

Title:           **Going Paperless ... Or Not?**

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# Going Paperless—Or Not?

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by James W. Martin



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**When you wonder which format to scan to, just think of your client and remember this: there is no PDF in plainTIFF.**

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**SO, YOU SCANNED** all the papers in those client files of yours, converting them into electronic files on your computer, and now you wonder if you can shred all that paper. You think of the savings in office space rent and closed box storage fees. But, the lawyer in you quickly points out that your files are the best evidence of the work you did and are the business records you maintained contemporaneously with doing the work. Two questions: If you ever needed to defend your work in court, would the electronic files be admissible? What is the best file format for your scanned electronic files: PDF or TIFF?

### WOULD THE SCANS BE ADMISSIBLE? •

Well, the Federal Rules of Evidence say they would be, and the federal rules are very similar to the Uniform Evidence Code adopted in most states, so your electronic files should be admissible. Rule 1001(3) says: “If data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately, is an ‘original.’” And Fed. R. Evid. 803(6) provides this exception to the Hearsay Rule:

“Records of regularly conducted activity. A memorandum, report, record, or data compilation, in any form, of acts, events, conditions, opinions, or diagnoses, made at or near the time by, or from information transmitted by, a person with knowledge, if kept in the course of a regularly conducted business activity, and if it was the regular practice of that business activity to make the memorandum, report, record or data compilation, all as shown by the testimony of the custodian or other qualified witness, or by certification that complies with Rule 902(11), Rule 902(12), or a statute permitting certification, unless the source of information or the method or circumstances of preparation indicate lack of trustworthiness. The term “business” as used in this paragraph includes business, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit.”

Even though these rules quite clearly state that your printable computer files are writings and originals, you will want to check to see if there is any case law construing these rules to the contrary. Since I am a Florida lawyer, I checked in Florida. A quick Westlaw search of Florida Statutes Annotated and Florida Cases finds none, but unearths proof that the courts are living in the same electronic world as the rest of us:

- “Today, instead of filing cabinets filled with paper documents, computers store bytes of information in an ‘electronic filing cabinet.’

Information from that cabinet can be extracted, just as one would look in the filing cabinet for the correct file containing the information being sought.” *Menke v. Broward County School Board*, 916 So.2d 8, 10 (Fla. Dist. Ct. App. 2005), denying “unfettered access” to computer files in discovery;

- “This is an exceedingly important issue which should be confronted by this Court. Businesses as well as individuals must have regular record and property disposition policies. Obviously, storage space, both in warehouses and in computers, have finite limits.” *Martino v. Wal-Mart Stores, Inc.*, 908 So.2d 342, 349 (Fla. 2005), concurring opinion ruling there is no independent cause of action for spoliation of evidence.

So what does Google say about this? I enter this search: “Are files scanned to electronic computer files admissible as evidence?” The first hit is “EPA’s Office of Solid Waste’s Interpretation and Findings Regarding Safety-Kleen Corp.’s Automated Manifest Record Storage System” ([www.epa.gov/epaoswer/hazwaste/gener/manifest/enclose.htm](http://www.epa.gov/epaoswer/hazwaste/gener/manifest/enclose.htm)), in which the EPA found that it was “satisfied that Safety-Kleen’s image file storage system meets current Resource Conservation and Recovery Act (“RCRA”) requirements for retention of copies bearing the handwritten signatures of waste handlers.” The federal environmental law known as RCRA required that “signed” manifest copies be retained and bear the handwritten signatures of the waste generator. The EPA said:

“The key regulatory compliance issue presented by Safety-Kleen’s system is whether the electronically stored image files are created and maintained in such a manner that they qualify as “copies” bearing the necessary “handwritten” signatures. We conclude that the image files meet this standard, because:

1. The handwritten signatures from the hard copy records are captured by the scanner, incorporated into the stored image files, and reproduced accurately in the output generated by the computer system. Safety-Kleen demonstrated to EPA that the output displays signatures that look no different than the signatures that initially appeared on the scanned hard copies, and the reproduced manifest copies (and signatures) are of the same or better quality than those which are produced by photocopy machines or fax machines. Significantly, this system does not attempt to substitute 'digital signatures,' PIN Numbers, or other electronic surrogates for the original handwritten signatures.

2. The image files appear to meet the standards included in the Federal Rules of Evidence for the admission of copies and computer generated records into evidence in judicial proceedings brought in the federal courts. We believe that the law of evidence provides the proper standard for determining whether these electronic documents (the image files and any printouts generated by the system) are acceptable 'copies' within the meaning of our manifest retention regulations. The regulations require these manifest copies to be retained in order that they may be inspected by RCRA inspectors, and in a proper case, admitted in evidence in RCRA enforcement proceedings or other proceedings (e.g., Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") liability) where the information on the manifests may be considered relevant. Thus, their acceptability as inspectable records and possible evidence should be evaluated according to the law of evidence on the admissibility of computer generated records."

Well, if it's good enough for the EPA, it's probably good enough for a lot of other government

agencies. What does IRS say? It recognizes "electronic storage systems" as the records required to be maintained by the Internal Revenue Code. It even issued guidance in the form of Rev. Proc. 97-22, §4.01, 1997-1 C.B. 652, which goes into great detail concerning the components the system must include, such as "ensure an accurate and complete

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transfer of the hardcopy or computerized books and records to an electronic storage media,...index, store, preserve, retrieve, and reproduce the electronically stored books and records,...include reasonable controls to ensure the integrity, accuracy,

and reliability of the electronic storage system;... reasonable controls to prevent and detect the unauthorized creation of, addition to, alteration of, deletion of, or deterioration of electronically stored books and records...."

So, if a soul were brave enough, one could even scan digital images of items of income, deduction, and other tax records then shred all that paper, too—if one were brave enough. I think I would scan and shred the EPA waste manifests first, though.

**WHICH IS BEST: PDF OR TIFF?** • Now for the second question: Should you scan your closed paper files as PDF or TIFF electronic files? The federal courts have chosen PDF as the format for electronic filing. Scanner ads tout their capability of scanning directly to PDF. But wait—your paper files aren't pleadings to be filed with the court. They are folders of letters, memos, and documents arranged in chronological order that document your work. They are your business records. When you scan them, you convert them to digital images stored on your computer. You get to decide the format: PDF, TIFF, or something else. After much study, my choice is TIFF. Here's why.

## National Archives Recommends TIFF

Closed paper files are archival in nature. The National Archives defines archives as “a place where people can go to gather firsthand facts, data, and evidence from letters, reports, notes, memos, photographs, and other primary sources.” Available at [www.archives.gov/about/info/whats-an-archives.html](http://www.archives.gov/about/info/whats-an-archives.html). The National Archives recommends saving image files as uncompressed TIFF files. (*Technical Guidelines for Digitizing Archival Materials for Electronic Access: Creation of Production Master Files—Raster Images*, June 2004, [www.archives.gov/preservation/technical/guidelines.pdf](http://www.archives.gov/preservation/technical/guidelines.pdf), at 76-77). In comparing file formats, here are some of the technical considerations the National Archives used in recommending TIFF format for saving images:

- “De facto raster image format used for master files”;
- “Uncompressed; lossless compression”;
- “Accommodates large file sizes”;
- “Anticipate greater preservation support in repository settings; preferred raster image format for preservation”;
- “Widely supported and used”;
- “Long track record (format is over 10 years old)”;
- “Potential loss of Adobe support of TIFF in favor of PDF?”
- “Not suitable as access file—no native support in current web browsers”;
- “Preferred format for production master file.”

Here are some of the technical considerations of the National Archives in recommending against PDF for production master files of digital images:

- “Intended to be a highly structured page description language that can contain embedded objects, such as raster images, in their respective formats”;
- “Works better as a container for multiple logical objects that make up a coherent whole or composite document”;

- “More complex format due to embedded/externally linked objects.”

## Adobe Recommends PDF

Adobe created and controls the PDF format, so it’s no wonder it recommends it for archival use. In its white paper *PDF as a Standard for Archiving* ([www.adobe.com/enterprise/pdfs/pdfarchiving.pdf](http://www.adobe.com/enterprise/pdfs/pdfarchiving.pdf)), Adobe pleads its case for using PDF to archive paper documents. The white paper walks through the reasons the PDF format provides the integrity needed for archival documents. Although the sales points are good, the fact is that there is an image within the PDF file wrapper and it’s probably a TIFF so why not just use TIFF as the file format itself?

## No Sedona Recommendation

Perhaps there is no best answer. The Sedona Conference Working Group on Best Practices for Electronic Document Retention and Production issued its updated September 2005 version of *The Sedona Guidelines: Best Practice Guidelines & Commentary for Managing Information & Records in the Electronic Age* but made no recommendation of preferred file format, perhaps because one of its principles is, “No single standard or model can fully meet an organization’s unique needs.” ([www.thesedonaconference.org/content/miscFiles/TSG9\\_05.pdf](http://www.thesedonaconference.org/content/miscFiles/TSG9_05.pdf), at iv).

## The AIIM Documents

The issue is complex and dynamic. It is under constant study. So I joined the Association for Information and Image Management (“AIIM”) to access their volumes of articles, white papers and publications. In May 2006 it published the article *Archiving Electronic Files* by the consultant Bernard Chester (<http://aiim.org/article-aiim.asp?ID=31464>), which says this about the file format question:

“TIFF: Tagged Image File Format is a de facto standard for storing raster images. Most document scanning systems produce TIFF as their output.

TIFF provides support for a number of color spaces, densities, compression methods, and pixel formats. Few viewers can properly handle all variants, so care must be taken to choose a combination that is popular.

“PDF & PDF/A: Adobe’s Portable Document Format has become a de facto standard for distributing documents, since it attempts to ensure a consistent appearance across viewing environments. PDF/A(rchive) is subset that has been made an international standard specifically for use in archiving documents.

“With so many choices, how do you decide? Obviously, the type of information will be a big factor. But that may still leave one with a number of choices. My recommendation is to rate your choices favoring those that are least proprietary and most popular. This should give you the best chance of being able to access the record in the future. Whatever format is used, it is important to periodically check that your viewing tools still support it.”

### **Florida Digital Archive Recommends TIFF**

The Florida Digital Archive, [www.fcla.edu/digitalArchive](http://www.fcla.edu/digitalArchive), is a “long-term preservation repository for digital materials in support of teaching and learning, scholarship, and research in the state of Florida” that “guarantees that all files deposited by agreement with its affiliates remain available, unaltered, and readable from media.” It states that it has a high confidence level in images stored in uncompressed TIFF format (*Recommended Data Formats for Preservation Purposes in the FCLA Digital Archive*,

*Florida Center for Library Automation*, Mar. 2007, [www.fcla.edu/digitalArchive/pdfs/recFormats.pdf](http://www.fcla.edu/digitalArchive/pdfs/recFormats.pdf)).

On the other hand, if text is submitted to the Florida Digital Archive in PDF format, it recommends PDF/A-1b format using only “lossless compression algorithms which are not subject to intellectual property constraints. The use of LZW compression is prohibited.” (Carol Chou, *Guidelines for Creating Archival Quality PDF Files*, Florida Center for Library Automation, June 2006, [www.fcla.edu/digitalArchive/pdfs/PDFGuideline.pdf](http://www.fcla.edu/digitalArchive/pdfs/PDFGuideline.pdf), at 3).

### **Easily View TIFF Files With Microsoft Office**

TIFF files are easily viewed with a program much simpler to use than Adobe Acrobat: Microsoft Office Document Imaging. It comes as part of Microsoft Office. You can see it on your computer (Start | Programs | Microsoft Office | Tools). You can easily set your computer to open all TIFF files with Microsoft Office Document Imaging. Just open Windows Explorer, select Tools | Folder Options | File Types, and then select the file types TIF and TIFF and change them to open with Microsoft Office Document Imaging, if it’s not already shown. By the way, TIF and TIFF mean the same thing.

**CONCLUSION: TIFF** • So, that’s why I scan closed paper files as TIFF images. While I do not intend to submit my files to the National Archives, I would like my archived scanned files kept in a file format that is recognized with confidence by archivists. TIFF is such a format.

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