

Legality of Electronically Stored Images

Acordex's imaging system design and user procedures are important in supporting legal admissibility of document images as business records or as evidence. Acordex joined a group of software companies contracting the law firm Cohasset Associates, Inc. to review the law pertaining to legal business records, identify attributes of systems design to ensure legality of records kept and advise on operational procedures to ensure long term admissibility of those records.

I. INTRODUCTION

The enactment of the Federal Rules of Evidence (FRE) in 1975 specifically recognized the advent of computerized business records and the need to govern their admissibility at the federal level. Most states have adopted rules based on the FRE as recommended by the National Conference of Commissioners on Uniform State Laws.

This paper starts with a general exposure to the FRE and several important legal issues. Next the application of the laws to microfilm, magnetic media and optical media are presented. Lastly, implementation guidelines identify how Acordex addresses the issues that must be accounted for in a well designed imaging system intended for a legal archive. The majority of the information included here is based on the definitive legal review work, *Legality of Optical Storage*, available from Cohasset Associates, Inc.¹

¹Williams, Robert F., *Legality of Optical Storage* (1997), Cohasset Assoc., 3806 Lake Point Tower, 505 No. Lake Shore Dr., Chicago, Ill 60611.

II. RULES OF EVIDENCE

Hearsay is defined as “a statement other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of matter asserted.”² To protect against the dangers of hearsay, common law historically required that any business entry or transaction presented as evidence in court be authenticated by a witness with personal knowledge of the specific transaction presented. Obviously, this is a very difficult requirement to meet in a business environment where people change jobs and may not be available on demand. The person who performed the transaction may no longer be present. Several acts address this issue.

In 1935, the requirements for admissibility of business records as evidence at the federal level were defined in the Federal Business Records Act (FBRA). At the state level, the Uniform Business Records as Evidence Act (UBREA) were enacted in 1936 by the Commissioners on Uniform State Laws. In 1949, the National Conference of

²ibid., p5-49. Fed. R. Evid. 801(C).

Commissioners on Uniform Laws recommended that the states enact the Uniform Photographic Copies of Business and Public Records as Evidence Act (UPA).

In 1974 and 1975, the federal government and the National Conference of Commissioners on Uniform Laws adopted essentially identical rules. These are called the Federal Rules of Evidence (FRE) and the state level Uniform Rules of Evidence (URE). Section 803(6) of both of these acts defines what constitutes an admissible business record:

A memorandum, report, record or *data compilation, in any form* of acts, events, conditions, opinions or diagnosis, 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, unless the source of the information or the method or circumstances of preparation indicate lack of trustworthiness. The term “business” used in this paragraph includes business, institution, association, profession, occupation and calling of every kind, whether or not conducted for profit.³ [emphasis added]

Note that a “data compilation, in any form” is explicitly identified as a legitimate business record, even in the 1970’s. The image of a paper document (scanned or computer generated) stored in an imaging system is a compilation of data.

Even in the older UPA, which was enacted when photographic processes like microfilm were a new

technology, allows for the advancement of technology and thus still provides guidance on record keeping requirements:

If any business, institution member of a profession or calling, or any department or agency of government, in the regular course of business or activity has kept or recorded any memorandum, writing, entry, print, representation or combination thereof, of any act, transaction, occurrence, or event, and in the regular course of business has caused any or all of the same to be recorded, copied, or reproduced by any photographic, photostatic, microfilm microcard, miniature photographic, or other process which accurately reproduces or forms a durable medium for so reproducing the original, the original may be destroyed in the regular course of business unless its preservation is required by law. Such reproduction, when satisfactorily identified, is admissible in evidence as the original itself in any judicial or administrative proceeding whether the original is in existence or not and an enlargement or facsimile of such reproduction is likewise admissible in evidence if the original reproduction is in existence and available for inspection under direction of court. The introduction of a reproduced record, enlargement, or facsimile does not preclude admission of the original. This subsection shall not be construed to exclude from evidence any document or copy thereof which is otherwise admissible under the rules of evidence.⁴ [emphasis added]

By 1995, 46 of the 50 states adopted either the URE or the UPA or both. The exceptions at that time were Illinois, Mississippi, Missouri and Louisiana.

³28 U.S.C.S., Federal Rules of Evidence, Rule 803(6).

(1977), Uniform Photographic Copies of Business and Public Records as Evidence Act [Federal UPA]

III. ADMISSIBILITY IN EVIDENCE⁵

Admissibility of Microfilmed Records

By 1949, the microfilming process had attained such a high degree of reliability that the National Conference of Commissioners on Uniform Laws proposed the Uniform Photographic Copies of Business and Public Records Act (UPA), in large part, to allow for admissibility of microfilmed records without the need to satisfy the best evidence rule. In adopting the UPA, which allows microfilm copies to be admitted equally with original records, the National Conference of Commissioners considered expert opinion that microfilm was a medium that could accurately reproduce written material and that the microfilm process would not facilitate altering the contents of the original documents.⁶ The difficulty of altering microfilm copies, together with the presumption of reliability accorded to the records made in the regular course of business, led to the widespread acceptability of microfilm by legislatures and courts.⁷

In *Resnick v. State Bar of California*,⁸ the California Supreme Court considered the effect of dust particles on the accuracy of the microfilming process, and the possibility of altering the microfilmed image by blocking off portions of the original document during the microfilming process.

In *State v. Fingert*,⁹ the Iowa Supreme Court held that microfilm copies of bank records were inadmissible under section 622.28 of the Iowa Code because the witness identifying records

provided no testimony as to how the microfilming process was accomplished, the timing of recordation, sources of information from which the records were made, or the method and circumstances of their preparation.

Admissibility of Computer Records on Magnetic Storage Media

In contrast to microfilm, which is analog and uses photographic technology, both magnetic and optical storage are digital and, each in their own unique way, utilize electronic technology. The intrinsic accuracy, reliability, and trustworthiness that is derived from the photographic attributes of microfilm do not exist with magnetic storage. Whereas microfilm is very difficult to alter, magnetically stored records can be easily altered. In spite of this intrinsic problem with magnetic storage, the courts *generally* have admitted magnetically stored, computerized records kept in the regular course of business. ... However, as will be discussed further, the foundational requirements have varied significantly depending on the jurisdiction in which the trial is held.

Rule 803(6) of the FRE and URE provides that the business record is admissible “unless the source of information, or the method or circumstances of preparation indicate a lack of trustworthiness.”¹⁰

Foundational requirements

Assuming that the document being presented is relevant to the issues under consideration, there are foundational requirements of the imaging system for authenticating a computer output as a business record. The system must

- produce an accurate result
- be reliable
- be trustworthy

⁵Williams, Robert F., op. cit., the text in this entire section is directly quoted from section five.

⁶Brereton, *The Admissibility in Evidence of Microfilm Records*, 59 A.B.A.J. 500, 503 (May, 1973).

⁷ibid, 503 (May, 1973). Also Donbroff, *A Few Simple Steps Ensure Admissibility of Microfilm*, Legal Times, at 19 (Feb. 24, 1984).

⁸1C.3d 198, 460 P.2d 969, 81 Cal. Rptr. 769 (1969) (en banc).

⁹298 N.W.2d 249 (Iowa S. Ct. 1980).

¹⁰Fed. R. Evid. 803(6); Unif. R. Evid. 803(6); see *United States v. Weatherspoon* 581 F.2d 595 (7th Cir. 1978).; *United States v. Liebert*, 519, F.2d 542, 547 (3rd Cir. 1975).

Additional foundational requirements are placed on the business procedure

- 1) Testimony must be provided by a “qualified witness” familiar with the computer record and how it was made.
- 2) The computerized record must have been made within a reasonable time after the occurrence of the event.
- 3) The record and output were produced in the regular course of business.

IV. IMPLEMENTATION GUIDELINES¹¹

“This section presents guidelines for improving the legal acceptability of documents that are managed as digital images. ...many of the equipment selection and procedural guidelines are based on similar guidelines that have been successfully applied and that have withstood the test of time and the courts.”

Accurate

“It is essential that the recording of the originally created or ‘captured’ information be accurate. This means verifying that the writing of the information.” In addition, a quality control function must provide the scanner or indexing operator with the means to ensure the accuracy of the digitized document prior to committing it to permanent storage.

Reliable

Providing long-term management of disk media is important to reliably preserve business records. This includes preserving the media, accessing the records and reproducing the information. It is very important that document image systems have reliable backup and recovery capabilities. Some

regulatory agencies require that vital information be archived at off-site locations.

Trustworthy

Procedures and equipment must support the trustworthy conversion of documents from their original paper form to digital storage. Strong software security features are required that can prevent unauthorized persons from gaining access to the documents, indexing data, delete functions, annotations or other image manipulation capabilities.

V. ACORDEX'S SYSTEMS

Acordex's imaging systems are designed with these legal issues and recommendations in mind. Listed below are the system features that Acordex provides to address each legal issue.

Accurate

Recording Accuracy – Every write operation includes checks for disk drive errors. This ensures that the scanned document is digitally correct on disk. If any disk drive fails, the media can be duplicated to new media, extending the life of the archive indefinitely. Since the images are digital, there is *literally no degradation* in image quality with time or number of copies or re-copies made.

Quality Assurance – Acordex's on-the-fly QA displays each image to the operator as the image is being saved. This gives the operator the opportunity to easily correct poor exposures while the original paper is still directly on hand. Other systems make QA a second task performed later, after the paper is already packed away. Because it's easier, the likelihood of correcting quality issues is *much higher* when the operator is using the Acordex process.

Reliable

Management of Disk Media – Safekeep creates *three copies* of images. One is created immediately

¹¹Williams, Robert F., op. cit., the text in this section is directly quoted from section ten.

at the scan station and retained for months, one at the server (typically two minutes after scanning), and one at an off-site location (typically within a few hours). Even if the directory of a disk drive is damaged, Acordex's images are stored with enough redundancy that the file names and indexing information can be recovered using information that is placed in the standard TIFF headers.

Accessing Records – Acordex's software clearly displays, prints, faxes, emails and exports the original unaltered image as retrieved from the image server. Laser printers offer the clarity required to produce accurate reproductions of the original document, faxes are accurate to the maximum extent possible in compliance with fax standards, emails attachments as PDF files and image transfers provide a digitally exact replication of the original document, i.e. the file formats are lossless.

Trustworthy

No manipulation – Acordex's Safekeep imaging system automatically moves images from the scan station(s) to the server and then to off-site storage. There are *no tools to modify the original image*. The scan station operator's only options are to a) rescan, correcting for proper exposure, or b) repaginate, correcting for missing pages, or c) accept the image during the on-the-fly QA task.

Tamper detection – The off-site image files provide an accurate copy of the images as they appeared on the day they were scanned. If there is ever a suspicion of tampering with the images at the scan station or server, you simply use the off-site backup and check the original.

Deletion or rescan detection – The scan station operator has a couple minutes to accept an image quality or to rescan/correct errors. Once a document is accepted, it moves automatically to the server. Any subsequent deletion or rescan of a

page a) requires that the user has scan station operator privilege, b) creates an entry in the deletion log (including the user name and time), c) does not remove the off-site copy of the image.

Markup – If you elect to use the optional image mark-up tools, the original image is kept distinct from the mark-ups. With the required permissions, you can always view the original image. Installations that do not need mark-up capability do not have mark-up tools installed.

VI. SUMMARY

Acordex's imaging systems are distinguished from mass marketed imaging systems by the attention paid to legal requirements. Most of Acordex customers manage documents that carry legal or regulatory importance. By designing with these considerations in mind, operation an Acordex system does not pose any extra burden on the user. Acordex systems remain highly automated and efficient while carefully managing an accurate, reliable and trustworthy image archive. □

For more information, contact Kenneth Rohr at Acordex Imaging Systems (978-975-8000), a product development and system integration company specializing in high performance document management systems. <http://acordex.com>

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