## PHOTO LAB MANAGEMENT.

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## ON THE COVER

This month's cover is courtesy of Jack Drafahl and Image Concepts. The assignment was, "Create a fall image using digital techniques lab employees can learn to apply." This image was created using the program Brush It On, by MetaCreations. For more details, see the feature beginning on page 30 of this issue.



Before and after repair





Adobe Photoshop: Adjustment of brush size and shape



Adobe Photoshop: Selection of right eye with (clone) brush



Adobe Photshop: Drop data to left eye with clone brush.



MetaCreations Painter: Brush selection and adjustment



## Jack and Sue Drafahl

WE HAVE NOTICED an increased interest in having old photos restored by local photo labs. This is probably due to an increased digital photo awareness. People are quickly learning how digital editing is often the answer to many of their photo problems.

Many first time digital editors in labs have trouble using the brushes provided in various software editing programs, resulting in "editing which shows." In this article, we are going to explain both the mechanical and artistic uses of digital brushes, and give you some tips on

how to make them work for you. Digital brushes are found in the tool box, usually running in a bar across the top or side of the edit area. Typical editing brushes can be used to draw lines, spray patterns, erase data, blur edges, burn and dodge, and most importantly, it

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can be used as a clone tool.

You will soon find that the main digital brush control centers around the size and shape of the brush. Most adjustments to the digital brush can be accessed either by using the right mouse button, or double clicking on the specific brush tool in the tool box.

When you first install your editing program, it will usually set up a dozen or so brush sizes and shapes to fit most applications. Additional brushes are found in a sub-directory or from third party suppliers over the Internet.

Being able to use different brush sizes is a very important part of image editing. When doing digital restoration of old photographs, you will find yourself using very small brush sizes to edit very small areas, and then switching to the larger brush to speed up edit time in the larger areas.

If you chose to use the larger brush in small areas, the editing will spill over into areas you don't want to edit.

If you use a small brush in a large area, your editing may show as small uneven tonal values. The key is to match the brush size to the area to be edited.

We recently received a damaged photo that required restoration using applications of various brush sizes. The photo of a young boy had a paper crease over the left eye caused from folding the picture. The data was completely gone in that eye, and the only possible source of replacement data was from the right eye. The repair was quite simple once we created a brush size that perfectly matched the size of the right eye.

We positioned the brush directly over the good eye and with the click of a button, the data was transferred to the opposite side. The softness of the brush allowed the data to smoothly mix with the area surrounding the damaged portion of the picture.

Most digital brushes have two addi-

tional controls that help refine their usage even more. The first is the softness or hardness control. These settings have numerical values that vary from a very sharp edge to a very soft, blurry edge. In most editing situations, you would be using brushes with soft edges.

If you find that each time you apply a brush the effect is too strong, then you can create a brush with an opacity setting. This control adjusts the intensity of the brush from 0% to 100%. At 0%, the brush has no effect on the image, and at 100% it applies all of its effect on the image. If you're not sure just how much of a brush you want to add to a specific area, you can set the opacity to a low number, and keep adding brush strokes to the specific area until you achieve the desired effect.

The most valuable digital brush is called the rubber stamp or clone tool, depending on which editing program you use. The brush picks up data from one area and drops it on another. If



you're editing an old torn photograph, the clone tool will pick up data next to the scratches and tears and transfer it onto the damaged area. Correct use of the hardness and opacity allows you to fine-tune the amount of data you transfer, and how well it feathers on the applied area.

The only answer to achieving quality digital restoration is practice, practice, practice. You need to spend some time with a couple of old photos, and try all the various brush controls. Use the undo function, and experiment with all the controls. Each time an edit is finished, save it out with a new name, and then try it again. You will find that each time you try a new version, you will do it better, faster, and with more confidence.

The second type of brush is for the creative digital artist who wants to expand imagination into pixels. In this application, custom-made shapes are applied with the digital brush.

In Adobe Photoshop, for example, a custom brush directory offers brushes in the shape of a bird, plane, star, circle, snowflake, and a human eye. As you drag a brush across an image using one of these custom shapes, a repeated sharp or blurred version of the brush shape will appear.

Painter 3D and Painter Classic, both from MetaCreations, specialize in creative brushes. These programs both have all the normal editing tools plus a very large selection of digital brushes. These creative brush controls are very extensive, and include size, opacity, shape, grain, direction, color, tilt, and more than a dozen other controls. These brushes can simulate an oil brush, felt pen, chalk, pencil, liquid metal, goo, palette knife, glass distortion, charcoal and crayons.

One of the most interesting brushes is called an image hose. As you drag this brush around the surface of a picture, various image parts flow out of the hose. This unusual effect is great for unusual backgrounds and special effects. If you want a rocky surface, you merely select the rocky image hose and a bed of rocks starts to pour out of your image hose brush.

You can create your own image hose by scanning in several similar subjects, making a mask for each and combining them into one image. When the combined image is loaded into the image hose, it starts to flow forth with individual parts from the picture.

We have now shown you several uses for the digital brush. It is the answer to many mechanical manipulations and the source from which creative juices flow. The key is to practice and master the digital brush so it becomes your effective tool. Brush up on your editing skills and you may soon find additional digital bucks in your bank account.

Jack and Sue Drafahl own and operate a custom lab in Portland, OR. They are also professional photographers, specializing in underwater photography.

