

Lighting Designer for Poser8, Poser Pro 2010

users' manual

Ver 1.0

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2010/10/15

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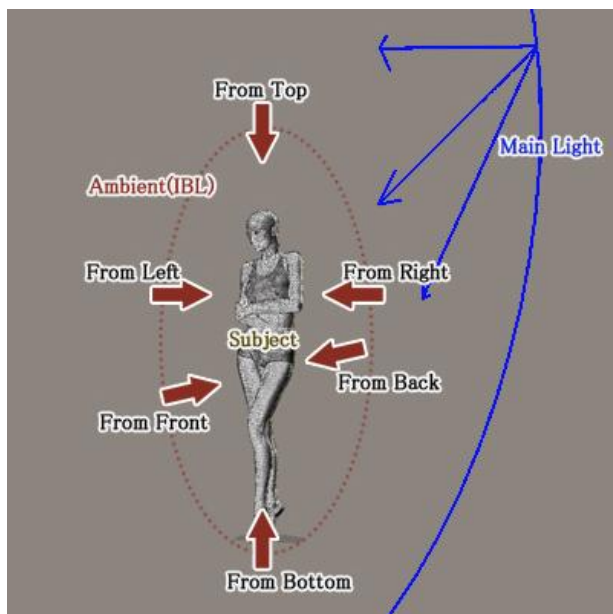
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1. Abstract

This package is the configuration utility for the global illumination of the Poser8 or PoserPro2010. This package is composed of the Python script and the base light set controlled by that script. Furthermore, some preset lights are contained.

1.1. Light Set

The light set consists of two lights of the infinite light named "MainLight" and the Diffuse IBL named "IBL". This IBL doesn't have photo realistic texture. This IBL uses many shader nodes to control (the strength and the color) of the light from each



direction. The Python script contained in this package acts suitably only on this light set. Even if you add other lights, that light isn't controlled by this Python script. Those lights only act on the scene additionally.

1.2. Configuration by Python script

The Python Script provides the configuration dialog shown in the figure1-1. This dialog configures the properties of MainLight and Ambient, such as the

intensity, color, etc. And, as for Ambient, the distribution of the illuminant is configured.

This configuration handles the IBL of the Poser as the Ambient in the general lighting model. The ambient is tacit light from the circumference. That is the arbitrary illuminant which exists though there is no specific illuminant. This may not be consistent precisely with the lighting model of the Poser.

However, this interpretation is effective as a metaphor in configuration.



Figure 1-1

1.3. Preset lights

Some configuration presets are contained in this package as a light library. You can find an actual setting when the light of the preset is loaded and configuration dialog is opened.

2. The details of the Configuration Dialog

The Configuration Dialog is composed by the following two panels. These panels are switched by clicking on the tab..

- Basic Configuration
- Ambient Design

2.1. Basic Configuration Panel

The Basic Configuration sets up basic properties (such as the color tone and the strength) about the MainLight and the Ambient (IBL). This Panel is composed by the following two groups.

- “Main Light Setting” group
- “Ambient (IBL) Setting” group

A) “Main Light Setting” group

Main Light Intensity:

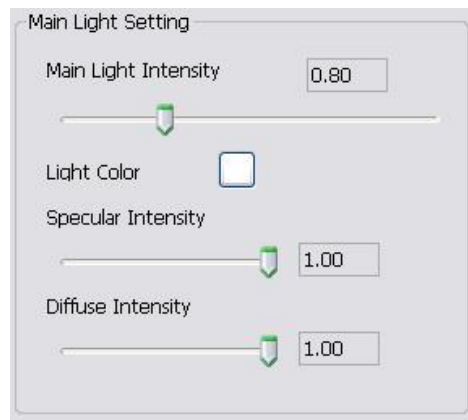
This item adjusts the whole strength of the main light.

The minimum value is 0.0, the maximum value is 3.0. Usually, less than 1.0 is recommended.

Light Color:

This item sets up the color of the main light. The color selection dialog is indicated when the left button of the mouse is clicked at this button.

Specular Intensity:



Main light has the diffusion element and the specular element.

This item adjusts the strength of the Specular element of the main light. For example, when the Specular element is made 0, the gloss doesn't appear on the object. Usually, the recommendation value is 1.0

Diffuse Intensity:

This item adjusts the strength of the Diffuse element of the main light.

B) “Ambient (IBL) Setting” group

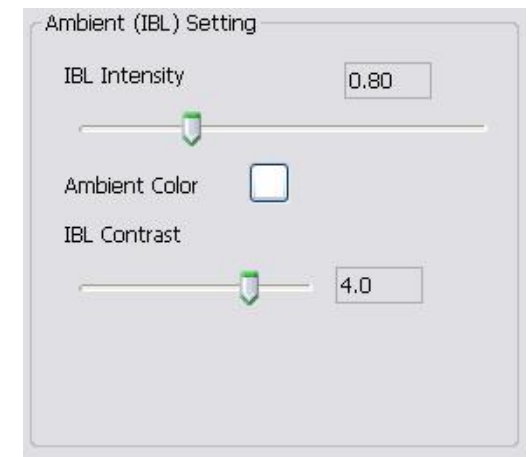
IBL Intensity:

This item adjusts the overall strength of the ambient light. The minimum value is 0.0, the maximum value is 3.0. Usually, less than 1.0 is recommended.

Ambient Color:

This item sets up the color of the Ambient.

The color selection dialog is indicated when the left button of the mouse is clicked at this button. This color is mixed with the color of each direction, and the actual color distribution of Ambient is decided.



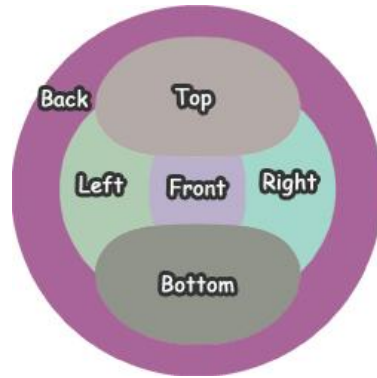
IBL contrast:

This item specifies the contrast of the effect of the texture used for Image Based Lighting.

2.2. Ambient Design Panel

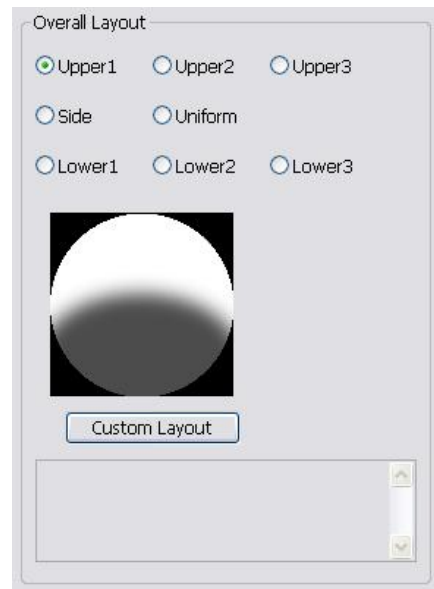
The Ambient Design Panel configures the inclination of the light of the ambient. This Ambient uses the mechanism of IBL, and the inclination of the light is decided in accordance with direction mapping in the Probe map shown in the right chart. This IBL has the complicated combination structure of the Shader Nodes, and the map of IBL is composed by them dynamically. The parameters of these Shader Nodes are adjusted by using the adjustment item on the Ambient Design Panel. Ambient which is rich in the variety is designed as that result.

The Ambient Design Panel is composed by two groups of *Overall Layout* and *Adjustment of Each direction*.



A) “Overall Layout” group

The Overall Layout Group decides the general distribution of the light. The distributive layout of the light is specified by choosing it by the radio button from eight layouts which it prepares for beforehand. Or, you can specify the path of the image directly by the “custom layout” button, too. The image which will be specified to custom layout should have a Probe map for IBL. Current layout (custom layout is contained.) is indicated by



thumbnail image. When custom layout is selected, also the path of the image being used is indicated in the text box.

About thumbnail indication of HDRI:

It is possible that HDRI is used as an image of the custom layout. However, thumbnail of HDRI can't be indicated on this panel.

B) Adjustment each direction

From Front, From Back, From Top, From Bottom, From Left, From Right:

These configuration items adjust intensity and color of each direction independently. These settings act additionally to the Overall Layout.



2.3. Others

“Cancel” button:

The configuration is terminated without applying changes.

“Apply” button:

The configuration is terminated with applying changes.



“Restore Default” button:

Changes are annulled, and default value is restored.

3. How to use

3.1. Basic (typical) flow

The basic flow of the use of this utility is the following.

1. Load the base light.

Load the base light from the light library of this package. The Python utilities are based on this light. If this light isn't loaded, this package doesn't function suitably



2. Make your scene.

Make your scene by the usual process.

3. Launch the Python utility, and do configuration

Double-click on the launcher (LightingConfiguration.cm2) contained in the camera library of this package to start the utility-script.



4. Save the light set to the library (optional)

If necessary, save the current light set to the library.

You can save the configurations as a light

5. Rendering

Make sure to turn on Indirect Lighting by the "Render Setting" when you use this package. Not using Ambient Occlusion with this package is recommended.

3.2. Basic strategy for the configuration

For the convenience, basic configuration strategy is shown in the following. Of course, these are only basic strategy, and it doesn't necessarily need to follow this process.

Design of the ambient

First, you should think about a lighting environment around the subject. This is performed by adjusting the light of each direction of the "Ambient Setting" group. For example, when there is a bright window behind the subject in the daytime room with no lighting. In such a case, the light which surrounds a subject is the light which reflects on the wall, the ceiling and the floor and the direct light from the window. Generally the back is very bright, and a side and the bottom are a little darker than that, and the top is darker. The reason of darkness of the top is that light from the window hardly lights the ceiling.



These lighting environments are configured by using the setup items on the "Ambient Design" panel.

First, a general layout is set up in the "Overall Layout" group. Lower3 is chosen in this case because surrounding light has the tendency that it gets rapidly dark around the ceiling.

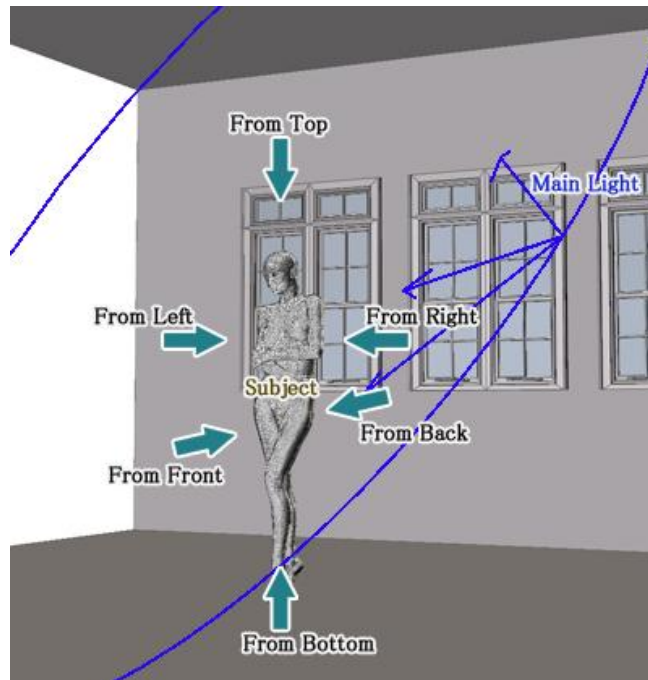
Next, the intensity and the color of the light from each direction should be configured by using the "Adjustment each direction" group.

For example, if a wall has light yellow, "From Left" and "From right" are set up in light yellow. Blue is set up in "From Bottom" if a blue carpet is being laid on the floor. The "From top" is all right with the default. It is because light from the top has already been limited small by the "Lower3" specified in "Overall Layout". "From Back" should be assigned the color of blue in consideration of the color of the seen sky through the window.

In case of the cloudy day or the snow scene, it will be good that whitish color is assigned.

The influence of the left-right light becomes clearer when the intensity of "From front" is set up low.

Adjust the direction of MainLight after you finish the configuration. It is suitable that the MainLight is arranged at the back of the subject in case of this example.



Adjustment of each item

Adjust each item with seeing a result of test rendering.

Specially, the adjustment of each direction of the Ambient acts on the result strongly.

3.3. Adjustment of the position of the light

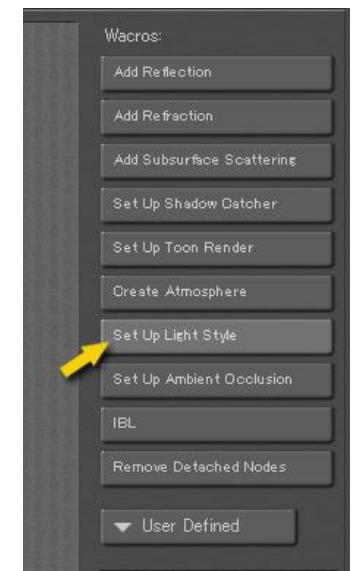
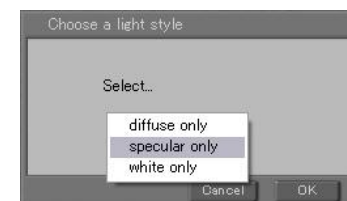
The configuration dialog doesn't control the position of the light. If necessary, adjust the position of the MainLight by the "Light Controls" panel.

It doesn't have effect even if the position of the IBL is changed.

3.4. Additional Specular light

If gloss on the subject is required more, create additional specular light. For example, as for the scene of the backlighting, because the front side of the subject receives only the ambient, it has the tendency that gloss is needed. The specular light can be made by the following process.

1. Create a light by the usual operation.
2. Go to the material room.
3. Make sure that that light is chosen, and push a "Set Up Light Style" button from the Wacros panel. Then, the "Choose a light style" dialog is indicated.
4. Select "specular only" from the selection menu on that dialog.



Adjustment of the light intensity and balance

Next, decide the balance of the light by adjusting each intensities of MainLight and Ambient by using the "Basic Configuration" panel. In the case shown above, it is effective that the intensity of the MainLight is set up very strongly. The color of MainLight to set up depends on a general color outside the window which can be seen from the room. Usually, it thinks as well as "From Back" of Ambient, and it is set up in blue in this case.

When the intensity of the Ambient is made smaller, the part of the subject which becomes the shadow of the MainLight gets dark. This should be decided intentionally. Adjust it in accordance with your taste.

5. Choose the light type (except for DiffuseIBL) which you want by the check box on the properties panel of the light.
6. Adjust a light color, light strength, a position of light, and so on by the "Light Controls" panel.

Additional light will not be controlled by the configuration dialog.
However, that light acts to the scene suitably.

4. Others

4.1. Reduction of the test rendering time

Generally, many trial and error are necessary for the adjustment of the lighting. That is the repetition of the adjustment and the test rendering. The following method is effective to reduce the time of the test rendering.

Use of the draft render setting

Test rendering time can be reduced by using the draft render setting which has low rendering quality. Preparing for the draft render setting as the preset is recommended.

Render setting preset can be made easily with the following process.

1. Open "Render Setting" dialog.
2. Choose "Auto Settings", and put a slider a little on right of a position of the middle of Draft and Final.
3. Choose "Manual Settings", and push "Acquire from Auto" button.



4. Turn on indirect lighting.
5. Push a "Save preset" button, and save a setting with the name (such as IDL_Draft) to the preset.

A setting preset for the final rendering can be made in the similar method, too.

Hiding of the object which has transparency

The calculation of the indirect lighting needs more time when there is an object which has transparency in the scene. Hiding the object which has transparency such as a hair is recommended in case of test rendering.

4.2. About material editing of the light

Don't edit the material of the "MainLight" and the "IBL" directly in the material room. This Configuration Dialog is based on the specific Shader Tree structure. Configuration Dialog may not work suitably when Shader Tree structure is changed in the material room.