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.

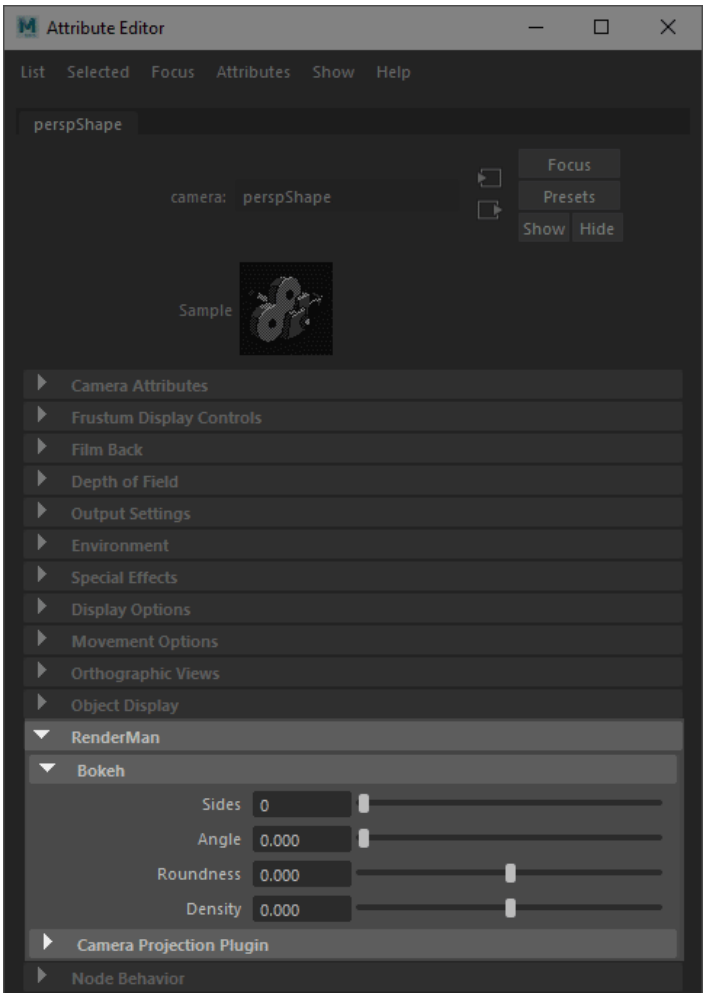
In the below still from Pixar's *The Blue Umbrella* you can see light sources in the background have turned into circular blobs of colored light.



> ⚠ 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

