



Valdosta State University Herbarium (VSC)

Protocol for Batch Processing Images with Capture NX2 Nikon Image Dust Off Included

Some Nikon cameras tend to collect dust on the low pass filter resulting in the presence of opaque visible spots in the final image. Although these dust spots can be removed by cleaning the low pass filter, the filter is delicate, can be scratched during the cleaning process, and is more safely done by a qualified technician. Safe removal of these spots can be accomplished by using Camera Control Pro 2 to create a Dust Off Reference Image (file extension .ndf, as opposed to .nef). The Dust Off process uses the camera's built-in technology to assess the location of dust spots on the filter, allowing them to be removed by Capture NX2 during processing. Dust Off can also be applied to groups of images during batch processing.

Following are two protocols, the first for creating the Dust Off Reference Image, the second for incorporating the image into a batch processing workflow.

It should be noted that periodic creation of new Dust Off Reference Images is recommended, as new dust spots might appear over time, or old ones disappear.

Creating dustoff.ndf.

1. Attach camera to computer station.
2. Place a bright white, untextured background approximately 10 cm from the lens.
3. Set the camera on autofocus (this forces the camera to focus on infinity; alternately manually focus the lens to infinity).
4. Open Camera Control Pro 2.
5. Click Tools->Download options.
6. Enter dustoff in the text box labeled "Next file name to be used:".
7. Click Camera->Dust off ref photo....
8. The file dustoff.ndf will be recorded to the download folder designated in download options.
9. Copy dustoff.ndf to the folder that contains unprocessed Nikon Electronic Format (.nef) files.

Applying dustoff.ndf to a batch of nef images. [NOTE: Steps 1, 5–12, and 18 pertain directly to the Dust Off process.]

1. Copy dustoff.ndf into a folder of nef images scheduled for processing
2. Open Camera NX2.
3. Navigate to the folder containing unprocessed images and dustoff.ndf.
4. Open a nef file.
5. Open Edit List from the Window menu.
6. From the Edit List, open Camera & Lens Corrections.
7. Click the radio button adjacent to Image Dust Off.
8. Click Change.
9. Browse to the image folder into which dustoff.ndf was downloaded.
10. Click OK.



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11. At the Image Dust Off dialog, ensure that the message confirms that the Dust off ref photo was found and click Yes. Otherwise, click No, ensure that folder selections are correct and that dustoff.ndf is in the folder to be processed, and start over at step 6.
12. Allow the Dust off ref image to finish processing (noted by the spinner in the left side of the header bar of Edit List).
13. When processing terminates, confirm that any spots on the original image have disappeared.
14. Crop image to size.
15. Click Adjust->Light->Autolevels.
16. Rotate image to vertical.
17. Click Batch->Save adjustments.
18. Scroll down and click the check box for Image Dust Off.
19. Scroll down the Save Adjustments dialog to ensure that Autolevels and other adjustments are also checked.
20. Select a name for Save batch as.
21. Browse to the folder where the batch is to be saved.
22. Click OK.
23. Close but do not save the open image.
24. Click Batch->Run batch process.
25. Click the Browse button adjacent to the source field and select the folder that contains the unprocessed nef images and associated dustoff.ndf.
26. Select the batch file name selected in 18.
27. Click the Selection radio button, browse and select the folder to receive the processed image files.
28. Ensure that you are applying settings from your settings file, that the file format is JPG, and that your destination folder is your JPG folder
29. Click Start [alert: processing can take several hours for several hundred images].
30. When complete, close the Processing Queue dialog
31. From Windows Explorer open the destination folder receiving the processed images.
32. On the Windows Explorer toolbar select the More Options arrow to the right of Change Your View.
33. From the More Options dropdown list, select Details.
34. Check to make sure images are being properly processed and transferred, i.e., there are data associated with each file.
35. If files are being transferred without data (i.e., Size column shows 0 KB), you might need to reduce the number of image files in the batch folder. This depends on the memory and processing capacity of your computer. Limiting the number of files to 500-700 seems to work best for our system.
36. Files with 0 KB in the Size column in the destination folder must be re-processed from step 4.