

LESSON 137

SCANNERS - THE BASICS

Most scanners come with at least two kinds of software; one is a photo or graphics processor for handling graphics, and the other is an optical character recognition (OCR) package that can recognize characters from a printed source (magazine, book, etc).

Scanners perform two different functions. Your scanner can scan graphic images, either in color or black and white, and place the graphics into files on your computer. That same scanner can also read documents and create them in your computer as text files that can be read by your word processor. You can then edit, spell check, cut and paste and do all of the normal things you would do with any document.

We can measure the quality of a scanner by its "resolution". Resolution is generally described in "dots per inch" or "dpi". The dpi rating can be confusing as it applies to monitor screens, scanners and printers.

A screen resolution of 800 X 600 on a 15" monitor works out to about 75 dpi. Printer resolution is also expressed in dpi, which translates to the number of dots per inch required to form letters and characters on paper. The printer dpi rating may be a bit misleading since black only printers must place a series of dots to create the illusion of shades of gray, or for a color printer to show variations in color.

Scanner resolution is a specification that describes the maximum number of dots that can be sent to the computer at one time. There is a practical maximum of about 300 Charge Coupled Devices that can be mounted on the light bar a scanner uses to scan images. Any scanner that claims a resolution that exceeds 300 dpi must use software to interpolate the scan, so the quality of your scanned image may depend on the quality of your software.

The bottom line here is that you'll choose the resolution for the material you scan. Don't assume that you should scan everything at the same resolution. For example, if you are scanning a gray scale, or color image, and want to print it to a color or black and white printer, here are some helpful guidelines:

With a 300-360 dpi printer, use a scanner resolution of 50 to 100 dpi.

With a 600 or 720 dpi printer, use a scanner resolution of 100 to 150 dpi.

When you are scanning black and white images, or for OCR scans, use the full scanner resolutions. For scanning graphics, adjust the image level or tone before sending your graphic image to your photo enhancement program. Most of these photo enhancement programs have sharpening filters that make your graphic look better. If you want to scan like a pro, take a look at

www.scantips.com.

