

Global Illumination Render Elements

This page gives an overview of the two global illumination render elements that may be created through V-Ray and how they are used in compositing.

Overview

Global Illumination is the indirect lighting bouncing around within a scene to contribute to the overall illumination, as opposed to direct lighting from a light source.

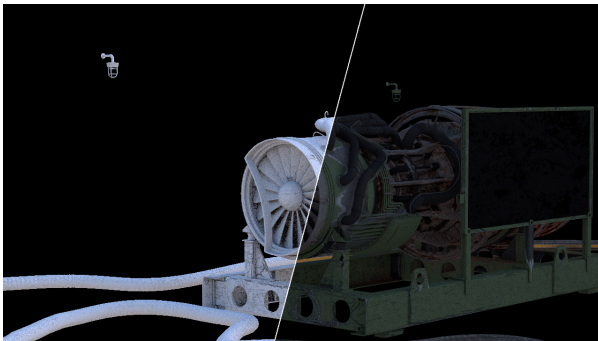
The Global Illumination Render Elements store indirect lighting information calculated in the scene. The following passes may be generated:

- [Global Illumination Render Element \(GI\)](#) - Stores the diffuse surface global illumination in a scene when [Global Illumination](#) is enabled. This pass is already attenuated by the diffuse contribution in the scene and can be used directly in composite.
- [Raw Global Illumination Render Element \(GI Raw\)](#) - Stores the raw information for the indirect lighting information calculated in the scene, untouched by the diffuse contribution. This pass is used to fine-tune the GI in a scene *before* attenuating it with the diffuse contributions of the scene.

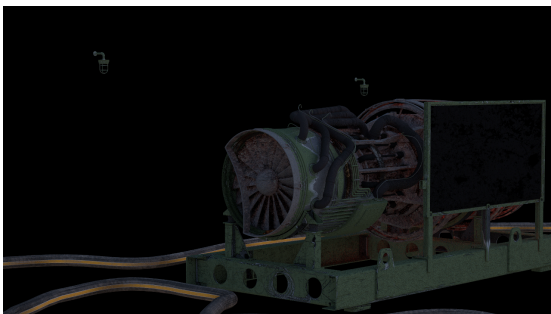
The Global Illumination render element itself ([GI](#)) can be used in [Back to Beauty compositing](#) to add in the GI lighting contribution to the scene. The GI contribution may be adjusted (tinted, brightened, darkened, etc.) in the composite as needed without the need to re-render the scene.

When even more control over the GI contribution to the final image is desired, this main [Global Illumination Render Element](#) can be re-created by multiplying the [Raw Global Illumination Render Element](#) with the [Diffuse Render Element](#):

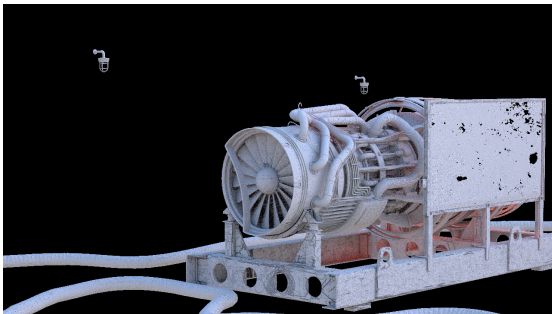
$$\text{GI Raw} \times \text{Diffuse} = \text{GI}$$



Render Element Examples



[Global Illumination \(GI\) Render Element](#)



Raw Global Illumination (GI Raw) Render Element

Notes

- When Raw Global Illumination is needed in the composite, please make sure to also render the Global Illumination pass (GI) as well as the Raw GI pass (GI Raw) itself.