Fig. 3-29 Neat Image is an extremely sophisticated noise filter that profiles the noise in an image, builds a custom filter from that, and lets you control exactly how that filter gets applied to eliminate noise from the photograph. In this screenshot I'm using Neat Image to Auto Profile the noise in the photograph.

Neat Image Pro+ (http://www.neatimage.com)

Neat Image is an extraordinarily versatile noise- and grain-reduction program. Hand it any image with undesirable grain or texture in it, and Neat Image will analyze the characteristics of the photograph and construct a custom profile tailored to the noise in the photograph (Figure 3-29). Neat Image subdues ordinary film grain or scan noise, paper textures (see Chapter 8, Damage Control, page 307), and even halftone screens.

Neat Image runs under Mac OS X or Windows 98 and up, as either a stand-alone program or a Photoshop plug-in. Several different flavors

Fig. 3-30 Once Neat Image has created its profile, you can preview the effect of that profile on the photograph and adjust the filter settings on the right to fine-tune how that filter will be applied to the photograph. The settings are many and complex, but they all have pop-up help windows that explain what they do.

of Neat Image are available, ranging from a free download with useful but limited capabilities to Pro+, which is 16-bit capable and includes both the stand-alone and Photoshop plug-in versions of the program. Pro+ runs $75; if you don't need Photoshop compatibility, then Pro provides all the same capabilities for $15 less.

Neat Image was surprisingly easy to use, considering how versatile it is and how many control settings there are to play with. I barely had to glance at the quick-start instructions before diving in. That's not an argument against reading the 60-page manual; you'll get a lot more out of the program if you do. It's a compliment on how well Neat Image is designed. Controls even have pop-up windows (Figure 3-30) that give quick instructions in how to use them when you mouse over them.

Neat Image cleanup is a three-step process. First, generate the noise profile. Neat Image analyzes a small portion of the image that is free from true subject detail to determine the grain and noise characteristics. It will automatically select that region, but if you don't like its choice, you can move the selection box anywhere in the image that you think is more appropriate. Second, preview the profile's effects and alter the filter settings to tailor the noise reduction to your needs. Finally, apply your filter settings to the photograph.

You can save the noise profile and settings if you want to use them on a series of similar photographs or experiment with a bunch of different settings to see which ones give you the most attractive final result. I used Neat Image on an intractably noisy photograph that my other noise reduction tools were incapable of dealing with (Figure 3-31). The

top illustration shows the original photograph, while the middle corresponds to the filter settings in Figure 3-30, which I think looks pretty good. The bottom illustration shows what happens when I turn the filter settings up to maximum strength. Even with maximum noise reduction, there's surprisingly little loss of real image detail, given the amount of grain suppression that's going on. Neat Image is one amazing program.