FocusFixer v2
$99.95; www.fixerlabs.com/EN/photoshop_plugins/focusfixer.htm

Sharpening tools are important in restoration work. Print scans, no matter how high a resolution they're made at, always seem to lose a bit of sharpness over the original. Edges get softer and fine detail blurs a bit. Many of the restoration tools we use, such as noise reduction and dirt and scratch removal filters, also degrade fine detail slightly.

Sometimes it's the original itself that is a bit fuzzy. It may not be apparent unless the client asks for an enlargement, at which point it becomes clear that the original photograph was just sharp enough to satisfy the original owner, with no fine detail to spare. Other times, it's evident from the get-go that the original was never sharp by anyone's standards. In these situations, sharpening the restoration can make the restored photo look even better and more detailed than the original did.

FocusFixer is extremely easy to use, yet it's extremely powerful. Without question, it produces the most natural-looking sharpening I've seen. FocusFixer isn't simply an edge-enhancing routine, like unsharp masking, which gives the impression of greater sharpness by making edges more contrasty. No, FocusFixer actually increases the amount of fine detail in the photograph (Figure 3-11).

The calculations necessary to achieve this task are substantial; consequently FocusFixer is not the fastest program you'll ever use. In fact, it may be the slowest! On my system it can process about 1.5 million pixels per minute. Sharpening the halftone photograph in Figure 9-5 took dozens of minutes.

Fortunately, FocusFixer is very simple to use and it has a functional and accurate preview window (Figure 3-12). The controls you'll concern yourself with are the Deblur radius and Threshold; the rest of the controls only apply to sharpening camera-made images. In all likelihood you'll be able to get exactly the results you want with this filter on the first try. If you have any doubts, this is a good situation in which to crop out a small sample of the photograph you're working on to experiment with. You don't want to be spending your time on multi-minute trial-and-error efforts.

FocusFixer lacks one important control: strength. There's no difficulty getting less than 100% strength out of the filter; just fade the effect by the desired amount after the filtration operation, or apply the filter to a duplicate layer and reduce the opacity of that layer. Many times, though, I need more than 100% strength.

Fig. 3-11 FocusFixer, followed by a dose of Noise Ninja, turned the photo on the top to the one on the bottom. There's a substantial increase in sharpness and fine detail.

Fig. 3-12 FocusFixer is a slow but extremely effective and powerful image sharpener that increases real detail in a photograph. Like all true sharpening programs, FocusFixer enhances noise as well as detail, as shown in the preview window, so plan to run a noise reduction program after applying it.
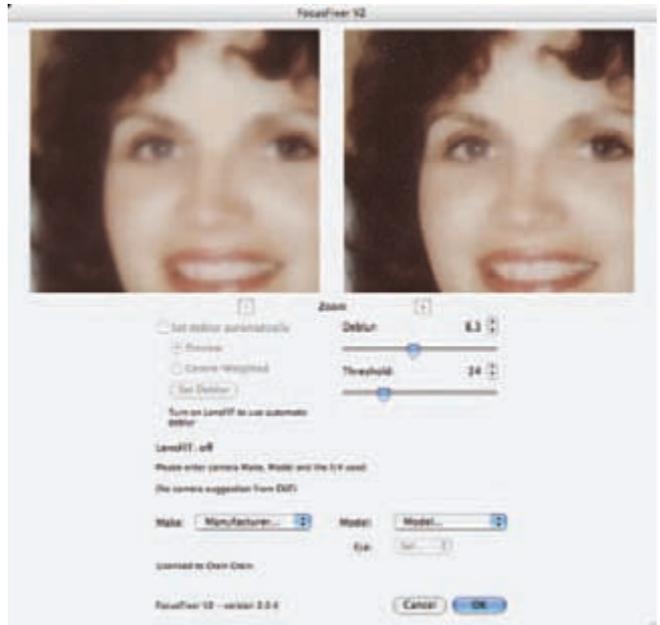
To get greater strengths out of FocusFixer, I apply it twice, fading the effect after each application. The strength seems to be roughly multiplicative rather than additive; applying the filter twice at 50% strength produces an effect that's somewhat stronger than applying it once at 100% strength. This is a situation where you will usually set the Threshold above zero (at least on the second pass) to avoid unwanted amplification of noise.

For many sharpening tasks, Photoshop's Smart Sharpen filter, used with a radius of no more than a few pixels, is good enough. For the most natural-looking sharpening, FocusFixer is the tool I recommend, especially if you can arrange to start your sharpening pass just before you want to take a break.