

Ever seen those awesome, shiny rays and wondered how to get this result? After going through this guide you should be able to produce rays like that yourself. :) I'll assume that you know the basic functions of Terragen.

1.) Terrain

We'll start out with a simple 513er Terrain. Go to the landscape settings, click on the "7680 metres" right under your Plan View, and choose "513" in the Terrain Grid Points menu. Click "okay", after that "yes", then "no". Now you have a flat terrain with 513x513 grid points. Now go to your water settings and set the water level to 100 metres. Click "Update maps".

2.) Lighting conditions

The lighting settings are very important. If you use the right settings here, rays are almost definite.

Sun Heading in our case should be 0, Sun Altitude about 17. (This really depends on the type of rays you want to have though. This is just an example)

First of all, make sure the little box next to "clouds cast shadows" is checked. Rays won't work without this. Set "Effect of Atmosphere" to 200%, "Cloudcover" to 1%.

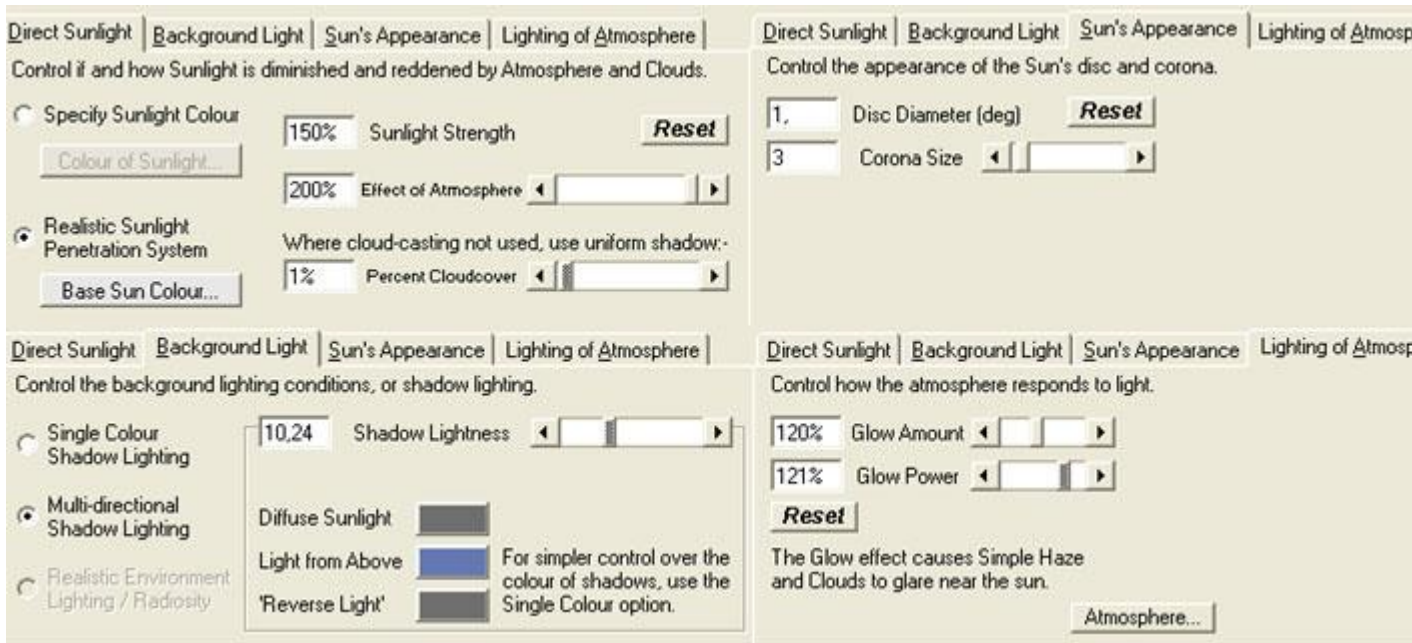
Depending on your scene we may have to change the sunlight strength also.

That's up to you though. Then go to "Background Light", check "Multi-directional Shadow Lighting" instead of "Single Colour Shadow Lighting", and reduce the Shadow Lightness to about 10-15. This gives you a more realistic result. We'll adjust the shadow colours later on.

Go on to "Sun's Appearance", and change the Corona Size to 3. (This isn't necessary, it's just my personal preference)

Lighting of Atmosphere - change the glow amount and glow power both to about 120%. Lotsa glow is good for rays.

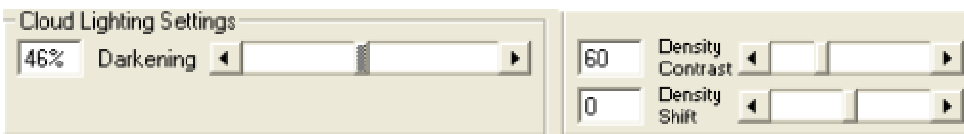
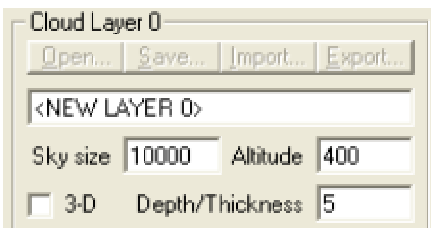
Here's a summary:



3.) Cloudscape

Now to the most complicated part. Fear the cloudscape.

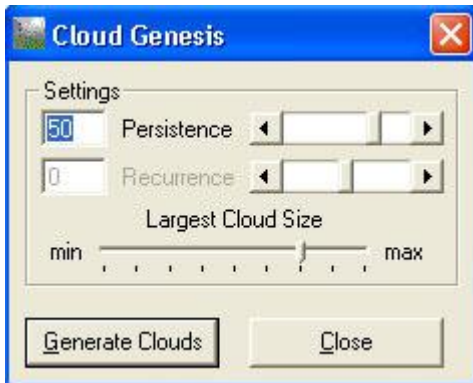
General settings: Increase the sky size to 10000, and choose 400 as altitude. Let's start out with a depth/thickness of 5. Darkening should be set to about 50, density contrast to 60. You may want to use 3D-clouds, I prefer not to use them though. Clouds look dodgy if you use 3D-clouds together with a high sunlight strength.



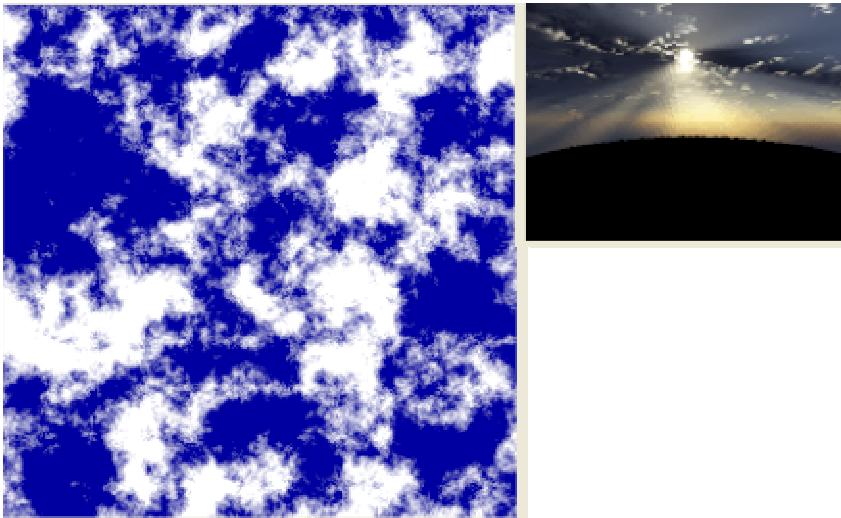
4.) Generating Clouds

Depending on the type of rays we want to have, we'll have to create different kinds of clouds. I'll go for straight rays in the middle of the piece this time. We'll need rather large clouds for this, persistence of about 50. Rays from the side require more fiddling, but more or less the same clouds, the "extreme rays" with rays peeking out of every hole in the cloud require small clouds, a medium persistence

and a high density shift.



Now to our clouds though. This'll require the most fiddling. Have a look at your camera position, and your cloudscape at the same time. If you notice that the clouds you're generating are in the same place as your camera position is, render a little preview. If you see the clouds are fine as they are, w00t! Congrats, you have rays. If you think they have potential and only need a little more fiddling, toy around with density contrast and density shift. If they are crap.. generate new ones. It took me about 30 tries to come up with these clouds:



5.) Colouring To set the right mood, you'll need... COLOURS!

I'll go for a blue piece once again, hehe. Time for the atmosphere dialogue. I set the Simple Haze (cloud colour) to a light blue, the atmospheric blue to a darker blue. Light Decay/red gets an orange tone. This option will decide how your lower sky is going to look. Yellow/Orange + Blue = green. So my sky will fade from blue to green, which is a nice effect. You can toy around with the densities and half heights, it won't influence your rays much though. If you want to make it perfect, give your sun a colour too. I gave it a light blue. The sunlight strenght is fine in this case.. however you might want to make it stronger. Just toy around with it. I attached my world file to this tutorial, feel free to check it out and fiddle with it. I

changed some of the details slightly afterwards - not a lot though. Just to get it to look better. Here's my final result:

