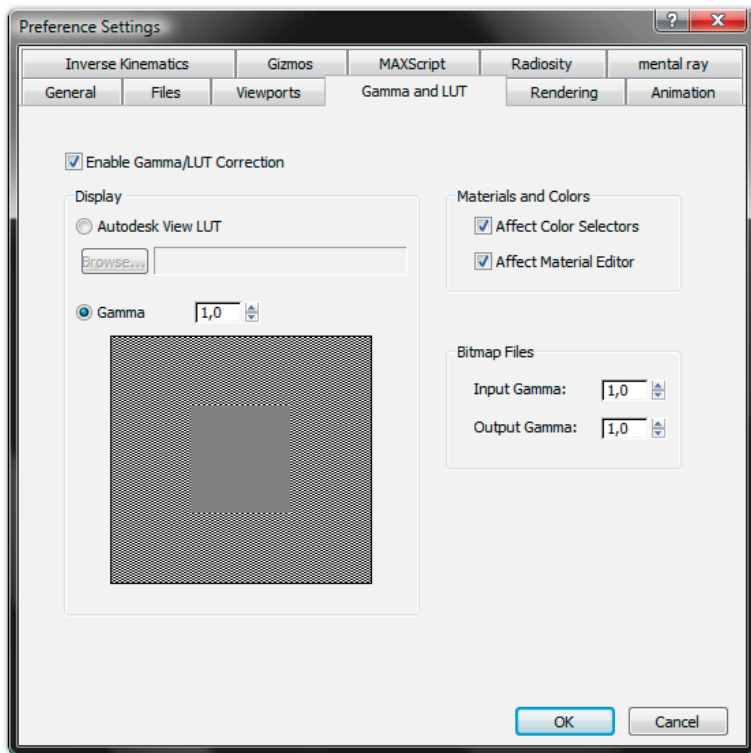# Tutorial - linear workflow / LWF (3D Studio Max, VRay)

Quick Guide...

There are a lot of tutorials on linear workflow out there and they all have something in common: they are explaining it too long! We don't do that. We don't show different ways to handle that, we just give you one solution that will let you sleep well at night and will give you great results. **Let's start!**

Gamma correction settings

Color mapping settings

VRayColor settings

Texture input settings

Step 1...

Go to *Customize > Preferences > Gamma and LUT*. Enable *Gamma/LUT Correction*. Set *gamma* to 1 and check *affect color selectors* and *affect material editor*. Set *input gamma* and *output gamma* to 1 and hit OK.
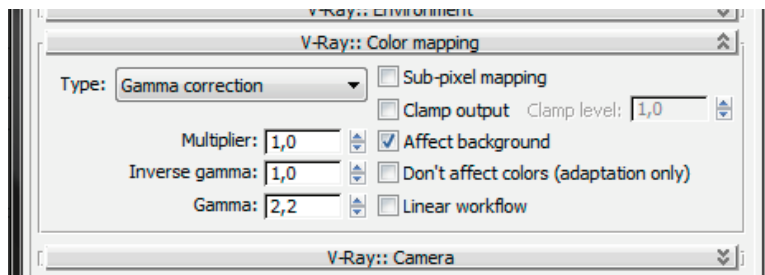
Step 2...

Open the *VRay Render Setup* and go to *V-Ray::Color mapping*. Make sure that *type* is set to *gamma correction* and set *gamma* to 2.2.
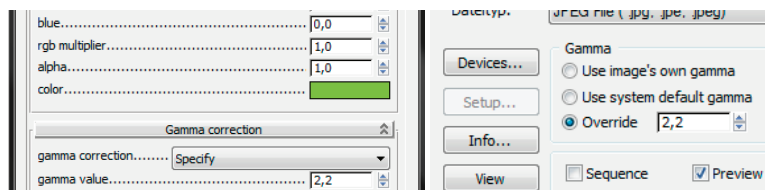
Step 3...

If you create a material without texture, put a *VRayColor map* into the diffuse slot. Set *gamma correction* to *specify* and set the *gamma value* to 2.2.
If you want to put a *bitmap texture* into your material's diffuse slot, set the import *gamma* to 2.2.
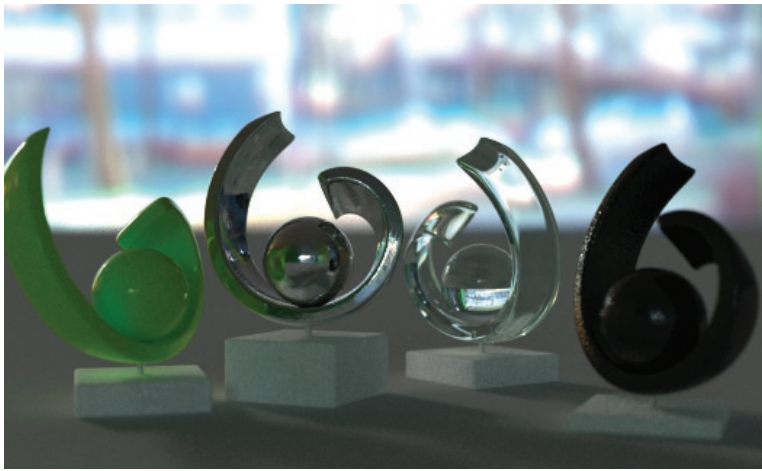
Done!

With linear workflow

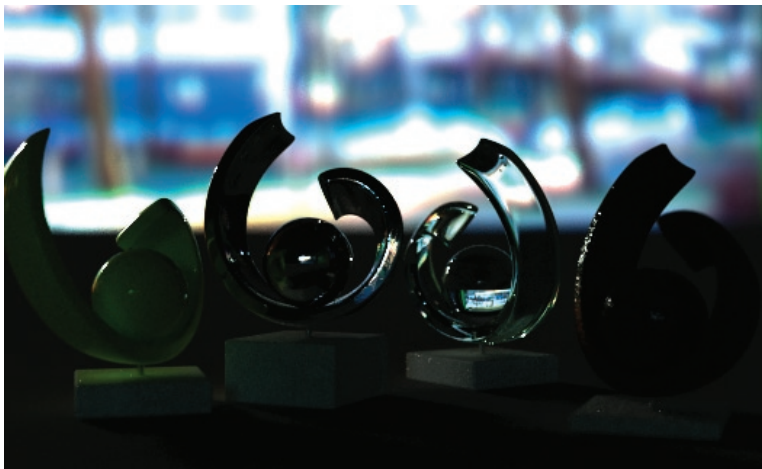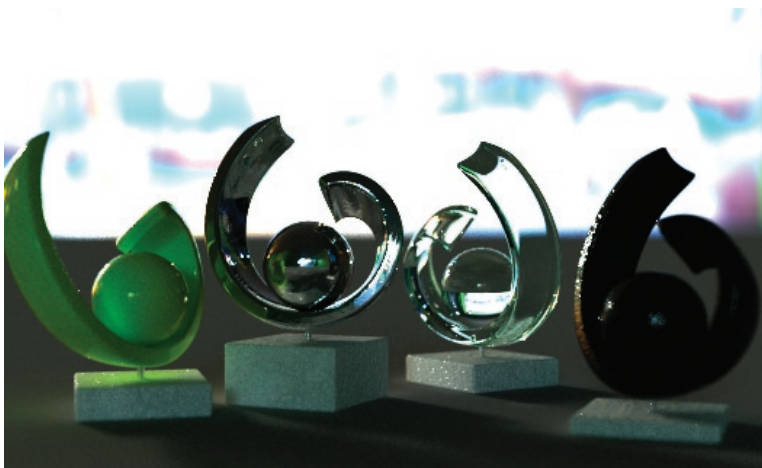
Without linear workflow, standard settings (too dark)

Without linear workflow, VRayHDRI multiplier set to 3 (burnt out)

Explanation...

We need to render our scenes with "1.0" for a linear workflow, because all mathematical operations done by the render engine are made for handling (color) values of gamma 1.0.
The color mapping settings transform the output to represent the calculated color values.

Hints...

Select the color value in the VRayColor material <u>after</u> you set *gamma correction* to *specify* and *gamma* value to 2.2, otherwise the color put into the color slot will change its value.
Don't change the *override* value to 2.2 in the *bitmap texture input* if the file is an HDR file with a burned in gamma of 1.0! The same goes for the settings of your VrayHDRIs and for normal/bump maps.

Final words...

Our workflow gives you the possibility to work almost like before but with better renderings and much better integration of HDRIs. Your output will look exactly like what you see in your *3D Studio Max render buffer*. You don't need to use the *VRay render buffer*. No washed out images, no dark renderings. The colors you choose in the VrayColor materials and the colors of your bitmap textures are the same than those you see on your final rendering.

What we do here is to "burn" the gamma into our output images because of our color mapping settings.

We use this workflow for all HDRI previews.