
**Information and documentation —
Principles and functional requirements
for records in electronic office
environments —**

**Part 3:
Guidelines and functional requirements
for records in business systems**

*Information et documentation — Principes et exigences fonctionnelles
pour les enregistrements dans les environnements électroniques de
bureau —*

*Partie 3: Lignes directrices et exigences fonctionnelles pour les
enregistrements dans les systèmes d'entreprise*



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Foreword

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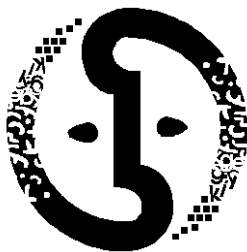
The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

ISO 16175-3 was prepared by the International Council on Archives (as International Council on Archives and the Australasian Digital Recordkeeping Initiative *Principles and Functional Requirements for Records in Electronic Office Environments — Module 1: Overview and Statement of Principles*) and was adopted, under a special “fast-track procedure”, by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 11, *Archives/records management*, in parallel with its approval by the ISO member bodies.

ISO 16175 consists of the following parts, under the general title *Information and documentation — Principles and functional requirements for records in electronic office environments*:

- *Part 1: Overview and statement of principles*
- *Part 2: Guidelines and functional requirements for records in electronic office environments*
- *Part 3: Guidelines and functional requirements for records in business systems*

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International Council on Archives

Principles and functional requirements for
records in digital office environments

Module 3

Guidelines and functional requirements for records in business systems



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1 INTRODUCTION

Organisations implement business systems to automate business activities and transactions. As a result, the digital information generated by a business system increasingly serves as the only evidence or record of the process, despite the system not being designed for this purpose. Without evidence of these activities, organisations are exposed to risk and may be unable to meet legislative, accountability, business and community expectations.

Because of the dynamic and manipulable nature of business systems, the capture of fixed records and the ongoing management of their authenticity, reliability, usability and integrity can be challenging. Organisations are therefore faced with a significant risk of mismanagement, inefficiency and unnecessary expenditure.

While these same organisations may have an electronic records management system (ERMS),¹ it may not capture all records of the organisation. This document is designed to address the records management gap caused by the increasing use of business systems.

It provides guidelines on identifying and addressing the needs for records, and a set of generic requirements for records management functionality within business systems software. It aims to:

- help organizations understand digital records management requirements;
- assist organisations to improve digital records management practices;
- reduce the duplication of effort and associated costs in identifying a minimum level of functionality for records in business systems; and
- establish greater standardisation of records management requirements for software vendors.

The document does not prescribe a specific implementation approach. The intent of these specifications can be realised through interfacing or integrating the business system with an electronic records management system or by building the functionality into the business system.

1.1 Scope and purpose

This document will help organisations to ensure that evidence (records) of business activities transacted through business systems are appropriately identified and managed. Specifically, it will assist organisations to:

- understand processes and requirements for identifying and managing records in business systems;

¹ An electronic records management system is a type of business system specifically designed to manage records. However, in the interests of clarity and brevity, for the purpose of this document, 'business system' should be taken as excluding an electronic records management system.

- develop requirements for functionality for records to be included in a design specification when building, upgrading or purchasing business system software;
- evaluate the records management capability of proposed customised or commercial off-the-shelf business system software; and
- review the functionality for records or assess compliance of existing business systems.

It does not provide a complete specification but rather outlines a number of key records management requirements, with recommended levels of obligation, which can be used as a starting point for further development. As outlined in the document, organisations will still need to assess, amend and select their requirements based on their business, technical and jurisdictional environments and constraints.

This Module only addresses records management requirements and does not include general system management. Design requirements such as usability, reporting, searching, system administration and performance are beyond the scope of this document. It also assumes a level of knowledge about developing design specifications, procurement and evaluation processes, therefore these related issues are not covered in any detail.

Requirements for the long-term preservation of digital records are not explicitly covered within this document. However, the inclusion of requirements for export supports preservation by allowing the export of records to a system that is capable of long-term preservation activities, or for the ongoing migration of records into new systems.

While the guidance presented in this Module should be applicable to records management in highly integrated software environments based on service-oriented architectures, such scenarios are not explicitly addressed. Similar principles and processes will apply in such environments, but additional analysis will be required to determine what processes and data constitute, across multiple systems, the required evidence or record of any particular transaction.

Use of the term 'system' in this document refers to a computer or IT system. This is in contrast to the records management understanding of the term that encompasses the broader aspects of people, policies, procedures and practices. Organisations will need to consider these wider aspects, and to ensure that fundamental records management supporting tools such as disposition authorities,² information security classifications and a records culture are in place, in order to ensure records from business systems can be appropriately managed.

1.2 Audience

The primary audience for this document is staff responsible for designing, reviewing and/or implementing business systems in organisations, such as business analysts

² A formal instrument that defines the retention periods and consequent actions authorised for classes of records described in the authority.

and groups overseeing information and communications technologies procurement or investment decisions.

The audience also includes records professionals who are involved in advising or assisting in such processes and software vendors and developers who wish to incorporate records functionality within their products.

Given the target audience for this document, the use of specific records management terminology has been kept to a minimum. Where the use of such terminology is necessary, definitions can be found in the Glossary at Appendix A. Some key definitions are also provided in Section 1.4: Key definitions.

1.3 Related standards

Under its Electronic Records and Automation Priority Area, the International Council on Archives has developed a suite of guidelines and functional requirements as part of the Principles and Functional Requirements for Records in Digital Office Environments project:

- *Module 1: Overview and Statement of Principles;*
- *Module 2: Guidelines and Functional Requirements for Records in Digital Office Environments; and*
- *Module 3: Guidelines and Functional Requirements for Records in Business Systems.*

This document is Module 3 of the broader project. It has been developed with the support of the Australasian Digital Recordkeeping Initiative.

While this Module may be used as a stand-alone resource, for a broader understanding of the context and principles that have informed its development, readers should also refer to Module 1.

The functional requirements identified in Part 2 are based on the minimum requirements for records functionality as defined in the International Standard for Records Management, ISO 15489.

The reference metadata standard for these requirements is ISO 23081 – 1: 2006, Information and documentation – Records management processes – Metadata for records, Part 1 – Principles, and ISO 23081 – 2: 2009, Information and documentation – Records management processes – Metadata for records, Part 2 – Conceptual and implementation Issues.

1.4 Terminology

It is recognised that many of the terms used in this document have different meanings for different disciplines. It is therefore important that this document is read in conjunction with the Glossary at Appendix A. A number of the key concepts used in this document are also detailed below:

- **Records** are information created, received and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or

in the transaction of business.³ They provide evidence of business transactions and can exist in any format.

- **Business systems**, for the purposes of this document, are automated systems that create or manage data about an organisation's activities. They include applications whose primary purpose is to facilitate transactions between an organisational unit and its customers – for example, an e-commerce system, client-relationship management system, purpose-built or customised database, or finance or human resources systems. Business systems are typified by containing dynamic data that is commonly subject to constant updates (timely), able to be transformed (manipulable) and holds current data (non-redundant). For the purposes of this document, business systems exclude electronic records management systems.
- **Electronic records management systems (ERMS)** are specifically designed to manage the maintenance and disposition of records. They maintain the content, context, structure and links among records to enable their accessibility and support their value as evidence. Electronic records management systems are distinguished from business systems, for the purpose of this document, because their primary function is the management of records.

1.5 Structure

This document is divided into four main parts:

- **Part 1: Introduction** – describes the scope, purpose, audience and structure of the overall document.
- **Part 2: Guidelines** – provides background information on the importance of records management, describes key terms and concepts, and outlines a process for determining an organisation's need for records and identifying records within business systems. It also outlines some of the issues and processes to be considered when reviewing, designing, purchasing or building business systems to incorporate functionality for records.
- **Part 3: Functional requirements** – provides an overview of the high-level functional requirements for records that may be incorporated into a business system, and outlines a recommended set of mandatory and optional records management functional requirements for business systems (referred to as the 'functional requirements').
- **Part 4: Appendices** – provides a glossary of key terms and a list of additional reading.

³ International Standard on Records management, ISO 15489.

2 GUIDELINES

2.1 Why is it important to have evidence of business processes and activities?

A key way organisations account for their activities is through evidence of business transactions in the form of records. Records are valuable business assets that enable organisations to defend their actions, improve decision-making, prove ownership of physical and intellectual assets, and support all business processes.

Records are ‘information created, received, and maintained as evidence and information, by an organisation or person, in pursuance of legal obligations or in the transaction of business.’⁴ They must be retained for a period of time that is in line with an authorised retention schedule or ‘disposition authority’.

Organisations with business systems that have insufficient functionality for managing records risk loss of this evidence, resulting in inefficiency, an inability to meet accountability and legislative requirements, and a lack of corporate memory.

A record is not just a collection of data, but is the consequence or product of an event.⁵ A distinguishing feature of records is that their content must exist in a fixed form, that is, be a fixed representation of the business transaction. This can be particularly challenging in a business system that, by nature, contains data that is frequently updated and dynamic.

Records comprise not only content but also information about the context and structure of the record. This information can be captured through metadata. Metadata fixes the record in its business context and documents the record’s management and use over time. Records metadata therefore serves to identify, authenticate and contextualise the record, not only at the point of creation, but continues to document its management and use over time.⁶ It allows records to be located, rendered and understood in a meaningful way. The International Standard on Information and documentation—Records management processes—Metadata for records, Part 2, ISO 23081, provides a generic statement of metadata elements. Organisations may also have jurisdictional-specific elements sets to which they must adhere.

An appropriately managed record will:

- aid transparent, informed and quality decision-making and planning;
- provide an information resource that can be used to demonstrate and account for organisational activities; and

⁴ International Standard on Records Management, ISO 15489.

⁵ Philip C Bantin, *Strategies for Managing Electronic Records: Lessons Learned from the Indiana University Electronic Records Project*, available at <http://www.indiana.edu/~libarch/ER/ecure2000.pdf>, 2003.

⁶ International Standard on Information and documentation—Records management processes—Metadata for records, ISO 23081-1:2006.

- enable consistency, continuity and efficiency in administration and management, among other benefits.

The International Standard on Records management, ISO 15489, provides best-practice guidance on how records should be managed to ensure they are authentic, reliable, complete, unaltered and usable.

2.2 The business systems landscape and records

Business systems are normally mapped against some form of business process. Given that records are the product of transactions and transactions, collectively, form business processes (for example, the transactions involved in processing an application for a licence), it follows that the integration of records functionality in business systems should be undertaken from the perspective of the business process.

Business processes having the greatest potential for reflecting good records management are those that are highly structured with well-defined transactions where the identification of where in the business process records should be generated and even what they should look like (for example, forms) is relatively clear. Similarly it follows that records management has great potential for being integrated successfully in the business systems supporting such business processes because, by necessity, their design has to be mapped to the transactions supporting the business processes. Furthermore, the development of business systems supporting defined business processes normally proceeds through a series of structured steps based on the use of generally accepted systems development tools and techniques that address each phase of the systems development life cycle, from planning and design to implementation and review. In addition, in well-managed business systems development projects, accountability for the integrity of the design, development, and maintenance of the systems (including the integrity of the data generated by the systems) is clearly assigned across all of those communities in the organisation that have a responsibility for the systems (that is, from business users of the systems to the specialists responsible for developing the systems). All of these factors heighten the potential for records considerations to be integrated in the design of business systems supporting structured and well-defined business processes.

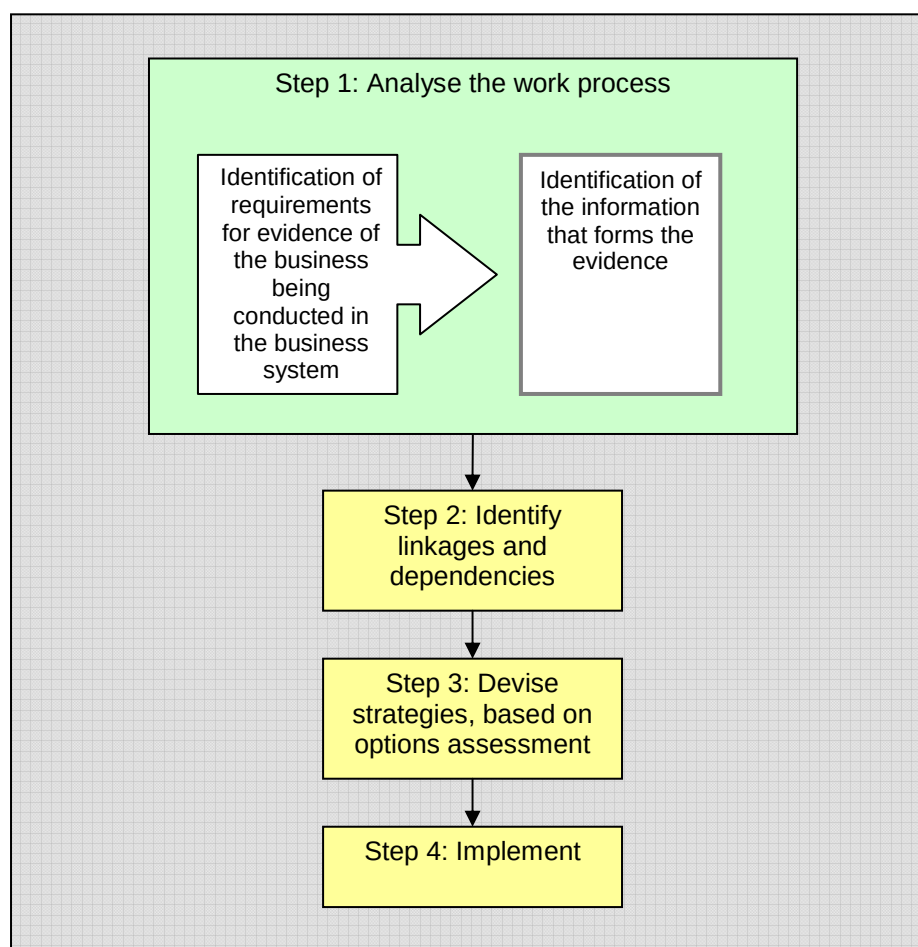
Records management integration is challenged significantly in an environment where business processes are poorly defined, where tools and techniques for systematically designing and developing systems are weak, and where accountability for the technologies supporting the environment (and especially the information generated in the environment) has not been assigned clearly. In such an environment individuals (often 'office workers' at all levels of the organisation) have a high level of autonomy in deciding what information they create and share, how they share it, where they put it, how they organise, describe and retain it, and how they dispose of it. Such an environment is often dominated by email messages and their attachments where there are few business rules to guide their creation, transmission and management. The integration of records management in such an environment is extremely difficult because the foundation of defined business processes (or workflow in the parlance of the modern office), structured approaches to systems

development and assigned accountability are not in place (for more information, see Appendix B).

2.3 Determining needs for evidence of events, transactions and decisions in business systems

Not all information contained in a business system will necessarily be required to be recorded as evidence. Prior to reviewing, designing, building or purchasing business systems software, it is necessary to determine an organisation's needs for records in order to develop and implement appropriate strategies. This process is outlined in Figure 1 and discussed in the following sections.

Figure 1: Steps to determine requirements for records



2.3.1 Analyse the work process

Business systems typically store large volumes of data that are frequently updated. Because of this, it can be difficult to know what information in the system needs to be managed as a record to provide evidence of the business process or transaction.

Business systems may consist of:

- a collection of data elements (or structured data) that are linked and controlled by the system, for example, entries in a database;⁷
- distinct digital objects controlled by the system that have a clearly defined data format (or unstructured/semi-structured information), for example, documents, emails or spreadsheets; or
- a combination of the above.

The process of identifying records must commence by stepping back from the IT system itself, and undertaking an analysis of the work processes, including related regulatory and business requirements, to determine what evidence is required to be kept.⁸

As records are directly linked to business processes, identifying the records is assisted by standard business process analysis techniques and tools, such as activity diagrams, process decompositions and flowcharts.⁹

It is important to work closely with the organisation's records management and archives professionals during this process, as much of this work may have been undertaken when developing the organisation's records management program (including its disposition authority).¹⁰

The process of identifying the records entails two main tasks. These are:

- 1 identification of requirements for evidence of the business being conducted in the business system; and
- 2 identification of the information that records this evidence, that is, the 'record'.

2.3.2 Identify requirements for evidence of the business¹¹

Step 1 – determine the broad business functions and specific activities and transactions carried out, in full or in part, by the business system

This analysis may include consideration of business process documentation and system inputs, outputs, and related policies and procedures.¹² In highly integrated

⁷ This document primarily focuses on the management of records arising from structured rather than unstructured data.

⁸ Refer to National Archives of Australia, *DIRKS Manual: A Strategic Approach to Managing Business Information*, available at <http://www.naa.gov.au/records-management/publications/DIRKS-manual.aspx> for further information.

⁹ For further information on modelling business process, see the Business Process Modelling Notation website at <http://www.bpmn.org/>.

¹⁰ While tailored to a particular jurisdiction, see Queensland State Archives, *Guideline for the Development of Retention and Disposal Schedules* available at <http://www.archives.qld.gov.au/downloads/rdschedule.pdf> for guidance on developing a disposition authority.

¹¹ The term 'evidence' is used in this document in the sense of demonstrating or documenting the proof of a business transaction, rather than its narrower legal context.

environments, multiple systems may need to be covered in the analysis in order to obtain a complete picture of the business process or activity. Particularly in the government environment, systems may also be shared by multiple organisations.

Step 2 – for each function, activity and transaction or business process managed by the system, consider what evidence is required to be retained by the organisation

Requirements may be derived from a number of sources. Consider such issues as:

- Are there legislative obligations to record certain evidence? Some legislation may implicitly or explicitly state the need to create certain records in certain forms.
- Are there regulatory instruments that must be adhered to and require evidence to demonstrate compliance, for example, mandatory standards, codes of practice and so on?
- Are there organisational rules that require evidence be recorded, for example, policies, codes of conduct, reporting and so on?
- What evidence is required of decisions made to support the business process itself or to inform future decision-making?
- Are any of the business functions or activities of the organisation considered high risk or subject to a high level of litigation that demands a greater level of documented evidence?
- Who are the various stakeholders and what are the different expectations they may have about what evidence is required to be retained?
- What are the community's expectations for evidence of the work process?

This process may involve a wide range of consultation and validation with senior management. The International Standard on Work process analysis for records, ISO/TR 26122-2008, and the Australian *DIRKS Manual* are useful resources for these purposes.¹³

2.3.3 Identify the content and its associated management information that record this evidence

Not all information contained in a business system will necessarily be required to be recorded as evidence.

¹² This analysis may have already been done, either for records management purposes such as disposition or classification, or in the development of the system itself through business process review.

¹³ DIRKS stands for Designing and Implementing Recordkeeping Systems. Steps A–C cover this analysis process. For more information, see National Archives of Australia, *DIRKS Manual: A Strategic Approach to Managing Business Information* available at <http://www.naa.gov.au/records-management/publications/DIRKS-manual.aspx> or State Records NSW, *The DIRKS Manual: Strategies for Documenting Government Business* available at http://www.records.nsw.gov.au/recordkeeping/dirks-manual_4226.asp.

Step 3 – for each requirement for evidence, identify the content or data that make up the evidence

In systems that manage distinct digital objects, such as word-processed documents, data is already drawn together into a logical construct. This means that it can be relatively easy to identify specific documents or reports that contain the content that could act as evidence of a particular business activity or transaction.

For others, it will require analysis of the data structures, data models and class models that underlie the system to identify the specific data elements that together constitute the content and provide the necessary evidence (see Figures 2 and 3 below for an illustration of this).

It is important to note that the content or data that make up the evidence may not just be within the system. It may also be in other systems, documentation about the system, procedures, paper inputs and so on. Particularly in highly integrated environments, parts of the required evidence may be held across multiple systems and some systems or components may be shared with other organisations.

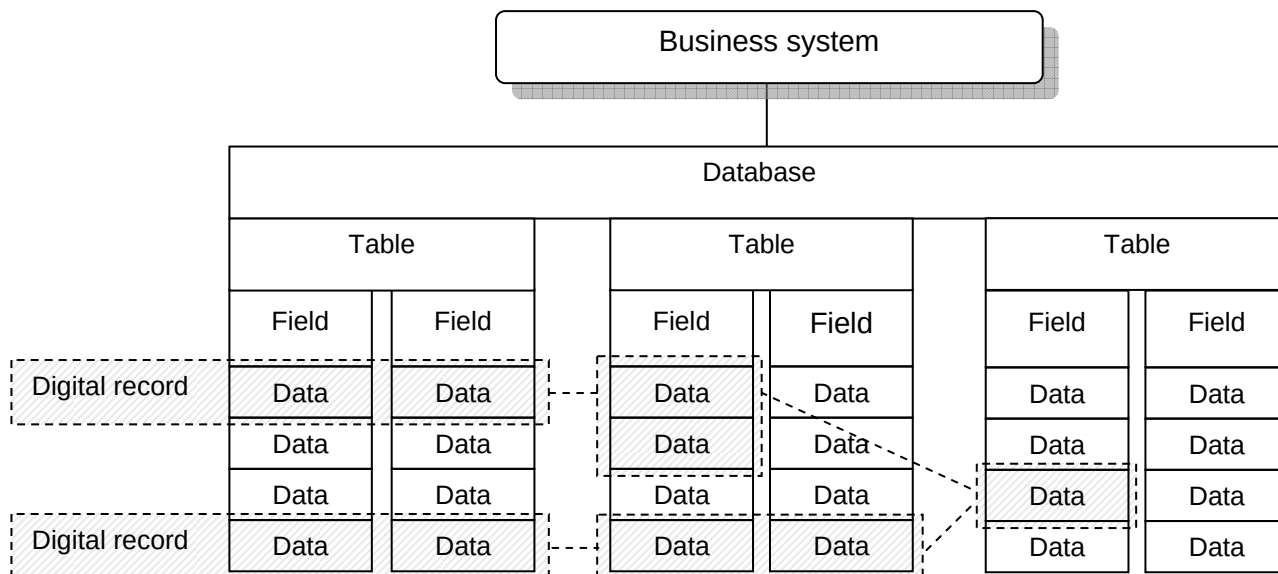
There may be a number of different content elements that could serve to make up the evidence. Deciding which content is best suited to form the required evidence will be based on an assessment of the business need and risk. Records need to be adequate, that is, there should be sufficient evidence of the conduct of business activity or transaction to be able to account for that conduct. Therefore a major initiative will be extensively documented, while a routine low-risk action may be documented with an identifiable minimum amount of information.

Figure 2 provides a representation of the contents of a database controlled by a business system.¹⁴ In this example the record¹⁵ is made up of a grouping of related data elements from a number of different fields. Each record will consist of the identified data elements in the database and the associated metadata required to link the elements and provide the necessary structure and context to support the record.

¹⁴ Figure 2 provides a view of a normalised database. Relational database concepts, standard data modelling and normalisation techniques should be enforced to provide the necessary structure and context to support the traceability of the record.

¹⁵ 'Record' is used here in the records management sense rather than its database meaning.

Figure 2: Identification of information components/data elements comprising a digital record in a database



Note that it is possible for a single record to include multiple elements from a single database field or table, and that it is also possible for a single data element to form part of more than one record.

Figure 3 provides a simplistic example of the tables that comprise a portion of a relational database for a human resource management system. Each table represents a portion of the database that contains closely linked information. Tables A, B and C provide data relating to personnel, salaries and cost centres, respectively. Tables D and E provide linkages between the data elements in the other tables. Table D links staff with their relevant pay levels, while Table E links staff with their cost centres.

Each table consists of a number of columns that represent fields containing data elements. The rows within each table establish linkages between data elements within the different fields. In database literature, these rows within tables are sometimes referred to as 'records', although these linked data elements are not always records in the records management sense of the term.

In line with the business process analysis, there are a number of potential records in Figure 3. These records are represented as a number of inter-related data elements that may be connected across one or more tables and comprise data elements from one or more fields.

Figure 3: Further example of the identification of information components/data elements comprising a digital record in a database

Table A: Personnel				
Staff no.	Surname	First name	Address	City
0078652	Larsen	Sevren	78/1 Hoddle St, Carlton	Melbourne
0078653	Lee	Jamie	55 Ramsey St, Vermont	Melbourne
0078654	Smith	Bob	7 Pollie Crt, Barton	Canberra
0078655	Schmidt	Helmutt	1/123 North Rd, Balmain	Sydney
0078656	Darcy	Kyra	67 Green St, Mt Lawley	Perth

Table B: Salaries			
Pay code	Level	Year	Pay rate
A41	APS4	Year 1	\$45,000
A42	APS4	Year 2	\$46,000
A43	APS4	Year 3	\$47,000
A44	APS4	Year 4	\$48,000
A51	APS5	Year 1	\$54,000
A52	APS5	Year 2	\$55,000
A53	APS5	Year 3	\$56,000

Table C: Cost centres	
Staff no.	Pay code
0078652	A53
0078653	A42
0078654	A42
0078655	A41
0078656	A51

Table D: Staff to pay levels		
Centre code	Cost centre	Director
M001	Melbourne Office	Shay Jones
S001	Sydney Office	Fred Nguyen
P001	Perth Office	Alberta Johnson
C001	Canberra Office	John Wasp

Table E: Staff to cost centres	
Staff no.	Centre code
0078652	M001
0078653	M001
0078654	C001
0078655	S001
0078656	P001

Key

Yellow	Data elements comprising the personnel record of Kyra Darcy
Tourquoise	Data elements comprising the record of Bob Smith's address details
Pink	Data elements comprising the record of Melbourne Office staff

Three distinct types of records have been identified in the system:

- The yellow rows identify data elements that form a single personnel record. This record spans data elements in all five tables and contains information on the staff member, name, address, salary level and cost centre.
- The turquoise row identifies data elements that provide a record of an individual's name, address and staff number. This single row of information could be construed as a record, but in this case the record indicated by the yellow rows is more comprehensive and would be preferable.
- The pink rows identify data elements that form a record of all staff members belonging to a particular cost centre. These rows may represent an alternative method of interrogating the data contained in the tables.

Note that the information contained in Table B does not constitute a record in this scenario, only part of the staff salary record. This is because the data contained in Table B is supplemental and only gains value as a component of a record when it is placed in context of a staff member in Table A. The Table B information itself is likely to have come from an external record such as a workplace agreement.

It should be noted that there may, in some instances, be overlap between records identified in a database. The data elements that form part of one record in a relational database may also form part of other records generated by the same database. For example, the staff record of 'Jamie Lee' and the record of Melbourne office staff will both draw on the same data elements from Table A.

Where overlap occurs between the data elements that form digital records, the business system must be capable of ensuring that it will not destroy the shared data elements until both identified digital records have reached their minimum retention period.

Step 4 – identify the additional information required to manage the content over time as evidence

This will be the records metadata that is an integral part of the record. Records metadata can be used to control the length of time a record is maintained, establish its access rights and restrictions, and facilitate searching for and retrieval of the record.

The creation, capture and management of metadata for records are essential to allow records to be identified, understood and retrieved, and to protect the evidence of their authenticity, reliability and integrity. Metadata should be captured in line with an identified metadata standard for records, as stipulated by jurisdictional and/or organisational requirements.

Metadata does not need to be retained together with the content, as long as they are linked or associated in some way. Metadata may be contained in systems external to the business system in question, or may encompass documentation or tools such as XML schemas and data, and class models that allow records to be understood and remain meaningful over time.

Particularly in database environments, it can be difficult to distinguish between the record's content and its metadata. For example, metadata that provides evidence that a particular person accessed a record on a particular date and/or time is itself a record. Often metadata in a business system pertains to the system as a whole. That is, it applies in an overarching way to all records in the system, not to individual records. It can reside in system rules or system documentation and not be applied to individual records.

2.3.4 Identify linkages and dependencies

A key characteristic of records is that they cannot be understood in isolation. In order to provide context for the record, additional information about the work process or the business system may be required to ensure the records are understandable, to prove the reliability of the evidence, or if records need to be moved from one system to another in the future. Required system information may include:

- location;
- system issues/faults;
- size;
- business rules implemented;
- file formats;
- security;
- privacy management;
- data structures;
- data and class models;
- workflow routing rules; and
- audit trails.

Required information about the work process may include relevant policies and procedural documents to show that decisions are made and processes undertaken in accordance with authorised standards.

In addition, as noted in Section 2.3.1: *Analyse the work process*, many processes will extend beyond a single business system. Necessary linkages to other systems, or related information in paper form, must also be considered before strategies are developed to manage the records in the business system.

A key dependency is how long the records need to be kept. Records must be retained for a period of time that is in accordance with authorised legislative and jurisdictional requirements and business needs. Decisions about how long records must be retained are defined in a disposition authority. Organisations will need to meet the requirements of relevant jurisdictional authorities for retaining and disposing of records.¹⁶

¹⁶ For more information on disposition requirements, consult with your jurisdictional authority if relevant, or see ISO 15489, Section 4.2.4.

Records that are required to be retained for longer periods will generally require more stringent controls to ensure they can be managed and remain accessible for as long as required, as specified in an authorised disposition authority. Depending on demand for access to older records, the organisation may decide not to keep all records in the live system. However, it is essential that they can be identified and retrieved in accordance with agreed service levels.

‘Archiving’ and retention and disposition of records

The term ‘archiving’ has different meanings in the records management and IT communities (see Glossary at Appendix A).

‘Archiving’ of data to second-tier or offline storage does not change the requirements for records and should not be considered as meeting requirements relating to retention and disposition of records. In addition, backing up of business systems for business-continuity or disaster-recovery purposes does not meet disposition requirements.

For more information, see Section 3.4: Retaining and disposing of records as required.

2.3.5 Devise strategies to address core records processes based on an options assessment

Following the identification of requirements for evidence in the form of records, and of the related dependencies and linkages, appropriate strategies to manage the records can be devised. Strategies must be based on an assessment of records-related risks.

To be considered authentic and reliable evidence, content must be fixed to a point in time and unalterable. Because business systems generally contain dynamic, current data that is subject to regular updates, strategies for maintaining a ‘fixed’ record must be implemented. These strategies will be influenced by the decision regarding which system will manage the records and informed by an options assessment.

Prior to use of the functional requirements, organisations will need to consider the extent to which functionality for records will be provided through internal mechanisms within a business system application itself, or whether the requirements will be met by interacting with software applications external to the system that are capable of providing the necessary records management functionality.

The mandatory functional requirements in this document outline the core records processes that must be addressed. Options to implement these requirements, shown in Figure 4, may include:

- designing the business system to internally perform the records management functions;
- integrating with an identified records management system, such as an electronic records management system; or
- designing export functionality into the business system to directly export records and their associated metadata to an identified records management system.