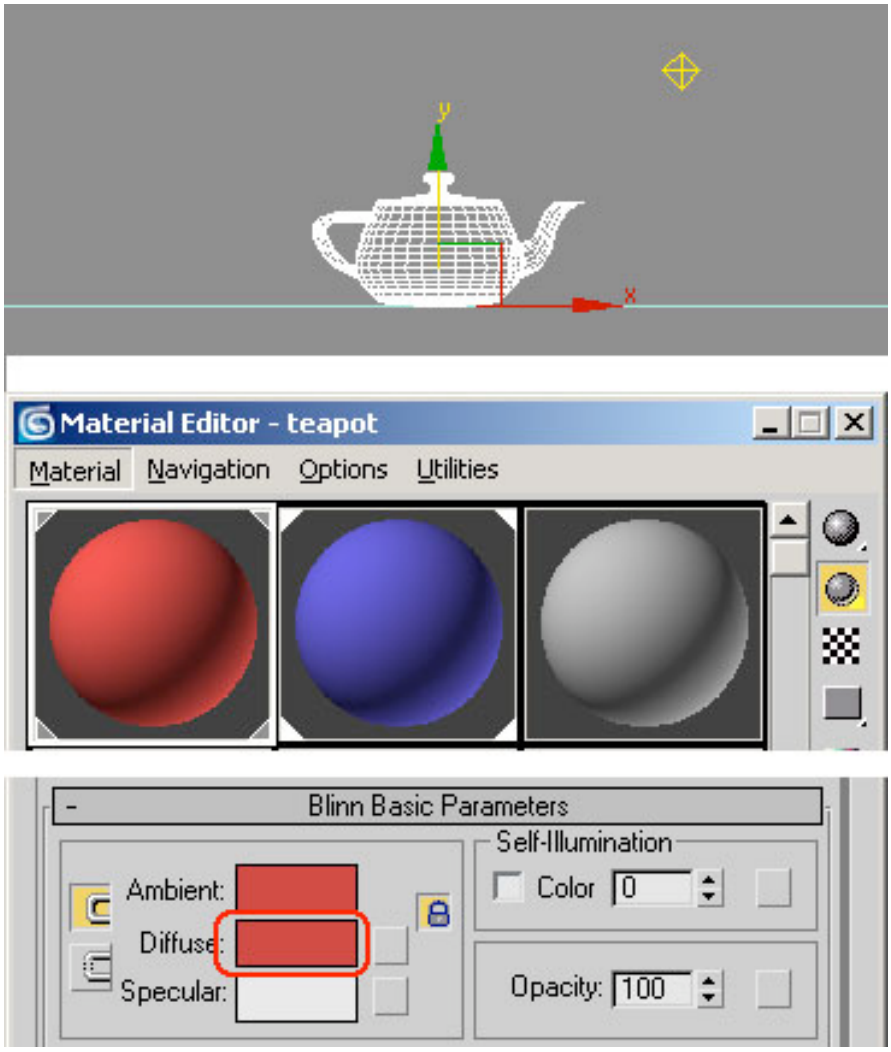
V-Ray is a render plugin created by Chaosgroup. Right now, V-Ray is available for 3dsmax, Maya and Rhino3D. V-Ray help artist to create photo realistic rendering, using global illumination. This tutorial is a brief introduction to V-Ray. I will use V-Ray for 3dsmax. In this short tutorial, you will know basic V-Ray features and what this plugin capable of. Therefore, this tutorial is for you who don't know anything about V-Ray and want to start learning.

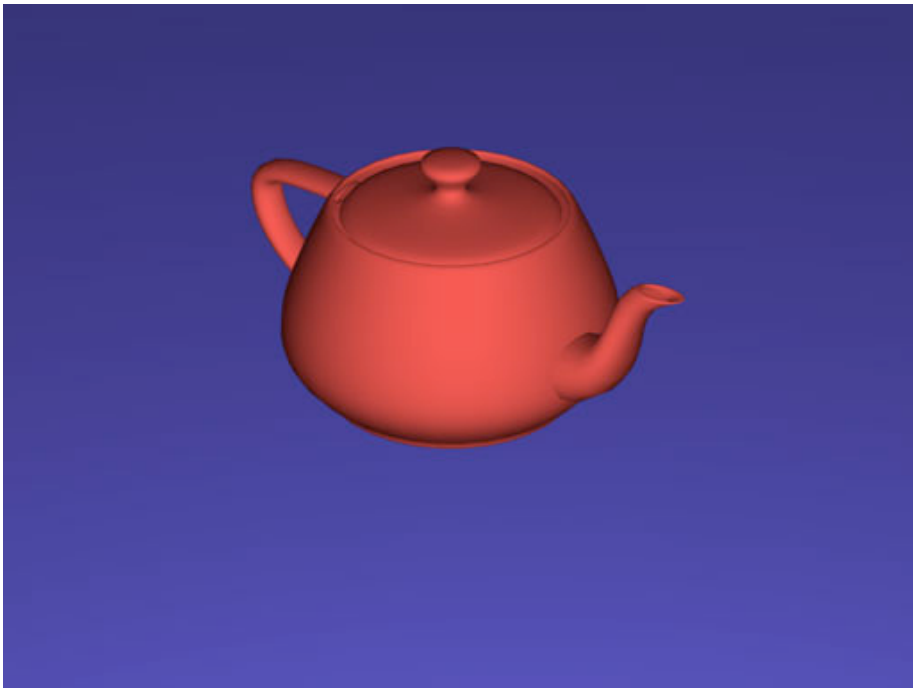
1. First, you need V-Ray installed in your computer. You may want to obtain V-Ray demo from Chaosgroup website. This demo comes with some limitation, but it will gives you nice introduction to V-Ray.

Start by creating plane, teapot and an omni light. Place teapot on top of plane. Position omni light above teapot (look at image below). For example I use 500x500 unit plane, teapot with Radius=40 and Segments=8.

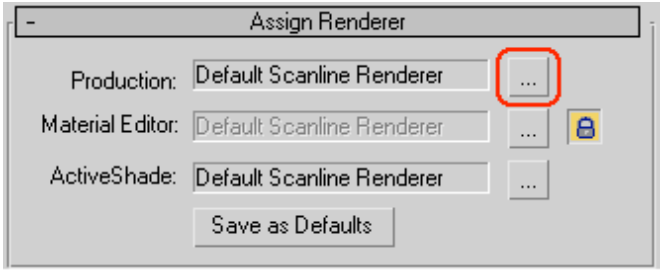
Then, apply material to teapot and plane. Open Material Editor (press M in keyboard). In Blinn Basic Parameters, change Diffuse color to red (R=196, G=55, B=55). In Shader Basic Parameters, you may want to activate 2-Sided. Drag sample slot to teapot object in viewport to apply this material. Select another material slot. Change Diffuse color to blue (R=73, 64, 182). Apply this material to plane.

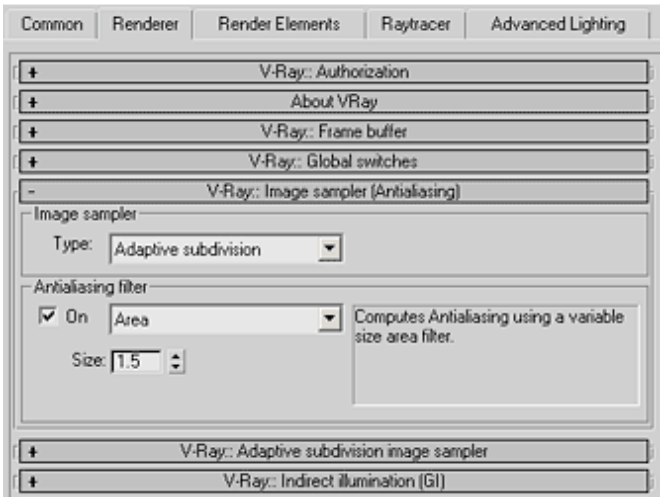


2. Adjust view in Perspective viewport if necessary. Press F9 to render Perspective viewport. Image below shows standard 3dsmax render.

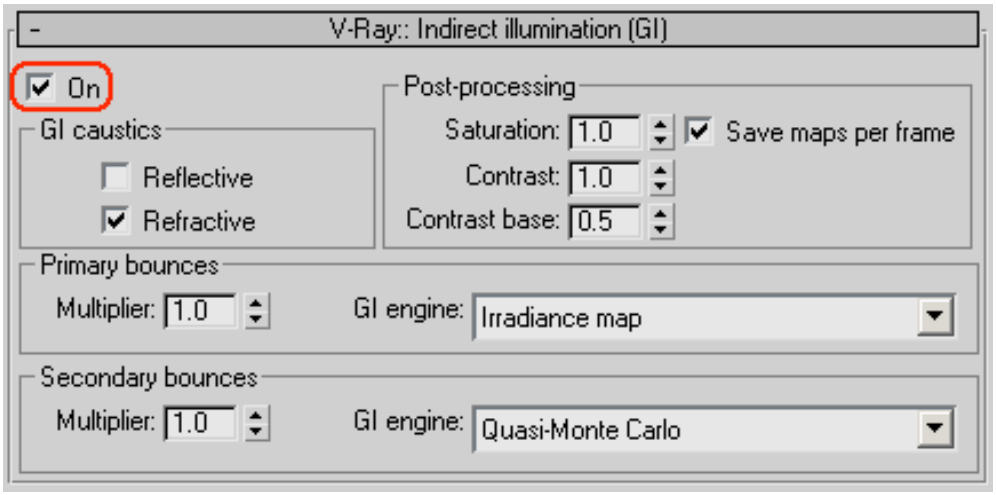


3. Next, we need to activate V-Ray as renderer. Press F10 to open Render Scene window. Scroll down until you find Assign Renderer rollout. By default, Scanline Renderer is used. Click small button in the right, and choose V-ray. Your selection is based on what V-ray version installed in your computer. After that, Render Scene window is changed to V-ray format. Go to Renderer tab.



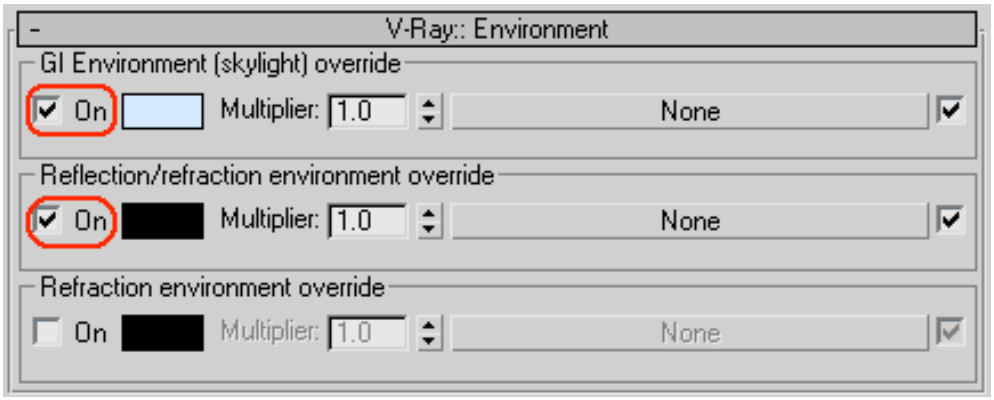


4. Open V-Ray: Indirect Illumination (GI) rollout. Check On to activate global illumination (GI)..



5. Click Render button or press F9. This time, you will need more time to render. Not much changed in render result compared to the standard render. But notice, there's reddish color at the plane.

6. In GI, environment plays important role, because GI will compute surrounding color that affecting objects in the scene. By default, 3dsmax uses black color as environment. In Render window, go to V-Ray: Environment rollout. Activate two options like image below. We will use V-ray environment instead of 3dsmax black color environment.

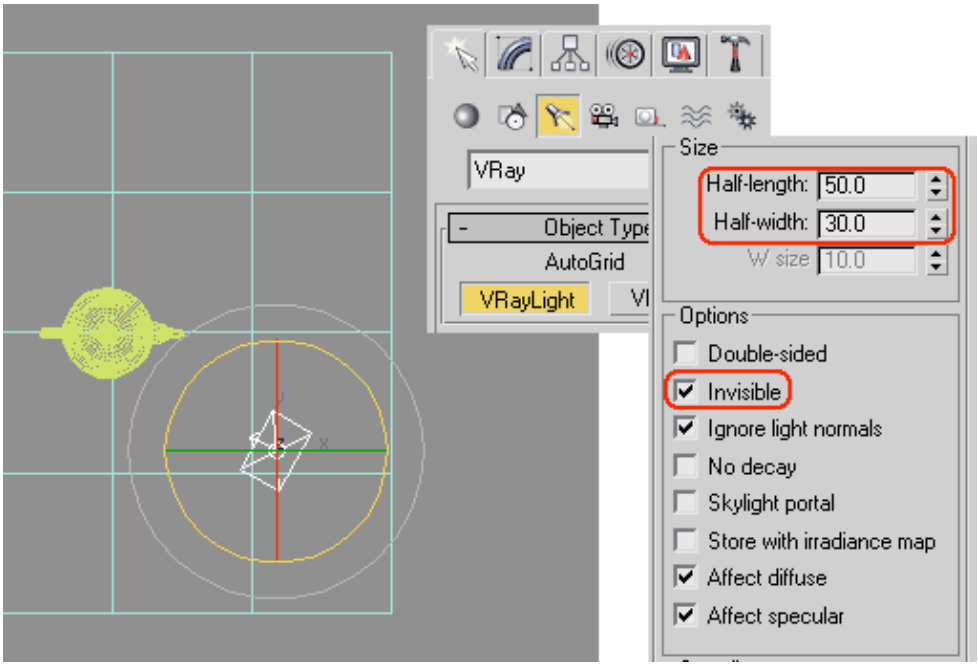


7. Press F9 to render. As result you will have brighter image. Object shape is also much better. But this object is lack in 3D depth.

8. Instead of material available in 3dsmax, you can also use material provided by V-ray. In Material Editor, select teapot material slot, click **Standard button** to change material type. In Material/Map Browser window, double click **VRayMtl**. Then, in Basic Parameters rollout, change Diffuse color to red (R=196, G=55, B=55). Also repeat the same process with plane material. Change Diffuse color to blue (R=73, 64, 182).

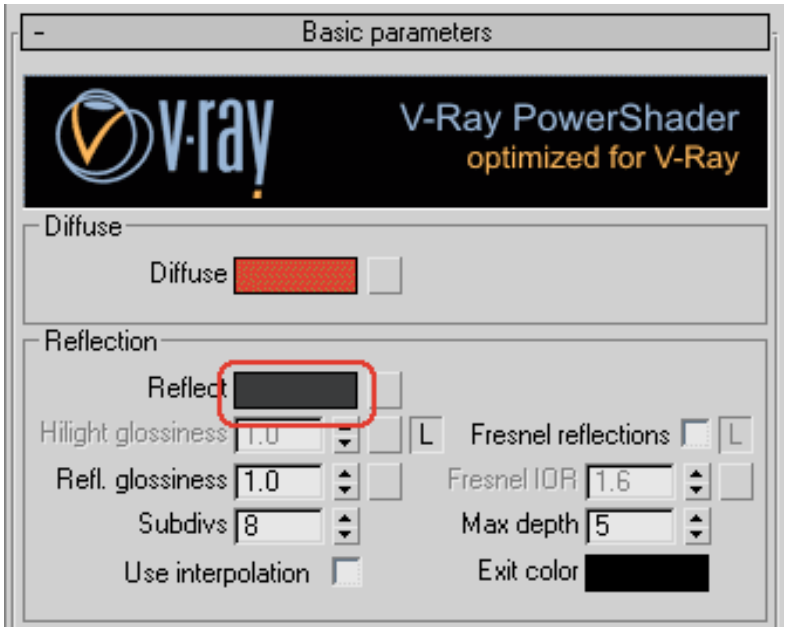
9. Render and watch the result. Using V-Ray material, teapot is now have some nice 3D depth. But the color still looks un-natural.

10. Delete omni light. V-ray also provide its own light. Go to Create>Lights. Choose VRay from drop down list. Click VRayLight button. Click and drag in viewport to create light. I use Plane light type, with 50x30 size. I also make this light invisible when rendering. Rotate and position this light above teapot..



11. Render. You will have nice red color teapot. Also, watch there's soft shadows around teapot.

12. You can create more nice rendering by adding some reflection. Go to Material Editor. In Basic Parameters rollout, click color box right next to **Reflect**. Make this color more bright. For example, for teapot R=45, G=45, B=45. And for plane, R=75, B=75, B=75. Brighter color means more reflective material..



13. Render. Image below shows rendered result. Notice that beside reflection, light is also reflected in objects, just like in real world.

Conclusion: You can achieved realistic rendering result by combine the use of V-Ray material and lights. This is just basic use of V-Ray. Next time, I will show you more interesting use of V-ray.