



POINTS OF INTEREST:

- Lawsuits have been lost from lack of providing just one document
- Companies are expected to have business governance and processes that comply with Federal Rules of Civil Procedure (FRCP)
- 80% or more of the data in companies is unstructured and it's growing fast — and most of that data is not indexed and searchable.
- Lack of access to unstructured data results in loss of productivity and can lower customer satisfaction

THE REST OF THIS BRIEF:

- Not all data is “stored equally”. Trusting your software provider to maintain the integrity of the data is paramount.
- If data is not maintained in its exact format, its authenticity, accuracy and legal positioning can be questioned. It may not be considered legal evidence
- Extensible search capabilities ensure requested data is retrieved
- Audit of the storage, search and retrieval is critical as part of being compliant to the FRCP process.

The Importance of Discovery Processes

When Data is Lost: What's At Risk...

Litigation

One of the most ignored trends in many companies today is the increasing size of unstructured data, or also called “content” - company data that continues to grow at a disproportionate rate. Take this trend and add to it the traditional legal process where cases that cannot provide all relevant evidence experience prejudicial bias in a court of law. **Lawsuits have been lost because a company found every document but just one.** Those companies who have experienced the pain of lawsuits are the first to pursue deploying a digital archival solution to mitigate these future losses.

In today's litigious business environment, companies who fail to comply with Federal Rules of Civil Procedure (FRCP) through not providing all evidence are subject to not only settling on litigation but becoming the recipients of increasing sanctions and fines.

Increased costs of duplicate work

Without direct and easy access to content, companies are at risk. They may lose, misplace, or have stolen their intellectual property. Also, when existing content is not accessed and re-purposed, often productivity is wasted by the recreating of similar information for proposals, research studies, company reports etc.

Lowered customer satisfaction or missed revenue

Without direct and easy access to data, company's are at risk of lowering customer satisfaction through slower turnarounds and lack of access to information that a customer remembers, but the company does not. Being unable to find business information can cost a company significantly - both in missed opportunities and in increased costs.



"IT IS CRITICAL TO REMEMBER THAT THE ECM SUITE VENDORS TYPICALLY POSSESS ONE, TWO, OR AT BEST, PERHAPS THREE CORE COMPETENCIES, WHILE THE PACKAGES THEY ACQUIRE HAVE VARYING PROVENANCE."

CRC Watch, 2009

Core Technology For Discovery

ECM Library is a new-to-market solution that leverages the best technologies and combines it with DMA Chicago's 20+ years of system architect and customer experience in Enterprise Content Management. **The central core to *ECM Library's* technology is the protection of and quick access to company's non-structured data: through the archival, search and retrieval functions.**

ECM Library architectural design and implementation is based upon extensive and in-depth research and design discussions with Fortune 100 companies, with legal advisement as part of the process at detailed and critical junctures.

What's to Protect...

Managing the integrity of data is of top priority in the architecture of *ECM Library*. Based on current industry understanding, there is no other Enterprise Content Management provider who can claim the degree of data integrity that is done through *ECM Library*. Taking every step to protect the data is paramount: if a company's integrity of data is not secured, it may not be defensible or it may be lost.

Binary Images are Recorded: As part of the archival process, *ECM Library* records an exact "Binary Image" of every archived file. A binary image is a bit-by-bit representation of the file archived. That "original binary image" is restored when a user searches and retrieves any file archived in *ECM Library*. This degree of "binary image" protection is not known to exist with any other provider. *ECM Library* also archives in UNICODE, making it language independent for search and retrieval.

Cyclic Redundancy Checks: (CRCs) are stored in the database for each file, no matter what file type it is, including emails and attachments. CRCs can be relied upon to verify correctness of transmission at the time of archival.

Anticipating what could be compromised: From tracking administrator queries, securing data from breaches and attacks, providing server architecture for disaster recovery: all of these are critical to negating data loss. *ECM Library's* architects have extensive track records in working with the most demanding and best-of-class customers for security requirements. The architecture of *ECM Library* incorporates obfuscation and cryptography where needed. *ECM Library* operates within the confines of the security provided by Active Directory, the customer's Network, SQL Server, and VPN.



ECM LIBRARY CONTENT SEARCH PARAMETERS

Full Text Searches:

- Exact words, phrases, inflection, wildcard, thesauri, classonometry, proximity, NOT, AND, OR, or combination of all

Full Search on 100's of file types:

- 100's of file types are available with *ECM Library* basic package including Microsoft Office documents.
- Menu-based Word breaker options allow for parsing of files types (e.g. a C programming file using a .txt word breaker).
- Object Character Recognition (OCR) processing on Graphics Files for text search on .bmp, .gif, .ico, .jpg, png, .tif and tiff
- Search on 100's of metadata attributes

Search Analysis Tools:

- Weighted search, reduction search, previous searches saved in search counter
- Search on library or recalled search
- Search parameters include limit to directory folders, author name or date ranges.
- Options for adding in dozens of metadata

View Search Results:

- Click on a document to default program (e.g. Microsoft Word for a .doc)

Search based on user privileges

- User searches on user content, public content, master content or library
- Global searcher searches on company-wide repository

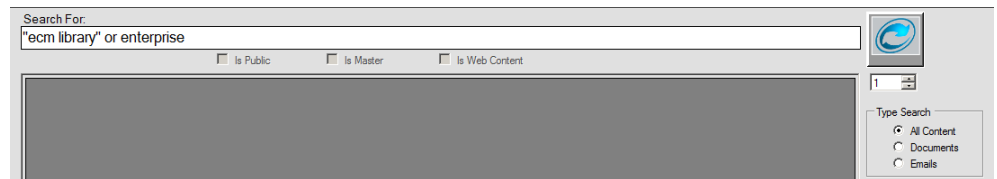
Manage Search Results:

- Restore to selected directory
- Restore to customized library
- Create group access

ECM Library provides all the necessary steps in a Discovery process:

All searches are permanently recorded: *ECM Library* records all user queries to the detail to satisfy any legal process. The e-Discovery process can record all strategies and search parameters taken to audit and document search proceedings to any level required.

Initial ease-of-search: Integrity of data and accurate searches are not the only concerns in e-Discovery: simply teaching employees to effectively navigate and search through the data can be a challenge. Providing a user interface that lessens the need for training is becoming more essential in organizations where employees are asked to do more with less. *ECM Library* provides a very intuitive but powerful initial search interface, requiring minimal introduction before effective and well-thought out search techniques can start to be used. As a beginning point, a user familiar with Google can immediately use the *ECM Library* Quick Search screen.



Extensive Search: When more power is needed, *ECM Library* provides a search assistant and extensive on-line help. The combination of rich search tools available are unprecedented in the industry. *ECM Library* gives the most power for those searches that need to extensively reach across data while still providing the parameters and tools to identify the data with the most relevant matches.

Legal Library Containment: Upon identifying potential documents and emails needed for further research, retrieved content can then be assigned and viewed within a Library. A searcher with the appropriate access authority can invite and authorize other users to access the newly created library for further investigation.

Audit Reports: Actions made by any user or administrator are tracked and logged. Customers are able to define, customize and create extensible reports that are fully defensible.

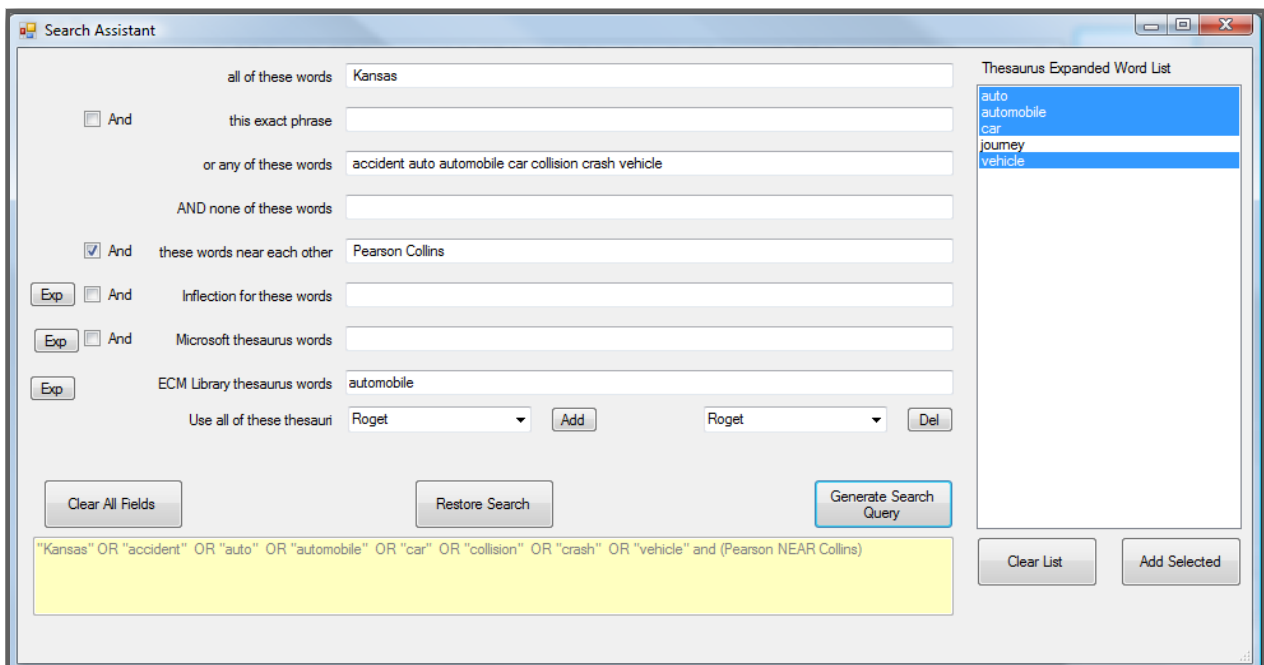


E-Discovery Example:

A searcher who has “global search access” in an insurance agency searched for Pearson +car +accident +Kansas. Upon the first return of data from the search, the analyst thought that the number of returns was not wide enough, given the magnitude of the case she was researching. So next she created a wider search to find the word:

1. “Pearson” in close proximity to the “Collins” (as it was Pearson vs. Collins in the filings),
2. Using the online thesaurus as an assistant to identify like-words that have similar meaning to car: auto, automobile, vehicle,
3. and contained the word accident as well as the word Kansas (no consideration is needed for capitalization)

This returned less than 50 emails, documents, pictures, and filings out of millions of documents, all within a few seconds. The search results came back with “weights”, ranking each document and email with a weighting relevancy to the search parameters used.



The searcher previewed these documents by clicking on each line item, then selecting the ones she determined to be pertinent, and finally loading them into a library she created for this case. She then added other search team members to the library and notified the new members, inviting them to review this newly created library.



EMAIL SEARCH PARAMETERS AVAILABLE THROUGH ECM LIBRARY

Full Text Searches:

- Exact words, phrases, inflection, wildcard, thesauri, classonometry, proximity, NOT, AND, OR, or combination of all

Full Search on all Email Attachments:

- Including Microsoft Office documents and dozens of attachment types, ZIP files, text search based on Image Character Recognition of Graphics Files

Search Analysis Tools:

- Weighted search, reduction search, previous searches saved in search counter
- Search on library or recalled search

Email Search Parameters Include:

- Email addresses, Email names, create/sent/ received dates, metadata, subject, email folder—all with wildcard capabilities

View Search Results:

- Preview email text
- One click open of any email or attachment to default program (e.g. Microsoft Word for a .doc)

Search based on user privileges

- User can search on personal emails and/or emails to which the user has been given library access
- A designated Global searcher can search on a company-wide repository

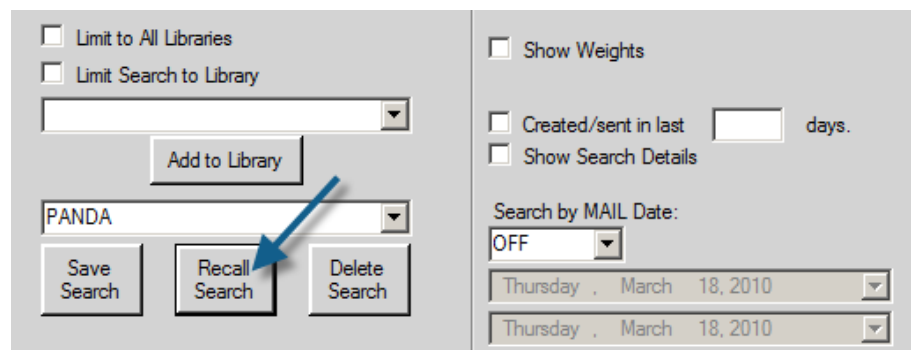
Manage Search Results:

- Restore to selected directory or email restored folder
- Restore to customized library
- Create Group access

ECM Library Proactive Discovery

Too often an “incident” is reported when it is already too late. When it’s too late, a Discovery process investigates matters associated with a lawsuit, litigation, or settlement. In most companies, no one has “the time” to pursue “what if” possibilities. The tools to monitor unethical behavior; inappropriate conversations with the competition, misrepresentation of a company service, or the use of inappropriate co-worker language - have not been available – which can lead to a company being vulnerable to very costly mistakes.

But now with *ECM Library*, recorded searches can be created so that activities can be repeatedly monitored across the company. For example, the CEO of a company may want periodic searches that say *“Show me all email communications that use our future product code-name PANDA and report on correspondence using these keywords, listing search results by email addresses and weights.”*



Proactive Discovery allows for monitoring of inappropriate communications that could cause damage to a company, mitigating the pain of liability.

In this email search example, a previous thought-out search has been saved, which can include keywords to search on both emails and email attachments over a specified period of time. Within seconds of opening up the application that same ongoing search can be completed with weighted results.



IMAGE XMP TAGGING—THE TRUTH IS EMBEDDED IN THE FILE

The Adobe Extensible Metadata Platform (XMP) XMP information is rapidly becoming the standard, working in conjunction with XML, for embedding metadata into images.

ECM Library will provide access to embedded XML tag data through an ECM Library graphics extractor as of 3rd Quarter 2010. This will give users the capability to embed needed metadata within their digital pictures. ECM Library will provide scanning, extracting, and archiving for searches dealing with embedded XMP data within digital pictures.

XMP standardizes the definition, creation, and processing of extensible metadata. Serialized XMP can be embedded into a significant number of popular file formats, without breaking their readability by non-XMP-aware applications. **Embedding metadata ("the truth is in the file") avoids many problems that occur when metadata is stored separately.** XMP is used in PDF, photography and photo editing applications.

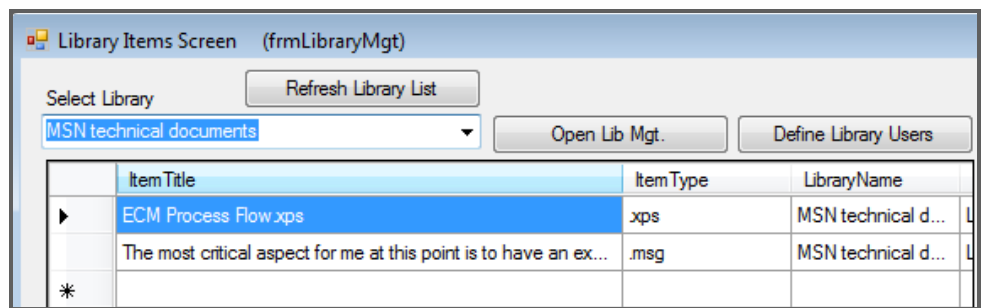
Processes and Legal Library Containment for E-Discovery and Investigations

Any IT administrator who has had to respond to a corporate lawsuit or internal investigation understands the difficulty of collecting and delivering files, messages, or other content for legal review. The challenging of meeting legal obligations in e-Discovery includes proving a *consistent governing process* for:

- Preserving data integrity
- Accessing data sources via search and retrieval
- Analyzing data for relevance
- Securing and preservation of relevant data
- Using data forensic methods to demonstrate data collection processes and integrity of data

ECM Library reliable search, retrieval and restoration processes, highly exacting methods of protecting data, and wide array of reporting methods give visibility, reassurance and credibility, and provide e-Discovery consistent processes.

ECM Library Legal Containment: The preservation obligation is central to the legal hold process. The "Library" feature of ECM Library is a central tool to providing the concept of "legal hold" as data sources are collected and analyzed by the reviewer. E-Discovery requires that any potentially relevant information be preserved from the point of reasonable anticipation of litigation until the resolution of the matter. ECM Library's efficient and extensive search methodologies coupled with Liberian functions help **lower the cost of data collection** and to facilitate the review and analysis of archived items in electronic discovery. The group assignment functionality provides a powerful and efficient interface allowing not just one, but a team of users to perform content research, search, retrieval and analysis. Relevant items are easily preserved as part of the legal librarian process and can be submitted to the requesting party or corporate group.



The above screen shot shows the upper left hand portion of the Library screen where the beginning of documents are listed under a specific Library name.



CAPTURING CONTENT BEFORE IT IS DELETED?

Employers have difficulty proactively managing all the ways that inappropriate leaks and communications can occur within the workplace. How can companies mitigate against secrets leaked out through email screen shots or emails immediately deleted? How can management search and access content created through workflows used on all the Web 2.0 technologies?

ECM Library starts to address some of these issues through its various archival capabilities:

- Immediate archival of changes through its Directory Listener option
- Object Character Recognition and text searching on email screen shots or graphic files
- Archival of emails directly off of the Exchange Server
- Ability to archive SharePoint documents
- Structured Data Archival options
- Web Crawler Archival Options

Archival and Retention Management

IT organizations around the world are being mandated by corporate governance, legal and compliance groups to implement company-wide retention policies on corporate information. Unstructured information like email, documents, pictures, recordings and data of all types on file servers is not exempt from these requirements. Because not all data is created equal, (i.e. business, personal, junk, spam, etc.), companies are increasingly interested in controlling archive storage and operational costs.

Archive Intellect is a content aware classification methodology in *ECM Library* that helps companies create a repeatable method of classifying and storing unstructured information. Intelligent archiving helps companies meet corporate retention requirements and enforce records management policies. Once data is classified, enforcement technology applies retention and expiry rules provided by administrators across different content archives to ensure it is kept only as long as it is needed— all customized and managed by an administrator. Management of various types of data helps control operational costs as the size of the archive can be automatically controlled through utilities that already exist within SQL Server. *ECM Library* can also be setup to “migrate and remove” expired content to a separate repository or remove it all together. Deploying *ECM Library*, in combination with SQL Servers already powerful backup, recovery, replication, clustering and mirroring capabilities makes for a world-class strong and reliable system.

Conclusions

ECM Library helps companies close the gap between technology and policies in order to eliminate the risk associated with non-compliance. With *ECM Library*, organizations are able to consolidate email and other electronic information into a single repository. This simplifies management, enforces policies, enables legal hold, reduces information redundancy, and allows for amazingly fast search and retrieval of relevant information not only for the day-to-day business but also for legal cases. Archiving with *ECM Library* is the foundation of an efficient, repeatable and defensible discovery process.

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