

Digital Submission Guidelines (Updated Feb 1, 2008)

Maintaining uniform standards of size, format, quality, and data are extremely important to operating a digital photo library. Therefore we ask that photographers adhere strictly to the guidelines listed below. Where a size is listed as a minimum, feel free to exceed it, but do not exceed the maximum sizes listed except for special reasons, such as panoramic images. Photo Researchers will soon be migrating to a brand new platform for both our website and digital editing. It will require some changes to how you submit your digital images, but most of these changes are minor. **However, due to the huge number of images we receive regularly, image submissions that differ substantially from the specifications listed WILL be returned to photographers.** Our aim is to eliminate the long editing and uploading delays that you have experienced, and the only way to do this is with strict adherence to our guidelines.

How to Submit Digital Images

For fastest editing and upload to our website, please submit your images in finished form, fully captioned (see Captioning and Keywording below), on CD or DVD, in JPEG format (quality level 10-12). **TIFF images will no longer be accepted after April 1, 2008;** due to their large size they are very time-consuming to edit—and since we serve jpegs to our clients, the step of converting them all will be eliminated, saving additional time. The difference in quality is negligible.

Some photographers prefer to send low res images initially for review. This is NOT the fastest way to get images on our site, as it will involve 2 separate review processes by our editors. However, if your editor approves, you may submit low resolution (Jpegs, quality 6 or higher, 72 dpi, 720x480 pixels or so) images to be edited for content and composition. Brief caption information, preferably imbedded in the image metadata IPTC fields (see below) should be supplied. Low res images may be submitted on disk (see “Disk Formats” below), via a web link, or zipped together and sent via email **if your editor permits**. You will be informed by mail or email of the selected images, and will be expected to supply high resolution digital files (as per specifications below) which will be re-edited for quality. The high resolution files must have full caption information (again, preferably imbedded). You will then be informed of which images are being sent on for processing and upload to the website.

Finally, for photographers who have chosen to continue shooting slide film, you may submit transparencies for editing; the editor will mark the images selected and you will be expected to provide hi resolution Jpeg scans (only) of the images, with full caption information.

File Formats: High resolution files should be sent as Jpegs of quality level 10-12. NO OTHER FORMATS are acceptable, and will be immediately rejected. Color space should be either sRGB or Adobe 1998

Disk Formats: Images may be submitted on CD or DVD. Since both PC and Mac computers are used in the editing and processing steps, it is imperative that a cross-platform format be used for the disks. PLEASE do not use HFS+ formatting (“Mac files and folders”) for your disks. The ideal settings are:

CD: Data Mode: 2/XA, File Name Length: level 2 (Max 31 characters), File System: ISO9660 + Joliet
DVD: Data Mode: 1 File Name Length: level 2 (Max 31 characters), File System: ISO9660 + Joliet

These settings may appear in slightly different forms depending upon your disk burning programs; if you have any questions, please contact your editor. Please do not submit multisession disks—all sessions may not be accessible on our computers.

File Names (The names of the image files ON THE DISK): It is highly recommended that you give your images unique file names or codes. Most digital cameras do this automatically, or you may use your own coding system. The image names do not need to be globally unique, only that no two of **your** images (over your entire body of work) have the same number. **File names/codes CANNOT contain spaces**—they will not be accepted by our system. The file name will be used as the “photographer’s own number” and will appear on your statements along with our photo number, provided it is a maximum of 15 characters long (without the .jpg extension). Some of you like to use descriptive names for your file names; this is problematic as they are generally longer than 15 characters, and truncating them does not always result in a unique name. You may use a descriptive file name for your low res submission instead of an imbedded caption, but the final high res image must have a unique, 15 characters or less, file name. This file name no longer needs to be included in the image metadata. If your file name **is** longer than 15 characters, it will be discarded and NO number will appear in the “photographers’s own number” column on your statement if the image is sold.

Retouching/ Sharpening/ Manipulation: All digital files are expected to be free from dust, scratches, bad pixels, and manipulation artifacts. Dust and scratch removal is easily accomplished in Photoshop using the clone and healing brush tools, but these corrections must be applied carefully, and all results **must** be examined at 100% to make sure the repairs are not detectable. More extensive manipulation (removal or addition of major elements and other photomanipulation) should only be done by those with proper training; poorly manipulated images will be rejected. Unnatural, non-intentional color casts should be removed, but it is extremely important that you utilize a calibrated (preferably using a hardware-based colorimeter) monitor when you are making color adjustments, and make sure that the actual color values confirm your subjective opinion. Composite images and images that have undergone substantial photomanipulation should be labeled as such in the photo caption. Only minimal amounts of sharpening should be applied—cameras should be set to low or no sharpening, and unsharp masking (maximum setting of 80%, 1 pixel, 4 levels for a 9x13” 300 dpi image) or Photoshop “smart sharpening” (maximum 80%, 1 pixel) used. Oversharpening is one of the MOST COMMON reasons a digital image is rejected. Oversharpening can overemphasize the noise in an image, bring out pixellation, create “halos” around high contrast edges, and cannot be “undone” once the image is saved.

IMAGE SIZES

Unlike a number of agencies, we do not have one set size requirement. Previously, we had set a minimum of roughly full-page size at 300 dpi. However, many photographers were only submitting at that size despite being able to make larger scans, or to successfully upsample digital captures to a larger size. The larger the image size (assuming acceptable quality) the more sales possibilities an image has; a larger image may be used larger (museum or zoo exhibits, for example, or double page spreads) or cropped without degradation in quality. While this size will continue to remain our absolute minimum acceptable size (2550 pixels on the short side) we now have a series of recommended sizes, depending on the source of the digital image.

1. Scanned Transparencies: As high quality transparency scanners have come down dramatically in price, it is highly recommended that photographers scan all images at size no smaller than 10” on the short side at 300 dpi (3000 pixels). ALL images must be free from dust, scratches, and other defects (review at 100%). Digital ICE or other dust-removal technologies may be used (use ICE at the “normal” setting and do NOT use it on Kodachrome slides). There should be NO visible borders (edges of the slide mount) or rounded corners. Levels should be adjusted for maximum contrast without clipping of highlight or shadow detail. Only minimal sharpening should be done, if necessary, and it should be done using unsharp masking or “smart sharpening” (see above).

2. Digital Cameras: First, a word about RAW formats. The RAW format generally captures all the data produced by the camera’s sensor. This needs to be processed to create an RGB image file such as a TIFF or jpeg. When a camera is set to produce jpegs or TIFFs directly, this conversion is done in-camera, using the various camera settings (sharpening, white balance, etc.) and all of the extra data is discarded. This may produce an acceptable image, but especially in digital cameras of 8 Megapixels or less, where upsampling will be required to meet our minimums, it is crucial that you shoot in RAW mode and use your camera manufacturer’s software or a program like Adobe Photoshop to upsample the image when opening the RAW file. Using all the data possible creates a visibly better result. In addition, RAW mode allows you to easily change or adjust any of the camera settings if they were in error when the image was taken (for example, if you shot with the wrong white balance setting), and do so non-destructively to the RAW file. It takes a bit more work to create an optimal file working from the RAW, but the result will be substantially better than the camera’s built-in jpeg algorithm. In addition, cameras should be set on no or low sharpening (some minimal sharpening helps to overcome the softening effect of the camera’s anti-aliasing filter), with neutral levels of saturation and contrast. ALL images MUST be reviewed at 100% to look for dust, bad pixels, and other artifacts, which should be corrected. As in the old “film” days it is always best to use the lowest ISO possible to achieve the lowest level of noise (the digital equivalent of film grain).

That said, here are our size guidelines for digital cameras:

6 MP: This is the **minimum** resolution that can produce professional results. Generally only 6MP dSLRs will produce useable images, not point-and-shoot models, due to the very small size of the sensors in those cameras (even 8 and 10 MP point-and-shoot do not quite produce professional quality results due to the small sensor, especially at ISO settings above 100). We do not recommend upsampling 6MP images to larger than 9.5” on the short side at 300 dpi (2850 pixels) (yields a roughly 35MB uncompressed file). 9” on the short side is probably safer for most images (roughly 30MB uncompressed). **At this point, photographers using 6MP cameras should seriously consider upgrading their equipment, as they are at a competitive disadvantage.**

8 MP: The higher resolution of an 8MP camera brings the image size close to our minimum, but for greater marketability, it is best to upsample to a somewhat larger size. Most excellent quality 8MP images shot in RAW mode can be upsampled to 3000 pixels on the short side (10” at 300dpi) without much degradation in quality, but it is always important to review your images to make sure they hold up at that size.

10 MP and higher: Upsampling is unnecessary to meet our minimum, but again, larger is more marketable, and to be able to get double-page spreads and other larger uses, it is recommended to upsample to 11” on the short side at 300 dpi (3300 pixels). This yields an uncompressed image size of approximately 48MB. Ultra-high resolution cameras can obviously be upsampled to even higher sizes.

	Scan	6MP dSLR	8MP dSLR	10+MP dSLR
Minimum size	8.5” on short side at 300 dpi (28MB)	8.5” on short side at 300 dpi (28MB)	8.5” on short side at 300 dpi (28MB)	Native resolution (Varies)
Recommended size	10” on short side at 300 dpi (38MB)	9” on short side at 300 dpi (31MB)	9.5” on short side at 300 dpi (38MB)	11” on short side at 300 dpi (48mb)
Maximum size	100MB (purely for file handling reasons)	9.5” on short side at 300 dpi (35MB)	10.5” on short side at 300 dpi (43mb)	Varies depending on resolution. REVIEW at 100% for quality

Captioning and Keywording

Proper captioning and keywording are critical to making sales. While our staff goes over the data for every image and makes corrections, additions, and deletions to keywords and captions as we deem necessary, the more information that is present (and accurate) at the start, in the proper form, the faster the images will be uploaded to the website. Remember, in the “old days” of slide submissions, you were limited to perhaps 3 lines of text on a caption. Now you can provide as much information as necessary to describe what is going on in each image.

Having complete information will make sales. This cannot be overemphasized—the clients for whom caption information is critical will NOT purchase an image if they cannot confirm what is important to them, most often a species or location or magnification. Those for whom the information is NOT important will buy the image regardless of the caption data.

In order for your caption information to be uploaded with your images to our database, it must be provided in a way that we can use. When our initial digital guidelines were made, the easiest way to do this was to supply a database along with the images, as a Excel file, tab delimited database, or Filemaker Pro file. However, the adoption and (relative) standardization across the industry of imbedded IPTC data makes imbedding your data within your jpeg or files our preferred method of captioning your images. This can be done in Photoshop (or Photoshop Elements) from the “file” menu, selecting “file info,” or using any number of other image management or editing programs such as Aperture, Extensis Portfolio, Nikon Capture, BreezeBrowser, and Microsoft’s free PhotoInfo powertoy. Unfortunately, not all of these programs use the same field labels for the fields I am about to describe, and indeed, different Photoshop versions use different labels as well. I will use the Photoshop CS2 format, however, to describe the preferred fields to use.

Document Title (or just Title): This should be a brief caption of under 45 characters. This will run under the small thumbnail when an image comes up in a search on our website, and should be a very simple description: “New York Skyline,” “Northern Cardinal,” “SEM of Human Skin,” etc.

Caption (sometimes labeled Description): This is the field that should contain the complete caption for the image, **including** any information entered under “Title”. This is the caption that will appear when a client clicks on the small thumbnail to enlarge it. It is also imbedded in the high res scan that the client will ultimately receive. This caption should include as much information as possible about the image. For natural history images, for example, it should include the common and scientific names of any organisms pictured, as well as location information, and additional information about what is going on in the image. Other useful information may be included as well if it is relevant. For micrographs, magnification is critical: please express it as a magnification AT A SPECIFIC SIZE, for example, 500X at 5”x7”. If you are using a digital camera, please take into account the actual sensor size when calculating or expressing the magnification. Please do NOT place your location information in the “Location” fields – it will NOT be imported, and will most likely be lost; simply include it in the caption.

Keywords: Keywords or phrases, separated by commas or semicolons. Keywords are probably the most critical element in making sure our clients see your images. We do not expect you to understand exactly how our search engine works, but it is important to understand that queries search ONLY the keyword field, not the caption or title fields. Therefore it is very helpful to us if you enter the basic information found in the caption as keywords as well. For Natural History images, for example, the critical information would be the common and scientific names of the animal or plant pictured, as well as broader search terms such as mammal, bird, tree, etc. Your editor can give you further guidance on what to include. Try to consider the end user when you keywording—a researcher looking for a photo of a horse would not want to get a bunch of horse chestnut images; don't use "horse" as a keyword, just "horse chestnut." Don't worry too much, though—we go over the keywords very carefully and make any necessary additions and deletions.

Copyright Notice (or Author): You may use either of these fields, however you should be consistent and not change within a submission (this goes for any of these fields where more than one may be used). Enter the credit that should appear for this image. In most cases this will be your name as you would like it to appear. If additional people or institutions should be included in the credit, or you wish to use a credit different from your name, enter it here.

Instructions (or Rights Usage Terms): If the image has any sales restrictions, enter them here.

Transmission Reference (or any unused field): Model release information. Use "Transmission Reference" or select one field that is not being used and use it consistently to indicate whether an image is model released, using the following terms: 'NOT RELEASED', 'MODEL RELEASED', 'PROPERTY RELEASED', 'MODEL AND PROPERTY RELEASED', 'NOT APPLICABLE', or 'NOT RECOGNIZABLE' **ANY IMAGE WITHOUT MODEL RELEASE INFORMATION WILL BE ASSUMED NOT TO BE RELEASED.**

Other Methods of Supplying Caption Data: While discouraged, caption data may also be provided as a separate database file. Each disk should have a data file on it with captions for the images on that disk only. The data can be supplied as a tab delimited data file or as a Microsoft Excel spreadsheet file. In either case, there should be no extraneous information in the data file—no header, no notes, no description of the submission. **NOTE: Supplying captions in this manner WILL slow the processing of your submission. Since there are now many methods of imbedding IPTC data into your images, including free ones, we do NOT recommend that you submit captions on a separate data base and will no longer accept them after June 1, 2008.**

Tab delimited file, in plain text format. You can create this by hand in a word processing program or export it from many database or spreadsheet programs (see "export" or "save as" dialogs in the file menu). If you are creating it by hand using a word processor or text editor, you should use the following format:

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Photo number[tab]title[tab]caption[tab]keywords[tab]photographer credit[tab]model release info[return]
Photo number[tab]title[tab]caption[tab]keywords[tab]photographer credit[tab] model release info [return] etc.
Save the file with a .txt or .tab extension (use the "save as" command of your word processor and select "plain text")
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Excel Spreadsheet (can also be created using the Microsoft Works or Sun Open Office spreadsheet programs): Use one row per image, inputting data in each column in the same order as in the above tab-delimited file—Column A: your photo number; Column B: title; Column C: caption, etc. Save as an .xls format file. Excel and most spreadsheet programs **will** allow you to save as a tab-delimited file (see "save as" menu) which IS preferable to an Excel-format file.

Summary of IPTC Fields

IPTC Field Label	Type of Data	Character Limit
Document Title	A title or short caption.	45
Description (Caption in PS7)	A long caption including all information about the subject of the image (common and scientific names, location, specific behaviors going on)	1,500
Keywords	Keywords, separated by commas or semicolons	50 per keyword or phrase
Copyright Notice OR Author	The credit to appear with the image (do not include © or year).	64
Instructions OR Rights Usage Terms	Sales restrictions, if any.	128
Transmission reference OR any unused field	'NOT RELEASED', 'MODEL RELEASED', 'PROPERTY RELEASED', 'MODEL AND PROPERTY RELEASED', 'NOT APPLICABLE', or 'NOT RECOGNIZABLE'	