



by
CHOC2GROUP

Lesson 1

This first lesson will guide us through the process of setting up a simple scene. It provides a base understanding of the V-Ray Interface and where to find the most commonly used parameters.

The tutorial has three main parts: **UI Overview**, **Rendering Modes** and **VFB** (V-Ray Frame Buffer) which are annotated in the video. You can find scene files with the same names in the Lesson 1 folder. These were made so that you can start at any one of these stages and follow the steps in the video to the end.

UI Overview:

The first part of the tutorial covers the V-Ray interface in SketchUp. The main options can be found in the **V-Ray Asset Editor** - in here you can adjust the render settings, control the lights in the scene, create and adjust materials and work with V-Ray specific geometries.

In this example, we are going to use a simple **Plane Light** to illuminate our scene. We will only adjust the **Intensity** of the light here - all the lights are examined in more detail in the **Extra videos** of this lesson

We will also learn how to use the materials found in the **V-Ray Material Library** and how to properly set their scale/tiling

Rendering Modes

In the second part, we discuss the different ways V-Ray can render:

- **Interactive** - in this mode V-Ray starts rendering the whole image at once at a lower quality and then gradually increases the quality by clearing the noise. Every time we make a change to the scene (lights, materials, etc.) V-Ray refreshes the image. This mode is useful during shading and lighting as we can immediately see the effect of the change we made. This mode can use GPU acceleration. Interactive mode will continuously improve the quality of the image until we stop it and so it doesn't have a quality control slider.
- **Progressive** - renders similarly to the Interactive mode - starts at lower quality and improves it with time. The main differences are that it will not restart if a change to the scene is made. You can put a time or noise limit for the rendering so it stops after a certain time has passed or certain quality is reached. Progressive rendering can use **Global Illumination** modes like **Irradiance Map** and **Light Cache** which require a prepass but speed up the calculation of GI. However, if you want to use **GPU acceleration** you need to use **Brute Force** as both **Primary and Secondary GI engine**. We can use the **Quality slider** to control the quality of the final image - it affects both the settings for **antialiasing** and the settings for **Global Illumination**.
- **Bucket rendering** - this is the original mode in which V-Ray used to render. It divides the image into regions and each region is assigned to a CPU core to render. It can use Global Illumination

modes that require a prepass like the Progressive rendering but it cannot use GPU acceleration. We can use the **Quality slider** to control the quality of the final image - it affects both the settings for **antialiasing** and the settings for **Global Illumination**. This mode is the most memory efficient especially when we have things like V-Ray Proxies, V-Ray Fur or Displacement in the scene - these topics are discussed in the following lessons

VFB - V-Ray Frame Buffer

This module covers the basic settings of the V-Ray Frame Buffer.

- VFB history allows us to save multiple versions of our rendered image and compare them.
- The VFB can apply different **color corrections** to the image to improve the look of the image. Since the VFB holds the image in a **32 bit floating point format** you have much more color information to work with and you can save the image with the color corrections applied.