

## Donating Images and Digital Imaging Suggestions for Patrons

(As of: Jan 2010)



From the Photo Department and in behalf of the Daughters of Utah Pioneers, we want to thank you for your interest in donating images to our collection. The **PRIORITY** of how we would like to see donations are (we realize that your "original photo" may be a copy):

1. Original photo
2. Our scan of your original photo
3. Professional copy of original
4. Your best copy of original
5. Your best digital copy (scanned or digital camera)

As many people are opting for number 5. "Your best digital copy", here are some *GUIDELINES* for digitizing images. They are not all-encompassing, but they should be helpful.

### SCAN RESOLUTION

- *THE RULE:* The resolution you use to scan images depends on your intended use for the image. At size, the human eye can see no finer detail than about 250dpi (dots per inch). This means that you should scan at a dpi setting on your scanner that will yield at least that resolution in the final size that you intend to print.
  - For example, if your original photo is 2x3 and you intend to enlarge it and print an 8x10, you would want to scan at about 1000dpi since you are going to expand your original photo by 4 times (8 divided by 2 = 4), and 4 times 250 = 1000.
    - If you intend no larger a final print than a 4x6 for the same 2x3 original, then scan at about 500dpi, and so on.
  - Remember, you can get no better resolution than exists with the photo you are scanning. This is not usually a problem for original photos. But if your photo is a copy or a copy of a copy, don't be disappointed when the scanning setting doesn't make much difference in the final look.
- *THE RULE OF THUMB:* Scan at a reasonably high resolution. If the above discussion doesn't make much sense to you, then:
  - If original is 5x7 or larger, scan at least at 300dpi
  - If original is smaller than 5x7, scan at least at 600dpi.

### FILE FORMAT

- *THE RULE:* The two most popular file formats for digital images are JPG and TIF.
  - The JPG format is called a "lossey" format because the information is interpolated and compressed so that a smaller file size is achieved. This is good for websites and emails, but when the image is enlarged enough, the "artifacts" and "pixelization" due to interpolation will often times become visible, depending on the compression setting when saved (low, medium, high, etc).
    - Note: Every time a JPG image is re-saved, after photo editing for instance, the information is interpolated again and there is more "loss" of resolution.
  - The TIF format maintains virtually all of the original image information but creates a larger file size. No loss of original detail occurs when expanding the image so this format is good for archiving and maintaining as much of the original photo information as possible as well as for printing out.
- *THE RULE OF THUMB:* Save your first scan/digital image in TIF format and keep it as your "Master Copy" (at least for your most important photos). After that, you can alter or resize the image anyway you like, but save this "processed" image under a different name.
  - This is where you can save the image as a *separate* JPG file for common digital uses such as CD's for sharing, emails, websites, software programs, etc.
    - Note: You can convert your current JPGs to TIF and then use the new TIF as your master. It won't have the same resolution as an original TIF, but it will preserve the best image available without re-scanning. Again, you should do this at least for your most important photos.

## **DONATING A DIGITAL IMAGE**

- *THE RULE:* If you donate a JPG image that has been compressed very much (typical), this is a big problem for us and renders your image less useful. A TIF image, though much larger in file size, is ideal for your donation. We will, however, accept whatever you have in digital form, we simply ask for the best, highest resolution image available.
  - Most people use the JPG file format for scanning by default. The file sizes of JPG images are small enough to share in emails and they look good on your computer screen.
    - A JPG image looks good on your computer screen because the monitor uses the equivalent of 72dpi as a standard and is optimized for such. When you zoom in on your image or print it out, it will likely not look so good.
  - Digital cameras usually default to JPG, so generally use the highest resolution setting possible, or in many newer cameras, there will be a TIF setting.
    - If there is no TIF setting, almost all digital cameras have a RAW setting that preserves everything about the photo and in post-processing you can convert this RAW file to TIF.
- *THE RULE OF THUMB:*
  - **FIRST CHOICE:** Burn your images to a CD and BRING THE CD IN OR MAIL IT to the DUP Photo Dept.
    - If you want your CD back, we will copy the images and return the CD. Give us the highest resolution possible, preferably a copy of your Master Copy TIF.
    - If your images are in JPG format, make them as high in resolution as is reasonable, preferably your original image size
      - Yes, you can save a JPG image to a TIF file—it won't give you better resolution than the original JPG, but it will avoid the loss of even more digital information that occurs every time you "resave" a JPG file, usually after some kind of processing.
    - ALWAYS include identifying information for each image subject. The easiest way is to name the file after the person and then include on the CD a TEXT file that includes names and birth dates and/or death dates. Also include complete donor information—name, address, telephone, and email if possible.
    - NEVER use slide show presentations or other software to enhance or supplement the CD contents. These kinds of programs compress image files to an unusable low resolution. Images and descriptions only, please.
  - **SECOND CHOICE:** If you EMAIL your images, the above still applies, however:
    - There is no need to include the image in the body of the email text. Instead, simply attach the image to the email.
    - There are some email systems that limit the total size of their sending or receiving emails, including attachments, to 5MB (megabytes). A single TIF image can be larger than that, so if your email doesn't go through because it is too big, you would need to shrink the TIF image, possibly to the point of converting it to a JPG.
      - If you have to convert your TIF to a JPG to shrink its size, keep the JPG resolution at the highest practical setting.
      - If your original image is a JPG, KEEP IT AT ITS ORIGINAL JPG RESOLUTION unless it is greater than 5MB (unlikely).
      - If you have more than one image and the sum of their sizes is greater than 5MB, simply send them as separate emails and they should do just fine. You can tell if you are going over the 5MB limit by looking at the Information Bar above the text of your email where the names of attached files are shown. The size of each image being attached will also be reported, typically in KB (kilobytes), e.g. "150KB". Remember that 1000KB equals 1MB, so the practical limit for email attachments is 5000KB, or 5MB.

Thank you for contributing to our collection. In the end, your relatives—past, present, and future—will benefit greatly from your efforts, and that's what we all want.