Notes on file sizing

Picasa:

- Image can only be resized by using the export process
- Cannot be sharpened after each resizing, only before the export process on the original image
- Image can be resized to the original size or any size below that
- When using the “Resize To” option, the pixel size is the longest side of the image ie @800px for a portrait it will be 800 high with the appropriate width, @800 for a landscape it will be 800 wide with the appropriate height
- Image Quality refers to the detail available when exported. As far as I can see there is very little difference when viewed on screen. Printed is a different matter and should be experimented with if need be.
- Water marks can be added but there is no control over positioning. However text can be added before exporting using the Basic Fixes
- Sharpening can be done using the Sharpen in Effects. Also B&W and more effects.
- No control over amount of sharpening.

Photoshop:

- Image can be resized within Photoshop at any time without exporting
- Image can be sharpened at any time after resizing
- Use Unsharp Masking for sharpening
- Only sharpen after all other changes have been made including resizing.
- Use Save for Web to export a sized image.
- There are 5 settings, low, medium, high, very high and maximum.
- The Quality slider controls the above as well
- Use 4-p to see what each setting does.
- Watermarks are more difficult in Photoshop. Actions can be created to deal with this

Some reading on Photoshop sharpening : http://bythom.com/sharpening.htm

Excerpt from : http://bythom.com/sharpening.htm

Probably the biggest problem in using the Unsharp Mask is determining how to set the three controls (Amount, Radius, and Threshold for Photoshop users; other programs often use different terminology, apparently so that they don't receive nasty letters from Adobe lawyers). Most written advice I’ve seen always gives one set of starting points, then leaves the rest up to you to determine visually. And every writer’s starting point seems to be different. But if you read the last

paragraph carefully, you'll already have some ideas about what these values might be.

First, let's get rid of one notion, that there's a magic starting place that applies to all images. Instead, let me suggest that there are at least two starting places, and many images need to use selections to apply different sharpening techniques to different areas. More on that in a bit.

Next, let's make sure you know what each of the controls refers to:

Follow along at home: Start up Photoshop. Recreate your own simple gray block document to match the example (above). The lefthand block should have an RGB value of 86, 86, 86 and the righthand block a value of 43, 43, 43. If you use the Paint Bucket tool to create the blocks, make sure that anti-aliasing is off. You want solid blocks of a single color value.

Sharpening makes the edge of the lighter block a lighter value of gray, and the edge of the darker block a darker value of gray. Select **Unsharp Mask** from the **Filters** menu and set starting values of **100** for **Amount**, **2** for **Radius**, and **0** for **Threshold**.

- ***Amount***: determines the aggressiveness of the "sharpening" action. With your simple two-gray image, try amounts of **100**, **200**, and **400** (make sure the **Preview** box is checked in the **Unsharp Mask** dialog so that you see the changes as you make them; you should also be viewing at **Actual Pixels** size). What you should see is that as the amount is increased, the colors of the new edges get more exaggerated. In other words, the light line that gets added on one side of the boundary gets lighter with each increase, the dark line on the other gets darker (though that's often more difficult to see).
- ***Radius***: determines how wide an area at the transition is affected. Try increasing the Radius to **4** and **8**, and you'll see that area that is modified at the transition widens. Note, too, that the further away from the actual transition point you get, the less the Amount is applied.
- ***Threshold***: determines how much difference there must be between two adjacent pixels before any change is made. In our simple example, you'll have to enter very high numbers before you see how this works (try **25**, **50**, and **100**). Note that threshold and radius interact a bit. With a Threshold of **100** and a Radius of **1** or less, almost nothing changes, but if you increase the Radius, you'll start to see the effect again.

Okay, I wrote earlier that there isn't a magic starting place that applies to all images. While that's true for Amount, both the Radius and Threshold probably should be started at specific points:

- ***Amount***: <determined picture by picture, and with some consideration to enlargement size, if applicable>
- ***Radius***: start with **.5** and try to avoid going much higher, if possible. I believe it's better to apply **Unsharp Mask** twice with **.5** and **.3** than using an initial radius of **.8**. Why? Because any value larger than **.5** starts to affect more than one pixel beyond the transition point, which starts to produce more visible halos, especially if you need to use aggressive amount values. If you're printing with an inkjet printer, the dot gain you get from the ink spreading on the paper often masks these halos, so go ahead and try higher values if you'd like, but only if you analyze the results from the final output (not the screen).

- ***Threshold***: start with **0** and leave it there *if your image is relatively noise-free*. Using any other value for Threshold applies the filter to only parts of the image, and I believe there are better ways of handling partial sharpening than using Threshold (see Edge Sharpening, below). Sometimes you can get away with using modest threshold changes. But I'm starting to notice that I can detect images that have been sharpened with the threshold set to something other than **0**. Sharpening tends to apply a film-like grain to the overall image, especially if you're working with a digital camera or scanner that has channel noise in it (look at the individual RGB channels for a sky area under high magnification; are all channels smooth gradations, or is there a random pattern of darker and lighter pixels in one or more channels?). Personally, I sometimes like that effect, but using Threshold other than **0** tends to make for unevenness to this "grain."

Sharpening Rules

Before continuing, let's set some specific rules down for dealing with standard sharpening:

1. Perform *all* other changes (color correction, saturation changes, distortion corrections, etc.) before sharpening.
2. Save a copy of the corrected, but unsharpened version. (And you've already saved a copy of the original, right?)
3. Use the **Unsharp Mask** for basic sharpening, as it provides more control than the other related filters.
4. If submitting to a professional designer, send the unsharpened version, as you don't know how dot gain may change the amount of sharpening necessary.
5. If printing on an inkjet printer, error on the side of slight oversharpening.
6. Try to use a **Threshold** of **0** and **Radius** of **.5**, if possible.

File Naming:

- In Photoshop the file can be renamed as it's saved as necessary
- In Picasa the original file can only be renamed, not the exported file

To rename after export, open Windows Explorer, either:

- slowly double click the file – a pause between the first and second click – this will highlight the filename and you can modify it
- right click the file and click rename – this achieves the same effect

There is a free file renaming utility called File Renamer Basic that can be downloaded from the net – this is really useful, and can do any amount of different naming variations on bulk files, really quickly.