



# THROUGH THE DARKROOM DOOR

The Cleveland Photographic Society – Cleveland Ohio

Volume 82 No. 1 September 2003

## Schedule

### September

5	Pictorial slides & prints competition #2
12	<b>Judging Workshop by Ron Wilson &amp; Charles Chervenack</b>
19	<b>Digital Camera Update with Terry Wade of Dodd Camera</b>
26	Creative slides & prints workshop

### October

3	General slides & prints critique #2
10	People slides & prints competition #2
17	Nature slides & prints competition #2
24	Pictorial slides & prints competition #3
31	No meeting

### November

7	Creative slides & prints competition #1
14	People slides & prints competition #3
21	<b>Auction #1</b>
28	No meeting

### December

5	Nature slides & prints competition #3
12	<b>Digital Photography by Ron Wilson</b>
13 Sat	<b>Holiday party</b>
19	Zoo photos – special competition
26	No meeting



## Digital Briefs

### By the Numbers, Part II

By Joe Kunzman

Previously, we discussed how to calculate the image and file sizes of digital files. Ideally, we would always like to capture an image with a digital camera or scanner in the proper size needed for a given output requirement. This is easily done if you have a scanner. A transparency or print can be scanned multiple times for different output requirements. This is not the case when all you have is a single file from a digital camera or bureau scan. In this case the image may need to be resized or resampled.

Oftentimes the capture device may not have sufficient resolution for a given output requirement. The example used last month called for an 11 x 14 color print at 300 dpi. This required a 39.66Mb RGB file with an image size of 13.22 mega-pixels. Except for a handful of expensive professional cameras, few digital cameras can achieve this image size. A scan of a 35mm transparency on an inexpensive 1200 dpi scanner will also fall woefully short at 1.83 mega-pixels. In each case the image will need to be resampled.

Scanning transparencies offers some hope. Scanning a 35mm transparency on a high-end 4000 dpi scanner yields a 20.37 mega-pixel image calculated as follows:  $[(.94 * 4,000) * (1.42 * 4,000)] / 1,048,576$ . This is sufficient for a 12 x 18 print at 300 dpi calculated as follows:  $.94 * 4000 / 300$  and  $1.42 * 4000 / 300$  respectively. Obtaining even larger files is easy when scanning medium and large format transparencies. Scanning of a 2 1/4 inch square transparency even on a modest 2400 dpi scanner yields a 27.81 mega-pixel image calculated as follows:  $(2.25 * 2,400)^2 / 1,048,576$ . This is large enough for an 18 inch square print at 300 dpi calculated as follows:  $(2.25 * 2400) / 300$ . A scan of a large format 4 x 5 transparency at 4000 dpi yield a whopping 305.18 mega-pixel image size.

### Resizing and Resampling

Resizing and resampling in PhotoShop is achieved with the Image Size tool. Generally, you will want to first resize the image to the desired output size. Resizing an image does not change the number of pixel in the image; it only changes the output resolution. Referring to the PhotoShop illustration (page 2), resizing is accomplished by first unchecking the 'Resample image' box then changing the width or height of the image. Note that the resolution will change. Increasing an

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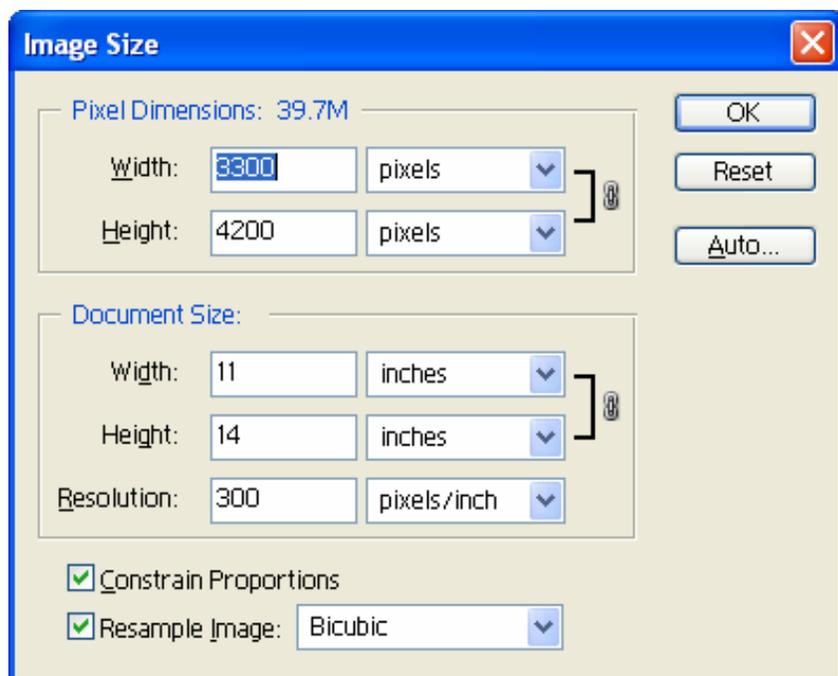
**DEADLINE FOR NEXT ISSUE** 18<sup>th</sup> of the month

images size will reduce the resolution. Conversely, decreasing the image size will increase the resolution. If the resolution falls within acceptable limits for the output requirements, then you are finished. However, if the resulting resolution is, for example, to low for a print or to high for a Web image file, then it will require resampling.

Resampling should be avoided, if possible. The drawback to resampling is that your image editing software must extrapolate new pixels from surrounding ones. This can reduce the fidelity of the image and will almost always soften it. Hence, make sure to apply PhotoShop's un-sharpen filter to the image prior to printing it. Referring to the PhotoShop illustration, resizing is accomplished by first checking the 'Resample image' box then changing the resolution to the necessary value.

### A Final Perspective

So how do we reconcile digital manufacturers claim that their 3 to 4 mega-pixel camera produce good 8 x 10 prints when, by the numbers, it should take 6.87 mega-pixels calculated as follows  $[(8*300)*(10*300)]/1,018,576?$  Obviously, they are anticipating that the image will be printed at a lower resolution or resampled. The catch is that digital files produced by digital camera files usually resample better than scanned transparencies because of the absence of film grain. This is born out from many examples that I've seen. Hence, when using a digital camera, try to capture the largest image possible bearing in mind some enlargement is needed and is acceptable. When scanning always try to scan to the size and resolution of the final print.



Competition standings will return next month

## CPS Nature Guidelines

By Jim Kunkel  
Nature Chairman

1. Members may enter a total of four slides in each competition, two in General and two in Zoology.
2. Members may enter three prints in color maker made, three in black and white maker made and three in commercial. Commercial includes both color and black and white prints. The prints will not be divided between zoology and general; they will be all nature prints.
3. Zoology is anything that moves, animals, insects etc. General or Botany are things that don't move like plants, rocks and trees.
4. Prints may be made in the wet darkroom or the digital darkroom.
5. Nature photography subjects will include all WILD LIVE plants and animals as well as the sky, rocks etc. Domesticated plants and animals are not included even if found in the woods. No people or man made objects are allowed. That leaves out cats, dogs, cows, horses, fences, brick walls, roses, tulips, stuffed owls or bears, etc. Wild animals at the zoo are OK as long as the hand of man is not obvious.
6. **Any form of manipulation that alters the truth of the photographic statement is ineligible.** The only exception to manipulation being nature slides and prints submitted for Art in Nature Competitions. The hand of man cannot be present in the photo.
7. Titles for nature entries should simply identify the subject. Generic name are acceptable but a specific name is preferred.

Acceptable Titles	Preferred Title
Two Trees	Two Balsam Firs
Red Flower	Cardinal Flower
Wolf Hunting	Timber or Gray Wolf Hunting
Geese Flying	Canada Geese in Flight
Moth	Luna Moth

There are many sources, which can be used to correctly identify flora or fauna, including our more experienced club members. **Plant, flower or other nature guides** are available at public libraries, nature centers or bookstores. **Park Naturalists** are quite helpful in identifying flowers, insects or other things in nature if you show them a slide or photo of it. Or contact the **Natural History Museum, Audubon Society** or **other specific groups** who will be more familiar with your subject.



### Special Zoo Photos Competition

To be held December 19<sup>th</sup>

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## Ed Rynes

### Photo Gallery on Website

A collection of 12 images by Ed Rynes has been posted to the website.



<http://www.clevelandphoto.org>

## NPPA Flying Short Course

The Plain Dealer is hosting the National Press Photographer's Flying Short Course. The day-long seminar will be in Cleveland (actually a hotel in Independence) on Sunday, October 19, 2003, beginning at 9 a.m.

[www.viscom.ohiou.edu/fsc03/](http://www.viscom.ohiou.edu/fsc03/)

## Birds of Prey Workshop

All photographers are invited to the Three Rivers Avian Center (TRAC) in Brooks, WV, for a photography workshop on Sunday, October 19, 2003. Contact Steven Wayne Rotsch at [swrkab@aol.com](mailto:swrkab@aol.com), call him at 304-344-4688 or visit his website at <http://www.stevenrotsch.com> for more information.

## A Photoshop Techniques Website

Check it out:

<http://www.russellbrown.com/body.html>