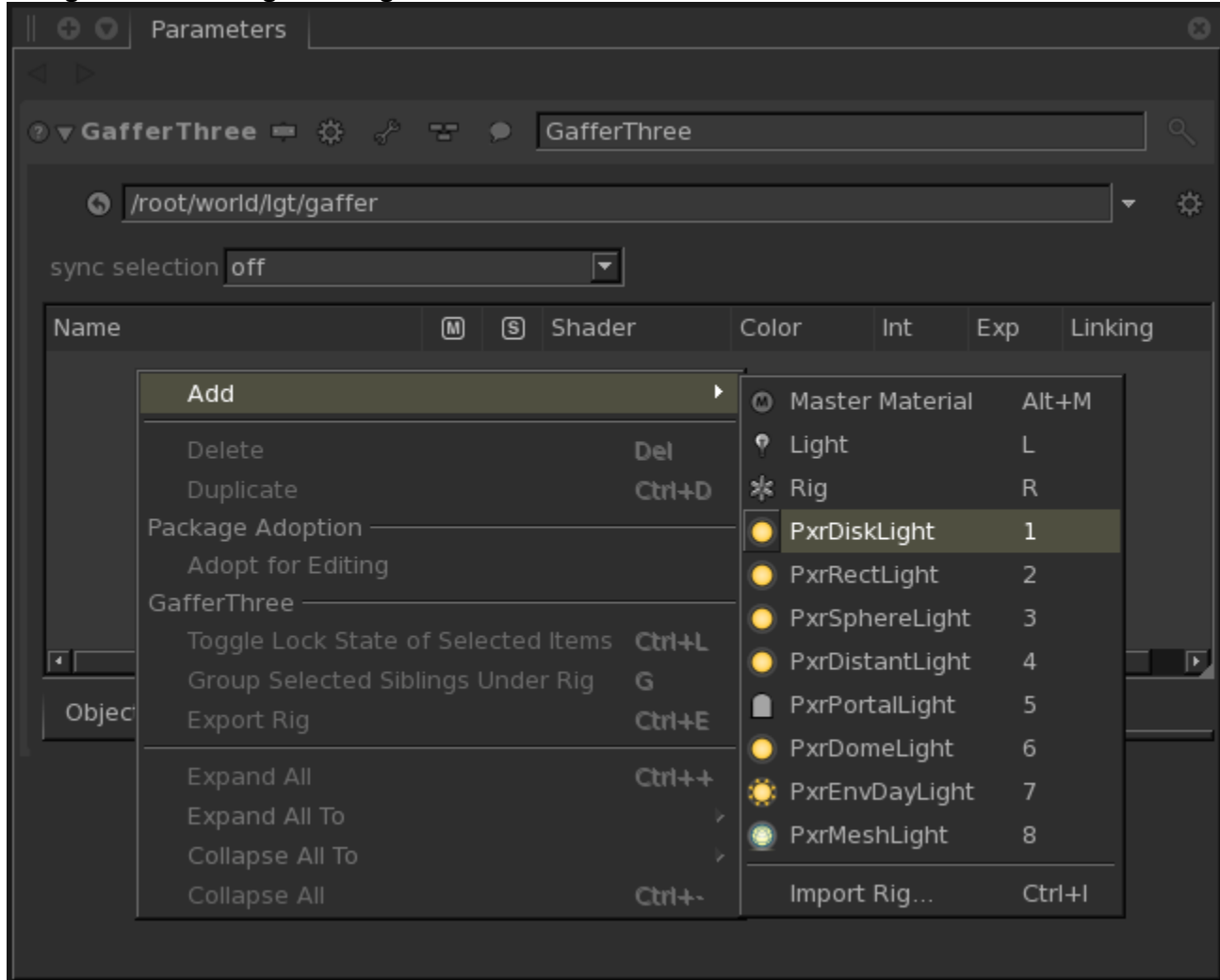


# Lighting in Katana

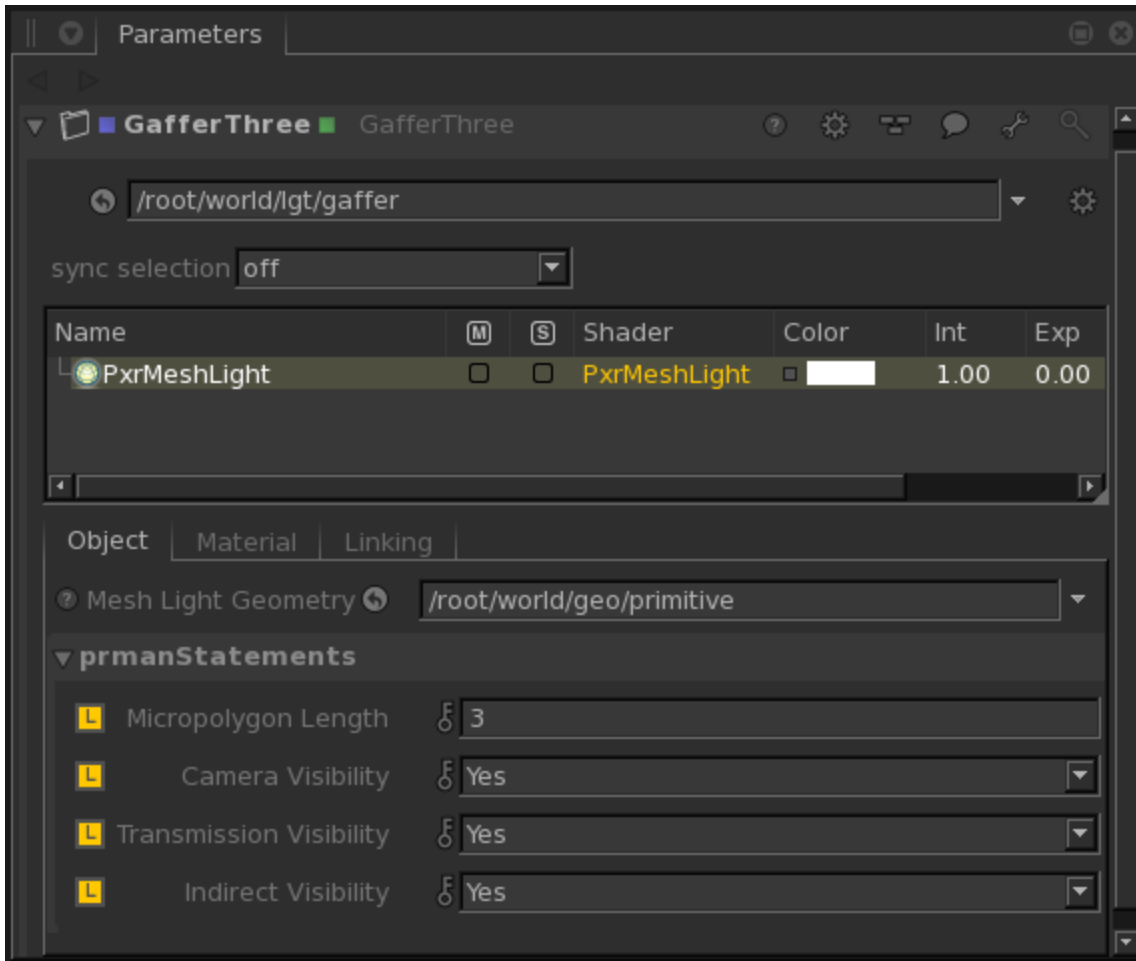
## About Analytic Lights

One of the most valuable features of RenderMan for Katana (RfK) is the ability to create and manage Lights. The sections below provide a brief overview of how to take advantage of these capabilities.

## Using RenderMan LightPackages



RfK offers PRMan-specific light packages for creating each type of light in GafferThree. These light packages minimize the amount of steps necessary to create a light. [Shortcuts](#) let you add a light with only one keystroke. Each light package also includes a set of light-specific attributes, available in the Object tab of GafferThree, which let you control certain attributes per-light without adding an additional PrmanObjectStatements node. The PxrMeshLight package includes the following attributes:



The analytic light packages only include Camera Visibility, which is set 'Off' by default, because the renderer ignores the other visibility attributes for analytic lights.

## Creating Mesh Lights

There is a specific light package for creating mesh lights in GafferThree. To create a mesh light, select the desired geometry in the Scene Graph and add a "PxrMeshLight" in GafferThree. You can find a detailed explanation about mesh light setup in the link below:

- [Mesh Lights in RfK](#)

## Using Light Filters

Light filters are a powerful way to control a light's appearance. With Katana 2.0 or 2.1, light filters can be added to a scene with a PrmanLightFilterCreate node. GafferThree support for light filters is available in Katana 2.2 and above. You can find a detailed explanation about light filter setup in the link below:

- [Light Filters in Katana](#)

## Using Portal Lights

[PxrPortalLight](#) is an optimized environment light. Because Portals are lights, not light filters, they require a special workflow. GafferThree support for portal lights is coming in a future version of Katana. You can find a detailed explanation about portal light setup in the link below:

- [Portal Lights in Katana](#)

## Light Sampling

Light Sampling capabilities are available through sample balancing in the integrator, typically with the **numLightSamples** option. Or using the Importance multiplier on the Light Parameter list to draw more samples from the sample pool.