BASIC PRINCIPLES OF AUTOMATED LITIGATION SUPPORT
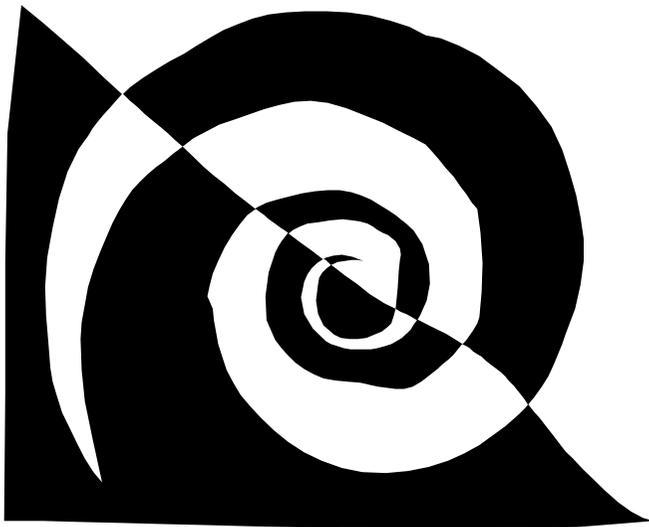

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INTRODUCTION

Definitions of automated litigation support (ALS) are almost as plentiful as the number of ALS products and include everything from simple word processing indices of exhibits to multimedia presentation systems. For years, law firms and litigation teams maintained databases with multiple personnel manually indexing, copying, and cross-referencing data.

Now, however, the computer allows litigators to maintain electronic files of documents which can organize, index, search and retrieve data much faster than even the most efficiently organized manual system. ALS software is a necessity in the modern law firm because it saves time, saves money, provides better information and is appropriate for ALL case types and sizes.

Software for full-text search and retrieval can be used at all stages of litigation, from screening the initial production of documents to finding those that are relevant, to tracking deposition exhibits and preparing for document productions.

Think of a database as an electronic box of index cards where each "card" has information about one document under an assortment of headings or tags such as case name, document type, document date, author and so on. Attorneys can use the indexed text and the database separately or together, depending on their needs.

For example, if a name search does not locate a specific letter but the attorney believes it exists, he or she may enter a date range, specify "letter" as the document type in the database, and click "OK." All the letters for that date range will appear and reveal that the name search had not worked because the name being used in the search was misspelled.

Imaging is often used in an integration scheme of some sort, although newer ALS programs often include imaging as one feature. Imaging technology is used extensively in the trial phase of a case because trial presentation systems often incorporate images of documents.

Two of the most common uses of ALS are preparing for a deposition and preparing for trial. A good ALS system will also utilize a trial presentation application to make the most effective visual presentation of evidence.

Integration of these various ALS tools is, then, an absolutely essential part of an effective litigation strategy. But to be effective, that strategy must be well grounded in the concepts underlying the various software components. This document is designed to help you better understand those concepts and devise the best way to utilize them in your practice.

CHAPTER ONE: WHAT IS ALS?

[A] Definitions

In one sense, any computerized function performed by a law firm fits the definition of ALS. Writing a letter or sending an email to a client, assembling a document with a word processor, using calendaring or scheduling software, performing on-line research: all support clients and their ongoing litigation.

But most typically, ALS refers to litigation specific software and ALS is then narrowly defined as computerized management of evidentiary data and case material. The core of most litigation involves discovering and analyzing facts contained in documentary evidence and testimony. It follows, then, that ALS consists of screening, analyzing, indexing, and summarizing data, which are then entered into a computer program or programs to permit retrieval of meaningful information in preparation for discovery or trial. Often, the main concern is controlling an enormous volume of substantive information.

My definition is that any ALS system consists of three core components or features: full-text indexing and searching capability, a database and an imaging feature. These may be contained in one program or in separate applications but a good ALS system will easily integrate all three and provide a comprehensive method for controlling information.

[B] Components

[1] Full-Text Search and Retrieval Software

Software to perform full-text searches is a necessary component of a system for controlling a case's factual and legal information. Properly used, it can provide immediate access to transcripts of depositions and hearings for analysis of the factual and legal information, witnesses, and issues of a case, as well as direct links to images of documents.

[a] Definitions

Full-text documents have the complete or "full text" format of the document stored in a computer file. Full-text software programs are search and retrieval systems that enable the user to search for any word in a "full text" format and then go to that exact location. For example, if you are searching for the term "fraud" in a deposition, the software will locate the first occurrence of the word, and then automatically jump to each subsequent occurrence with a keystroke or mouse click.

Examples of full-text documents include transcripts of depositions, hearings and trials as well as e-mail messages. Any word processing document such as a pleading, witness statement or expert witness report is also considered a full-text document. These documents can be moved directly into the full-text software from a word processor, or scanned into the system with optical character recognition (OCR) software. They are often available electronically on disk or CD-ROM from the court reporter or a service bureau.

Many full-text programs also allow the addition of personalized notes to the text. Subsequent searches can then be based on both the text and the user's notes. This ability to add notes, issue codes, or cross-reference is particularly helpful for trial preparation. These enhancements do not, however, become part of the full text, and subsequent reports can either include or exclude them.

[b] Key Full-Text Search Terms

The following is a list of full-text search terms. For a more extensive list, see the Glossary of ALS Terms at Appendix 2.

- **Adaptive pattern recognition.** The system indexes every letter on every page. When a search is conducted the system conducts the search based on discrete patterns in the text.

● **Associative retrieval.** When certain terms appear frequently in the vicinity of the terms you are searching for, these associative words may provide clues for further searching.

● **Boolean searches**. A search for information using "AND," "OR" and "NOT" commands, such as "Tom but not O'Connor" or "bankruptcy and trustee."

● **Combined word search**. A word search that combines synonym, proximity, and/or Boolean searches.

● **Conceptual, thesaurus, or related searching.** Searching that provides other words that are similar or are close in meaning to the primary word. Sometimes called synonym searching.

● **Fuzzy searching**. Locating words that closely match the spelling of the primary word.

● **Natural language** or non-Boolean retrieval. Using ordinary language instead of using "and/or" connectors in search requests. The computer automatically converts the words into algorithms.

● **Optical character recognition (OCR).** Software that, in conjunction with a scanner, has the capability to "recognize" written text and convert it to an ASCII file, or import it into a word processor so that one of the full-text searches may be performed.

● **Phrase search**. The search phrase "Massachusetts Mutual" would locate text where the words are side by side.

- **Proximity search.** Retrieves a word only when it occurs within a
specific number of lines or words of another word.

- **Sound-alikes.** A method whereby the computer will take a word and produce a list of words that "sound" similar, and can themselves be searched.

- **Similar document searching**. A search that finds all documents that are similar to the primary document.

- **Topical searching.** Enables the user to search documents by topics and sub-topics relevant to a case.

- **Weighted relevance searching.** Sorting and retrieving documents according to a statistical "weight" given by the use of a mathematical relevancy evaluation program.

- **Wildcard search.** The wildcard symbol (*) can be used with any other search to retrieve different variations of the same word, e.g., "insur*" for insurance or insured

[c] Searching

The computer simplifies the task of tracking the information contained in documents prepared for, or emerging from, discovery or trial, and assists with the preparation of graphs, charts, tables, and spreadsheets for later use during discovery and trial. Computerized management of information allows the attorney to sift through voluminous transcripts or evidentiary documents instantly to do the following:

- Screen documents produced in discovery to find those responsive to particular request that are confidential or privileged,

- Develop case chronologies and time lines for use in depositions or trial preparation,

- Prepare witnesses for deposition or trial by identifying all documents that relate to that witness, or that may be helpful in refreshing a witness's recollection,

- Provide consistent answers to interrogatories,

- Track deposition and trial transcripts,

- Track key issues, individuals, or transactions,

- Electronically annotate deposition or trial transcripts for key issues or pinpoint dangerous testimony,

- Compare testimony in deposition transcripts for impeachment purposes,

- Organize all favorable and unfavorable admissions,

- Organize material for motions,

- Locate all references to a specific item or person,

- Identify and sort testimony by issue, and

- Sort material in chronological order.

The search techniques employed by the software will be of utmost importance, since no information is useful unless it can be found and is in a manageable format. A variety of word searches are available, similar in scope to those used in Lexis or Westlaw. Synonym searches, proximity searches, phrase searches, wildcard searches, even natural language and voice integration, may be available from a specific product.

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[d] Reports

The additional value of full-text search programs lies in the reports they can generate. Report writers that condense and simplify the huge volume of data found in full-text documents will save a law firm hours of manual summarization. The traditional summarization methods with a full-text program include the following:

- **Page-line summary**---summarization of a deposition by page and line number.

- **Topical index summary**---a brief overview of a deposition by issue code or topic.

- **Issue category summary**---a complete report of each topic (issue code) and any note associated with it (perhaps the most valuable summarization method available).

In my opinion, a good report generator would include the ability to produce not only these "traditional" summaries but also the following features:

- **Alphanumeric reports**---reports of enhancements, followed by a list of the document locations in which they occur.

- **Date summary**---a report of enhancements in a chronological format.

- **Digest**---a portion of text from within a document included in the report.

- **Line limit**---sets the number of lines of text included before and after a word to be displayed in the report.

- **Occurrences**---a display of all the results of a search request.

- **Vocabulary listing**---a complete or partial list of any words contained within a document or case file.

[2] Databases

[a] Definitions

There is no agreement on what an ALS database is. The dictionary definition is a "collection of data arranged for ease and speed of retrieval, usually by a computer." Most users, when asked for a definition, will refer to a database program, such as Access or dBase, which allows them to construct some sort of electronic profile card in order to index documents by key fields such as date, author, document type, or Bates number.

A more restrictive definition of a database is any structured collection of information, such as a telephone directory, address book, catalog, or even a simple list of documents in alphabetical order.

Many vendors include indices of textual searches in their definitions of a database, and some even coin original terms, such as the Folio "infobases." Salespeople often take the approach that "whatever my product does is a database".

Finally, many attorneys and support personnel use the generic phrase "my database" when referring to all their automated material, including full-text files, research material, even videotapes of depositions. It is important to stop and analyze exactly how "database" is used in the current context.

I define an ALS database as a data compilation which contains fields of information specific to the case or matter being handled by the firm. This information should be structured in a way that allows easy searching, sorting and editing of all the fields. The major advantage of a database is this ability to shuffle around, or sort, stored information by various criteria so that a list of documents can be retrieved by author, document type, date, or any other field, as needed.

Although it is not necessary for attorneys to understand the technical components of database structure, a grasp of the key terms of database construction is important when learning how to use a database for search-and-retrieval purposes, especially when an outside vendor is used to perform document coding

[b] Key Database Terms

There is often a great deal of confusion concerning the terms used in litigation support, especially for new users. Following is a short list of definitions for the most common words and phrases used in working with databases. An expanded Glossary of ALS Terms can be found at Appendix 2.

● **Record** ---An individual entry within the database created by filling out the data entry form. This can be a standard litigation form provided by the software company or a customized form created for a specific case.

● **Field** ---The parts or segments of each record. In the phone book, for example, Name, Address, and Telephone Number are the individual fields.

● **Column** ---Databases organize all data into columns by field type, so there is one column in the database for each field or information of one type, such as name, date, or document number. This feature is important for purposes of generating reports.

● **Row** ---Databases also organize information by rows. There is one row for each individual document record.

● **Table** --- A table is essentially a "file folder" within a database where information about the case is kept. Each form for database entry is linked to a table, as are individual information sources, such as lookup tables (lists of names or issues used to cut down on typographical errors when entering data) and validation tables (used to specify how fields are used during data entry).

The above terms can be confusing when beginning to use a database. It helps to remember that each database is made up of fields which represent columns each designed to represent one particular type of information such as date, name, document number, etc. When information is entered into the form and saved, each field entry is stored in individual rows within that field. All the field entries are controlled by underlying tables that are linked to the form.

[c] Coding

A typical legal database contains abstracts or "records" of documents or other evidence in a particular case. The advantage to this sort of information gathering is that it allows for an extremely fast search through an enormous number of records that otherwise would require hours of manual searching through boxes or binders of documents. The phrase "coding" is the generic term used to describe the actual entry of data into the records of a database.

[i] Objective Coding

In preparing a database, a decision must be made about how to track information. The simplest, quickest, and most cost-efficient way is to record basic information that can easily be determined by reviewing either a paper or electronic copy of a document. This method, which is called "objective coding," captures the most basic bibliographic data contained in a document, such as author, date, document type, and document number. It allows document coders, including those not familiar with the details of the case, to build a database quickly by entering the information while they are actually looking at the documents.

[ii] Subjective Coding

A more detailed analysis of the information in a document, designed to capture key facts and issues, can be done in a later, second review of the document. This approach, called "subjective coding," requires an understanding of the actual content of the document being reviewed and is better left to staff members who are familiar with the case and its issues.

[iii] AutoCoding

With the advent of documents that are created electronically in a word processing system, an electronic alternative to looking at a copy of the document and manually coding information has arisen. Called "autocoding", this is a new type of software which will process the electronic documents, extract specific words or dates and enter them automatically into a database. Still in its infancy, this new process is becoming increasingly accurate.

As an alternative to coding, some of these software applications are programmed to look for relationships between words and phrases, such as how often words appear within the same paragraph as other words, and the produce statistical or even graphical reports showing such relationships. (for example, a report showing the words "Steinbrenner" and "Yankees" occurring repeatedly within a series of documents could reasonably be deduced as dealing with the subject of baseball.)

[iv] Coding In House vs Outsourcing

A number of national and regional firms exist which perform document coding services on behalf of law firms. Many of them will perform only objective coding and prefer to defer to subjective coding to law firm paralegals or associates. Whether a firm should attempt any type of coding internally depends on several factors, including the time frame within which the database is needed, the case budget, and the specific purpose of the database.

Throughout the nineties most litigation consultants felt that document coding projects larger than 100,000 pages could be more efficiently completed, at less cost per page, by outside vendors. Increased efficiencies, price competition and the ability to provide a single, combined price per page for both coding and imaging have dropped that number in recent years to under 20,000 pages.

There are several other factors to consider in making the decision to outsource:

- Has the staff ever done coding work? If not, do not try to learn on your first attempt. It is not easy, and mistakes will be disastrous, not only for the case, but for your reputation.

- Does the firm have the tools to do in-house coding? Space and equipment adequate for additional clerical staff, will be needed.

- Does the firm have the time? Coding jobs need full-time supervision by legal professionals. In the absence of proper supervision, problems will occur and multiply rapidly.

- How soon is the database needed?

- What is the budget for the case?

If the decision is to code in-house, don't skimp on equipment and, whatever else the firm economizes on, don't minimize the need for constant quality control. Document coding is a tedious task at best and mistakes are the rule, not the exception. Constant monitoring of input, spot-checking of entries, and review of information already entered are essential to achieve an accurate database, and an accurate database is an essential resource for litigating a case.

Also keep in mind that there are no legal-specific, database-only programs currently available. Most vendors use Access or a customized version of their own database to enter data.

The best solution for legal users is to purchase an integrated litigation support program, such as Summation or Concordance and use only the database component. Many firms purchase such products to use only one component or the other, realizing that they may have a future use for the entire application, and will be able to implement full usage very quickly if they are already familiar with the basic operation of the program.

The next best solution is to buy a standard, non-legal database and customize it for use in the firm. This option assumes that there is an IS department or a computer-literate attorney or paralegal who is able to perform this task. Assuming that is the case, the firm might consider purchasing Microsoft Access, which is easy to set up (and includes the use of an excellent instructional module called Wizards that will walk the user through the set-up of a database), easy to use, and has the advantage of being a Windows program, which allows easy integration with other components of an ALS system. Indeed, most surveys of legal technology usage show Access to be the third most popular choice of large firm litigation departments.

[3] Imaging

[a] Definitions

Document imaging is an internal function of many database and full-text search programs and also exists as a separate application which can integrate with these programs. These latter products are often sold directly to vendors known as "service bureaus" who scan the documents and then provide the electronic images to their law firm clients with accompanying image viewers and the necessary computer instruction set (called a "load file") to accomplish that integration.

[i] Scanning

The term "scanning" (sometimes referred to as "imaging")can itself cause some confusion because experienced users of imaging technology use it to refer only to the process of feeding paper through a scanner, while new users often use it to refer to OCR, or optical character recognition. Actually, OCR is just one possible use of imaging and is discussed in greater detail below.

[ii] Images

The scanning process creates a sequentially numbered set of electronic images. These images are, in effect, electronic pictures of the documents and cannot themselves be searched. The most common image formats are TIFF (Tagged Image File Format) an open source standard commonly used by most service bureaus and PDF (Portable Document Format) a proprietary format from the Adobe Corporation which has become the de facto standard for e-filing in the Federal courts.

[iii] CD-ROM

The most common method of delivering these images is to literally burn them onto a compact disc (CD) using laser technology in a special recording unit, called a compact disc recorder (CDR), These CD's, similar to music CDs but using a slightly different technology, can store up to 600 megabytes of data, or approximately 15,000 pages of textual material. Once on the disc, the data can be viewed, but not edited or altered, and thus the acronym CD-ROM for "compact disc read only memory."

Law firms doing scanning internally most commonly save the images directly to a network drive and burn CD's of selected images as needed. In cases involving unusually large amounts of documents, both service bureaus and law firms commonly use portable hard drives instead of CD's to transfer the images.

[iv] Viewers

Users can easily retrieve documents from the CD-ROM disks using image viewer software. Adobe distributes a free image viewer for PDF while numerous viewers, both fee based and free, are available for TIFF. Some viewers allow only paging thru the document collection in a manner similar to microfilm while enhanced image viewers allow features such as categorization, redacting and note taking enhancements for the images.

Litigation image viewers often contain powerful redaction and markup tools that allow users to blank out entire sections of documents before printing, or place color highlights, arrows, or customized markups stamps (such as "CONFIDENTIAL" or "PRIVILEGED") directly on the images.

Additionally, specified areas of a document can be marked for OCR and copied to the clipboard for export into a database field. Also, some systems allow "foldering," the ability to group images based on subject matter or issue, or even let the user create witness kits from the images

With a viewer, the user will be able to page through the entire collection, read documents off the screen, or print blowbacks. This takes the place of physically searching for, retrieving, copying, and replacing paper documents. When a document is needed, the attorney has only to search for the document, push a predetermined keystroke command (hot key) and the electronic image corresponding to the document will automatically be retrieved from the database for viewing on the computer screen.

[v] OCR

The first method, full-text search and retrieval, involves optical character recognition, or OCR. An image is originally stored as a pattern of dots. The dots cannot be indexed or searched. OCR programs read the dot patterns and translate them into the letters the computer can understand.

These translations are stored separately from the image and can be saved as word processing files. The accuracy of a good OCR program is better than 90% and clear photocopies are often translated with fewer than three errors per page. Good imaging systems then index every word, and the OCR text is usually the primary method lawyers use to locate documents for display and study. Most systems now use fuzzy logic in their searches to find words that are misspelled or imperfectly OCR'd.

But even the best OCR is not perfect, and none can read handwritten notes, drawings, or diagrams. Also, most document populations have old copies or copies with marginalia that OCR engines simply cannot read.

Finally, most documents do not contain all the essential information about themselves, such as their source, and whether they are privileged or subject to a protective order. For all these reasons, you need another way to store information about the document: a database.

[b] Benefits

The advantages of digital images include:

- Greater file integrity (documents stored on CD-ROM stand less chance of being altered or destroyed than paper documents),

- More effective use of paralegal time,

- No lost or misfiled documents,

- Reduced document storage costs,

- Reduced photocopying costs,

- Network capability,

- Portability, and

- Faster, more accurate document retrieval.

So why do firms avoid imaging? Primarily because the belief prevails that imaging costs more than photocopying and thus requires a big case to be justifiable. Additionally, many attorneys think that imaging can only run on large networks and also requires them to purchase new equipment.

Is imaging really cost effective and easier to use? Yes, and the best way to show this is to use what I call the "small step" approach. Don't try to do a large case with hundreds of thousands of pages of documents, rather, use imaging where it is similar to the traditional method of handling documents and can deliver the most bang for the buck. Where is that? In the discovery phase, and if we examine the traditional methods of handling discovery documents, we can see why.

[c] Process

Before the advent of imaging, capturing discovery documents meant either photocopying or microfilming, and those two methods still prevail in many firms. The photocopy process is still the most common. Any attorney has who handled document-intensive litigation is familiar with the process:

> (1) Bates-number the initial photocopy set and set it aside. (Numbering, by the way, is still often done manually by paralegals, thus serving the dual purpose of wasting time and killing morale.)

> (2) Produce another photocopy set from the Bates-numbered originals.

> (3) Use the copied set as the ""working" set and immediately lose, misplace or misfile all the most important documents in that set.

> (4) Start to use the original documents and lose, misplace or misfile them.

Sound familiar? It should. Every firm has done it, and, at 12 cents per copy for each of the two sets and 5 to 7 cents for the numbering, every firm has lost money, as well as time and documents, doing it this way.

Eventually microfilm emerged as the more efficient method. Because it was comparable in cost to photocopying, documents could be automatically numbered as they were filmed, there was absolute file integrity (no document can be lost once it is on microfilm), paper copies could be easily and inexpensively produced, and microfilm was easily shipped between client and counsel or among co-counsel.

So, in order for imaging to be considered an efficient and cost-effective document retention method, it must, at a minimum, possess all the traits that made microfilming the preferred method. Also, just as with microfilm, the cost of imaging has to be comparable to that of photocopying in order to be an acceptable alternative. The good news is that imaging does meet all these standards.

In imaging, documents are not duplicated onto film or paper. Instead, they are fed through a scanner, which creates an electronic picture, or image, of each page. That image can then be displayed on a monitor or printed on a laser printer.

The imaging process, then, involves:

> (1) Feeding documents through a scanner;
>
> (2) Automatic numbering during the scanning;
>
> (3) Printing a numbered working set (called "blowbacks") from the images; and
>
> (4) Copying (or "burning") a set of images on CD-ROM disks.

There are two ways this process helps to cut costs. First, the firm begins document acquisition not by photocopying but by imaging, and thus has the documents available in both image and paper form for the same cost as photocopying. Second, by having the original set of documents on CD-ROM disks, the firm has more flexibility in using the documents than it would with paper.

CD-ROM also has the advantage of being an even cheaper medium than microfilm to duplicate or ship. CD-ROM is so cheap that it can actually make sense for a firm to scan discovery documents even if it has no intention of using the CD-ROM disks once it has received a working paper set, since the CD-ROM then becomes the backup.

As mentioned before, CD-ROM becomes the firm's "pristine" set and has true file integrity: Once a CD-ROM is created, it can only be viewed. Once a page image is placed on CD-ROM, it cannot be deleted or altered. There is no chance of misfiling a document and no document is ever truly lost.

With the cost of imaging now virtually the same as the cost of photocopying, imaging is a necessary component of any ALS effort. The benchmark for showing the cost effectiveness of imaging is still a study done several years by Attorney George Socha, currently a consultant who was then with the firm of Halleland & Lewis in Minneapolis.

In a case where 750,000 pages were produced, the firm eventually had more than 500,000 pages imaged and coded by an outside vendor. The images filled 48 CD-ROM disks at an average of 10,972 images per disk. They also received one printed set of blowbacks, which were used by the coders. Total scanning cost was approximately $152,000.00, or 29 cents per page, including document preparation, conversion from TIFF to IPRO viewing format, burning CD-ROM disks, and delivery.

Had the team been using a paper-based system, it would have made a second set of copies at a cost of 9 cents per page. It would also have needed an extra storage space of approximately 600 square feet. The saving by using imaging was calculated at $46,620 on copies and $19,572 on storage.

Additionally, using imaging, the team used less staff, estimated at 2.5 temporary clerks. Total time on the project was 5,600 hours and, at $14 per hour, staff savings amounted to $78,400. It was also estimated that the additional clerks would have made another 112,000 copies, and eliminating that cost saved an additional $22,400.

Finally, the firm looked closely at the cost of preparing depositions. Using a paper system, clerks and paralegals spent between 7.3 and 8.6 hours preparing for depositions. At an hourly rate of $62.20, the cost would be $493.45 per deposition. Imaging reduced the time to 2.6 hours. Even allowing for higher labor costs for staff with more computer experience, the average cost per deposition was reduced to $186.08, for a saving of $307.37 per deposition.

[4] Integrated ALS Applications

The key to success in ALS is integration of the various components. It is preferable to have one program act as a common interface for all the functions rather than use two or three separate programs to perform the various functions. A well-integrated program allows manipulation of both full-text material and coded database entries, with links to images, and simultaneous search and retrieval of all three. This saves on cost, training, and computer resources.

There are several off the shelf integrated litigation support programs but the market is really dominated by two products, Summation and Concordance. Also increasingly popular are products in extremely large cases are high end customized products using bundles of products such as the Verity TOPIC search engine, customized fully relational SQL databases and imaging plug-ins.

In either case, the appeal of integrated programs is the combination of power, features and ease of use. All case-related tasks go into the same case file but all case-related information is cross-referenced by issues customized by the users. These issues then become 'binders', linking all the evidence across the entire case and a Chronology function can link all types of evidence, events and participants by the issues. Additionally, a Case Outliner allows instant access to all the evidence.

Integrated products typically work with documents, transcripts, videos and photographs and allow annotations with personalized notes. This information can be shared in a LAN environment or through secure extranet connections. Some have Replication and Synchronization tools to distribute information and to synchronize a version on one computer with another version on a laptop or even another system.

Other features include intuitive and easy-to-understand user interfaces, password and access level permission security systems and integration with other programs such as trial presentation systems. The goal is to achieve one system that takes documents from initial discovery through trial all from one centralized location.

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CHAPTER TWO: USING ALS

[A] Discovery

ALS tools can, of course, be used to process, categorize and search discovery documents in the general ways discussed above, specifically searching through textual material or coding and indexing a database of documents with images attached. Several more specific uses are also discussed below.

But keep in mind that the development of ALS came during a time when paper was the medium used for creating documents. Now that the vast majority of business documents are created electronically, paper is not the preferred medium for receiving discovery documents. In fact, if a document is created electronically, there is some question if a subsequent print out is even a true and accurate copy of that electronic document.

Federal evidentiary rules specifically include electronic versions in the definition of a document, contain provisions for production, inspection, or copying of computerized data and even permit parties to propound discovery requests electronically and answer interrogatories by providing electronic records for inspection.

This recognition has given rise to an entire field of discussion concerning electronic discovery. Such a discussion is beyond the scope of this book but suffice to say that any discussion of ALS and discovery must now include this area of expertise. Knowledge of standards for document storage and retention policies, metadata issues and native file production are necessary for any ALS system to be effective.

In addition, both sides in the discovery process should be aware of special issues of confidentiality that may arise with ALS systems. For a more detailed discussion of privilege and confidentiality issues of electronic records, see the resources page of the LEDI Web site.

[B] Deposition Preparation

In preparing to depose a witness, the attorney will often be dealing with a large "world" of documents. Instead of manually searching these documents to find key material, a database can be used to:

- Find previous references to a key document;
- Find references to a key individual;
- Prepare a time line of key events;
- Find previous damaging testimony;
- Outline key documents by issue; and
- List key documents chronologically.

If the attorney knows beforehand that full-text software will be used, common terms and phrases should be standardized to facilitate database searches. Some examples of areas to be standardized are names, documents, and specific issue codes.

[C] Trial Preparation

Once the trial stage has been reached, the "world" of documents will have shrunk considerably. The database can then be used to:

- Find and list key documents;
- Find material to impeach a witness;
- List exhibits chronologically;
- Organize legal research;
- Prepare pretrial motions;
- Track data for jury selection; and
- Locate documents during cross-examination.

[D] At Trial

Although many trial courts are not sufficiently automated to allow full use of computers during the trial phase, this fact is gradually changing. Most courts will allow a motion to bring in a trial consultant who can install a temporary system to use computers and more courts nationwide now actually have networks available to allow parties to load their own ALS materials onto a portion of the system that has been assigned to them.

Most systems will permit the parties, as well as the court, to independently review their material, perform searches, or even add notes, all while the trial is in progress. This type of system gives the lawyers and the judge the ability to handle a case with far greater speed and accuracy than ever before and also facilitates the appellate procedure.

This type of computer-integrated courtroom (CIC) is a combination of hardware and software designed to accomplish these specific presentation tasks in the courthouse setting. An excellent example exists at the United States District Court in Phoenix, Arizona and all new Federal courthouses constructed nationwide will have some type of network cabling available for automation purposes.

Courtroom 23 in Orange County, FL. is an excellent example of the a similar installation in a state court and development of features for electronic courts is ongoing at the National Center for State Courts, Courtroom of the Future at the University of Arizona School of Law and Courtroom 21 at the College of William and Mary Law School.

[1] E-Filing

Given the almost universal electronic preparation of legal documents, courts nationwide have been moving to accepting electronic document filing in one format or another. The majority of Federal courts are already using the Case Management/Electronic Case File (CM/ECF) system which should be installed nationwide by 2005. Knowledge of the requirements for your jurisdiction will be essential to an effective ALS strategy.

[2] Electronic Briefs

In addition to the e-filing of case filings with the clerk, many courts are now accepting electronic briefs both during trial and on appeal. An e-brief digitally prepares and condenses the entire brief on a CD or DVD with all documents, supporting exhibits and case citations scanned, coded and hyperlinked from the table of contents. Table of contents and table of authorities (with citations) are hyperlinked to designated pages and footnotes with pop-up windows and the functionality of a standard web browser allows counsel and the court to access the brief from any computer, including laptops.

For more information on electronic briefs, including their preparation, contact LEDI at www.legal-edocs.org or toconnor@legal-edocs.org.

[3] Trial Notebook

The purpose of any trial notebook is to organize trial materials the litigator has prepared, according to the attorney's own organization of the facts and law of the case. Every litigator has his or her own method of preparing a trial notebook, which probably explains why there are so few programs specifically designed for this function.

An electronic trial notebook should duplicate the organization of the attorney's written case notebook. It should provide direct access to the correspondence, discovery documents, pleadings, facts, and law of the case. It should also be easy to customize and provide a central means of accessing all the case's facts, documents, and law, even if they are stored in another program.

Many attorneys choose to use a Personal Information Manager (PIM) or an outliner program to achieve this. The outliner lists separate points or issues and either links documents to them through the Windows clipboard or lists them in an index under each outlined point. The problem with this approach is that these programs are not word processors and cannot, therefore, handle large amounts of data.

The alternative is to use a word processor with an outline feature built in, or even a program that supports a barcode index. Since HTML is used extensively on the World Wide Web pages of the Internet, and is an open language being embraced by most developers, many observers feel that Internet browsers will eventually be best suited to work as a front-end "outliner" tool, with links to all the user's various sources of information.

[4] Real-Time Translation

Real-time translation is the ability of the court reporter to use a computer-assisted stenography machine and have the testimony of a witness appears on the computer monitor in plain text within a matter of seconds. This is accomplished by matching the reporter's stenographic keystrokes with a vocabulary already stored in the computer. If a match occurs, the word appears on the monitor. If a match does not occur, the stenographic keystrokes appear and are later corrected.

Real-time translation lessens the amount of read-backs, reduces time spent on objections, and cuts down on bench conferences. It also permits expanded participation by hearing-impaired litigants and jurors through the use of the monitor, and for the same reason also makes the job of court interpreters much easier.

[5] Trial Presentations

Any document associated with a case can be prepared for instant retrieval and display in the courtroom. This can include the storage and presentation of exhibits on CD-ROM using a bar code reader and a mouse pen to call up exhibits; presentation of exhibits from the Visual Presenter (ELMO) or even a laptop, VCR or a laser disc player. This allows counsel, the judge, and the jury to follow along while an examining attorney is using a particular document

The proper use of hardware and software in the courtroom can lead to more efficient and productive litigation. Although there are several legal specific electronic trial presentation products, many attorneys are finding that Power Point is more than adequate for their needs.

Whatever product is used, electronic presentation systems can enhance the attorney's persuasiveness by displaying most forms of multimedia instantly, including scanned documents, photos, computer animations and full motion digital video segments. Evidence will appear on monitors strategically placed throughout the courtroom and attention can be drawn to important aspects of the evidence by zooming in and then highlighting, annotating, or redacting parts of the evidence with the use of a light pen.

[E] Complex Litigation

Complex litigation is defined by the Federal Judicial Center in the Manual for Complex Litigation as "one or more related cases which present unusual problems and . . . require extraordinary treatment, including but not limited to the cases designated as "protracted' or "big". It is generally accepted today that complex matters are multi-party (often, but not always, class action cases), multi-jurisdictional, and involve the production of over one million pages of documents.

The necessity of using ALS to manage such cases is obvious, but this type of case also presents several unique problems of handling documents in which automation plays a key role. The first is where and how to store the documents.

Centralized document depositories have long been used as a control device for large volumes of documents in complex matters. The court generally will order that all discovery materials be produced to and stored at one or more central locations where they can be inspected and copied by all parties. This centralization reduces expenses for the parties and enhances court control over the documents.

The growth of Internet technology has made this option even more cost-effective and efficient. Original documents may be stored on one central Web-based location place and all parties may access the documents regardless of their location and technical infrastructure as long as they have access to a standard Internet browser.   This technology not only reduces paper costs and travel expenses, it speeds up search-and-retrieval times for all parties, and allows attorneys to view and print only those documents they really need instead of obtaining paper copies of all material in the case. In addition, use of the Web technology in the courtroom eliminates the need to produce massive amounts of paper documents at hearings or trials.

Complex cases also present problems of access to the court clerks for docket and other case information. Early efforts at using technology to alleviate this problem centered around an informational system commonly called a bulletin board service (BBS). Parties could use computers with modems to dial into a computer maintained by court personnel that housed all information about schedules, orders, hearings, and even full text of orders or opinions.

This innovative idea has, of course, been largely supplanted by the Internet. Web repositories and electronic filing of documents are now used in courts around the country and systems such as the Federal CM/ECF provide not only filing information but images of the documents themselves.

CHAPTER 3: PURCHASING ALS SOFTWARE

[A] Introduction

Many attorneys are confused about how to choose software for data management. Small wonder, since every product touts itself as the best and claims to have been involved in at least one piece of major litigation in recent years. With few exceptions, however, these products are built by technicians and distributed by sales people who have no idea of exactly what attorneys do.

Products that were originally designed to organize and manipulate large volumes of numerical data or to track records or reports are not necessarily the best suited for legal applications. Legal databases may require the indexing and cross-referencing of literally millions of entries by field (a database field is an entry space for a specific category of information, e.g., name, date, author, document type, or issue) to produce a variety of report formats. The criteria for evaluating database software are discussed in the following subsections.

[B] General Criteria

[1] Strategic Planning

Firms should approach buying software in the same way attorneys approach handling a new case. The firm must start with some strategic decisions---deciding what it wants to accomplish---then find the software that will help to achieve the objective. Too many attorneys try to make their practice fit the software and then wonder why they have problems. How does this happen? For two reasons that any successful attorney always avoids: not planning ahead and waiting until the last minute.

Trial strategy is developed ahead of time, and an attorney should buy software the same way. What the firm wants to accomplish is defined by the type of practice the firm handles and the type of documents that the firm usually generates. A firm that specializes in medical malpractice or personal injury, both of which are heavy on expert testimony and production of records, will require a different approach from an insurance defense practice heavy on record production but equally reliant on briefing the law.

Make a checklist of the overall strategic needs of the practice, and begin a search based on that list. Talk to people who have used different products, especially peers in other firms with a similar practice. Read everything, both advertising material and product reviews, then ask the sales staff specific questions about the products you see and the features the firm wants. Once the choice is narrowed to two or three products, start making the tactical decisions. Ask how this or that software can be used in a specific case.

The members of the firm and law office professionals who will serve as decision makers must be given sufficient time to talk to all the key players, do research, assemble data, and become completely familiar with all the information. Attorneys should not cut corners when preparing a case strategy; nor should they when devising an automation strategy.

[2] Studying the Market

Do not assume that all software works alike and meets all needs. Take the time to find the package best suited to the particular needs of the firm. Be wary of ""one size fits all" software that sales people say will be equally useful for any and all tasks. Take the time to articulate several goals the firm wants to accomplish when assembling case material, and then find software that will help achieve those goals, or at the very least will do it faster than the current method.

Remember, speed is the power of computers. They do not organize; they help the user organize. Computers are fast, and people are slow, but computers are dumb---only people are smart.

[3] Setting a Time Frame

Too many attorneys wait until the last minute to implement their software choice, and then they have to rush to purchase, train their staff, and bring their system up to speed. This is good news for people who can command premium fees for last-minute weekend consultations, but hardly good news for a firm that needs to master the system it wants to put into place.

[4] Determining a Budget

It may be true that a new program is the hottest thing since the Internet, but if the price is $10,000, and the firm allocated only one third of that amount for software, it is not a viable choice. Today's market has quality programs at every price level. People do not buy a new computer every year, just as they no longer buy a new car every year, and the price wars started by companies desperate to gain (or keep) market share are a consumer's dream come true. A firm can find a program to meet its needs no matter how small the budget.

[5] Defining the User

Is the firm a one-person shop that needs to get up to speed quickly, or does the firm have paralegals who will use the product and feed the information to the attorneys? Will the attorney use the information in a trial, a hearing, or a deposition, or will support staff prepare reports for the attorney to use later? Does the firm need document indexing or cross-referencing for preparing strategy, text searching for impeachment, or both? Does the attorney need results quickly, or does he or she have time to assimilate and digest material?

[6] Avoiding Gimmicks

All the bells and whistles in the world will not help you find a key document. The best program is the program that works. If the firm has been using dBase or Lotus for years and the attorneys are comfortable using it and get good results, why change just because some people think the program is outmoded?

[C] Specific Criteria

In [The Automated Law Firm](), my comprehensive book on purchasing and using technology in the legal environment, I used five general categories for rating legal applications:

- Ease of use
- Ability to Customize
- Regular Updates
- Technical Sophistication
- Help System

I also used additional categories for ALS software:

- Windows Compatibility
- Search Speed
- System Resources
- Imaging Interface
- Internet Capability

More recently, I have revised these categories and now when analyzing ALS applications, I also use the following criteria:

- **Full-Text Search Engine**
  Does the program include a specific component for indexing and searching text? If so, is it a generic product or is it a product customized for this program?

- **Database**
  Does the program have a database engine? If so, what is it, and is it SQL and/or ODBC compliant?

- **Imaging Interface**
  How easily does the program accommodate imaging? Does it require a proprietary imaging format? Does it allow unique page numbering? Does it allow redactions?

- **Report Writer**
  Is there an internal report writer? If so, what are its features? Can reports be saved in HTML and/or XML?

- **Technical Specs**
  What are the technical specs, including system overhead, space requirements, and price?

- **Internet**
  Does the product have the ability to function on the Internet or be accessed by a browser for intranet usage?

[D] Final Thoughts

As always, the best program is the one that can be used most effectively by the firm. If that program is Summation or CaseMap, then changing to another program is not worth the aggravation. If, however, the firm is just beginning to look at litigation support software or is about to upgrade its current computer system, a Windows-based integrated function program should be considered.

All products have only one ultimate test---the results they produce. If the firm is getting the results it needs, there is no reason to make a change. The day will come soon enough when law offices stop supporting old programs, or courts insist that all parties use the same interface for a particular matter, but today, being on the leading edge of technology should not be a factor in evaluating how to practice law.

What should be factors are:

- Does your current software perform well on your existing system?

- Does it perform the specific functions required by the firm?

- Does the office staff use it?

- Do the firm's attorneys use it?

- Does it help win cases?

If the answer to all of these questions is "yes," there is no reason to go further. If the answer to any of the questions is "no," it is time to start looking for new software.

When you are actually ready to look at specific software programs, I suggest you start by asking other attorneys you know in a practice similar to yours what they use, and whether they find it helpful. If you are an ABA member, the ABA Legal Technology Resource Center can provide you with evaluations of a number of software applications and your local or state bar association may have a similar service. Finally, look at the individual home pages of specific companies to see if they list any client references. If not, call a salesperson and ask for some.

Which brings me to my final point---how best to proceed with a general document management strategy. As I mentioned above, don't ignore a simple database if it fits your needs. But in addition to a database, use imaging.

For years, I was a strong believer that the most effective means of document control was only by coding documents into a database, and I considered imaging and OCR as secondary applications with limited effectiveness because of their high cost and limited accuracy. With the recent technical advances in both imaging and OCR, combined with dramatic reductions in price, I have changed my mind.

Imaging is now no more expensive than photocopying and is a standard means of document storage. It should be considered a basic part of every document management scheme. I now feel that the best solution for most litigation support needs is the immediate imaging of all documents, using a program that offers some basic coding fields for information such as source, date and Bates number. Once this basic indexing of your images is done, you can evaluate the documents and decide which are suitable candidates for either OCR or coding, or both, and whether to do that in-house or use a service bureau.

Most experienced litigators will tell you that no more than 10% of the documents in any litigation are actually useful. Given that percentage, it makes more sense to use the most expensive management tools, such as database coding, on only the most relevant documents.

Always remember: you have a trial strategy for your cases, have a similar strategy for your software. Don't rush out and buy software because you saw it at a trade show or seminar, or because the company runs tons of ads. Some of the best litigation support work is done with off-the-shelf software, and many successful litigators have used such programs, even when co-counsel is using a "name brand" application. The best rule? Make the software fit your practice. Don't try to make your practice fit the software.

And don't overlook training. Even the most user-friendly litigation support software is not as easy to use as your friendly word processor. A properly trained user is the most effective part of your automated management process because, as John F. Kennedy said, "Man is still the most remarkable computer of all."

APPENDIX 1: GLOSSARY OF COMPUTER TERMS

Algorithm A mathematical set of steps designed to solve a problem or run instructions in a program. For example, an algorithm in a case management program would perform the function, "Check the filing date of the complaint in this matter, determine the date to file an answer, determine if the answer has been sent out and, if not, send email to the attorney in charge of the case warning him of the impending date."

Applications Software programs that perform "people" functions, such as word processing, spreadsheets, or litigation support.

Archive The procedure of transferring text or data from a hard disk to off-line storage media for later access.

Architecture The design or physical structure of the computer's internal components and how they work.

Artificial Intelligence Also called IA. A category of computer science dealing with the ability of machines to perform in a manner associated with human beings, such as reasoning, learning, or understanding language. Currently associated with voice recognition technology and, to a lesser degree, optical character recognition (OCR).

ASCII American Standard for Information Exchange. A standard code used for data exchange between computers. An ASCII (pronounced "as-key ") text file contains only the letters of the alphabet, numbers, punctuation, and certain communications symbols, but no embedded word-processing codes. An ASCII data file (or ASCII delimited file) has the data in fields that are separated by quotation marks or commas and that allows easy transfer into a database or spreadsheet.

ASR Automated Speech Recognition. Also called Automated Voice Recognition (AVR). Program that will "translate" words spoken into a microphone connected to a computer into written text in a word-processing program or perform a function in a database program.

Autoexec.bat Usually pronounced autoexecdotbat, this is a special batch file used on PCs that runs when the computer is turned on and tells the computer what programs to execute first.

Batch (1) A file containing one or more commands that execute consecutively, one at a time; (2) a collection of material for input into the computer, such as a batch of documents segregated for coding or a batch of data records to be restored from a backup tape.

Baud A unit of data-transmission speed used in discussing modems. One baud equals one bit per second (bps). Divide by 10 to get characters per second (e.g., a 9600 baud modem sends data at 960 characters per second).

BIOS Basic Input Output System. A special program contained in the computer's RUM that controls the components of the computer and how they interact and work together.

Bit Abbreviation for binary digit. A bit is the smallest unit of information recognized by a computer; it corresponds to a choice between one and zero, the basis for all information storage in binary language computers. Eight bits make up a byte.

BLOG A **W**eb **Lo**g. A journal available on a Web page, typically on a specific subject and update daily. Legal blogs are sometimes called "B**law**gs."

Boolean Mathematical query language developed by English mathematician George Boole in the 19th century. Boolean searching of text is based on the underlying logic functions of various true/false statements. Common Boolean operators are "and," "but not," and "within."

Boot The process whereby a computer automatically loads its startup software when it has been turned on. Also called "boot up," the term derives from the phrase "to lift oneself up by one's own bootstraps."

Bus A pathway between hardware devices, which may be internal, as is the case with components of a computer, or external, as is the case with computers in a network.

Byte (1) Eight bits; (2) a computer word or a sequence of bits used as one unit, usually eight bits long. In word processing, a single character, such as a letter, is usually one byte in size.

CD-ROM Computer Disc Read Only Memory. Optical disk storage using the same technology as audio CDs. A computer can read a CD-ROM disc but cannot write on it. Typically used to distribute large amounts of textual information, since one CD-ROM holds about 650 MB of data, or approximately 15,000 pages of text.

CDR Computer Disk Recorder. The machine that actually "burns" information onto a CD.

Chip A piece of silicon about 1/4' square containing electronic circuits that perform computing functions processed by the chip. The chip is mounted onto a socket that has a number of projecting pins and fits into a receptacle on the motherboard.

Clock Speed The speed with which the computer processes information. PC clock speed is measured in megahertz, e.g., 60 megahertz.

CMS Case Management System. Software designed to regulate all law office functions performed with computers from one central application.

Compatibility (1) A characteristic of a computer or software by which data prepared in another computer or software can be processed; (2) the interchangeability of computer components, either hardware or software.

Config.**sys** A DOS configuration file, which is used when the computer boots, to load specific device drivers to run hardware or software components.

Co-Processor An additional processor, which performs specific tasks while the main processor runs the primary functions of the system. A math co-processor, for example, performs arithmetic operations to take that burden off the main processor resulting in faster operations.

CPU Central Processing Unit. The "brain" of the computer. In a PC, the CPU is contained on a single microprocessor chip and performs all logical operations to run programs and solve problems.

CUI Common User Interface. IBM′s answer to the Apple Macintosh, it is a standard for menus and windows developed by IBM.

Cursor A symbol used on the computer screen in DOS systems to show where data are to be entered.

Cut and Paste To highlight a block of text then move or copy it, either to another area of the same document or to a completely separate document.

Data A general phrase for all information (facts, numbers, letters, graphics, etc.) that can be processed by a computer.

Database A set of interrelated files stored electronically on a computer.

DBMS Database Management System. Software that controls the organization of a database and processes requests for database information from other applications.

Default A value or option assigned to data by a system when no specific value has been specified by an operator.

DMS Document Management System. Essentially a database to store and retrieve firm documents by client/matter number, title, author, date ands/or keywords

Digital The technology of computers where all information is encoded as bits of ones or Zeros. Electronic data in terms of two states: positive and non-positive. Positive is expressed or represented by the number 1 and non-positive by the number 0. Thus, data transmitted or stored with digital technology is expressed as a string of 0's and 1's. Each of these state digits is referred to as a bit and a string of bits that a computer can address individually as a group is a byte.

Directory A grouping of programs and data in one area on the computer. Directories can have a tree structure, so that the "root" or first directory contains subdirectories that can, in turn, contain more subdirectories.

Disaster Plan A plan devised by a firm to avoid data loss or business disruption following a power loss, a natural disaster, or an act of terrorism. A good disaster plan calls for daily backup functions and contingency plans to minimize data loss and business interruption.

Disk A storage medium capable of storing large amounts of data. Disk types include magnetic disks (both hard disks and floppy disks) and optical disks.

Disk Drive The device that houses a disk and controls the connection between the computer and the magnetic disk.

Diskette Synonym for "floppy disk."

Document Assembly Software function that gathers facts about a client, then merges data and text to draft a unique document for that client that varies depending on the facts of each case. Typically is performed by answering a series of questions or extracting data from a database.

DOS Disk Operating System. A set of programs that controls the computer and supports software applications. MS-DOS (Microsoft Disk Operating System) is popular because it was the system used in the original IBM PC and subsequent clones.

DOS Prompt Usually a disk drive letter followed by the greater than (>) symbol. It is the position from which DOS functions are executed manually if the computer has no common user interface (CUI) or Graphical User Interface (GUI).

Download To transfer data to the user's computer from another computer.

Dumb Terminal vernacular for a network terminal with keyboard, monitor, and network interface but no hard drive for independent processing capability.

E-mail Software that handles information exchange directly between computers by sending a message to a specific email address.

Emulate To imitate a device with a second device using a graphical user interface.

Exabyte 1 million terabytes. The US business community is estimated to have created 35-50 exabytes of electronic data in 2004.

Expansion Slots Spaces inside the computer used to connect boards that control other functions, such as a scanner or modem, to the motherboard.

Extranet An Intranet to which the owners provide limited access to outside users typically clients or co-counsel

FAX Board An adapter that is installed inside a computer to allow direct faxing.

File (1) In word processing, a piece of text that is usually one document long. (2) In a database, a complete collection of records treated as one unit.

File Server A computer that is the central storage unit for a local area network (LAN).

Floppy Disk Small removable disks, also known as diskettes, that come in two sizes' 3.5″ and 5.25″. The amount of data that can be stored on a diskette depends on the size, and can be 360 kilobytes to 1.4 megabytes.

Font A complete set of characters in a distinctive type style and size.

Format (1) The organization of data on a disk. (2) To prepare a disk for use. Formatting a disk consists of erasing old information on the disk and adding new codes to control information recording.

Function Keys The keys on the keyboard that control specialized functions other than normal typing. Function keys include F I through F lO, CTRL, ALT, SHIFF, PAGE UP, PAGE DOWN, DELETE, and INSERT

Gigabyte Abbreviated as GB. The equivalent of one billion (actually 1,073,741,824) bytes; or one million kilobytes, or one thousand megabytes.

GIGO "Garbage in, garbage out." Well-known computer adage which refers to the fact that the contents of a database are only as good as the data originally entered. Data entered incorrectly will not provide accurate search results and will lead users to rely on incorrect information.

Graphics Board A device that allows the screen to display graphic images.

Groupware Software designed to promote action among members of specific groups within an organization. The best-known groupware is Lotus Notes.

GUI Graphical User Interface (pronounced "gooey."). Software programs that use special icons and other symbols to assist in performing functions, decrease reliance on keyboard skills, and reduce training time. The two most prominent examples are the Apple interface and Microsoft Windows.

Hard Disk A high-capacity magnetic media storage device, also known as the "fixed disk." Hard disks are either internal or external. An internal hard disk can be used only with the computer in which it is installed, while an external hard disk can be moved from one computer to another.

Hardware All the mechanical and electrical parts of a computer.

Hot Key An individual key that is programmed to perform a specific function.

HTML HyperText Markup Language. The underlying program structure of text on the World Wide Web.

Icon A graphic image or picture of a program or task designed to represent that program or task.

Imaging The process of taking an electronic "picture" of a document and storing it on a disk for later retrieval. The stored images cannot be searched, so they are typically linked to records in a database and retrieved when the associated record is located through a database search.

Input The transfer of data from keyboard or external storage device to computer memory.

I/O   Input/Output. The transfer of information in and out of the computer's memory.

Integration The ability of two systems, whether hardware or software, to interface with one another. Integrated systems are often designed to share data in a way specifically intended to reduce redundant data entry.

Interface A connection between any two elements in a computer system.

Internet   The world-wide collection of inter-connected networks that all use the TCP/IP protocols and that evolved from the ARPANET of the late 60's and early 70's.

Intranet   a private or internal network that uses standard Internet protocols so it has the appearance of a Web site

ISP   Internet Service Provider. A company that provides access to the Internet through its own equipment to users and charges a monthly or hourly rate for providing that service.

Keyboard The device that allows commands to be typed directly into the computer. Similar to a typewriter keyboard but with special function keys added along the top.

Keyword   A specific word used to search a database.

Kilobyte Abbreviated as KB. The equivalent of 1,000 (actually 1,024) bytes. Indicates (1) size of the storage area on a disk, such as 32KB = 32,768 bytes, or (2) amount of main memory (RAM) in the computer, such as 640K = room to store 640,000 bytes of instructions.

KM   Knowledge Management. Control of and access to content in all the various firms databases (CMS, DMS, WP, etc)

LAN Local Area Network. A system of interconnected computers with a central storage unit (the fileserver), cabling system (the topology), and specific network software (the NOS).

Laptop Computer A portable computer, usually weighing less than 15 pounds.

Listserv An automatic mailing list to which people may subscribe and then send and receive e-mail messages to and from each other.

Macro A pre-programmed keystroke or combination of keystrokes to activate a sequence of instructions.

Megabyte Abbreviated as MB. The equivalent of 1,000,000 bytes or 700 double-spaced pages of typed material, each page holding approximately 1,500 characters (bytes.)

Megahertz Abbreviated as MHz. A unit of electrical frequency equal to a million cycles per second.

Memory The temporary data storage area of a computer, which may be RAM (random access memory) or ROM (read only memory). Documents reside in temporary memory only while the computer is turned on or until they are saved to the hard disk

Microprocessor (1) A computer processor on one chip. (2) The CPU of a PC, the most prevalent of which is the Intel chip (286, 386, 486, and Pentium).

Minicomputer The next level of computer after the PC, the minicomputer is designed to operate in a multi-user environment. "Mini's" often use several computer processors in combination.

Modem   MOdulator-DEModulator. A device that modulates digital signals to allow their transmission over analog communication facilities. Typically used to allow two computers to communicate over phone lines.

Monitor (1) A dedicated device that plugs into a graphics board and then displays computer-generated information. (2) The screen that displays data from the computer. Monitors may be monochrome or color. On notebook computers, they may also be "backlit" or "gas Plasma."

Motherboard The main board into which printed circuit boards or cards are attached to the microprocessor.

Mouse A hand-held device that is rolled on the desktop and controls the cursor position on the monitor. Commonly used with software that has a graphical user interface.

Multi-tasking (1) The ability to access more than one software application at a time. (2) The capability to carry out multiple tasks at the same time.

Multi-threading Multi-tasking within the same application at the same time.

Multi-user The capability to have more than one person using a computer system at the same time. A multi-user system allows the sharing of data and peripheral equipment among all users.

Network   Multiple computers connected together so that they function as a multi-user system. A network may be a local area network (LAN) or a wide area network (WAN).

Network Topology   The wiring, connections, and adapter boards that interconnect computers on n network. The three standard topologies for PCs are Ethernet, IBM Token Ring, and ARCnet.

NIC Network Interface Card. The card inside a computer that enables the establishment of a network connection.

NOS Network Operating System. The operating system that supports network operations.

Notebook A small laptop computer, usually weighing less than 8 pounds.

OCR Optical Character Recognition. A method of scanning printed material and converting it into an electronic file, such as a word-processing file, which can then be searched for specific words or phrases. OCR is distinguishable from "imaging" in that it recognizes only alphanumeric characters and not handwritten or other graphic material.

ODBC Open Database Connectivity. An application interface from Microsoft that provides a common language between applications and databases on a network.

Online The condition of a computer being connected to a computerized information system such as Lexis. Often refers to being connected to the Internet.

Operating System Also called OS. Software that controls the operation of a computer.

PC Personal computer. Technically a computer that conforms to the PC standard set by IBM, the PC now refers to any desktop computer other than a terminal on a Unix system.

Parallel Refers to multiple data bits stored or transmitted simultaneously. A parallel port is used for printing because it is faster than a serial port.

Password Protection The use of personal and confidential identification to allow individual users access to a computer system or specific programs.

Path The route of directories through which a computer searches to find a particular file. The path name is the full file name, including the name of the directory on which the file is stored.

PDA Personal Digital Assistant. A hand-held microcomputer that functions like an electronic rolodex and often connects to a larger computer for sharing or transferring information.

Peripheral Any hardware device that interfaces with a computer, such as a printer, an external modem, or a scanner. Interfacing may take place through the computer's parallel and serial ports or through a specific interface card.

PIM Personal Information Manager. Software that performs the functions of Rolodex.

Port (1) An interface for connecting peripherals with the computer. (2) The part of the computer through which a peripheral device may communicate, often a specific type of Plug

Portability The ability to transport a computer and data from one location to another. Typically a feature of laptop or notebook computers, but also a feature of portable drives or tape systems.

Portal A web site which gives entry to multiple other sites and services.

PPP Point to Point Protocol. A standard for connecting two computers for transferring data.

Practice Management System Also known as Case Management System (CMS). Such systems may include features such as calendar/docket, conflict-checking, document assembly, and maintenance of databases of client and case information.

Program (1) A series of instructions to the computer. (2) The term for a software application.

Prompt (1) A display that asks the operator to perform a specific action. (2) The DOS prompt

Query (1) Ask for information or data. (2) A request for data sent to a database.

RAM Random Access Memory. The main memory of the computer, where active software and temporary files are stored and most of the computer's work is performed. Data stored in RAM are temporarily stored and are lost when the computer is turned off.

Reboot To stop and start the operating system again. Usually done when a problem occurs or the computer "locks up" and is accomplished by pressing the Control, Alternate, and Delete keys at the same time.

Record A collection of related fields or items of data, treated as a unit. For example, each listing in a Personal Information Manager is a record.

Relational Database A database in which some items in one type of record refer to items in another type of record. Relational databases generally link together two or more tables or files from different databases through a common field or within ranges, thus allowing searches of multiple fields, such as dates.

Remote Connectivity The use of a computer outside the user's office. Commonly associated with the use of portable laptop or notebook computers, but may also refer to the ability to access computers from other offices, from the courtroom, or from the client's office.

RISC Reduced Instruction Set Chip. A new type of computer chip that combines many instructions in order to speed up processing.

ROM Read Only Memory. (1) An internal chip containing system information that is not erased when the power is turned off. (2) Non-erasable system memory containing basic computer operating instructions programmed by the manufacturer.

Resolution The visual clarity of a display screen or printer.

RTFM The standard response of IT staff to users questions

Scalability The ability of a system to add hardware to increase power or performance without requiring any adjustments to the underlying system.

SEO Search Engine Optimization Changes made to a Web page that improves the positioning of that page with one or more search engines**.**

SEP Search Engine Positioning. The process of ordering Web sites or Web pages by a search engine or directory so that the most relevant sites appear first in the search results.

Serial Data stored or transmitted sequentially, as opposed to parallel.

SLIP Serial Line Internet Protocol. A communications standard used in Internet communications.

SMP Symmetric Multi-processing. A system design of multiple CPUs in which any CPU can be assigned any application task. Typically, one CPU is the controller and handles system boot, I/O requests, and distribution of tasks to the other CPUs.

Software A series of files containing instructions to the computer for performing functions. A software "program" contains the instructions to accept data in certain formats.

Spreadsheets Software programs that arrange data in a matrix of cells and perform calculations based on the arrangement of the cells. The most popular spreadsheets are Lotus 1-2-3 and Microsoft Excel.

SQL A Structured Query Language database. SQL is a standard programming language for getting information from and updating a database. Although SQL is a standard, many database products support SQL with proprietary extensions to the standard language.

Stand-Alone Computer A single computer, as distinct from a computer attached to a network.

Store To place information onto a disk where it is available for later use.

System Programs Programs that control the internal operations of a computer system. Examples are operating systems, compilers, interpreters, assemblers, and mathematical routines.

TAPI Telephony Application Programming Interface. A Microsoft-based standard for basic telephone services that allows a PC to access phone books, control phone equipment, and interface with voice-mail and e-mail systems.

Telecommunications Data transmission between a computer system and remote devices, usually over telephone lines.

Terabyte A trillion bytes, or a million megabytes. The entire collection of the Library of Congress would equal approximately 20 terabytes if digitized.

Terminal A device with input and output devices (keyboard and monitor) connected to a computer system.

TIFF Tagged Image File Format One of several standards for making electronic images.

Transmission Speed The rate at which data passes through communications lines; usually measured in bits per second (bps).

Unix An operating system developed by Bell Laboratories that offers multi-user functionality and uses high-level programs. On PCs, it is often marketed under the name Xenix.

Upload To transfer data from a user's computer to a remote computer system.

URL Uniform Resource Locator. The electronic address of a World Wide Web site on the Internet.

User-Friendly Term used to describe a software program that is both easy to learn and easy to use.

User Guide A set of instructions or a manual for a software program or hardware system.

User Group Any organization made up of computer users (as opposed to vendors) designed to give the users a forum to share information about a particular system.

Utilities A set of routines designed to service a program or system. Examples are utilities file maintenance, information recovery from damaged disks, disk initializing, disk copying, routine system maintenance checks, and supervisory functions.

Vendor The seller of computers or applications.

Virtual A technique in which software makes the computer function as if something were present when it is not, such as a "virtual disk" or "virtual memory."

WAIS Wide Area Information Server. A central database used for information access by network users in multiple physical locations. Often refers to an Internet database, but WAIS servers have existed for some time outside the Internet arena.

WAN Wide Area Network. A system of LANs in different physical locations connected through communications software.

Windows (1) Technology whereby a computer screen is partitioned into separate sections or screens that display different documents or information at the same time. (2) Microsoft Windows, a software product that provides an operating environment that runs under MS-DOS, using a GUI that can run different programs at the same time in different windows.

Workflow The stream of information processing through an organization.

Workstation (1) A single computer, either a desktop with a hard disk or a dumb terminal. (2) A powerful microcomputer or minicomputer with a RISC chip, typically used by engineers or graphics technicians.

World Wide Web The portion of the Internet with a GUI.

WORM Write Once-Read Many Times. An optical disc storage device that uses laser technology similar to the CD-ROM. Information written to the WORM disc, cannot be altered. The advantages of WORM are increased disc density and life expectancy.

Write Protect Restrict a diskette from having information recorded to it. Used to prevent the erasure of valuable information.

WYSIWYG "What you see is what you get" (pronounced "wizeewig"). A system that allows the user to see on screen exactly what will be printed out.

XML Extensible Markup Language. Code which describes the content of data.

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APPENDIX 2: ALS GLOSSARY

ALS Automated Litigation Support. The process of using computers to control data during litigation

Adaptive Pattern Recognition The system indexes every letter on every page. When the user conducts a search, the system conducts a search based on discrete patterns in the text

Annotation A note placed in a full-text record to comment on the textual material.

Associative Retrieval When certain terms appear frequently in the vicinity of the terms for which the user is searching, these associative words may provide clues for further searching.

Attachment An enclosure to a transmittal letter or an exhibit to a primary document.

Attachment Field A data field used to record information about enclosures and/or attachments to a "parent" document

Attorney Notes Field A data field used for ongoing attorney notes and comments.

Author Field A data field used for recording names of individuals and/or business entities who wrote, sent, or transmitted a document

Beginning Number Field A data field for recording the number of the first page of a document. Also used as a document identifier to find hard copies or to retrieve images.

Bibliographic Coding The entering of objective information such as date, document number, and document type into data fields.

Boolean Search A search for information using "AND," "OR" and "NOT" commands, such as "Tom but not O'Connor" or "bankruptcy and trustee."

Coder An individual assigned to input information from documents into a document database.

Coding Manual A set of instructions provided to coders that includes a description of the project, subject codes, and rules for data conformance and consistency.

Combined Word Search A word search that combines synonym, proximity, and/or Boolean searches.

Conceptual Searching Also called Thesaurus or Related Searching; sometimes called Synonym Searching. Searches that provide other words similar or close in meaning to the primary word.

Copyee Field A data field used to record the names of individuals and/or business entities who received a copy of a document, when the name is not otherwise recorded in the addressee or recipient field.

Cross-Reference Field A data field used to record information that is cross-referenced to the specific document record. May be used to cross-reference: (1) parent documents with attachments; (2) separate text pages to one another; and (3) documents with different identifying numbers.

Customized Data Fields Specially named and defined data fields in a database. Customized Field Definition The process of defining the characteristics of customized data fields in a database, including field structure (date, text, or integer field), field size (number of characters), multiple values (more than one name or code in a field), and field name.

Data Entry The process of entering information into a database.

Data Field Data field definition usually includes field structure (size of each field and whether it is a date, an integer, or a text field) and field organization (names and locations of data fields within a document record).

Data Validation A system for ensuring accuracy in data entry and consistency in formatting names and dates. Often accomplished by the use of validation tables to restrict entry of inconsistent or inaccurate data (e.g., date entered as 10/2/50, when it should be 01/02/ 50).

Database A collection of related data entered into individual records consisting of a number of different fields.

Database Design The process of deciding what database structure to use. Typically involves the construction of specific data fields and the overall design of bow the fields are to be used.

Date Field A data field in a database that contains the date of the document.

Discovery Tracking The use of a database to monitor the progress of discovery as well as the content and consistency of discovery responses.

Document Depository (1) A library of hard copies of all documents in a specific case, sometimes the originals, and often run under guidelines specified by the court. (2) A central library of all documents in a case, either hard copies or images, with some form of electronic access.

Document Enhancement A context-sensitive annotation to a full-text document

Duplicate An exact duplicate of another document in a database. Duplicates typically arise when multiple document productions from separate sources are coded and contain copies of the same documents.

File A collection of logically related data records.

Flat File Database A database with all data in a single list, similar to a telephone book or a Rolodex

Full-Text Database A database in which the entire text of documents is electronically available for searching by keywords or phrases using Boolean logic.

Fuzzy Searching Search that locates words closely match the spelling of the primary word.

Hit A term to describe the results of a search query. A search for a specific name may produce twenty "hits," which means the name appears twenty times in the database.

Index (1) A list of all words in a database (coded or full text) that is used by the software to provide fast access to information. Rather than search the entire database for a word or phrase when a query is built, the software searches the index instead. (2) Output from a database such as an index to exhibits or documents responsive to a discovery request.

Issue Code Term for a code used to designate a case-specific issue. Issue codes are used to maintain consistency, eliminate spelling errors, and speed up search queries.

Keyword Words related to the case or specific issues, designated by the law firm and generally having their own field in the database.

Litigation Support Manager The individual who administers the ALS efforts within a law firm.

Load File A text file with entries for application information and comments. Typically used in ALS to carry instructions about a document image collection for linking to a database program.

Log A hard copy record book, usually of entries into a database but also of documents received, documents undergoing quality control, or documents shipped out

Lookup Table A predefined set of entries from which a user may pick a name rather than enter the name directly into a database field.

Marginalia A data field recording the existence of handwriting in the margins of a document

Merge To combine data from two separate databases into one.

Names Mentioned in Text A data field used to classify names that appear in a document other than as the author, recipient, or recipient of a carbon copy.

Natural Language Search A non-Boolean retrieval method, which, instead of using "and/or" connectors, prepares the search request in ordinary language and is automatically convened by the computer into algorithms.

Note Field A data field that allows the entry of text in a manner similar to word processing software, which is not limited to a specific number of characters. Typically used for attorneys' notes or comments. A note field cannot be sorted.

Objective Coding The recording of basic data such as date, author, or document type, from documents into a database.

On-Line Summaries A digest or summary of a document created directly from the computer screen by reading the document and using the cut and paste function to move excerpts to a separate file.

OCR Optical Character Recognition. Software that, in conjunction with a scanner, is able to "recognize" written text and convert it to an ASCII file or import it into a word processor so may perform one of the full text searches.

Other Numbers Field A data field in a database used to capture numbers other than the primary Bates stamp number that appears on the document.

Parent Document The primary document in a set of related documents, such as a fax cover sheet or a transmittal letter.

Phrase Search The search phrase "Massachusetts Mutual" would locate text where the words are side by side.

Production Source A data field in a database that records the individual or company that produced the particular document.

Project Manager An individual responsible for administration and supervision over a particular database or automation project

Proximity Search Retrieves a word only when it occurs within a specific number of lines or words of another word.

QC Quality Control Any process used to check the accuracy and consistency of information coded into a database.

Query A search request in a database.

Range Search A database query within a certain range of dates or document numbers.

Recipient A data field containing the name of the individual or company who received a specific document. Also called Addressee Field.

Record An individual in a document database.

Relational Database A database containing records in fields that are somehow connected or "related." This allows simultaneous searches of multiple fields.

Report The printout of data in response to a query.

Retrieval The on-screen result of a query.

Search A database query.

Search Syntax A particular search language required by a software program.

Service Bureau A vendor which performs ALS services such as photocopying, scanning, imaging, coding and, more recently, e-discovery services.

Similar Document Searching A search that finds all documents similar to the primary document.

Sorting Putting a report in a particular order, such as chronological or numerical.

Sound-alikes A search method whereby the computer produces a list of words that "sound" similar to the desired word and can themselves be searched.

Subject Category Held A data field in a database used to capture specific subject codes.

Subject Code A code for a case-specific legal or factual subject.

Subjective Coding Entering information from a document that requires the coder to exercise judgment, such as subject or issue codes. This field is often left blank for the law firm's paralegals or associates to fill in.

Summary A data field in a database that records the summary of a document.

Taxonomy A specific coding language and terminology developed for use in a particular case.

Text Held A data field that allows the entry of text in a manner similar to word processing software, but is limited to a specific number of characters. Text fields can be sorted and are typically used for names.

Topical Searching Searching documents by topic and subtopic relevant to a particular case.

Validation Table Also called a "Lookup Table." A pre-defined set of entries for a specific field, often abbreviations, which appear when the coder moves to that field. Validation tables are used to cut down on errors during data entry.

Vocabulary Control The creation of case-specific words and codes to ensure uniform data entry. Used in conjunction with Validation Tables.

Weighted Relevance Searching A type of search that will allow the user to sort and retheve documents according to a statistical "weight" given by the use of a mathematical relevancy evaluation program.

Wildcard Search The wildcard symbol (*) can be used with any other search to retrieve different variations of the same word, e.g., "insur*" for insurance, or insured.

APPENDIX 3: E-DISCOVERY GLOSSARY

Active Data Information residing on the computer which is visible and fully available to the user.

Archival Data Information that is not directly available to the user of a computer but has been stored on the computer system and can be
retrieved through a special process.

Attachment Any electronic document appended to another document, typically email.

Backup Data Information stored separately from the computer system to permit data recovery in the event of disaster.

Cache High-speed memory used to temporarily store frequently accessed information because it can be retrieved faster from memory than from the hard drive

Compression A technology that reduces the size of a file.

Computer Forensics The use of specialized techniques for recovery, authentication, and analysis of computer data, typically of data which
may have been deleted or destroyed.

Concept Searching Maps relationships between each word and every other word in large sets of documents and then associates words based on the context in which they are used. Two techniques can be used to perform concept searches: the use of a manually constructed thesaurus which relates certain words to others or semantic indexing, a fully automated methods to show associations among words based, in part, on statistical analysis of the occurrence of proximity of certain words to others.

Cookie Small data files written to a user's hard drive by a web server which contain information the web site uses to identify the user in
subsequent visits.

Cluster The smallest unit of storage space required for computer data to be written to a drive. Sometimes called an allocation unit

De-Duplication The process of removing duplicate records from a collection of data.

Deleted Data Data that once existed on a computer and has subsequently been deleted by the user. Deleted data actually remains on the computer until it is overwritten by new data or "wiped" with a specific software program. (Even after wiping, metadata such as directory entries or pointers may still remain)

Deleted file A deleted file which is on disk space that has been designated as available for reuse. The deleted file remains present until it has been overwritten with a new file.

Deletion Removing active files making them unavailable. Special data recovery tools can still retrieve these files.

Disc mirroring: A method of data backup that copies or "mirrors" each saved file on a hard disk onto a second hard disk.

Distributed Data Information which resides on non-local devices such as home computers, laptop computers, PDAs, or even Internet
repositories.

Forensic Copy An exact bit-by-bit copy of the entire physical hard drive of a computer system, including slack and unallocated space.

Fragmented Data "Live" data that has been broken up and stored in various locations on a single hard drive. Most files are stored this way.

Image As distinct from document imaging, electronic evidence is making an identical copy of a hard drive. Also known as a "mirror image" or "mirroring".

Legacy Data Information created or stored on software and/or hardware that is outmoded or obsolete.

Metadata Information about data which describes how, when, and by whom it was received, created, accessed, and/or modified and how it is formatted. Some metadata is visible such as file size and date of creation; most is not visible even when the document is printed

Migrated Data Information that has been moved from one database or format to another.

Mirroring Duplication of data for purposes of backup or data distribution.

Native File Format A document produced in the format in which it was originally created.

Pointer An index entry in the directory of a hard disk that identifies the space on the disk where a specific file is located. When a file is "deleted," it is actually the pointer which is erased and not the file itself.

Residual Data Data that is not active on a computer system such as data in media free space, slack space or files that have been "deleted". Sometimes called Ambient Data.

Slack Space The difference between the size of a file and the size of the various clusters where it is stored, since the file segments may be smaller than the clusters where they reside. May also refer to data fragments stored randomly on a hard drive during the normal operation of a computer or residual data left on a hard drive after new data has overwritten deleted files.

Sampling The process of statistically testing data for the presence of relevant information. Often used to provide courts with a cost estimate
in order to allocate cost sharing.

Spoliation The original legal definition was the destruction of a thing by the act of a stranger; as in the erasure or alteration of a writing by the act of a stranger. In e-discovery cases the focus has been on the intentional nature of the act, which can include deletion, partial destruction or alteration, generally by a party to the action or someone under their control.

APPENDIX 4: WHEN TO AUTOMATE CHECKLIST

While the key factor in choosing automation is often the number of documents, that decision should also be based on the following checklist:

☐ **Where are the documents located?**

Location of the documents assists in developing a plan for the most cost-effective management of the documents---photocopy, imaging, e-discovery or a combination of all three.

☐ **Will documents be accessed and sorted frequently?**

If you expect to access and manipulate the data more than twice, the case should be automated. If you expect to sort the documents by issue or subject matter and by person in some chronological order, the case should be automated.

☐ **Are document indexes required?**

If you intend to create an index to the document set, the case should be automated in a litigation support database, rather than in a word processing program. The time required to enter the information is the same for both. However, the end result is dramatically different. The database will allow for manipulation of the data while the word processing program allows for only minor data sorting.

☐ Are there multiple issues?

Multiple issues in a case means that you will usually have to sort the documents many times by these issues, depending on the number of witnesses. Manual sorting of documents is not cost-effective.

☐ Are there a large number of parties and/or witnesses in a case?

The tracking of large numbers of witnesses or parties in some chronological fashion requires an automated approach.

☐ What is the number of claims or cross-claims?

The tracking of large numbers of claims or cross-claims requires automation.

☐ What is the possible number of depositions?

If there are at least five depositions (or fewer if the case has complex issues), a full-text retrieval database program should be used for word and phrase searching and to annotate testimony.

☐ What is the value of the case?

The cost of automation should be compared with the actual case value in order to justify the use of technology to manage the case.

APPENDIX 5: CASE STRATEGY CHECKLIST

Many attorneys believe that managing evidentiary documents is a complicated process involving the selection and use of litigation support software and outside vendors or consultants. But I firmly believe that when it comes to the proper management of case documents, the most important part of the process is having a well planned strategy. This strategy can be easily broken down into separate components which, at their most basic, are as simple as "who, what, where and when."

☐ **Who is going to be using the software**? The litigation attorneys and paralegals? Support staff? Both? What is their level of computer experience, and have they ever used any litigation support software beforthose skills transferable to this project or will they require new training? If so, how much? And in addition to your own office, what about your clients? Do they have their own software for internal document control? Is it compatible with yours, or will you need to buy the same program? Will that require any hardware purchases and then specialized training? Corporate clients in particular may have a system in place and need to be consulted regarding your choice of software.

☐ **What type of evidence are you going to manage?**

Do you have paper documents, transcripts in both paper and computer format, pictures, video transcripts, accident reconstructions in a computer format? Do you have some combination of all of these?

☐ Where are the documents?

Do you already have them or are you just starting discovery? Will they be delivered to you, or to a third party? Are they already in the possession of a court reporter or discovery referee? Will they be kept at your office, the court, or a document depository? Who will be responsible for maintaining them and distributing copies or providing access? Will they be used at hearings, depositions, or trial? Is there, or will there be, a need for remote access via laptops or dial-in capability to a central depository?

☐ When do you need the information?

Case timelines and deadlines will often dictate the need to automate in order to work through evidence as quickly as possible. The sooner you implement your ALS plan, the quicker you will assume control of your case.

Two other factors should also be considered:

☐ How do you plan to manage the evidence?

Once in place, who will maintain the ALS system? Also, who will be responsible for any possible chain-of-custody issues? These are key factors especially with regards to e-discovery.
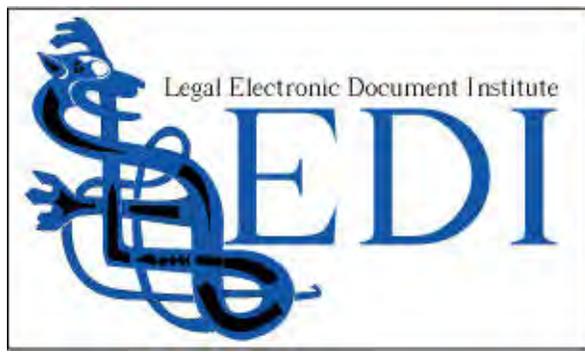
☐ Who is going to pay?

Cost is the final, overriding issue. Is cost sharing with co-counsel or a joint defense group an option. Does the court need to order cost sharing among parties? Is there corporate counsel who needs to be included in the ALS plan and what is there decision making role?

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