



Australian Capital Territory  
Territory Records Office  
**GUIDELINE**



## **Guideline for Records Management**

### **No. 9 - Records Digitisation and Conversion**

This Guideline must be read in conjunction with Territory Records Office *Standard for Records Management No.9 –Records Digitisation and Conversion*.

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## INTRODUCTION

Digital records, like records in other formats, are evidence of the day-to-day business activities and decisions of the ACT Government. They are subject to legislation such as the *Territory Records Act 2002* and the *Freedom of Information Act 1989* and to legal processes such as discovery and subpoenas. Digital records made or received by an agency or its officers in the course of official duties are Territory records.

As well as records that were created in digital format, agencies may convert records that started life in a non-digital format into digital records. This conversion is digitising a record or its digitisation. Other conversions from one format to another are also possible. There are frequently compelling arguments for agencies to convert records, including:

- To make records more accessible, both for business needs and public access;
- To make records easier and cheaper to store; and
- To make records and their contents easily retrievable and searchable.

When converting a record, the source record is the record being converted and the converted record is the result of the conversion.

Recordkeeping practices in the ACT Government commonly do not address the issues that arise from record conversions. Examples of issues that should be addressed are:

- Can we be sure that the converted record contains the “full and accurate” information contained in the source record?
- Can we be sure that the converted record will meet our business needs?
- Can we be sure that the converted record will meet legal, financial or other requirements?
- Can we be sure that we can retain the converted record and make it accessible for as long as it is required?; and
- Can we dispose of the source record?

The Director of Territory Records has approved Territory Records Office *Standard for Records Management Number 9 –Records Digitisation and Conversion* and an associated *Records Disposal Schedule for Source Records*. The Standard provides the conditions under which digitisation may occur and the Records Disposal Schedule provides the mechanism to authorise the disposal of source records after conversion, under certain conditions.

This Guideline (*Guideline Number 9 –Records Digitisation and Conversion*) must be read in conjunction with *Standard for Records Management Number 9 – Records Digitisation and Conversion*. It contains additional information amplifying the principles set out in the Standard. It is provided to assist Territory agencies in managing their converted records and records conversion processes. In the event of inconsistency between any Standard and this Guideline, the Standard shall prevail.

This Guideline can only give broad rules that are applicable to all forms of record conversion. In some cases, an agency’s records management regime may require amending to accommodate digitised records and other converted records.

It is the intention of this set of documents to ensure the preservation of the evidentiary status of records through the conversion process so that agencies can be confident when relying on the information contained in the converted records.

## **PRINCIPLE 1: RECORDKEEPING WILL COMPLY WITH ALL APPROPRIATE STANDARDS**

All recordkeeping, regardless of format, must comply with ACT Government Legislation, Standards, Codes and Guidelines. Territory Records Office Standards and Guidelines for Records Management 1 to 8 create the framework, supplemented by other Legislation, Standards, Codes and Guidelines that relate to the business of government or of government administration, such as the *Public Sector Management Act 1994 (ACT)*, and have implications for recordkeeping.

## **PRINCIPLE 2: CONVERTED SOURCE RECORDS WILL BE MANAGED IN ACCORDANCE WITH SPECIFIED DISPOSAL CLASSES**

### **CONVERSION**

Conversion means converting a record from one format to another. Examples of conversions are;

- Digitisation of a paper original;
- Microfilming of a paper original;
- Digitisation of a microfilm;
- Conversion of a digital record from one software format to another; and
- Conversion of a database to a set of PDF files and a spreadsheet.

### **Source/Converted Record**

When converting a record, the source record is the record being converted, and the converted record is the result of the conversion. When digitising, for example, the source record is the physical copy, and the converted record is the resulting digital record.

The converted record is the official record of the agency after conversion. The applicable functional Records Disposal Schedule (RDS) governs the disposal of the converted record.

*Standard for Records Management Number 9 – Records Digitisation and Conversion* provides a mechanism for the disposal of the source record after conversion, under certain conditions. The *Records Disposal Schedule (RDS) for Source Records* is an important Records Management tool accompanying Standard and Guideline 9. Other RDSs identify the functions and activities undertaken by agencies and assign retention periods to the records that support those functions and activities. The RDS for Source Records applies to all functions and activities within government, and hence to all source records after conversion.

### **Pre-action/Post-action Conversion**

The conditions under which the source record can be disposed of depend on when the conversion is carried out.

*Pre-action conversion* is where conversion is carried out immediately after the record is received by an agency, and before any action has been taken on it. An example of pre-action conversion is the digitisation of received correspondence in a mailroom.

*Post-action conversion* is where conversion is carried out after any action has been taken on the record. A typical example of post-action conversion is the digitisation of existing paper-based files. An action includes any decision on how to deal with the subject of the record.

The official agency record is the record that the agency staff members base their actions upon. Where pre-action conversion is carried out, the official agency record is the

converted record. In the case of post-action conversion, the source record is the official agency record and may contain annotations or marks forming part of the record. It is for this reason that Standard 9 imposes stricter requirements for disposing of source records converted post-action.

The RDS for Source Records applies to all conversion activities, whether the conversion is being done pre-action (e.g. mailroom digitisation), or post-action (e.g. backfile conversion).

### **Archival, temporary, and unsentenced records**

The *Standard for Records Management Number 9 – Records Digitisation and Conversion* and the RDS for Source Records apply to all records whether temporary or to be retained as Territory archives.

In the case of pre-action conversion, the appraisal status is not relevant when disposing of source records as these records do not form part of the official agency record. It is consequently not necessary for agencies practising pre-action conversion (e.g. mailroom digitisation) to classify and separate the source records as Territory Archives, temporary, and unsentenced. It is however essential for the source record to be retained for a sufficient time to enable the action officer to have viewed the scanned image so that a request can be made for the source record to be retained if it has historic, intrinsic or other value or rescanned if all information has not been recorded.

In the case of post-action conversion, the appraisal status is relevant as the source records are the official record.

Records to be retained as Territory archives may not be destroyed. Agencies may dispose of temporary records in accordance with the disposal actions in the relevant functional RDS.

It is expected that this decision will be based on a formal evaluation of the risk in disposing of the source records. Risks are further discussed in the next section; however agencies should be cautious about disposing of source records where the conversion entails a high risk that the converted records will not satisfy recordkeeping requirements. Disposal of the source records, however, is subject to a number of conditions (discussed further below).

Agencies are not permitted to dispose of unsentenced records converted post-action, as these records could become Territory archives.

It is not expected that the disposal of temporary original records will have a significant impact on external stakeholders (e.g. the public) as the only means of accessing temporary records is under the FOI provisions and, in most cases, agencies will discharge these obligations by providing digitised copies.

### **Risks of converting records**

Agencies must consider the risks of converting records before deciding to undertake a conversion activity. The risks will arise in three areas:



- The risk that the authenticity of a record may be challenged, and the authenticity could have been proven from the source record, but cannot be proven from a converted copy. Forensic testing of physical documents is a well understood activity, but the forensic testing of digital objects is still an evolving practice;
- The risk that a converted record may be incomplete due to a poor conversion. Examples are a digitisation process that occasionally omits pages or produces poor quality images, or a software format conversion that does not accurately convert features of the source record; and
- The risk that a converted record may be lost due to inadequate record management systems. It is recognised that digital objects are inherently fragile and may be lost due to media failure (e.g. deterioration), application obsolescence (i.e. losing the ability to render the object), or lack of context. Agencies should not underestimate the challenges involved in retaining converted records for long periods of time, and make a realistic assessment of their ability to manage the records for their required life.

Agencies should not dispose of source records where there is a high risk evident. This may be because the records are of high value or have a high risk of litigation (e.g. original signed contracts still in progress), there is the risk of an incomplete conversion, or because the agency is not confident that the management system can reliably hold the converted record for the required length of time.

In addition, agencies are encouraged to gain experience with conversion of records before disposing of source records with a medium or high conversion risk. Records with a low risk of conversion are those that

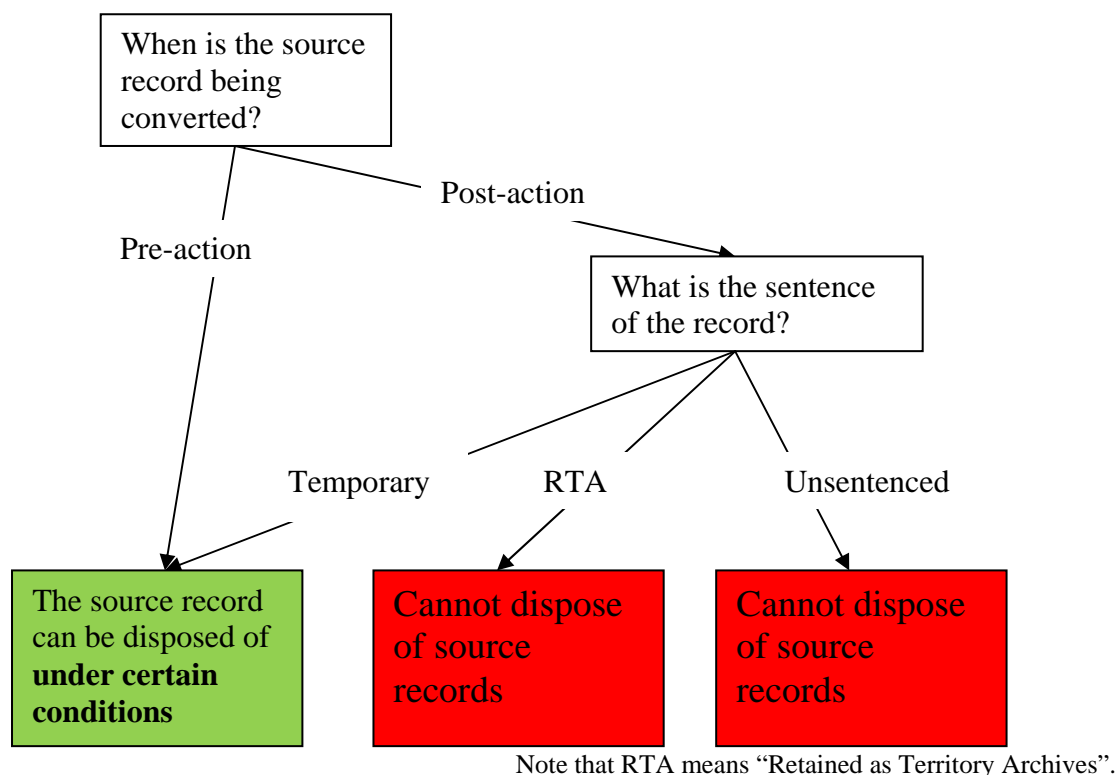
- Have a short retention period (e.g. seven years or less);
- Use formats that are in wide use and can be accurately converted to a long term preservation format; and
- Where the converted records are used before the source records are disposed of.

## **Working copies**

*Standard for Records Management Number 9 – Records Digitisation and Conversion* is based on the principle that there is only one official copy of a record which is managed in the recordkeeping system. There may be working copies of these Territory records, but good record management practice should ensure that other (working) copies should be disposed of so that they cannot be confused as the original (especially if they could become contradictory!)

## SUMMARY OF DISPOSAL DECISION

The following chart summarises the decision points in applying the *Records Disposal Schedule for Source Records*.



The first decision point is whether the conversion occurs pre-action or post-action. If the conversion occurs pre-action, the source record can generally be disposed of after a short time (exceptions will be summarised below).

If the conversion occurs post-action, the second decision point concerns the sentence of the record as a whole. If the record is temporary, the source record can generally be disposed of. If the record is to be retained as a Territory archive (RTA), the source record must be retained. If the record is unsentenced, the source record cannot be disposed of under Standard 9 and the RDS for Source Records.

This Standard, together with the RDS for Source Records, gives permission to dispose of source records after conversion. However, in order to do so, several conditions apply to the source records, the conversion process, and to the subsequent management of the records. These conditions vary very slightly from one class to another and are described in the following two sections.

## PROCESS AND MANAGEMENT REQUIREMENTS

The underlying principle of the RDS for Source Records is that a source record may be disposed of after conversion to another format provided that:

- A risk assessment has been carried out on the risks an agency incurs in converting the records. It is recommended that agencies gain experience on low risk conversions before attempting large scale high risk conversions;
- The converted record is a full and accurate copy of the source record;
- The converted record becomes the official record of the business of the agency; that is, the converted record is used for continuing business purposes; and
- The converted record is managed in a system that is designed to ensure access for the full retention period of the record. The system must satisfy the relevant storage standards as outlined in Territory Records Standard for Records Management No.6 – Digital Records.

It is necessary for the agency to demonstrate compliance with these four conditions before the source record can be disposed of.

Further details on these conditions can be found in the following sections.

In the case of the conversion of physical originals to digital representations (digitisation), compliance with the first three conditions can be shown by compliance to Principles 3 and 4 of Standard and Guideline for Records Digitisation and Conversion No. 9.

### **Risk of converting**

Before undertaking a conversion activity with a view to disposing of the source records, an agency must undertake a risk analysis comparing the risk of losing the records when converted to the risk of losing the records if the conversion activity was not undertaken.

The risk analysis should consider the risks identified in the section on “Risks of converting records” earlier in this Guideline.

Agencies should not dispose of the source records where the risk of loss after converting the records is substantially higher than where the source records are retained.

### **A full and accurate copy**

For the record to retain its evidentiary value, it must be possible to demonstrate that the result of the conversion is a full and accurate record of the source record.

In general, this would require an agency to demonstrate that;

- *The content of the record was fully and accurately captured.*

A full capture means ensuring that all content was captured. In a digitisation project, for example, this would mean ensuring that all pages (including both sides, if applicable, loose notes, sticky notes, etc) were captured. For a digital conversion project this would mean ensuring, for example, that all email attachments were captured.

An accurate capture means ensuring that the content sufficiently and accurately reflects the source record. In the case of digitisation, loss of accuracy could be the result of poor digitisation (e.g. out of focus images, poor contrast control). In addition, digitisation would also involve decisions about the mode of digitising (bi-tonal, greyscale, or colour), the bit depth, colour management, the resolution, and compression (refer to the Principle 4 for more detail). For a digital object this would mean ensuring that content was not lost or corrupted due to poor conversion algorithms.

It is expected that a quality assurance process will be used to demonstrate that a full and accurate record has been created. The process could vary from an independent check of each image to ensure that it has been accurately captured, to a statistical sampling process. The process chosen will vary depending on:

- The value of the records. High value records (e.g. permanent records, or vital records) should have more intense quality assurance process.
  - The retention period of the records. Records with longer retention periods should have a more intense quality assurance process as the loss of these records will have an impact for a longer period than records with short retention periods. 'Retain as Territory Archives' records should have a still greater quality assurance process.
  - The use of the records. Records that will be immediately used after conversion (e.g. pre-action conversion) before the source records are disposed of may need little or no checking as using the records will quickly highlight conversion problems. On the other hand, post-action conversion in which the record may not be accessed for a long period may need an intensive quality assurance process.
  - How routine the conversion is. Where the agency has a significant body of experience with converting records using a particular process with low recorded error rates, it may be appropriate to relax some of the quality assurance processes. Note however that the body of experience is critical. A low incidence of errors when using a particular process or conversion does not mean a low incidence of errors if the process is substantially changed or a different conversion attempted.
- *The context of the record was fully and accurately captured.*

The context of a record is the linkage to the business context in which the record was created and used. The context includes the business functions that the records support, the other records that relate to this record, the actors that were involved in the record, and the events that have affected the record over time. For a physical record, context is often represented physically (e.g. the arrangement of records in a file). For a digital record the context is represented using metadata, and the capture process must capture appropriate metadata to ensure that the context was captured.

### **A full and accurate copy where only a portion has been converted**

Some conversion processes may extract and convert only some of the source records within a body of records. For example, only selected individual documents within a file

could be converted. Alternatively, a conversion process may not convert some documents that cannot be effectively converted (e.g. the digitisation of large plans).

Whether the converted source records can then be disposed of is a complex one. A full and accurate record is maintained in the case of a partial conversion where:

- All the records (converted and unconverted) are managed in a single recordkeeping system.
- The recordkeeping system presents groupings of records, irrespective of whether the components of the groupings are converted or unconverted.
- It is clear when viewing groups of unconverted records that these groups are not the complete record and it is necessary to view the converted records as well. For example, an indication is given by the recordkeeping system as to which records have been converted and which have not.

Where individual source records are extracted and converted, but not managed as part of the whole record, no part of the source record can be disposed of, as this would destroy the integrity of the body of records.

### **The official record**

In some situations the source records are converted to another format but the agency continues to make use of the source records for routine business purposes. In this case, the source records have not been supplanted, and there is the significant likelihood that annotations may be made on the source records, or additional documents added to a source record. In this case the source documents should not be destroyed under the RDS for Source Records.

Consequently, permission is only granted to dispose of source records where the converted records take over the role of the record, and routine business is henceforward conducted using the converted records.

This does not require that the source record be disposed of immediately after conversion. The source records must be kept for a period of time as part of the quality assurance process. However, the source records must be immediately separated from the unconverted records and not used for normal business purposes.

### **SYSTEM MANAGEMENT TO ENSURE CONTINUED ACCESS**

The converted record must be managed in a system that is designed to ensure access for the full retention period of the record. This requirement applies to all converted records, including those records that are to be retained as Territory archives (RTA).

If the records are digital they must meet the requirements of the *Standard for Records Management No.6 – Digital Records*. The preferred characteristics of an archival quality management system are described in this section. The storage specification for physical records is *Standard for Records Management Number 7 – Physical Storage of Records*

While the RDS for Source Records applies to all forms of converted records, this requirement is more stringent where the converted record is a digital record. Digital

copies of records are inherently more vulnerable than physical records. Loss of records can occur due to the:

- Loss of contextual information describing what the record is and how it relates to other records;
- Loss of content of the record due to loss or deterioration of the media, or corruption of the file on the media;
- Inability to access the content of the record because the software format is obsolete, or no longer accessible; and
- Decommissioning of the records management system without transferring the records to a suitable replacement system.

Agencies should not underestimate the difficulty of ensuring continued access to digital records, particularly records that need to be kept for a long period. *Unless an agency has implemented a strategy to address each of these four areas it cannot claim to manage the records in a system in a way that is designed to ensure access for the full retention period.* The strategies adopted will depend, in part, on the expected retention period. Some simplification can be adopted for records that only need to be kept for the short term (less than seven years).

The only means of ensuring the continued accessibility of converted digital records is to manage them in an appropriate system. Such a system will ensure that:

- Records are managed properly in the system (e.g. cannot be modified without authorisation or record);
- Records are described with a minimal set of recordkeeping metadata;
- Permanent records can be exported to a digital archive for long term preservation; and
- Exported records are expressed in a suitable long term preservation format.

An implemented strategy for ensuring access to digital records for the full retention period (an archival quality management system) must address the following issues;

- Capture in a suitable recordkeeping system. This must ensure the record retains its integrity, authenticity, and context while being held in the system. Agencies should also consider requiring compliance with other recordkeeping systems specifications. Examples are (1) MoReq Specification, Model Requirements for the Management of Electronic Records (MoReq), IDA Programme of the European Union, 2001. (2) MoReq2 Specification, Model Requirements for the management of electronic records, Update and Extension, 2008, European Commission, 2008. (3) Electronic Records Management Software Applications Design Criteria Standard, April 2007, (US) Department of Defence;
- That appropriate recordkeeping metadata is captured and maintained;
- Storage strategies for preventing corruption or loss of the digital objects. These strategies should address day-to-day backup/restore procedures, disaster recovery procedures, sampling of media and digital objects to detect deterioration and corruption, and the refreshing of media;
- The ability to export the records (including metadata) in a form that retains their integrity, authenticity, and context. Export ability is also essential for recordkeeping systems that only hold temporary records. This is because the

- Ensuring that the content remains accessible (i.e. that software is available to render the content of the records). Availability of the software can be restricted for a number of reasons. These include:
  - A decision not to purchase licences for the software (or an inability to purchase licences) for the machines that will be used to view the records; and
  - Applications that are no longer supported on the machines that will be used to view the records. Typically this is because the applications only run on obsolete hardware or an obsolescent operating system.

The strategy must cover at which period of the record's life the record is to be converted to the long term preservation format.

Appropriate strategies for long term records are very little different from those required for medium term records. Essentially, the only appropriate long term preservation strategy is to invest in the appropriate strategies and systems now, and to continuously manage the records and update the strategies as required.

In summary, in order to comply with the condition to ensure continued accessibility of converted digital records, agencies must be able to demonstrate that they have implemented strategies to address the four risks linked to loss of records:

- loss of contextual information;
- corruption or failure of media;
- loss of the ability to access the content of the records; and
- decommissioning of the system holding the records.

## **SOURCE RECORDS THAT CANNOT BE DISPOSED OF**

Some types of source records **MUST NOT** be disposed of after conversion. These are where:

- The source record has a value as a physical artefact; and
- There is a requirement imposed upon the agency by legislation, regulation, government policy/directive, agency policy, standard, or written direction, such as from the Director of Territory Records, that the source record be retained in a specific format.

## **SOURCE RECORDS WITH VALUE AS ARTEFACTS**

In some cases the source records have value as physical artefacts, beyond that of simple records, and must not be disposed of. Examples include:

- Original works of art;
- Records of international, national, or cultural significance;
- Original proclamations, charters, testimonials and intergovernmental treaties and agreements;

- Records with a physical element attesting to their authenticity or evidential value (e.g. a corporate seal or watermark); and
- Records of personal significance. This is only to be applied where the records are of extreme personal significance. An example is an adoption or removal file that holds hand written letters from a person's natural parents. This test is not intended to cover routine records about a person such as registers or standard forms.

This list is not meant to be definitive, but is instead intended to indicate issues that agencies need to consider when deciding to dispose of source records.

As an example of the type of records with value as an artefact, the New Zealand General Disposal Authority for Digitised Original Source Records describes these records as those with "value due to their rarity, uniqueness or scarcity, artistic or aesthetic qualities, or items where notions of national or cultural identity require the original object as the true and correct representation." (p3)

Clearly these categories are subjective. It is an agency's responsibility to determine whether particular types of records have value as an artefact. In making this determination, agencies should be guided by the expectations of its stakeholders (particularly clients) and expectations of the general community.

## **RECORDS REQUIRED TO BE RETAINED IN A SPECIFIC FORMAT**

There may be a requirement imposed upon an agency to keep the records in a particular format. This requirement might be imposed by legislation, regulation, government policy/directive, agency policy, standard, or written direction such as from the Director of Territory Records.

Note that a requirement may not be format specific, but require the record to be kept in its 'original' format.

It is the agency's responsibility to know if a format specific requirement applies to any of the records held by it. An agency may need to obtain a legal opinion to determine whether there are any specific format requirements to records that it holds. The Director of Territory Records will not provide legal guidance in relation to agency specific legislation.

## **Legislation, Regulations and standards**

- Source records cannot be disposed of under the RDS for Source Records if there is a current legal requirement to retain the records in a particular format or if a disposal freeze is in force in relation to a particular class of records.

## **Government policy or direction**

- Source records cannot be disposed of under the RDS for Source Records if the government has formulated a policy or expressed a directive not to dispose of them.



## **Agency policy**

- Source records cannot be disposed of under the RDS for Source Records if there is an applicable agency policy that requires the agency to retain the records in a particular format. The agency policy may be set by a superior agency (e.g. a department).

## **Director of Territory Records policy or under a Records Disposal Schedule**

- Source records cannot be disposed of if an RDS requires them to be kept in a specific format or medium (e.g. their original format).
- If the requirement in the applicable RDS is now obsolete (e.g. due to changes in the legal requirements), an agency must obtain an amendment to the RDS from the Director of Territory Records before the records can be destroyed.
- In special circumstances, the Director of Territory Records may direct that certain records not be disposed of irrespective of the RDS for Source Records such as where the original has intrinsic historical value.

## **Records that have already been converted**

*Standard for Records Management Number 9 – Records Digitisation and Conversion* and the RDS for Source Records may be used to dispose of source records converted before Standard 9 was issued provided the conversion was done in compliance with the requirements and any applicable guidelines and specifications.

Demonstrating that a full and accurate copy of the original has been created may require a combination of:

- Original quality control processes and documentation;
- A formal quality assurance review process comparing the source and copied records. The depth of this process would depend on the risk of loss of the records; and
- Demonstration that the converted records have been depended upon since digitisation with little or no reference to the source records.

Particular care may need to be taken to ensure that the source records have not continued to be used as the official record after conversion (i.e. that they have not been altered since conversion).

## **PRINCIPLE 3: TO DISPOSE OF A SOURCE RECORD AFTER DIGITISATION, THE AGENCY MUST MEET A MINIMUM SET OF REQUIREMENTS.**

### **NOT DISPOSING OF THE PHYSICAL RECORDS AFTER DIGITISING**

An assumption behind the specification is that the physical records will be disposed of after they have been digitised. The digital copy will then be the official record held by the agency. Consequently, the specification focuses on ensuring that the digital copy is a full and accurate copy of the original records, and that the digital copies are managed in a system that will ensure access for as long as the record needs to be retained.

The specification should still be used where the digitisation activity is only to provide access copies, and the original records will not be disposed of. In this case it may be appropriate to relax some of the requirements in the specification. Before doing so, however, agencies should carefully consider the following issues:

- Missing records. Care should still be taken to ensure that the access copies are complete. As almost all access will be via the digital copies, it may not be noticed that a particular record has not been digitised. Even though the physical original still exists, users may never realise when accessing the digital copy that further information may still be held in the paper original;
- Retrospective destruction. Having digitised the records and made them accessible, there will be a strong economic incentive to subsequently dispose of the physical records. Destruction of the source records in this instance is not permitted unless the requirements of Standard 9 and this Guideline have been complied with. It may be more difficult and expensive to retrospectively achieve compliance than to achieve compliance during the digitisation activity.

### **FULFILLING THE REQUIREMENTS – THE DIGITISATION SPECIFICATION**

#### **Digitisation Plan**

To demonstrate compliance, agencies need to prepare a Digitisation Plan for the digitisation activity in accordance with Principle 3 of the Standard, and then document the digitisation activity so that the agency can demonstrate that the plan was correctly carried out.

In order to dispose of the digitised source records, agencies must not only prepare a Digitisation Plan, but they must document (record) the actual digitisation process in order to prove that the plan was correctly carried out. *The records of the digitisation process must be retained for as long as the digitised records are retained.*

The Principal Officer of the agency must certify that the Digitisation Plan meets the requirements of Principle 3.

In addition, the Digitisation Plan and the records of the digitisation activity must be retained and made available, upon request, to the Director of Territory Records.

**Table showing the development of the Digitisation Plan**

<b>Requirements of the Digitisation Plan</b>	<b>Evidence of Compliance</b>
1. The agency must prepare and implement a <u>Digitisation Plan</u> in accordance with requirements 2 to 7	Certificate of compliance (see Attachment A).
2. The agency must prepare a <u>Digitisation Activity Plan</u> with the following sections: <ul style="list-style-type: none"> <li>• Scope definition</li> <li>• Appraisal analysis</li> <li>• Purpose of digitisation</li> <li>• Statement of benefits</li> <li>• User needs and impacts</li> <li>• Risk analysis</li> <li>• Intellectual Property analysis</li> <li>• Format requirements</li> <li>• Value as an artefact</li> <li>• Source document review</li> <li>• Digitisation location</li> <li>• Equipment and resources</li> </ul>	The Digitisation Activity Plan must be incorporated into the agency Records Management Program together with the evidence that the Activity Plan was carried out.
3. The agency must prepare a <u>Digitisation Image Specification</u> with the following details for each type of source document: <ul style="list-style-type: none"> <li>• Resolution required</li> <li>• Type of image</li> <li>• Bit-depth</li> <li>• Colour management</li> <li>• Output format(s)</li> <li>• Compression algorithms</li> </ul>	The Digitisation Image Specification must be incorporated into the agency Records Management Program together with the evidence that the Digitisation Image Specification was followed.
4. The agency must prepare a <u>Digitisation Processing Plan</u> with the following sections: <ul style="list-style-type: none"> <li>• Process set-up</li> <li>• Retrieval of records</li> <li>• Pre-processing of records</li> <li>• Scanning records</li> <li>• Post-processing of source records</li> <li>• Post-processing of images</li> <li>• Capture of metadata</li> <li>• Generation of records</li> <li>• Registration of converted records</li> <li>• Return of source records</li> <li>• Reprocessing of records</li> </ul>	The Digitisation Processing Plan must be incorporated into the agency Records Management Program together with the evidence that the Digitisation Processing Plan was carried out.

<b>Requirements of the Digitisation Plan</b>	<b>Evidence of Compliance</b>
<p>5. The agency must prepare a <u>Management Plan for the Converted Records</u> with the following sections:</p> <ul style="list-style-type: none"> <li>• Record management</li> <li>• Security and access control</li> <li>• Storage</li> <li>• Back-up and restoration</li> <li>• Disaster recovery</li> <li>• Export</li> </ul>	<p>The Management Plan must be incorporated into the agency Records Management Program together with the evidence that the Management Plan was and is being carried out.</p>
<p>6. The agency must prepare a <u>Management Plan for the Source Records</u> with the following sections:</p> <ul style="list-style-type: none"> <li>• Disposal status</li> <li>• Record management</li> <li>• Disposal process</li> <li>• Audit requirements</li> </ul>	<p>The Management Plan must be incorporated into the agency Records Management Program together with the evidence that the Management Plan was carried out.</p>
<p>7. The agency must prepare a <u>Quality Control and Assurance Plan</u> for the converted records with the following sections:</p> <ul style="list-style-type: none"> <li>• Image accuracy</li> <li>• Record accuracy</li> <li>• Storage reliability</li> <li>• Quality failure processes</li> <li>• Logging and analysis</li> </ul>	<p>The Quality Control and Assurance Plan must be incorporated into the agency Records Management Program together with the evidence that the Quality Control and Assurance Plan was carried out.</p>

### **Digitisation performed outside control of records area**

The specification does not assume that digitisation is controlled by the agency records management unit within an organisation. Instead, the specifications require that all digitisation be properly planned, carried out, and documented. The tasks of planning, carrying out, and documenting a digitisation activity may be carried out by any group within an agency or on occasion by an external provider.

Ultimately, however, if it is desired to dispose of the source records some consideration needs to be given to digitisation risk, process, and documentation. These specifications provide a formal structure for this consideration.

## **COMPLETING THE REQUIREMENTS**

### **Digitisation Activity Plan**

A digitisation activity plan consists of:

- *Scope definition.* This section lists the records (or collections of records) that are to be digitised as part of the activity and how the digitisation is to be organised. It must include the following information;

- *Record identification.* This lists the records (or collections of records) that are to be digitised;
  - *Duration.* This section indicates whether the digitisation is to be a discrete activity to digitise an existing body of records, or a continuing activity to digitise records as they are received;
  - *Performance.* This states whether the digitisation is to be performed in-house, or outsourced to a third party; and
  - *Location.* This section indicates the physical location where the digitisation is to be performed.
- *Appraisal analysis.* This section identifies whether the records are temporary or permanent. If they are temporary it gives the retention period for the records (including the RDS and sentence the records are appraised against);
  - *Purpose of digitisation.* This section indicates why the records are to be digitised;
  - *Statement of benefits.* This section states the benefits anticipated upon digitisation;
  - *User needs and impacts.* This section states the requirements of the users of the records, and the impact on them of using a converted copy. The impacts may be positive or negative.
  - (Where permanent post-action records are being digitised, it is essential that the needs of future researchers are considered, not just the day-to-day business users within the agency.);
  - *Risk analysis.* This section identifies the risks in digitising the records. Specific risks to be considered are:
    - The risk that the authenticity of a record will be challenged and the authenticity could have been proven from the source record, but cannot be proven from a digitised copy. (Forensic testing of physical documents is a well understood activity, but the forensic testing of digital objects is still an evolving practice.);
    - Incomplete digitisation where some records are not digitised at all, not digitised completely (e.g. missing pages), or have poor quality images (e.g. poor contrast, too low a resolution);
    - The risk that a converted record may be lost due to inadequate record management systems. It is recognised that digital objects are inherently fragile and may be lost due to media failure (e.g. deterioration), application obsolesce (i.e. losing the ability to render the object), or lack of context. Agencies should not underestimate the challenges involved in retaining converted records for long periods of time, and make a realistic assessment of their ability to manage the records for their required life; and
    - Risk that digitising will damage the source record. (This need only be considered where the source record is to be retained after digitising, or where damage will preclude obtaining a complete copy.).
  - *Intellectual property analysis.* This section identifies any intellectual property (IP) issues with digitising the source records. Typical IP issues include, for example, who owns the copyright to the records and who can agencies make copies available to. Where an agency is digitising its own records for its own use, IP

- *Format requirements.* This section identifies if there are requirements imposed upon the agency by legislation, regulation, government policy/directive, agency policy, standard, or written direction from the Director of Territory Records to retain the records in a specific format.
- *Artefactual value.* This section states whether the physical records have value as physical artefacts. (see Principle 2 – Source records with value as artefacts);
- *Source document review.* This section reviews the source documents to determine the characteristics that affect a digitisation project. The following characteristics must be documented:
  - The type of source documents (papers, bound volumes, photographs, plans, microfilm, etc);
  - The quantity of each type of source documents;
  - Whether different types of source documents are mixed within files;
  - The image size (or sizes) of each type of source document;
  - Document structure (stapling, binding type, gatefolds);
  - Document condition (paper quality, creasing, condition of microform jackets) ;
  - Informational content (text, images, annotations, stuck on notes);
  - Whether both sides need to be digitised; and
  - Whether there are any special characteristics of this source document that will affect the digitisation standards adopted.

While a source document review is mostly useful for post-action digitisation of existing records, it is important when setting up a pre-action digitisation activity (e.g. scanning incoming correspondence) to identify the characteristics of the documents that it is expected to digitise; and

- *Equipment and resources.* This section details the resources (equipment and personnel) required to digitise and manage the records in accordance with the requirements in this Digitisation Plan.

### **Digitisation image specification**

See Principle 4 below.

### **Digitisation processing plan**

The purpose of the digitisation processing plan is to detail the workflow that will be required to generate full, accurate, and complete records from the source documents.

The workflow must cover:

- Process set-up, including:

- Digitisation hardware and arrangement;
  - Software requirements; and
  - Configuration settings.
- Retrieval of the records for digitising (especially if undertaking post-action conversion), including:
  - Record tracking so that the location of all source records is known at all times;
  - Transport of the source records to the digitisation location to minimise risk of loss or damage to the records; and
  - Documentation required to be kept of the retrieval process.
- Pre-processing of the records prior to digitising, including:
  - Guidance on what type of material need not be digitised (e.g. ephemeral records). However, care should be taken that the complete record is digitised;
  - Physical preparation of records for digitising (e.g. removal of staples and other binding systems, flattening, conservation, batching of like documents). Note that the binding must not be removed from permanent post-action records;
  - Assembly of batches of source records suitable for digitisation at one time (e.g. size, colour, date order, document formats, orientation – portrait or landscape, single or double sided); and
  - Documentation required to be kept of the pre-processing of the records.
- Scanning records, including:
  - Special handling of multilayer documents (e.g. documents with annotations on the back, documents with attached notes, highlighted records);
  - Special handling of records with different types of documents (e.g. plans and memos), including ensuring that the original record and the converted record are put back together in the correct order, and methods for digitising source records with special requirements (e.g. thin, oversized, fragile);
  - Storing of scanned images before post-processing (e.g. file naming, disposal) of the digitised images (e.g. cropping, adjustment of contrast, brightness, and colour, down sampling, and saving as particular file types/compression);
  - Quality assurance procedures to ensure that all images satisfy usability requirements; and
  - Documentation required to be kept of the scanning process.
- Post-processing of source records (e.g. rebinding, ensuring that separated parts are reunited);
- Capture of metadata, including:
  - The metadata elements to be captured;

- Preparation of instructions as to metadata values (e.g. identifying metadata values on the source records, controlled vocabularies and valid values);
- Who will capture each element and when?;
- The tools that will be used for data entry and storage;
- Quality assurance procedures to ensure accurate metadata entry; and
- Documentation required to be kept of the metadata capture.
- Generation of the converted records, including:
  - Combination of multiple images into a single document (including attachments, non-standard size pages, post-it notes); Naming of the computer files containing the documents;
  - Association of the metadata with the documents;
  - Quality assurance procedures to ensure that the converted record is a full and accurate copy of the source record; and
  - Documentation required to be kept of the record generation process.
- Registering of the converted records (documents and metadata) into a record system. *This section will link to the Management Plan for Converted Records.*
- Return of source records from digitising, including:
  - Record tracking to ensure that the source records are returned.
  - Separating records that can be disposed of from those that cannot be.
  - Organising the source records so that they can be easily retrieved in case of quality assurance failure. and
  - Documentation required to be kept of the record return.

*This section will link to the Management Plan for Converted Records.*

- Reprocessing a source record when the quality assurance process has identified a failure to capture a full and accurate copy of the record.

### **Management plan for the converted records**

The purpose of the management plan is to describe the mechanisms used to ensure that the converted record remains accessible for as long as it is required. This section describes the requirements for the plan for ongoing management of the converted record.

It must contain the following sections:

- *Record management.* This section states how the converted records are to be managed as records. It must cover:
  - The record system to be used to manage the converted records;
  - Identification of the converted record;
  - Indexing;
  - Classification;
  - Security and access control;
  - Rights management;
  - Preservation of the converted record;



- Disposal of the converted records; and
  - Preservation of the identity, integrity, authenticity, and context of the record.
- *Storage.* This section identifies the storage system holding the records. It must cover:
  - The type of media used;
  - Performance (particularly retrieval performance);
  - Any automatic storage of second copies (e.g. RAID);
  - The testing process used to detect any deterioration of the media or corruption of the records;
  - Periodic refreshing of the media;
  - Organisation of records on media to assist in disposal.
- *Back-up and restore.* This section covers the taking of copies of the records and contextual metadata for the purpose of routine recovery of information that is lost due to media failure, minor system failure, and operator error. It must cover:
  - Back-up software and process (including frequency);
  - Storage of back-ups (including security used to ensure authenticity);
  - Restoration procedures;
  - Periodic quality assurance procedures to ensure that the back-up and restore procedures are operating correctly;
  - Quality assurance procedures to ensure that data has been restored correctly; and
  - Documentation of failures, restoration, and quality assurance.
- *Disaster recovery.* This section covers the taking of copies of the records and contextual metadata for the purpose of recovery of information lost due to a catastrophic failure (e.g. major system failure, or fire).
- *Security and access control.* This section includes both system security and physical security of the media and servers. Security must cover all copies of the data, including those held for back-up and disaster recovery regimes.
- *Export.* This section covers how the records (including metadata) can be exported from the record system. Typical exports are to another record system (e.g. upon decommissioning this record system). Note that systems that hold Territory archives must be of archival quality.

*Note that records to be retained as Territory archives must be held in an archival quality digital records management system.*

### **Management plan for the source records**

This section contains the requirement for the plan for ongoing management of the source records after it has been confirmed that the converted record is a full and accurate copy of the source record.

It is expected that in many cases the source records will be disposed of once the quality assurance process has been completed. Records to be retained as Territory archives must

be managed appropriately according to *Territory Records Standard No.7 – Physical Storage of Records*.

The management plan must contain the following information:

- The disposal status of the source record;
- The period the source record must be kept after conversion;
- The management system used to manage the source records until their disposal;
- The method of linking between the converted records (in their record system) and the source records (in their record system); and
- The records to be kept of the disposal process.

### **Quality control and assurance plan**

The purpose of a quality control and assurance process plan is to describe the mechanisms used to ensure that the digitisation project will produce complete, full, and accurate records.

The quality control and assurance process plan must contain the following sections:

- *Image accuracy*. Ensuring that the digitisation equipment is producing accurate images. (e.g. quality of image, colour rendition.) This also ensures that the operator is operating the equipment correctly. This must cover:
  - Operator training;
  - Scanner operation quality control;
  - Extent and frequency of sampling of digitised images;
  - Criteria for checking image quality;
  - Documentation of the quality assurance processes; and
  - Any acceptable variations from normal procedure.
- *Record accuracy*. Ensuring that the digitisation workflow is producing full, complete, and accurate records (all records have been digitised, metadata is correctly captured, all images of a document are captured, all images are recombined into a single document, documents are registered correctly into record system). This must cover:
  - Operator training;
  - Verification that the quantity of output images matches the record input;
  - Frequency and criteria for checks on metadata;
  - Documentation of the quality assurance processes; and
  - Any acceptable variations from normal procedure.
- *Storage reliability*. Ensuring that the storage system can reliably hold the records for as long as they are required (auditing back-up and restore, periodic validation of copies of records on media, managing media so that records can be migrated when at risk).
- *Quality failure processes*. Where a quality failure is identified, processes are in place to identify and check other records that could be affected to ensure that there

- *Logging and analysis.* Logging and analysis processes to allow monitoring of trends and detection of systematic problems.

It is expected that the quality assurance processes will include both routine activities and audit activities. Routine activities are those that are conducted routinely as part of the digitisation workflow (e.g. daily or on every document). Audit activities are those that are conducted periodically by a person different than the person operating the system (auditors), to independently confirm correct behaviour.

It is further expected that a post-action digitisation activity will have a higher level of quality assurance processes than a routine conversion project. This is because when routinely digitising incoming documents the expectation is that the digitised copies will be quickly used to conduct business. If the copies are not a full and accurate record, or the quality is not sufficient, this will be quickly detected and the record will be re-digitised. Conducting business based on the record is consequently an implicit quality assurance step. With post-action conversion, the record may not be examined for a considerable period and therefore requires a higher level of quality assurance.

## **PRINCIPLE 4: TO DISPOSE OF A SOURCE RECORD AFTER DIGITISATION, THE AGENCY'S IMAGE OF THE CONVERTED RECORD MUST MEET MINIMUM TECHNICAL REQUIREMENTS**

### **Digitisation image specification**

The image specification must contain a separate section for each type of source document (e.g. letter, volume, plan, and microfilm). Each section must detail:

- The resolution required (in dpi);
- The type of image (bi-tonal, greyscale, colour);
- The bit-depth (when greyscale or colour);
- Colour-management;
- Compression algorithm and settings to be used

These requirements have been set at a level sufficient to produce images suitable for all general purposes (including long term retention and reuse). Agencies can adopt the Digitisation Image Requirements to satisfy most of the Digitisation Requirements. Agencies are free to adopt higher requirements if required.

Under certain circumstances, they are also free to adopt lower requirements. To adopt lower requirements, the agency must be digitising temporary records, and the agency must ensure and document that the image specifications are sufficient for all reasonable uses of the records over their retention period.

It will be necessary for agencies to select suitable output formats for their purposes.

### **Digitisation specification**

<b>Requirements</b>	<b>Evidence of Compliance</b>
<p>1. For clean, high contrast, documents with text or graphics for which colour is either not present or not essential and any images are line art, agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"><li>• Resolution: 200 dpi</li><li>• Type of image: bi-tonal</li><li>• Bit-depth: 1 bits</li><li>• Colour management: not applicable</li><li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li></ul> <p>Generally use this specification for documents (including maps and plans) unless any of the following conditions apply:</p> <ul style="list-style-type: none"><li>• The document contains coloured information that must be retained to preserve the meaning (see Requirement 2 below)</li></ul>	<p>Testing of the images for resolution, image type, bit depth, and compression algorithm</p>

Requirements	Evidence of Compliance
<ul style="list-style-type: none"> <li>• The document has a low contrast (e.g. faded text, browning paper, or coloured paper) (see Requirement 2 below)</li> <li>• The document includes photographs (see Requirement 2 below)</li> <li>• Photographs (see Requirement 3 or Requirement 4 below) or negatives (see Requirement 5 or Requirement 6 below)</li> </ul>	
<p>2. For documents where colour is present and is important, or for documents with low contrast (e.g. faded text, coloured background) agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"> <li>• Resolution: 200 dpi</li> <li>• Type of image: colour</li> <li>• Bit-depth: 24 bits</li> <li>• Colour management: embedded ICC colour profile</li> <li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li> </ul> <p>Use for all documents that do not fall under Requirement 1 except photographs (see Requirement 3 or Requirement 4) or negatives (see Requirement 5 or Requirement 6)</p>	<p>Testing of the images for resolution, image type, bit depth, colour management profile, and compression algorithm</p>
<p>3. For black &amp; white photographs agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"> <li>• Resolution: 600 dpi</li> <li>• Type of image: greyscale</li> <li>• Bit-depth: 8 bit</li> <li>• Colour management: embedded ICC colour profile</li> <li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li> </ul>	<p>Testing of the images for resolution, image type, bit depth, colour management profile, and compression algorithm</p>
<p>4. For colour photographs agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"> <li>• Resolution: 600 dpi</li> <li>• Type of image: colour</li> <li>• Bit-depth: 24 bit</li> <li>• Colour management: embedded ICC colour profile</li> <li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li> </ul>	<p>Testing of the images for resolution, image type, bit depth, colour management profile, and compression algorithm</p>

Requirements	Evidence of Compliance
<p>5. For black &amp; white negatives agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"> <li>• Resolution: 2400 dpi</li> <li>• Type of image: greyscale</li> <li>• Bit-depth: 8 bit</li> <li>• Colour management: embedded ICC colour profile</li> <li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li> </ul>	<p>Testing of the images for resolution, image type, bit depth, colour management profile, and compression algorithm</p>
<p>6. For colour negatives agencies must produce images conforming to the following specification:</p> <ul style="list-style-type: none"> <li>• Resolution: 2400 dpi</li> <li>• Type of image: colour</li> <li>• Bit-depth: 24 bit</li> <li>• Colour management: embedded ICC colour profile</li> <li>• Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)</li> </ul>	<p>Testing of the images for resolution, image type, bit depth, colour management profile, and compression algorithm</p>
<p>7. Where it is required to relax the requirements of this specification for temporary records, agencies must conduct a usability analysis conforming to the following specifications:</p> <ul style="list-style-type: none"> <li>• Identification of all the reasonable business uses of the records.</li> <li>• Evidence to confirm that it can reasonably be expected that all records will be usable for all identified business uses</li> </ul>	<p>Usability analysis and supporting evidence</p>

## **ATTACHMENT A: COMPLIANCE CERTIFICATE AGAINST PRINCIPLE 3 OF STANDARD 9 – RECORDS DIGITISATION AND CONVERSION (MINIMUM DIGITISING REQUIREMENTS)**

<p style="text-align: center;">Certificate of Compliance</p> <p>Territory Records Specification on Digitisation Requirements (Principle 3 of <i>Territory Records Standard 9 – Records Digitisation and Conversion - Digitisation Plan</i>)</p> <p>I _____ Principal Officer of (Name)</p> <p>_____ (Name of agency)</p> <p>confirm that the organisation has demonstrated to my satisfaction that the Requirements of Principle 3 of <i>Territory Records Standard 9 – Records Digitisation and Conversion (Minimum Digitising Requirements)</i> has been met and can continue to be met when digitising the following records:</p> <p>_____</p> <p>_____ (Description of records)</p> <p>I understand that meeting this specification is a condition for the agency implementing the Records Disposal Schedule for Source Records.</p>
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Requirements of Principle 3 of *Territory Records Standard 9 – Records Digitisation and Conversion (Minimum Digitising Requirements)* requires agencies to prepare a Digitisation Plan for the source records being digitised.

This Digitisation Plan must include the following components:

- Digitisation Activity Plan;
- Digitisation Image Specification;
- Digitisation Processing Plan;
- Management Plan for the Converted Records;
- Management Plan for the Source Records; and
- Quality Control and Assurance Plan

Each of these components must contain mandatory information. The Digitisation Plan and the records that the digitisation was carried out in accordance with the plan may be audited.

## **ATTACHMENT B: CHECKLIST OF COMPLIANCE FOR MANAGEMENT OF RECORDS DIGITISATION AND CONVERSION**

### **CHECKLIST – PRINCIPLE 1: APPLICATION OF STANDARDS TO ALL BUSINESS RECORDS**

Principle 1 refers to the application of all earlier Standards. While no separate checklist is provided, functional Records Disposal Schedules (RDSs) and all Standards continue to apply to source records that must be retained and source records that continue to be the business record of the agency. The RDS for Source Records does not apply to these source records. The RDS for Source Records applies only to source records that have been converted in accordance with the *Territory Records Standard for Records Management No.9 –Records Digitisation and Conversion*.

### **CHECKLIST – PRINCIPLE 2: SPECIFIED DISPOSAL CLASSES**

An agency will comply with the requirements of Principle 2 of the *Territory Records Standard for Records Management No.9 –Records Digitisation and Conversion* if it can demonstrate, for source records being viewed for disposal after conversion, that:

- A risk assessment has been carried out on the risks an agency incurs in converting the records. (It is recommended that agencies gain experience on low risk conversions before attempting large scale high risk conversions.);
- The converted record is a full and accurate copy of the source record;
- The converted record becomes the official record of the business of the agency; that is, the converted record is used for continuing business purposes;
- The converted record is managed in a system that is designed to ensure access for the full retention period of the record. The system must satisfy the relevant storage standards;
- The source record does not have value as a physical artefact;
- There is no requirement imposed upon the agency by legislation, regulation, government policy/directive, agency policy, standard, or written direction, such as from the Director of Territory Records, that the source record be retained in a specific format; and
- Records being viewed for disposal are managed according to the classes defined in the RDS for Source Records.

### **CHECKLIST – PRINCIPLE 3: DIGITISATION SPECIFICATION**

An agency will comply with the requirements of Principle 3 of the *Territory Records Standard for Records Management No.9 –Records Digitisation and Conversion* if it can demonstrate, for records being viewed for disposal after conversion, that the agency has implemented a Digitisation Plan in accordance with the following requirements:

- The agency must prepare a Digitisation Activity Plan containing the mandatory information.
- The agency must prepare a Digitisation Image Specification containing the mandatory information.
- The agency must prepare a Digitisation Processing Plan containing the mandatory information.



- The agency must prepare a Management Plan for the Converted Records containing the mandatory information.
- The agency must prepare a Management Plan for the Source Records containing the mandatory information.
- The agency must prepare a Quality Control and Assurance Plan for the converted records containing the mandatory information.

## **CHECKLIST – PRINCIPLE 4: DIGITISATION IMAGE SPECIFICATION**

An agency will comply with the requirements of Principle 4 of the *Territory Records Standard for Records Management No. 9 –Records Digitisation and Conversion* if it can demonstrate, for source records being viewed for disposal after conversion, that the agency has implemented digitised images that meet the following recommended specifications:

- For clean, high contrast, documents with text or graphics for which colour is either not present or not essential and any images are line art agencies must produce images conforming to the following specification:
  - Resolution: 200 dpi;
  - Type of image: bi-tonal;
  - Bit-depth: 1 bits;
  - Colour management: not applicable;
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device);
  - Generally use this specification for documents (including maps and plans) unless any of the following conditions apply;
  - The document contains coloured information that must be retained to preserve the meaning (see Requirement 2 in Principle 4);
  - The document has a low contrast (e.g. faded text, browning paper, or coloured paper) (see Requirement 2);
  - The document includes photographs (see Requirement 2);
  - Photographs (see Requirement 3 or Requirement 4) or negatives (see Requirement 5 or Requirement 6);
- For documents where colour is present and is important, or for documents with low contrast (e.g. faded text, coloured background) agencies must produce images conforming to the following specification:
  - Resolution: 200 dpi;
  - Type of image: colour;
  - Bit-depth: 24 bits;
  - Colour management: embedded ICC colour profile; and
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device).

*Use for all documents that do not fall under Requirement 1 except photographs (see Requirement 3 or Requirement 4) or negatives (see Requirement 5 or Requirement 6)*

- For black & white photographs agencies must produce images conforming to the following specification:
  - Resolution: 600 dpi;
  - Type of image: greyscale;
  - Bit-depth: 8 bit;
  - Colour management: embedded ICC colour profile; and
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device).
- For colour photographs agencies must produce images conforming to the following specification:
  - Resolution: 600 dpi
  - Type of image: colour
  - Bit-depth: 24 bit
  - Colour management: embedded ICC colour profile
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device)
- For black & white negatives agencies must produce images conforming to the following specification:
  - Resolution: 2400 dpi;
  - Type of image: greyscale;
  - Bit-depth: 8 bit;
  - Colour management: embedded ICC colour profile; and
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device).
- For colour negatives agencies must produce images conforming to the following specification:
  - Resolution: 2400 dpi;
  - Type of image: colour;
  - Bit-depth: 24 bit;
  - Colour management: embedded ICC colour profile; and
  - Lossless compression (Lossy compression is acceptable if this is the only representation available from the digitisation device).
- Where it is required to relax the requirements of this Specification for temporary records, agencies must conduct a usability analysis conforming to the following specifications:
  - Identification of all the reasonable business uses of the records; and
  - Evidence to confirm that it can reasonably be expected that all records will be usable for all identified business uses.

## **DEFINITIONS**

### **Actioned**

Any substantive work carried out in an agency in response to receiving the correspondence. This does not include purely process work (e.g. conversion).

### **Agency**

The Executive, an ACT Court, the Legislative Assembly Secretariat, an administrative unit, a Board of Inquiry, a Judicial or Royal Commission, any other prescribed authority, or an entity declared under the regulations of the *Territory Records Act 2002* to be an agency.

### **Converted Records**

The copy of the record resulting from the conversion (compare source record). For example, the digitised copy of a paper record.

### **Conversion**

The act of converting a record from one format to another. (See also pre-action conversion, post-action conversion, and digitising).

### **Digital Record**

A digital record is a record that is communicated and maintained by means of electronic equipment. (National Archives of Australia, Glossary). (See also “Records”).

### **Digitisation or Digitising**

The process of converting a physical record to a digital representation. (See also “Records”, “Digital record”, “Digitised record”).

### **Digitisation Project**

The process of converting a set of related physical records to digital representation. (See also “Records”, “Digital record”, “Digitised record”).

### **Digitised Record**

A digitised record is a record that has been converted from a physical record to a digital format. (See also “Records”, “Digital record”, “Digitisation”).

### **Permanent**

These records are considered of permanent value to the Territory and may not be destroyed. Permanent records are defined by a Records Disposal Schedule.

## **Pre-Action/Post-Action Conversion**

The conditions under which the source record can be disposed of depend on when the conversion is carried out.

*Pre-action conversion* is where conversion is carried out immediately after the record is received by an agency, and before any action has been taken on it. An example of pre-action conversion is the digitisation of received correspondence in a mailroom.

*Post-action conversion* is where conversion is carried out after any action has been taken on the record. A typical example of post-action conversion is the digitisation of existing paper-based files. An action includes any decision on how to deal with the subject of the record.

## **Principal Officer**

The Chief Executive of an administrative unit, or its equivalent in other types of agencies.

## **Records**

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. This recorded information must be maintained or managed by the agency to provide evidence of their business activities. Records can be in written, electronic or any other form.

## **Records Disposal Schedule (RDS)**

A Notifiable Instrument created under S.19 of the *Territory Records Act 2002* granting permission to dispose of particular classes of records after a specified period of time. Some records may not be disposed of and must be retained permanently.

## **Records of an Agency**

Records in written, electronic or any other form, under the control of an agency or to which it is entitled to control, kept as a record of its activities, whether it was created or received by the agency.

## **Recordkeeping Systems**

Information systems that capture, maintain and provide access to records over time. While the term is often associated with computer software, Recordkeeping Systems also encompass policies, procedures, practices and resources which are applied within an agency to ensure that full and accurate records of business activity are made and kept.

## **Records Management**

The managing of the records of an agency to meet its operational needs and, if appropriate, to allow public access to the records consistent with the *Freedom of Information Act 1989* and for the benefit of future generations. Records management

covers but is not limited to the creation, keeping, protection, preservation, storage and disposal of, and access to records of the agency.

### **Records Management Program**

A document which complies with section 16 of the *Territory Records Act 2002* by setting out the means by which an agency will manage its records, and is approved by the agency's Principal Officer.

### **Source Record**

The copy of the record that is being converted into another format (compare converted record). For example, the paper record that is being digitised.

### **Temporary**

Temporary records are not considered of permanent value to the Territory and may be destroyed after the minimum period of time as established in the relevant Records Disposal Schedule when no longer required for business purposes. Temporary records are defined in a Records Disposal Schedule and are those that are not to be Retained as Territory Archives.

### **Unsentenced Records**

Records that are not known to be covered by a Records Disposal Schedule.

## REFERENCES AND FURTHER READING

### Legislation

*Electronic Transactions Act 2001*  
*Freedom of Information Act 1989*  
*Public Sector Management Act 1994*  
*Territory Records Act 2002*

### Standards

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### Other resources

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