How to prepare Digital Files for 35mm Slides
or how to make digital slides

by Larry Berman
www.BermanGraphics.com
412-767-8644

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A great resource for getting digital files made into slides:

IPrintFromHome.com
716-228-2983 or toll free 800-736-8652

Optimum pixel dimensions is **4096x2730**, which results in approximately a 30 megabyte file, compared to the 8 megabyte files most photo labs provide because of a PowerPoint mentality when the word "*slides*" is mentioned. Smaller size files can be submitted. If you do so, they will resize to the dimensions stated above as that's what their film recorder requires. By resizing the files yourself, you have the option to add Unsharp Mask (sharpening) to the image prior to having the slides made.

◈ Understanding proportion

35mmm proportion is **2:3**. That means that the longer dimension is 1.5 times the shorter dimension. Digital camera files are **3:4** which means that the longer side is 1.33 times the shorter dimension. In the illustration below, you can see the amount of image in black that extends past the edges of the digital camera file (in white) to fill the frame of a 35mm slide

White area represents digital camera file proportion
Black area represents additional area needed for 35mm slide proportion

◈ Open your image in an editing program, like Photoshop or Elements II.

At all times, I'm using 300 pixels per inch for my resolution, both in the image properties and in the new black canvas I'm going to create.

Using one of my flower photos taken with a CoolPix 5400. Shown below is the full image size out of camera with no cropping.

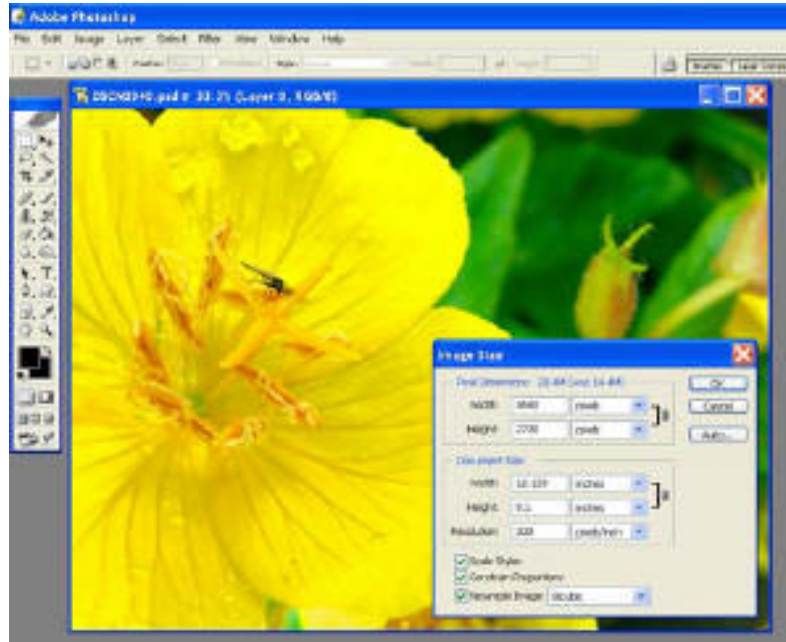**Original Flower Image size in pixel dimensions is 2592x1944 (3x4)**

◆ **Create a new canvas in black**

Under File>New>create a new canvas at the 4096x2730 and make it black. That will become the image that you'll add your resized digital file into in the next step.

◆ **Edit and resize**

After editing (adjusting color and contrast, etc.) the image needs to be resized. Remember that the original pixel dimensions were **2592x1944**. Now I resize so that the shorter dimension is **2730**, the shorter dimension of slides.com optimized submission requirement above. You can see a screen capture of the Image Resize dialogue in the picture below. You can also see where I've entered the **2730** for height and because Constrain Proportions is checked, the width automatically adjusts proportionally.

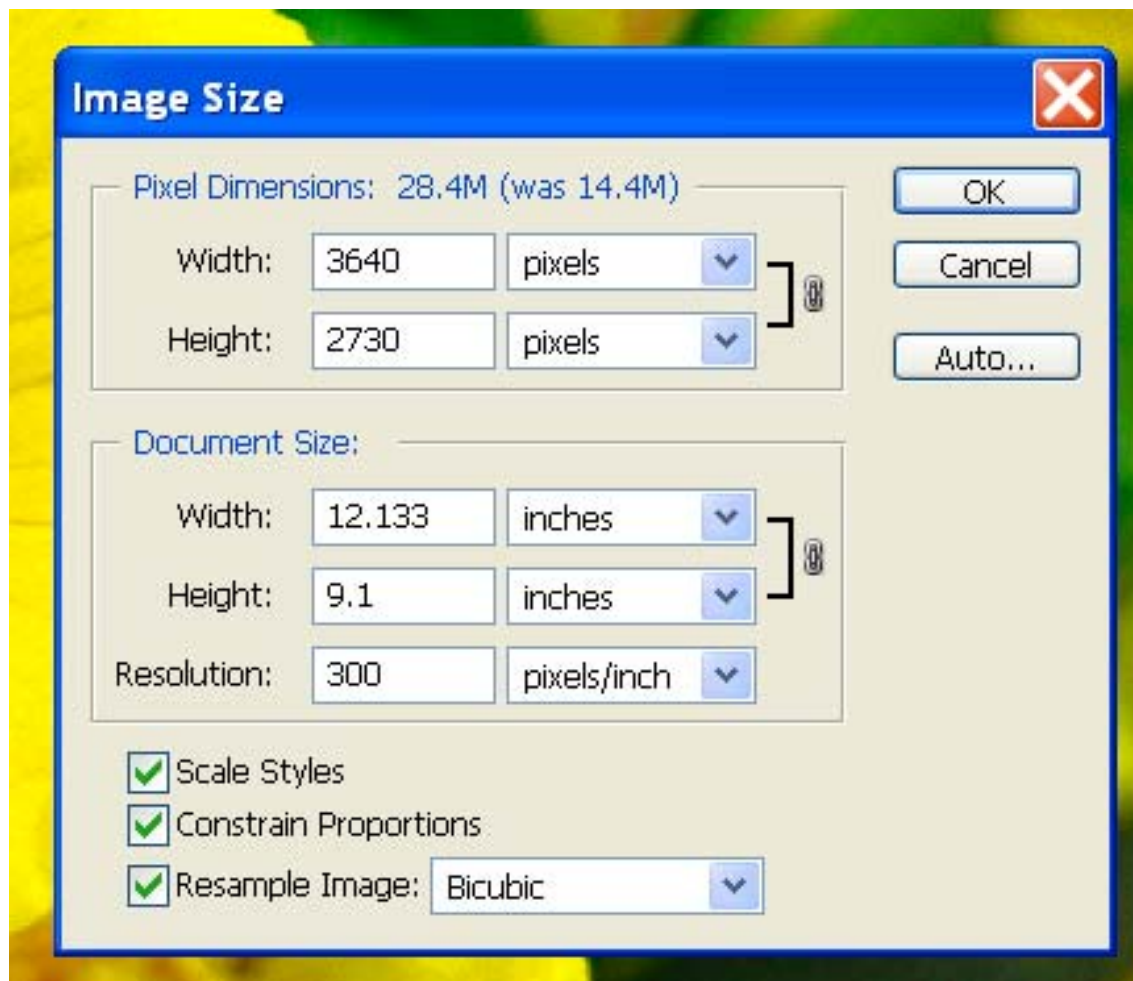**Resize options under Image>Image Size (in Photoshop)**

Image size dialogue close up

◆ **Copy and Paste**

After you've created the black canvas and sized your digital camera file accordingly, copy the digital camera file and paste it into the black canvas. In Photoshop (and Elements), if the entire canvas is visible on screen, it will automatically paste into the center leaving equal black borders on the two opposite sides where the pixel dimensions is shorter than the **4096**.You can see the resulting image below. That will be the digital file sent to Slides.com and the black area will mask the image and won't show during projection. After you've finished, **SAVE** under a new file name and add **Unsharp Mask** before **flattening** and **SAVING AGAIN** as another new file name. The flattened image will be sent to Slides.com as it will be a smaller file size than if you leave the layers active.

◆ **Cropping a digital camera file changes proportion**

After working on the image and cropping for visual impact, go through the same resize steps. If the proportion changes so that resizing the height makes the width wider than 4096, resize the width instead to 4096 so the height will be shorter than 2730. That will add the black canvas to the top and bottom in the step below, instead of the left and right sides.

- ◆ **Unsharp Mask** is under Filters>Sharpen>Unsharp Mask
  The amount you use is arbitrary and the image should be viewed at 100% magnification for making sharpness judgments. Be careful as too much sharpness will make the image look unnatural when projected.
- ◆ **Flatten** is under Layers>Flatten Image

Digital file ready to submit for a Jury Slide

As a final note, with either service, black canvas is automatically added so as not to crop improperly proportioned images sent in for 35mm slides. But if you want a different color background you must add that color background using the method I've described above.

Photoshop knowledgeable people also know that a similar result can be gotten by adding black canvas under Image>Canvas Size. I prefer my method for the total control it gives me in allowing me to continue to edit the image on an active layer even after pasting it into the black canvas.

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Larry Berman
www.BermanGraphics.com
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