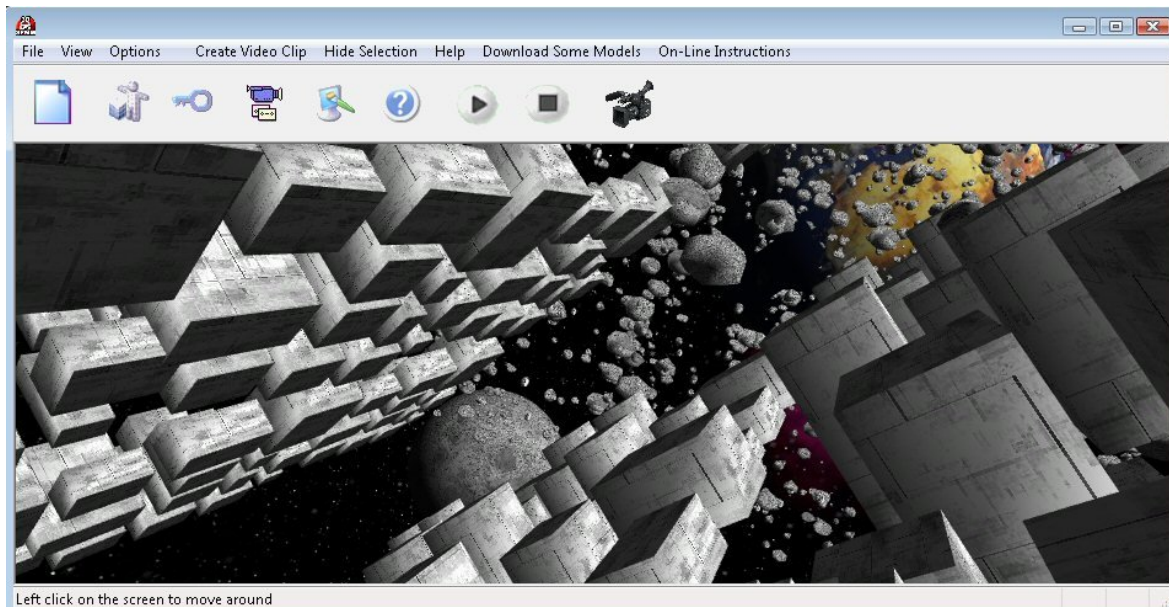


3D Sci-fi Movie Maker

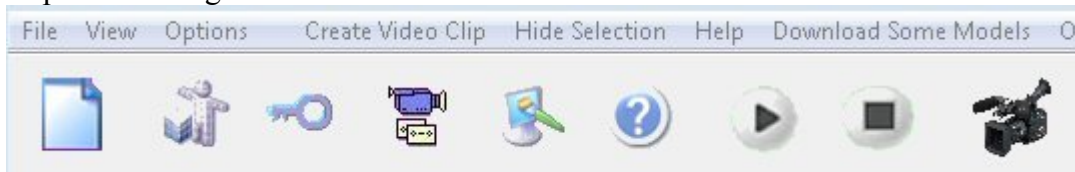
Welcome to 3D Sci-fi Movie Maker instruction manual

On starting the application you will be confronted with the demonstration sequences. There are a number of these and they will load in automatically as one ends, another will start.

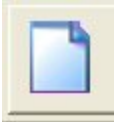


The first demonstration sequence has some floating instructions that will give some control guides and keys that you can use on the keyboard to navigate with.

To disable the sequences when the application starts up, simply open the “Options/Settings” from the menu bar and de-select the “demo on/off”



This is the toolbar, from where you can get access to the main control deck and other functions.



The first button on the toolbar is the Reset option, represented by a blank page. When this is pressed, the program will reset to a default setting, where all previously saved data is automatically wiped and the application is ready for a new start.



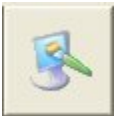
This button, when pressed, will open the main control deck. You can control all aspects of the program from there.



This is the key-frame button it opens up a control panel, where you can set the key-frame options.



This button will open the camera option window. This is one of the ways you will be able to move and rotate the camera (view point).



This is the background palette. Pressing this button will open a colour palette window, where you can select the colour of the background.



These two buttons control the starting and stopping of the sequences. Pressing the triangle in the circle, will play any sequence, and the square in the circle, will stop it. The stop button will also stop any movement.



This is the camera record button. Pressing this will instantly record the camera (view port) movements.

Movement controls



To rotate the camera view, left click on the mouse, while the mouse pointer is on the main window display and holding down the left mouse button, move the mouse. You will be able to gently guide your viewpoint 360 degrees in all directions.

Actual movement through the environment is achieved by using the keyboard.

The “W” key will move your position forwards incrementally. The longer you hold it down, the faster you go. The speed can be adjusted via the settings control panel.(See below)

The “S” Key will move your position backwards at an incremental speed.

The “Q” key will stop all movement.

The “A” key will slide your position to the left

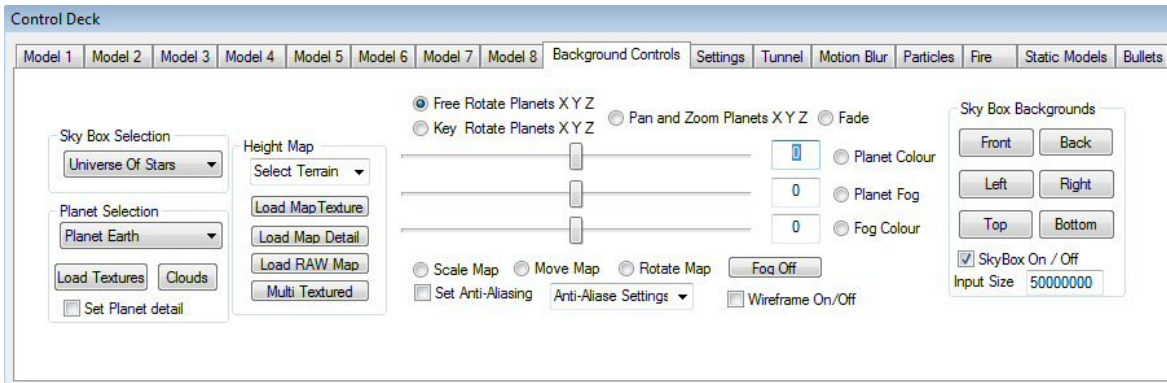
The “D” key will slide your position to the right.

The “Z” key will rotate or yaw the camera angle to the left

The “X” key will rotate, or yaw the camera angle to the right.

The “F” key will fire bullets from the central axis point of the model. However this option will only work once you have activated the bullets from the “Bullet” control panel and while you are “Flying the model”, (See below).

Main Control Deck



This is the main control deck when opened from this button on the toolbar.

Notice along the top of the panel there are 15 small tabs. The first tab, Backgrounds, is indicated as open and is showing the contents on the panel. By selecting another tab along the top, the contents of the panel will change to represent the tab title. For instance, the First tab is Model 1. Clicking on this tab will open up the panel that contains the settings for Model 1.

The background panel contains a number of options that can be toggled and adjusted to create all sorts of background scenery.

Backgrounds



This drop list will open the different selections of background images, or what is known as the sky box. These options are pre-calibrated, but you can load in your own images from

the main Skybox image loader. (See blow).



Planet Selection

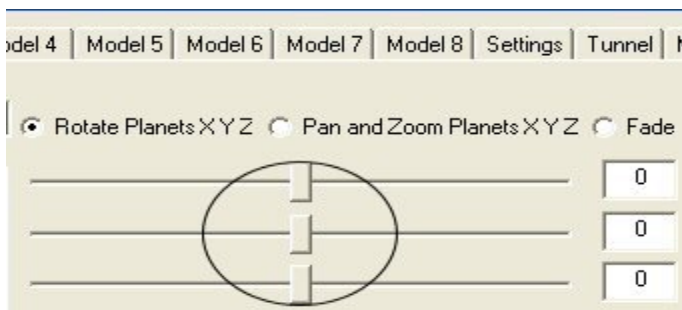
From this drop list you can open the pre-selected planets, which will appear at their default positions. However if you wish to move or rotate them you can choose to do so by selecting the planet rotation, pan and zoom options. (See below).



Each planet's texture can be manually changed.

Select the **planet detail** on the earth only to set it to full detail

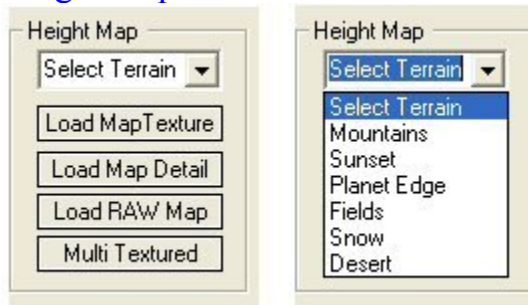
Planet movements and rotations



Once you have selected your planet, you can control its movement and rotation, by selecting the appropriate option. Then by moving the slider controls, (sliders are indicated by a red circle), the planet will move and respond accordingly. So with the Rotate Planets XYZ radio button selected, the selected planet will rotate in a direction, depending on which slider you move. If you select the Pan and Zoom Planet radio button then the planet can be moved on its X , Y, and Z axis (Left and right, Up and Down, and In and out)

The Fade Button will allow the planet to be faded out, by using the top slider.

Height map and Ground



Here is the section that will open a ground map or terrain. Selecting the Height map drop list will open to reveal several options. Each is a pre-defined type of ground environment. For example, If you select the option, Mountains, then a mountainous terrain will appear. A sunset will produce a flat terrain with a nice sunset showing in the background and so on.

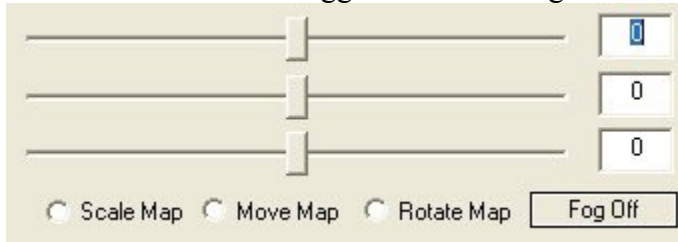
On the height map panel are four buttons that will change the terrain.

Load Map Texture will open a dialog that will allow you to select a bitmap or jpeg image to texture the ground with.

Load Map Detail will open a dialog that will enable you to select a bitmap or jpeg texture which will texture the second texture that can be applied to the first over the main height map texture. This is called Multi-texture and creates a good effect as you will observe if you open the Fields option. However to have a multi texture you must first select the “Multi Texture” button.

Load Raw Map load the **.Raw** file format of the terrain

Multi Texture button toggles between single texture and multi texture on the height map.



The bottom three radio buttons, Scale Map, Move Map and Rotate Map will, when selected enable the manipulation of the height map

The Fog button will enable the fog over the terrain and which the top two sliders will control

Sky Box Backgrounds



The **Sky Box** is the main background area. It consists of six separate, square images that are set together as a cube. The environment is situated within this cube. You can manually change all six images by selecting the appropriate button. For instance, **Front** button will change the front of the skybox and so on.

You can select and de-select the Sky Box from the tick box. This will result in a plain coloured background.

The size of the Sky Box can be changed by imputing a number range in the edit box.

Planet Colour will enable you to change the colour of the texture on a selected planet.

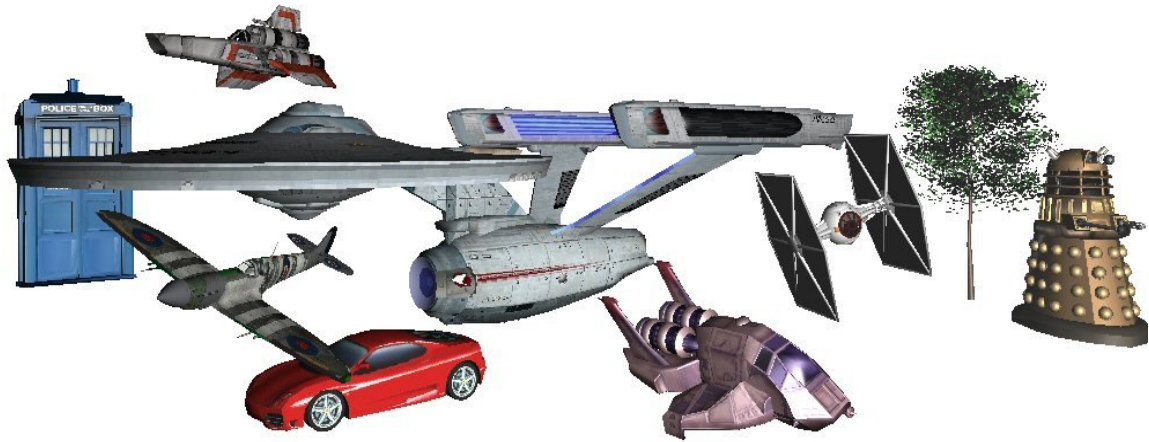
Planet fog will, when used in combination with the Fog button, enable the fog to be applied to the planet. Use the slider to do this.

Fog Colour will change the colour of the fog. Use the sliders to do this.

Anti-Aliase This will create a smooth appearance to the models, but will cause a lot of CPU drag, so its best to activate this option when you are about to make a movie.

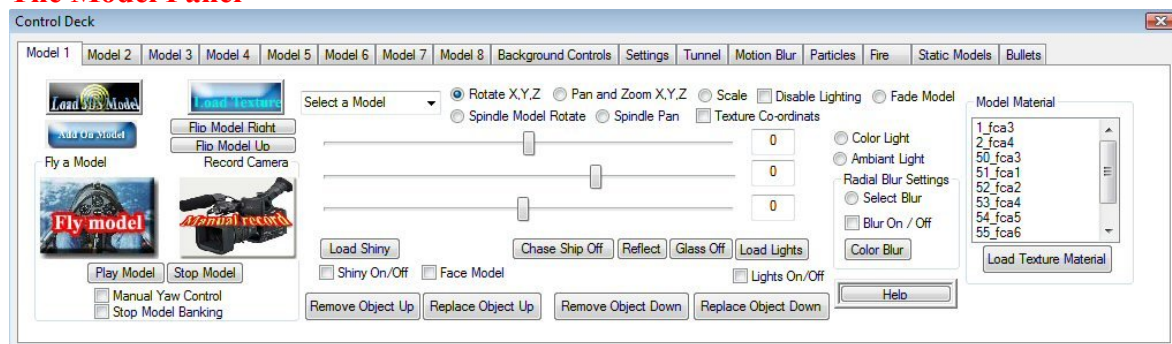
WireFrame This option will turn all models and planets to wireframe

The Models



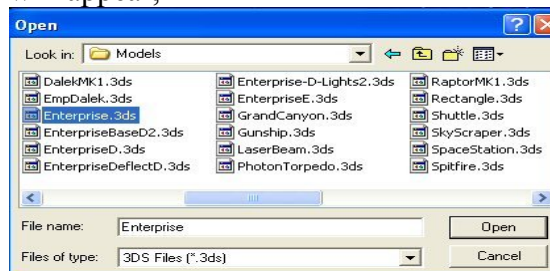
3D Sci-fi Movie Maker comes packed with a number of decent models that can be accessed through the Model 's control panel. All the models are of 3D Studio format, with the file extension of .3DS. This is amongst the most common formats that are freely available for download on the internet.

The Model Panel

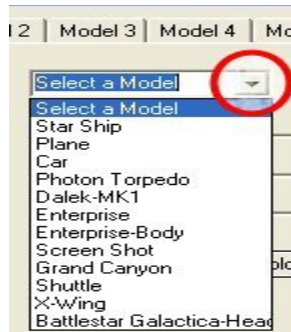


The control deck tab has now been set to “Model 1”. There are seven more model tabs to use, all of them relatively the same.

As soon as you open any of the model tabs, a pre-loaded model will appear. To change this model, simply click on the button, “Load Model”, and a windows dialog will appear,

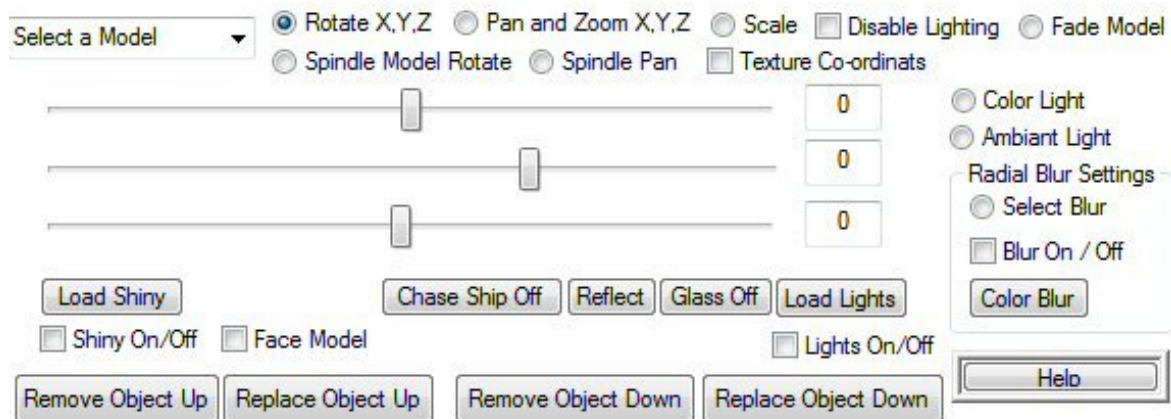


From where you can browse through you directory and locate any other model you wish. You can also change the texture of the model in the same way by clicking on the “Load Texture” button



To select a listed model, click on the Select a Model list option, marked by the red circle and select from the drop list any of the models located there. On each model tab there are different models to choose from.

Model optimisations



There are a number of useful functions available in which to implement upon the selected model and I shall run through these here.

Rotate XYZ This button is on by default and so if you move the sliders, the model's rotations axis will respond accordingly.

Pan and Zoom XYZ, will allow you to move the model left, right, up, down and in, out.

Scale This will allow you to re-scale the model in three directions, length, width and height.

Disable Lighting This will turn off all shading and lighting to the model.

Fade Will cause the model to become invisible, if you move the top slider to zero.

Spindle Model Rotate This will separate the models parts in a rotational state.

Spindle Pan This will separate the models parts on a three directional state.

Texture Co-ordinates tick box when checked and after you have loaded in a texture manually, will flush any textures that the model does not display initially. This is useful if you have a model that has not been properly texture mapped. However some models, due to complicated texture formatting, will, when this option is activated, cause the program to terminate.

Color Light This option will allow you to change the color of the models lighting

Ambient Light Will change the texture color on the model

Radial Blur Settings This will activate a radial glow around the model. By selecting the

select blur radio button, you can use the sliders to adjust the radial blur settings.

Color Blur This will allow you to change the color of the radial blur

Shiny This will activate a shiny texture onto the model.

Face Model This will set the model to face the camera which ever way and from wick ever direction you look at it from.

Chase Ship button will set the camera view point to the position of the model, where ever the model is. This can be very useful if you wish to create a moving camera point. Simply by setting up a flight path sequence with one model by using the “Fly model” option, then setting this model to “Chase Model” and hiding this model. You will then be able to use the models flight path as your stationary point and then move the camera after selecting the record camera option to point at your scene as you fly through it.

Reflect button will set the model’s texture to a sphere map.

Glass button will activate a glass effect on the model.

Lights This will enable secondary lighting onto the model, useful for ship lights, which when the lighting settings are adjusted will act in an opposite direction to the shading, so giving an appearance of lights on the darkened side of the object.

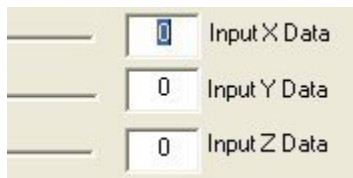
Remove Object Up This will remove one part of a model at a time from the top down, essentially stripping the parts of the model, (if the model is made up of more than 1 polygone.

Replace Object Up This will replace the polygones, previously removed.

Remove Object Down This will remove one part of a model at a time from the bottom up, essentially stripping the parts of the model, (if the model is made up of more than 1 polygone.

Replace Object Down This will replace the polygones, previously removed.

Edit Boxes



One of the more useful aspects of the panel are the three edit boxes, situated at the end of the three slider bars. These can be edited by left clicking on them and imputing a range of numbers. If the rotation radio button is selected, then this range will be from 0-360 and if the Pan and Zoom radio button is selected, then this range is unlimited. For example, you can position the model anywhere in the environment, from zero, (the position straight in from of the camera, to any range on the X Y Z co-ordinates.

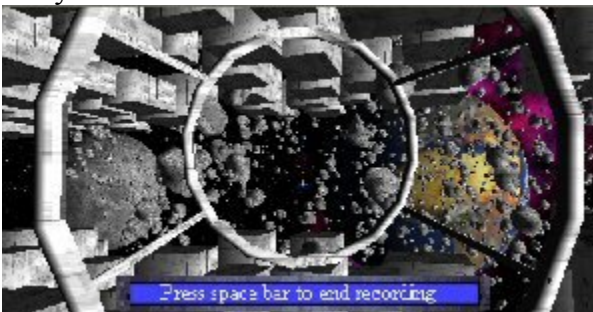
This system will apply to all other edit boxes in this application.

Fly a Model

Exclusive to 3D Sci-fi Movie Maker is the ability to get inside the model and maneuver it, as though you were physically driving it yourself.



Once you are happy with your starting position in the environment, press the **Fly Model** button. This will activate the model recording sequence automatically and you will be free to fly around the environment.



As you can see from the picture above, a cockpit window has appeared on the view screen and a blue bar at the bottom, which reads, “Press space bar to end recording”.

Making sure that you left click the mouse pointer onto the view screen, you can rotate the scene in 360 degrees.

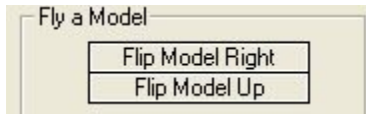
Pressing the forward key, “W” will move you forwards.

A small plane will appear in the centre of the screen. This will indicate the horizontal and vertical level on which your model will eventually be recorded on. So by moving the mouse to the left, sharply, will not only move the scene to the right, but will automatically model an aircraft banking manoeuvre.

When you are satisfied with your movements, just press the space bar once and the sequence recording will end and automatically play back.

Model facing

Making sure the model is facing in the right direction is very important if you want a decent flight sequence.



By clicking on one of these buttons will rotate the models whole matrix, either right, or up by 90 degrees at a time. To ensure the model has a correct flight path, make sure the model faces away from you before you press the Fly Model button.

Manual Yaw Control

The manual yaw control tick box will allow you to manually manipulate the models rotation during Fly Model mode. This in effect means that while you are flying the model, you can toggle its Y rotation by using the keys, “Z” and “X” to rotate left and right respectively.

This option is only available to the Model 1 panel.

Play Model

The play model button will re-play the models flight sequence once you have created one.

Stop Model

This will simply stop the flight sequence from playing.

Stop Model Banking

This option will prevent the model from banking, or rotating on its Y axis left and right as you fly the model. This is most useful if you want to fly a model that is ground based, for example a car or a dalek.

Add

The Add button opens a panel where you can append two more models to model one.



This is useful if you want to have up to three models joined together while you fly them. The two tick boxes at the top, will make the added models visible and the radio buttons, when selected, will allow you to load a model or a texture, depending on which radio button is selected, as radio button, “Part 1”, will allow you to load and texture the first added model and radio button, “Part 2”, will allow you to load and texture the second added model.

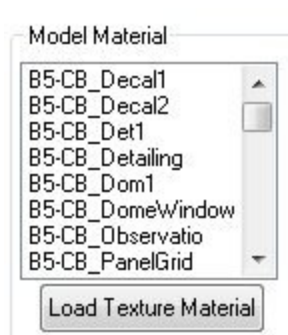
Radial Blur



This part of the Model 1 control panel controls the radial blur option. Selecting the tick box, “Blur On/Off”, will activate a bright glow over model one. You can control the amount of blur by using the slider bars. If you choose to rotate the model by clicking on the Rotate XYZ radio button, simply select the “Select Blur” radial button when you want to adjust the level of blur again.

The Colour Blur button will open a colour palette, where you can change the colour of the blur.

Model Material



This is where you can access the models internal colours or textures and individually change them by selecting on any text in the list above and pressing the “Load Texture Material” button to select a texture from your own documents, or from the textures in the texture folder provided. Some models may only have internal colours and not texture, so

any texture you select may only produce a colouring to the model from that texture.

Spindle model Rotate and Pan

These two radio buttons will activate the models settings for rotating and separating the polygons of the model. (Only if the model possesses more than one polygon) Once these buttons are selected, adjusting the main three sliders will spin or separate the model.

Loading Shiny Textures

This option will load a shiny effect to the model from a selected texture.(Make sure you select the “Shiny On/Off” radio button first) A good texture for this would be a white or brightly colored circle on a black background. The bigger the model the bigger the texture needs to be.

Load Lights On/Off

This option will active a second texture rapped round the model that can be used to display lights or windows.

Disable Lighting

This will disable all the shading and light effects from the model.

Remove Object Up/Down

Replace Object Up/Down

These four buttons along the bottom of the control deck on Model one and two will remove and replace each polygon of the model one at a time. This can be useful if you want to remove curtain parts of the model or join two models the same together and then have the ability to create a separation or explosion sequence.

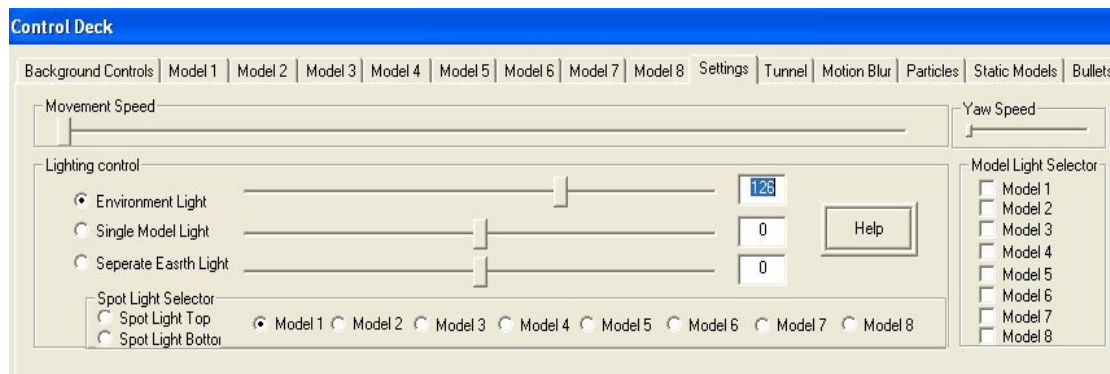
Color Light

This will enable you to adjust the sliders to change the colour of the model’s lighting

Ambient Light

This will change the actual texture colour, by adjusting the sliders once this button is selected.

The Settings



This is the settings control panel. Notice that the Settings tab is now selected.

The first important setting to note is the **Movement speed** slider bar, which spans the length of the panel. This is used to adjust the speed of all movement that is controlled by the keyboard. The same applies to the **Yaw Speed**

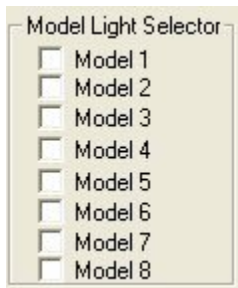
Lighting controls

The lighting controls consist of three radio buttons and the three slider bars, which control the and adjust the level of lighting.

Environment light is set to on by default. Moving the slider bars will set the environment light position.

Single Model Light This radio button, when selected will allow you to adjust the lighting position on a single selected model, without interfering with the rest of the environment lighting. Once this option is selected, make sure you select the appropriate **model light selector**.

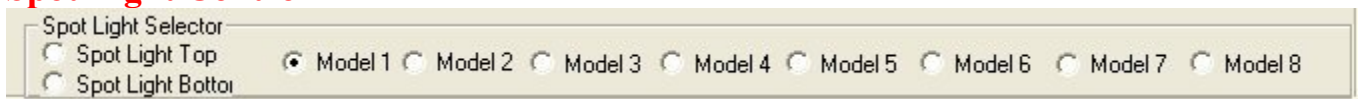
Model Light Selector



If the **Single Model Light** radio button is selected, then you will need to select the model number that you want to apply the single light adjustments.

If the **Single Model Light** is not selected then clicking onto the Model Light Selector will result in the model being given a second lighting source, which you can adjust by using the slider bars.

Spot Light Control



The spot light selector will apply a spot lighting source to the model, depending on which one is selected. Simply select the model number. For example, if the radio button Model 1 is selected, then Model 1, from the model 1 tab will be given a spot light source. And so

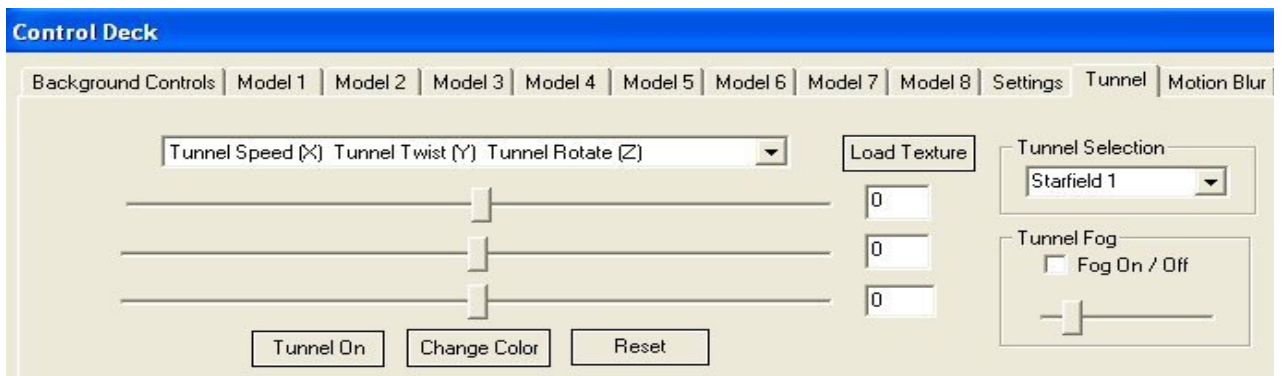
on.

Spot Light Top and **Spot Light Bottom**, will set the spotlight to either the top or the bottom of the model.

Again you can use the sliders to adjust the level of the spotlight source over the model.

The tunnel effect

Selecting the Tunnel tab will place a star field on the screen

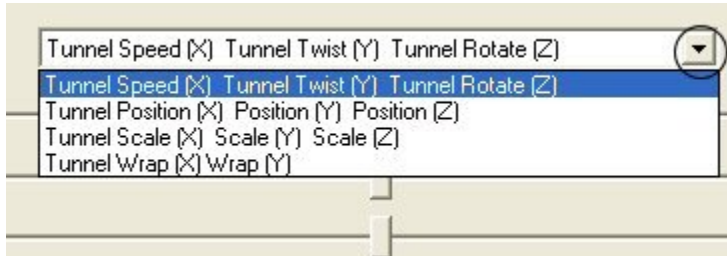


Here the Tunnel tab is selected on the control deck and the tunnel panel control is now

visible.

You can change the texture of the tunnel by clicking on the **Load texture or Change Colour** button.

The slider bars will control the speed of the tunnel, the amount of twist and the tunnel rotation.



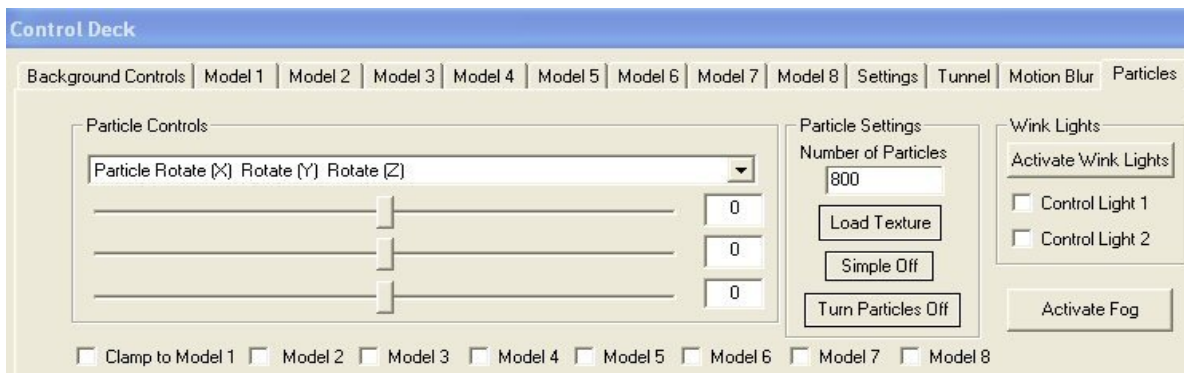
By selecting the drop list, indicated by the red circle above, you can select other options which will adjust the tunnels appearance, position and scale. Once selected all these options can be controlled by the three slider bars.



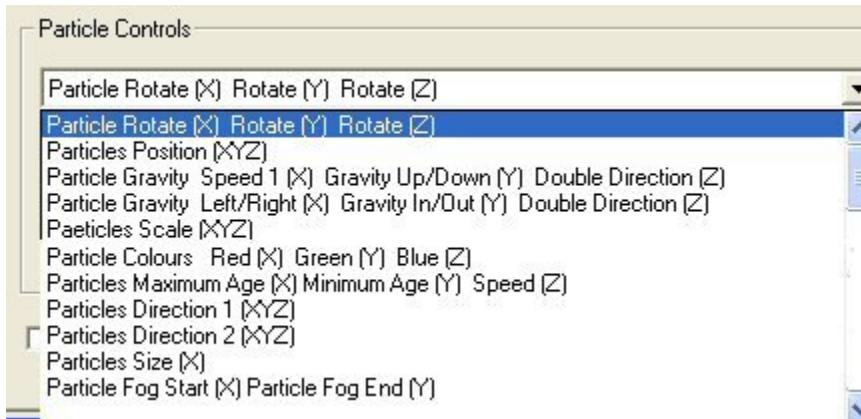
In this section of the panel, you can open the drop list and select between **Star field 1** and **Warp**.

Selecting the tick box, "Fog On/Off will activate the level of fog on the tunnel. You can control the fog distance via slider bar below the tick box..

Particle Controls



The particle control panel is now selected from the Particles tab. In the list box, we can see that **Particle Rotation** is selected this can be adjusted by using the slider bars.



By opening the list box, you will be able to select different options that control the particles. Each option you choose can be adjusted using the slider bars.

Rotation Adjusts the rotation 360 degrees in all three directions.

Particle Position will move the particles on the X Y and Z axis

Particle Gravity will increase and decrease the gravity flow of the particles both on the left and right, as well as the in and out direction.

Particle Scale will increase the distribution of the particles on the X Y and Z axis

Particle colours will change the particle colouring.

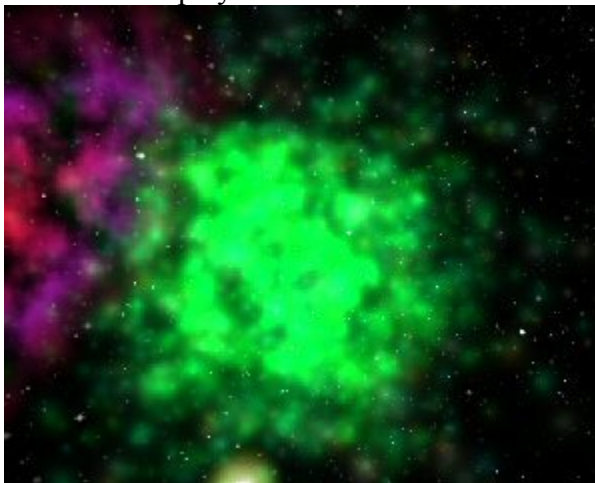
Particles Maximum Age, Minimum Age will adjust how quickly the particles are created and die.

Particle speed will change the speed of the particles.

Particle Size will increase the overall size of the particle.

Particle fog will, when the Activate Fog button on the right of the panel is selected, add fog to the particles.

A Particle display

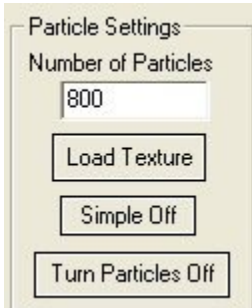


At the bottom of the particle panel, there are a number of radio buttons spanning the entire

length These are the Clamp Model selection



Selecting any of these Tick boxes will automatically clamp the particles to which ever model you select. This is useful when creating a sequence where the model you want to disperse particles from is moving. (See the Shuttle re-entry sequence).

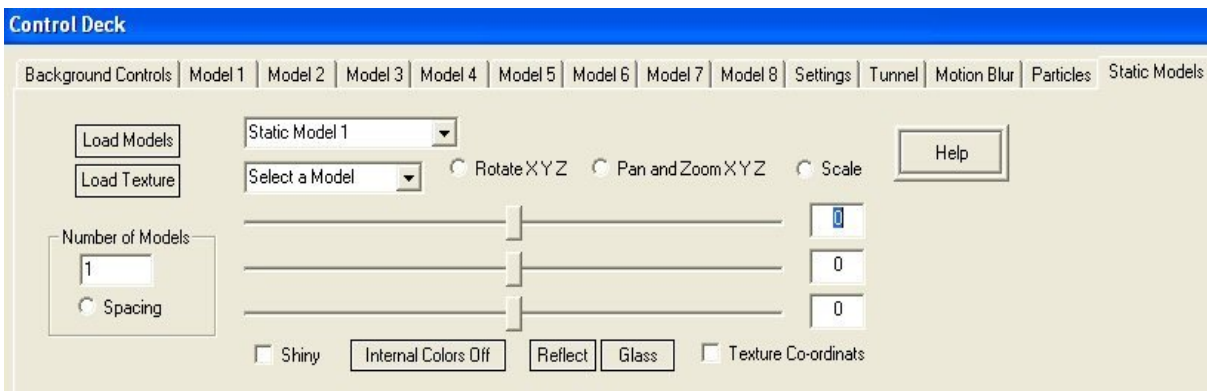


In the **Particle Settings** area there is an edit box displaying the number 800, this is the **Number of Particles** currently active. You can change this number from 1 to 25000, or more, if your processor will allow it.

You can change the particle textures by clicking on **Load Texture**. The particles use TGA texture format only

The **Simple Off** button will activate and deactivate particle types. the default setting is the textured particles you can see above. When **Simple** is on, then the particles are not textured, but use **simple** colours only, which can be changed from the list box.

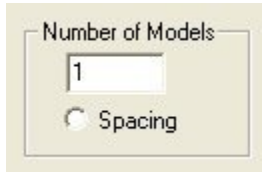
Static Models



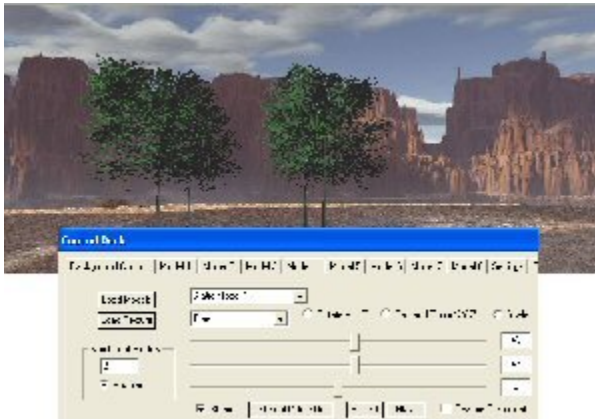
The static models are primarily used for models that do not move. On this panel you have a choice of two static models, which can be selected from the **Static Model** drop list. At this time, that static model drop list is set on **Static Model 1**. There is also the choice of models to choose from in the second drop list.

As before you are able to manually load in the model and the model texture.

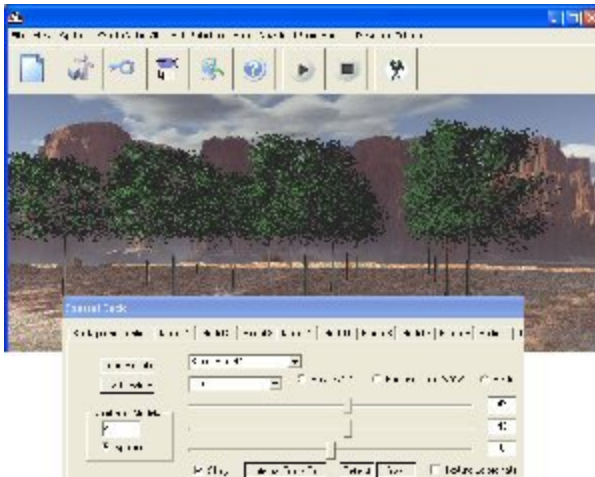
What is unique about the static models is the ability to have an array of models from a single model.



In the Number of Models section of the panel, there is an edit box with the number one displayed. If you change this to two or more and then select the radio button **Spacing**, you will be able to create a multiple of models. Simply adjust the slider bars to see the models multiply.

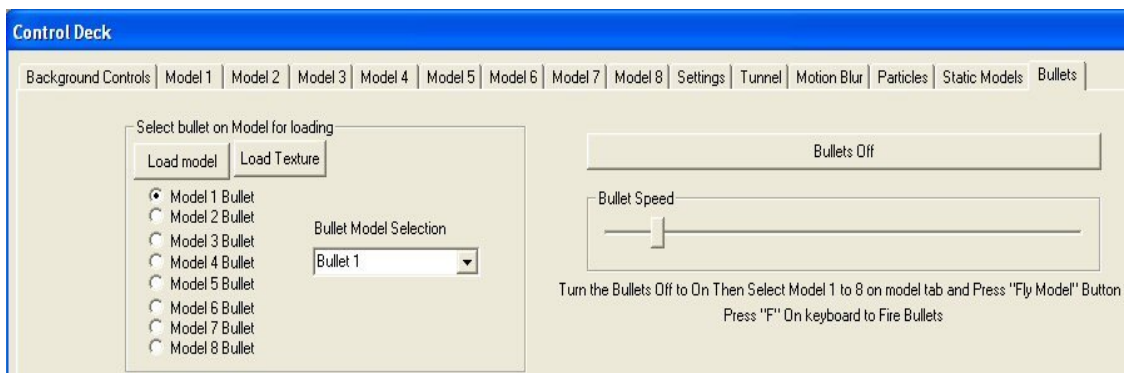


With the Spacing selected and the number 2 in the edit box the static model has increased to 2 in number.



Now after changing the number two in the edit box to four, the number of models has increased to eight. Simply by adjusting the slider bars, you can space out the added models.

Bullet control



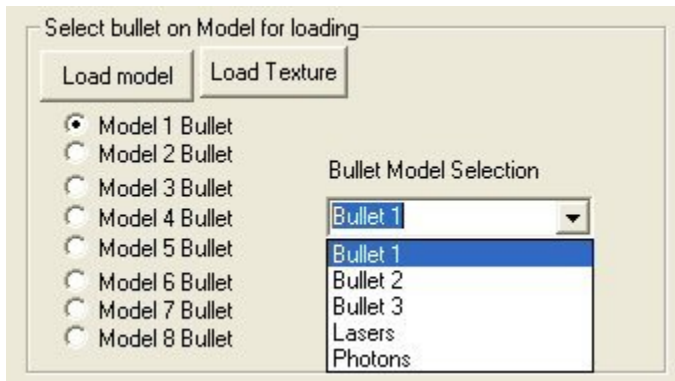
The Bullet panel controls and activates the bullet option.

To do this click on the **Activate Bullet** button and select the model you want to identify with the bullets

Now you are ready to fly a model and fire your bullets.

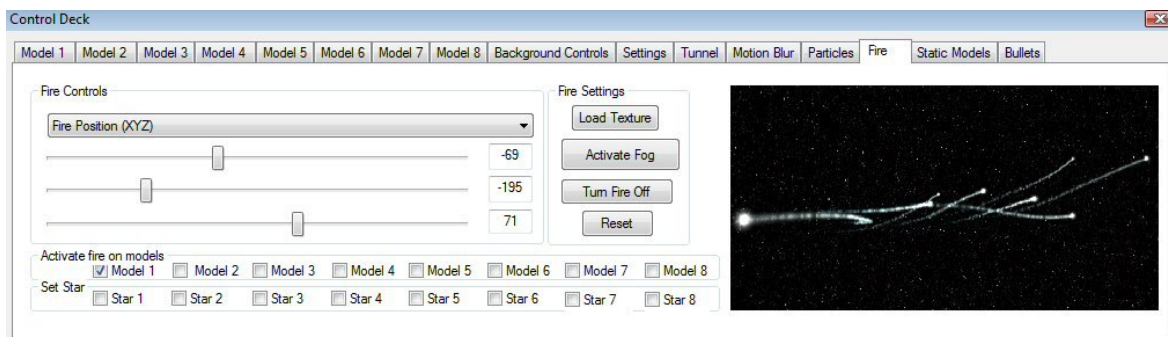


To use this option you have to be in **Fly Model** mode. (See above)



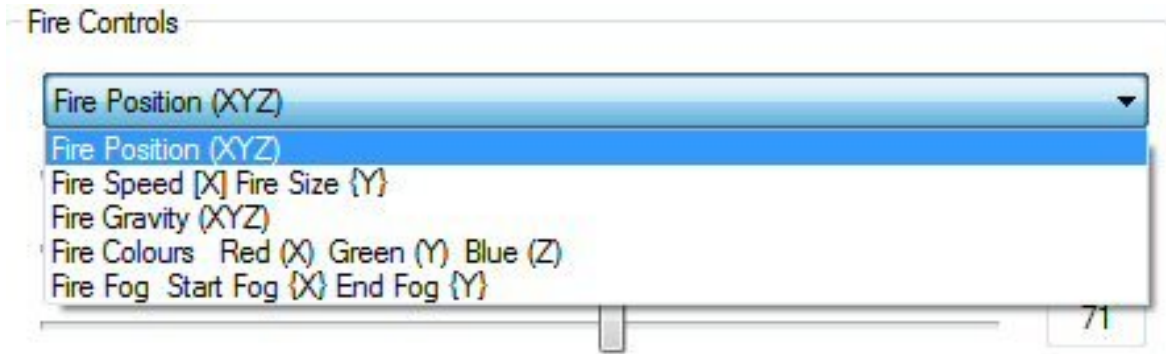
In this part of the panel you can see a list of model radio buttons. Clicking on model 1 Bullet will allow you to change the model and texture for that bullet, which you can do manually or from the Bullet model selection list.

Fire Control



This is the fire control page. Once opened the fire like effect will appear next to model one. You can select which model you wish the fire to be clamped to , so the fire trail will follow the particular model, where ever it goes.

From the drop down menu you can select a number of settings.



Fire Position You can move the position of the fire

Fire Speed This will change the speed of which the fire particles live, so set to -38 will make the fire stream out behind the mode, (when the model is moving) for quite a distance.

Fire Size will adjust the size of the fire particles.

Fire Gravity This will make the fire burn in different directions.

Fire Colours will change the colour of the fire particles.

Activate Fog This will activate a fog effect onto the fire particles.

Fire Fog This will adjust the amount of fog on the particles.

Set Star The Set Star radio buttons will replace the model and put a star image in its place. This will have the effect of your models flightpath looking more like a shooting star or missile.

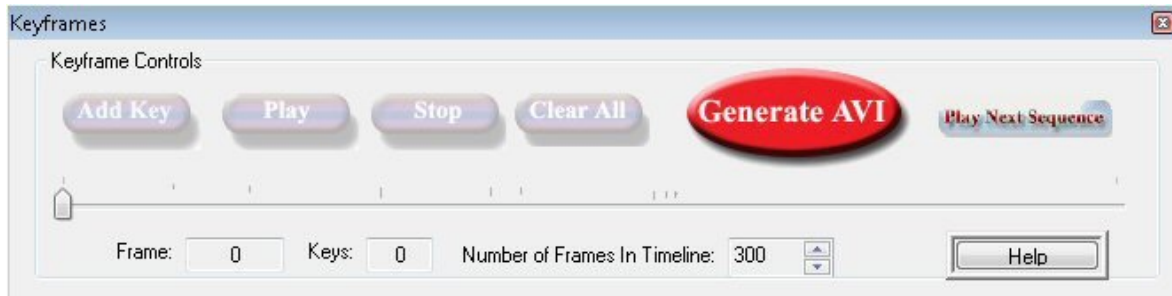
Key Frames

What is a Key frame?

In animation, a key frame is a significant frame in an animated sequence of frames drawn or otherwise constructed by the user. Historically, in the world of cartoon animation when all frames were hand drawn by animators, the senior artist would draw the key frames, leaving the "in between" frames to an apprentice. Now, the animator creates only the first and last frames of a simple sequence; the computer fills in the gap. This is called tweening.



To access the Key Frame control panel press this button on the toolbar



This is the Key Frame control panel. This will appear when you first start up the program.

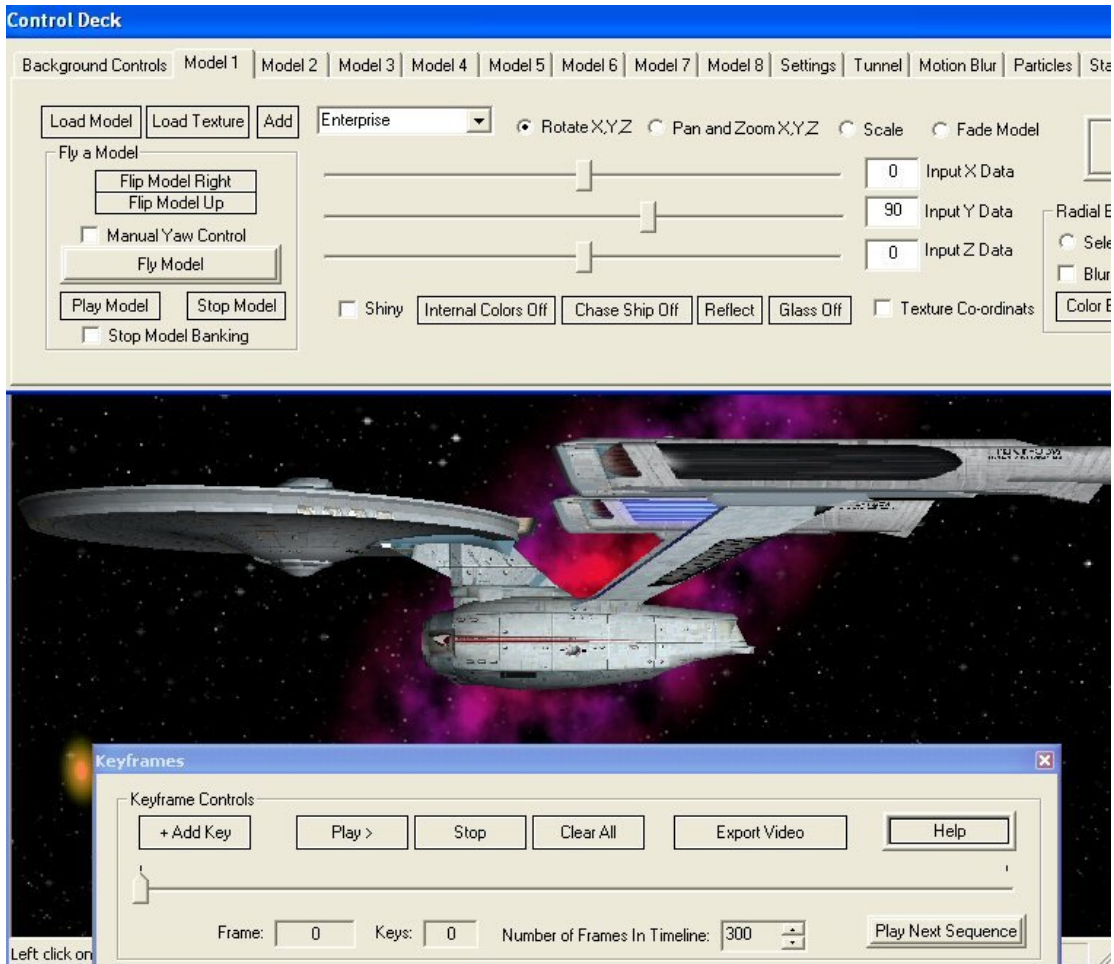
The slider bar, which runs the length of the panel is the time line. You can see the number of frames in this time line in the edit box on the bottom right. You can change the total number of frames by clicking on the little spinner buttons at the side of this edit box.

The Frame edit box at the far left bottom of the panel tells you what frame number the slider bar is currently at. In this case its registering as 379. And next to it are the Keys, or the number of actual key in the key frame, which is at 7.

Here is how its done.

Step 1

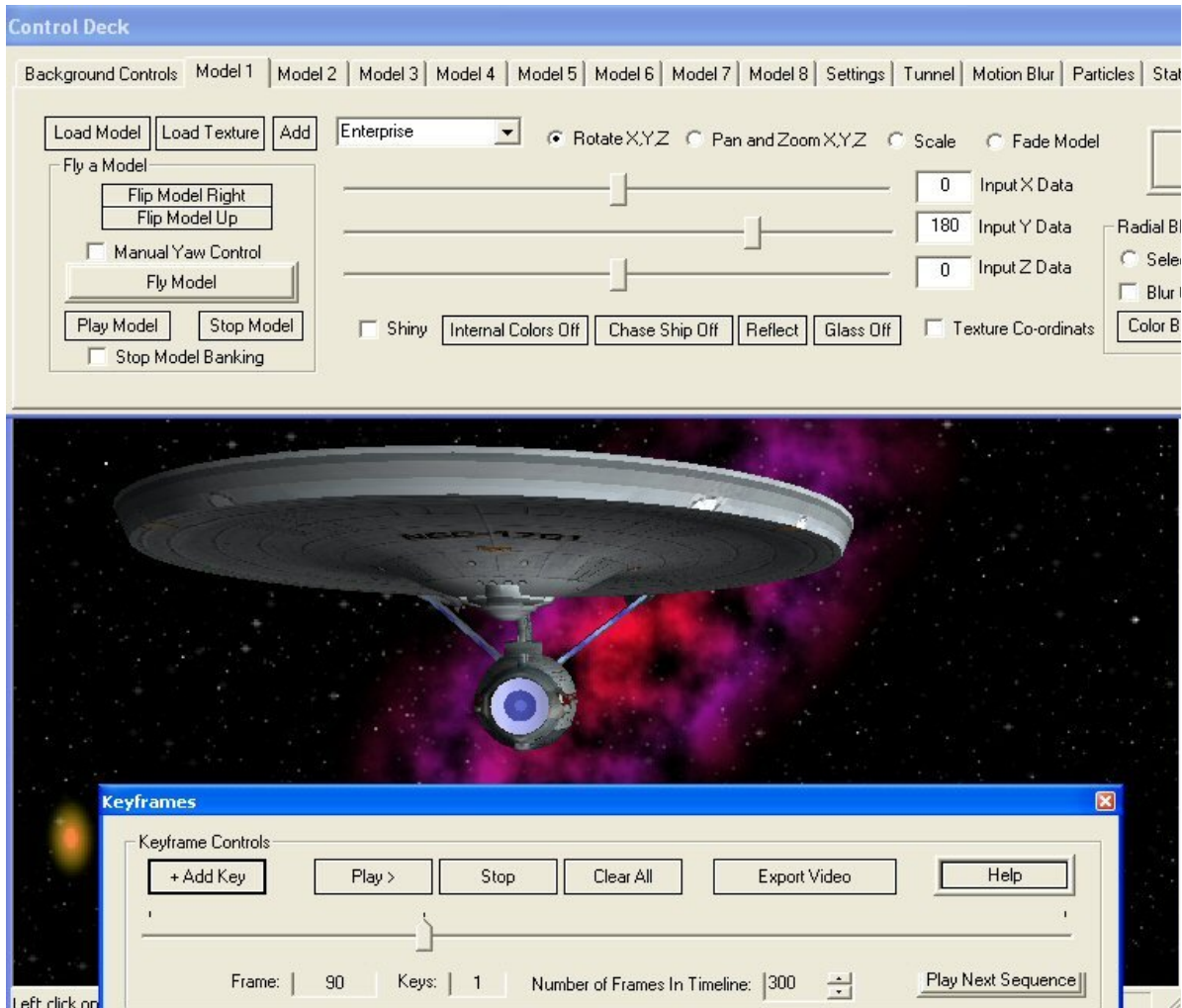
Once you have opened the key Frame panel, Select you model panel and set the position and rotation of the model to where you want the starting position to be.



As you can see the rotation counter on the middle slider is set to 90. Now press **+Add Key** on the key frame panel. That is your beginning key.

Now move or rotate your model your model.

Step 2



Notice that the rotation slider is now indicating at 180, I have rotated the model 90 degrees. I have moved the slider on the Key frame panel to Frame 90 and pressed the **+Add Key** button again.

I have now created two keys in my time line. The start position and the end position and the amount of frames between these two position is 90. So it will take 90 frames to rotate 90 degrees.

Unless you want to add more keys to the time line, all that is left to do is press **Play>** button.

Stop will stop the key frames from playing.

Clear All will clear all the key frames.