

Procedures for Developing an Electronic File Plan

Consistency in folder structures and file naming conventions is fundamental to managing electronic information throughout its lifecycle. This case study will be useful to anyone tasked with developing, revising, or implementing an electronic file structure.

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As information management has become increasingly complex, the need for well-designed electronic file plans, as a component of good information governance, has been heightened. As defined in ARMA TR 22-2012, *Glossary of Records and Information Management Terms, 4th edition*, a file plan is “a classification scheme that defines and identifies all files, including indexing and storage of the files, and referencing the disposition schedule for each file.”

The following case study provides an example of how an electronic file structure can be developed and implemented according to the procedures described in *Developing Electronic File Structures* (ARMA International 23-2013). A hypothetical, industry-neutral work environment is used to illustrate the application of these procedures in a plausible business context.

Background

An organization’s recent involvement in litigation brought executive-level attention to the lack of uniform recordkeeping practices across the company. The records and information governance office (RIG) was recruited by the Chief Executive Officer (CEO) to investigate the company’s recordkeeping practices and provide recommendations for improvement. RIG conducted an extensive analysis of institutional policies and procedures, the current level of compliance, and external standards and best practices pertaining to the management of records and information.

In the course of its evaluation, RIG identified several recordkeeping problems, including unnecessary duplication of information, inability to quickly locate needed information, inadequate controls over information access, lack of compliance with the organization’s records retention schedule, and inappropriate storage of company information in non-approved

locations.

RIG reported several direct and indirect costs and risks associated with these problems, including substantial storage and maintenance expenses, unreasonable amounts of staff time devoted to information search and retrieval, increased likelihood of information security breaches, and legal sanctions and reputational damage that could result from negligent recordkeeping practices.

RIG recognized that office directors were concerned that stronger controls on records and information management would overburden em-

Specific to the organization’s unique reporting structure, the Compliance, Audit, Information Technology, Records and Information Management, Information Security, and Legal departments may be represented on the project committee. Organizations are encouraged to also identify subject matter experts and interested stakeholders.

ployees and decrease productivity. RIG also noticed tensions related to the distribution of authority and budgetary resources. Despite clear gaps in the company’s recordkeeping practices, the corporate culture, as a whole, was one of resistance to change.

RIG used ARMA International’s Generally Accepted Recordkeeping Principles® as a foundation for its recommendations and was granted authority by the CEO to implement them. The development of a consistent and adaptable electronic file plan structure was identified as a critical piece of RIG’s ongoing efforts to correct the organization’s recordkeeping problems and to improve its overall information governance. This initiative would focus primarily on unstructured information, i.e., records and non-records, but would operate in conjunction with other information governance systems, such as structured databases.

RIG gathered reliable estimates of costs and return on investment, which helped ease directors’ concerns about

productivity and efficiency. While requiring substantial staffing resources up front, RIG’s cost-benefit analyses rendered the investment worthwhile.

In discussions with end users, it was clear that the organization and retrieval of information could be improved, but that changes from the status quo would be met with skepticism unless they were deemed facile and advantageous to end users. With a combination of executive management support, staff training, and the use of change management principles to keep the organization informed, RIG was confident in its ability to create

an improved structure.

A well-designed, scalable, and widely adopted electronic file plan structure would substantially decrease duplication and improper storage of company information; it would also improve access controls and adherence to records retention procedures. And the successful implementation of an electronic file plan structure might spur the adoption of an enterprise-wide electronic document management system in the next five to ten years.

To encourage widespread acceptance of the company’s long-term information governance initiatives, RIG strategically identified highly visible and cooperative departments to participate in an electronic file structure pilot project: the CEO’s office, Human Resources (HR), and RIG itself. As the department with “project leader” designation, RIG worked with executive leadership to assign representatives from HR, RIG, and the CEO’s office to serve on a project committee. RIG also recruited committee members from the Legal, Compliance, and Archives

Regulatory requirements and best practices vary based on industry and location. Organizations are advised to consult with legal counsel to ensure ongoing compliance with a changing legal landscape.

offices to ensure that project decisions would reflect the interests of all information governance stakeholders.

Plan Design

The project committee reviewed the current records retention schedule, as well as paper and electronic recordkeeping practices of pilot offices, identifying necessary updates and process improvements. The committee then developed an electronic file plan structure that would meet the information needs of the pilot offices and provide a framework for the rest of the organization to adapt based on varying business practices.

to those offices or individuals with a legitimate business need to view, print, edit, and/or add to records. Access permissions are granted by the department head, implemented and monitored by the RIG office, and reviewed at least once per year. Access permissions are removed immediately upon an employee's departure.

All records must be reflected in the company's records retention schedule. Retention and disposition of all records must adhere to the records retention schedule. Department leaders work with RIG to maintain an up-to-date records retention schedule. The schedule accounts for the admin-

It is critical to develop reliable and sustainable processes for the assignment of access permission levels. Regular analysis of audit trails can help ensure that company information is being used only by authorized persons and only for authorized purposes.

While focusing primarily on the three pilot offices in its creation of controlled vocabularies, naming conventions, and metadata protocols, the committee maintained a broad perspective to ensure that the end product could be applied to other office units with minimal adjustments. The committee developed a controlled vocabulary to provide a list of preferred terms for department names, position titles, proper names of committees and work groups, acceptable abbreviations, and other commonly used words and phrases. The committee also established certain rules and naming conventions that would apply to the entire enterprise, as described below.

Access, Retention, and Legal Holds

Read and write access permissions are applied at the most restrictive folder level appropriate for the office or individual. Access is limited

administrative, legal, fiscal, and historical value of all company records, identifies vital records, indicates detailed retention and disposition plans—including trigger points in the records lifecycle—and provides reference to current legal citations.

In the event of litigation or anticipated litigation, all scheduled destruction will be suspended until further notice from the Legal department.

File and Naming Conventions

File names will not include blank spaces. Spaces will be replaced with underscores (_). Folder titles may include blank spaces.

When a file name includes a date, the format "yyyymmdd" with padded zeroes shall be used. The date is recorded at the beginning of the file name.

Examples:

20100607_Minutes (for minutes of a

meeting that occurred on June 7, 2010)
20150800_Report (for a report prepared in August 2015)

When multiple drafts or versions of a file are created, the notations "v.#" and "final" will be added to the end of the file name.

Examples:

20100607_Minutes_v.1

20100607_Minutes_v.2

20100607_Minutes_final

When a file name includes an individual's name, the format "Last-First" shall be used.

Examples:

Doe_John_Employment_Offer

Doe_John_Resume

Any paper documents to be filed in the electronic file plan will be scanned into PDFs according to company imaging specifications. Paper documents are to be destroyed immediately after they are filed electronically and reviewed for quality assurance.

Working files and work-in-progress documents are to be filed within the electronic file plan in native file format. Such materials should be routinely destroyed when superseded by final documents. Per the organization's RIM policy, working files and work-in-progress documents will be purged and destroyed by the RIG records manager after three years.

Final documents are to be classified as official records, converted to PDF with appropriate metadata based on a standardized template, and filed according to the electronic file plan.

Metadata capture is automated to the fullest extent possible. Employees with access privileges are advised to set default metadata templates to meet metadata requirements, but are expected to add core metadata elements, as necessary. All documents filed in the electronic file plan will include core metadata elements that adhere to the controlled vocabulary and file naming conventions. For a PDF, core metadata is assigned to the title, author, and subject properties

as follows:

Title: Unique File Name

Author: Name of Organization, Name of Office, Name of Individual Capturing the Record

Subject: Record Series as Listed in Record Retention Schedule, Date of Capture

The company will monitor and potentially modify or expand metadata requirements to meet user search and retrieval needs, as use of the file plan increases.

Requested changes or additions to the existing file plan structure must be forwarded to the RIG records manager for approval and implementation.

Records with date-based retention periods (e.g., current year + 3) must be maintained in folders labeled by date.

For records with activity-based retention periods (e.g., three years after closed), the activity date must be added to the folder name at the point of occurrence (e.g., a folder titled “Doe_John_Contract” will be changed to “Closed_20140601_Doe_John_Contract” when the contract expires).

Once per year, the RIG records manager, in consultation with department heads, will review each department’s file structure, facilitate transfer or destruction of records that have passed their retention period, and destroy non-record working files that are more than three years old.

Pilot Project Report (Excerpts)

Office of the CEO

Background

The CEO’s office holds records of board and committee meetings. Paper committee files are stored in the archives with the organization’s articles of incorporation and other historical records. In recent years, electronic committee records have been printed out to add to the archives’ files. With multiple copies and drafts stored electronically as born-digital files, however, it is difficult to identify which electronic file corresponds to the official print-out.

The management of working files and non-record materials, including duplicate copies of records in paper or electronic format, can be a complex aspect of developing electronic file plans. Depending on the scope and goals of an organization’s electronic file plan initiative, it may be necessary to investigate the existence of unauthorized copies or shadow systems; this may be especially appropriate when attempting to decrease litigation risks and storage costs.

Henceforth, the office will cease to print out the official records and will utilize an electronic file structure to track drafts and versions, ensuring the preservation of the official committee files. After finalizing the documentation of a particular committee meeting, those records will be placed in the electronic file plan according to established procedures. All copies or drafts will be deleted. In the future, the office may consider imaging the official paper committee files and incorporating them into the electronic file plan.

The CEO’s office manages the public relations function of the organi-

remain accessible to the CEO’s office with read-only permissions for an additional 10 years. (See “Office of the CEO File Structure” on page 29.)

Human Resources

Background

Human Resources (HR) has a well-established system of filing hiring records by date and position number using the naming conventions yyyyymm.# where yyyyymm indicates the year and month and the # is used to insert a unique identification number in sequential order. (See page 29.)

While converting to electronic re-

End users are unlikely to comply with overly detailed or cumbersome metadata requirements. Organizations are encouraged to utilize technology to automate the capture and maintenance of metadata, as much as possible. Metadata are particularly useful when reviewing permission levels, audit trails, and adherence to policies surrounding the use of the electronic file plan. Pertinent metadata may be stored within documents’ properties, in a separate but connected database, or in both locations.

zation, including handling company correspondence. Incoming correspondence arrives via mail, fax, and e-mail. Outgoing correspondence is prepared electronically but may be distributed via mail, fax, or e-mail. The office will capture all correspondence in PDF format, either by saving an electronic file as PDF or by scanning a paper file into PDF. Correspondence will be filed by date, segregated into incoming and outgoing, and further segregated by primary topic. Paper and electronic copies will be destroyed when PDFs are properly captured and filed.

Stewardship of all final CEO records will be transferred to the custody of the archives after 10 years but will

records, the office maintained its existing paper file structure and applied it to the electronic files. Hiring records are destroyed after three years in accordance with the records retention schedule. Upon completion of the hiring process, records of hired employees are copied into HR’s personnel files. Those are retained for 20 years after an employee’s departure, then transferred to the custody of the archives for historical appraisal.

HR will develop its personnel file structure to accommodate retrieval by employee name, but will incorporate supplemental metadata (start date, end date, department) to permit retrieval by other data elements.

Office of the CEO File Structure*File Structure*

- 📁 Committee Records
 - 📁 Board of Directors
 - 📁 20130105 Meeting
 - 📄 Announcement
 - 📄 Agenda
 - 📄 Handout1
 - 📄 Handout2
 - 📄 Minutes
 - 📁 Finance Committee
 - 📁 Marketing Committee
- 📁 Public Relations
 - 📁 Correspondence
 - 📁 2010 Incoming
 - 📁 Acquisition
 - 📄 Doe_Jane_Pro-Acquisition
 - 📄 Doe_John_Anti-Acquisition
 - 📁 Profit Margin
 - 📁 2010 Outgoing
 - 📁 Acquisition
 - 📄 Doe_John_Response
 - 📁 2011 Incoming
 - 📁 2011 Outgoing
 - 📁 Marketing and Communications
 - 📁 2010 Press Releases
 - 📄 20100130_Press_Release_Acquisition
 - 📄 20100601_Press_Release_Leadership_Changes
- 📁 Reports
 - 📁 Annual Reports
 - 📁 2005
 - 📄 Company_Annual_Report
 - 📄 HR_Annual_Report
 - 📄 RIG_Annual_Report
 - 📁 2006
 - 📁 2007
 - 📁 Audit Reports

Human Resources File Structure*File Structure*

- 📁 Case Files
 - 📁 2012 Doe John Disciplinary Action
 - 📁 2014 Doe Jane Lawsuit
- 📁 Hiring
 - 📁 2011.1
 - 📄 Job_Posting
 - 📄 Position_Description
 - 📁 Employment Applications
 - 📁 Interviews and Selection
 - 📁 2011.2
 - 📄 Job_Posting
 - 📄 Position_Description
 - 📁 Employment Applications
 - 📁 Interviews and Selection
 - 📁 2012.1
 - 📄 Job_Posting
 - 📄 Position_Description
 - 📁 Employment Applications
 - 📁 Interviews and Selection
 - 📁 2012.2
 - 📄 Job_Posting
 - 📄 Position_Description
 - 📁 Employment Applications
 - 📁 Interviews and Selection
 - 📁 2012.3
 - 📄 Job_Posting
 - 📄 Position_Description
 - 📁 Employment Applications
 - 📁 Interviews and Selection
- 📁 Personnel Files
 - 📁 Doe Jane
 - 📄 Application
 - 📁 Benefit Forms
 - 📄 Contract
 - 📁 Doe John
 - 📄 Application
 - 📁 Benefit Forms
 - 📁 Reference Letters

Records & Information**Governance****Background**

Primary functions of the Records and Information Governance (RIG) office include project management, records management, systems management, and user training. Project records are created during active projects or initiatives. The records

retention schedule indicates that disposition occurs five years after a project is closed. Upon completion of a project, files are moved from “Active” to “Closed,” and the closed date is added to the folder title. A similar approach is used for system files; those are scheduled for disposition 10 years after a system is decommissioned.

RIG’s pilot rollout will include

the provision of training for CEO, HR, and RIG staff members. Under RIG’s leadership, the pilot electronic file plan structure will be developed, tested, and modified to meet the needs of the participating departments. RIG will monitor and report on permission levels, user experiences, and the inventory of electronic files captured in the structure.

Records and Information Governance File Structure*File Structure*

- 📁 Projects
 - 📁 Active
 - 📁 Electronic File Structure
 - 📁 Vital Records Review
 - 📁 Closed
 - 📁 Closed 20101001 Disaster Recovery Planning
 - 📁 Closed 20110516 Records Retention Schedule Update
- 📁 Records Management
 - 📁 Records Retention Schedules
 - 📄 2005_Records_Retention_Schedule
 - 📄 2011_Records_Retention_Schedule
- 📁 Systems Management
 - 📁 Active Systems
 - 📁 Departmental
 - 📁 Enterprise
 - 📁 Decommissioned Systems
 - 📁 Departmental
 - 📁 Decommissioned 20120630 CEO Travel System
 - 📁 Enterprise
 - 📁 Decommissioned 20111231 Payroll System
- 📁 Training Programs
 - 📁 Disaster Recovery
 - 📁 Electronic File Structure
 - 📁 Records Management
 - 📁 2005-2006
 - 📁 2007-2008
 - 📁 2009-2010
 - 📁 2011-2012

In collaboration with the pilot offices, RIG will implement changes to rules, roles, and responsibilities of end users. RIG will also monitor levels of resistance to the electronic file plan, with particular focus on end users' attempts to continue previous recordkeeping practices or utilization of non-approved storage space. Enterprise-wide rollout will commence within two years, and the organization expects to be prepared to transition to a document management system within 10 years.

Learn More

Developing Electronic File Structures

(ARMA International 23-2013), from which this case study was excerpted, provides implementation-based recommendations for electronic file plan development in organizations. It describes the strategy, techniques, and tools associated with effective electronic file plan development to appropriate electronic file plan management. It is available for purchase in the ARMA International online bookstore at www.arma.org/bookstore. **END**

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