Image Resizing: What is Unsharp Mask?

To sharpen images, Resizr implements what is called <u>Unsharp Masking</u>. Basically, this technique makes images appear less blurry by enhancing the contrast of pixels near edges.

Resizr performs this operation after it has resized your image, so you will NOT see the sharpened version of the image immediately when you click the "sharpen" checkbox.

The three options you can set for unsharp mask are:

- Amount: This is listed as a percentage, and controls how much darker and how much lighter the edge borders become. This can also be thought of as how much contrast is added at the edges.
- Radius: This affects the size of the edges to be enhanced. Higher Radius values can cause
 halos at the edges, a detectable faint light rim around objects. Fine detail needs a smaller
 Radius, as tiny detail of the same size as the Radius width is lost. Radius and Amount interact;
 reducing one allows more of the other.
- Threshold: Which controls the minimum brightness change that will be sharpened or how far apart adjacent tonal values have to be before the filter does anything. This lack of action is important to prevent smooth areas from becoming speckled. The threshold setting can be used to sharpen more pronounced edges, while leaving more subtle edges untouched. Low values should sharpen more because fewer areas are excluded. Higher threshold values exclude areas of lower contrast.

Generally, leaving these three options as they are set by resizr will work just fine. However, in some cases, you may benefit by experimenting!

There are a number of good tutorials on unsharp masking, and you may want to read them if you want more in-depth knowledge.

- 1. Tutorial 1
- 2. Tutorial 2
- 3. Tutorial 3
- 4. Tutorial 4
- 5. More Tutorials

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