

## When Less is More: Migrating from Paper to Digital Documents

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The accumulation of paper in the life of the business professional is overwhelming. Paperless office? Would you settle for the “less paper” office? It’s not just a goal, it is a reality and offices are implementing it aggressively. It doesn’t take a lot of money or IT power, just some planning and commitment. If you can envision your world with less paper and what your needs of the new digital documents are, then you’re well on the road to a more organized office. The conversion process is basically three steps:

1. **Capture** (converting paper documents to digital with a scanner),
2. **Storage** (saving the new digital document and where/how it will be stored),
3. **Retrieval** (finding the document later).

Paper is a *temporary* medium for information, efficient only in small quantities. In large quantities it is expensive, inefficient in almost every way, and fraught with risk. The numbers vary a little depending on how you slice them, but here are some statistics that should put the numbing task of managing paper in perspective and a higher priority on your to-do list. On average:

- It costs \$5 to file a paper document, *and then \$20 to find it later.*
- It costs \$250 to reproduce a paper document (text, graphics, photos, layout). *The average typing speed of the business user is < 50 words per minute)*
- In the end 7.5% of all paper documents get lost altogether. *Re-creation costs: inestimable.*

**Ease-of-use**, perhaps the most important element to the business scanner user, will be a significant feature and acceptance criteria. The general business user is not a scanner expert. Technology expertise varies but it typically centers on the fax machine, copier, email, internet browser and basic MS Office skills. So acceptance and usage by the general business user will map directly to answering a) how easy is the device to use and b) are the results sizeable enough to warrant the learning/time investment.

As users transfer more of their documents, data and information into digital form, the demand for greater productivity and features will increase. This will cause the usual scanner market segmentation to change. Mobile scanners such as the new Vioneer Strobe XP300 will be defined mainly by the size and portability of the device, not a diminished feature set. Single user, workgroup and departmental scanners such as the Xerox DocuMate family of products will be used by many of the same users and while price and performance may vary, functionality will need to be consistent. Scanners will become a staple to the business user desktop, because inaccessibility to information because a document is in paper format will no longer be an accepted excuse. Information on paper will need to be accessible yet secure, accurate, quick-to-retrieve, “repurposable”, and must maintain the integrity of the original paper document.

Experts talk about vertical (legal, pharmaceutical, government, and financial services) needs for document management a lot. But the need to manage paper better is a *horizontal* problem. Sure, there are very application-specific solutions for a particular vertical market, but EVERYONE shares the same paper problem. Whether you run a government agency, a law office or purchasing department, it doesn’t matter; you have too much paper. You can’t manage it, you can’t retrieve it, you can’t reuse it. Paper is accumulating in filing cabinets, storage boxes, and in piles on your desk.

Let’s cover some of the technical aspects of scanning.

- **Resolution:** Quality vs. speed vs. file size trade off. Digital storage is cheap; don't scan at low-res (100 or 200 dpi) just to save money here. Speed and quality are factors, especially if you plan to OCR the documents to make them searchable. 200 dpi capture good quality originals well, 300 is better, 400 is best. You'll need to assess the type of document original you're scanning to best judge the minimum threshold. *Make sure you look closely at Kofax VRS (Virtual ReScan) software which dramatically and intelligently improves difficult originals without adjusting settings for every page so they can be read by the human as well as the computer's eye.*
- **Color or Black and White Scanning:** Color greatly enhances a document's content and today's scanners do a great job of scanning at nearly the same speed in color as in B&W. But typically your OCR results will be better in B&W and grayscale and file size grows not just by 2x or 3x, but by as much as 24 times the B&W equivalent scan. This choice impacts your storage, performance and retrieval productivity. Bottom line: Scan in color without reservation where you need it, but don't scan *everything* in color just because you can. Discriminate and scan in B&W as your standard.
- **Duplex:** The award-winning Xerox DocuMate scanners scan both sides of the document (*duplex* mode) at the same time without slowing the scanning time at all. They also intelligently discard blank page backs so there is no penalty to ALWAYS scanning in duplex. Many of your documents may only be one-sided, but there's not much of a premium to get a great duplex scanner so plan for the unknown. Get the duplex machine.
- **File format:** In what file format do you save your scanned document? The choices are a dizzying alphabet soup: TIF, JPG, DOC, PDF, GIF, PNG, XLS. The most popular are TIF and PDF for business documents with a clear edge to PDF. PDF readers such as Adobe Acrobat are free and downloadable nearly everywhere. Whether you save the scanned document to a CD, file server or your local hard drive, PDF gives you the best assurance that you'll be able to open it in a week or years from now. In fact, to make your scanned PDF document even more productive, save it as a searchable PDF file. This is not just an image of the page, but it contains all the text in an invisible layer of the file so you can search it by content among thousands of other files. Otherwise, isn't just an image of a document similar to paper? You have to look at it decide if it is the right one.

Done correctly, scanning documents can increase a user's efficiency and aid in problem solving. First, by converting hard copy into a digital image, the ability to store, retrieve, forward and print is highly cost-effective with return of investments in less than 6 months. Second, if the scanned documents are converted into searchable PDF files, documents can be shared with others in a common file format easy for anyone to open, read, search and repurpose.

Of course storing documents electronically is of little use if you cannot retrieve and access them easily. When scanned document storage grows to the hundreds and thousands and hundreds of thousands of documents, searching by filename and keyword is not optimal. Storing documents as searchable PDF allows for indexing of all these documents based on content. This makes for nearly instant retrieval. After all, if you're not searching by content, you might as well be still looking at paper. Most document management systems include sophisticated indexing tools. There are also powerful indexing products for the desktop such as X1 that index all your documents, files, emails, attachments and contacts. Finding scanned documents or born digital information is a simple and fast process, one you won't want to live without.

Lastly, access, retention, disposition and security all have process and legal elements to consider. Some documents are scanned for purely archival purposes and may never be looked at again. Others however are retrieved regularly for reference (such as contracts), some are retrieved over longer periods (such as personal files or tax information). Companies must establish a) how long they need to save documents, b) what security measures are needed for access and disposition, c) the type of media on which documents will be stored (film, magnetic disc, optical or tape) and d) what the legal requirements are for these records.

Not only will you have less desktop clutter, but also less file cabinet storage and greater efficiencies in managing paper. Regulatory compliance such as Sarbanes Oxley, HIPAA, the Patriot Act and SEC Section 17(a) may require document scanning, storage and retrieval processes of your business. So, once you start

scanning paper documents the benefits mount and the piles on your desktop decrease. Paper is not going away; you can either manage it or it can manage you.