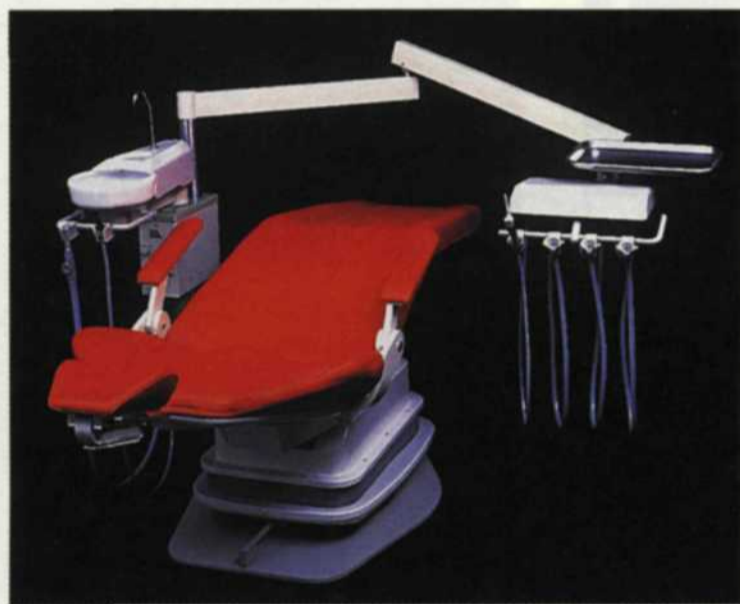
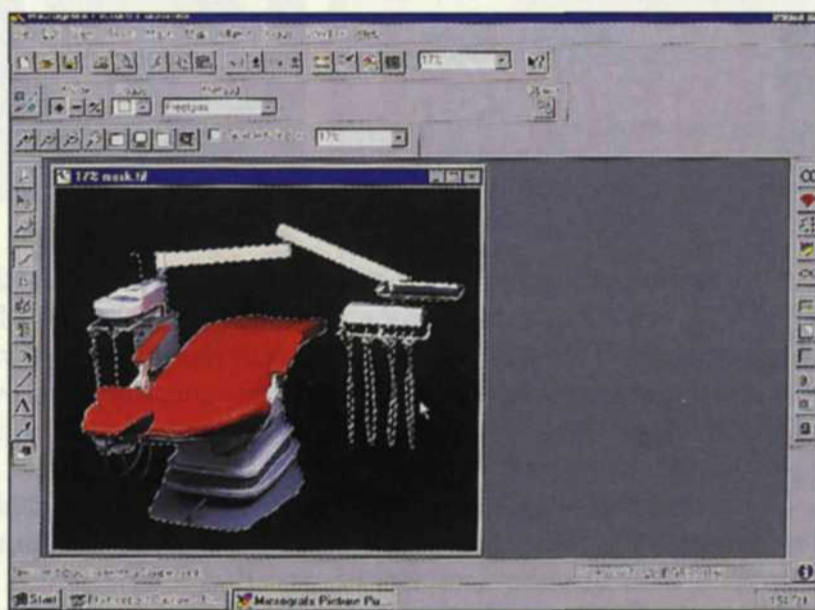


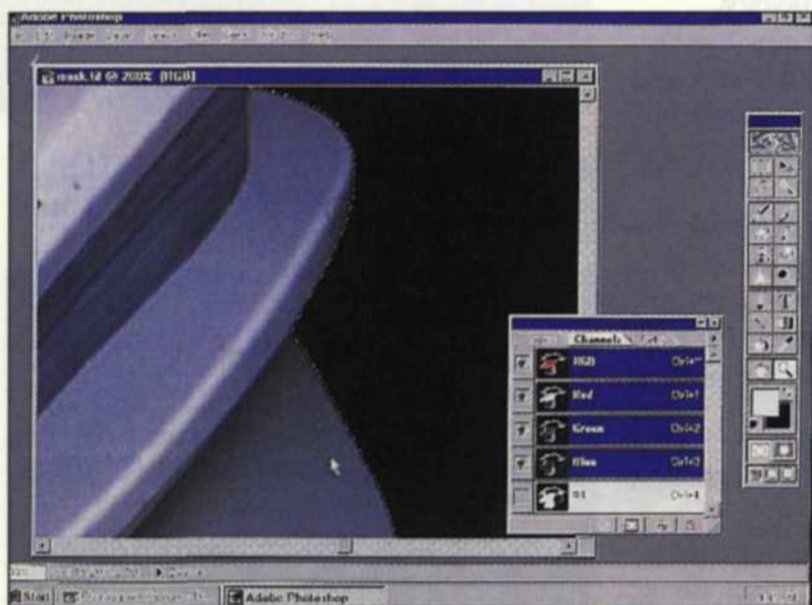
Photo Masking for the '90s



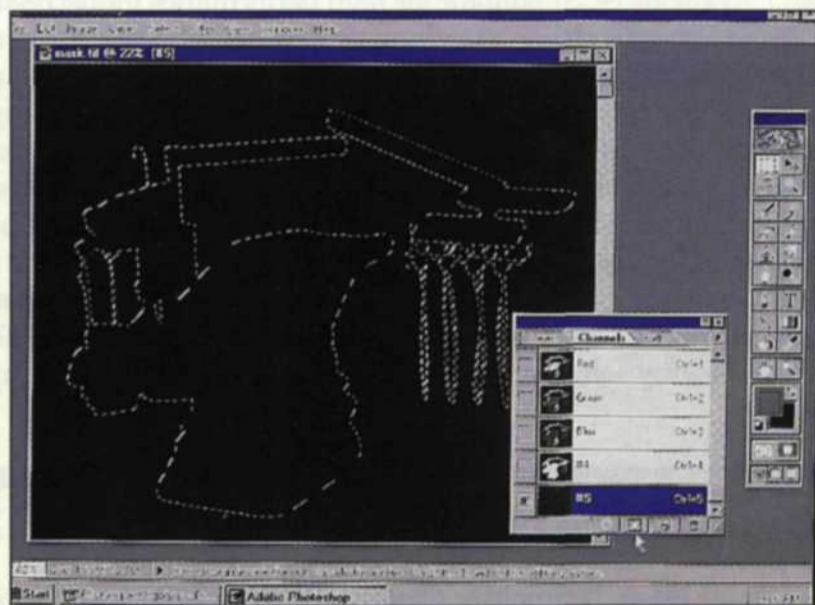
Original mask



Selection of mask with magic wand



Fine tuning the mask edit



Final mask edit

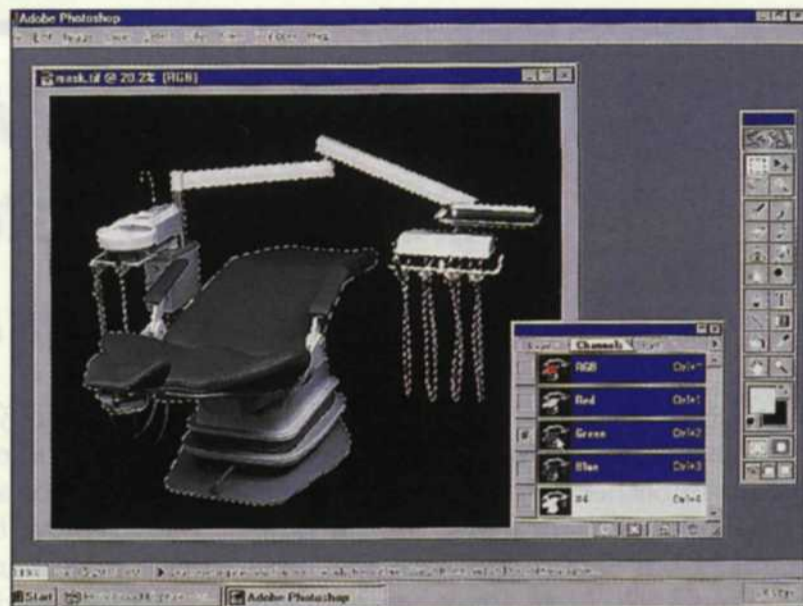
Jack & Sue Drafahl

Hard to believe, but masking can be fun! Especially when it's done right on your computer screen. No more "registration" nightmares.

AS TRADITIONALLY trained photographers, we remember the painstaking procedures required to accomplish special effects. Photographers had to take the extra time necessary to complete studio shoots because trying to fix problems in the darkroom took hours. When we wanted to change backgrounds on an image,



Red channel



Green channel



Blue channel



Red, green, blue and alpha masking channels



Pasting image with alpha channel



Final composite image

we had to battle with Kodalith masks. These had to be sandwiched with the original, then there were the reverse masks that all had to be pin-registered together.

Of course, there was always the possibility of having to start the whole process over if things were slightly out of register. Trying to bid these jobs for clients was

tough to estimate—and more often than not, you guessed wrong.

Fortunately, digital photography has made the photo-masking process faster and more accurate. The problem lies in the fact that it takes a while to get the hang of it and learn all the tricks that make it easy. Software manufacturers, in an effort to

maximize editing tools, have added dozens of features and effects available with masking tools. When you look at the instruction chapter on masking, the amount of material on the subject is frightening. But take the time to go through the chapter and study all about alpha channels, layers and selection tools. It will definitely be worth

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the time you invest.

In our operation we use Photoshop 4.0, Picture Publisher 7.0, and Bryce 2. Photoshop has better control over the individual channels, but Picture Publisher has a better manual select tool. Bryce accepts alpha-channel files from both programs and places them on exciting 3D backgrounds.

The main application for digital masking allows you to change the background behind a subject. This is accomplished by either changing the background in a specific image, or by selecting the subject and pasting it onto a new background. There may be several reasons why you would need to use masking:

1. The client wants the product photographed on an background that is impossible to photograph.
2. The subject cannot be moved and the background is cluttered.
3. The product is being readied for shipment and has to be photographed on the assembly line.
4. The photographer has not photographed the subject properly.

So, the photographer does the best job possible—lighting the subject and keeping it separated from the background. He then brings the image to your lab and expects you to perform miracles!

The first step in performing miracles is to determine if you can use your magic wand! If you cannot use your automatic selection tool, or magic wand, you will have to manually select the area to be masked out. Look at the subject and follow the outer edge of it and see if it separates away from the background. If it does, select the magic wand and begin selecting the background. Magic wands have adjustments so if the first selection picks the background and also part of the subject, it is set too high. Reset the selection to "none" and try it again.

The best scenario is if the magic wand picks about half the background. Then using the add selection, grab a section near the edge of your first selection. This will expand your selection. If it again selects part of the subject, redo the setting, clear your selection and repeat the

process. If you select the entire background and only a small piece of the subject, use the subtract selection, and manually remove the part that encroaches into the subject area.

If the magic wand just doesn't work, or you become frustrated with it, don't worry because you have a more reliable backup. Photoshop's "lasso" and Picture Publisher's "freehand select" tools allow you to trace around the subject using the mouse pointer. Be sure to zoom in on a small edge of the subject before you start the process to ensure the highest quality edit. Before you use any of the selection tools, take a look at the setting for that specific tool to see if it has an anti-alias control. This function will remove the jaggies in the selection process and give a smoother blend of image to background.

You have the option of selecting either the background or the subject. If you end up selecting the subject because it was easier, you can change to the background using the inverse selection function. Before you paste in the new background, you should feather the selection. This will further blend the area where the two images meet and will result in less editing after the background paste is accomplished.

Once the selection is made, you should save your work as a TIFF format or the format designed for your specific software. For example, Photoshop uses PSD format. The selection is stored in an area called an alpha channel. Somewhere in your software, you will find a function that will display the channels. Normally it will display the red, green and blue colors together as a channel, each color as a separate channel, and the alpha channels.

In the channels menu you can make individual channels invisible, so you can edit one specific channel. This is handy if you want to edit the alpha-masking channel after it is created. You can add color, graduate it, add patterns, or just about any effect possible in your editing software. When you return to the full RGB channel, the effect will only affect the selected area. If you preview the RGB channel and the masking channel at the same time, the area protected by the mask will be overlaid with a rubyolith

color. Using a magnifier, you can then look at your edit and make minor corrections to the mask using the clone tool.


When you're ready to add the new background, you can use the "paste into" command and the background will be added into your image. If the background is larger than the whole image area, you can move it around to achieve the best position. If you want to paste the subject into a new background image, you will have to have the subject selected. If the background is selected, inverse select and copy it to the clipboard, or drag the selection into a new image.

If this was a perfect world you would simply save the file and be done. Unfortunately, human error may cause you to need the second application of the masking tools. Most problems will occur where the subject joins the background. The blend may not be perfect, or you may find that your selection wandered into the subject or background. Whatever the problem, you may find minor blemishes along the blend line.

Let's say that the problem is that some of the old background carried into the new background. If you try to remove this area using the clone tool, odds are that you will make matters worse.

The solution is easy. By using the manual select tool and choosing a small area near the subject, you have created a protection mask. When you edit with the clone tool, it will only work inside the selected area. This means that you can select and edit very small areas without the worry of accidentally spilling into the subject area. If the problem area is in the subject itself, select an area just larger than the area that needs repair, making sure that the selection does not venture into the background. If you do make mistakes, or are unhappy with your edit, use the Undo function and try again.

From what we have seen, there is no clear winner when it comes to selecting the perfect editing software. Each software program has its good points along with some bad. We recommend working with at least two editing programs, using the one that fits the task best.

Once you get past reading the software manuals and master some of the masking techniques, you're not going to believe the potential you have with your editing system. Get busy and wave your magic wand to create some miracle masks! 

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