

Scanners

The art of scanning has become commonplace at physician practices these days, from the time the patient walks in the door and have their insurance card scanned to the questionnaire they just filled out or the past records that were just faxed over from the referring physician. This month I am going to cover some of the options available when it comes to scanning documents in the office. As computer storage capacity increases almost exponentially it seems, it becomes feasible to store more and more physical documents as images on small media such as compact discs, hard disk drives, or tape drives. The days of the 'floppy disk', which isn't floppy at all but a very thin magnetic disk that is 3.5" in diameter encased in a rigid plastic envelope, are just about over. The name floppy disk actually comes from the time when those disks were either 8" or 5.25" in diameter and encased in a flexible plastic cover. The newer, denser 3.5" diskettes could hold a whopping 1.44 megabytes of information, or about three medium-sized digital photos. Today I am ordering PC workstations with 160 gigabyte hard disk drives which equal 164,160 megabytes and it seems that computer storage space now costs a whole lot less than the physical space years of accumulating papers occupy.

This brings us back to the issuing of scanning documents and what is the biggest single use of paper and non-revenue producing space in your office? Patient charts, years of them. There are several options available to you when it comes to scanning in charts, including several companies that will do it for you and categorize it all for you and make backups, etc. I'm not going to cover those, what I am going to cover are the different options available when purchasing a scanner and what my experience has shown works well in an office. Let's start with the different types: flat-bed, sheet-feed, all-in-one machines, and card scanners.

When I first started implementing electronic charting solutions I noticed that physician offices tended to purchase flat-bed scanners, they were inexpensive, you could pick one up at Staples, and you were in business. Flat-bed scanners work by laying the piece of paper down and having a lamp pass over it and record the image and they work on all sizes of paper up to about 8.5" x 14" so you could do insurance cards or other documents as desired. It didn't take long to realize that they were not acceptable during check-in due to the very way they work. Each time you request a scan, the lamps have to warm up - usually one to two minutes, pass under the entire plate with the paper, then go back to the start position, and wait for the next request. After about ten minutes the lamps are shut off by the device due to inactivity and then, of course the next patient arrives and you go through the whole warm up process again. Pretty inefficient and time-consuming; more than likely your office will need more than one type of scanner to maximize efficiency.

A good check-in solution came with a product called a MedicScan, developed by a local company, to quickly scan both sides of any card with a scanner no bigger than a TV remote. They also wrote the software so it put both sides of the image in one file. This is an incredibly popular feature as you can see front and back of insurance cards quickly and easily. Then they partnered with several practice management software packages to implement OCR (optical character recognition) with driver's licenses. This means that when you insert the license to be read, it populates the appropriate fields in the PMS software as well as captures the image to a file.

The MedicScan is excellent for the front desk but not very feasible for scanning in both sides of the multi pages of a chart quickly. The best type of scanner for that is called a sheet-feed scanner and these are manufactured by companies like Fujitsu, Kodak, and Canon. Normally they can scan 20 pages per minutes (ppm) or more and store all the images as a batch so you can do one chart at a time. Prices range from about \$500 up to \$3000 or more. The difference in the way they work is

that the paper passes over the lamp so the lamp remains stationary at all times. There is no warm up process or returning to the start position.

Let's talk about the all-in-one, or multi-function machine that has become so popular and inexpensive as well. These are devices which can fax, copy, scan, and print all from one machine – a great concept, especially if you have an office in your home. However, if you do not, I don't recommend them. I have seen several instances where one part of the all-in-one stops working and then guess what, you can't use any of the other features either. I like to see faxes received directly into a computer and filed accordingly or deleted, and I definitely recommend splitting up the scanning and printing areas. Keep in mind that a scanner must be physically connected to a PC whereas a printer can be its own device on the network.

A few things to keep in mind when scanning files are resolution, file type, and file path. Most of the time I recommend the minimum resolution feasible, depends on the clarity needed on the image, when saving image files. They can get huge in a hurry and the type of image file you specify also has a lot to do with that. Unless you are scanning photos that need ultra-high clarity, try to keep the size to around 300 x 300 dots per inch (dpi) and save as a .jpg, .pdf, or .gif. If these files are going to be accessed regularly via your EMR, they must be saved on server as a mapped drive so that each PC can see the files.