

Photo Editing¹

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This EDIS publication, focusing on photo editing, is the third of a three-part series on taking good digital photos for your local Extension program. This series also includes publications on the basics of digital photography and photo composition.

Introduction

This publication explains how to take good photographs and make them look even better through photo editing. Because there are so many photo editing programs on the market—such as Adobe[®] Photoshop[®], Adobe[®] Photoshop[®] Elements, Corel[®] Paint Shop Pro[®], and Roxio PhotoSuite, among others—this publication does not focus on specific software programs, but instead discusses some general photo editing concepts.

Cropping an Image

One of the most powerful tools in photo editing programs is the ability to crop images. Cropping removes unwanted parts of an image. Cropping a photo zeroes in on the subject and eliminates what is not needed, providing the viewer the opportunity to focus on what is most important in an image. Cropping can also be used if your digital camera's aspect ratio is 4:3 and you want to produce 4 x 6-inch photographs.

Resolution and Resampling

Photo editing programs can change the resolution of the original image, depending on how the photograph will be used. *Resolution* is a measurement of how closely packed the pixels are together in the image. Resolution is usually measured as *pixels per inch* (ppi). At 72 ppi, a 1,600 x 1,200-pixel image—the typical size of a photograph taken with a 2-megapixel camera—measures 22 x 16 inches. At 300 ppi, the same photograph measures 5 x 4 inches because those same pixels are packed closer together. For a print publication, the photograph's resolution must be set at 300 ppi or higher. If the image will be posted to the Web or sent via e-mail, the image must be saved at 72 to 100 ppi.

Changing a picture's pixel dimensions by adding or subtracting pixels from an original image is called *resampling*. Using the photo editing program to discard pixels from the original image is called *downsampling*, which is what happens when a very high-resolution photograph (1,200 ppi, for example) is reduced to a resolution of 300 or 72 ppi. To increase the size of an original image that was saved at a very low resolution (72 ppi), you can try to *upsample* the image; however, this practice is strongly *not* recommended because the photo's

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1. This document is WC096, one of a series of the Agricultural Education and Communication Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date July 2010. Visit the EDIS website at <http://edis.ifas.ufl.edu>.
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quality suffers. Upsampling refers to using the photo editing program to make up new pixels by adding pixels that were not there originally. This will cause an image to look pixilated and blurry.

Retouching Photos

Most photo editing programs allow you to retouch photographs' color, brightness, contrast, and other aspects. The photo editing programs have automated one-step commands for adjusting these settings. The automated commands may not achieve the best results, but they are a good place to start. Following are a few of the common retouching tools:

- **Brightness/contrast** lightens or darkens an image.
- **Cloning** copies areas in one part of a photo to another part.
- **Color adjustments** revise saturation—the richness and intensity of the colors.
- **Dodge and burn** can lighten (dodge) or darken (burn) a part of an image.
- **Drawing tools** provide lines, curves, and geometric shapes to add to photographs.
- **Levels** adjust the highlights, midtones, and shadows of the image to the appropriate level.

Saving Your Edited Photo

Once the photograph has been edited, you are just about ready to save it so it can be used in a publication or on the Web. The last two things to consider as you save the photograph are the color format and the file format.

Color Formats

The two color formats in which to save images are RGB and CMYK. All higher-end photo editing programs provide the option to save the final image in one of these two color formats.

RGB stands for "red, green, blue." RGB is the color format used by televisions and computer monitors. If the photograph's final destination is the

Web or a television monitor, the final color format needs to be RGB.

CMYK stands for "cyan, magenta, yellow, black." ("Black" is "K" because "B" is "blue" in the RGB format.) CMYK is the color format used for commercial color printing. Each letter is an ink color that makes up what is called "four-ink color," also known as "process color." If the photograph's final destination is a commercial printer for a publication, the final color format needs to be CMYK.

File Formats

After a color format has been selected (RGB or CMYK), the last task is to choose a file format for the actual photograph. Just like the color format selection, choosing a file format depends on the photograph's final destination.

If the photograph will be e-mailed, placed on the Web, or used in a television program, it must be saved as a JPG file. JPG stands for "Joint Photographic Experts Group." A JPG file works very well for photographic images with gradual color changes and no sharp edges, and it is a relatively small file size.

If the photograph will be used in a print publication, it should be saved as a TIFF. TIFF stands for "tagged image file format." A TIFF is considered by many as the best graphic file format for use in desktop publishing applications because it is supported by virtually all desktop publishing applications.

Photo Releases

Finally, if the photo is going to be used for a money-making purpose, such as in an advertisement, it is a good idea to have everyone in the photograph sign a release form. A release gives permission to use the photograph in specified ways (e.g., in an advertisement or educational program). In general, even if the photograph will not be used for a for-profit purpose, it is still a good idea to get a signed release. For persons under 18, a parent or guardian needs to sign the release form. For purposes that support your organization, such as scrapbooks, newsletters, or videos, release forms may not be necessary. It is best

to check with your administration to see if a release form is needed. Use the example release form at the end of this publication as a template and adapt it for your purposes.

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Example Release Form

I, (INSERT NAME), hereby grant permission to (INSERT NAME OF PERSON OR ORGANIZATION TAKING OR USING PHOTO) to utilize my appearance, the use of my work, or the use of my music by photograph, digital reproduction, videotape, and/or audio tape in the program(s) listed below. In doing so, I agree to release (INSERT PERSON OR ORGANIZATION'S NAME) from claims made by me or any third party in connection to my appearance/works and give (INSERT PERSON OR ORGANIZATION'S NAME) the right and permission to publish and republish this audio and/or visual material in print, film, tape or any other media.

I warrant that any and all material furnished by me for the program(s) listed below is either my own or is authorized for such use without obligation.

I agree to the use of my name, likeness, voice, work, and biographical material about me for the program's publicity and organizational promotional purposes.

PROGRAM TITLE(S): _____

PRODUCTION DATE(S): _____

Signature: _____

Name Printed: _____

Current Address: _____

Age (if under 18): _____

I represent that I am a parent (guardian) of the minor who has signed the above release and I hereby agree that I and said minor will be bound thereby.

Signature: _____

Name printed: _____

For INSERT PERSON OR ORGANIZATION'S NAME): _____

Name (OF PERSON OR ORGANIZATION'S REPRESENTATIVE): _____

Date signed: _____