Using only two lights in Poser

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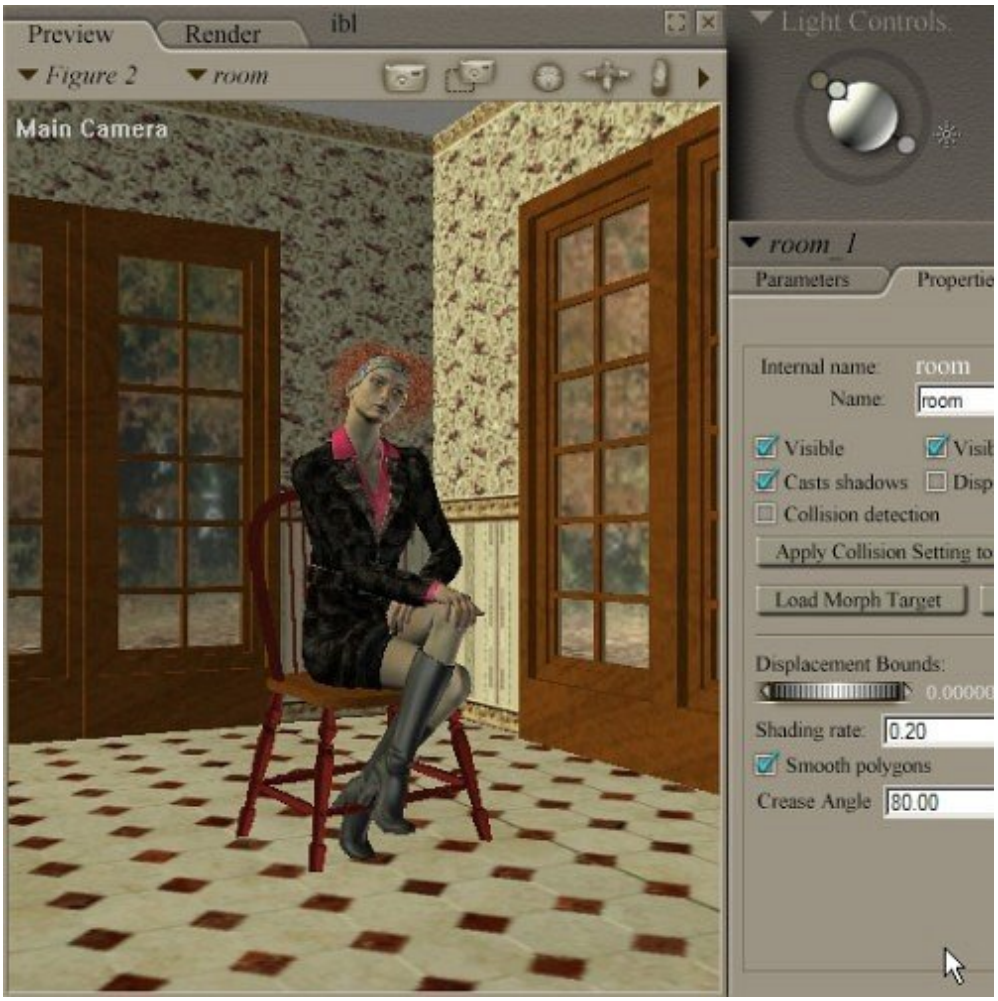
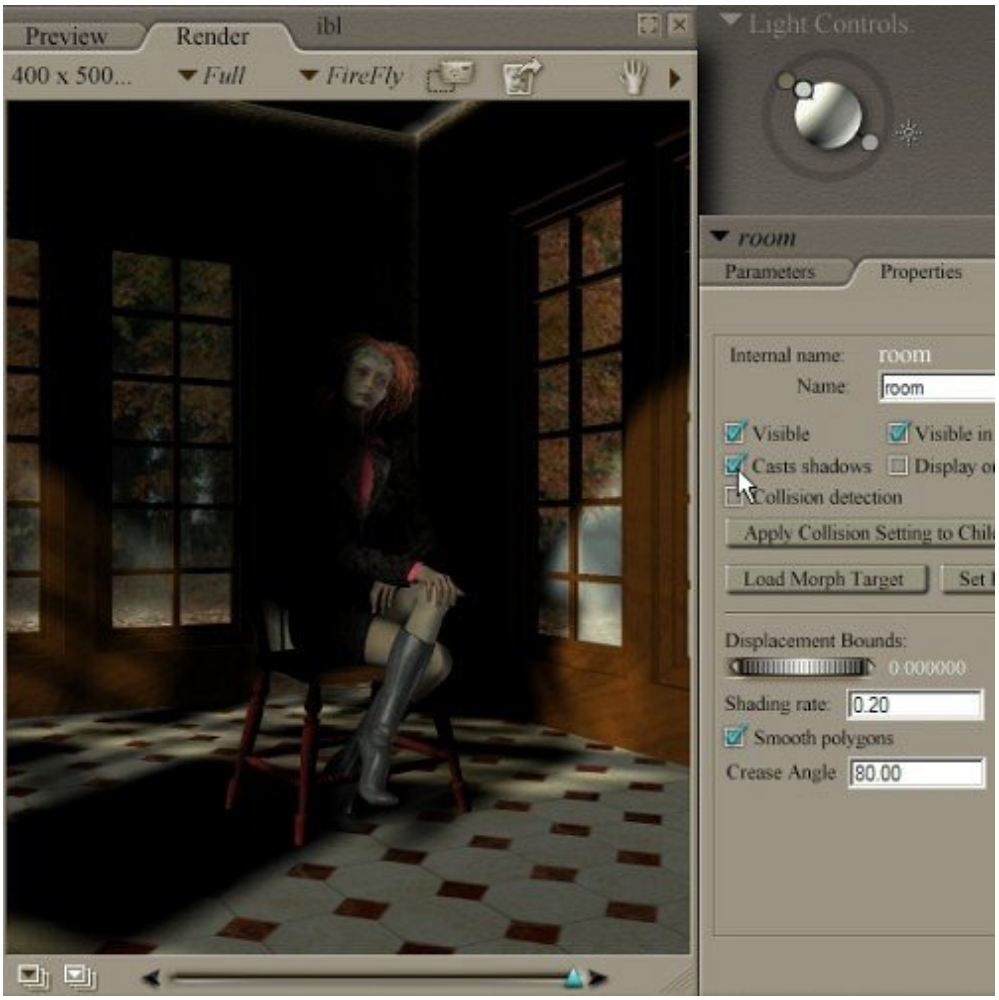
Tools Needed

*** Poser 6**

Introduction
There is a style of lighting in Poser that involves dozens of lights, at least this is what I often find in the light sets I have downloaded. Because I don't have a terribly powerful machine I try to stick to three or four lights with only one or two of those set to produce shadows. I'll try to show here how to develop the lighting for a scene from the default light set without adding additional lights. Here is the preview window showing the default light set. The golden ochre colour is pretty unpleasant and the overall look is under lit and murky.



Step 1 - A Room with Fixed Walls



Here is my render with the default lighting, three of my walls as well as the floor and ceiling are fixed so I can't easily get rid of them if they are blocking my light and casting shadows.

The effect is nice and moody but the shadow and light make no rational sense in the scene. It does make me thing I should do something with a figure like this lit by light coming through a doorway.

Step 2 - Tearing Down the Walls

Here is the same default lights scene after I have un-clicked “Casts shadows” on the properties for the room set.

I have a strong light from the left toward the back that is throwing the figures shadow forward; it is a nice effect and it makes me think I should do a render like this too, but I would have to turn the cast shadows back on the room and turn shadows of on the properties of the other lights so the scene was lit well but only the shadows from behind were visible.

Overall the scene is murky and too ochre coloured.

Step 3 - Moving Lights Around

You should try playing with the lights by dial. The Graphical Interface for lights is attractive but it is deceptive, it is good only for placing lights roughly in the right hemisphere but it does not represent the distance from centre or the orientation of the light where it is.

Try to learn to use the lights by understanding the xRotate, yRotate, and zRotate dials. Shown here is the graphical representation of an infinite light.

For understanding spotlights you should zero a light so that it three dimensional outline representation appears at the centre of the scene.... then play with the rotation controls to better understand them. Next position your light in the scene using the orthogonal cameras; maybe you should start with the top view, go to a side view, and then finish in a front view.

You want to work from orthogonal views to constrain the axis that you move the light in since moving objects in a perspectival view can lead to unpredictable drift. Even if the light is blocked by walls or other things in the scene, if it is selected you should get a selection outline when you pass the mouse close by it. Better yet, switch the preview of the entire scene to outline mode.

Step 4 - Filling-In

Here is a render after I have done nothing but move default lights 1 and 3. Light 1 is now more to the front and casts down to illuminate the floor and I have turned off the shadows on this light.

Light 3 is still low, I have actually tipped it up to light the grey ceiling of the room and to act as a “fill” light for light 2, the main light in the scene, the one in the middle. The shadow is turned off on light 3 so that the only shadow casting light is the main light.

Renaming lights is a pretty good habit if you are not too lazy. I would probably name lights 1, 2, and 3 to back, main, and fill respectively. The glare off the back windows is unfortunate, I should probably decrease the highlight size and make the diffuse colour a dark green or black.

This is essentially the default lighting still. Not bad really.

Step 5 - The Spot Light

I like spotlights. I try to use infinite lights only for sunlight and fill-lights without shadows. Here I have switched light 2 to the spotlight mode and shifted light 1 level so it does not illuminate the floor.

The result is a very nice moody look. With some fiddling it could represent a scene lit by a pocket torch or low wattage light.

You will really need to use the orthogonal views to place the spotlight because the position of the camera relative the scene is at least as important as its orientation. Confusing behaviour of a spotlight can usually be quickly sorted out by checking its position from the side and front.

Step 6 - Flood Light

Here I have dialled the spotlight wide open, angle start and angle end set at max. This is the budget point light. It gives a very full coverage as you can see and gives a nice soft shadow when the shadow is dialled down as it is here.

Step 7 - The Point Light

I have changed light 2 into a point light... the light from a point light is represented as though it radiates in 360 degree in all directions from a single point. It will not cast shadows unless you are using the Firefly render set to raytrace.

Here is a front view, the red arrow is drawn in but the red circle representing the point light is as it appears in the preview.

I use front and side view cameras to place the light some where in the scene that might have an actually light source. Here a ceiling lamp. If at first you can't find the light to grab hold of it set the x, y, and z translation dials to zero to get the light centred. Then go to an orthogonal view and pull the light into position.

The great thing about point and spotlights is that since one can move them right into a scene so the scene walls can be left shadow casting in case you want light passing through a window or door way.

Step 8 - Well Lit

Here is my scene rendered with the main light (light 2) set as a point light. See how the light radiates out from it in every direction as if it was a bare bulb. I like this light set-up.

Step 9 - IBL

Image Based Lighting will "blow out" a scene when it first comes on. Here I have deleted light 3 and I am attempting to use light 1 as a fill using IBL.

The idea is this, pin lights radiate out in all directions from a point, IBL is sort of like placing your scene in s ball covered by an image or gradient map... it is as though light is flooding into you scene from everywhere, the result is brilliant light and suppressed shadows, almost a “toon“ look.

But this is far too bright for most renders.

Step 10 - IBL Only

I actually have been seeing some merchants using this kind of blown out IBL for promo images... it is stylish and attractive but it can be deceptive. Here I have turned off light 2 and the illumination is only from the light 1 IBL.

Still too bright and still flat, it actually is starting to look good as maybe a stylized render.

Step 11 - IBL by Half

Here I still have only the one IBL on and it is set to 50% intensity. This reminds me of pre-renaissance lighting... a universe suffused with divine light. No shadows but some how expressive. Maybe good for editorial or commercial art. Everything has that strange medieval flattening to it and the shadows have a strange glowing translucence.

Step 12 - Filling in with IBL

We want to use IBL to act as a non-directional fill, as “ambient light, the light that bounces around in a room an fills in the shadows, light bouncing off the walls, floors, and other objects.

If you are obsessed with precision you can take a preview image of the scene, sphere-ize it in an image editor and in the Materials Room plug that into the light as a map.

In any case, I have set it here to 35% intensity, just enough to make the scene barely visible, this should soften the shadows of my main light which is still off.

Step 13 - IBL and Point Light

I have turned my point light back on positioned as if to represent light from an overhead fixture. I have pretty good lighting in this scene from only two lights.

Step 14 - Ambient Occlusion

Here is the same light set up but with Ambient Occlusion turned on for the point light.

The difference is mainly visible on the window panes, the corner of the room, the under the hands and beneath the collar of the blouse.

AO is basically a simulation of “ambient shadow”: Ambient light is light refracted off of various surface to create a certain level of indirect light in a scene, small spaces do not receive as much of this light. The area of wall in the corner is exposed to less refracted light than an area in the middle of a wall, etc.

In practice AO brings out the detail in mesh and makes things look more like they are actually resting on other things rather than composited over them. Note how the fingers rest on the knee here , how it is more shadowy between the fingers and beneath them.

Step 15 - What works Best?

Here I have dropped the point light down to simulate the flash on a camera. I like this effect, mixed with depth of focus, grain, de-saturation and other tricks it gives a nice photographic look that although maybe not attractive has what looks like a certain realism to me.

The three images at bottom are from left to right, the adjusted default lights, the spot light set wide, and the point light with IBL and AO respectively.

I actually prefer the second image and use that set-up in general, with so few lights and no ray tracing it renders very fast but the image on the right has a pleasant CGI look to it that kind of makes me think more of Norman Rockwell and Andrew Wyth than photography, certainly worth knowing how to do.

The main thing is take your lights in a simple scene and explore them methodically. Do test renders, see how different variable change a render. It is better maybe to build up from a simple set up of a few lights then to load a complicated light set and try to figure out what every thing in it is doing. Try to understand shadow as well as light.

The most important thing is to not just think of lights as a way to illuminate a scene, they can evoke mood, give focus, and create the patterns of light and dark that are so essential to a successful composition.

REMEMBER! SAVE EARLY AND SAVE OFTEN