IDG Portrait Studio User Guide

Introduction

The purpose of the IDG Portrait Studio is two-fold. The first is to give you a set of physically accurate photography lighting tools, to help you get the most out of Iray render engine. The second is to give you a set of realistic looking photography lighting props that don't need to be hidden from the view of the camera. Many of you will be familiar with my Photo Studio and Photo Studio – Point and Shoot line of products. The main focus of both of these product lines was to simulate the effect of realistic photographic lighting as simply as possible with little regard for how the simulated lights physically looked. Plus they were all designed to function in a render engine that didn't give you realistic light responses like falloff, light bounces and color transmission. The Portrait Studio has been designed from the ground up to deal with the more realistic way light is handled by the Iray render engine.

Area Lights and Photometric Lights

IDG Portrait Studio comes with two distinct sets of lights. Physically they use the same models, but each set uses a different type of light source. While how you use or adjust each type of light is different, every effort has been made to make the results you can get from each light type as similar as possible. So you can interchange between, and mix and match between, the two sets of lights as much (or as little) as you choose. Ultimately it's a personal choice between what type of light you are most familiar or comfortable working with.

Area Lights

An area light (also called a mesh light or emissive material) is a piece of geometry that has been configured to cast light into your scene. The shape and complexity of the geometry will affect the light created by the area light. While they can create more realistic looking light than a standard DAZ Studio light, that realism can come at a cost in render times. There are a couple major differences in working with area lights compared to regular lights. They don't cast light in the DAZ Studio preview window, and require a special headlight blocker to allow you to see the preview and block the default DAZ Studio lighting while rendering. Because the emissive material applied to the mesh is a Shader, the light controls are actually in the Surfaces tab instead of the Parameters tab.

Headlight Blocker

To compensate for the lack of preview light and to block the default DAZ Studio lighting during rendering, a Headlight Blocker loads up with each light. If you have more than one light loaded up, each will come with its own headlight blocker. Each scene only requires one headlight blocker, so you may delete duplicates if you choose.

Note: technically, the headlight blocker is not required during rending as there are now controls to block the default lighting on each camera, and on the render settings tab, but these don't help you with the lack of vision you get in the preview window when the default lighting is turned off without a headlight blocker in your scene. Plus you never need to worry about the status of the default lighting with a headlight blocker in your scene. One advantage of the blocker is that it gives you an object you can quickly parent all your lights to, so we can move or rotate all of them at the same time.

Pose Helpers

To help with the lack of visual clues and no way to 'look through' your lamp model, I have added a Pose Helper to give you back some of these abilities. It is basically a striped down standard spotlight with pretty much everything locked down and hidden away.

Note: please be careful not to use the camera controls in the preview window when using the 'look-through' feature of the pose helper as this will move the helper but not the model itself. Instead, use the movement sliders in the parameters tab.

Photometric Lights

Photometric lights are standard DAZ Studio lights with special Iray only features. One of those features is the ability to mimic a primitive area light but with its controls on the Parameters tab instead of the Surfaces tab, just like a regular light.

Spotlights vs Point Lights

When I first started making these lights, the plan was to use photometric spotlights with the models. In a perfect world this was the obvious choice. Unfortunately the results you can get from a photometric spotlight, even one set to mimic an area light, are not the same as you get from the comparable area light version. Basically the spotlight is already designed to be a focused beam of light, regardless of the geometry that surrounds it. Meanwhile, a photometric point light, since it is designed to cast light equally in all directions turned out to be a perfect substitute for the designed area lights. The only downside to this is that point lights don't generate much preview lighting and they lack the 'look-through' targeting feature. To compensate for this, each Photometric light loads up with a headlight blocker to improve working under the preview lighting, and a pose helper to give each light targeting help.

The Lights

The lights in the Portrait Studio are all based on the new style of CFL based constant lighting photography lamps. These new style lamps are smaller, more efficient and much less dangerous than the older, high power, strobe lights. The Portrait Studio contains 4 of the most common types of photography lights along with many additional options to let you modify the light created by these lights. Each light is mounted on either a standard lamp stand or the more complicated boom style lamp stand.

Movement Controls

Each lamp stand has several moving sections to help move and pose the light in to the proper position, but moving and posing each bone in the lamp stand individually can be rather complicated. To help simplify this, there is a new movement control section added to the base of the figure that includes control dials that allow you to adjust all the various parts of the lamp stand. Also included on some models are controls to adjust the posing of props parented to the model, making moving and posing the various lights much easier.

Spotlight and Floodlight

The simplest, most essential, lights in any photographer's kit, these direct lights are simple and straight-forward to use, but the light they cast can be too harsh, and their shadows to sharp for every situation. Generally the light cast by these lights renders quickly and cleanly.

Softbox and Octabox

These lights are designed to cast soft light. That means light that doesn't create harsh highlights while giving you soft, diffuse shadows. In their default shape they cast their light through a material called a diffuser that softens the resulting light. At the same time it also cuts the intensity of the light, roughly, in half (one full 'Stop' in photography terms). The 'open' versions don't have the diffuser, or anything else in them. Effectively making them sort of like a supersized floodlight. In real world terms, there are lots of differences between Softboxes and Octaboxes that have little effect on how they render in your scene (cost, setup time, ease of use, etc.). One of the main real differences between them is the shape of the reflections created by both lights. Softboxes give to rectangular (or square) reflections while the Octabox

gives you rounder reflections making them the soft light of choice in most portrait situations. In general, soft light takes longer to resolve while rendering, but can give you some of the most pleasing results.

Light Accessories

Barndoors

Barndoors are a physical way to help control the light being cast from a Spot or Floodlight. The main use for them is to try to light up one subject while not affecting another (casting light on your subject but not on the backdrop or on the backdrop but not on your scene, etc.). In real-world terms, barndoors were also important in keeping light off the camera lens but this has no real effect in your renders (unless your light source is actually in your scene).

Gels

A gel is simply, a material that when put in front of a lights changes the color of the light that goes through it. In the Portrait Studio the gels are made of glass and the light not only gets colored by the glass, it also is being refracted by the glass as it passes through it. There are several gel color options in the Shader folder. These gel colors can also be applied to the diffuser material on the Softbox and Octabox.

Snoot

Snoots were designed to give you maximum control over light placement/spread. They can give you pinpoint light in a very specific spot. Their main use is as a 'hair' light.

Grids and Blinds

Grids and Blinds serve a similar purpose as barndoors. They help control the spread of light to the sides of a softbox or octabox. They also soften the light created as it passes through the grid. Grids are commonly named by the angle at which the grid blocks your view into the light (so a 60° grid lets out more light than a 40° grid). Technically, when used alone, and at close range, grids and blinds do give you a gobo like effect, but this is not their intended effect. When used with other lights the gobo effect is mostly lost. The main desired effect of a grid is to lessen the uniform feel of the light being cast, giving it a more realistic feel than that from a more direct light source. In photographic terms grids lessen the intensity of the light created by the lamp (by 1/3 to ½ a full 'Stop' for 60° grid and 2/3 to one full 'Stop' for a 40° grid)

Props

Backdrops and Paper rolls

A set of basic photography background props and paper rolls are included in this package. These props also include the necessary stand props to keep them upright. There are several material options in the Shader folder, plus they can also use any of the older paper roll textures from our Photo Studio or Photo Studio – Point and Shoot series of products.

Studio

The studio is a simple room that helps you control the environment around (and the reflections cast onto) your portraits. The room is designed with skylights and a closable door so you can choose to add some natural (environment) light to your scenes. All the walls and the ceiling can be moved to create a smaller studio space and there are several different material presets for the Studio in the Shader folder. Each wall and the ceiling can also be hidden if needed.

Note: Iray hates things that are invisible and can, at times, give you strange results when you have them in your scene. So instead of just turning off the visibility of the walls in the scene tab, they actually drop into the floor when you hide them.

Reflector

A reflector walks the line between being a prop, a light accessory and a light itself. While technically it doesn't create light itself, it can help light your scene by reflecting light created by another light back into your scene. The color of the reflector can also change the color of the light reflected back into your scene. There are several material options for the reflector in the Shader folder.

Premade Light Scenes

There are several premade scenes, for both the Arealight and Photometric versions. These are meant to be an introduction to what you can do with the Portrait Studio light set. You can use them as they were designed, or you can use them as starting points to customize as you need. Ultimately, the lighting you need is dependent on your subject (and your subject's pose) so no premade scene is ever going to be perfect for every situation. Each scene has a left and right version, and the thumbnails (and pop-out tip images) were designed to, hopefully, give you a feel for what each light set will look like. Some of the sets also have an A & B version. The A set is the basic, simple version while the B version has more elements added in. B doesn't mean better, it just means more so don't underestimate the power of simplicity.

Render Notes

While there lights have been designed to be realistic models they were also designed with a thought to how their design would affect rendering times. The goal for most portrait photographers, and most 3d artists, is generally two-fold: to get the most light possible into their scene and to get the softest lighting possible. Simply put, that means no harsh highlights or shadow transitions. Unfortunately, in 3d terms, that means longer render times to create the subtle transitions between light and dark. But there are ways around this. Basically if you fill your scene with nothing but soft lights it's going to take a long time to resolve. Mixing direct lighting and soft lighting into your scene gets you the benefits of both types of lights without the long render times you get using just soft lights. Another thing is to watch what happens to your scene during the first couple dozen iterations. When you see an area that is all shadowy and all of a sudden it gets filled with dozens of fireflies, these are the areas that are going to take a long time to resolve. On the other hand, these areas are also the point where you are going to get the most subtle lighting effect once it is all said and done. Also, ignore the render percentage displayed, if your render looks done to you, it's done no matter what the percentage clock says.

Design Notes and other stuff

When I first sat down to create the first Photo Studio set, this was this set that I envisioned making but that project took on a life of its own and became something completely different. So for several years this concept has been filtering through me waiting for the right moment to come out. This is that set.