

Sky Lab Settings when Exchanging an HDRI

Problem

Some Sky Lab settings automatically change when an HDRI is loaded or an existing one exchanged for another. This is also true if an HDRI was created from a sky and another one is created from the sky, though there are some exceptions on this case.

For scene development, a low resolution HDRI should be used. It loads faster, tone-mapping is swifter, it uses less memory and the saved scene is smaller. The size of the HDRI does not matter as far as the light generated by it is concerned.

Memory limitation

Size only matters if the HDRI is to be rendered as background. When the scene is set up to the artist's satisfaction, it should be saved with a new name, and then the HDRI replaced by the higher resolution one. That will be the moment to restore the automatically altered Sky Lab controls.

Render the artwork and save the rendered image before saving the scene with a new name is attempted. Depending on the scene and the memory installed in the computer, Bryce may run out of memory when the scene with a high resolution HDRI in it is saved, and crash.

Having saved the scene with the low resolution HDRI in it will enable the artist to recover the scene. Saving the rendered image with the high resolution HDRI separately and prior to saving the scene assures that at least the artwork is not lost.

This needs to be checked and restored

Here are all controls that change whenever a new HDRI is loaded. Please note that this is a generic document and not all controls may be relevant for the scene at work.



Sun & Moon: Nothing changes in this tab. *Disable Sun Light* gets disabled, but the right side of this tab is visible in the other tabs as well. The other tabs “feature” controls that change.



Cloud Cover: Stratus and Cumulus clouds are disabled; the settings are retained, however, if the clouds are re-enabled. If an HDRI from Sky is generated, the clouds are not disabled.



Atmosphere: Fog, Haze and Rainbow are disabled; the settings and colours are retained if they are re-enabled, though. Rainbow is not disabled if an HDRI from the sky is generated. More dramatic in this case is Volumetric World — if enabled, Bryce crashes. However, if an HDR image is loaded, this does not happen.



IBL: Here are most of the changes that occur when an HDRI is loaded or generated from the sky. *Compat Specularity* and *Tone map* are disabled. Although *Use as backdrop* stays selected, the mode reverts to *Blend into background* and *Use sky color* is disabled.

Apply to light source right of *Intensity* is also disabled. On the other hand, *True ambience optimization* and *Ignore tone mapping* right of the *HDRI Effect* control are enabled.

Note that the *Disable Sun Light* is enabled, i.e. the sun light and sun specularities are switched off.

Some notes on the IBL tab

- The preview, even if *Render in Scene* is selected, only renders with *Quality 16*, no matter how the control is set. The preview cannot render premium effects like *True Ambience*.
- Using a higher *Quality* setting than 16 if *Light From Inside* is used has no effect on the number of light sources and hence the light generated.
- The “Compat” in *Compat Specularity* means “compatible” and refers to Bryce 6. It only shows an effect if *Apply to light source* is enabled — which is also a control to make Bryce 6 scenes compatible to Bryce 7.1 IBL. Additionally, it works as an *HDRI Effect* and *Specularity* multiplier and, of course, controls the brightness of the backdrop.
- *Cast Shadows* slows the render even if *HDRI Effect* is at 0 and no light generated. Disabling *Cast Shadows* or setting shadow *Intensity* to 0 speeds up the render. *Softness* greater than 0 makes the render very slow, whether *HDRI Effect* is at 0 or not. However if the shadow *Intensity* is at 0, it does not.