

Using Scanners

what is a scanner?

A scanner is a computer peripheral that converts a paper document or image into digital form. The digital image can be used to print multiple copies of a photograph, inserted into a word processing or desktop publishing file, or placed in a web page for the World Wide Web.

Scanner Types and Terms

Types

- Sheet fed. Sheet fed scanners work by feeding one piece of paper at a time into the machine, a lot like a fax machine. Smaller than a loaf of bread, they fit rather easily on a desktop. Although the “head” of many sheet fed scanners can detach from the base to scan books or other bound materials, the convenience factor goes down. If you need a portable scanner, however, go with a sheet fed.



- Flatbed. A flatbed scanner looks a lot like a small copy machine. To use it, you open the lid and place the item you want scanned on top of a glass plate. The quality of images as well as the ability to scan images from books or objects gives the flatbed an advantage over a sheet fed scanner, although it does take up more space.



Terms

- Resolution. Resolution is the term used to describe how many dots of color exist per inch in an image. The more dots per inch (dpi) there are, the higher the quality of the picture.
- Color depth. Color depth refers to how much information the scanner can remember about each dot or pixel of an image. The more it can remember, the truer the scanned colors will be. Typical scanners now have a color depth of 36-bits (billions of colors). In addition, scanners will usually allow you to choose the color depth to use before scanning the image.
- Optical Character Recognition. Some kind of OCR software usually comes with scanners to enable them to scan text straight to your word processor. If you have lots of reports or letters that need to be retyped, then use the OCR software to scan the whole thing to MS Word and then edit it! Super!

When selecting a scanner there are several options to consider. Keep in mind the ways in which you are going to use it. Are you going to want to print photographic quality images, or just put some pictures on a Web page? Your answer will determine how much the following factors will contribute to your decision.

Type

Flatbed or sheet fed? How much room do you have? Are you going to take it anywhere?

Resolution

The more the better, but don't pay for what you don't need.

Color depth

Most scanners are at least 36 bits. That's plenty.

Interface

How is it going to connect to your computer? Many scanners can connect via both parallel or USB.

Parallel The parallel port is the same port (probably) that is used by your printer. In theory, you can hook them both together and connect them to the computer. Sometimes, however, they interfere with each other.



USB If you have a Macintosh or are using Windows 98, then you probably have at least one Universal Serial Bus port. USB has advantages over parallel in that it is possible to "hot-swap" peripherals and connect multiple peripherals more easily. In addition, USB is faster than a parallel connection.

SCSI A SCSI (scuzzy) connection offers speed and connection advantages over parallel and USB ports. The drawback to this type of connection is the need to purchase and install a SCSI card, which can be a difficult operation for casual users. You won't get the SCSI scanner.

Software

Scanners always come bundled with software that allows you to manipulate the image. Look for name brand titles, such as Adobe PhotoDeluxe. Some come with software to create cards, pamphlets and more. Some even come with versions of high-end programs like Adobe PhotoShop.

Cost

PC Connection, a mail-order computer store, lists over 25 scanners for under \$300 with the cheapest starting at \$50. Since there are so many at an affordable price, look closer at the other factors, such as software. Chances are you can get exactly what you need for a great price. At this writing, PC World's top rated personal scanner listed at \$269.

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scanning tips and image editing software

Keep in mind that each scanner is going to have a slightly different procedure for operation. Since they are all very similar, you shouldn't have too much trouble getting your own machine to work the way you want it to. For more information, visit the following site:

<http://www.hsdesign.com/scanning/tipswelcome.html>

- ✓ Pay attention to where you are saving your files. Some software asks you where you want to save before it scans the image.
- ✓ If you are planning to enlarge an image after scanning, scan at a high dpi. If you don't, your image will look like a mosaic when you enlarge it.
- ✓ Decide which file format is going to be best. If the files are going straight to email or your web page, use JPG.
- ✓ Scanners have a "sweet spot." Placing images in the sweet spot will make for better-scanned images.

Image Editing Software

\$35	<ul style="list-style-type: none">• ImageBlender 30-day trial http://www.tech4learning.com/imageblender/
\$45	<ul style="list-style-type: none">• PhotoDeluxe
\$90	<ul style="list-style-type: none">• Photoshop Elements 30-day trial http://www.adobe.com/products/tryadobe/main.html
Bundled	<ul style="list-style-type: none">• Photoshop LE
\$100	<ul style="list-style-type: none">• Paint Shop Pro 30-day trial http://www.jasc.com/
\$600	<ul style="list-style-type: none">• Photoshop 30-day trial http://www.adobe.com/products/tryadobe/main.html