



# Fujifilm FinePix S1 Pro

True interchangeable-lens  
digital AF SLR for serious photographers

Text and photos by Jack and Sue Drafa

**I**t seems that every time you blink, there is another digital camera being born. Until recently though, they only resembled compact point-and-shoot cameras and offered very little for the pros. Thankfully, there has been a recent influx of SLR digital cameras to satisfy the needs of the professional and advanced-amateur photographers alike. Fujifilm's digital SLR, the FinePix S1 Pro, is a lightweight, high-resolution digital camera that offers a vast array of features. Based on the Nikon N60 chassis, the S1 Pro uses Nikon lenses and flashes, so you can use all your existing Nikon tools.

The most important part of any digital camera is the sensor chip that actually records the digital data. The S1 Pro has a 1.1-inch Super CCD chip with 3.4 million sensors that produce a maximum resolution image file size of 3040x2016 pixels. When they first started designing a digital SLR camera, Fujifilm studied the conventional CCD with its rectangular sensors in vertical and horizontal rows. They knew that image data was lost when it fell between the

rows on a traditional sensor array. Fujifilm technicians wanted to design a Super CCD chip with increased sensitivity, improved resolution and a wider dynamic range.

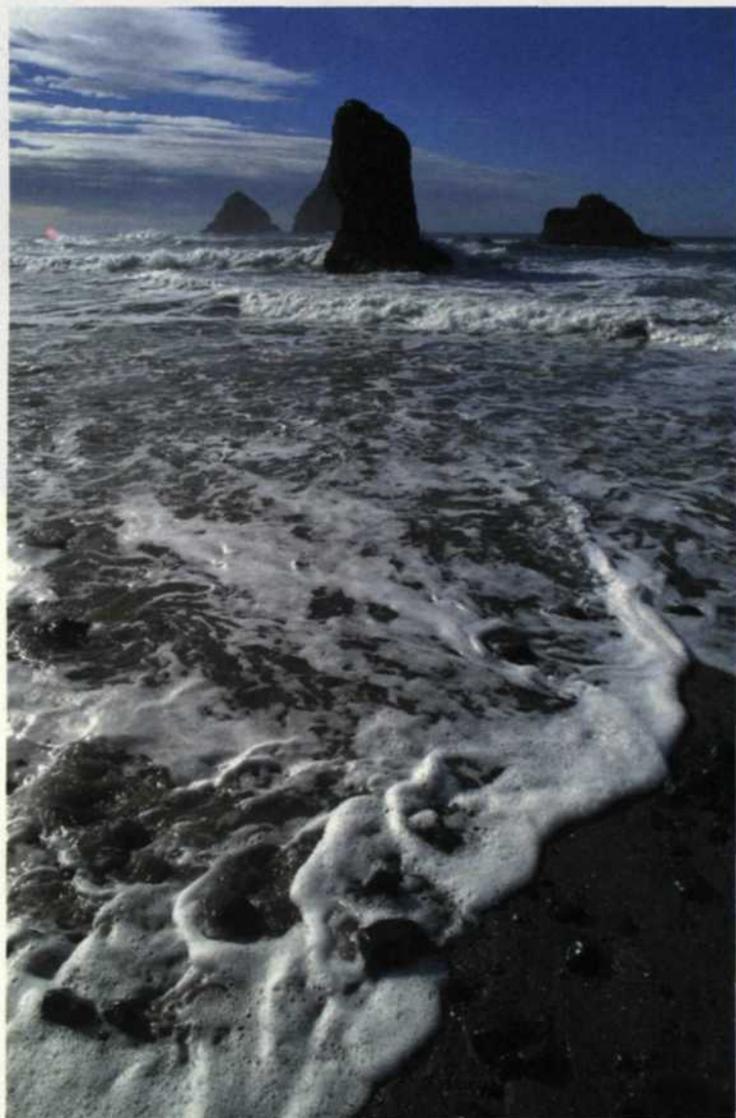
Their solution was a larger photodiode with an octagonal shape configured in a honeycomb pattern. To further increase sensitivity, they also arranged the pixels at a 45° angle in the honeycomb. The overlapping Super CCD sensor array creates narrower intervals thus reducing any wasted space that isn't involved with image capture. Therefore, signal noise is reduced and the image is clearer than with the traditional CCD chip. Because of the reduced noise, the camera can use firmware to extrapolate the data up to 6.1 megapixels in an

uncompressed file that is about 18 megabytes per image.

Because of this increased CCD sensitivity, the starting ISO rating of the S1 Pro is 320. This is almost two stops more than digital cameras with the same size chip rated at ISO 100. This gives the photographer two more stops of depth of field, or two



**Above:** Photos were taken with and without flash. The sharpest and most colorful image was made with flash.



256 images in one photo sessions. Wow!

Digital controls for the S1 Pro are located on the back of the camera. The rear display panel, just below the eyepiece, allows you to white balance your scene, set the resolution, choose compression ratios, select the ISO rating, date/time functions and adjust contrast, gamma or sharpness.

The second, larger screen is the color LCD monitor used to review images stored on the digital film. When this screen is turned on, the last image shot is displayed. You can use the left/right arrows on the back of the camera to move through your images, and the up/down arrows allow you to zoom in on a specific image. A new set of functions is available in the rear display panel when you activate the preview monitor. The new functions include histogram preview, trash, image lock, and DPOF (Digital Print Order Format) which can be used to crop and indicate how many of each image to print.

The mode dial is on the upper left top of the camera includes auto, programmed, shutter-priority, aperture-priority and manual exposure modes. There are also five program modes: sport, close-up, landscape, portrait and night scene. The liquid crystal display on the upper right top of the camera shows shutter speed, aperture, battery level, and exposure compensation so everything you need is at your fingertips.

A small built-in flash is located on the top of the viewfinder, and can be quickly activated by a small button to the left of the eyepiece. This built-in flash covers a 28mm lens and has an ISO 100 guide number of 49 (in feet). It makes a great light source, allowing you to quickly capture the moment without having to dig out an additional flash unit.

The S1 Pro takes three different types of batteries for its

shutter speeds faster. The S1 Pro offers adjustable ISO equivalents of 320, 400, 800 and 1600, shutter speeds from 30 to  $\frac{1}{2000}$  and continuous shooting of 1.5 frames per second for up to five frames. What more could you ask for in a professional digital SLR?

The S1 Pro has two slots in the back of the camera that take SmartMedia (up to 64MB) and CompactFlash cards. The camera will automatically sense which card is in the camera and save images to that specific medium. The data from these cards can be downloaded to your computer through a USB communication cable that attaches to a port on the camera front. Special software is included with the camera for setting up this download system. You can also remove the digital film card and place it in a separate card reader. Several manufacturers now make card readers that will accept both types of cards.

The FinePix S1 Pro records images at three resolutions: 3040x2016, 2304x1536 and 1440x960. There are three levels of JPEG image compression: fine, normal and basic. The normal compression file results in an image size of about 1 megabyte per image. With a 256-megabyte Lexar CompactFlash card, you would get almost

**Above:** The S1 Pro uses Nikkor lenses—here, the 14mm.

**Below:** Camera back is neat and functional. Note function display above LCD monitor.

**Bottom:** The function display (left) lets you change contrast, image compression, white balance, time and date, sharpness, ISO speed and image resolution. The set-up menu screen (right) allows you to set camera values that are not normally changed once you start shooting.

**Bottom right:** We'd like to say that we planned this shot, but in truth, the bird was sitting on the branch when we took it. Image-to-brain-to-shutter delay produced a nice bonus image.



power: four AAs, two lithium CR123As, and a button cell. The AAs and the CR123s operate different camera functions, and the button cell is used as a backup for custom settings when you change the other batteries. At first we thought this a problem, but when we saw how long we could shoot without changing batteries, we were very impressed. Most digital cameras we have tried seem to eat up batteries quickly, but the S1 Pro's tri-battery system seems to work extremely well.

Because the Super CCD chip is smaller than 35mm film, the resulting image provides the field of view of a lens 50% longer. Wildlife and sports photographers will love this because their 500mm lens now crops like a 750mm lens. Macro photographers can achieve magnifications greater than 1:1, but a problem occurs when you attach your superwide-angle lenses. Your 20mm lens crops like a 30mm and your 14mm like a 20mm lens. This cropping effect is common to all SLR Digital cameras, not just the S1 Pro.

Since the Super CCD chip may be exposed to dust as you change lenses, there is a possibility that some may fall on the sensor array. Change the lens in an area free of soiling and dust. Be sure to sure to keep a lens on when you store your camera, or use a camera body cap for dust protection. If you see dust on the sensor, use an air bulb blower without a brush to gently remove it.

We were able to test the camera for a month and fell in love with its operation. The S1 Pro was lighter and smaller than the Nikon F5s we use for all our film testing. The whole system was much quieter and allowed us to shoot in places where camera noise would be distracting. The quality of the images was high enough to make 16x20 inkjet prints, and closely matched the quality of most films we have previously tested.

We really liked the idea of shooting at ISO 400 all the



**Top left:** The built-in flash is activated by a small button of the left side of the finder.  
**Above:** The S1 Pro takes both SmartMedia and CompactFlash cards.  
**Above right:** The S1 Pro's front panel.



**Above:** We selected ISO 400 with center-weighted metering and -.33 exposure compensation for this sunset shot.

**Below:** Adding the Nikon SB-28 flash with SC-17 extension cord complemented the available light.

**Bottom:** Note the fine detail recorded in this shot of a rusty gear of an old logging apparatus.



time. Having the potential of two extra stops for increased shutter speed or depth of field makes life easier. We were able to shoot in lower light, extend the range of our electronic flash, and just have more control over the technical aspects of shooting. Most impressive was the extreme tonal range of the images and the lack of grain. The ISO 800 images looked great, although the ISO 1600 images started to pick up a slight bit of digital noise, which looks like grain.

The instantaneous image preview removes all the questions of whether you got the shot or not. We could just take a shot, review it, adjust the exposure compensation and go again. The ability to zoom in on the images sure made it handy for checking to see if anyone blinked.

The FinePix S1 Pro is the first digital SLR with a the Super CCD and with its suggested list price of under \$4000, what are you waiting for? If you want to find out more about the FinePix S1 Pro, log onto [www.fujifilm.com](http://www.fujifilm.com) or call 1-800-378-FUJI. ■