

Space background tutorial

There are several ways to create universes and star backgrounds, the following will show you a few ways to do so.

1. First you click on the ground plane and delete it from the image. Then you click on the 'Sky & Fog' menu. Below the Create Menu and Image you click on the little arrow and choose Custom Sky. There you change the sky color from blue to black by clicking and holding down the left mouse button, then choose black. Now you go to the 'Sky & Fog' menu options below and to the right of the Sun Control and click on the little arrow and then select the 'Edit Sky Fog' option. You are now in the 'Environmental Attributes' window. Click on the Atmosphere tab and set the Fog and Haze values all to 0 (zero). Click on the check mark to keep the changes and return to the main window. Now the sky is black without a horizon. Now you create a cube from the Creation menu. Then you click on the 'M' button attached to the cube. This will take you to the Materials Lab, where you can choose the texture you want as a space background. I use [cosmic volume, supplied on the CD] most times when making a universe image or an image that needs a space background. Enter the Materials Lab and import the Cosmic Volume.mat file into the category you want, in Bryce. You can also use Galaxy Volume] or Nebulae Volume, also on the CD.

When you have imported the Cosmic Volume, choose it as the texture for your cube. Click on the check mark and return to the main image view. Now click on the 'A' button attached to the cube and the 'Object Attribute' window pops up. Now change the size (those in red) in the x, y and z fields from 20.48 to 2048, (just remove the decimal sign). This is to have the same proportions of the cube when you make it larger. Bryce is using it's own 'units' of measurements, and it is easier to work with objects like spheres, cubes and stretched cubes. You can use the basic size of 20.48 and calculate if you want the cube a bit larger. I use $20.48 \times 20.48 / 2 = 30.72$ and so on. Now click the check mark and you will end up with a cube with the size of 2048 x 2048 x 2048 in size. Your view will now be almost in the center of this cube and since it is a volume texture you are using, you are in the middle of your little universe image with stars and gas clouds all around you.

You may be satisfied with your image at this point. If you are not, there are other ways to make a space image or a background.

2. Start as you made the above image but choose a stretched cube instead. Click on the 'A' for the attribute window and change only the size for the y and z value y to 4096 and z to 2048, leave the x value as it is. Now change the rotate value for the y angle to 45°. Click on the check mark to get back to the main view window and render your image.

Now you have an image of a nebulae cloud with some stars and other smaller gas clouds. You can change it before you render the image by moving the stretched cube, by using the arrow keys on your keyboard and moving the cube further away from you. Experiment and you will finally have a large universe image with many different nebulae clouds and other gas clouds and stars.

3. Now to the easier way to make a space background, but one that you can't change and experiment as with the above examples.

Click on the 'Sky & Fog' menu as mentioned earlier and choose the custom sky option. Make the sky a black. Click on the lower right arrow beneath the sun control and choose the 'Edit Sky' option. Click on the Atmosphere tab and give the haze value 0(zero). Then select the SkyLab, and select the Sun & Moon tab. You will see more options, choose the starfield and comets by clicking once on them and then click on the check mark to get back to the main view window. Render your image.

4. You can also add stratus or cumulus clouds from the SkyLab. I often use cumulus clouds only since the stratus clouds very easily block the view of the sky. You can also change the amplitude and frequency of the cumulus clouds to 150 250. Experiment with different settings to see what you find looks best for your image.

5. Now you know a great deal about making space images and space backgrounds. But there are more things you can do to make a more complex space scene. You can copy and paste the cube and move it further back into the image. You will see the effect enhances the image and it's complexity.

6. To make it more advanced, change the colors of the texture itself. Click on the 'M' button attached to the cube, sphere or stretched cube and the Material Lab window. Make sure the 'Procedural Texture' is marked and click on the round button to enter the 'Texture Source Editor'.

In the 'Deep Texture Editor' you can see the colors used for the Cosmic Volume. Click on the colored buttons in the 'Deep Texture Editor' and hold down the left mouse button to get a color scheme and choose the color you want to use in the texture. When you are finished with your choice of colors, click on the lower right check mark to go back to the main view window.

If you are satisfied with your choice of colors you start rendering the image.

I hope this little tutorial can help you on your way to make universe and space backgrounds for your scenery. If you have any comments or questions on this topic, send me an email at bjoern.mitz@swipnet.se and I'll try my best to answer your questions as soon as possible.

Experiment and have fun!

Bryce on!

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