3D Model Viewer – Design Document

CSC 478 - Spring 2014 - Group 1 Choppers

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# Design Documentation

## Over View of 3D Object Viewer

The top most layer of the application is the graphical user interface. Control of the application will be through the graphical user interface. The next layer is the file parser/loader which should accept file paths too 3D OBJ files. The parser module parses and loads the data into memory. Once in memory control will pass to the renderer. The renderer then process the data and draw the 3D object onto the 3D object display form.



## Graphical User Interface

The graphical user interface is envisioned as two separate forms. The two forms should be able to interact and share information with one another.



## 3D Model Viewer UML

The UML diagram below shows the classes needed to build the 3D Model viewers. The public variables and function calls are listed. Other variables and functions calls that are private used to internal in the class are not displayed.

The class omvParser will be used to fulfill requirement 3.2.1 and 3.2.2.

The class chopperOpenGLView will bused to fulfill the black-box requirements

* selectPopUpObj fulfills requirement 3.1.1 and 3.1.8
* selectLightEnable fulfills requirement 3.1.2
* selectShadeModel fulfills requirement 3.1.3
* selectRenderMode fulfills requirement 3.1.4
* selectShowSurfaceNormals fulfills requirement 3.1.5
* mouseDolly and mousePan fulfills requirement 3.1.6 and 3.1.7

