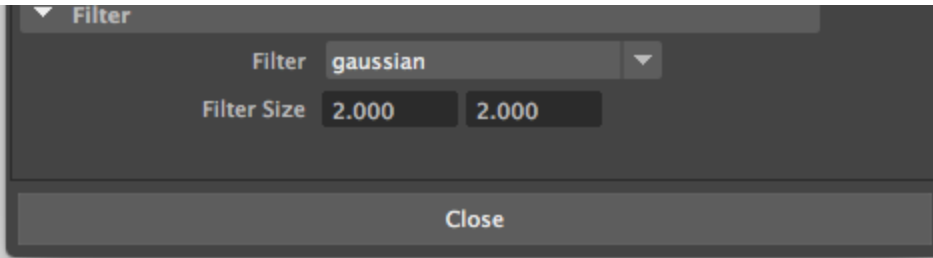


# Sampling

The [sampling](#) tab gives users control over basic quality via *Max Samples* and *Pixel Variance*, the choice of *Integrator* and its relevant settings, *Default Ray Depths*, *Clamping*, *Russian Roulette* (which can be used for reducing path lengths), and *Filtering*. This is mainly where you control the quality and render time of a render.

In the Presets menu at the top of the window, there are sampling presets for draft, production, etc. Furthermore, you can save your own sampling presets there.





## IPR Samples

The IPR samples provides a separate Max Samples and Pixel Variance for IPR rendering. By default, this is set lower than render settings for quick feedback.

## Integrator

Lets you choose the [Integrator](#) to use for the render. The default, [PxrPathTracer](#) is a fine choice for most rendering situations.

See the page for each integrator for information about their settings:

- [PxrDefault](#)
- [PxrDebugShadingContext](#)
- [PxrDirectLighting](#)
- [PxrOcclusion](#)
- [PxrPathTracer](#)
- [PxrVCM](#)
- [PxrValidateBxdf](#)
- [PxrVisualizer](#)

## Holdout

**Image Plane Subset:** Specify the trace subset for the image plane. The default value is `rman__imageplane`, and RfM automatically emits image planes as part of this set. The integrator will trace against this subset to get the color of the image plane. This is used for the [holdout](#) background. Note that this only applies to geometry that is assigned an emissive Bxdf such as `PxrConstant`.

## Default Ray Depths

**Max Specular Depth:** Number of bounces for reflections and refractions. A value of 1 or 2 is sufficient unless you need multi bounce effects. This attribute can be overridden on individual objects.

**Max Diffuse Depth:** Number of diffuse bounces for indirect illumination. A value of 1 is usually sufficient, larger values are slower. This attribute can be overridden on individual objects.

## Filter

**Filter:** The [filter](#) for rendered pixels. The box, triangle, disk, gaussian, and blackman-harris are softening filters while catmull-rom, sinc, mitchell, separable-catmull-rom, lanczos andessel are sharpening filters. Separable-catmull-rom is a good compromise.

**Filter Size:** The width of the pixel filter. Typically from 1 to 6. Set to 0 to use the standard width for the chosen pixel filter.