HDR Light Studio for Softimage

Disclaimer:

This software is provided free of charge and we accept no responsibility from damage to yourself or your computer that may arise from the installation of the software. Use it at your own risk.

Support:

No support is promised. However I am very happy to receive bug reports and suggestions for improvement of the plugin. Donations are gratefully accepted and will be used to allow more time for development and maintenance.

Requirements:

HDR Light Studio 4.2 or later

Softimage 2013 or later, Windows x64.

Installation:

1. Install HDR Light Studio.

2. Drag the HDRLS_SI.xsiaddon file over the Softimage workspace, or use File->Addon->Install.

Overview:

In Softimage, images are loaded as Image Sources and then instantiated as Image Clips which connect with Environments, Textures, Lights, etc. The heart of the HDR Light Studio for Softimage addon is a Custom Property which is attached to an image source.

When HDR Light Studio for Softimage updates an HDR image, the Custom Property updates the image source. The Custom Property also provides the PPG for controlling HDR Light Studio from within Softimage. The Custom Property also has an unexposed parameter which saves the HDR Light Studio project settings each time the image is updated using HDR Light Studio for Softimage.
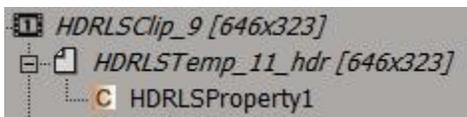

The addon works the same whether the Image is connected to an Environment or Light or other render tree element. It is also agnostic regarding what renderer is being used. So far, it has been tested on Redshift3D, Mental Ray, and Arnold Render. It does not work with 3Delight.

Tip: Interactive updates with Redshift3D can be significantly more responsive if Redshift Proxies (.rsmesh files) are used, especially with heavy meshes.

Workflow:

1. Controlling an Image Source with HDR Light Studio:

First you will need to connect an image source controlled by HDR Light Studio to something in your scene. Most commonly this would be an Environment. Open the Environment's Render Tree. Click User Tools > Add HDRLS Clip. This will add a new Image Clip with an Image Source controlled by an HDR Light Studio Property. This can then be connected to a texture input on the Environment node.
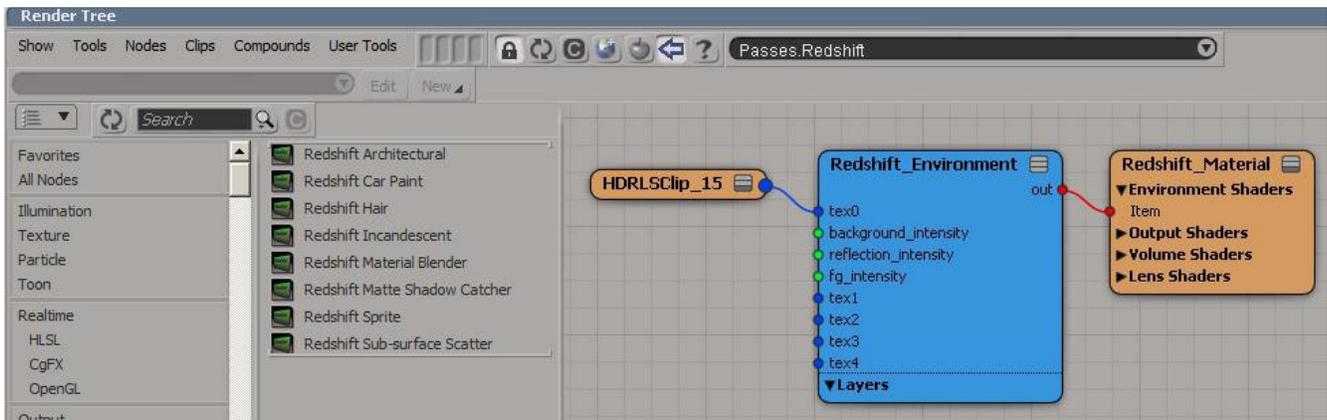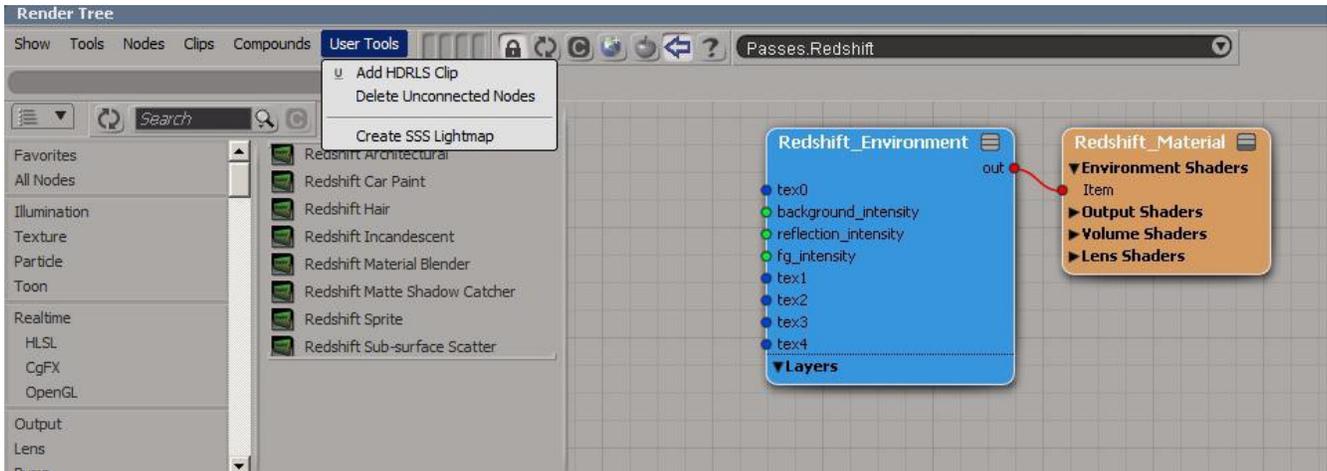
Alternatively, if there is already an Image Clip connected to the Environment node, you can right-click on the Image Clip and select one of the options to convert the clip to HDR Light Studio control or replace the Image Clip with a new one controlled by HDR Light Studio.
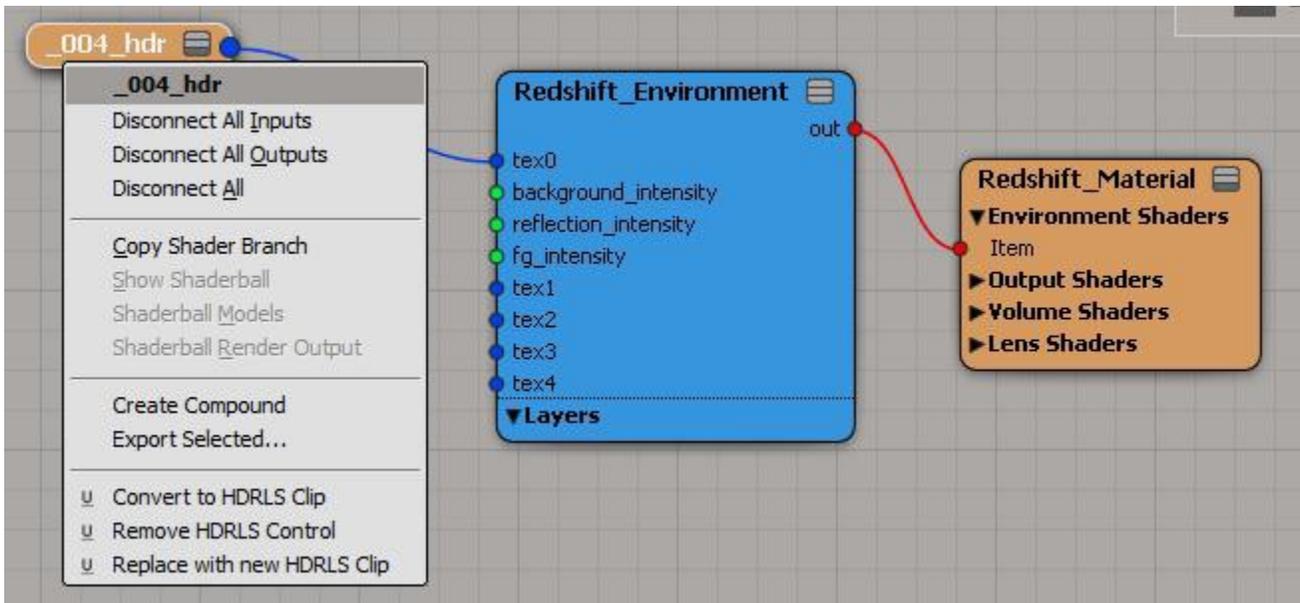
Right-click can also be used to remove HDR Light Studio control from an Image Source.
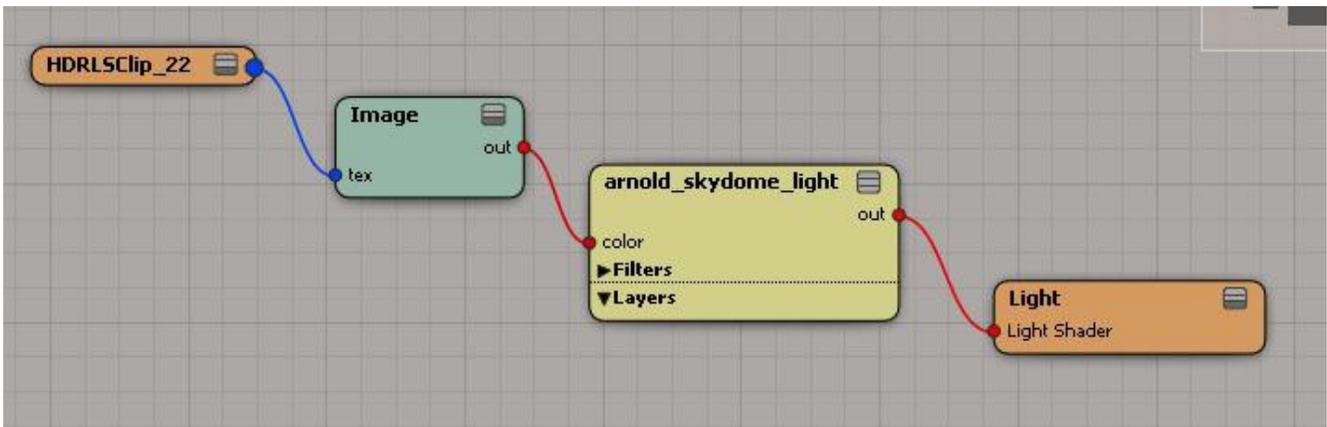
Note: More than one Image Clip can point to the same Image Source. In this situation, if HDR Light Studio changes the Image Source than all of those Clips and their Render Tree results will be changed.
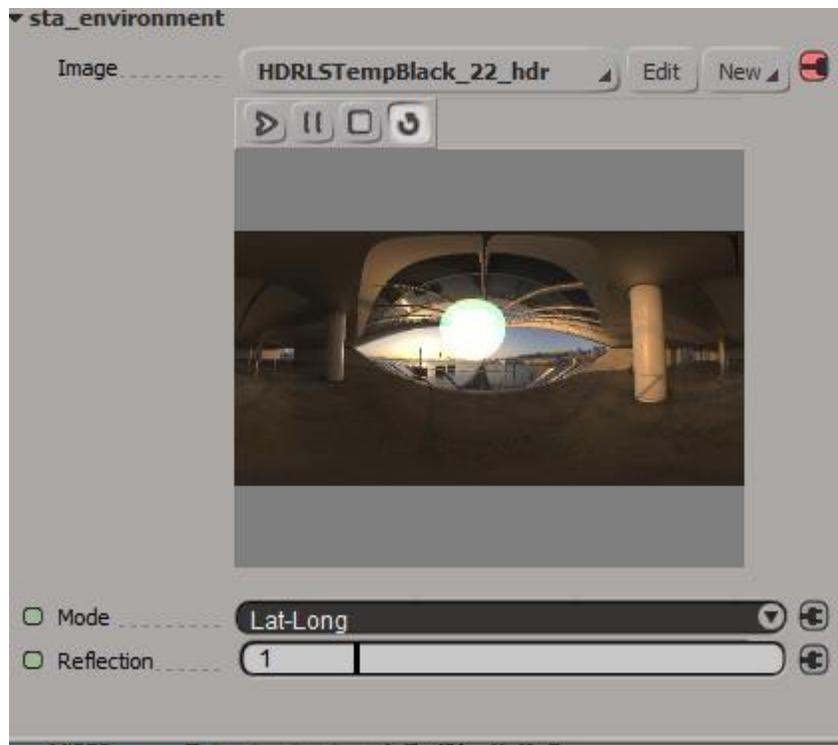
1a. Arnold Render/SITOA tips:

With Arnold the scene can be lit using a sta_environment as a Pass shader.
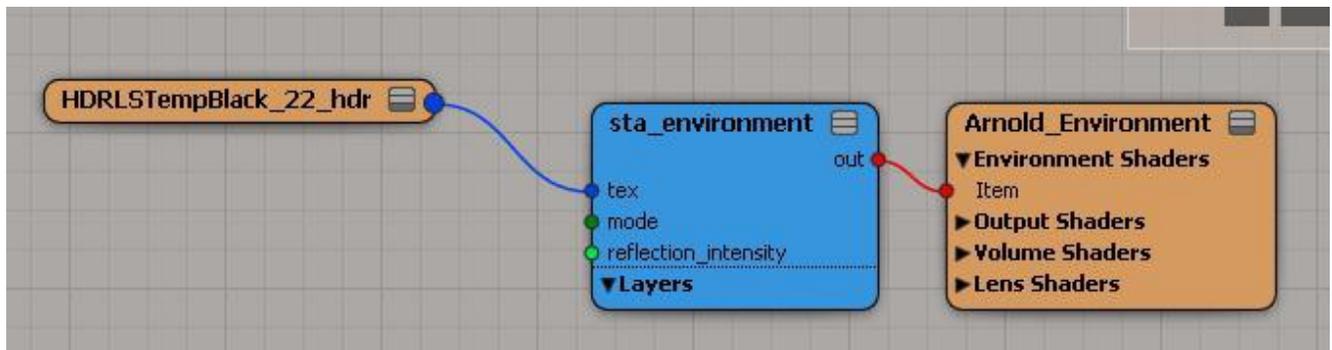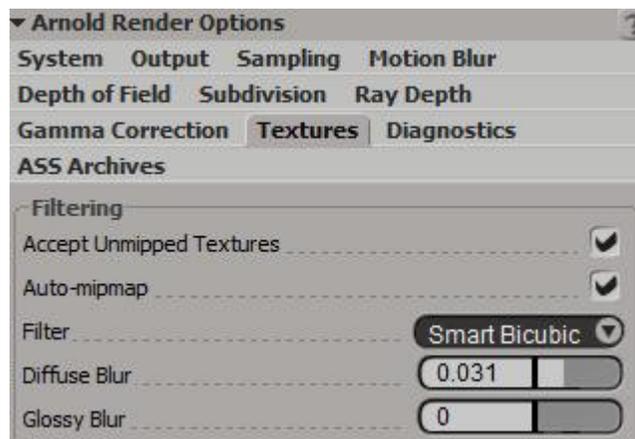

Or an Arnold Skydome light can be used.

With either choice be sure to choose Lat-Long mode or format.

Important: in the Arnold Render options activate "Auto-mipmap" in the Textures tab.

2. Open the Interface and start HDR Light Studio:

Double-click on the Image Clip controlled by HDR Light Studio in the Render Tree. The PPG for the HDR Light Studio Property should be embedded in the PPG for the Image Clip (Note: sometimes the Property PPG won't be shown immediately. If that happens just close the Image Clip PPG and Double-click again.) Another way to open the Property PPG is to find the Image Source in the Explorer, such as in the Images/Sources or Passes settings and then finding the HDRLSProperty node under it.

Click on the Start button (Please be sure that the standalone version of HDR Light Studio is not running). The HDR Light Studio interface should open and the (read-only) Active box should be checked. You can have more than one Image Source controlled by HDR Light Studio but only one Image Source can be actively controlled by HDR Light Studio at any given time. The Active check box indicates when an Image Source is being controlled via its HDR Light Studio Property. The Pause button will close the HDR Light Studio interface and deactivate the connection. The Stop button will stop the HDR Light Studio process.

# 3. Controlling an Image Source with the main HDR Light Studio Interface:
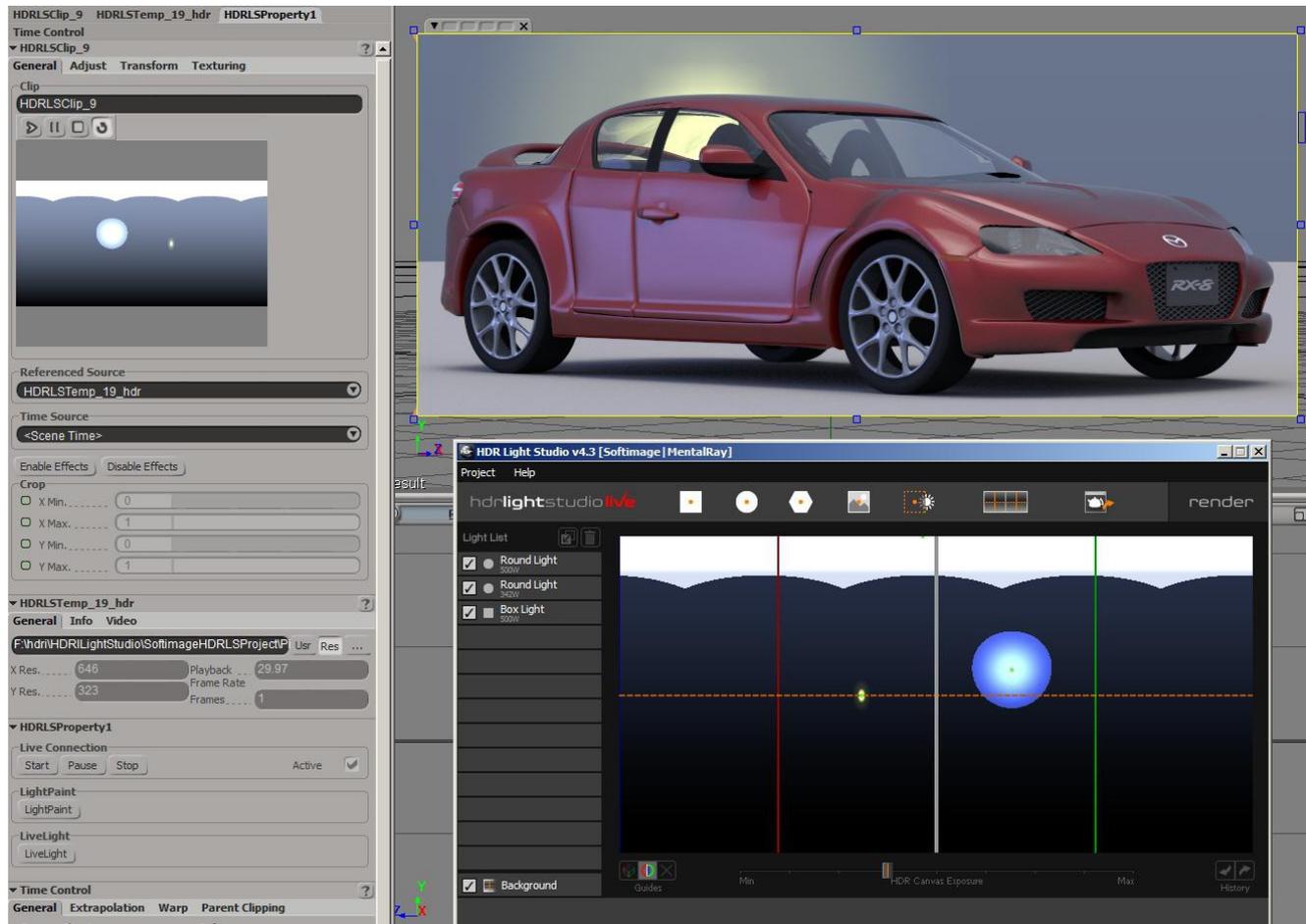
Use the top buttons of the HDR Light Studio interface to add lights. Use the other controls to adjust the lights' color, shape, size, falloff, etc. The changes will be sent to the currently active Image Source and any active Render Region or Preview Render will be updated. Please see the HDR Light Studio documentation for full details of the interface controls.

Note that HDR Light Studio will generate low resolution images while interactive adjustments are being made. When you are ready to produce a full-resolutiion HDR image, click the "render" button and select options. The high resolution image will be applied to the active Image Source. Once HDR Light Studio is invoked, an HDR Light Studio project is saved with the Property on the Image Source. This way, when HDR Light Studio is restarted from an Image Source, the project will be re-opened, with the same lights in the same positions. This information is saved with each of the HDR Light Studio Properties when the scene is closed.

4. Controlling light placement with LightPaint:

Placement of a light can be interactively controlled by clicking on an object in a 3D view to illuminate that area of the object based on its normal direction.

First be sure that the Active box is checked on the Property for the Image Source you want to reposition. In the HDR Light Studio interface select the light you want to control. Now press the LightPaint button on the HDR Light Studio Property PPG. This will activate the LightPaint tool. The cursor will change:
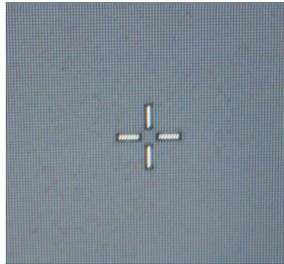
Right-click to select the LightPaint mode.
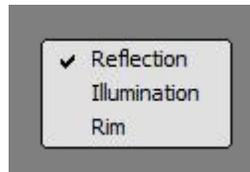
The default mode is Reflection, which will place the light so that it will be reflected in the object at the point it is clicked. Illumination mode will place the light so that it is in the direction of the normal at the point the object is clicked. Rim mode will place the light in the background behind the point of the object which is clicked.

LightPaint will work in 3D views. For best interactive lighting feedback, start a Render Region and click right on an object in the Render Region. LightPaint does not work in a Preview Render window. Also, please note that for low-poly objects there may be some inaccuracy in estimating normal direction, since interpolation must be done and this can affect light positioning.

5. Controlling light placement with LiveLight:

Clicking the LiveLight button will export a Collada file and open it in the HDR Light Studio LiveLight application. This provides very fast interactive lighting feedback. Of course the quality will depend on the embedded Collada exporter. As with the other methods, changes made in LiveLight will be sent to the active Image Source.