

# Cameras in Maya

Cameras provide a number of interesting effects in RenderMan for Maya.

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## Image Planes

In previous versions of RenderMan, the image plane is implemented as a piece of geometry with PxrConstant applied to it. For RenderMan to project the image onto the geometry, txmake needs to distort the non-square input image (.png) into a square texture (.tex). This allows the image plane texture to be directly mapped onto the image plane geometry. The txmake command looks something like this:

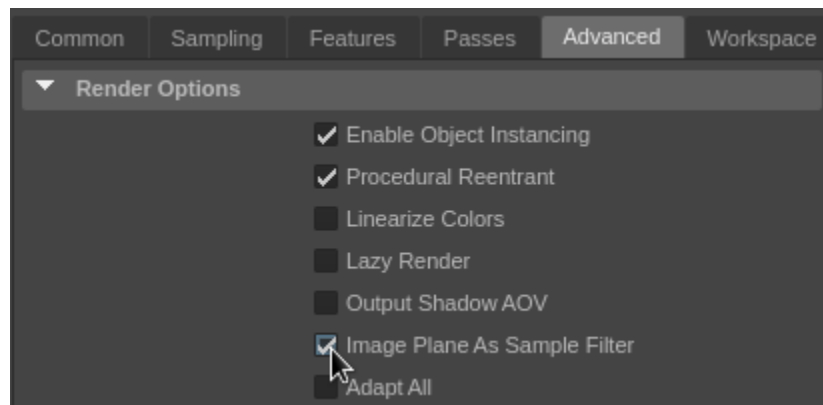
```
$ txmake -resize up- imageplane.png imageplaneOLD.ip.tex
```

RenderMan currently implements image planes as a [PxrlImageDisplayFilter](#) *SampleFilter* plug-in. In this case, it's important that txmake generates an undistorted texture (.tex) from the non-square input image (.png) so that the sample filter can project it properly. The txmake command looks something like this:

```
$ txmake -resize up imageplane.png imageplane.ip.tex
```

This change in behavior creates an incompatibility of image plane textures generated by different versions of RenderMan. If you're having distortion problems, it's likely because you're using the same image plane textures (.tex) between different versions of RenderMan. It could also be because you've manually generated the image plane textures (.tex) using the wrong txmake arguments (note "up-" vs "up").

Legacy behavior can be achieved by disabling the **Image Plane As Sample Filter** option under Advanced render settings.



You must disable the **Image Plane As Sample Filter** option in order to use a pattern plug-in as your image plane color.