

ahHDRI IBL Daylight Pack for ahEnvironmentLight Version 2.0



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ahHDRI IBL Daylight Pack

Introduction

This package includes 17 HDRI IBL Light Presets for the ahEnvironmentLight Version 2.0 for simulating the sunlight of a complete summer day. One Preset for each hour of the day from early dawn at 04:00am to 20:00pm after sunset.

This pack is best used for daylight outdoor scenes but can also be used as base light for indoor scenes provided there are windows or other openings in the room to let at least some light from the outside in.

Please be aware, that this pack can only be used to its full capacity if You own the ahEnvironmentLight Version 2.0 for which it is specifically designed.

However, users of the free version 1.0 can use the sky maps directly in their IBL lights as IBL maps.

Users of other programs can use the sky maps also, provided that their software can handle HDRI IBL Maps in floating point TIFF format. In case You are unsure you might want to try it out. In the case it don't work for You there is always the DAZ return policy.

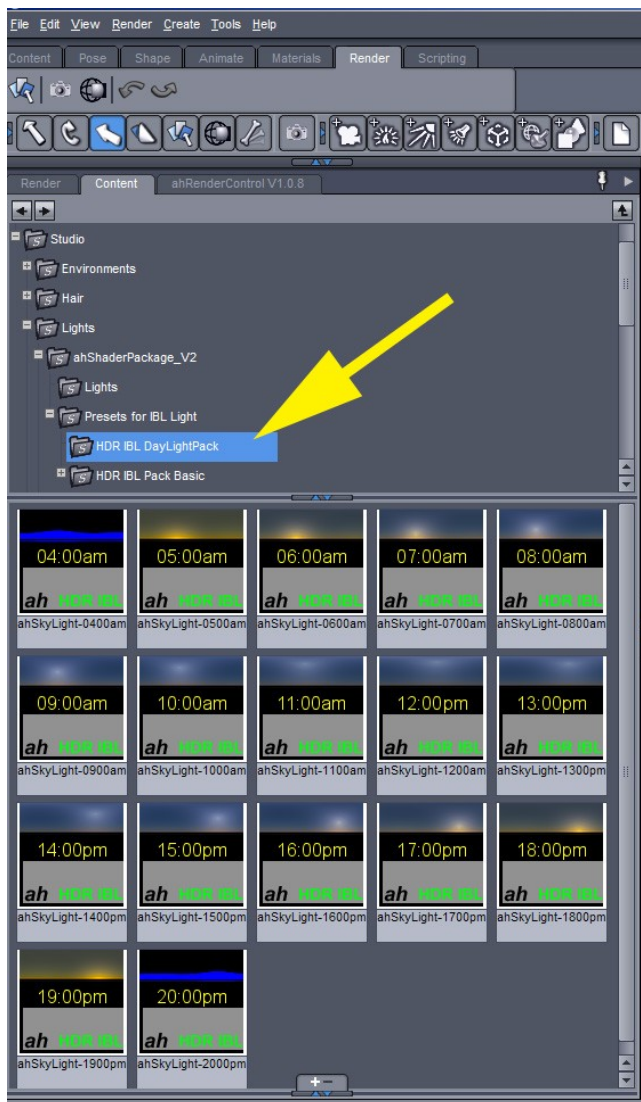
Have fun rendering!

Arthur. Heinz
aka Pendragon on the DAZ Forums

Where to find the DayLight Presets after Installation

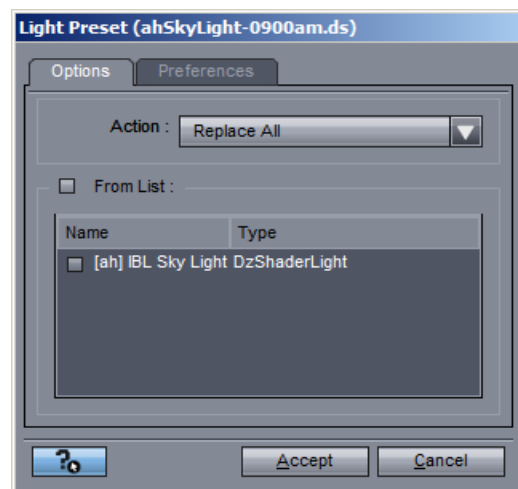
After installation You can find the new presets in the folder:

- Contant Tab
 - Studio
 - Lights
 - ahShaderPack_V2
 - Presets for IBL Light
 - HDR IBL DayLightPack.



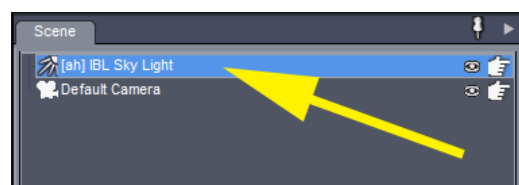
Loading a the SkyLight Preset

For loading one of the presets just double click on one of the icons.



The standard DAZ Studio dialog pops up to ask if this IBL Light should replace all lights in the scene (meaning to delete them) or if the new IBL Light should be added the lights already in your scene. Make your choice and click on the button Accept.

After that You should find the newly added Skylight in the your scene hierarchy.

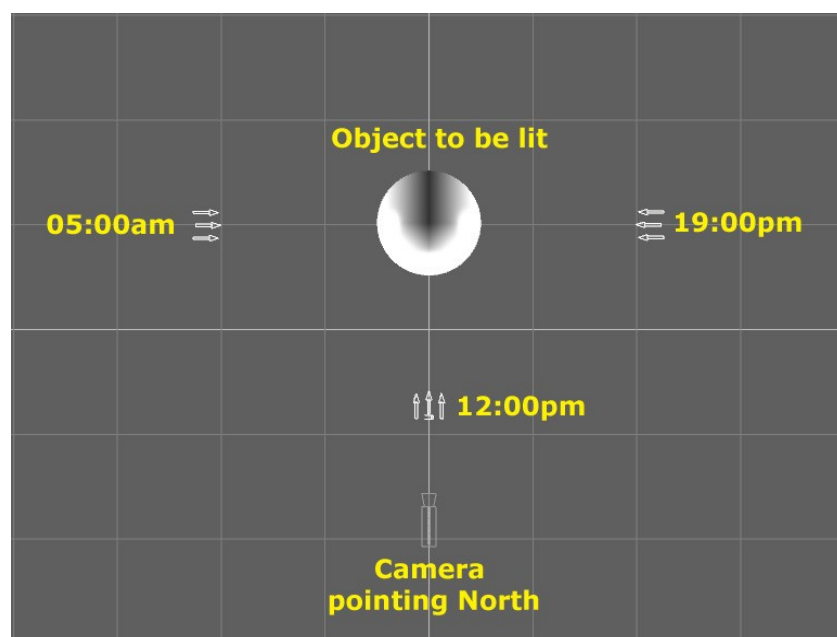


Tweaking and adjusting HDRI IBL lights is covered extensively in the manual for the ahEnvironmentLight Version 2.0. As many controls are similar to the free version 1.0 I also suggest to download the manual for those users from here: <http://artzone.daz3d.com/wiki/doku.php/azproduct/6920>

Using the Presets

Orientation of the scene

In a newly created scene the default cameras orientation is looking north. If You imagine yourself instead of the camera to your left would be East, in front North and to your right is West. South is directly behind You.



The graphic above is only an approximation, but should give You the general idea.

So if You choose an early morning skylight preset, say e.g. the ahSkyLight-0500am, the sunlight comes from the left. Accordingly the sunlight in the ahSkyLight-1200am comes directly from the South.

Note:

You can adjust the azimuth of your IBL Skylight after loading by unhiding the hidden parameters. Rotating in Y-Direction is equivalent of changing the azimuth. Of course, your sun may rise in the north afterwards!

Setting up a Scene with an additional Distant Light as Sun Light

A most effective way to simulate daylight is a combination of a standard distant light to simulate direct sun light and one of the presets from this package to simulate for the soft, diffuse part of natural daylight that emanates from the sky and bounces back from the surrounding surfaces.

The only “hard” part is to match the distant lights direction with that of the used IBL skylight map. Knowing that, we can set up a broad daylight scene in mid summer very easily:

- Load the ahSkyLight_1200pm preset
- Set the ahSkylight's intensity to 50%
- Create a new distant light and set the rotation to:
X-Rotation: -60
- Adjust the distant lights intensity to 100%
- Turn on the shadows on the distant light – here we use shadow maps
- Render..



This settings give us what I would call bright sunlight with natural, shadows that are well suited for a sunny day.

A small change of parameters gives us the impression of a more hazy, maybe slightly clouded day with softer shadows and less pronounced highlights:

- Change the ahSkylights intensity to 75%
- Change the ahSkylights AO Strength to 97%
- Adjust the distant lights intensity to 75%

- Render...



Note:

Using raytraced shadows on with the above setup will give You more pronounced shadows at the expense of extra rendertime.

Some more variations:



Above image shows the scene rendered with the distant light only at a 150%. Good for effect purposes, but unnatural, hard shadows.



Above image shows the scene rendered with the IBL skylight only at 150% intensity. A setup like this is great for simulating light of a cloudy day.

The above values are working good for the above scene, but may most certainly need adjustments for your scene. But I hope You got the general idea how to mix the IBL light with the distant light for convincing setups. Do small test renders, play with it until You are satisfied with the looks.

How to use the IBL maps as Skydomes

The HDRI IBL skylight maps can also be used as very convenient skydome maps:

Steps for setting up a skydome:

- Add a standard sphere to your scene. Make it big, say 100m.
- Go to the parameters tab:
 - Set Y-Translate to -5000 (down, half the diameter of our sphere in centimeter)
 - Set Y-Rotation to 180 (to compensate for the the fact that Your are looking at the inside of sphere not the outside)
 - Set Cast Shadows to Off (important to avoid shadowing your scene from the IBL light which is supposed to come from outside your scene)
- Go to the surface tab, look for the sphere and select the default surface:
 - Set Diffuse Strength to 0%
 - Set Specular Strength to 0%

- Set Ambient Color to pure white (RGB 255,255,255)
- Set Ambient Color map to the IBL to same map You used for the IBL Skylight, e.g. ahDayLight_Summer_0700. If You have the IBL Skylight already loaded You find the map in your images list. Otherwise navigate to the folder:
[YourDAZStudioFolder]\content\Runtime\textures\ah\IBL_HDRI_SkyMaps\HazyDay and pick it from there.

Note: *Don't be alarmed, if You can't see the image in the preview – HDRI textures can only be seen after rendering.*

- Render...



Contacting the Author

You can reach me any time via eMail: arthur.heinz@arthurs-cgi-corner.net or at the DAZ forums (www.daz3d.com) under my nickname pendragon.