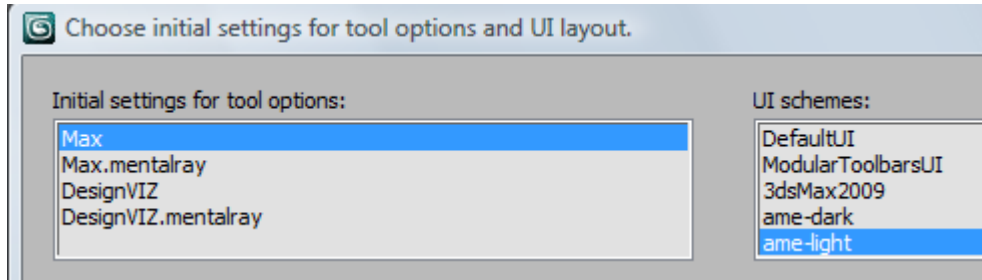
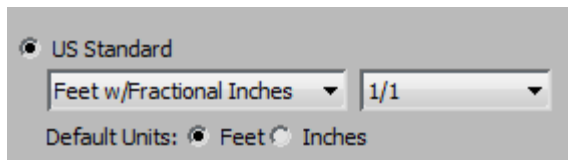


## Making a mental ray Daylight system.

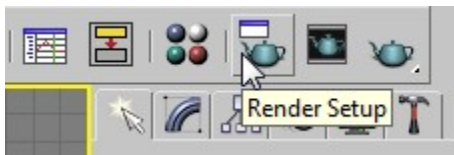
Set up your UI ... Customize/Custom UI and Defaults Switcher to **Max, ame-light**. Hit Set.



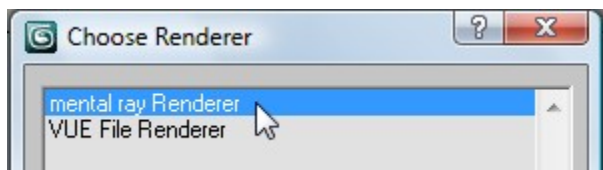
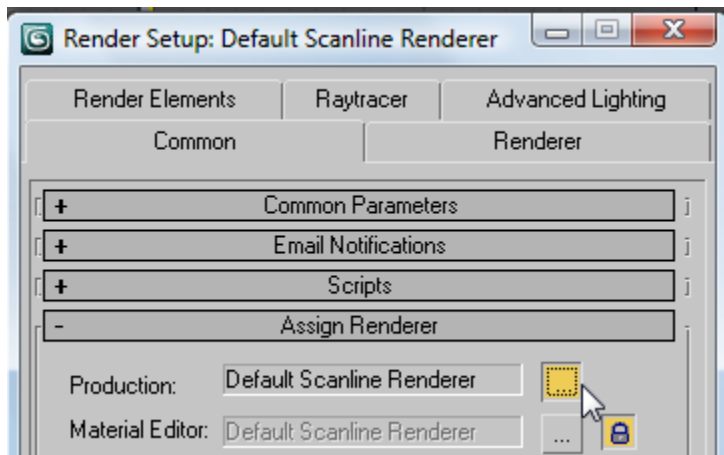
Set up units to feet ... Customize/Units Setup ...



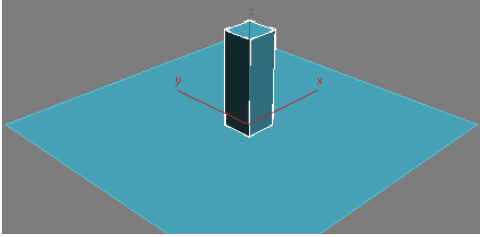
Make sure **mental ray** is your active rendering engine.  
Open the Render dialogue:



The Common rollout ... close it so you can see the Assign Renderer rollout ...  
Make it mental ray:



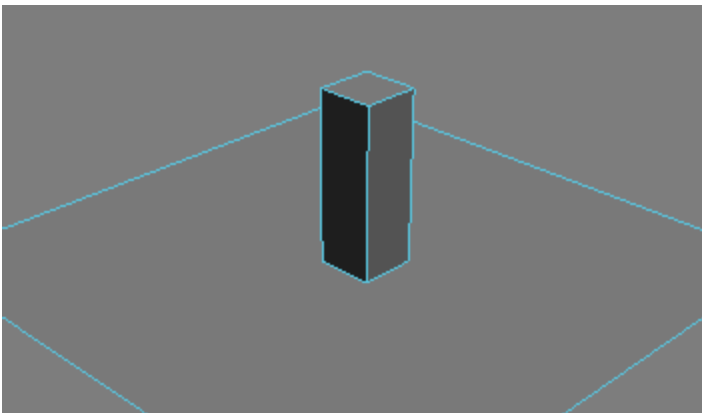
Make a plane 250x250 ft and a box 25x25x75 ft:



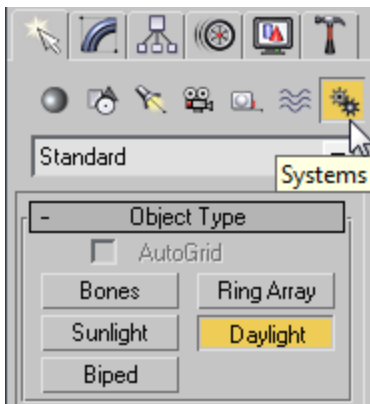
Assign a default gray material to the box.

This is very simple – just change the diffuse color of your standard material.

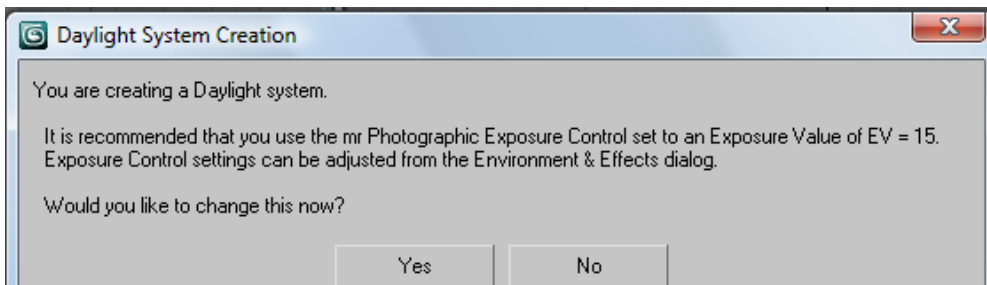
Make the ground plane another material, just a little darker gray than the box.



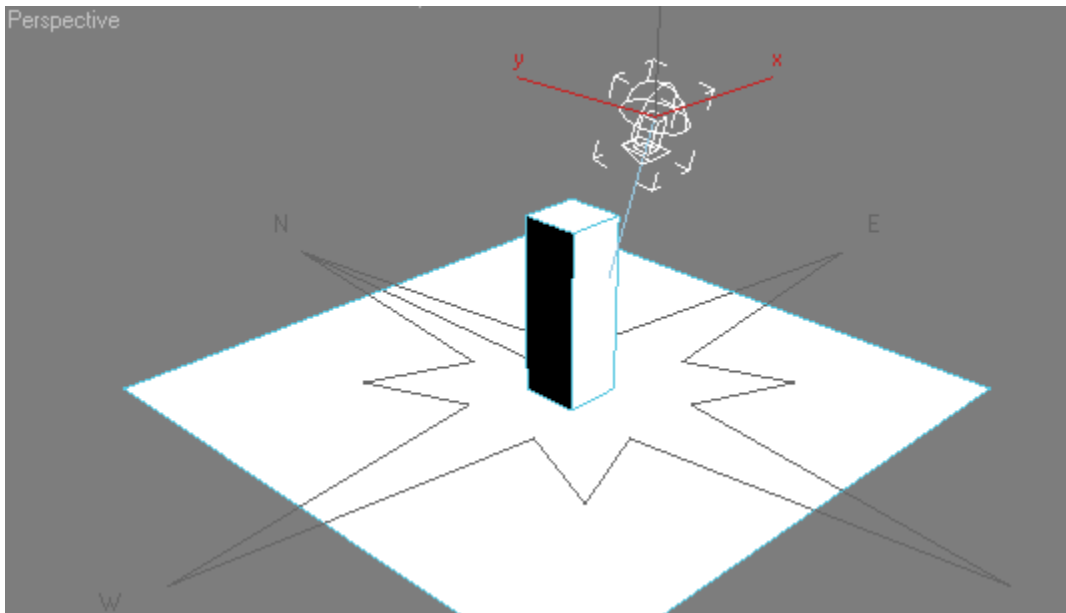
Click Daylight in the Systems tab to create a daylight system:



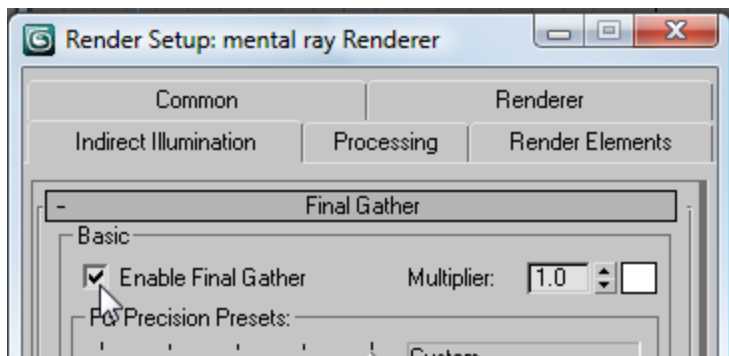
Click Yes IF you see this in your version of Max.



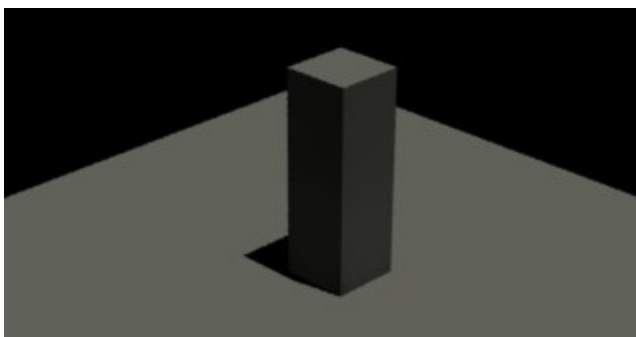
Click and drag to create a compass and sun as shown:  
Note – the sun and skylight are actually 2 objects at the top.



Make sure Final Gather is turned on (in the Render dialogue):

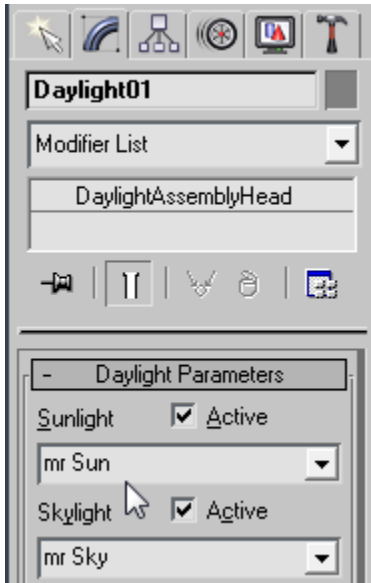


Note – if you render with FG (Final Gather) off, your shadows will appear very dark, almost black.

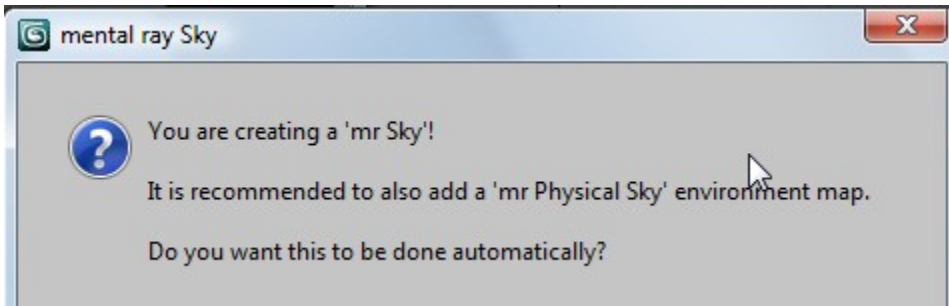


Continually render each time you make a change to see the effect in your file.

Change the sun and skylight to mental ray **mr sun** and **mr sky**.  
Note we are in the **modify tab**.  
Make sure the light is selected!

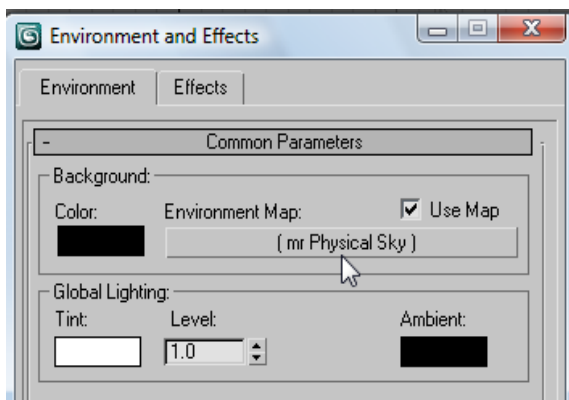


Click Yes here.  
This will add a simple looking sky background with a horizon.



Each change you make, follow up with a render to evaluate your progress.

This time you will see a simple sky background, with a gray color at the bottom.  
Go to the main menu and access Rendering/Environment.  
Note that mr Physical Sky is in the environment map slot.



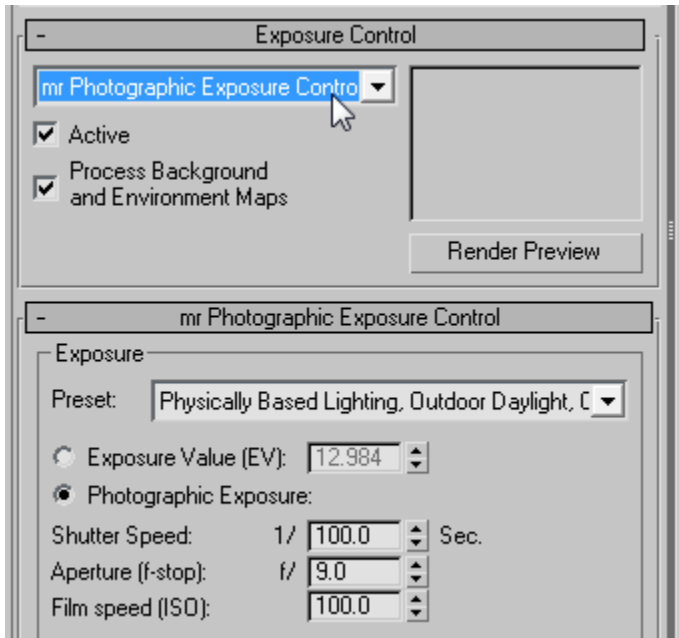
Scroll down to Exposure Control. Drop-down Preset to **Outdoor daylight**.

Set the Exposure Control drop down to **mr Photographic Exposure Control**.

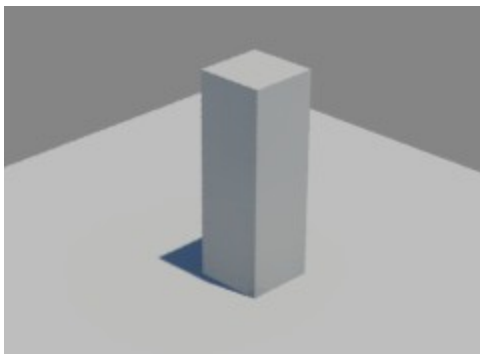
It works like a SLR camera. Try out these shutter speeds and apertures.

Tip – adjusting the White Point (Kelvin settings) slightly can affect the overall “color” of the light.

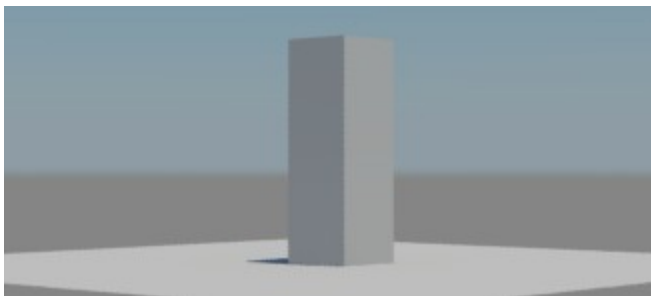
Also – Increase the shutter speed to 250 if the scene is too light. This setting mimic a faster shutter speed on a camera, which lets in less light.



Make another test render. It looks much better. Note the bluish shadow.

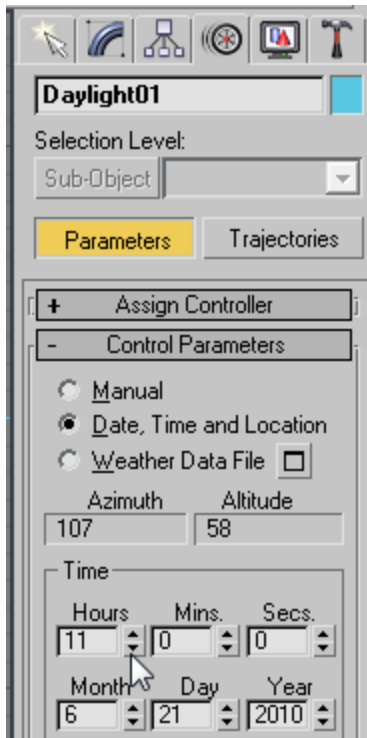


Orbit your view and re-render to see the mr Physical Sky:

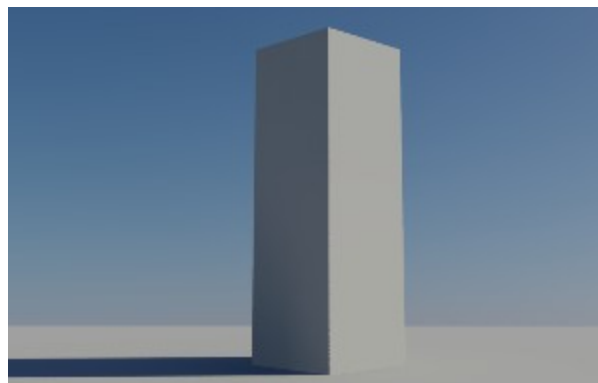
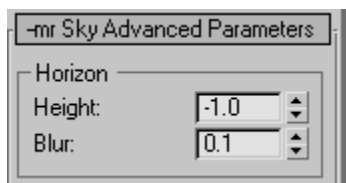


To change the shadow, with the sun selected, go to the motion tab (looks like a bicycle wheel) and change the hours spinner. Tip – you can also select **Manual** and move the sun like a standard Target Spotlight using the move tool..

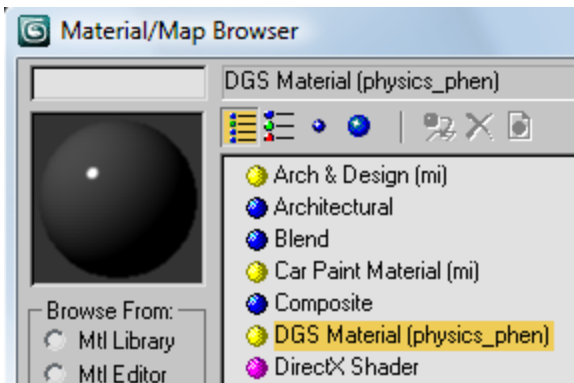
Change your light position and view until you see something like this.  
Tip – rotate the building 45 degrees so you can see 2 sides.  
Notice how blue the shadow is.



To move the horizon line of the sky, in the modify ta (with the sun selected) change the horizon heights and re-render.



Add a couple 16 segment teapots. Arrange them so interesting shadows fall on our “building”  
Give one of the teapots the mental ray material called **DGS Material**.



Final Render, save as jpeg, open in Photoshop, etc.:

