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Scene Recognition System and Advanced SRS

Featuring **MIKE CORRADO**



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Nikon's Scene Recognition System (SRS) recognizes the position, color, tones and characteristics of a subject or overall scene prior to capture; then, using information from the 3D Color Matrix Meter II (420-pixel RGB sensor or 1,005-pixel RGB sensor)—depending upon the model of D-SLR—compares that information to the camera's built-in image database to achieve accurate autofocus, auto exposure and auto white balance control.

The Scene Recognition System's accuracy and precision are made possible by the image recognition capability of the sensor. Data supplied to the camera's system by the RGB sensor includes subject tracking and identification, highlight analysis and light source identification.

Even changes of subject position within the viewfinder can be recognized as image information, and this capability is used by the autofocus system as a 3D-

tracking function to give greater priority to the subject's position. For subject tracking, the sensor recognizes the color of a subject within a user-selected focus point, then follows the subject's movement by detecting the identical color segment. The 3D-tracking mode shifts the focus point automatically to respond to the subject's movements. The AF and SRS are in constant communication with each other, improving tracking performance even for subjects quickly approaching the camera.

As an auto white balance function, better image recognition combined with an advanced auto white balance algorithm achieves higher-performance white balance control.

For subject identification, the SRS uses color information from the sensor to automatically detect people and skin tones. In this way it can quickly focus on the most important element—the human face—in Auto area AF mode. Even if similar colors exist both in the foreground and background, the Scene Recognition System uses distance information from a D- or G-type AF NIKKOR lens to determine where the main subject is.

Advanced Scene Recognition System

The New Nikon D4 DSLR uses a newly developed Advanced Scene Recognition System and 3D Color Matrix Metering III's 91,000-pixel RGB sensor that is tasked with measuring each scene's light properties, color spectrum and brightness levels, and analyzing it against the camera's built-in image database to realize even more accurate autofocus, auto exposure, i-TTL balanced fill flash, Active D-lighting and auto white balance results.

The system can also recognize human faces when focusing through the camera's optical viewfinder. The camera's second generation Auto-area AF and 3D-tracking autofocus area modes use the subject's color and brightness information to detect focus. This becomes immensely important when faces must be sharp and you don't have the time to choose focus points.

In 3D-tracking, the sensor's fine resolution combines with a specifically optimized AF algorithm that recognizes detailed patterns to be able to track subjects more precisely.

Aided by unique Nikon technologies, the camera's auto white balance is incredibly accurate under a broad range of lighting situations; and is able to precisely identify natural and artificial light sources.

The camera has been designed to be extremely accurate with regards to not only focusing but metering as well when it comes to human faces. Because the 91,000-pixel RGB sensor can access such incredibly detailed scene information,

including data on human faces prominent in the viewfinder, the camera is able to deliver more desirable auto exposures for portraits.

Pair the enhanced i-TTL balanced fill-flash with a Nikon Speedlight for even more precision in illuminating faces in relation to their surroundings. Face recognition takes it a step further when paired with Active D-Lighting to retain highlights and shadows in high-contrast scenarios, leaving faces properly exposed whether you're shooting in the sun or shade.



Featuring

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Mike Corrado's title at Nikon is senior manager, pro relations and marketing business development. Check out Mike's work on [Instagram](#).

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