignette |
| <i>Tang, Jia Bin</i> | /loader/gltf/extensions (boombox) | /material/cubemap/dynamic | rbgShift, LuminosityHighPass |
| <i>Tripathi, Gaurav</i> | /loader/mmd/pose (girl) | /materials/envmap | sobelOperator, vignette |
| <i>Vargas, Marvin Jupiter R.</i> | /loader/ply (angle + dolphin) | /materials/shaders/fresnel | FilmPass, rgbShift |
| <i>Wright, Vincent</i> | /loader/vrm (girl) | /loader/gltf/extensions | BloomPass, Colorify |
| <i>Yoon, Sun Mi</i> | /materials/bumpmap (face) | /shaders/ocean | GammaCorrection, DotScreenPass |
| <i>Zhang, Yu Yi</i> | /materials/nodes (teapot) | /water | Sepia, sobelOperator |