



# Camera Raw

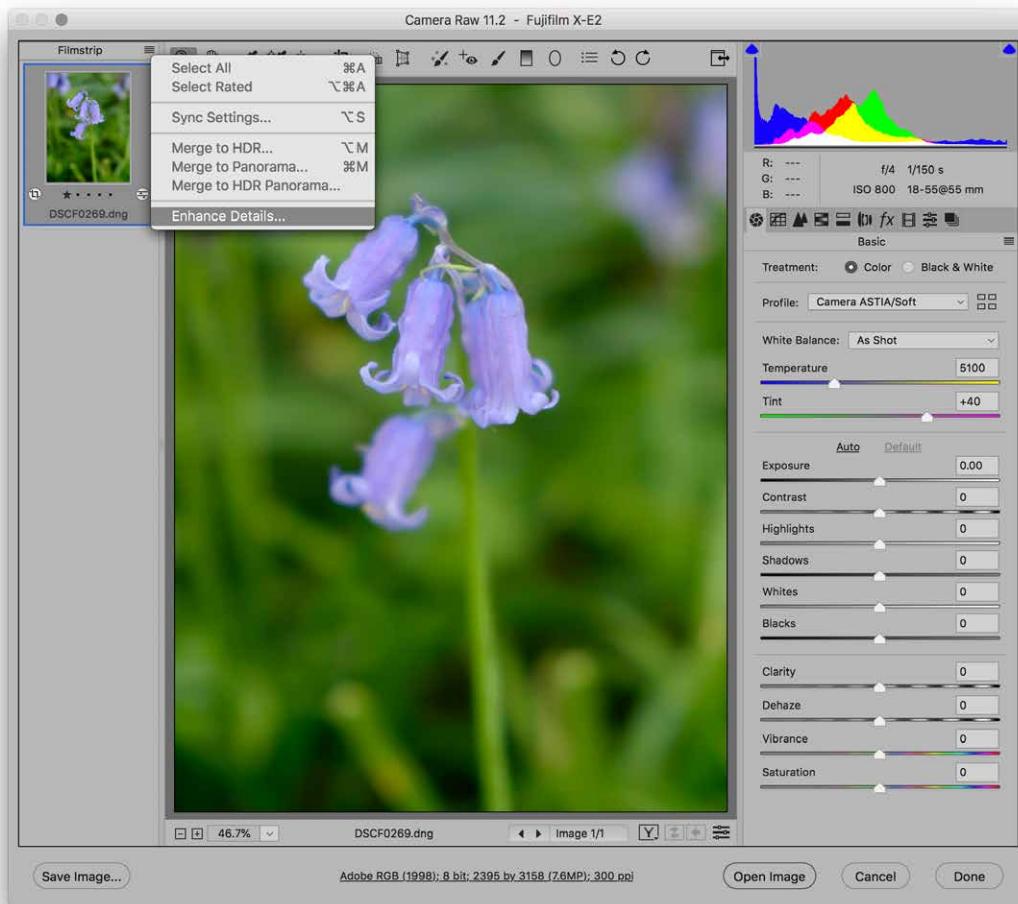
## February 2019 Update

Welcome to the latest Camera Raw bulletin update. This is provided free to ensure everyone can be kept up-to-date with the latest changes that have taken place in Photoshop and Camera Raw.

This bulletin includes basic information about the new Enhanced Details feature in Camera Raw. For a complete description of Photoshop's tools and step-by-step tutorials, I recommend you buy the Adobe Photoshop CC for Photographers: 2018 Edition book.

## Enhanced Details

When using Camera Raw, you now have the option to create a new Enhanced Details DNG version of any raw image that has originated from a Bayer or X-Trans sensor. This can be used to achieve the ultimate in fine-detail processing. To create an Enhanced Details DNG go to the Filmstrip menu and choose Enhance Details (see Figure 1). When you convert to Enhanced Details this creates a new linear DNG file with the high-quality demosaic baked into the image data. This process essentially creates a demosaiced image (like a TIFF) within a DNG wrapper, but with fewer image artifacts. You can then continue to adjust the DNG image as normal and fine-tune the Detail panel settings to refine the image detail noise and sharpness.

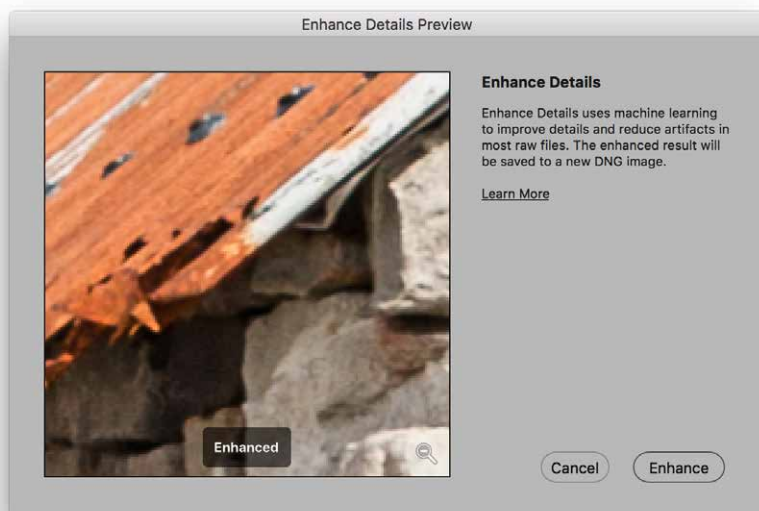


**Figure 1** The Camera Raw dialog showing the option to create an Enhanced Details DNG. Note how this now opens in Filmstrip mode whether opening single or multiple images.

The camera sensor raw data has to be interpolated or ‘demosaiced’ by Camera Raw first. Basically, each photosite on the sensor captures either a red, green or blue color. Therefore, during the demosaic process Camera Raw has to interpolate (i.e. guess) the two other colors for each specific photosite. The current demosaic method in Camera Raw has been refined to the point where it works well enough for most images, but there are some instances where extremely fine subject detail could be rendered better. Examples include fine detailed texture and images captured by sensors without a low-pass filter, which are susceptible to moire artifacts when capturing fine detailed patterns.

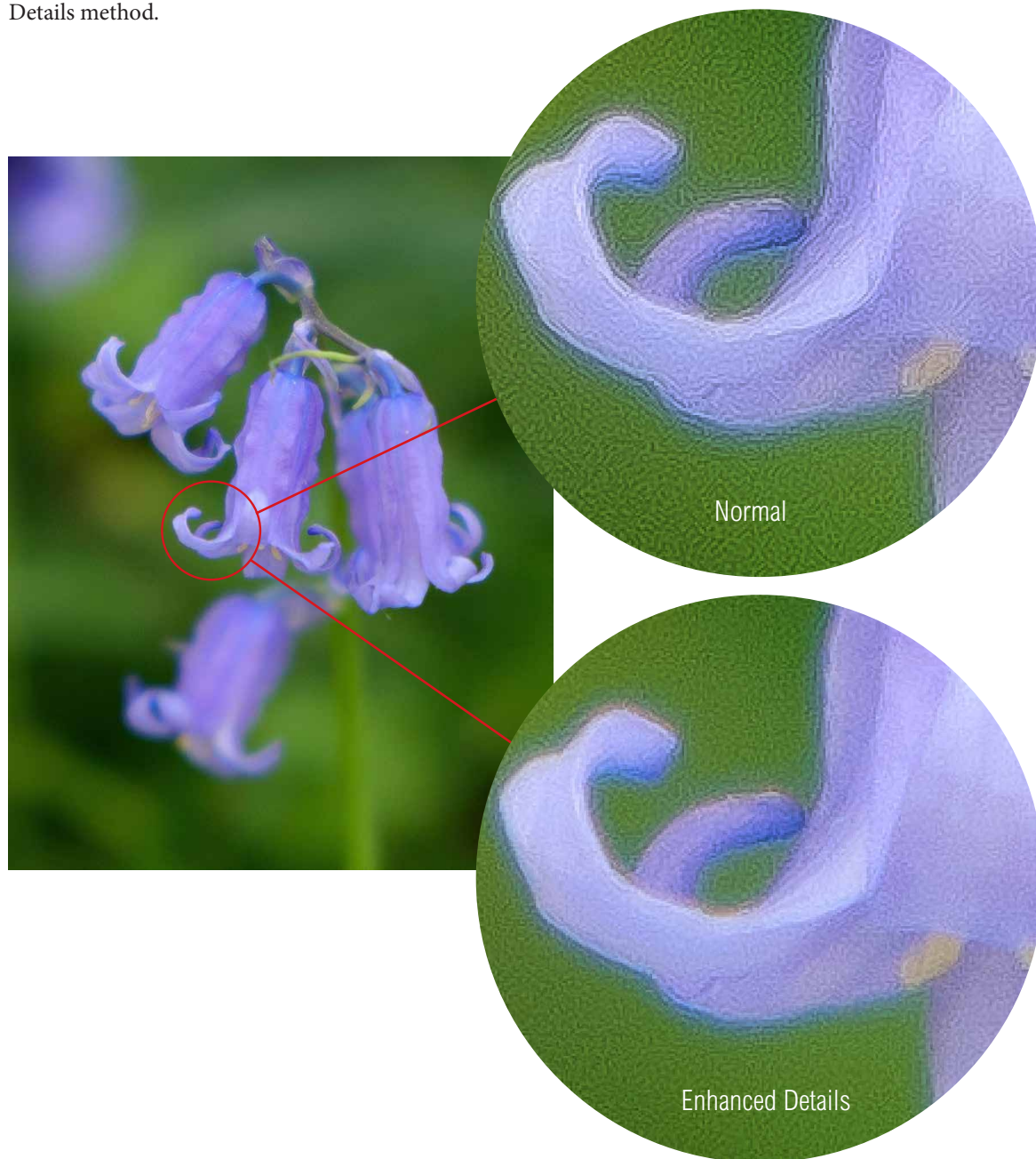
The Enhance Details conversion process essentially performs a very sophisticated demosaic step to improve the accuracy of the interpolation. This has been achieved through the use of a machine learning-based algorithm to produce better demosaicing results. However, because of this, the process is computationally intensive. This is why Enhanced Details is made available in Camera Raw as a special render process that generates a separate DNG file, rather than being offered as a new default process version.

When you choose to create an Enhanced Details DNG the preview dialog shows a close-up view at 400% (see Figure 2). You can then click on the zoom button in the bottom right corner and click to zoom out. You can then click on the photo to select a new area to zoom in to. Enhanced Details. Be warned though that Enhanced Details DNG files will be much bigger in size and will therefore take up more disk space. But on the other hand, these will be faster to read and load compared to editing the originals.



**Figure 2** The Camera Raw Enhanced Details Preview dialog.

Figure 3 shows close-up views of a Fujifilm X-trans sensor image and compares the normal demosaic processing with the new Enhanced Details method.

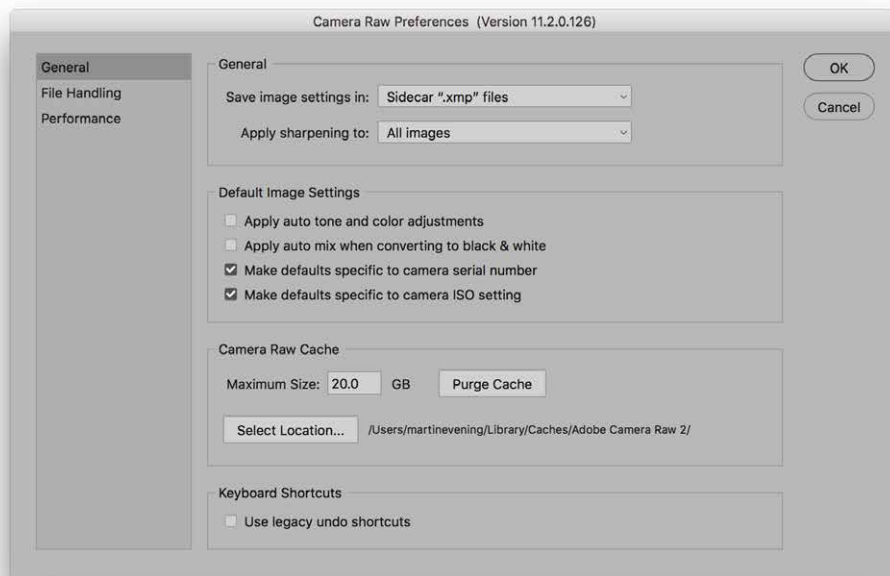


**Figure 3** This shows a comparison between normal and Enhanced Details image processing in Camera Raw. The original was shot using a Fuji X-E2 X-Trans sensor and the close-up views are shown here at 400%.

If you study the close-up views you will notice how the rendering in the Enhanced Details version is smoother by comparison. It has removed many of the artifacts and reveals slightly more detail in the flower petals. Now, it has to be said that you won't necessarily always see such obvious improvements with every image you test with. For a start, the Enhanced Details processing will benefit X-Trans sensor images most. However, with Bayer type sensors you may see small improvements to areas that contain fine-line diagonals or curves, such as fine-detail hair and fur. This is why it is useful to have the Enhanced Details preview dialog so you can inspect first before generating an Enhanced Details DNG. That said, the Enhanced Details processing can be particularly advantageous where you have to crop a photo tightly because you didn't have a long enough focal lens and you want to ensure the pixels you are left with are rendered the best they can be. I would say overall, that you will only want to use Enhanced Details for special case images, where the refined detail raw processing can benefit your hero images, such as those you might be preparing as blow-up prints for an exhibition.

## Tabbed preferences

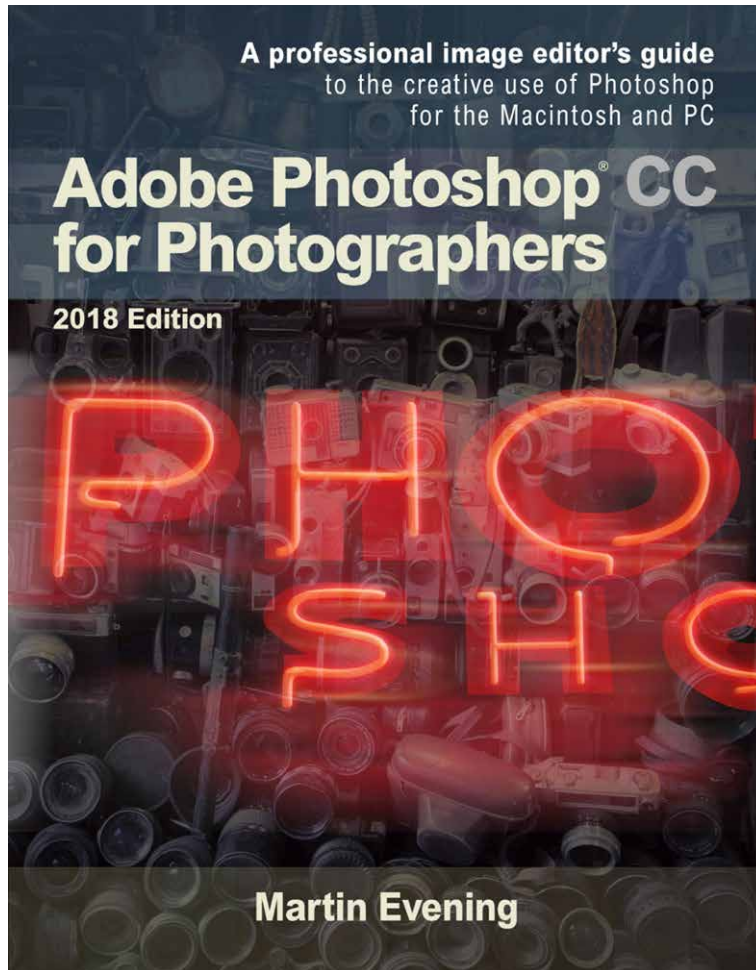
The Camera Raw preferences dialog has been updated with tabbed items on the left, similar to the layout of the Photoshop preferences (see Figure 4).



**Figure 4** The new Camera Raw tabbed preferences dialog.

# Adobe Photoshop CC for Photographers: 2018 Edition book

By *Martin Evening*



Adobe Photoshop CC for Photographers: 2018 Edition is published by Focal Press, an imprint of Taylor & Francis.

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