## DG Iray Selectable Hair Color user's guide

## **Quick Start:**

1. Load hair model on figure. Apply a material preset included with hair model that will have a scalp color compatible with desired end result.

2. Select hair model in the Scene Tab, and also select desired surfaces in the Surface Tab. Typically one would want to exclude the scalp material from this selection.

3. Apply either the base shader or a full preset.

4. Customize the color with the Base colors, Highlight colors, Masks and tiling presets.

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Base shader – apply first. This will retain any bump map and cutout opacity map if Iray materials are first applied to the hair. Bump and cutout opacity will not tile using the general horizontal and vertical tiling sliders.

Full presets – these change the base colors, mask, and highlight colors, and adds a top coat. No other settings are changed.

Base colors – these change only the nine base colors values

Highlight colors - these will change only the three highlight color values

Masks – these change only the image blend mask. It will default the strength value back to 1.0 or full strength. The masks are used to control how much of the highlight color shows up over the base color

Tiling – these change the horizontal or vertical tiling amount of the hair colors and the highlight blend image mask. The H tiling will make the hair go from smooth strands to chunky color strands. The V tiling will influence the blend mask, but not the color gradient. Presets are provided for horizontal tiling only. If you wish to vertically tile the blend mask map, enter the desired number on the parameters tab. It will not change the tiling of the opacity.

What the gradient is doing:

The gradient is applying user selected colors in a vertical striped manner. The following renders with the hair shader applied to simple primitive plane will help illustrate the various parameters. Most of these parameters will not need to be changed unless desired. Interesting effects can be achieved.



If you imagine this image overlaid on a hair template, you can pre-visualize what colors will fall on the hair model, depending on the UV map.



The highlight colors shown here with blend mask



The various gradient modes and interpolation modes work as follows. You can get subtle color variations by changing the interpolation mode. In general, the gradient mode will not need to be changed for the purposes of applying this shader to a hair model.

Interpolation modes: Off, Ease In, Ease in and out. Typically, the default mode of Interpolation off, with the defined edge between the colors is desirable to imitate the look of fine hair strands. Feel free to experiment with the other modes if desired.



Gradient modes: linear, squared, box, diagonal, 90 degrees, symmetric 90 degrees, radial, 360 degrees. Again, the default mode of liner with vertical banding is most desirable for hair model, but you may want to try out other modes for nonstandard UV maps, or to achieve different effects.



The tiling presets and the using the tiling parameter sliders will tile the base color and highlight gradients, the blend mask image map, and any other image maps that may be applied. Exception: the bump map and cutout opacity are not affected by any tiling. Illustrated here are tiling at 1 (default), 2, 5, and 25. You can see how the color bands repeat going from blocky to an overall smooth color.



Defiantly experiment with different color variations and interpolation modes to get exactly the colors you want.