

# Imaging Systems Studies

## Manual vs. Automated Approaches to Managing Document Discovery in Major Litigation **A Cost and Benefit Comparison**

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Automated Litigation Support, or ALS, has been available for over 30 years. ALS systems started as searchable computerized indexes to Bates numbered documents. Soon these indexes expanded to include objective information (such as date, title and names) found on the document. In recent years, document records have been supplemented with actual digital images of the original hard copies and, in some cases, the full text of the document. Today, e-mails and other office suite documents produced electronically are also incorporated into ALS.

In a fully functional ALS database, document records are updated with production history, exhibit information, the document's relationship to issues or facts and legal comments made during the entire course of the litigation. Thus, for the litigation team, the ALS database becomes a comprehensive and dynamic repository of knowledge about the litigation and the evidence.

While ALS databases are commonly used for large, complex and document-intensive matters, legal teams do not universally utilize them. Reasons for this include confusion about their cost, impacts on law firm revenue and the comfort level of some law firms with automation.

### **The Manual Approach**

When a law firm does not fully automate a large collection of documents for a major litigation, what do they do? In some cases they pile the boxes in a corner and hope that they never have to open them. But if there is no early settlement and they do have to open them, there are some fairly common practices that are followed. These include numbering the originals – or a copy, if the originals cannot be numbered. Paralegals and associates then begin creating summaries of the documents that they input into either a word processing or spreadsheet file. The thought is that this gives the litigation team first hand familiarity with the evidence and the documents never leave their hands.

Depending on the content and format of these summaries, they may be searched through and possibly sorted. It is not unusual for a second numbered hard copy to be sorted in strictly chronological order to begin creating a timeline of events. Other copies might be made to create subject files.

As the case proceeds and documents are produced, listings of the documents produced might be kept. In some cases a complete hard copy set of the documents produced, clearly identifying redactions and claims of privilege and confidentiality are made and also retained. If there is only one wave of production this might be a workable solution.

If the collection pertains to multiple cases in pattern litigation, this semi-automated approach soon becomes extremely costly to maintain and cumbersome to use.

As interrogatories are answered and pleadings are prepared, the summaries are reviewed and documents are pulled to prepare responses and to support contentions. As the litigation moves into depositions, witness kits must be prepared and there are more "pulls." If the matter goes to trial, these are supplemented with issue kits.

If time is not of the essence, this approach can work reasonably well. If the core group of relevant evidence is small and easy to identify, it might be an efficient way to proceed. But if the highly relevant evidence population is large, the witnesses many, and knowledge of the facts and issues ambiguous, then a semi-automated or manual approach is a high-risk solution to the evidence management problem. Today, few would say that it conforms to best practices in managing documents in large and complex litigation.

To understand the similarities and differences between manual methodology and standard automated litigation support practices, let's look briefly at the processes involved in acquiring and organizing a collection of 350,000 pages comprising 100,000 documents in a major litigation.

### **Acquiring and Organizing the Evidence for Major Litigation**

When a situation moves into litigation, there is a need to identify the sources of relevant evidence, secure that evidence and acquire it. Until the advent of electronic evidence and electronic discovery, the approach used to plan for and assemble the evidence was similar. This included the need to:

- Identify custodians of relevant and responsive documentary evidence
- Alert custodians to the need to preserve the evidence for the duration of the litigation
- Plan, negotiate and coordinate with custodians for acquiring evidence - from all parties
- Perform a preliminary review of the evidence to insure that the bulk of what was collected was both relevant and responsive to the discovery requests and/or the points in the complaint. (This review is a joint responsibility of custodians of the records and the litigation team)
- Collect the evidence - whether hard copy or in electronic form
- Impose some inventory control and document management methodology on the body of evidence

These steps or some variation thereof, take place whether the evidence will be managed "manually" or input into a fully functional ALS.

## Subsequent Processing

Once evidence is identified and collected, the methods used to organize it for use during the course of the litigation begin to diverge. A planning process is essential for an effective solution in either case.

- **Manual Approach** – frequently done by law firm personnel: <sup>i</sup>
  - Plan for the organization and use of the collected evidence
  - Bates number original documents and/or create a hard copy if the originals cannot be numbered (in some cases the boxes and/or the folders may only be numbered)
  - Make one or more working hard copies for 1) a production set, or to 2) create a chronological set, or 3) create files by subject, issues and witnesses
  - Summarize the document set by using 3 X 5 cards, word processing software or a spread sheet software (if 3 x 5 cards are used, multiple cards are made for various sort sequences – instead of making multiple hard copies of the documents to file in like order)
  - Keep a list of documents produced – if they are numbered, if not numbered or if they are redacted – make a second copy of the production subset
  
- **Automated Approach** – some work done by an ALS vendor:
  - Work with case attorneys and ALS consultant/vendor in planning, designing and implementation an ALS system
  - Log and ship documents and electronic evidence to vendor
  - Vendor scans the hard copy documents as TIFF images and associates source, folder and attachment data as needed. Unique image/page numbers are associated with each individual image. All image processes are tightly quality controlled
    - Bates numbering of originals prior to imaging remains an option
    - OCR conversion of the TIFF image to capture the full text for use in ALS is also an option
    - Conversion of electronic files to TIFF images is also an option
  - Vendor completes full bibliographic coding of converted document images including logical document boundary and logical attachment ranges, date, document type, characteristics, title, authors, addresses, and copies. Source data captured at scan time is integrated with the coded document record. Data coded is quality reviewed, reconciled with the image files and sent to the client to load into the in-house ALS software. Original documents are returned to the client or destroyed
    - Capturing names mentioned in text, keywords and other specialized information are an option
    - Repository support and librarian services via Internet or traditional telecommunications are an option
  - Client litigation manager, paralegal or MIS manager receives shipments of imaged and coded data and processed electronic files from the ALS vendor and loads these into the in-house ALS software and reviews the data for conformity to specifications. Original documents are returned

and/or stored. The ALS data base record structure includes fields defined for future use during the course of the litigation including, Legal Status, Production History, Exhibit History, and Attorney Comments. These fields are empty at the time the basic bibliographic records are initially loaded to the ALS. This mission critical data is added to the ALS during the course of the case – permitting the ALS to function as a knowledge management system to the content and use of all evidence during the course of the litigation

- As an option, the paralegal staff uses the ALS system to add indications of relevance, responsiveness, assign legal issues codes and other comments to the document records. All of this information, as well as the bibliographic data captured by the ALS vendor, is available for use in the search for and retrieval of the documentary evidence

### **Using the Evidence Collections - Manual vs. Automated Approaches**

Once the evidence is collected and organized, whether as numbered hard copies with a word processing folder level index, or in a fully functional ALS, it will be used in a variety of ways during the course of the litigation.

These uses include:

- Responding to interrogatories and document discovery requests
- Verifying the facts in the case
- Testing and supporting legal theories and claims with evidence
- Creating witness binders
- Creating issue binders

**Responding to interrogatories and document discovery requests** - the number of discovery requests and interrogatories that must be responded to vary by case. If the ALS is created prior to producing documents, it can be used to pinpoint the evidence that is relevant and/or responsive to the discovery requests based on the detail in the complaint. It can also be used to track what evidence was produced, when it was produced, and why it was withheld if this was done.

In a corporate legal department, evidence collection may be responsive and relevant to a large group of “pattern” litigation. In this case, an ALS system will allow the legal department to respond consistently to like queries and document requests simply – if information on past production history and/or response to interrogatories is incorporated in it.

**Litigates’ Miscellaneous Queries and Pulls** - to verify the facts, establish the chronology of events, identify the issues, establish the client’s position, refute the opposition’s claims. For a very large manual collection that is not indexed, the cost may be 100 times or more over an automated system. An ALS system can also be used to verify what is not present in the evidence with great certainty.

**Creating Witness Kits and Issue Kits** – the indexed database of the ALS system allows for swift searching, sorting and tagging of documents. The timesaving benefit of a database for these tasks depends on the size of the evidence collection.

## ESTIMATED COSTS TO CREATE

### Assumptions

- **350,000 relevant pages or 100,000 documents**
- **Document acquisition from all parties and first pass reviews are completed. Costs for these tasks are not included in the estimate for either approach.**

### Manual Approach

Establish design and procedure (attorneys and paralegals)		\$ 6,000
Bates Number Originals	@ \$ .06/pg	\$ 21,000
Create <b>two</b> copies of the Documents Copy One as a Working Copy Copy Two as a Production Copy Assumes some “glass” work to copy	@ \$ .18/pg	\$ 126,000
Establish Hard Copy Archive (storage space, shelves/ cabinets, clerical) 100 sq. ft. x \$30 = \$3000/yr x 36 months =	@ \$ 30/SqFt	\$ 9,000
Create Case Chronology by summarizing documents and entering info into WP or put on 3' x 5' cards. (Cost to client using paralegals @ \$90/hr.summarizing 15 documents per hour) <sup>1</sup>	@ \$ 6/doc	\$ 600,000
<b>Creation Costs Using a Manual System / Approach</b>		<b>\$ 762,000</b>

<sup>1</sup> Cost to law firm assuming a benefit weighted

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### Automated Approach

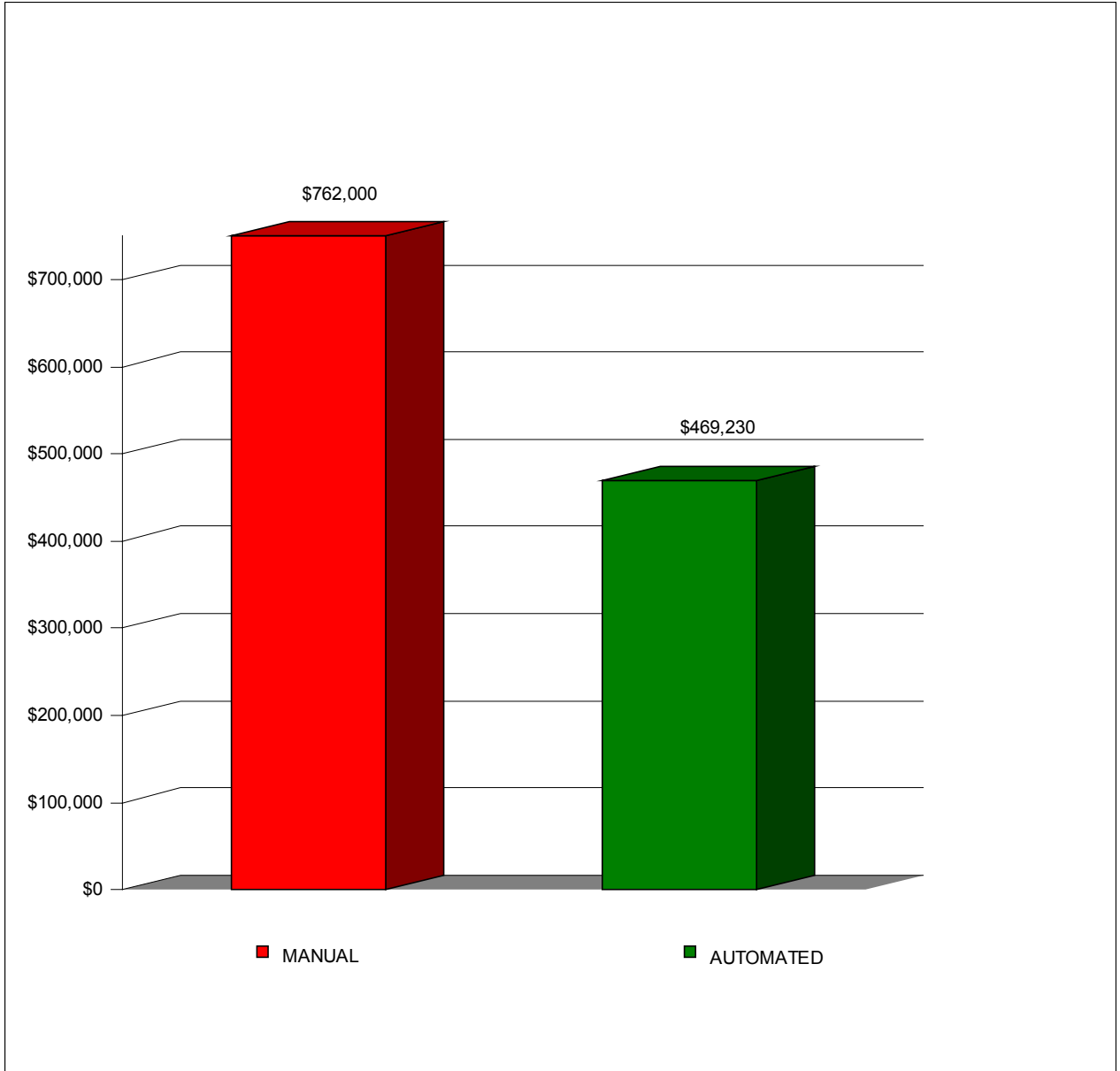
Planning Meeting & Documentation - Vendor Charge	(excluding travel)	\$ 3,000
Paralegals, Attorneys and Litigation Manager Costs		
<ul style="list-style-type: none"> <li>• Pre-planning w/ litigation team to review docs, identify key doc types, characteristics, and unitization. Est. @ 25 hours</li> </ul>	@ \$ 90/hr	\$ 2,250
<ul style="list-style-type: none"> <li>• Design meeting w/ vendor est. @ 4 hours</li> </ul>	@ \$ 90/hr	\$ 360
<ul style="list-style-type: none"> <li>• Review vendor processing manual, contract, sample docs, &amp; test batch est. @ 16 hours</li> </ul>	@ \$ 90/hr	\$ 1,440
<ul style="list-style-type: none"> <li>• Screen and inventory documents shipped to vendor. Est. @ 40 hours (20 min. per box x 120 boxes)</li> </ul>	@ \$ 90/hr	\$ 3,600
Vendor scanning of working files		
<ul style="list-style-type: none"> <li>• prep/reassembly, capture folder boundaries &amp; label</li> </ul>	@ \$ .24/pg	\$ 84,000
75% of pages copied for production set	@ \$ .11/pg	\$ 28,875
Two sets of CD's.		
<ul style="list-style-type: none"> <li>• Est. @ 30 original CD's</li> </ul>	@ \$ 75 per CD	\$ 2,250
<ul style="list-style-type: none"> <li>• Est. @ 30 copy CD's</li> </ul>	@ \$ 50 per CD	\$ 1,500
Full bibliographical coding of documents		
<ul style="list-style-type: none"> <li>• by vendor with in-text names and verbatim titles</li> </ul>	@ \$ .49/pg	\$ 171,500
Box shipping cost. Est. @ 120 boxes	@ \$ 14 per box	\$ 1,680
Box storage cost at lawfirm		
<ul style="list-style-type: none"> <li>• Est. @ 3 years for 120 boxes</li> </ul>	@ \$ 1.50/month	\$ 6,480
<ul style="list-style-type: none"> <li>• Initiation and access fees</li> </ul>		\$ 1,000
Load files and maintain database at lawfirm:		
<ul style="list-style-type: none"> <li>• Est. 5 loads at 2.0 hours per load and 1.5 hour per month for 36 months = 64 hours</li> <li>• In-house hardware/software for ALS in place<sup>2</sup></li> </ul>	@ \$ 90/hr	\$ 5,760
Assign issues & attorney notes at lawfirm: Est for 1/3 of population -1,245 hrs of Associate time	@ \$ 125/hr	\$ 155,555
<b>Creation Costs</b>		
<b>Using an ALS Approach (Bibliographic coding)</b>		<b>\$ 469,230</b>

<sup>2</sup> The hardware and software for an ALS were once a significant cost in implementing an automated approach to litigation document management. Today the networked workstations on most legal professional desktops that are running MS Office Suite are able to run the most commonly used image enabled litigation support software, i.e. Concordance and Summation. The cost for a single standalone version of Concordance/Opticon is \$1,590. The cost for a 10-node user pack is \$6,400.

If in-house technical support is an issue, full service ALS vendors are now offering Internet based repository services. For a collection of 100,000 documents made up of 350,000 images, assume a start up fee of \$2,000, monthly storage of \$1,600 and a user fee of \$100 per month. This totals \$2,100 per month or \$27,200 for the first year and \$25,200 for each subsequent year.

# COST TO CREATE Inventory Indexing

## Manual vs. Automated Approach



**Savings : \$ 292,770**

## COSTS TO USE

### Assumptions

- 40 witness kits
- 35 issue kits
- 3 miscellaneous document retrievals per week for 3 years

### Manual Approach

- Using summaries and bates numbered hard copies

<b>Create 40 Witness Kits</b> \$ 90/hr x 8 hours = \$ 720 each witness \$ 720 x 40 witnesses	Manual Cost = \$ 28,800
<b>Create 35 Issue Kits</b> \$ 90/hr x 7 hours = \$ 630 each issue \$ 630 x 35 issues	Manual Cost = \$ 22,050
<b>Miscellaneous Document Pulls</b> (assume 3 per week over 3 years = 300 pulls) 2 hours each x 300 pulls = 600 hours \$ 90/hr x 600 hrs	Manual Cost = \$ 54,000
<b>Three Task Total</b>	<b>\$ 104,850</b>

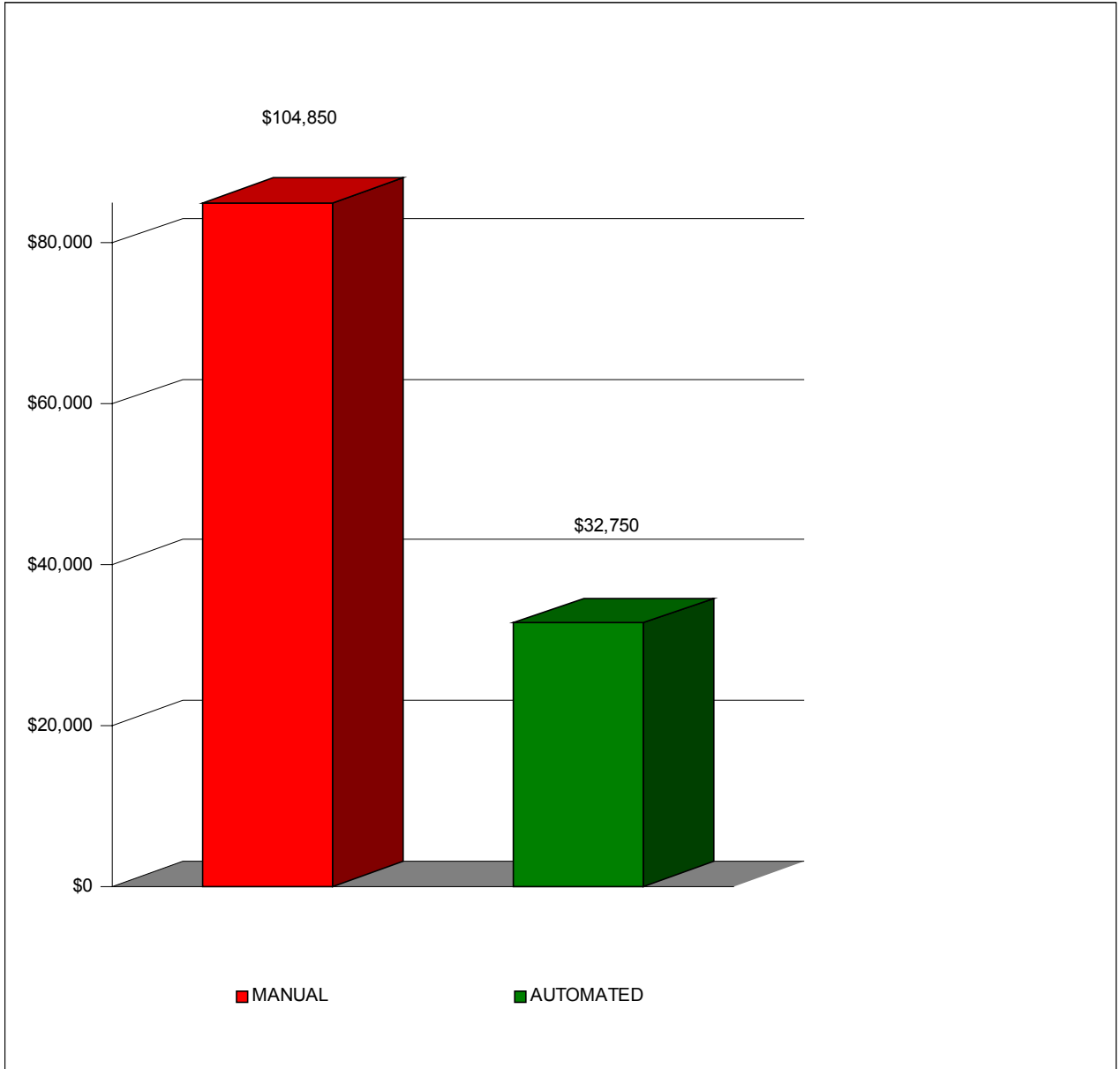
### Automated Approach

- Using the image enabled ALS

<b>Create 40 Witness Kits</b> \$ 90/hr x 3 hours = \$ 270 each witness \$ 270 x 40 witnesses	ALS Cost = \$ 10,800
<b>Create 35 Issue Kits</b> \$ 90/hr x 3 hours = \$ 270 hours each issue \$ 270 x 35 issues	ALS Cost = \$ 9,450
<b>Miscellaneous Document Pulls</b> (assume 3 per week for 3 years = 300 pulls) .5 hours each x 300 pulls = 150 hours \$ 90/hr x 150 hours	ALS Cost = \$ 13,500
<b>Three Task Total</b>	<b>\$ 32,750</b>

**COST TO USE**  
**Document Management**

**Manual vs. Automated Approach**



**Cost Savings: \$ 72,100**

## **Conclusions**

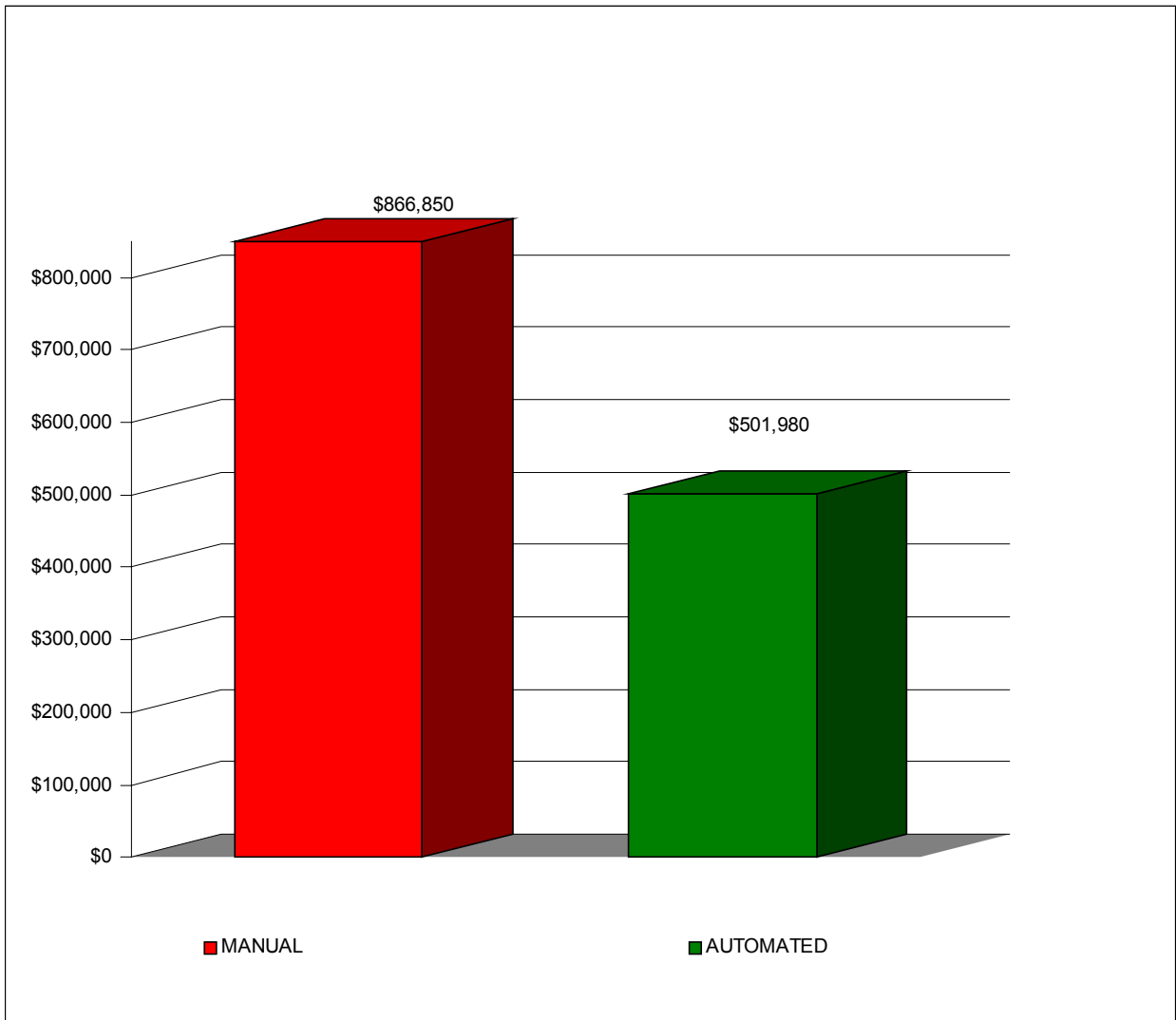
Today most major law firms and corporate general counsel offices have networked computer workstations. Paralegals and attorneys who manage document discovery activities can easily access a networked ALS database or access a secure Internet database repository hosted by a third party. Shared individual and departmental printers can be strategically placed to allow for ad hoc printing of individual documents or the printing of large collections.

If the discovery document population involves similar levels of organizational work and subjective indexing, the cost to create an automated document management system is less. An automated approach can be even more cost effective if the document scanning and bibliographic coding effort are done by a professional outside ALS vendor, with the law firm personnel focusing on the content and subjective legal analysis of the evidence.

The major cost savings and benefits of an ALS system come in long term and frequent use of the database. As a management tool, the automated system is more powerful and flexible. It provides capabilities such as tracking and control and complex searching and retrieval that a manual approach does not provide.

If the scope of the liability and the amount of discovery evidence is such that it requires organizational effort and indexing to absorb and control, then use of an automated approach to litigation support is justified. The earlier in the litigation the ALS approach is implemented the more it will be used and hence the greater the benefits and cost savings.

## Total Expense – Manual vs. Automated



**Cost Savings: \$ 364,870**

# Price Waterhouse

## PAPER CHASE CAN END WITH DOCUMENT SOFTWARE

By KAREN POPE

If you feel as if you're drowning in a sea of paper, you're probably right.

Businesses are using faxes and high-quality copiers to produce and distribute more paper documents than ever before.

And there's no end in sight. According to GartnerGroup, a Stamford, Conn., research center, the volume of print output will rise 2 percent to 15 percent in each of the next five years.

But technology is throwing the office worker a lifesaver. It's called document management, a hardware-software combo designed to tame unwieldy files, improve work flow and save space.

Paper-intensive offices such as the Portage-Base Lakes Area Water and Sewer Authority in Washtenaw County, the Library Cooperative of Macomb, the Oakland County Friend of the Court and many law firms, among others, are using document imaging and management and singing its praises.

Imaging uses a scanner to store "snapshots" of documents. Work-flow software then sorts the documents into files and moves them from one "in" basket to the next.

This technology can do for the office worker what personal-computer-programmed manufacturing did for the factory worker, said Rob Hillman, a Xerox Corp. solutions-support manager in metro Detroit.

Xerox sells its document-management system primarily to large businesses. Smaller companies that can't afford it can contract for the service through Xerox's business-services branch, said sales representative Cynthia Fowler.

Evergreen Imaging Services in Brighton offers its document-management technology to small and midsize companies. Founded by three court reporters - Pat Murray, Roger Thome and Pam Mocerri - the company is particularly sensitive to the needs of lawyers. For instance, legal documents must be burned permanently into a disk to ensure their integrity. Other businesses can save documents on interactive, erasable disks.

One optical disk is the equivalent of a four-drawer file cabinet, Evergreen officials said.

When the Oakland County Friend of the Court put its 70,000 active files on disk, it gained 2,000 square feet of floor office space and replaced 26 part-time file clerks with three scanning machines and three people to operate them.

Although saving space is important, fans of document management put more emphasis on the system's efficiency and thoroughness when compared with traditional filing.

In a recent study by Price Waterhouse, several paralegals were asked to search through 10,000 documents to find specific documents by one author, written within one time frame on one topic.

It took them 67 hours to find 15 documents. The same search using document-management technology found 20 documents in 41-2 seconds.

Government agencies, courts and law offices are leaders in the move to the paperless office.

But the technology isn't just for big companies. Randy Musbach, who works in a two-attorney law office in Chelsea, said document management makes it easier to compete with bigger firms. Musbach routinely has Evergreen Imaging scan in his documents.

When he's preparing for trial, he develops a "trial book" that plots his courtroom presentation. When Musbach's presentation includes a document, he pastes a bar code on the page. Running a light pen across the code pops the document onto video screens for the judge, the witness, the jurors and opposing attorneys to see.

"It's true a picture is worth a thousand words," Musbach said, "but timing is the real factor. The information is immediately in front of the court.

"Lawyers who don't know how to use this technology are going to be left behind."

Jim Eidelman, an Ann Arbor lawyer turned technology consultant, said work flow is the exciting aspect of document management, and the Social Security Administration is a good example.

In a disability case, the claimant begins the process by filling out forms. But supporting documents are also needed. With document management, an electronic file is opened and the initial questionnaire scanned in; and as additional information comes in, it's automatically routed to the file.

Is document management the perfect antidote to the paper-shuffle blues? It could be, but it's also expensive. Harry Martin, the Livingston County representative for Canon dealership Hasselbring Clark in Lansing, said his document-management systems start at \$20,000. Xerox systems range from \$50,000 to \$250,000, according to the Detroit sales office.

"If I go into a five-file-cabinet office where they add a file cabinet a year, they don't want to buy equipment," Martin said. "Instead, I suggest they rent the equipment for a month each year, scan in the contents of the year's files during the month and do the work that way."