Bokeh in Maya



Do you need help setting up Depth of Field in Maya in Maya or using Tilt-Shift in Maya controls?

"Bokeh" is the name given to a side-effect of using Depth of Field where light sources or highlights form a shape where they are out of focus. The result is an almost "glittery" look that many people enjoy viewing.

In the below still from Pixar's The Blue Umbrella you can see light sources in the background have turned into circular blobs of colored light.

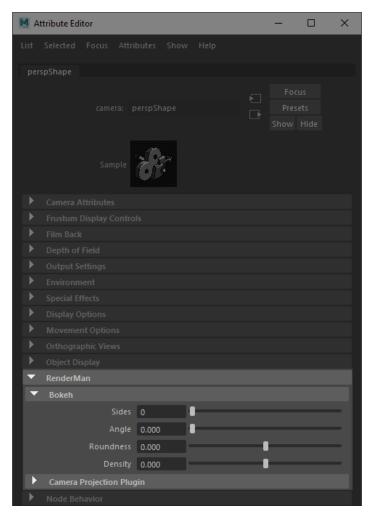


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Did you know that Bokeh effects are from a topic in optics called the Circle of Confusion?

They are available under the RenderMan Rollout in your camera Attribute Editor (AE) Panel.

These controls are called **Bokeh** in the menu.



There are 4 controls and a convenient tooltip when you hover over the name or value fields. The controls from left to right and top to bottom are:

- Number of Sides: This determines the shape of the bokeh effect. If you choose fewer than three sides (triangle) the bokeh will be circular.
- Angle in Degrees: This controls the angle where sides meet for non-circular bokeh shapes (Number of Sides is greater than 2).
- Roundness: Values from 0 to 1 make the shape bow or flex outwards making it more rounded. Values from 0 to -1 bow inwards and make for sharper points.
- Density: This controls the brightness across the bokeh shape. 0 to 1 makes it brighter at the outer edge like a catadrioptic lens (look it up, quite interesting). 0 to -1 makes it brighter in the center and falloff towards the edges.

Below is an example using:

- Number of Sides = 6
- Angle in Degrees = 33.33
- Roundness = default (0.0)
- Density = 1.0
- Eyes on furthest alien = slightly creepy



Below is an example using:

- Number of Sides = 3
 Angle in Degrees = 60.0
 Roundness = default (0.0)
 Density = -0.5
 Eyes on furthest alien = less creepy

