

# Micha's Starter Kit

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This tutorial should beginners help to get a quick start with Vray for Rhino.

Starterkit step by step This is the second Edition of my Starterkit with some improvements. Please download the scene file and the maps. The scene of the Starterkit is very simple - a test object and ground with soft background.

## - Rendering of the Starterkit (LC+IM):

At the environment options are setup two versions of a HDRI. The first image is downscaled and blurred HDRI for GI lighting the scene. The preblur helps to keep the noise low and to accelerate the calculation. The downscale of the image helps to save memory. Preblur and downscale are very important for a good speed. HighRes? HDRIs are necessary only, if it is visible in the background. The background environment is set to the original selfmade HDRI. Physical correct is, to set both HDRIs at the same options (brightness, gamma ...).

Image Sampler and QMC Sampler. The Image sampler is set to "adaptive QMC" and a high "Max Subdivs", because the scene is setup at the "QMC Sampler" options in full adaptive mode (adaptive amount 1). So, it is possible to use at all other subdivs options at the default value. Vray automatic use so much samples until the "noise threshold" is reached. This is the most important option of the file. A threshold of 0.05 is good for a fast raw preview and 0.005 is good for high quality images with very less noise. Most 0.01 should be good enough.

The color mapping is set at "Reinhard". In this mode it is possible to render an image in linear mode (burn value 1) or exponential mode(burn value 0) - values between 0 and 1 are fine. The difference between "exponential" and "linear" is like between the human eye and a cheap CCD camera. The eye can accept a very high light contrast, details are seen in shadows and lights, but a CCD camera has problems to get heaven and earth at the same image. But burn value 0 is very heavy and the image could look dull. A good start point is burn value 0.5.

The Indirect Illumination is set at Light cache for secondary engine and QMC for primary engine. This is the slow and easy mode. The quality of the image is determinated by the noise threshold and LC subdiv count only. How do it work? First will be calculated the LC, a physical correct method to calculate the lighting of a scene. The subdivs options set the count of LC samples - 1000 is good allround setting. During the LC pass the whole scene is visible and the user can see the lighting, materials and objects within a few seconds. A good first control over the scene. After the LC is calculated, the primary engine starts to calculate the scene based on the LC. In QMC mode each point in the scene will be calculated without sample approximation. Slow, but very stable. Artifacts and small details are not a problem. Good for beginners. ;o) If more speed is needed, the user can jump from QMC to IM. This is a classical fast method, the GI will be calculated in passes with approximations. Some times artefacts will be visible and the user must correct the IM options like sample count. Both primary engines are set in the file to best parameters, so it is possible to select one of the both modes.

Good, stop here. If more infos are needed, please ask here and I will update the tutorial.