

Rendering Tips

Rendering is a two-part process comprising radiosity calculations and raytracing. The result is a photo-realistic image of the current view.

Radiosity calculations involve determining the amount of light in a scene and how it bounces off of surfaces.

Raytracing adds light, reflection and shadows to a scene for a photo-realistic effect, creating the final rendered image.

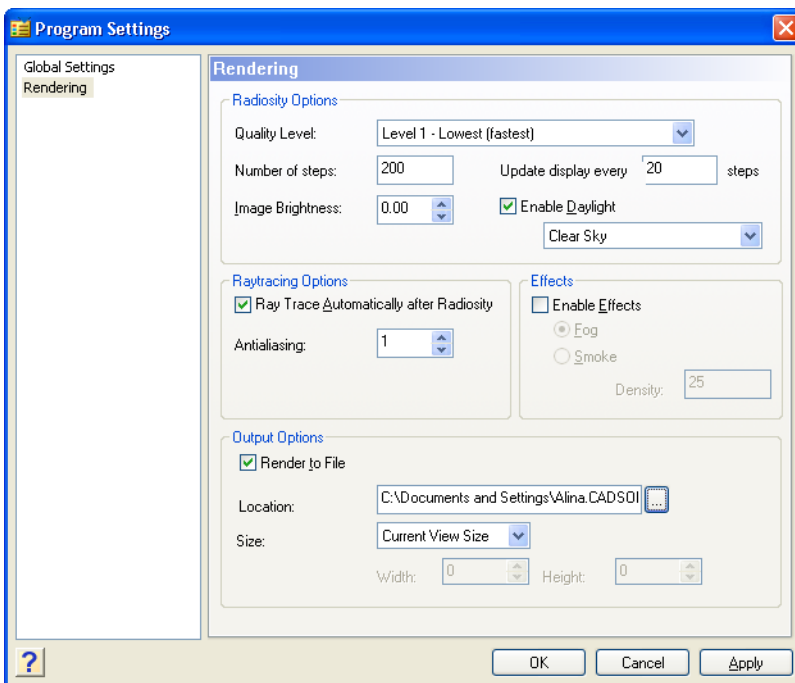
This article looks at the rendering settings that have an effect on your final output, and offers some tips on speeding up rendering time and getting the look just right.

Rendering Settings

There are a number of settings that you can adjust prior to an Advanced rendering that determine the finished result.

To access rendering settings:

1. Select **View > Render 3D RealView**.
2. In the **3D RealView** dialog click the **Options** button.
3. In the **Program Settings** dialog select **Rendering** in the left pane.



The main settings are described below.

Quality Level. Choose from five levels of quality. Note that the higher the quality you choose, the more time needed to complete the rendering. However, the lighting calculations will be more involved.

Number of Steps. The number of times light is bounced in a scene during the radiosity process. Increasing this number may improve the lighting conditions in your rendered image, as well as its overall quality.

Update display every _ steps. Choose how often you want to display the progress of your rendering. Choosing a smaller number will allow you to see more steps, but will increase the rendering time.

Image Brightness. Make your rendering lighter or darker. The scale is roughly equivalent to f-stops in photography. Click the up or down arrow to increase or decrease the brightness by a quarter f-stop.

Enable Daylight. If enabled, virtual sunlight is included in the lighting calculations. If disabled, only light coming from light fixtures will be used.

Sky Conditions. This setting helps to control the amount of light being cast onto a scene. For example, if your rendered image looks overexposed, you can select a partly cloudy or overcast sky to reduce the amount of light coming through.

Antialiasing. Smooths out the jagged edges in your view, giving you a very clean image. Increasing the value will make the rendering take a bit longer.

Render to File. Make sure this check box is enabled before rendering if you want the rendered image to be saved to a file. The image will be saved to a BMP or JPG file that you can open in most graphic editing applications. You can specify the desired save location.

Rendering Tips

Here are some basic tips to help you maximize your time and get the results you want.

✓ Reduce Surfaces

Radiosity calculations can take a considerable amount of time if you have many surfaces in your model. You may find it beneficial to make copies of your model and delete everything in the model except for the elements in the room or exterior view that you are rendering. This eliminates surfaces and therefore reduces the time needed for the radiosity calculations.

✓ Time It Right

If you select the Highest quality level for your rendering, the process can take a long time. Try leaving rendering to the last task of the day and let Envisioneer work on the rendering while you are away from the computer. Having other software applications open at the same time can also slow down the computer processing time.

✓ Edit Texture Properties

Each texture used in a model can have surface properties. For example, to apply a “glossy” look to a hardwood floor, increase the Specular value to 15%. Do not adjust the Emissive value of a texture, as this makes materials glow and can overpower a rendering if not used correctly.

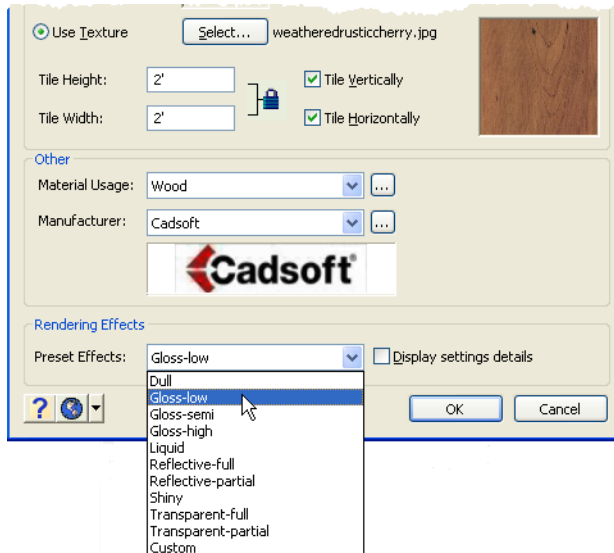
To change the properties of a texture:

1. Select **File > Catalogs > Library Manager**.
2. In the **Library Manager** dialog, select **Libraries > Materials**.

Note: If the texture is already present in your model, select the element that the texture is applied to, then right-click and select **Properties**. On the Appearance property page, click the **Select** button in the *Material* area (or click the texture swatch) to access the **Materials** dialog.

3. Select the material that you want to edit.

- Right-click on the material and select **Edit Material**. Surface properties can be found at the bottom of the **Material Properties** dialog.
- To edit the material's surface finish, make a selection from the **Preset Effects** drop box. To make the material reflect more light, you might choose one of the **Gloss** options.



- To customize a finish further, enable the **Display settings details** check box. The settings are described below.

Specular. Reflection that creates highlights on materials, making them appear shiny.

Emissive. The amount of light given off by a material. The more emissive a material is, the more self-luminous it appears.

Transparency. The degree to which a material is pervious to light.

Color Bleed. The degree to which different colors blend where they meet.

- Click **OK** in the **Material Properties** dialog, then click **OK** in the **Library Manager** dialog.

See Also: You may also want to view the 'Lighting in Rendering' article.
