

# Lifting the Burden

Recent case studies show that minimizing record management decision-making by end users results in higher quality ERMS

**J. Timothy Sprehe and Charles R. McClure**



Organizations beginning the process of implementing enterprise-wide electronic records management systems (ERMS) must address the role end users should play in making records management decisions. Some organizations opt to have end users decide whether a document or e-mail is a record and assign its place in the organization file plan. In this scenario, when the end user creates a document and clicks “save,” a box pops up on the screen and asks, “Is this a record?” If the user answers “yes,” a second box appears and asks “Where does the record go in the organization file plan?” A pull-down list gives the organization file plan so the end user can choose the appropriate category. Only when the user has answered the two questions will the document be saved.

Other organizations attempt to remove as much records management decision-making as possible from the end user. Insofar as possible, these organizations cause their information systems to make records management decisions in the background, transparent to users, on the basis of workflow analysis and a set of pre-defined rules.

## Research Points to Best Approach

Which approach results in the highest quality records management and the most complete capture of records into organization recordkeeping systems at the lowest acceptable cost? Is the highest quality, most accurate, and complete records management achieved within an enterprise when the desktop end user is minimally involved in records management deci-

## At the Core

### This article

- ▶ Describes four approaches for simplifying records management decision-making
- ▶ Tells how minimizing end user involvement in records decisions improves records programs
- ▶ Provides six keys to non-intrusive ERMS implementation

sions? Research supported by the Federal Bureau of Investigation, U.S. Department of Justice under a contract with SRA International indicates that the highest quality and accuracy occurs when records management is as non-intrusive as possible to the desktop end user and does not interfere with the normal work routines of professional staff in the enterprise. The reasons for this are:

- As a general principle, the introduction of new information technology (IT) to the workplace should increase, rather than decrease, worker productivity. Requiring desktop end users to make records management decisions lowers worker productivity because making the decisions takes time and attention away from the worker's primary job. Therefore, it is undesirable as a matter of IT management policy to introduce new desktop procedures that intrude on the worker's primary job and lower productivity.
- Records management is the primary responsibility of the trained records management staff in an enterprise. Asking desktop end users to make records management decisions, in effect, makes every user a records manager. This is an undesirable condition for the enterprise. The cost to the organization of continuously training desktop end users to make accurate records management decisions, as well as the cost of implementing a quality

assurance program, will be prohibitively high and represents an investment that many enterprises cannot afford. In contrast, agencies engaged in national security-related activities do achieve high quality records management with a high degree of end user involvement through systematic investment in continuous user training and quality assurance.

- Interviews of personnel in several federal agencies whose e-mail systems employ records management pop-ups that require desktop end users to make records management decisions indicate that the resulting quality of records management is very poor. End users know that records management is not their job and generally do not comply with the request that they perform records management functions. They "game" a system of e-mail pop-ups so that almost nothing is a record or everything is a record. The result is low-quality records management.

However, the fact that end users are the principal creators and receivers of business records makes it impossible and impractical to eliminate them entirely from all records management decision making. Training end users to identify records and perform *minimal* categorization that will then be further examined and sub-classified by records management specialists is more easily afforded and more effectively instituted. Identification

and high-level categorization of records may be a minimum acceptable burden on the desktop end user. Hence, a practical alternative to no end user involvement is to ask desktop end users to make a minimum of high-level records management decisions if other non-intrusive techniques are not adequate.

Following are case studies of four U.S. governmental agencies that explain their approaches to making records management non-intrusive to the desktop end user. The agencies involved were:

- U.S. Government Accountability Office (GAO)
- U.S. Office of the Comptroller of the Currency (OCC), Department of Treasury
- U.S. Nuclear Regulatory Commission (NRC)
- An intergovernmental agency that preferred not to be named

### GAO – Two-click User Profile Approach

The GAO recently purchased 3,000 seats of Hummingbird's Enterprise integrated electronic document and records management system (EDMS/ERMS). As of October 2004, the agency had completed acceptance testing and was rolling out pilot projects covering three key areas of GAO work, namely:

1. Policy
2. Administrative program
3. Audit/engagement

The GAO records officer stated that she saw her task with respect to ERMS as "making records management as invisible as possible to the end user." GAO has attempted to make this happen in several ways.

- **Simplified file plan.** GAO has greatly simplified the agency records file plan. All records go into one of three "buckets," respectively identified as mission/engagement, administration, or policy. Each bucket has its own disposition schedule.

**Research ... indicates that the highest quality and accuracy occurs when records management is as non-intrusive to the desktop end user as possible and does not interfere with the normal work routines of professional staff.**



- **Subdivided Buckets.** Each bucket is subdivided into a set of “functions.” The total number of functions for all three buckets is 33.
- **User Profiles.** GAO users are accustomed to filling out a document profile before saving a document in an EDMS. Saving to the ERMS will present the user with one new question box in the document profile. This box will ask the user to choose one of the three buckets, i.e., to identify whether the document is mission/engagement, administration, or policy-related.

After choosing a bucket, the user must choose a function within the bucket. The user thus makes two “clicks” to describe a user profile in the ERMS: the first click is a bucket; the second click is a function within that bucket. Once a user describes a profile in this way, all records management is taken care of while the user remains in that profile. The user may continue work on multiple documents or spreadsheets without making any more profiling clicks as long as the user remains under that profile. Given that the user has made the necessary clicks to define a profile, the records management functions for any document are accomplished when the user gives the document a title and hits “save.”

Not much desktop end user decision making is involved in records management at GAO. At a maximum, a user makes two clicks and enters a document title to accomplish records management

for any document. That is, the user establishes a profile/folder and titles the document at hand. Assuming the user is continuing to work within a previously established profile/folder, the user need only title the document and hit “save.” Records management is automatically carried out.

### OCC, U.S. Department of Treasury – Rules-based and Drag-and-Drop Approach

The OCC took possession of a new integrated EDMS/ERMS from Hummingbird Ltd. in October 2004. The agency had a phased implementation plan that called for concentrating on at-risk and mission-critical records in large bank supervision (LBS).

As at GAO, the OCC records officer sought to make records management as non-intrusive as possible to users. The OCC simplified its file plan into big buckets and reduced its records schedules to 61 items. The major file categories constitute only 18 buckets. LBS uses the National Filing System, a national system specialized for bank filing, to file bank examination records.

Records management occurs in the OCC EDMS/ERMS in two ways: a rules-based method and a drag-and-drop method. In LBS, a major and critical part of OCC, the business processes employ a rules-based method of records management. When a bank examiner finalizes a bank examination report, it is automatically placed in the ERMS. OCC performed

a workflow analysis of bank examiner processes. At the end of the bank examiner workflow, the examiner or analyst fills in the date to move the document into the ERMS, and at that point – and not until that point – a “make record” icon appears on the desktop. The user clicks the icon and all records management functions occur automatically. In this respect, records management is designed into the business process.

In other cases, users will drag and drop files from the EDMS to the ERMS. For large-bank work, the user completes a document profile, a common task required and enforced for all documents. In preparation for the advent of the EDMS/ERMS, OCC created a customized mapping table that links document profiles to the ERMS in the background. The user’s choice of “document type” and “name of bank” automatically maps to file locations in the ERMS.

OCC places heavy emphasis on records management, and staff members understand they must keep records of their work. Before advent of the EDMS/ERMS, keeping records meant printing and saving paper printouts, a process that staff found onerous. The staff now understand that until their compliance with the new EDMS/ERMS is excellent (as evaluated by the records officer), they must continue to print and save the paper printouts. Hence, they have a strong incentive to comply with the requirements of the new system.

### NRC – Centralized Processing Approach

The NRC uses an integrated EDMS/ERMS called agency-wide documents access and management system (ADAMS). ADAMS has been in operation since 2000 and was originally employed with the paired solution of FileNet’s document manager and TruArc’s ForeMost records manager; ADAMS now uses later generations of the same products as offered by FileNet and EMC Documentum. With a few exceptions, particularly in administrative areas, the NRC employs only electronic records management practices. All agency records entering the NRC in paper format are

**Not much desktop end user decision making is involved in records management at GAO. At a maximum, a user makes two clicks and enters a document title to accomplish records management for any document.**



# Keys to Non-intrusive Electronic Records Management Implementation

The planning and care taken in designing the user interface with an EDMS/ERMS are critical to the quality of records management in any enterprise. While the study was based on research in governmental organizations, its findings are relevant to any complex enterprise. Summary strategies and tactics uncovered in this study include:

- **Simplified File Plans.** The enterprises greatly simplified their records file plans. Simplifying file plans meant that the choices and decisions to be made in the ERMS were reduced. Big bucket file plans are in the nature of groundwork for non-intrusive ERMS implementation and have other appeals and uses beyond those discussed here.
- **Records Managers and IT Managers Working Hand-in-Glove.** In the enterprises studied, interviewees consistently stated that the non-intrusive measures were successful because, from the outset, the records managers and the IT managers worked closely together. They reported that, once records managers and IT managers understood one another's perspectives, they were able to jointly conceive innovative techniques and solutions that neither would have invented independently. In only one case did an enterprise report difficulties because of inability of records managers and IT managers to understand one another's point of view.
- **Use of Document Templates with Embedded Records Schedules.** The intergovernmental agency's advocacy of document templates for conducting its work is probably the least intrusive strategy encountered in this study. The array of document templates developed by the agency reflects detailed workflow analysis of how the agency accomplishes its work. The user will never be presented with a records management decision as such, only with a document template decision. This makes records management completely non-intrusive at the desktop level. The downside of this approach is the significant investment in developing and enforcing a comprehensive document template regimen.
- **Centralized Document and Records Management Processing.** While centralization is not necessarily a virtue in itself, NRC made centralized document/records processing work for greater quality and cost control, as well as non-intrusion. Enterprises might choose to centralize within lines of business and the tactic may work just as well.
- **Use of Workflow Analysis.** Two enterprises studied performed workflow studies to discover where in the chain of work activities records management decisions were made. They then focused ERMS implementation at those particular points in the workflow. Understanding a line of business or work unit's workflow will always be a key to simplifying ERMS implementation and making it non-intrusive to desktop users.
- **Simplification by Work Unit.** GAO divided its simplified file plan into three buckets by work units. A workflow analysis showed that GAO staff working in administration work in that one bucket only. GAO designed implementation of EDMS/ERMS for administrative staff so that only a single bucket – administrative – appears on the desktop of personnel in the administrative area. The slogan at GAO is "two clicks and a document title" to accomplish records management. In the case of administrative personnel, one mouse click and a title is sufficient.

scanned into electronic format for capture in ADAMS before being distributed.

NRC-generated documents undergo a two-step process to enter ADAMS.

1. **Document Submission.** NRC staff members submit documents to ADAMS either electronically or in paper form. If in paper form, the staff member completes a form that provides instructions for scanning the document into electronic format. When submitting a document to ADAMS, staff members complete a minimal profile of the document that supplies the following information:

- Brief title

- Public availability
  - Sensitivity and access rights if the document is sensitive
  - Template number
  - Any unique identifier not visible on the document that staff subsequently may use to retrieve the document
2. **Document Processing Center (DPC).** The submitted documents go to DPC, an onsite, contractor-operated facility employing about 40 full-time personnel who:
    - Complete document profiles and ensure their quality and accuracy

- Scan all paper pages and conduct 100 percent image quality control
- For packages, enter paper documents and electronic files in the sequence specified by staff on the form
- Declare documents as official agency records
- Convert electronic documents submitted to DPC into PDF, ensuring integrity of converted files
- Copy records to the Publicly Available Records Systems, the public access version of ADAMS, in accordance with the date speci-

fied in the “date to be released” property on the profile form

- Audit, monitor, and assess problems and trends

NRC staff members perform only limited records management functions. DPC declares a document a record and, along with select NRC records management staff, assigns it to a record collection in accordance with the established files maintenance and disposition plan. NRC also has a records audit program that functions as a quality control program. The office’s record collections are audited routinely to ensure that documents designated for retention as records in ADAMS are in fact being placed in ADAMS.

### An Intergovernmental Agency – Document Template Approach

An intergovernmental agency that preferred not to be named is a complex, diverse, and highly structured organization working throughout the world in a broad range of development areas.

The agency described a vision for implementing records retention and disposition at the document object level for a broad range of electronic content. The challenges were to:

- Prevent records from disappearing for lack of records determination, particularly for records that are “born digital” in a multi-function environment (creation, publishing, learning, collaboration)
- Avert overload of electronic content systems’ capacity because of inability to identify and dispose of non-records content, particularly convenience copies

The goal was to achieve better balance between retention and disposition of content, avoiding the retention of either too little or too much.

The vision was based on the need to identify and distinguish records from copies of convenience. The vision assumed a rationalized retention and disposition schedule existed at the enterprise level. Further, the vision assumed that

document templates used to create content could include metadata required to distinguish records from convenience copies, associate retention schedule information with documents created digitally, and predict and associate the disposition or retention date.

Templates can provide information needed to “best guess” retention and disposition actions, but neither retention nor disposition actions will be performed automatically within a software system. Rather, the schedules suggested as appropriate along with retention or disposition dates are aggregated in reports sent to records managers and systems owners. The system-generated reports are the basis for records managers’ and system owners’ subsequent scheduling, retention, and disposition actions.

For example, a document template used to create news stories would contain retention and disposition-relevant metadata, such as:

- Date the news story was created
- Date it was published
- Name of the creating organizational unit
- Creating author’s corporate affiliation
- Business process with which story is associated
- Where document resides (e.g., website versus agency database)
- Version (e.g. final or draft)
- Author tagging as a record or convenience copy

This substantial amount of metadata would permit a best guess as to whether a retention or disposition action should be taken, and if so, help determine the retention or disposition date. Embedding metadata in the document template ensures that the information can be checked before any deletion action is taken

(thereby reducing loss of records) or used to advise that a retention action is needed (thus applying retention to records).

In this approach, users do not make conscious retention or disposition decisions. The benefit to records managers and systems owners is that periodic deletion of older copies of convenience can be managed for system capacity purposes without increasing the probability of records loss.

The agency has already developed the metadata and reference sources for three kinds of document templates: content types, business activity, and organizational unit. The agency has created eight content types, which are further divided into sub-content types. Each sub-content type is associated with a document template. The document templates are to contain basic and common metadata elements required for retention and disposition actions and are to have a logical link to retention and disposition schedules.

At this writing, templates have been identified, but the logical link with the records schedules has not yet been made. Once the vision is fully realized, the agency will have the capability to merge records creation and management with document creation and management.

Persons with experience and expertise in the implementation of EDMS/ERMS in governmental enterprises – and the numbers of such persons were not large in late 2004 – appeared unanimous in the conviction that records management is a back office function that should not intrude upon the desktop end user. This conviction occurs most strongly among governmental personnel who have actually implemented an EDMS/ERMS and among industry personnel who sell to and serve the government ECM marketplace. Collectively, this group is convinced that minimal intrusion upon desktop end users is a best practice in implementing EDMS/ERMS. ■

*J. Timothy Sprehe, is president of Sprehe Information Management Associates Inc. He can be contacted at [jtsprehe@jtsprehe.com](mailto:jtsprehe@jtsprehe.com).*

*Charles R. McClure is Frances Eppes Professor, School of Information Studies, Florida State University. He can be contacted at [cmclure@lis.fsu.edu](mailto:cmclure@lis.fsu.edu).*