

A innovative way to look at photographic enhancement, Nikon Capture NX could signal a paradigm shift in image editing.

BY HERB PAYNTER

# Image NIKON CAPTURE NX *enhancement*

When you open Nikon Capture NX you know you're not in Kansas anymore. Like Dorothy's cinematic transition from black-and-white to color, Capture NX presents a whole new way to look at image editing. Not meant to be a challenger to Adobe Photoshop, Capture NX helps create an interactive, non-linear workflow. The suffix NX, a contraction of the Latin *nexus*, is intended to imply the next stage in digital photography. Once you spend some time with this software you'll understand why.

In this workflow, you have the ability to activate a number of image-editing facets (saturation, gamma, hue, sharpness, etc.) within an image, and adjust the relationships among them at any time, even when the file is reopened. The non-linear approach also gives you the ability to readjust any control point or editing step at any time. At last, second-guessing is allowed, enabled, even encouraged.

Capture NX gives you the power to adjust each control point in the image

independently, and the option to conjoin those adjustments with other control points in areas of similar color. Any (and every) area of an image can be discretely controlled and adjusted quickly and easily. If a control point unduly affects an adjoining area, another control point can be placed in the area to automatically curtail the intruding effect. There is no apparent limit to the number of control points you can add to an image to make local enhancements.

NX does not have the myriad editing and creative abilities of Photoshop and wasn't intended to. As evidence of the software's non-competitive intent, the File menu features an Open With... command that allows you to directly open an image in NX from any other application. Comparisons with Photoshop would be misdirected; this software must be judged on its own merits. Capture NX uses custom photo lab criteria, providing a handful of

**In less than 10 minutes, more than a dozen control points were used to lighten, darken, increase saturation, soften background, and accentuate the detail in this image. All this without layers, masks, or image degradation.**



powerful photographic enhancement capabilities. In my view, a serious photographer would do well to have both applications.

**COLOR CONTROL POINTS.** The user selects a color control point from the tool bar and plants it on the image with a mouse click. The control point (CP) displays a circular default area of influence (AOI) that can be enlarged or diminished in size by adjusting the only unlabeled slider button. (The labeled sliders' effects vary.) The expanded controls can affect hue, saturation, brightness, red, green, blue, contrast, and warmth. Each CP maintains control over its own turf, as determined by

the radius of the AOI. The size of the area is noted in the Control Point dialog. The size number indicates the percentage of the image influenced by that particular CP. Each CP works independently of the others, and each has the power to cancel another's influence in a given area.

Moving any one of the control sliders changes how that CP interacts with the image, and an adjustment will update the values of that slider within the Color Control Point dialog. To remove a control point and its editing steps, simply select it and hit delete. Each CP location effectively contains its own layer mask, allowing extensive editing of all image areas.

Control points affect color pixels and thus a CP set to deepen a background, for example, will act differently when moved to a different area of the image. Since each CP can be set to affect specific colors in the image, a single CP with an AOI set to 100% will affect the same colors anywhere in the image.

**NEUTRAL CONTROL POINT.**

(Control Point > Neutral Control Point) is designed to find a gray area for toning and to remove color casts. Two neutral points

can be applied, allowing for correction of mixed lighting, such as incandescent and fluorescent, even if there's no actual neutral gray in the image. The red, green and blue sliders can be adjusted to remove color casts. I find, however, that the placement of one or even many color control points with a wide AOI and with the saturation slider set to 0 will have an even more neutralizing effect on a monochromatic background.

**CAMERA SETTINGS.** In the Browser, you can view image information (metadata) for the selected image in the Camera Settings palette. In the Editor, you can access and change settings on the image directly within the Camera Settings palette.

**PAINTBRUSH.** While a control point influences a circular area, the Paintbrush allows you to paint freeform. Create a New Step (Edit List) and choose the function you want from the Select Adjustment pull-down menu; for example, Light > Levels & Curves. Create the curve you want to apply to a specific area and click OK. While the Levels and Curves window is still open (critical), choose the Plus Brush (a + next to the paintbrush icon) in the tool bar. The overall curve effect is lifted from the image,

**Control Point Detail:** Sliders control area of influence, Hue, Saturation, Brightness, Contrast, Red, Green, Blue, Warmness.  
**Desired Result:** Brighten up overall image and increase contrast in shadow areas.  
**Figure 1:** Original NEF camera file detail.  
**Figure 2:** Control Points influence aspects of the image. **Left:** Yellow flowers. AOI (top slider) maximized to include the entire image. The Saturation, Brightness, and Contrast sliders were increased to make all yellow flowers "pop."  
**Top:** Greenery. AOI maximized. The Saturation, Brightness, and Contrast sliders were increased to separate greenery from the background.  
**Right:** White flower shadows. AOI maximized. Brightness tools used to bring out shadow detail.  
**Bottom:** White flower highlights. AOI maximized. Contrast increased to balance out highlight detail.

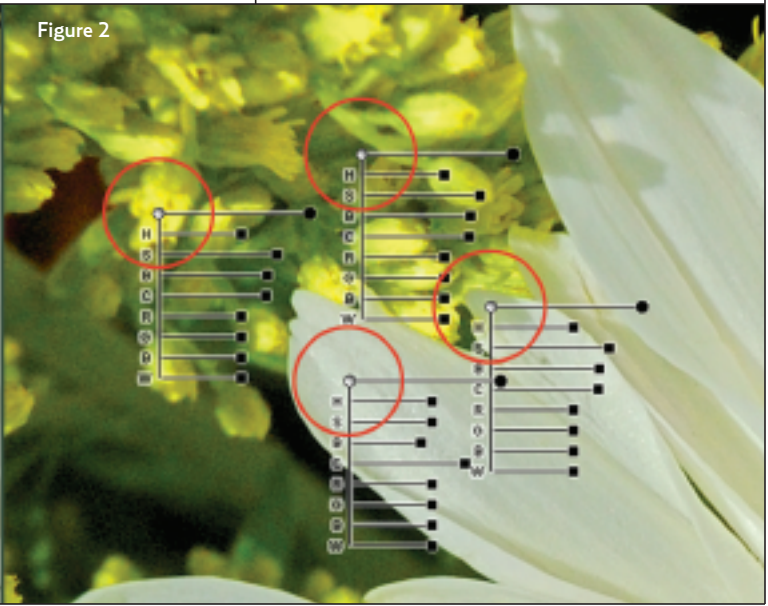


Figure 1

Figure 2

and you can paint the curve effect in any specific area. To remove unwanted painted areas, simply choose the Minus Brush (-) and paint them away. The paintbrush size is set with the bracket keys, just as in Photoshop.

**LASSO & MARQUEE.** Versatile but bizarre. This selection tool isolates enhancements from other tool influences and provides a discrete area in which to contain enhancements. The image edit within the selection, which can be feathered, is controlled by the Fill/Remove tool. Create a New Step and select a modification tool like Levels. Drag the control until the image is sufficiently darkened. While the Levels & Curves palette is open, draw a selection around a part of the image. It will revert to the pre-adjustment levels. Now select Fill Image (+) from the Fill/Remove window. The selected area will show your levels adjustment. This tool takes some getting used to, as some quirks occur when the selection is moved around the image.

**HIGH PASS/UNSHARP MASK.** Capture NX provides the reality of image sharpening without the destructive fracturing that sometimes happens with Unsharp Mask in Photoshop. Using the High Pass filter (Edit List > New Step > Focus > High Pass...) with the appropriate opacity settings in the Luminance channel, the blending mode set to Overlay, and Chrominance dialed down to 0%, provides all the clarity this photographer needs. However, the Capture NX version of USM, which affects only the Luminance (brightness) channel to calculate percentage, radius, and threshold, produces unusually smooth results.

**OPACITY SLIDER.** Every step in the Edit List contains an opacity control for the amount of effectiveness for the step settings. Rather than controlling the transparency of an item as in Photoshop, this slider controls the strength of the settings

on the image. (Perhaps Opacity should be renamed Effectiveness or Strength.)

**VIGNETTE CONTROL.** This feature is used to correct loss of illumination (light drop off) toward the corners of an image. A practical feature in itself, for Nikon owners with G or D lenses, it's even better. Capture NX will automatically use the lens informa-

tion recorded with the image to select an optimal value for Vignette Control.

**REALTIME EDITING.** One of the joys of this software is being able to see the effects of the control point adjustments in an interactive environment. For example, introducing any CP into an image and changing one of the attributes will have an

immediate affect on that area. Even when the CP is moved around the image, the effects are visible before the mouse button is released. That's realtime, and that's control!

**BATCH PROCESSING.** A definite production accelerator, batch processing applies the very same adjustments to each image. There's no built-in intelligence with any batching process, so you must be careful to apply this powerful process only to images of similar color, tone, and saturation.

Nikon Capture NX is an innovative and intuitive application. Steps can be added with options in the menu bar (Adjust, Control Point, Filter), with the New Step button in the Edit List, and by adding control points from the tool bar. There is immediate numerical feedback for every slider adjustment, albeit only in percentages. Actual RGB information is also available for each point on the screen, showing both original and post-adjustment readings. Capture NX provides full support for Nikon NEF images and can be used with any JPEG and TIFF (RGB- or LAB-based) file.

On the downside, the user manual is definitely not a night table book. Opening and saving speed is downright slow, and opening multiple images from the browser

is laborious. To increase performance, Nikon recommends 1- or, better, 2GB RAM, increasing the cache in Preferences to at least 2GB, and placing it on a secondary drive, and doing the same for TEMP files. The settings window is too large and its persistent position (upper-right of the image) robs valuable screen real estate. While there's a collapse button that works temporarily, the window annoyingly re-emerges. Nikon says it's exploring solutions.

Once you've converted an RGB file to CMYK, you cannot open it in Capture NX.

While this Capture NX update includes some of the legacy controls from Capture 4, you almost have to wonder why. Every (editing) New Step initiated from the Edit List provides complete access (except for RAW adjustments) to every part of the single-use Base Adjustments left over from Capture 4. I believe access to RAW file adjustments should remain the only pre-Step editing option in the Edit List.

Nikon advises that unless major camera functions such as Exposure Value, White Balance or Camera Sharpness, or specialty lens functions such as Color Aberration Correction or Fisheye Transformation require adjustment, users may want to bypass the Base Adjustments altogether and go to the next editing steps. This allows the use of newer engines and technologies such as U Point and selective

application of these technologies rather than global application to the image.

The addition of Nik Software's U Point technology to Nikon Capture software transforms the product from a basic NEF RAW conversion utility with limited editing ability into a powerful, yet logical image enhancement studio. While still in its infancy, and with some critical issues still on the workbench, Capture NX may have cracked the door into a true paradigm shift in digital photo-finishing. This hybrid of intuitive operation, powerful interactive controls, and common-sense editing tools allows the photographer to realize the full potential of his images without having to become a computer technician.

Nikon Capture NX introduces a whole new methodology to learn. Once grasped, however, the software becomes quick, powerful and effective. This tool allows traditional photographers, photo lab technicians, airbrush artists, and dot-etchers to quickly adapt their real-world knowledge to the digital arena. Capture NX provides the digital photographer with vast expanse of retouching capability; it's a breakthrough concept in digital editing. ■

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Simple adjustments allow the user to bring depth to an image, even when the colors affected are very similar.

