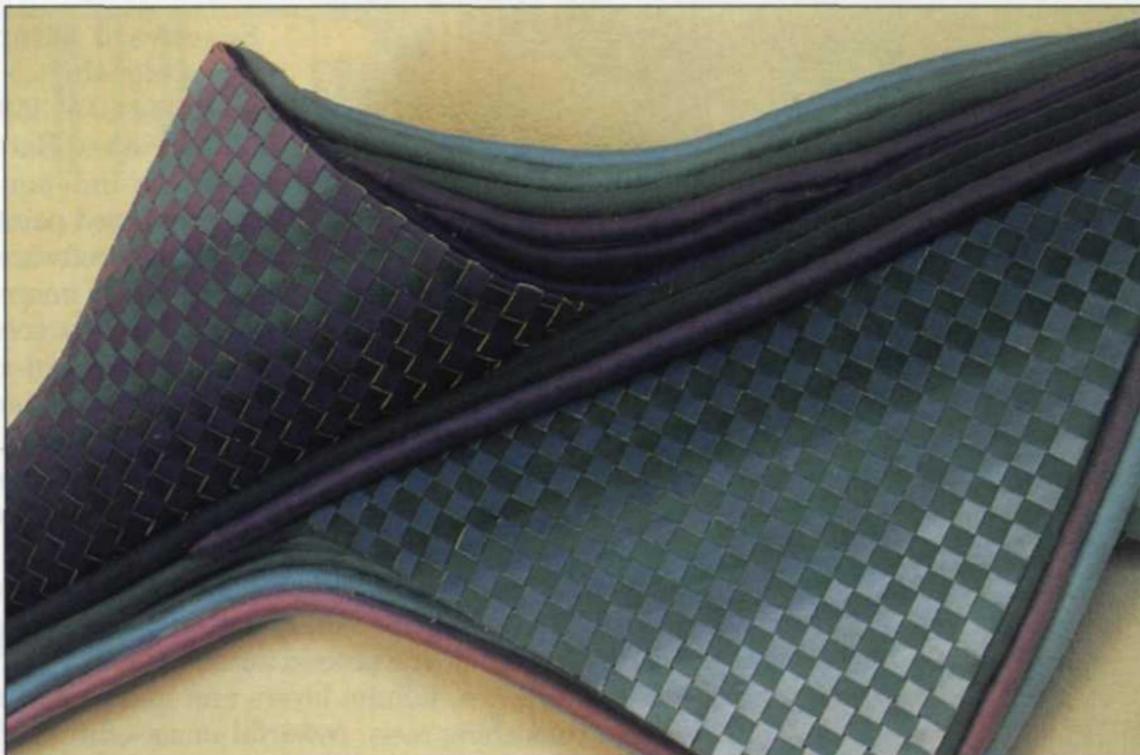


The Canon-EOS DCS 5 Digital Camera

Sue and Jack Drafahl

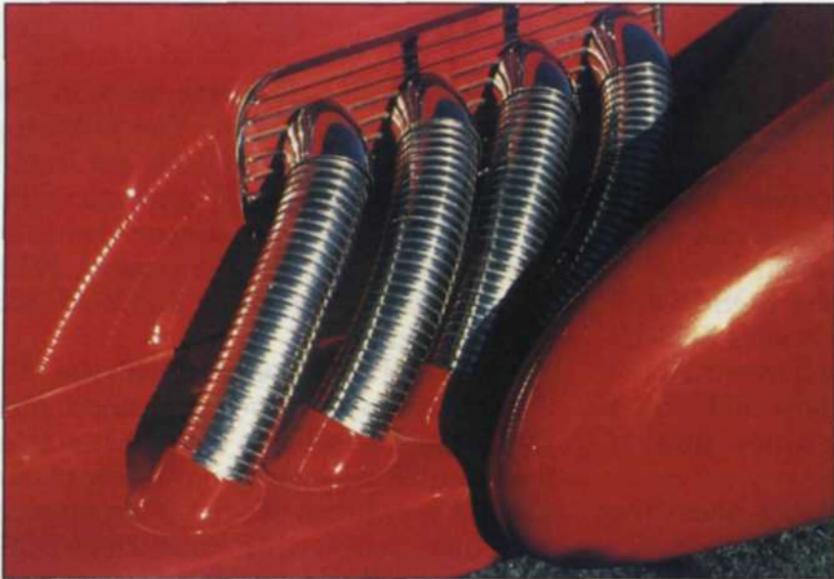


Shot as an original.



Shot as an original.

DIGITAL PHOTOGRAPHY has been a source of controversy ever since it hit the marketplace. Film was the basis of early photography and many wonder whether it is slowly becoming a dinosaur. We feel that film is here to stay for the time being, but so is digital photography.



Color Print copied on the copy stand.



Transparency on the dupe.



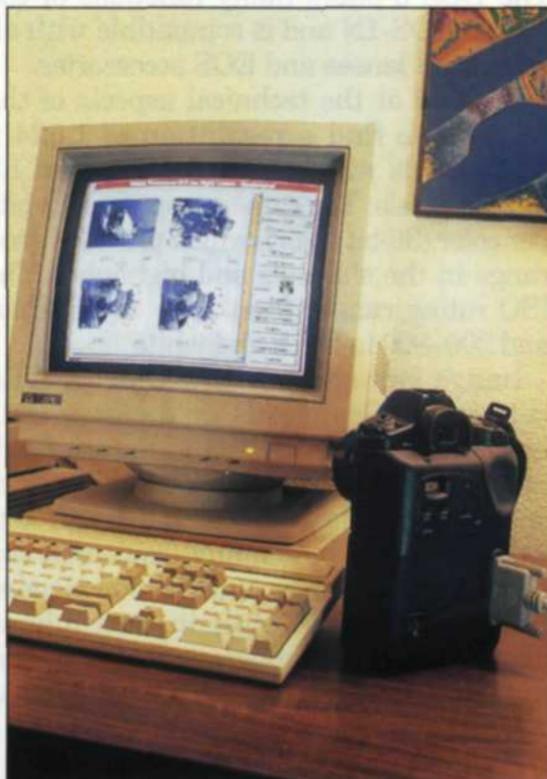
B&W neg on the dupe.



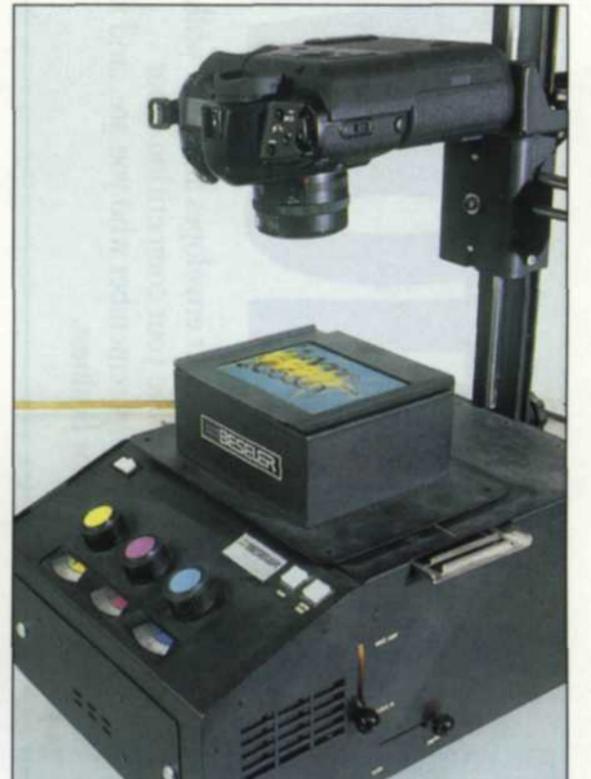
Conversions from B&W neg.



B&W Print copied on the copy stand.



The EOS Digital System.



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When we put together an article on a specific product for *Photo Lab Management* magazine, we use and abuse it in our photo lab, and if it doesn't work in practical applications, we don't talk about it. Recently Kodak and Canon worked in cooperation to develop the EOS-DCS 5 digital camera, based on Canon's EOS-1N camera. It worked very well in our lab, so we are going to tell you how and why it can help your lab reach a new level of sophistication.

Before we get into specifics about the DCS 5, we need to give you some basics about digital cameras. As we see it, there are three groups of digital cameras determined by pixel resolution. The first group is what we call *screen resolution* or low resolution digital cameras. The resolution of this camera ranges from 320x200 to 600x800 pixels and is generally used for databases, screen ID photos, and applications where the images are only used on the computer screen.

The *medium resolution* digital camera has a pixel resolution on the x and y axis between 1,000 and 2,000 pixels. The potential applications for this camera in the photo lab are limitless and it is the center of our attention for this article.

The *high resolution* digital camera has resolutions above 2,000 pixels on both the x and y axis. This camera can be used for almost any application that film can be used for, assuming the format is comparable to the film size, i.e., 35mm film vs. 35 digital or 2 1/4 film vs. 2 1/4 digital.

The DCS 5 builds on previous versions of Kodak's DCS camera line based on the Nikon camera system. Customers were asking for digital capability on other platforms, so Kodak teamed up with Canon. The DCS 5 offers many functions of the Canon EOS-1N and is compatible with all Canon EF lenses and EOS accessories.

Looking at the technical aspects of the DCS 5, we find a resolution of 1,524 x 1,012 pixels with a total resolution of 1.5 million pixels. The camera captures 12 bits per color (36-bit color), which provides good range in the shadows and highlights. The ISO rating ranges from 100-400 in color and 200-800 in black and white.

Image storage is with PCMCIA-ATA removable flashcards or a compatible hard disk up to 260 megabytes. Each image takes up about 1.7 megabytes of space, so the flashcard or hard disk size will determine how many exposures can be taken before they must be downloaded and/or deleted. A built-in microphone allows the photographers to record important information about each shot, such as client name or how the image was made.

By holding down the shutter button,

you can fire off a 10-image burst in just more than four seconds. The following images require three seconds per frame. The camera links to a Macintosh or PC via a SCSI cable. The camera comes in three models: EOS-DCS 5c (color), EOS-DCS 5m (black and white), and EOS-DCS 5ir (infrared).

We started taking pictures with the DCS 5 the second we removed the camera from the box and attached a lens. In less than five minutes, we were reviewing the photos we had just taken. To set it up on your computer, you need to know what SCSI address number is available for communication. On the MAC you can directly plug into a SCSI port, but on the PC you must install a SCSI board. Install the software according to the instructions and you are ready to become a digital photographer.

On the MAC side you will need 32-bit Quickdraw software and Adobe Photoshop 2.5 or higher. The PC computer will run on any TWAIN-compliant application software. Software allows either direct shooting while the camera is connected to the computer, or downloading of the images from the flashcard or hard disk.

When the first digital cameras came out, one complaint was that the actual image was much smaller than the viewfinder. The normal lens ended up being a telephoto, and wide-angle lenses became normal lenses. The DCS 5 has a similar viewfinder except that the actual image area is marked with a box. Areas outside the digital image area are still visible in the viewfinder.

You may not think this is important, but once you mount the EOS-DCS 5 camera on a copy stand or the slide duper, you will see the difference. You can now see the exact edge of the photo in reference to the cropped shooting area. What once was considered a negative feature has now been turned into a positive one.

The EOS-DCS 5 was designed for photographers who require quick turnaround and high quality. The portrait photographer can capture the wedding, school portraits and events in rapid succession. Those photographers catering to the catalogs and newsletters find the EOS-DCS 5 their lightning-speed solution. This digital camera is the answer to medical, scientific and even law enforcement applications.

We took the EOS-DCS 5 and put it through the paces in our photo lab. We found it could do just about everything—only it was faster. First we compared it to both our flatbed and film scanners. The biggest drawback to scanners is the time it takes to adjust the exposure and color, crop, and make the pre-exposure and final scan. Much of this preparation takes

a couple of minutes even at low resolutions. With the DCS 5, we mounted the camera on a copy stand, focused, cropped and shot. We could make several exposures in seconds compared with the minutes required for a flatbed scan.

With the DCS 5 mounted on the slide duplicator, we were able to shoot as fast as we could load the images. The only problem we found was that the EOS-DCS 5 was sensitive to color balance, and more care had to be taken with color balance. Once we did have the balance, we could digitize 5-10 images in the same time it would take to normally scan one image.

Some of our clients have us incorporate x-rays in their medical lecture slides. We normally would put the X-rays on our scanner and then insert them into the standard lecture format. Sometimes the X-rays were bigger than our scanner, so we had to shoot a negative and then scan it. With the DCS 5 we photographed the X-ray directly and dropped it into the slide format in one easy step.

One area where the DCS 5 was a real workhorse was in preparing a digital database. The image resolution necessary for a database is usually less than the DCS 5, but it takes longer to scan images into the system. When databasing old black and white prints, merely set the camera on the copy stand and start shooting. If you are databasing slides, mount the camera on the slide duper and start shooting.

When dealing with stock photography and you need a way to microfiche images, merely lay a page of slides down on a transparency copy stand and start shooting one page per frame. If you record one page every five seconds, you could microfiche more than 200 photos per minute. There are dozens of other database application, and you will find more uses once you start using the DCS 5.

So far all we have discussed are the positive aspects of the EOS-DCS 5. So, let's talk about the one point everyone tries to avoid—the price. At publication the suggested list price of the DCS 5 was \$11,995. Now that may seem like a lot, but if you remember the time that the DCS 5 saves by skipping the film process completely, you'll find it a good investment. Of the many products we have reviewed, this is one that we did not want to give back. We have already added it to our list of equipment to buy. How about you? 

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