

Web Two Club

Realistic Glass Rendering Using Mental Ray

6 Mar

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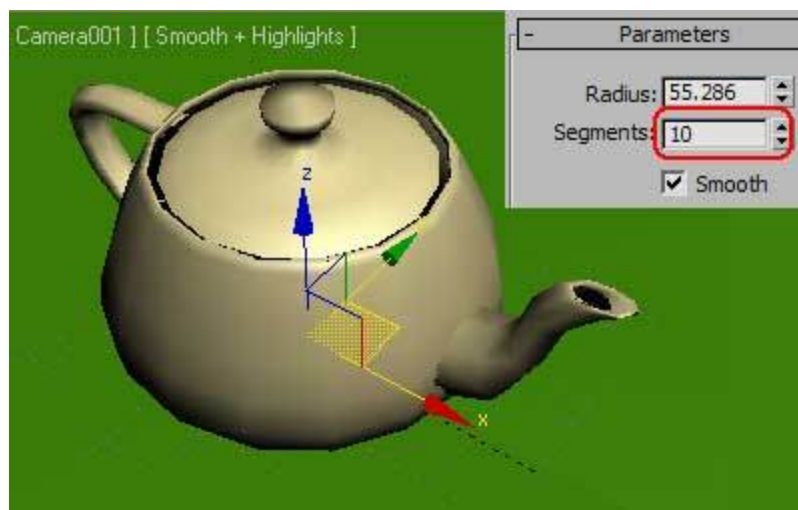


(<http://webtwoclub.files.wordpress.com/2011/03/mentalray09.jpg>)

3ds max has excellent built-in rendering engine named **Mental Ray**. This tutorial will show you **how to use Mental Ray to create realistic glass rendering quickly, with additional Caustics lighting effect..** If you don't familiar with Mental Ray, read this tutorial, you will see how quick and easy to use Mental Ray. This tutorial also use Arch and Design material, which you can use to create realistic convincing material. This material type is available since 3ds Max 9.

Step-1

Create a plane and teapot in 3ds max. Set teapot segments = 10 to make smoother surface.

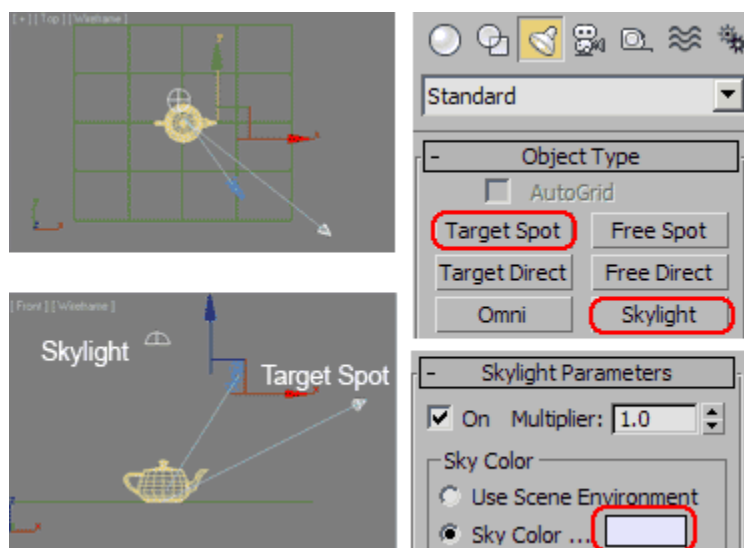


(<http://webtwoclub.files.wordpress.com/2011/03/mentalray01.jpg>)

/2011/03/mentalray01.jpg)

Step-2

Create 2 standard lights. One is Skylight and the other is Target Spot. Change skylight color to a little bit blue.

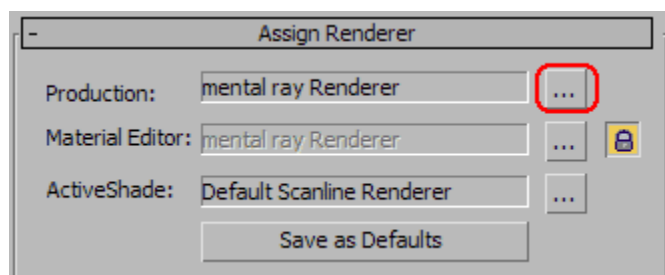


(<http://webtwoclub.files.wordpress.com/2011/03/mentalray02.gif>)

/2011/03/mentalray02.gif)

Step-3

We need to change default rendering engine into Mental Ray. Open Render Setup (Press F10). Open Assign Renderer rollout. Click Production button and choose Mental Ray.



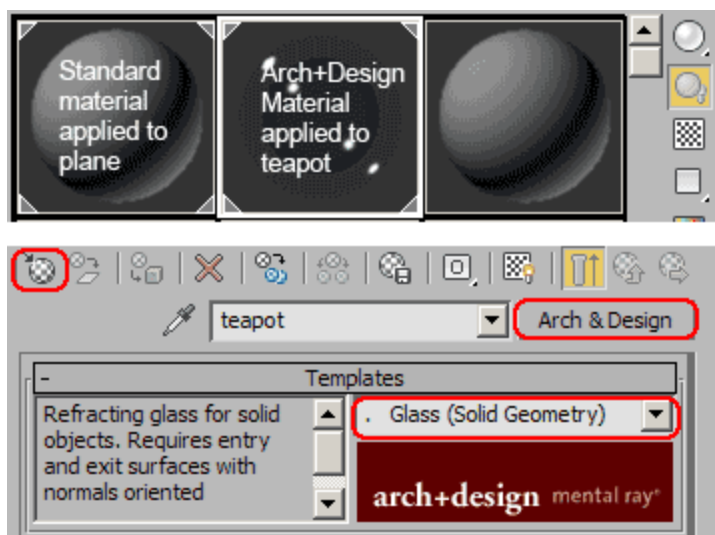
(<http://webtwoclub.files.wordpress.com/2011/03/mentalray03.gif>)

/mentalray03.gif)

Step-4

Next, creating material. Open Material Editor (Press M). Apply selected material to plane (drag sample material to object in viewport). Then select other material slot. Click Get Material button. In opened window, double click **Arch & Design Material**. The mental ray Arch (architectural) & Design material improves the image quality of architectural renderings. It improves workflow and performance in general, and performance for glossy surfaces (such as floors) in particular.

You can choose many material settings using template. For this example choose **Glass (Solid Geometry)**. Apply this material to teapot.



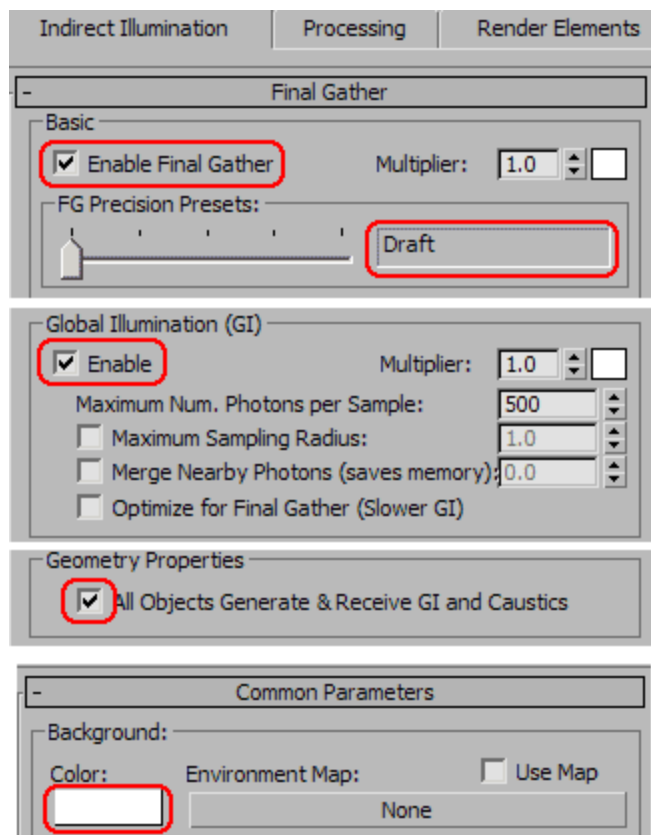
(<http://webtwoclub.files.wordpress.com>

[/2011/03/mentalray04.gif](http://webtwoclub.files.wordpress.com/2011/03/mentalray04.gif))

Step-5

Open Render Setup. Go to Indirect Illumination tab. Activate Final Gather. Use Draft quality. Enable Global Illumination (GI) and check All Objects Generate & Receive GI and Caustics. Click Render. You'll see nice glass rendering, but the image looks a little bit dark.

Open Environment window (Render>Environment). Change background color to white. Render again. You'll see brighter rendering and better reflection.



(<http://webtwoclub.files.wordpress.com/2011/03>

[/mentalray05.gif](#))

Step-6

Image below shows sample of mental ray rendering up to this point.



(<http://webtwoclub.files.wordpress.com/2011/03/mentalray06.jpg>)

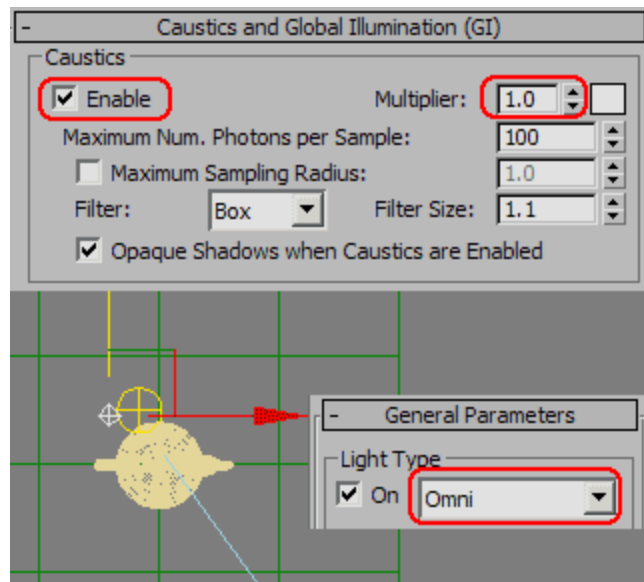
Step-7

Next, we will enhance the rendering with Caustics effect. Caustics are the effects of light cast onto

an object via reflection off or refraction through another object.

Select Target Spot, go to Modify tab and change this light to Omni. Position this light behind the teapot. Caustic effect will show up in the opposite direction of light.

Open Render Setup. Activate Caustics in Caustics and Global Illumination (GI) rollout.



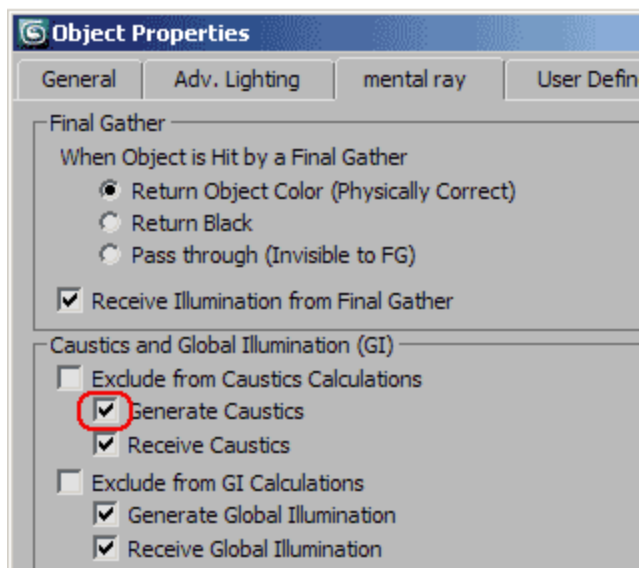
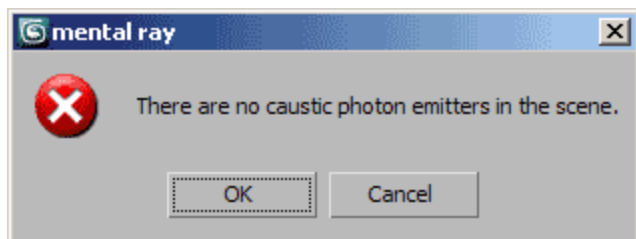
(<http://webtwoclub.files.wordpress.com/2011/03>

[/mentalray07.gif](#))

Step-8

When you click render, 3ds Max shows a message error. This happens because objects are not ready to generate caustics. Press Cancel.

Right click teapot. Choose Object Properties. Go to mental ray tab and check Generate Caustics. Click OK. Repeat this process with Omni light (in 3ds Max 2010 or up you need to do this or 3ds Max still generates error).



(<http://webtwoclub.files.wordpress.com/2011/03>

[/mentalray08.gif](#))

Step-9


Render. Look at the caustics lighting effect at plane around the teapot. If you can't see the caustics effect, increase Caustics Multiplier. In this example I use 10.



(<http://webtwoclub.files.wordpress.com/2011/03/mentalray091.jpg>)

Check out tutorial from this [source \(http://www.escalight.com/tutorials/3dsmax-tutorials](http://www.escalight.com/tutorials/3dsmax-tutorials)

[/realistic-glass-rendering-using-mental-ray.html](#)).



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3 Responses to “Realistic Glass Rendering Using Mental Ray”

1. haroon March 4, 2012 at 6:16 pm

Well, no proper usage for newbie, as I was reading it, many options in my 3dsmax 6 are not there or I just can't figure it! so I would give 0 to this tutorial!

[Reply](#)

◦ James Tevo June 7, 2012 at 2:28 am

You are giving the tutorial a 0 because “you” are too new to Max to understand it?

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2. mr fidget August 31, 2012 at 6:56 am

This is an excellent beginner's tutorial. I strongly disagree with the comment above, the author's not trying to teach y3dmax, rather how to start using MR.

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