Technical

Manual

3D view system

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	3/25/2018	User Manual Template and Checklist
Rev 1	4/29/2018	Final design and usage of version 0

USER'S MANUAL

TABLE OF CONTENTS

1.0   GENERAL INFORMATION

The project is a web portal which allows a user to load a 3D render the same. The user will be able to apply 3D transformations to the created object. The application allows the user to view the created object from multiple views. Other features include the ability to change the position and intensity of light, generate different projections of the object and edit the perspective projection vanishing point.

A.   SYSTEM SUMMARY

2.1   System Configuration

The project uses external .obj file and due to a javascript security feature, the application cannot be accessed as local file system. Follow the steps below to test the file.

1. Copy the contents to a local directory.

2. Navigate to 'finalProject/w5' folder.

3. Start local HTTP server using the below command.

   For Python 2.7.x -[python -m SimpleHTTPServer <port>]

   For Python 3.2.x -[python -m http.server <port>]

4. Open the url on a browser(preferably chrome) [http://localhost:<port>/html/render.html]
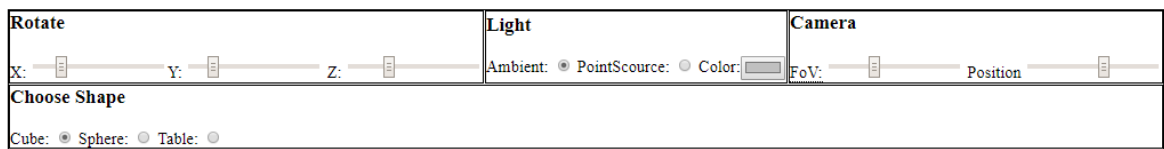
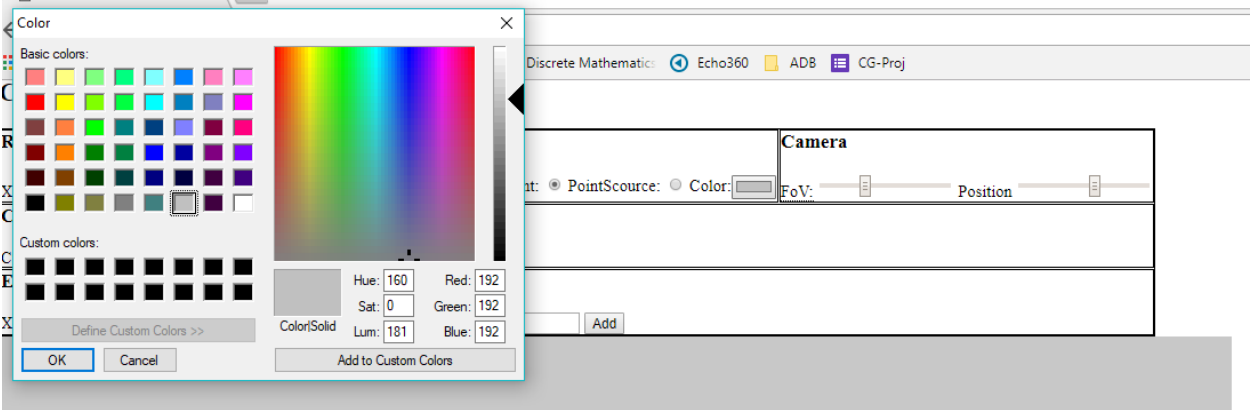## B.   GETTING STARTED

3.1   Logging On

None

3.2   System Menu

User can select different 3D shapes to view from the section 'Choose Shape'. A wood texture is applied to the primitive shapes.

User can change the light source, camera properties and rotate the object about all the axes. The user also can modify the color of the point light and ambient light as shown below.

C.   DESCRIPTION

The final view of the 3D rendering is as shown in the snapshot shown below.

Computer Graphics-Final Project
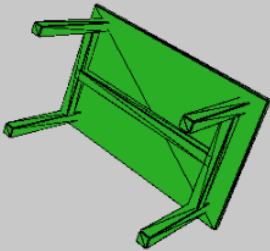
Rotate			Light	Camera	
X:	Y:	Z:	Ambient: ◉ PointScource: ○ Color:	FoV:	Position

Choose Shape

Cube: ○ Sphere: ○ Table: ◉

Enter coordinates

X: [   ]   Y: [   ]   Z: [   ]   [Add]

3.4   Exit System

None

4.0   USING THE SYSTEM

D.   USING THE SYSTEM

Caveats and Exceptions

The application needs a local server to render due to security features of javscript. The application will not work if the user has disabled javascript on the browser. Since the application uses WebGL, it is not compatible with older versions of Internet Explorer some browsers (Opera, Dolphin, etc.)