

Multi-level Records Systems  
in British Columbia and Nova Scotia  
Canada.

by  
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## Introduction

The concept of the records life cycle has been a valuable approach to many problems associated with the management and control of documents, files and records. It is rather battered now and time-worn in some respects. Some of its applications have been piece-meal and its use inconsistent and often incomplete. It is also under attack from diverse sources and is largely ignored in standard records management texts.

This paper is not a comprehensive defense of the life cycle concept, but rather an illustration of how it was used with other archival methods, records management techniques, organizational strategies, and common sense to build a comprehensive records system. It shows how the life cycle served as a starting paradigm and didactic model for an integrative records and information management program.

The paper describes the development of an integrated, multi-level, multi-stage system for the comprehensive management of records. The venues were two Provinces of Canada: British Columbia and Nova Scotia. The British Columbia system<sup>1</sup> was developed between 1982 and 1987; Nova Scotia STAR/STOR<sup>2</sup> between 1991 and 1995. Since the creation of British Columbia's ARCS, other Provinces of Canada have developed similar systems, and to date Nova Scotia, Saskatchewan, New Brunswick, Alberta and Prince Edward Island have implemented integrated records systems. In 1989, the Federal-Provincial-

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<sup>1</sup> *Administrative Records Classification System*, 1993 edition. British Columbia Archives and Records Service.

<sup>2</sup> *STAR, Standard for Administrative Records*, Version 4.0, Nova Scotia Records Management, Department of Supply and Services, 1995. The policy requires each department and agency to have a similar system for their operational records, or a *STOR, Standard for Operational Records*.

Territorial Records Management Council accepted a report on records retention and disposition which outlined the basic concepts of integrated records classification and scheduling systems.<sup>3</sup>

The basic aspects of these systems are that they: (1) fuse the records schedule and the file plan into a single, comprehensive inventory of records of an agency (2) provide a framework for attaching standards, policies, procedures, and other tables of data (3) are independent of media and information container and can be applied to any format, including electronic records (4) establish links upward to the series entries in government-wide directories (the Canadian equivalent of GILS, Government Information Locator Systems) and links downstream to archival inventories, and (5) create a focused arena for cooperative partnerships.

When we started the development of ARCS in British Columbia, we too found limitations with the traditional approach to the life cycle and typical uses of it. We found segregation, lack of integrative links, and discontinuous metadata creation. We found a lack of links between stages of life histories of records series, file sets and files, and a lack of variance flags or auditing points in the process. These factors caused major ruptures in records systems and we had no effective way to intervene in order to attenuate or even reverse the stream of records through inappropriate life cycles. There was also no common data stream for all the information created about and around records systems. There may have been a records management policy, but it was generalized and not directly linked to a specific records management system.<sup>4</sup>

To use the life cycle effectively, we knew that we would have to bring about a closer integration of stages of the life cycle, to link in specific and concrete ways records management and archives activities to each other **and** to information about records, and to develop a common database system for the records.

What we found at the time, of course, were major discontinuities in both the functions performed to manage records and in the data about the records

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<sup>3</sup> *Report of the Federal-Provincial-Territorial Records Management Council on records Retention and Scheduling, 1989/12/11.* The main author of this report was Walter Meyer Zu Erpen, a key developer of ARCS and in 1989 Manager, Appraisal and Acquisition Section, B.C. Archives and Records Service.

<sup>4</sup> ARCS was developed by the B.C. Records Management Branch, Ministry of Provincial Secretary and Government Services. Its first director, Kent Haworth, initiated the process and laid some of the basic foundations. Other key participants in the 5-year development process were Craig Neelands, Debra Barr and Kathleen Barlee (who argued and won the point that scheduling should occur at the Secondary level), John O'Brien, David Holm, Walter Meyer Zu Erpen, Gary Mitchell, Robin Keirstead, and Gail Leatherdale. There were many others as well, especially in client groups.

themselves. One of the major discontinuities was described by Eldon Frost and Brian Corbett in 1983.<sup>5</sup> They did a study of the effectiveness of records schedules in identifying and transferring archival records to the Public Archives of Canada (now National Archives of Canada). They reported that despite all the energy and resources given to their development, records schedules, as then existing in the Government of Canada, were not effective in identifying and transferring archives. Most accessions of archives came to the Public Archives of Canada in traditional methods: word of mouth, personal contacts of the archivist in agencies, attention brought to records by publicity and crisis, or changes of various kinds in the agencies (moves, floods, office-leaving, reorganizations, cutbacks, etc.).

This study had a profound effect on the development of ARCS. It pointed out that the records schedules were quickly out-dated and not widely distributed to users, creators, archivists, or managers. Schedules were tucked securely away in the drawers of the records managers and were not dynamic documents organically adapting to the changing conditions in the records management environment or to changes and updates in the records themselves. There was no direct correlation between the records schedule and records reality. The schedules were uni-level, inconsistent in their description of records, and drafted without reference to common standards or a set of description and classification rules. At best, they were rough-hewn documents able to dispose of vast amounts of routine records, but unable to provide the finer tools needed for document and file management or identification **and** management of archives in the custody of the creator.

This study became one the foundation stones for the development of ARCS. ARCS was specifically built to avoid these shortcomings in the traditional life cycle approach and the limited ways records schedules were used as its most common control device. A main purpose of ARCS was to repair the ruptured life cycle and provide real document and file management tools for the creators. The development of ARCS was coordinated by archivists who could also ensure that archives, wherever they may be located or held, were identified and protected; and who could ensure that the developing system remained consistent with archival principle.

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<sup>5</sup> Brian Corbett and Eldon Frost. "The Acquisition of Federal Government records: a report on records management and archival practice," *Archivaria*, 1983/1984, No. 17, 201-232. The problem was revisited in 1991 by Eldon Frost, but he article no reference to attempts at the Provincial level to correct the short-comings documented in the 1983 article. See Eldon Frost, "A weak link in the chain: records scheduling as a source of archival acquisition," *Archivaria*, 1991/1992, No. 33, 78-86.

One solution to the problem of discontinuity of the life cycle is to establish an organizational integration of records management and archives functions. This type of integration groups activities associated with all aspects of archives and records management into one agency. This is the type of "continuum" suggested in Atherton's 1986 article.<sup>6</sup> Organizational unity is a great advance and has done much to repair the damage done to the profession since the separation of American records management and archives in the 1950's. This separation has existed in Canada, though to a lesser extent and with less intensity. However, the many integrated archives and records programs in the United States and Canada attest to the value of this approach.

One short-fall in this process has been that too many, if not all, of these organizational unifications are amalgamations, not true integrations. In most of them, the records management and the archives sections have been placed in the same agency and report to the same directorate or executive, but remain enclaves of their own. There has seldom been a true integration and records analysts and archivists are often at cross-purposes or work in isolation from each other. Meaningful integration of the life cycle functions in the archives/records agency would focus on the establishment of a fused archivist/analyst position. I think that some archives have explored this integrated position and some may have established it. But this another tack, another session.

In neither Province did we have the advantage of an integrated organization during the development phases of ARCS or STAR/STOR. Between 1982 and 1989, the archives/records spectrum was divided between the Records Management Branch and the Provincial Archives of British Columbia, though both reported to the same executive and were in the same Ministry (department). In Nova Scotia, the archives and records programs were separate organizations and had no direct link at the executive level. This separation may have been part of the reason we focused on another approach to achieve multi-level and multi-function integration.<sup>7</sup>

The method chosen in British Columbia and Nova Scotia to integrate the life

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<sup>6</sup> Jay Atherton, "From Life Cycle to Continuum: Some Thoughts on the Records Management-Archives Relationship," *Archivaria*, No. 21, (1985/86,) 43-51.

<sup>7</sup> In 1989, the Records Management Branch was amalgamated with the Provincial Archives of British Columbia to form the B.C. Archives and Records Service. Recently, Nova Scotia Records Management and the Public Archives of Nova Scotia were joined together.

cycle and to build spans across the breaks between its stages was to turn to the metadata, to look at the information about the records themselves. The fragmented and segmented environment we found ourselves in is typical of records and archives programs, whether in government or corporate circles. In this setting practitioners of each stage of the life cycle create and, sadly and inefficiently, replicate or recreate information about the records. This duplicated and overlapping information and the resources wasted to produce it is a major problem with most traditional applications of the life cycle concept.

Creators build for themselves, without any prompts, large amounts of information about their holdings: lists, indexes, file plans, directories, data dictionaries, glossaries, etc. This information is sometimes included internally in the records themselves, or it may be external in separate documents. Sometimes is both. Whatever the location, the usual state is that it is scattered, inconsistent, and unsystematic.

Records managers, records center operators, and archivists also create information about the records which they examine or which pass into their hands. Sometimes this information is gathered in rough fashion from the creators; too often it has to be created from the start, or, in uncoordinated fashion, all over again. Such information (records schedules, records transfer lists, series descriptions, *fonds* guides, etc.) are usually created with minimal reference to each other.

The efforts that were made in British Columbia and Nova Scotia to deal with the problem of the ruptured life cycle led to the integration of two records control documents commonly used, but most often segregated from each other: the file plan and the records schedule. They were integrated into one document and the product was developed as one unified database. This integrated tool was called a "records classification system." The goal was to establish a unified system for the creation and management of information about documents, files and their aggregates. The challenge was to regularize the process of metadata creation, standardize the data elements, establish a unified data stream, and build a common data base.

The theoretical inspirations for our approach to building these systems were Jenkinson, Margaret Cross Norton, and Muller, Feith and Fruin. One disgruntled archivist of the historical and scholastic school even referred to us as the "raving Nortonians," a term we took onto ourselves with pride. In addition to the work of Frost and Corbett, we also based ARCS on the *Subject Classification Guide* of the

Public Archives of Canada. This block numeric filing system had grown out of registry filing plans developed by the Canadian military in World War II. Returning veterans expanded the use of this type of system into other governmental departments and agencies in Canada, both Federal and Provincial. A chief architect of these systems, George Brown (a records analyst with the Public Archives of Canada), pulled together the basic concepts and described the block numeric system. With the publication of the *Subject Classification Guide* in 1967, it was also distributed across the Government of Canada.<sup>8</sup>

In British Columbia, we refashioned the *Subject Classification Guide* into a comprehensive records description hierarchy, based it on functions instead of subjects, and attached records schedules directly to it. The basic principles of the block numeric system and its levels of classification were kept intact, but they were articulated in more detail and enhanced with specific usage rules. ARCS was also set in the context of a comprehensive records and information management policy, documented standards for agency records programs, and a strong archival perspective.

ARCS and the STAR/STOR system in Nova Scotia had to effectively:

- \* Manage the intellectual entities and data elements established for records at any stage.
- \* Identify archival records at any point and provide for post-custodial preservation and access.
- \* Control the physical holders or carriers (boxes) of the documents, files, and their aggregates.
- \* Provide a tool for access and retrieval in the active office environment.
- \* Provide a framework for productive and supportive cooperation of all participants in the records management process.

There are many other features of these systems and I will illustrate some of them here today, but I do want to make a couple of points about the priorities that underscored their development and implementation.

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<sup>8</sup> *Subject Classification Guide*, Public Archives of Canada, 1967; and subsequent editions that latest of which was 1979.

The most important aspect was client service. These systems were primarily built to help people with problems in managing their records. True, they were built from an archival perspective, with the entire life cycle in mind, and with consideration for the full panoply of records and information management issues: security, custody, authenticity, and responsibility. And archival theory was a foundation rock of which we never let go. But in the first instance and to have even a chance for success, these systems had to help people. They had to be practical, usable products for controlling documents and files and they had to help records creators and users do their own jobs better.<sup>9</sup>

These systems also had to be able to manage the physical. With great respect for the "lumpers and carters" these systems were designed to make their job easier too.<sup>10</sup> Amidst the various critiques of the life cycle, there seems to be tendency to ignore the physical dimensions of the problem and to downplay any emphasis on solving it. Any archival theory developed to encompass all records and archives functions and activities can not ignore this "body physical," nor should it have any illusions that the problem disappears with electronic records. Indeed, the problems with the "body electric" are vastly more difficult.

While I agree that the life cycle has its limitations, especially in the way it is often misapplied or under-applied, there should be little patience with downgrading this physical element or the life cycle stages used to manage it effectively. Try and imagine our plight without the disposition achievement of this aspect of the life cycle. It would be laughable and very desperate. There is a lot of talk of partnerships, and I would suggest that we start with the "lumpers and carters" and reach out to them with respect for their effort. The systems built in Canada were certainly built with full respect for it. Neither did they ignore the "body physical" at any time (apologies to Walt Whitman).

## System Features

This section outlines the system developed in Nova Scotia and discusses some of

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<sup>9</sup> Atherton's 1985/86 article gave encouragement and support for this emphasis as it is a central theme in his continuum.

<sup>10</sup> Frank Upward, "In Search of the Continuum: Ian Maclean's 'Australian Experience' Essays on Records-keeping," In *The Records Continuum: Ian Maclean and Australian Archives First Fifty Years*," edited by Sue McKemmish and Michael Piggot, 1994.



its chief features. The STAR/STOR system<sup>11</sup> has eight basic components:

1. Classification System.
2. Valuations (records schedules).
3. Retention and disposition plans.
4. Naming conventions .
5. Links.
6. File and document management procedures.
7. Policy.
8. Training and education.

### 1. Classification System<sup>12</sup>

The classification system is a hierarchical set of titles for the classification and identification of files and documents. It is a "Block Numeric" structure based on the functions of a creator. The levels used for grouping and titling files are:

(STOR) Standard Operational Records Classification System  
Main Group  
    Primary Block  
        Primary  
            Secondary

Beneath these classification levels are the unique names and codes assigned to documents and files within a set.

A file or a set of files are actually described and classified at the Secondary level. They are also scheduled and appraised at this level. The levels above Secondary are titles used to arrange the functions of an agency and to show the logical relationships between them. They are also used for access, based on the principle "from the general to the specific." In STAR, each Main Group, Primary Block, and

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<sup>11</sup> STAR was developed by Nova Scotia Records Management in conjunction with the Government Records Division of the Public Archives of Nova Scotia. Records creators, users, and clients of many kinds and levels also participated; these included records managers, LAN administrators, lawyers, systems analysts, librarians, file clerks, application programmers, and program directors. The toughest critics and perhaps the most valuable developers were those from all levels of the Nova Scotia government who attended training programs. Key Nova Scotia Records Management developers were Emily Walker, Christina Corkett, Steve Allen, Connie Michaelis, Tracy Roberts, Brent Robson, and Margaret McBride. Public Archives participants included Carman Carroll, Kent Haworth, Barry Cahill, and Margaret Campbell.

<sup>12</sup> *Rules for STAR and STOR*, Version 3.0, Nova Scotia Records Management, Department of Supply and Services, 1995.

Primary carries a Scope Note which describes the purpose and function of the records classified under it. The language of a scope note also provides keywords useful for indexing and access. Because subseries are generally found at the Secondary level, scope notes may also be developed for Secondaries.

The classification system of a STAR or a STOR provides a comprehensive view of the functions of an agency and the types of records used to support those functions. It is not a subject-based set of "headings." It is comprehensive description of functions and activities arranged in a hierarchy.

The method used to develop a STOR is somewhat different from the typical way presented in records management texts, archives guides, and government records management manuals. In these approaches, the first step is the "inventory" comprised of a blizzard of data on current records ranging from measurements of file drawers to guesses about date ranges. Much of this data is never used or updated and as it sits, the "inventory" often presents an insurmountable obstacle for the implementation of records management. From the user's perspective, it is not a product, not a tool, and thus, of limited usefulness.

What a STOR project first does is to inventory the functions, activities, and transactions of an agency. It is more akin to a business functions analysis. The key documents in this process are statutes, regulations, annual reports, mission statements, business plans, policy and procedural manuals, application directories, data dictionaries, system manuals, work flow descriptions, file and documents lists, and other types of meta data. A STOR is written with context-related information as its foundation. The purpose of this method is to ensure that records are set into their functional contexts. Function, function, function is always the keystone in STOR development.

Records are surveyed, not "inventoried" in detail. This is not a case of "mind without matter." Rather, it is a higher-level descriptive survey. The traditional detailed inventory is reserved for special series, problem subseries, or offices that may require it in order to write the STOR, schedule the records, or fix some other documents or file management problem. The important point is that the full-blown records management inventory is used selectively.

An important part of the survey is to gather data about existing files, documents, file sets and case file series, though little quantitative information is collected about them. Some of the most important elements of the survey and ones drawn from the traditional records management inventory are the description of

function, purpose, and uses of the records. File level data is collected to guide the building of the blocks of functions arranged at higher levels of the classification system and to ensure that secondaries are accurate and useful for retrieval.

## 2. Scheduling and appraisal

Each Primary and its constituent secondaries has a set of tables attached to it. In the STAR/STOR system, these tables are used for the Records Schedules, but many other types for valuations could be attached to a STOR: security codes, access restrictions, business recovery categories, essential (vital) records programs, or critical success identifiers.

The schedules are typical of records schedules as developed and used throughout North America with some exceptions.

### A. Scheduling does not occur at the series level.

Experience led us to the conclusion that series-based schedules are inadequate for comprehensive description of records and information resources. They are also too blunt to permit separation of records of short-term values from those with continuing value. In the paper-based world, these are often filed together for reference efficiency. We did know that series scheduling can fill up records centers and dispose of routine records already separated from other records, but we were not sure that it could do much else.

More importantly, series-bound schedules do not provide for effective retrieval and access for files and documents. Most series-based schedules lump file sets together; thus, separation between the schedule and records creation and maintenance activity quickly occurs. The records schedules no longer reflect the records reality.

A essential element for us was that a direct link and correlation must exist between the control documents (schedule, index, document profile or document tags) and the record. Thus in a STOR, retention values are set at the secondary level; i.e., the equivalent of a file, a group of files, or a "case file series." This is a fundamental concept of STAR.

However, there is a deeper world beneath this level. We knew that we had to descend into the wondrous chaos of the document and item. We knew we had to penetrate to this level, or else we could face the same plight of series-based scheduling systems. Our fate might be to have a records schedule with all the outward appearance of efficiency sitting atop file and document disorder, if not catastrophe.

- B. Another pre-requisite of the STAR/STOR system was that it had to be able to manage the post-custodial environment. This was not solely due to electronic records, but to deal with conditions with respect to Vital Statistics records, land records, and long-term licensing records. Therefore, "Archival retention" means that the records have archival value, not necessarily that they are going to be transferred to an archives at any point during their life cycle. "Archival retention" in STAR does not automatically mean that there is a physical transfer of the records from the records center or the creator's custody. It means that the records must be managed as archives from their inception. The Policy requires it, the preservation standards articulate it. In STAR/STOR we added a feature to instruct and guide preservation: the Retention and Disposition Plan. These plans, which are assigned to a primary or a secondary, specify or reference the details of preservation: location, responsibility, facility requirements, maintenance procedures, etc.

There is another valuation feature of STOR that places it directly in the management stream of an agency: the assignment of accountability and responsibility for each Primary. Many schedules designate "office of record" or "record copy." STOR designates a management position, Office of Primary Responsibility, ("office in the sense of "an office" a person holds) accountable for the records. The aspects of accountability are established in the Policy. STOR thus becomes an authority matrix for management of records in much the same way as financial managers establish a signing authority matrix for expenditure control.

Separate tables showing the accountability matrix were developed to show organizational hierarchy and functional relationships, and strategic retention priorities. Now this was starting to get the attention of senior management.

### 3. Retention and Disposition Plans.

STAR/STOR has detailed retention and disposition plans as a fundamental element. These plans specify standards, methods, and procedures for the identification, selection, protection, and preservation of the Government's memory. They detail procedures for destruction and other types of disposition and give specific instructions for selection of archival records. All plans have an implementation instruction which detailed actions and required procedures.

The plans include reference to the primary and secondary or covered, an expanded scope note, and a retention and disposition summary. An archival appraisal and records management evaluation sets the records in their creation context and describes the values the records carry. There are also sections of the plans for rationale for retention, selection, or destruction, justifications for protection and preservation measures, and estimated costs.

Too often records schedules attempt to force all instructions for implementing a schedule into one table, form, or screen. The result can be a mind-bending maze that is essentially indecipherable. The idea behind Retention and Disposition Plans was that the detail of schedule implementation could be more adequately recorded in a separate part of the document, or "document base." This scheme is ideally suited to inter-linked levels provided by hypertext.

Many other aspects of the management of the records, including details for retention and maintenance of files and documents can be included. These plans can address issues at any level of the organizational or records hierarchy, any function or activity within the archives/records spectrum, or at any stage of a record's life history.

### 4. Naming conventions.

One of the fundamental principles of the STOR system is that the titles of Main Groups, Primaries and Secondaries and the terms used in the scope notes are controlled by a thesaurus, based on ISO standards. The ISO standard use to govern the STAR's thesaurus is the *Standard for Monolingual Thesauri*. The thesaurus, or Thesdex, used in STOR were developed by the creators as a standard glossary and a common language for their functions. This is a typical phase in the development of automated systems. Data dictionaries are essential to effective databases, so creators were usually familiar with this process and recognized its value. STOR thus becomes a hypertext database for documents,

files and their aggregates with standard terminology governing its use.

A thesaurus, like the records schedule, is usually a technical manual hidden far from users. What STAR does is to put the thesaurus in front of all users, thereby changing it from a technical control document to a user aid. The name "Thesdex" was chosen because it combines the benefits of a thesaurus and an index. Our experience showed that some users preferred the overview of the classification system for direct access; others extracted the Thesdex from the manual, copied into a separate file, or printed it off and used it as their main access tool.

All these features can be imbedded into an automated version for managing electronic documents. Some would argue that these types of naming conventions are outmoded and they have been replaced by fuzzy logic, smart keyword search software, proximity searches and the like. Perhaps they will be obsolete at some point, but for the interim, I prefer the advice of systems builders and imaging specialists when they warn clients to beware of document imaging systems accessed by keyword software. One maintained that without effective naming conventions, these new systems simply will not work. In any case, a thesaurus can be loaded into system making the search engines very smart indeed and more effective for users.

##### 5. Links Below and Lights Above.

In terms of its records classification hierarchy, STAR/STOR provides links in two directions: upward into series level aggregates and downward into document management. This is a fundamental element of the system.

Each Primary of STAR or a STOR has an entry for Records Series Number. This is a unique identifier attached to each and every series within the Government. This serves to tie together primaries or block of primaries into a single series that more broadly defines a function. In Nova Scotia, this was used to tie STAR and all STOR's to the government-wide information directory required by the *Freedom of Information and Protection of Privacy Act*. Unlike some other jurisdictions, Canadian statutes fortunately require an information directory. We were successful in arguing that the records schedules of the government, even with their imperfections, already contained an incipient information directory. What we needed to do was to build on them and establish a directory at a higher level of description, but linked to the lower levels detailed in the schedules and records classification systems.

After review of information directories from other Provinces and the Federal Government's *Info-Source*, we decided that the series (a macro-style series) would be the descriptive level of entry in the Nova Scotia directory. The records series entry standard is based on Canada's *Rules for Archival Description (RAD)*. The records series entry and its unique identifier takes the access path down into a comprehensive inventory of records, file sets, and files arranged in a STOR.

Archival description requirements are served by placing archival rules at the center of information directories. The system also allows for enhancement of a descriptive entry by either expanding or revising it or by re-arranging portions of it into subseries. The directory always shows whether or not a series is archival or contains archival records.

At various stages of the development of ARCS in British Columbia, we had discussed the relationship of the hierarchy of ARCS (main group, primary block, primary and secondary) with the archival descriptive hierarchy: fonds, series, subseries, file, and item. We came to no adequate conclusions. There was symmetry at the file and item levels, but above that there was no direct correlation between the two hierarchies. In Nova Scotia, we realized that such a correlation was unnecessary as the two hierarchies serve very different purposes. All the hierarchies had to do was to be linked in strategic places. In STAR/STOR the strategic place is the records series. STAR/STOR makes this link by tying each primary to a specific records series and establishing a set of data model rules for the use of the levels.

The link downward into file and document management is provided through the use of codes. There is an essential difference between classification and coding as used in STAR/STOR, though they are often confused elsewhere in the literature and in practice. Classification is determining the primary and secondary title to which to attach a file or document. This is done by analyzing its function, purpose, activity, and in some cases, subject. Coding is the process of assigning unique numerical or alphabetical names or symbols to a file or document within a known set.

Codes are unique identifiers (numbers or names) that creators assign files or documents. The most common type of codes are those used to identify specific cases or transactions within a case file set (often called a "case file series"): such as, application files, license files, inmate files, incident files. These are the massive sets of transaction files common in modern records systems.

Codes and unique signifiers can also be used for other types of files and for discrete documents as well. Highlighted secondaries within a STOR may take the creator or user into the coded index or list, to instructions for use, or to guides for access. The STOR structure does not specify codes or provisions for their access and use, but provides a framework for subsystems and rules designed by creators. STOR provides a way for creators to link coded documents and files to higher levels in the classification system.

## 6. File and document management procedures.

There are many other aspects of the creation, use, control, and maintenance of files and documents that need to be covered in a comprehensive records system. Some are areas for prescription. Others are best done requiring creators to have some system of documented procedures in place, but leaving them to design these for themselves.

Activities normally covered include:

- Receipt, sorting, and classification
- Location, storage, and maintenance
- Indexing, coding, and cross-reference
- Files management
- Physical filing and refiling
- Distribution and retrieval
- Purging

Procedures for electronic documents can also be incorporated in this element of the system and linked to the secondaries covered by procedures. If possible, they can also be incorporated directly into the applications software. The terminology and specific tasks for administering Local Area Networks is different, but many of the functions are comparable and procedures for the management of documents and files by assigning STAR/STOR names can readily be developed. Provisions for e-mail management, preparation of document profiles, document streaming, document tagging, and tape and disk management can also be built to support effective utilization of this system.

## 7. Policy.



An essential feature for a comprehensive records and document management system is a Policy. There has to be an Executive sanction that records will be managed as assets and that management accountability is expected, assigned, and monitored. It has to be a policy that spans across the life cycle and takes into account all aspects and activities of records creation, control, maintenance, and disposition. Essential requirements are that all records will be described and scheduled and managed in accord with the schedule, its descriptive and classification system, and its retention and disposition plans. Much current practice leaves the classification of records, the file plan, and most document management activities to each department or agency. This is a fundamental flaw and gridlocks a program from effectively achieving a multi-level integration of the life cycle.

We found that an effective way to tie together the life cycle and to bring the archives into the forefront of management was to focus on preservation standards. This is true with respect to archival records, but it also can be applied to records that may not be archival but are essential to business operations. A key policy element is that creator's are responsible for archival records and essential records that are still in their custody and that these records will be maintained in accordance with preservation standards developed by the Archives and specific provisions of the retention and disposition plans.

There was another strategic necessity for this policy. In British Columbia, we knew that creators had archival records, used them for operations or occasional reference, and would never transfer them to archives. Like most archives, we engaged in much teeth-gnashing and departmental tug-of-war over this problem until we realized there was a more strategic and effective way to preserve the records. We shifted our approach and focused on preservation, not location. Before the post-custodial reality of electronic records became obvious, the requirement and benefits of a post-custodial approach had been apparent.

In any case, there must be a strong preservation sanction and an effective support program underneath post-custodial archives. This element must be set in place early in the development of these systems. The policy and standards for preservation highlighted this problem and assigned cost responsibility for maintenance and preservation to the creator.

## 8. Training and education.

This element of STAR/STOR returns the system back to its central focus: to support creators and users of records and the corporate memory their records hold and carry. With respect, there is no such thing as a self-operating, self-perpetuating records system that is effective and efficient or that can survive the effects of the laws of thermodynamics. Any records system is managed and held together by the creators, managers, and users of it. Their abilities and skill in doing so must be taught, nurtured, and supported.

No effective system can do so without training and education. This should occur at two levels: (1) education about the general principles of records management, archives and the system itself, and (2) direct and specific training about how to use and maintain the system within the client's environment.

This all must sound so self-evident you may be wondering why he is saying this, why include this in the list of essential elements. The reason is that much of the new theory never mentions this factor. I find this both exceedingly dangerous. In this instance we need to draw upon those in the information management systems discipline. Their literature makes clear that the single most important factor in successfully building and implementing a new system is the human factor, not technology or theory. New partnerships are part of the human factor, but an active and direct training program for our clients is also critical. In Nova Scotia, we built a product, based on archival principle in partnership with the creators. We built a system which could solve records problems for clients. Then we taught them how to use this system and supported them with coaching and help.

The other reason for highlighting the training and education aspect is that some programs have actually cut or abolished their training programs and services. This perhaps is the subject of another session or discussion, but I cannot express concern enough for this course of action. Nor am I sure what adjectives or metaphors to use to describe such a decision, but I **am** sure the results will encompass decay of program and erosion of mandate.

## **Summary**

STAR/STOR is not a theory; it is primarily a system, a tool, a product. STAR/STOR is a systematic framework that can hold all record and archives functions. Any number of standards, procedures, and elements can be attached to

it or elaborated within it. STAR/STOR can speak to any point in the universe of records and archives activity, whether it is to do with a records/archives function or to do with some aspect of the records themselves.

These integrated Canadian systems can probably be incorporated into one theory or another, or used to prop one or more up, but this was not their chief focus. The Nova Scotia system was developed with a keen eye to new theoretical works in archival science and inspired by the emerging concerns about electronic records, but these were not the critical drivers. It was driven by the needs of our clients, the creators and users of records. If there are theories behind these systems, if the systems do promulgate theories, they would be the theories of client service and human development.

We did not find it productive to bring our own theories and concerns to the table with executives and managers, or into the office where the everyday reality of document and file management occurs. We could not thrust these issues upon them. We were ignored or were painted into the nay-sayer corner. At best, we were listened to with a combination of sympathy and impatience. We could talk on and on about "our problems" and about the importance of archives. We could talk so long, so theoretically, so passionately that we could kill meetings and jeopardize our program.

We discovered that we had to listen to their problems and develop solutions, workable solutions. We could not bring a theory to the table, or a set of issues, we had to bring practical help. We had to have products, aids, ways to come to grips with their problems and to assist them with their agenda. We needed a way to reflect their functions and activities back to them and link these functions to their records so they could do their jobs better. An important guiding principle of the development process was suggested to me by a former Comptroller-General of British Columbia, Brian Marston. At an early stage of the development of the British Columbia ARCS, I asked for his advice in developing a system that spanned government and the records management and archives spectrum. He replied, "Just remember Reuben, the staff serves the line. The staff serves the line."

We also realized that there had been an element of elitism in our hand-wringing and hair-tearing over the fate of valuable records. We discovered many allies among creators and learned that many of them are just as concerned about the records as we are, if not more so. Many of them have acutely sensitive, specific and very public mandates to care for and protect "their records." These lessons

came through listening.

Still, we had to ensure that our assistance and our products were placed securely within archival practice and standard records management principles. There was no question about this for us, but this was our issue, not the clients. So we built a system for them, based on principles and practices that met our standards, yet was a product that could be championed by creators and users. Our challenge was to balance these forces, to build a system that met client needs, was integrated, spanned the records and information management spectrum, and was true to archival principle and records management standards. In this, I believe we succeeded and I hope others will find our experience useful.

### **Cycles and continua: reflections.**

In reflecting on how we used the life cycle concept, on its usefulness and applicability to modern records, as well as on its limitations, several points come to mind.

The life cycle primarily applies to records and not to the matrix of functions of management and control of records and archives. It cannot be a paradigm for the entire universe of functions, activities, or program characteristics. It also needs enhancement and elaboration in order to serve as a model for records attributes and the stages of a records' life history. We need theory and sound method in each of these areas. We certainly need more than the life cycle concept to build comprehensive systems in the modern records universe. However, the life cycle is a valuable and useful part of this universe.

In the British Columbia and Nova Scotia experiences, we used the life cycle concept as a framework for the development of integrated, multi-level, and multi-faceted records systems. It served as a simple, straightforward paradigm upon which to attach the many other dimensions of modern records systems. Because of its simplicity, it also served well as a teaching aid. Although it could not be a framework to encompass all the aspects of records management and archives that we wanted to cover, it was an excellent starting point for the training process. We did not need to show clients bewildering and non-sensical diagrams to educate them; we only needed a simple diagram showing the basic phases in the life of document or file. We knew that this could not picture the entire spectrum, but it was a way into the matrix of function and records relationships.

One of the reasons for the success of the life cycle concept as a training tool was because it connected directly with the real experience of creators and users of records. They know from direct, first-hand observation that records have life cycles or life spans. They witness them, participate in them, even fashion them. To ignore or belittle this reality is not productive and will not advance our understanding of modern records. Perhaps some types of modern records have very complex and dynamic patterns, even reversible ones, that do not neatly fit into the simple paradigm. So, let us observe those exceptional patterns, describe them and develop specific standards and procedures for dealing with them. But for the most part, these are exceptions to the general patterns of development for most records; and, they are not reason enough to junk the life cycle concept entirely.

For many records, the terms "life history" or "life span" would be a better ones to describe the process that records go through from creation or receipt to obsolescence. These are terms Philip C. Brooks originally used to analyze the life processes he observed in modern records systems.<sup>13</sup> However, the life history of many records is cyclical and the cyclical patterns can be regular. This is especially true of large case file series (transaction files) as well as the database management systems used to support them.

One limitation, or misapplication, of the life cycle has been a blind assignment of records and archives functions to the various stages of it. The result is segmentation of functions around which partnerships must be built and activities that need to be coordinated, if not fully integrated. It also leads to a disastrous separation of information and data about the records. Atherton dealt with this issue in 1986, and hopefully has put it to rest, at least from the theoretical perspective. Unfortunately, many programs still follow along the obscurant path of separatism.

One thing we do know is that we have a spectrum of functions surrounding records and the records-making process that need to be related and coordinated; and we know that the life cycle cannot picture or illustrate this spectrum or matrix adequately. Some other concept is needed. Atherton suggested a "continuum." I would suggest that "matrix" better describes what needs to exist.

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<sup>13</sup> Philip C. Brooks, "The Selection of Archives for Preservation," *American Archivist*, No. 3, 1940; Brooks's early works and a history of the life cycle has recently been presented in *The Record : News from the National Archives*, see Philip C. Brooks Jr., "The Life Cycle Concept and the Development of Federal Records Centers," Vol. 2, no.4 (March 1966) and Vol 2, no. 5 (May 1966).

Of course the terms "continuum" and "records continuum" underlay much of the writing about archival theory and practice by Australian archivists in the past decade.

I suggest that the term "continuum" is as misused and as inappropriate in this literature as the term "life cycle" is in traditional records management. The concept of continuum cannot encompass all aspects of modern records systems any more than life cycle can. I argue that we need other terminology, other paradigms to model the records universe. Some of Webster's definitions of "continuum" serve to illustrate my point:<sup>14</sup>

- \* something in which a character is discernable amid a series of insensible or indefinite variations;
- \* something absolutely continuous and homogenous of which no distinction can be affirmed without reference to something else (duration, dimension or extension); and,
- \* an uninterrupted, ordered sequence or gradient.

I am not exactly sure which of these definitions Australian archivists would chose to define the "records continuum." We have not had a definitive discussion or meaningful articulation of this term, although we have had some very useful discussions of its history, features, attributes, and application.

One thing is sure: modern records systems do contain continua, and these continua exist in each of the types presented in the usages listed above. For example, there are characteristics of modern records that can be usefully analyzed and illustrated along a gradient. Records management and archives programs can also be described and evaluated using continua of their characteristics. Functions, especially the archival function, can be organized so that it continuously operates in the records environment. But features which are continuous or have continuities beyond organizational lines or across phases of a records' life history patterns are not the same thing as continua.

We also know, or should know, from direct observation and participation that

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<sup>14</sup> *Webster's New Collegiate Dictionary*, 1977. The *Collins Concise Dictionary Plus* (1989) describes a continuum as "a continuous series or whole, no part of which is perceptively different from the adjacent parts." In either case, using this term to signify the vast complexity and multiple levels and dimensions of modern records is misleading.

records systems are not "absolutely continuous and homogeneous." This is not a world of uniformitarianism, but more akin to worlds suggested by Stephen J. Gould's concepts of discontinuity and contingent development.<sup>15</sup>

In modern records systems, as in the biological universe, there is disparity, discontinuity, and a great deal of contingency. These aspects add up to far more than the "variation" provided for in the normal use of the term "continuum." I would argue, that the "records continuum," as presented by Australians, certainly has stages and phases as well as recognizable and definable (even useful) discontinuities. I would not be surprised either, if these are found to resemble the traditional life cycle in some important particulars.

Of course, there is much that is continuous in modern records systems, especially in the functions and transactions areas. Any general, unified theory has to have a prominent place for both of these aspects. There is also much that is recurring and replicative and we must find ways to incorporate these patterns too.

There are also conditions of modern records that are not continua, but rather states or qualities that either exist or do not exist. An example would be that records are, for the most part, either recurring or non-recurring. Other recorded information can be either static or dynamic; it can be used for decision making, but the recorded information itself may be static, or it may be a record that is dynamic (transactional records, for example). For the most part, these are not continua, but either/or states. The state can change, but it exists in one state or another at any given point in time (an external reference point) thus rendering it not a "continuum" in one of the basic definitions. It could be argued that a typology of states would be just as useful as continua or life cycles in advancing our programs. Indeed the Pittsburgh project and some of the other records attribute research seem to be just this kind of approach.

There may not be as much disagreement here as it appears. Our discovery of a unified theory may not be so far away. We probably all would agree with many of the current descriptions and analyses of records systems: their patterns, their attributes, their stages and phases, their dimensions, as well as the standards and practices needed to cope with the many issues and requirements that arise. There is probably a good deal of consensus on this.

What seems at issue is the terminology, the paradigms, the diagrams used to

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<sup>15</sup> Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History*, 1989.

illustrate all this. Perhaps these differences represent profoundly diametrical approaches that cannot be integrated or reconciled, but I do not think so. I think that primarily it is our terminology that needs a major overhaul. Last year an Australian archivist stood at the SAA meeting and challenged American archivists to "get a profession." Well, I think we have one, and for many of us it is exactly the same one as theirs. In turn, I would like to challenge all of us in the American, as well as the international community, Australians included, to get a new language. The terminology we are currently using is limited, inadequate, misleading, fallacious. Both our definitions and our syntax are often flawed, and no national archives community or theoretical approach has a monopoly on these short-comings.

We also need attempts to fuse together the different approaches and the diverse treatment that we are according the various realms of our profession: (1) functional activities that relate to records, (2) the records themselves, and (3) information about the records. Perhaps a broader term would be more appropriate to describe and model the entire records-making and records-keeping universe: terms that can encompass more than just parts of the whole, terms which can illustrate rather than obfuscate. I have used several in this paper, such as spectrum and matrix. There may well be better ones. What is essential, I think, is to encompass and elucidate the states, qualities, cycles, continua, and other natural processes and dynamic interactions that we see in the modern records environment.

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