## PIXEL DIET <br> Resize photos for online sharing and internet print services

New megapixel cameras are ideal for making large prints or cropping to focus on the main subject. However, for sharing a photo in an online album or sending by internet to a service for making standard $4 " x 6 "$ prints, resize the photo before sending to avoid long upload times and reduce storage space. Keep the original file in case a large print or cropping is needed later. Create a copy of each resized photo with a meaningful name saved in a separate upload folder.

Use photo editing software to first make exposure adjustments, sharpen focus and touch up. Crop for better composition setting the width and height to the final desired proportions according to the Optimum Picture Size figure. Prints should be between 100-300 dpi (dots per inch); less than 100 dpi and prints are grainy, more than 300 dpi and there is no noticable quality improvement only longer upload times. A typical 6 megapixel camera produces images that are $3000 \times 2000$ pixels. To make $6 \times 4$ " prints at 300 dpi the photo should be resized to $1800 \times 1200$ pixels (6"x300=1800 $4 " x 300=1200$ ) before sending.

Current popular monitors range from $800 x 600$ pixels (width $x$ height) up to $1600 x 1200$. Newer 19" LCDs usually have $1280 \times 1024$ pixels as the upper limit and projectors rarely are above $1024 \times 780$. To support both maximum screen size and download of original for $6 " \times 4$ " prints @300dpi, resize to $1800 \times 1200$ before uploading. Be sure to maintain the original proportions to avoid distortion usually done by checking a box with a name like "Preserve aspect ratio" or "Constrain proportions". This allows only one dimension to be changed; the other is automatically scaled to match.

Example: 6 megapixel images of $3000 \times 2000$ are to be sent to an online album application that automatically resizes to fit the viewer's screen and allows downloads for prints. Use your photo editing software resizing feature. If this is not available try a free application like Irfan Viewer available for download from irfanview.com. With this application select Image>Resize/Resample. Check the "Preserve aspect ratio" box and enter a new width of 1800 pixels. The height will automatically scale to 1200 pixels. Save as a jpg file newname_1800x1200.jpg. Repeat for additional photos then upload the resized photos. For a 6 megapixel photo, typical file size reduction is $4: 1$, a significant time saver when uploading multiple images for printing with no discernable loss of quality. For onscreen viewing only, this image could have been scaled instead to a width of 1280 pixels resulting in a height of 853 pixels, a $6: 1$ reduction in file size with identical viewing quality to the original.

Resizing screen using free Irfan viewer software.



