

Reduce Noise filter and JPEG noise removal

Removing noise in Photoshop

Photoshop now provides you with several strategies for reducing noise. For example, with previous versions of Camera Raw all we had were the Luminance and Color sliders, but if you now process your images via Camera Raw 6 or later you can use the new noise reduction sliders to produce better results. When you combine this with the new demosaicing, I would say Camera Raw now offers all the sharpening and noise reduction tools that you are ever likely to need for processing raw images. Personally I regard this as a pretty significant achievement, plus you have the added advantage of being able to quickly and easily synchronize the sharpening and noise reduction settings across multiple selected photos.

In Photoshop itself there is the Reduce Noise filter, which can also do a fairly good job of removing noise, except you can only apply the filter to one image at a time. You could always create an action and apply this as a batch process to a group of images, but this can still be quite a costly exercise in terms of the time it would take to process a group of images. I think the main reason why the Reduce Noise filter still has value (as well as the third-party solutions mentioned below), is that you can use it to process scanned film images directly in Photoshop.

Third-party noise reduction

If you are dissatisfied with the results from Photoshop's Reduce Noise filter, there are third-party noise reduction programs you can buy such as Noise Ninja™ from Picturecode, Neat Image™ or Noiseware™ from Imagenomic. These are just a few of the more popular products favored by photographers. Noise Ninja is held in high esteem, but I am personally more familiar with Noiseware and have certainly been impressed by the way it is capable of removing noise from even the most tricky subjects, particularly grainy film scans. Noiseware offers a number of preset settings that can be applied to various types of film scanned sources and manages to do a good job of counterbalancing the need to remove noise while retaining edge sharpness in an image. Both of these are good products, but I would maintain that the new improved noise reduction capability that's built into Camera Raw may change people's mind as to whether these plug-ins are needed still.

Reduce Noise filter and JPEG noise removal

The Reduce Noise filter can be found in the Filter ⇒ Noise menu. It uses a smart method of noise reduction that is designed to remove noise from an image, but without destroying the edge detail in the picture. Now that we have the much-improved noise reduction in Camera Raw, I don't see this filter being needed now and certainly not for the processing of digital capture images. Where you might wish to reduce film grain in scanned images I would suggest using a third-party filter such as Noiseware™ by Imagenomic™. But one thing that is worth mentioning here is that you can use the Reduce Noise filter to smooth out JPEG artifacts and improve image smoothness. You can do this by checking the Remove JPEG Artifact option, take the Preserve Details slider down to a low setting and raise the Sharpen Details slider to a higher amount than you would use normally. Figure 2 shows an example of the Reduce Noise filter being used to smooth a heavily compressed JPEG image. Note that favorite Reduce Noise settings can be saved by clicking on the 'Save Changes to Current Settings' button which is circled in Figure 1.

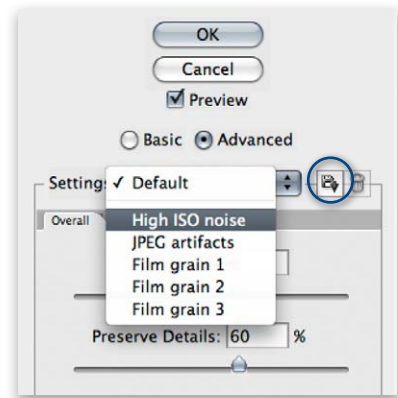


Figure 1 If you click on the Settings menu you can access the Reduce Noise filter preset settings. If you click on the button circled here you can save your own custom preset settings.

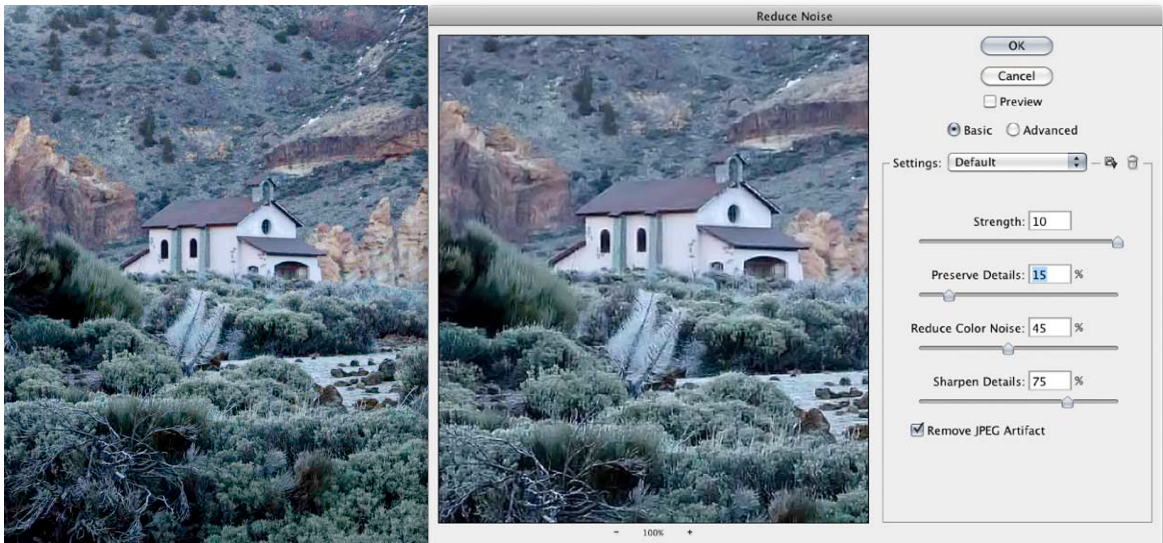


Figure 2 The Reduce Noise filter has a Remove JPEG Artifact option that can be used to improve the appearance of an image that has suffered from over-heavy JPEG compression. In this example I checked the Remove JPEG Artifact box, set the Preserve Details had to 15% and to make the image sharp again, set the Sharpen Details to 75%.