

User Guide

POV-Ray 3D Car Model

Introduction

This guide will help you understand and utilize the features of the POV-Ray 3D Car Model located at <http://wyrd.hood.edu/~automodel/>.

Modeler

By clicking on the *Modeler* button, as seen in Figure-1, this will bring you to the web page where the user interface for the POV-Ray car model is located at.



Figure-1

On this page there is a variety of features one can choose from. The former can be seen in Figure-2, of which each part will be explained in detail.














Modeler			
Car Part	Color	Texture [?]	Additional Scene Selections
Car Body [?]		None 	Anti-Aliasing [?] ON 
Car Top [?]		None 	Resolution <small>*larger images will take longer to render*</small> 400x300 
Car Seats [?]		None 	Car Type [?] Coupe Model 
Car Interior [?]		None 	Sky [?] <small>*ON = will reflect on certain textures*</small> <small>*OFF = true texture representation*</small> ON 
Wheel Rubber [?]		None 	Backgrounds [?] <small>*will reflect on parts with reflective textures*</small> Grass 
Wheels [?]		None 	Camera Angle [?] Side View 
Bumper Metal [?]		None 	
Car Chassis [?]		None 	

Figure-2

Starting from the leftmost column...

The first column *Car Part* contains a list of car objects that are able to be manipulated within the scene. Each part described there can be modified to user's specifications by using the two columns to the right of *Car Part*.

The column *Color* allows the user to change, whatever part of the car the user chooses, to any color on the RGB spectrum. This is done by utilizing a drop-down color wheel which can be seen in Figure-3.

Modeler

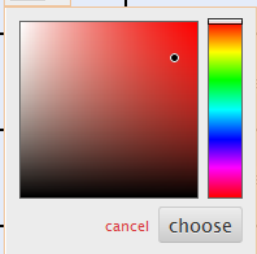
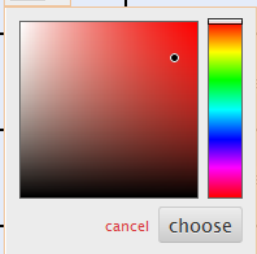





Car Part	Color	Texture [?]	Additional Scene Selections
Car Body [?]		None [v]	<p>Anti-Aliasing [?] ON [v]</p> <p>Resolution <small>*larger images will take longer to render*</small> 400x300 [v]</p> <p>Car Type [?] Coupe Model [v]</p> <p>Sky [?] <small>*ON = will reflect on certain textures*</small> <small>*OFF = true texture representation*</small> ON [v]</p> <p>Backgrounds [?] <small>*will reflect on parts with reflective textures*</small> Grass [v]</p> <p>Camera Angle [?] Side View [v]</p>
Car Top [?]		[v]	
Car Seats [?]		[v]	
Car Interior [?]		None [v]	
Wheel Rubber [?]		None [v]	
Wheels [?]		None [v]	
Bumper Metal [?]		None [v]	
Car Chassis [?]		None [v]	

Figure-3

Furthermore, the user can then change the texture, overall look, of the car part material by choosing “None” or one of the other fifteen options that can be seen in the drop-downs located in column *Texture*, shown below in Figure-4.

Modeler









Car Part	Color	Texture [?]	Additional Scene Selections
Car Body [?]		None [?] None Aluminum [1] Brass Metal [2] Bright Bronze [3] Bronze Metal [4] Brushed Aluminum [5] Chrome Metal [6] Copper Metal [7] Gold Metal [8] Gold Nugget [9] New Brass [10] New Penny [11] Polished Brass [12] Polished Chrome [13] Silver Metal [14] Spun Brass [15]	<p>Anti-Aliasing [?] ON [?]</p> <p>Resolution *larger images will take longer to render* 400x300 [?]</p> <p>Car Type [?] Coupe Model [?]</p> <p>Sky [?] *ON = will reflect on certain textures* *OFF = true texture representation* ON [?]</p> <p>Backgrounds [?] *will reflect on parts with reflective textures* Grass [?]</p> <p>Camera Angle [?] Side View [?]</p>
Car Top [?]			
Car Seats [?]			
Car Interior [?]			
Wheel Rubber [?]		None [?]	
Wheels [?]		None [?]	
Bumper Metal [?]		None [?]	
Car Chassis [?]		None [?]	

Figure-4

To see these textures, before choosing, one can click on the [?] located next to the *Texture* title in the column. This [?] will reveal an image of all the textures as seen in Figure-5.

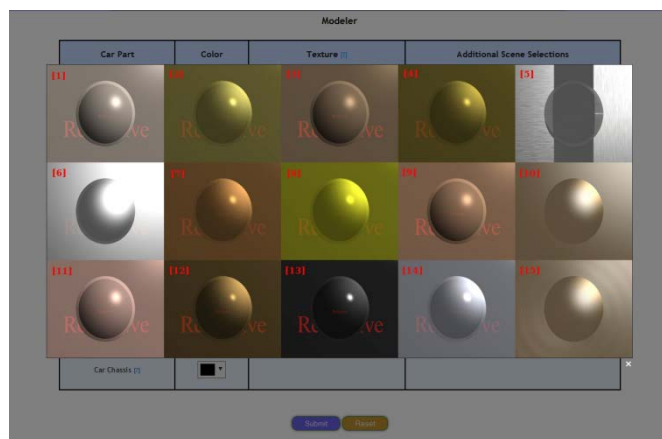


Figure-5

In addition to the [?] next to the *Texture* title there are also several [?]'s littered throughout the model. These [?]'s are self-help tips to help navigate the page.

The last column, *Additional Scene Selections*, is displaying options that the user can choose to enhance their final image/scene. Below is a description of what each option does.

Anti-Aliasing – if this option is turned off the image will appear as if it has jagged edges and will not be as clear as an image that may be desired. With this option turned on the image is much smoother, but it will take a longer amount of time to render the image.

Resolution – this option determines the size of the image. There are four pre-set definitions of resolutions that the user can choose from. The larger the image the longer it will take for the image to render.

Car Type – determines the kind of car the user wants. If the Coupe Model is selected then the car will have no top. If the Hard-Top is selected then the car will have a top cover.

Sky – this option turns the sky either on or off. Sometimes the car color appears different depending on the reflective properties of the texture that was chosen. By turning the sky off the car will no longer reflect the blue and white pigments of the sky.

Backgrounds – this is what the car appears to be sitting on. These are the planes that appear underneath the vehicle. There are five options to choose from.

Camera Angle – this option will position the camera at a different location. A camera is essentially the viewpoint while looking at the vehicle. There are five options to choose from for the viewing angle.

Outside of the main table of the modeler are two buttons, *Submit* and *Reset*. Clicking *Submit* will send the job off to be completed. Clicking *Reset* will reset all the options that were chosen in the modeler table back to their defaults.

Animation

By clicking on the *Animation* button, as seen in Figure-6, this will bring you to the web page where the user interface for this section is located at.



Figure-6

On this page there are the same features that were present on the *Modeler* page, and the user can use these in the same way. These features can be seen (Figure-2) and described in the *Modeler* section of this guide. Although the features of the *Animation* page are the same, there are a few that are slightly different, which will affect how the user chooses their selections and submits their requests. The differences are that now the *Resolution* tab is limited to one selection only (512x384... Figure-7), the *Camera Angle* tab is also limited to one selection (Extended Side View...Figure-8), and the user now has to enter their email before hitting the “*Animate*” button (Figure-9).

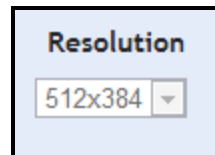


Figure-7

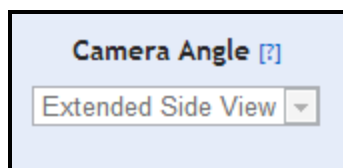


Figure-8

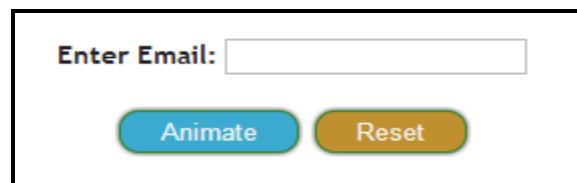


Figure-9

In the *Animation* page, as there was in the *Modeler* page, there are two buttons which control the request submissions and the selection resets. Clicking *Animate* will send the job off to be completed, but the user must enter their email in the above field before the request can be queued. Clicking *Reset* will reset all the options that were chosen in the table back to their defaults, including the *Enter Email* field.