IDS 4687 Games Engines – UnrealEd Tutorial 7

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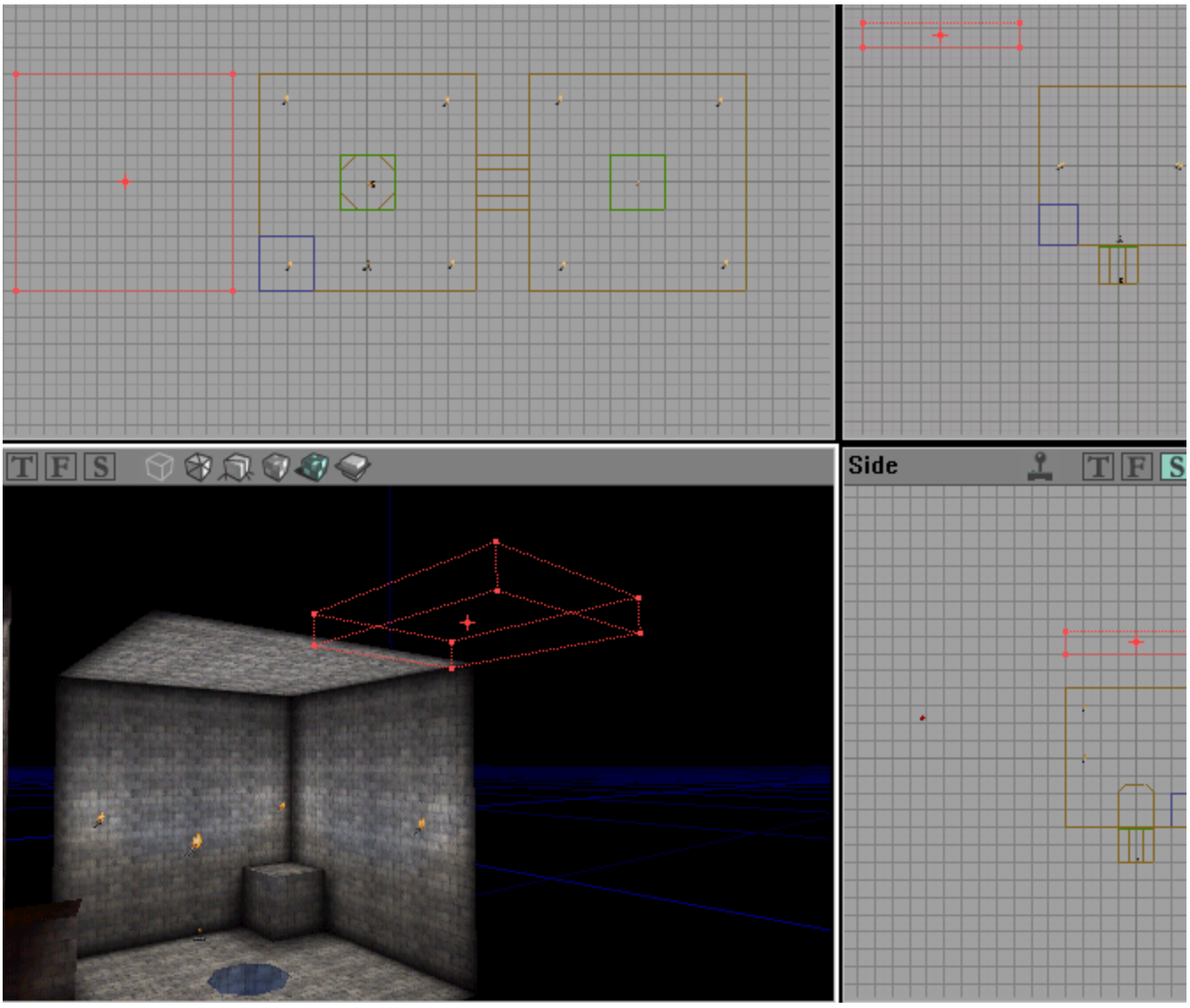
This document can be downloaded at: www.planetunreal.com/squacky/UnrealEd-Tutorial7.doc

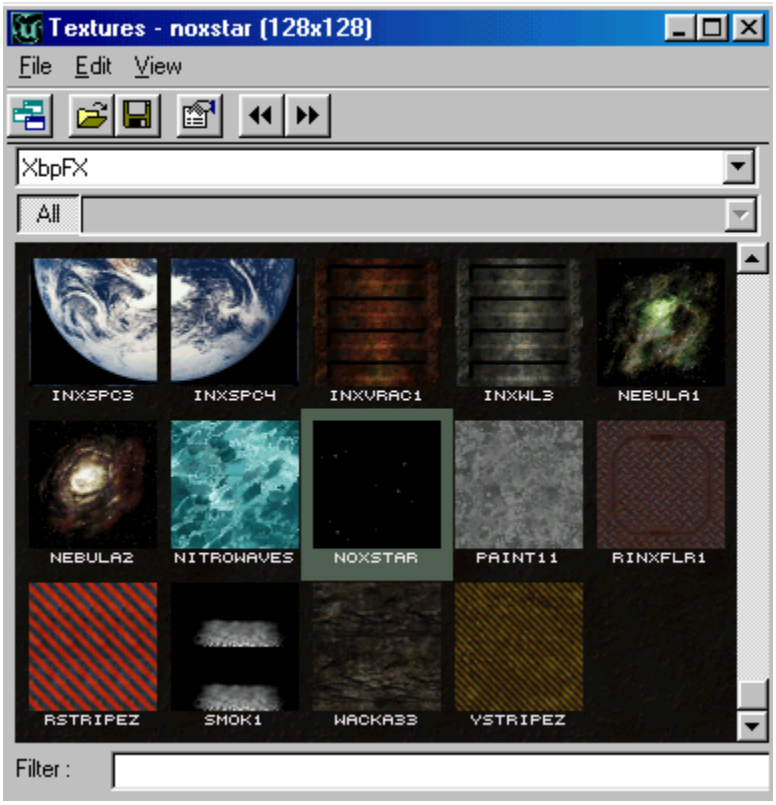
Tutorial 7 – Sky Box and Panning Textures

This tutorial is bases on the map started in Tutorial 1. We are going to learn how to add a realistic looking sky to the map. Sky in UnrealEd is done by creating a "Sky Box". This sky box will have clouds or stars are whatever you wish to be in the "sky" of your map. The sky box is separate from the rest of the map and must not be accessible to the players. Once the sky box is created you designate it using a SKY ZONE actor. Then, whenever you want a surface to look like "sky", you simply designate it as "Fake Backdrop" using the SURFACE PROPERTIES menu.

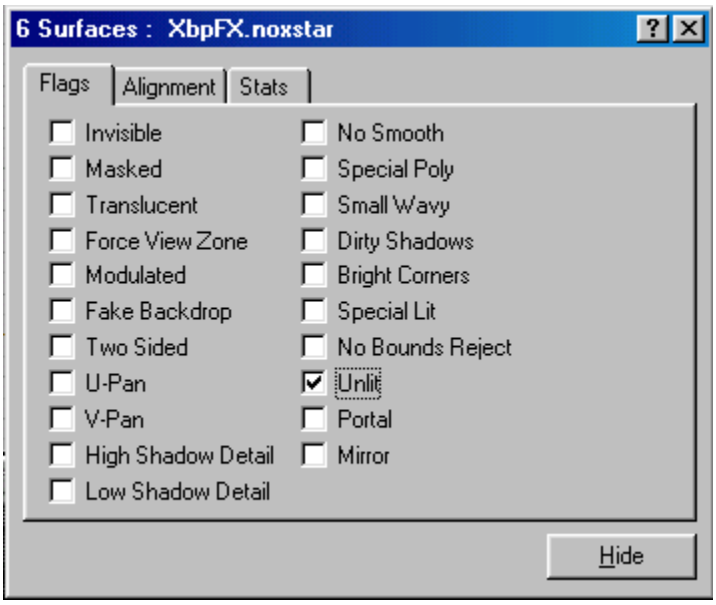
The first thing we need to do is create the sky box itself. Choose a location that is easy to see from the X, Y, and Z angles somewhere in your map. Build a 1024 width, 1024 depth, and 160 high cube. Place it in a position similar to the map below.



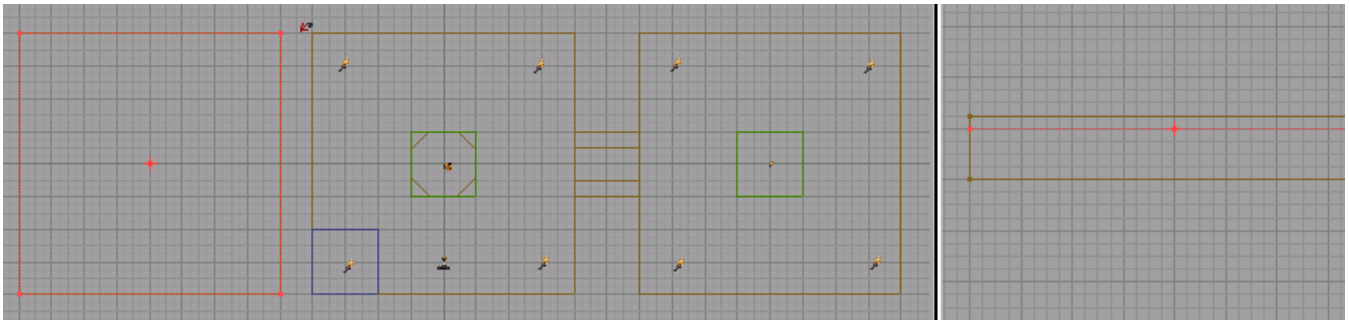
Open the “XbpFX” texture package and select the texture “NOXSTAR”. Subtract your sky box.



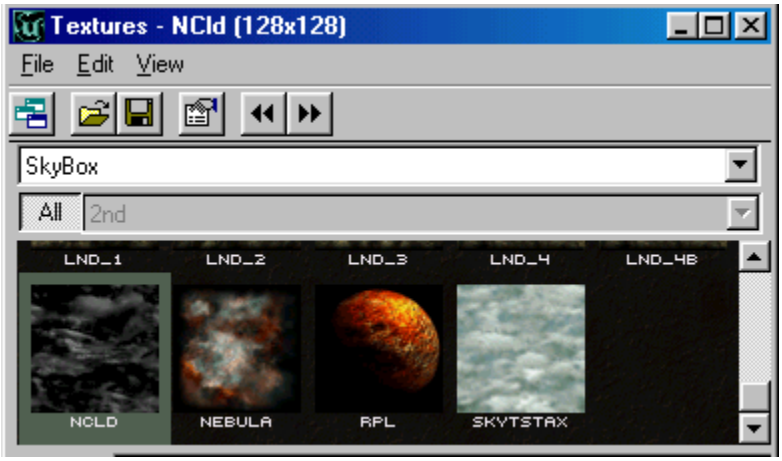
To make the stars really bright we are going to give them the property “Unlit”. Select all 6 surfaces inside your sky box, right click and bring up the SURFACE PROPERTIES menu. Under FLAGS check “Unlit”.



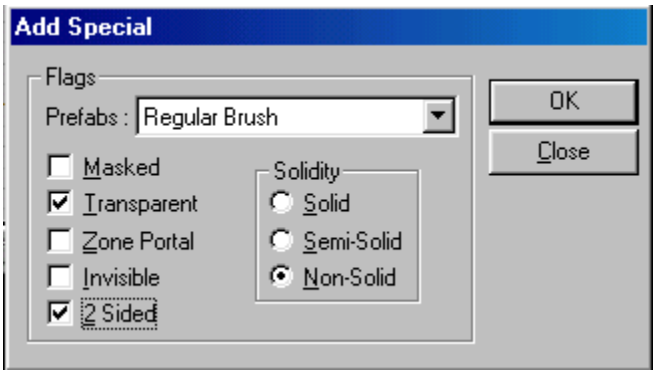
Now we are going to add a translucent layer of clouds below the stars. So make a 1024*1024 sheet and align it as shown below. The sheet is 2 grid squares below the top of the sky box.



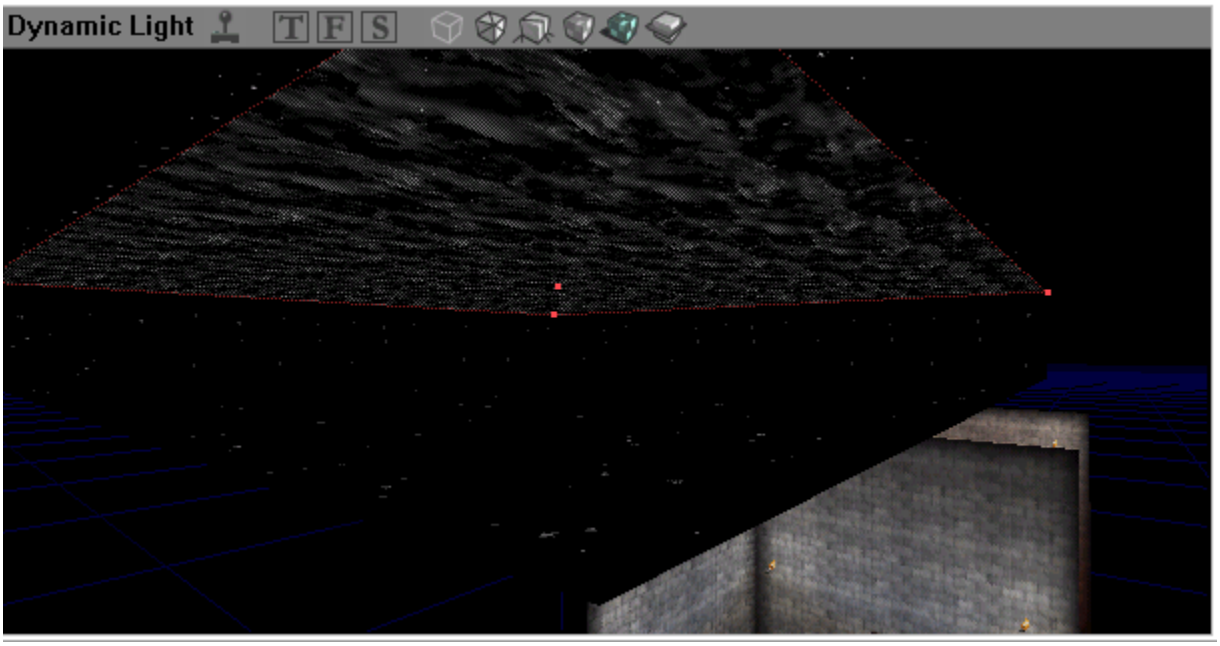
Open the texture package “SkyBox” and select the texture “NCLD”.



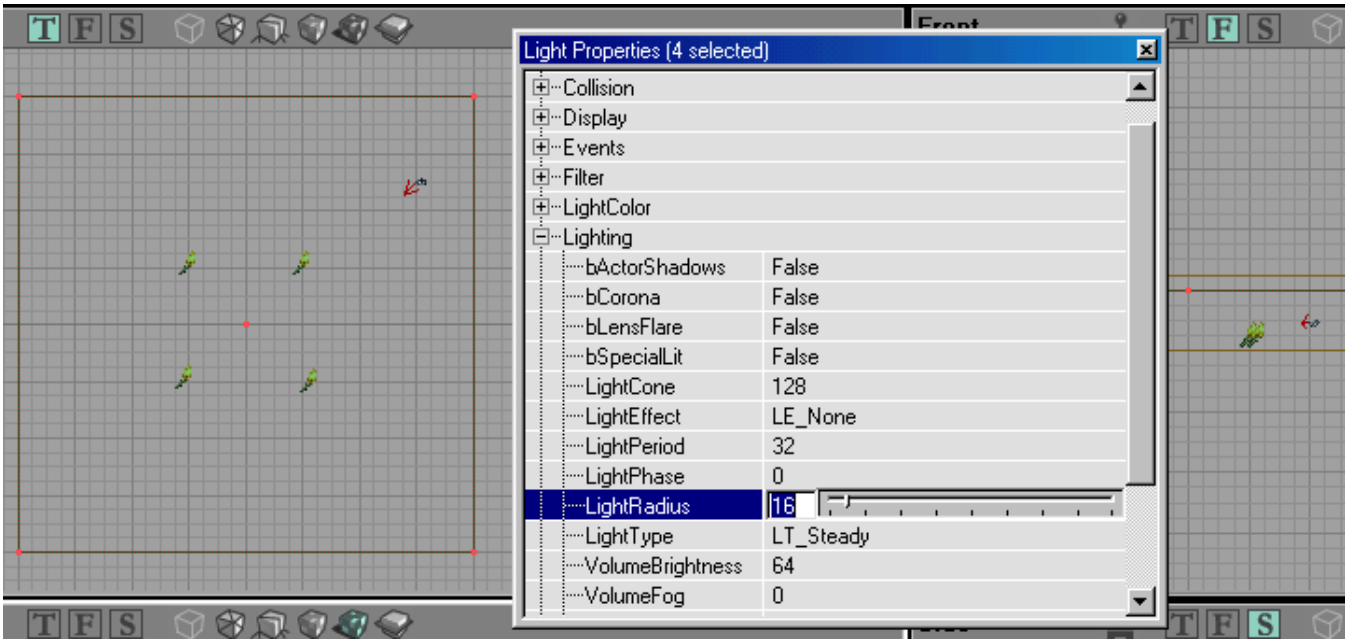
Hit ADD SPECIAL and configure the options as shown below.



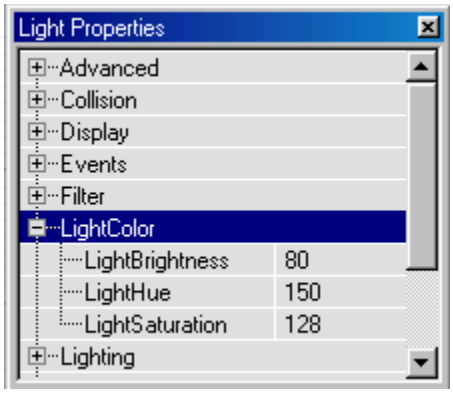
You should now see a layer of clouds in your sky box.

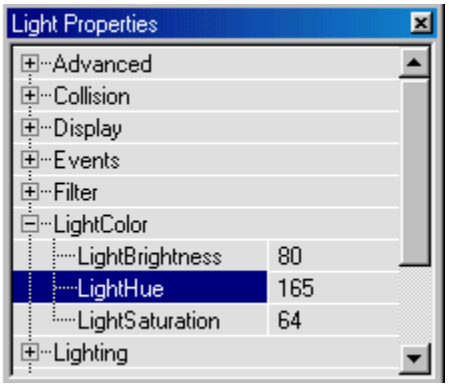


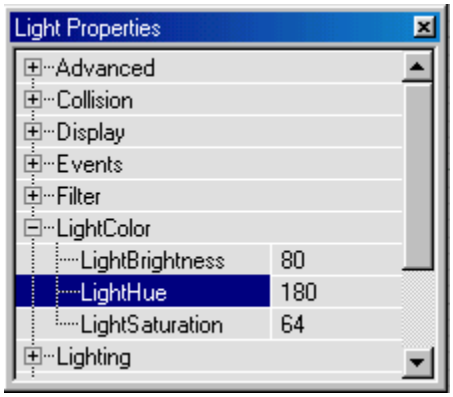
We need to light up the clouds in our sky box now. Add 4 lights into the sky box as show below. Give all the lights a radius of 16.

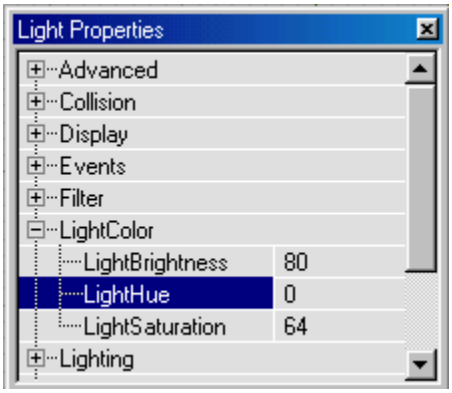


Now we want to give the lights slightly different colors to simulate color difference across a night sky. Enter these properties for each light.

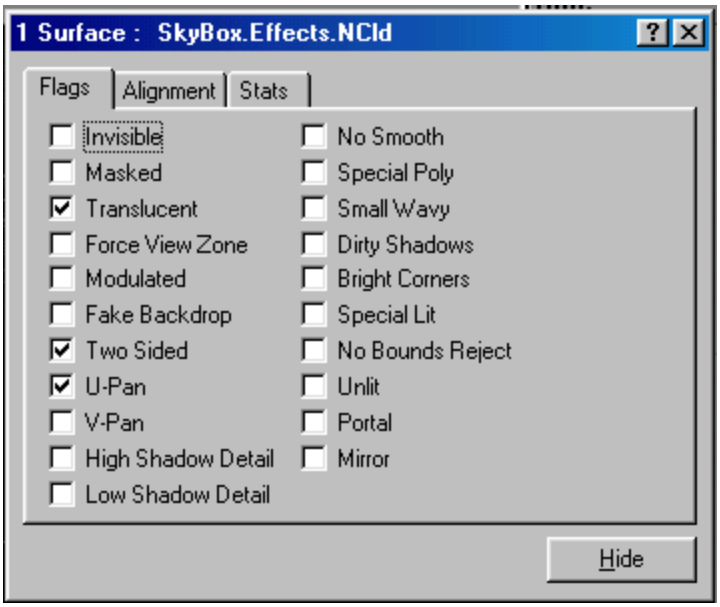




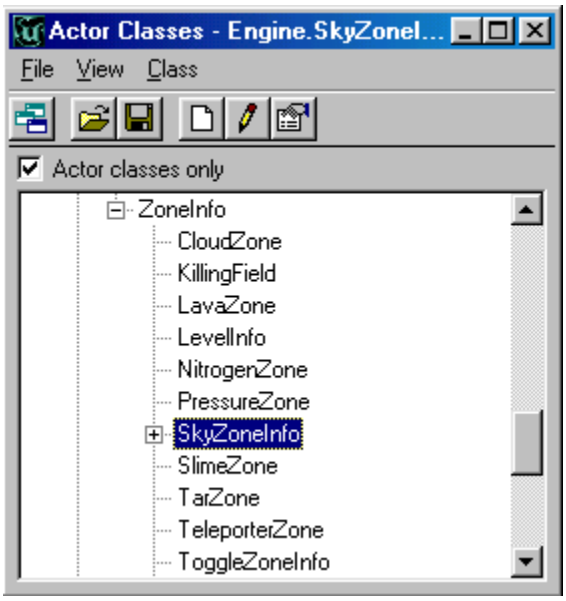




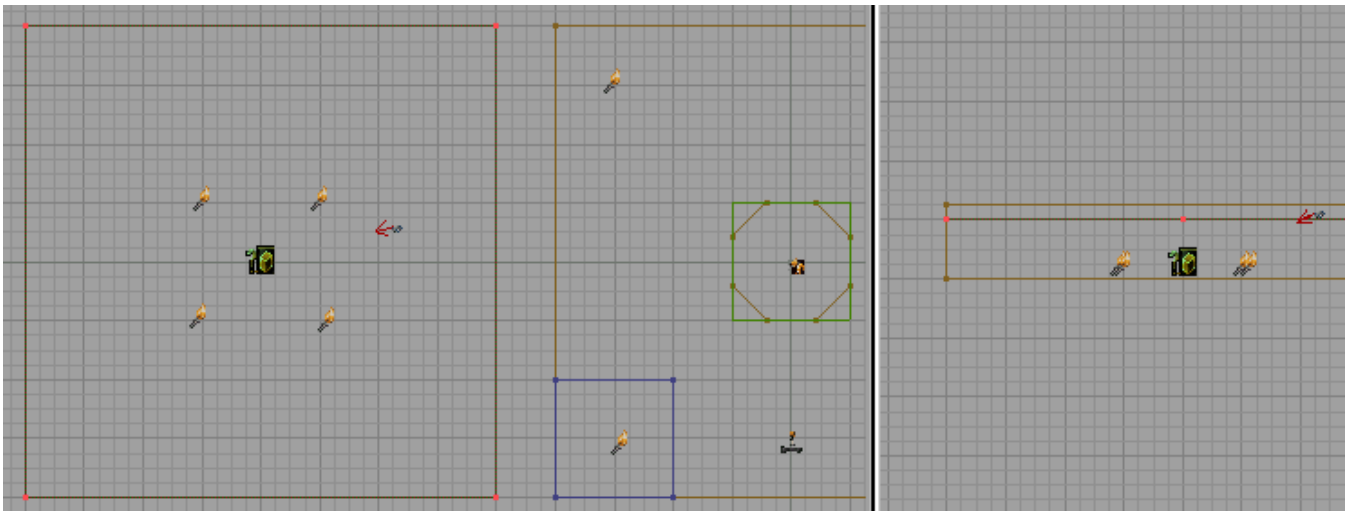
To make the clouds move is easy. Right click the cloud sheet surface and select "Surface Properties". Under FLAGS check "U-Pan". This will make the clouds pan left to right.



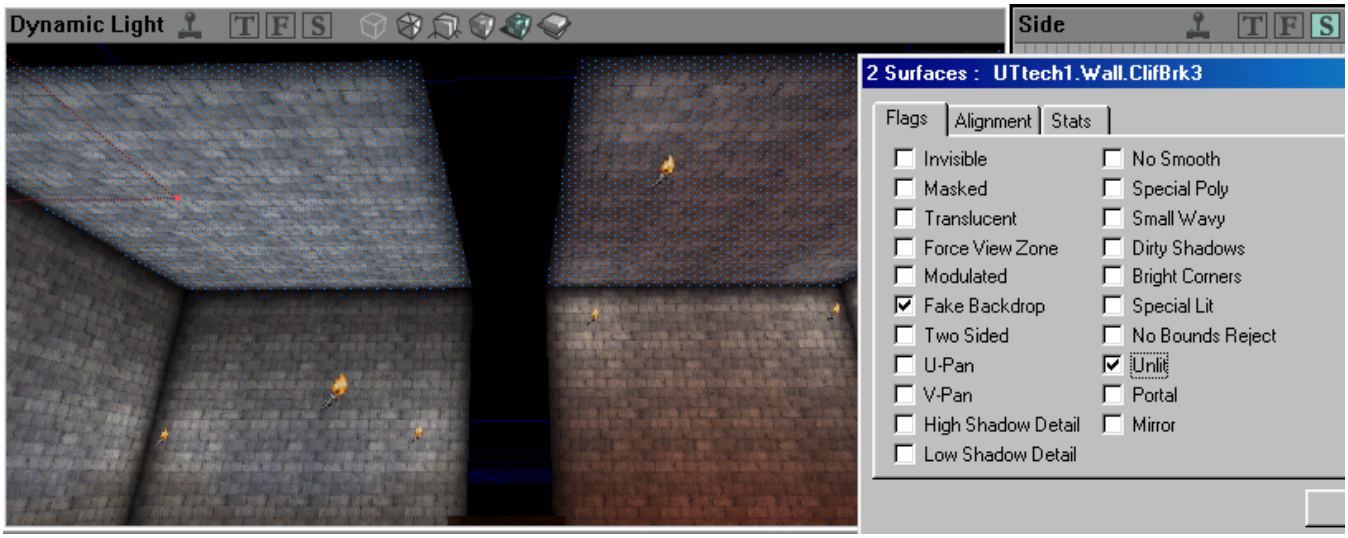
To finish our sky box we need to add a SKY ZONE INFO actor into the sky box.



Make sure you center it in your sky box. The SKY ZONE INFO is like a camera. It is the place from which the view of the sky is projected.



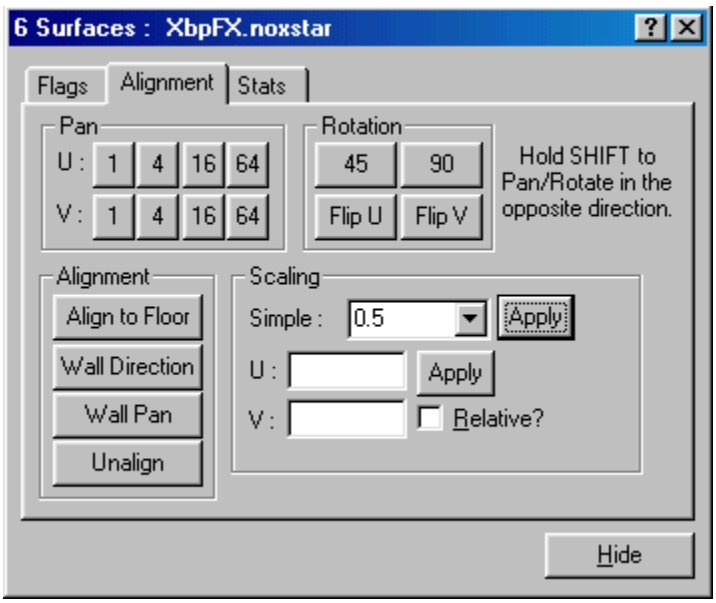
The final step is to designate surfaces as “Fake Back Drop”. Any surface designated this way will show the sky box. So right click the ceiling of both of the rooms you have made and check the FLAGS shown below.



Now REBUILD ALL and play your map. You should see the sky instead of a ceiling.

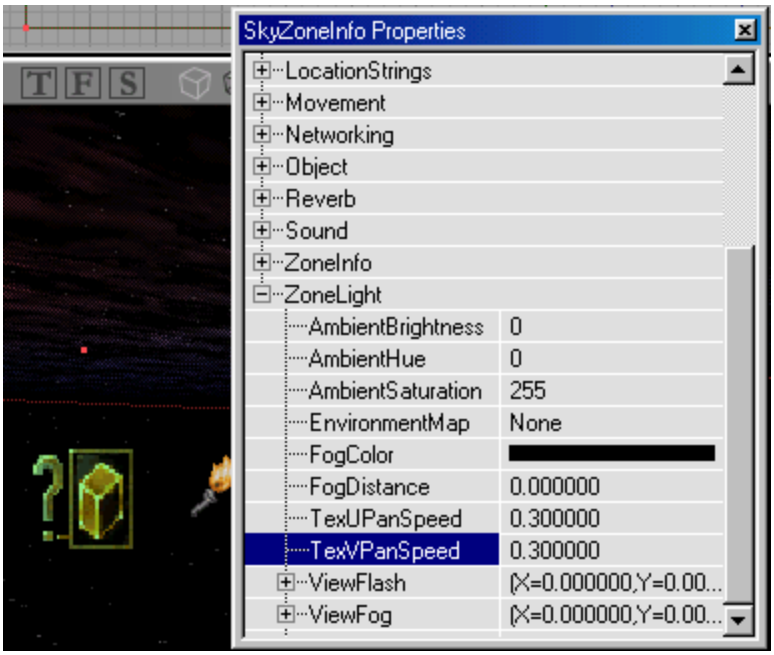
You might think the stars look a little too big. You can fix this by scaling them down. To do this select all the surfaces of the sky box. Then right click and select SURFACE PROPERTIES. Under Alignment, use the Simple Scaling box, enter “.5” and

hit apply.



You might also think the clouds are moving way too fast. You can control the speed of texture panning through the SKY ZONE INFO actor.

Right click your SKY ZONE INFO actor select SURFACE PROPERTIES. Under “ZoneLight” change “TexUPanSpeed” and “TexVPanSpeed” to “.3”.



The clouds should now pan at a much more realistic speed.