TAHO
Tasmanian Archive + Heritage Office

Information Management Advice 21 Plan before you scan

Introduction

Many agencies are commencing back scanning projects for their legacy files, or automating business processes by scanning incoming mail or hardcopy forms. It is important to plan your digitisation approach carefully to ensure that the right records are selected for digitisation and that the potential benefits can be realised, the costs managed and risks mitigated.

This Advice steps through the planning process that should be conducted prior to implementing any digitisation program or large-scale scanning project. It covers selection of records, assessing the risks, developing a business case and a Digitisation plan. This Advice also discusses:

- Common reasons for digitising accumulated paper records
- Justification for and planning of digitisation projects
- Deciding to digitise in-house or outsource
- Documenting decisions made about the digitisation process

Accompanying this Advice is a checklist to help you select records and a Digitisation plan template. Together with *Guideline 8 - Digitisation and Disposal of Source Records*, this forms a toolkit to assist agencies to successfully implement digitisation programs and projects.

Guideline 8 - Digitisation and Disposal of Source Records revision

There have been some significant changes to the scope and coverage. Previously titled: *Management of source records that have been copied, converted or migrated*, this Guideline has been renamed: *Digitisation and Disposal of Source Records*. The main features of the revised Guideline are:

- The inclusion of technical standards designed to produce preservation-quality digitised images of Permanent legacy records.
- The requirement for Agencies to obtain specific approval from the State Archivist via the submission of an *Application to Dispose of Permanent Source Records* to destroy Permanent source records once digitisation has been undertaken, including supporting information about the Agency's digitisation processes, to Tasmanian Archives and Heritage Office (TAHO) to demonstrate that digitised records have the required degree of authenticity, integrity, reliability and useability necessary to replace the Permanent source records.
- The removal of migrated records from the scope. This will now be covered in *Guideline 24 - Migrating Digital Records*.

Digitisation

Digitisation generally falls into two categories:

Business process digitisation

Digitisation activities that occur before the records are actioned by an officer of an agency. For example, the digitisation of paper records as they are opened in the mail room. The key characteristic is that this kind of pre-action conversion is for daily business use, such as digitising incoming mail, invoices, applications, and forms as they are received, or before they are actioned, for improved workflows.

Business process digitisation needs to be carefully planned and managed in order to:

- realise the business benefits,
- control costs and protect the integrity of the originals, and;
- produce quality copies.

Back scanning

Back scanning refers to activities where source records are digitised after they have been actioned by an officer of an agency. The key characteristic is that this kind of post-action digitisation involves digitising the records after they were actioned by the agency staff in carrying out the business of the agency.

The retrospective digitisation of existing paper records is conducted for a variety of reasons, including to:

- streamline systems,
- enable the destruction of original paper records,
- make records more accessible or;
- preserve old and fragile records.

Digitisation projects are often initiated by individual business areas in response to a specific business need.

The word 'digitisation' is often used interchangeably with scanning, conversion, digital reformatting and digital imaging. For our purposes, digitisation describes the process of making a digitised copy which acts as a digital surrogate for the original physical record (e.g. paper document, map, plan or photograph).

Planning Checklist

Planning for digitisation	Reference	Complete?
Has an agency-wide approach to digitisation been developed?	Page 4	
Has the agency defined the purpose of the digitisation project and its expected benefits?	Page 5	
Has the use of OCR been considered?	Page 6	
Will you conduct your digitisation project in-house or outsource it to a service provider?	Page 7	
If outsourcing digitisation, have timeframes, costs, quality assurance standards and reporting requirements been clearly articulated in contracts and service agreements?	Page 8	
Have service providers been made aware of all of the requirements they must meet, including the requirements for digitisation of Permanent records set-out in *Guideline 8 - Digitisation and Disposal of Source Records*?	Page 8	
Has a process for monitoring compliance been agreed to and documented in contracts and service agreements?	Page 8	
Has the need for preservation masters and access copies been considered?	Page 9	
Has risk analysis been undertaken?	Page 9	
Do the records selected for digitisation support business needs and align with the aims of the project?	Page 11	
Has there been consideration of physical condition, copyright or other constraints when choosing records for inclusion in the scanning project/program?	Page 11	
Has a business case been developed for the project?	Page 12	
Does the business case fully address the scope, purpose, business drivers, benefits, costs and risks of digitisation and other relevant factors that might impact on the project's viability?	Page 12	
Are there documented implementation plans for the digitisation project which further outline parameters and requirements for the project?	Page 13	
Has a Digitisation plan been developed that includes the following elements: • Digitisation Activity Plan • Digitisation Image Specification • Digitisation Processing Plan • Management Plan for the Digitised Records • Management Plan for the Source Records • Quality Control and Assurance Plan?	Page 13	
Have you developed appropriate change management and communication strategies that consider staffing, training and business process reengineering?	Page 22	

Digitisation project planning

The key to being able to make appropriate and cost effective decisions in digitisation projects is having a detailed and thorough understanding of the source records themselves. Early planning needs to consider:

- Why were the records created?
- Does the business process which created the records differ from the current use of the records?
- Are records inactive, or still needed for business processes?
- Will digitising the records add value to a current business process?
- Can the source records be legally destroyed?
- What technical standards are appropriate for the records?
- How will the digitised records be stored?
- How much metadata needs to be captured?

Establish the framework

To enable digitised records to function effectively as evidence of business activities, your agency needs to establish a trusted, reliable framework for digitisation. This means ensuring that your digitisation project is effectively managed, has appropriate governance and is aligned with agency-wide digital continuity strategies and consistent with existing information management policies and procedures. You should ensure that:

- Appropriate Digitisation plans are in place
- Equipment and allocated space is fit for purpose (if digitisation activities are to be conducted in-house)
- Suitable processes are devised to meet established benchmarks, that these are documented in policies and procedures and made known to staff members
- Suitable technical specifications and metadata requirements have been established
- There are quality assurance measures in place to ensure all procedures are followed correctly and that images are adequate for their purpose
- Relevant staff members are trained and supported to meet their roles and responsibilities
- The project is regularly monitored and reviewed.

It is important to obtain expert advice and consult with stakeholders throughout the planning stages.

Project Dos and don’ts

Do your research before launching into the project. It is vital that you carefully assess both your users' needs and your available resources.	Don't underestimate the time required to recruit and train staff, or presume that your staff will stay till the very end of your project.
Do ensure that the key stakeholders are on your side and that your project is a good fit with your agency’s mission and strategic objectives.	Don’t forget to involve stakeholders who have knowledge of the records as well as those with a technical knowledge of digitisation processes.
Do set clear and achievable objectives and put them in your project plan to avoid scope creep.	Don’t try to do it all yourself. Consider engaging a project manager, or get some training in project management techniques to keep things on track.

Digitisation drivers

Common opportunities that are presented in digitisation business cases include:

To increase business efficiency and integrate systems

Scanning paper documents can help create a seamless digital work process incorporating both current and older records. If a digitisation program is robust, it is much easier and quicker to retrieve and view digital images rather than the original paper records, particularly for time-critical matters. This can, in turn, reduce the time taken to respond to clients.

To improve access and use

Digitised documents can be captured into a recordkeeping system so that they can be quickly accessed by staff. They are available for viewing (depending on access restrictions) to multiple users simultaneously, including on portable electronic devices. Digitisation can help agencies take advantage of new technologies and support staff flexibility allowing them to access records in any location. Digitisation allows you continued access and use of information even if the source record is accidentally or maliciously destroyed, damaged or stolen.

To save physical storage space

Disposal of the source records, after quality assurance processes have taken place, may save agencies significant costs in the long-term storage of hardcopy records. However, only source records that are covered by an approved and current Retention and Disposal Schedule (R&DS) can be disposed of. See the *General Disposal for Source Records (DA 2159)* for more about the conditions for source records that must be met.

Example The agency has accumulated a room full of records from a recent restructure. They are located in expensive office space needed to accommodate staff. A digitisation project is planned to reduce physical storage needs and to meet access requirements for the records. Following the successful completion of the project, the office can be refurbished for other use.

Digitised records can be used as evidence in legal proceedings

Agencies can digitise and destroy the source record, maintaining the digitised record in place of the original. This may lead to a reduction in staff time spent on locating the right records, particularly for legal discovery (Evidence Act 2001). For more information about the requirements for admissibility of digital records as legal evidence, see *Advice 16 - Legal acceptance of State Records*.

To improve security and auditing of high-risk or sensitive records

By capturing the digitised record into your recordkeeping system you can ensure that proper audit logs are kept to show who has viewed, edited, distributed or exported specific documents.

As part of your digital continuity strategy

Implementing your digital continuity strategy includes giving preference to digital formats when you are reviewing processes or systems or implementing new ones. Eventually, nearly all your information will eventually be created, stored and managed digitally. Redesigning business processes and practices in order to

transition to digital formats may include a component of digitisation. See *Advice 38 - Information Asset Owner and Digital Continuity* for an introduction to digital continuity issues.

To preserve information assets

Some agencies hold paper records that have long-term business use. These may be deteriorating, particularly if they are frequently used. Digitisation may protect the records so that stakeholders can access the digitised version rather than the original paper records thereby saving them from further damage.

Example The agency has maps and plans dating back to the earliest European settlement. These are still used for checking boundaries and property rights. However, they are old and fragile and are being damaged by physical handling. The agency is planning to digitise the maps and plans to a high quality and then to restrict access to the physical records.

What about OCR?

Technically, there are actually two different types of digitisation.

Creating a digital image - the records are scanned or photographed (using photocopiers, cameras, flat-bed scanners, etc.) to create digital images. These images are captured and stored on a storage device such as a hard drive and viewed on a computer screen. The digital images can then be further processed and edited using image processing software (e.g. Photoshop). Information or text within the digital image cannot be searched, changed or manipulated unless the digitised file is further processed by OCR software, or the text manually keyed in (transcribed). Manual transcription may be more appropriate than OCR for hand-written documents or registers.

Converting text into machine-readable format - Optical Character Recognition (OCR) software 'translates' the digitised record into machine-readable text, which can be searched, changed or manipulated. OCR works best for typed or printed documents and forms with simple, consistent layouts. For large, high-volume back scanning projects agencies might consider the cost of OCR too high. However, in the long-term, the value of having machine-readable data may over-ride cost considerations. If you do not undertake OCR processing, significant manual data entry and metadata capture may be required to achieve the expected business benefits and efficiencies. Postponing this analysis until later (i.e. post-processing) will increase the risks that the images may degrade, the files become inaccessible and knowledge about the content of the records will be lost.

In-house vs. outsourcing

There are a number of cost considerations when deciding to digitise in-house or outsource to a service provider. At first glance, in-house appears to be the easiest option, but it can be more expensive. The biggest expense will be staff costs and related overheads. Efficient and well-documented procedures will save staff time and therefore costs. To reduce the amount of time the project takes, conduct tests or pilots, so that your procedures are developed prior to commencing the project.

In-house cost considerations

If your agency is planning in-house digitisation, costs will include:

- Purchase, support and upgrades of digitisation software and hardware
- Training and support for staff involved in digitisation work (some training may be offered as part of contractual agreements with software and hardware suppliers)
- Costs associated with physical space for digitisation (fit-out, rental, etc.)
- Health and safety assessments and measures
- Staff time to plan, establish and document the program with suitable parameters and benchmarks
- Staff time to retrieve and prepare records, digitise, apply metadata, migrate to EDRMS, do quality control checks, return source records to storage, monitor and evaluate programs etc.
- Staff time to manage variables like non-uniform or poor quality originals
- Technical infrastructure and server space for storing digitised records
- Providing software on desktops to view digitised records
- Training and change management strategies for users who will be accessing the digitised records
- Managing digitised records over time e.g. migration to new systems.

On the face of it, outsourcing can appear to be a more cost effective solution. However, you will also need to consider the cost of managing the digitised records over time. Many of the same considerations for in-house digitisation will also apply to out-sourcing, including migration to new systems, training your users, long-term digital storage, etc. If you decide to outsource, carefully compare quotes [3](pricing is often the number of pages digitised).

Outsourcing

Don't forget to factor in costs such as staff time required to:

- Plan, establish and document the project with suitable parameters and benchmarks
- Evaluate, research and select contractors that can meet project needs and negotiate terms
- Prepare (and possibly transport) records to and from the service provider
- Liaise with contractors throughout the project
- Perform checks and monitor and evaluate services provided. Remember the onus is on you to check the quality of their work and adherence to specified standards before the whole job is done.
- Train contractors in how to safely handle your records, particularly if they are Permanent value records required as state archives.

You need a sufficient understanding of the technical details and standards that your project requires to ensure that you achieve your desired outcome. Ask for samples of previous work, and a list of clients that you can speak to. You can even ask to view their set-up. Other things to keep in mind:

[3] NSW State Records has published useful examples of out-sourcing documentation on their website: http://www.records.nsw.gov.au/recordkeeping/advice/digitisation/examples-of-documentation-from-digitisation-programs-and-projects

- The cheapest quote will not necessarily deliver the quality output that you require (for example, have they included OCR costs in the quote?)
- Clearly communicate with potential vendors so that they understand exactly what is to be digitised, otherwise the final cost could be much higher than the original estimate.
- Ensure that you clearly specify scanning format requirements. Outputs that require more preparation will have higher costs. For example, multi-page PDF requires more processing than TIFF, separating into unique documents will take longer than scanning as a single file, etc. See *Advice 30 - Digitisation Dilemmas* for solutions to these questions.
- Don't forget to ask about metadata!

Preparing contracts and service agreements

If you plan to outsource, ensure the following been clearly articulated in contracts and service agreements:

- The range, quantity and type of records to be digitised
- The digital formats required, including formats of preservation masters (unenhanced) and any enhanced copies or access copies required (See *Guideline 19 - Digital preservation formats*)
- Timeframes, costs and expectations
- Roles and responsibilities of both the agency and the service providers (including monitoring and compliance processes)
- Transport and handling arrangements
- Technical, metadata and documentation requirements
- Quality assurance measures (including checks of samples and remediation required if quality benchmarks are not met)
- Statement regarding ownership (i.e. records are property of Tasmanian Government)
- Backup and disaster recovery arrangements

If you are outsourcing the digitisation of Permanent records and intend to dispose of the source records, **you** are responsible for ensuring that the vendor complies with the requirements set-out in *Guideline 8 - Digitisation and Disposal of Source Records*.

Calculating costs

Digitisation costs can be considerable and vary widely, according to the scope and aims of your digitisation project and the quality of the digital images required. In arguments for digitisation, costs may be compared to:

- Costs of inaction e.g. If we don't do anything, what might that cost the agency?
- Cost savings that can be made by destroying original paper records (where relevant) and thereby reducing paper storage costs
- Cost savings brought about by improving business practices, providing better access to the records, etc.

Data storage costs may be reduced to some degree by choosing smaller file sizes and sacrificing quality. However, where the source records are Permanent records, or there is a risk that they may be required in

evidence, a high degree of quality must be maintained. This is to support the longevity of the digitised records and ensure they are authentic representations of the source records. It is important to understand this at the outset, as you may not be able to save on storage costs if the file sizes will be greater.

Don't forget to factor in the cost of preservation masters and access copies!

A preservation master is a high-quality reproduction of a record, optimised for longevity. Masters should be captured at the highest quality or resolution practical and stored for long-term usage in a digital file format which is likely to be accessible in the future. Typically, masters are accessed only for the production of derivative images (access copies) for end-user access and delivery. Agencies that are digitising to preserve fragile and valuable originals that are still frequently accessed should factor in this cost.

Example: Prints made from high quality digital reproductions of early Tasmanian land survey plans are available for purchase online. Access copies of the plans are viewable on the TasMap website. This ensures that the fragile original plans can be preserved and protected as State Archives in TAHO's custody.

Digitisation risks

While there are business opportunities, there are also risks presented by digitisation, and a large-scale digitisation project presents the biggest risk. It is important to undertake a risk assessment and document your risk mitigation strategy in your business case and Digitisation plan. This will help you in monitoring and managing your project's risks. Analyse the risks and consult your stakeholders to ensure that you have adequate controls in place to mitigate or treat the risks before you commence digitisation.

The following table outlines some potential risks and means to mitigate them:

Risk	Possible mitigation strategy
That money will be wasted or additional risks incurred by poor selection of records	• Ensuring selected records support business aims and are well chosen
Digitised records do not meet user requirements to search text and re-use information	• Use OCR and automate capture of as much metadata as possible
Staff continue to print-to-file and annotate the printed version resulting in confusing parallel paper and digital systems (hybrid systems)	• Appropriate education, promotion & training strategies are implemented to limit the amount of printing and improve digital literacy
Security of information may be compromised due to the ease with which digitised records are copied and disseminated	• Establishing a reporting process for users to report incidents, potential weaknesses or threats to information security • Ensure digitised records are captured and maintained within recordkeeping systems with appropriate audit and access controls
Source records cannot be destroyed because of the poor quality of the digitised records	• Ensuring that technical standards are appropriate and quality control processes are implemented • Use OCR software or manual transcription to capture the appropriate information contained in the records in machine-readable format.

Risk	Possible mitigation strategy
That digitised images are not stored or protected appropriately	• Ensuring digitised records are managed according to the organisation's records management program • Capturing digitised records into a recordkeeping system where they can be accessed only by authorised users, secure from alteration or deletion, in context with related records, protected from disaster and kept for their required retention periods • Ensuring that preservation quality digitised records are not stored on removable media where they can be at risk • Capture metadata about relationships between records to ensure that it is very clear whether the source record still exists, which is the digitised record and if there are access copies
That digitised records will not survive and remain accessible and useable for as long as they are required, which may be forever, in the case of Permanent records.	• Ensuring suitable choice of technical standards for the record's retention period • Maintain a preservation master, generating access copies as required • Ensuring digitised records are managed according to the organisation's records management program and registered in a compliant recordkeeping system (e.g. EDRMS) • Ensuring appropriate metadata is assigned to the digitised records • Ensuring that their longevity is planned for e.g. migration on an average of 5-7 years to maintain information accessibility and integrity • Defining funds for ongoing management of the records in the business case and making these funds available when required • Assessing the impact of technological and storage decisions on the longevity of images and actively monitoring for technical obsolescence in the event of upgraded software platforms (e.g. do existing Word docs in the EDRMS need to be migrated forward to newer MS Word formats when core Office upgrades are undertaken? Does the agency check to ensure the docs are accessible, not corrupted, etc.)
That there will be problems experienced with service providers	• Ensuring that the agency has defined, documented and communicated clear benchmarks and standards required to contractors • Ensuring that all relevant requirements are built into contracts • Regularly monitoring the performance of contractors
The authenticity of the digitised record cannot be relied upon for evidential purposes	• The digitised record is captured and managed in a compliant recordkeeping system with audit logs, access controls, etc

Risk	Possible mitigation strategy
Digitised records may become lost or inaccessible due to failure to implement a digital preservation strategy or due to hardware failure or other disaster	• Backup and restore processes are implemented in accordance with standard IT Disaster Recovery procedures
There may be resistance to accepting the digitised version as the official record, especially if the agency is not culturally ready to transition to digital business processes	• Publish a policy statement endorsed by Senior Management that clearly states the agency's intention to transition to digital business
Source records are retained as a just-in-case approach, reducing the benefit of having undertaken digitisation in the first place.	• Ensuring that the reasoning for disposal of the source records is adequately documented in your Digitisation Plan

For further advice on digitisation risks and mitigation measures, see *Advice 30 - Digitisation Dilemmas*.

Select the right records

Use the *Checklist: Selecting Records for Digitisation* to determine if the records are appropriate for digitisation.

One of the primary decisions you need to make is what to digitise. It can be complex and expensive to digitise records well, and it should only be undertaken when substantial and realistic benefits can be realised. Your choices need to be linked closely to your aims. Questions to consider include:

- You want to digitise, but have you contacted the Tasmanian Archives and Heritage Office (TAHO)? We can discuss the requirements for both the source records and the digitised records with you.
- If your agency no longer has a business need for them, can the original paper records be transferred to TAHO now (rather than being digitised) thus addressing physical storage drivers?
- Have you considered the physical condition, copyright or other constraints that may apply to the source records?
- If they do need to be digitised, are the source records covered by current retention and disposal schedules, allowing them to be destroyed after digitisation? Retention and Disposal Schedules are published on our website[7]
- Is your project going to be able to meet all the conditions outlined in the *Disposal Schedule for Source Records (DA 2159)* so that destruction can proceed after digitisation?
- Can you effectively manage the digitised records for the full retention periods specified for the source records in retention and disposal schedules?
- Will the costs of managing the digitised records for the required retention period be less than the costs of managing paper records?

You may find, after considering these questions, that the records may be better managed in their original format until due for disposal.

Project documentation

All of the decisions informing digitisation projects should be adequately documented. If the digitised versions will replace the source records as the official agency record, a higher standard of documentation is required. If you are planning to dispose of the source records, documentation of decisions about the digitisation process and specifications is an important safeguard against potential challenges to the authenticity of the digitised records.

If you are conducting a legacy digitisation project for Permanent records and plan to destroy the originals, you are required to submit an *Application to Dispose of Permanent Source Records* to TAHO. This includes providing supporting documentation about the Agency's digitisation processes, to demonstrate that digitised records have the required degree of authenticity, integrity, reliability and useability necessary to replace the Permanent source records. See *Guideline 8 - Digitisation and Disposal of Source Records* for more information about these requirements.

The business case

This section is intended to assist you to write your business case for digitisation. An effective business case will assist you to gain senior management endorsement and resources for your digitisation project. It should cover:

- The business need or requirement
- Possible options, including analysis of the costs and benefits of each option
- The preferred option
- Risk identification and mitigation strategy
- Implementation strategy

A good business case should discuss the issues, options, costs and risks, and should provide a recommendation to address the situation. The business case should also provide a sound argument for why the recommendation is the best option for action.

NOTE: Your agency may already have established project management processes. The development of a business case may be addressed in a separate document, or absorbed into the project brief. It is important to understand the correct process and use the templates developed for your agency.

The Office of eGovernment has developed a number of useful Project Management templates for Tasmanian Government agencies[8].

Implementation plans

Including an implementation plan in your business case is a useful and persuasive tool for obtaining decision-makers support. This plan should include a timeline, with key milestones and costs attached. Implementation plans should include:

- Timeframes, including the different phases for implementation
- Roles and responsibilities of those involved in implementation
- Resources (including financial and human resources), equipment and training needs
- Details of the vendor selection process (if outsourced)
- Risk management, including how possible barriers to implementation will be dealt with

- Monitoring, evaluation and reporting requirements.

Your implementation plan should also include consideration of tests or pilots before roll-out. Another possible approach is to split the project implementation into phases. The plan should be accompanied by a series of key performance indicators and benefits so that project progress can be tracked. Measures should be tangible and of relevance to the project.

Digitisation plans

This section is intended to assist you to write your Digitisation plan. A Digitisation plan is essentially a project plan for digitisation activities.

Guideline 8 - Digitisation and Disposal of Source Records recommends that agencies prepare a Digitisation plan when undertaking large legacy scanning projects, or when implementing ongoing business process digitisation for permanent and long-term temporary records (e.g. personnel records and client case files). In 75, or even 110 years, when the records are due to be destroyed, this Digitisation plan will be a key evidential document to understand any decisions that were made about the digitisation process. This plan may also be used in the development of a digital preservation strategy to address technological obsolescence.

Digitisation plans should cover digital image specifications, metadata, workflow and quality processes for every large digitisation project you undertake. The plan should include these sections:

Section 1 Digitisation Activity Plan: that covers what is to be digitised, why and the impact of digitisation on workflow and users

Section 2 Digitisation Image Specification: describes the requirements for the digital images

Section 3 Digitisation Processing Plan: describes the process of converting the source records into digital records. The process starts with retrieving the source records, through digitising, entry of metadata, and creation of digital records

Section 4 Management Plan for the Digitised Records: states how the converted records (i.e. digitised copies) are to be managed after the digitisation activity

Section 5 Management Plan for the Source Records: describes how the source records are to be managed after the digitisation activity. In many cases the source records will be disposed of after conversion, so this document describes the process of disposal, including any requirements for authorisation from TAHO, and approved destruction methods.

Section 6 Quality Control and Assurance Plan: Statement about how the agency will ensure that the quality requirements of the digitisation process are to be met.

We have developed a template to assist you[9]. The template acts as a guide to the analysis and documentation required for a large-scale legacy back-scanning project. It is intended as a starting point only, and each agency should amend as appropriate to each project.

[9] A Digitisation Plan Template accompanies this Advice.

Section 1: Digitisation Activity Plan

The Digitisation Activity Plan should describe the digitisation process in detail, so that it will generate full, accurate, and complete records. It should cover:

- Type, quantity and extent of records
- Appraisal analysis, including value as an artefact and retention and disposal schedule coverage
- Purpose of digitisation
- Statement of benefits
- User needs and impacts
- Risk analysis
- Copyright and information security analysis
- Format requirements
- Source document review
- Digitisation location, equipment and resources (in-house or outsourced)

The purpose of a Digitisation Activity Plan is to describe the scope and sequence of activities necessary to plan, conduct and manage the project, including records selection, assessment, and prioritisation; project planning, and management.

Questions to ask	**What you should document in your plan**
What records are you intending to scan and why?	You must describe the quantity, type and format of the records to be digitised. You must consider any specific requirements that exist for digitisation of particular groups of records. Don't forget to include the purpose of your project and the expected benefits.
Have you appraised the records? Do the records have coverage under a current retention and disposal schedule?	This section identifies whether the records are temporary or permanent. If they are temporary it gives the retention period for the records. NOTE: The source records may not be covered in a current Schedule or they may fall into a category that is excluded under the *Disposal Schedule for Source Records (DA2159)*[10]. They may have value as artefacts and cannot be destroyed. This must be documented.
How well organised and described are the records?	If they are not well organised or described you will need to invest resources into organising and describing the records before you scan them. See *Advice 29 - Advice for Agencies on Managing Legacy Records.*[11]

Questions to ask	What you should document in your plan
Have stakeholder needs for access to the records before, during and after the project been considered?	User needs and access requirements should be documented. Where permanent 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. This includes considering what information security classification and caveats the records may fall under, and any copyright ownership or other policy governing use and access to the records that may impact on stakeholders.
What changes to business processes and workflows are required?	Any changes to business processes will impact on users and on the agency. You may need to update your policy and procedures to accommodate new digital processes. Your recordkeeping system may require upgrades due to the records being available digitally.
Will the agency only scan legacy records, or scan new/current paper records as and when they are received or created?	It is important to recognise that your digitisation processes must be well-controlled and robust if you expand your project to include business process digitisation. This will include re-engineering processes to enhance turnaround times. Such details will need to be documented.
What will your performance metrics be?	E.g. to provide timely capture and registration of documents, reduce physical storage requirements, a 40% reduction in processing time, etc.
Have you undertaken a risk analysis?	The risk assessment from your business case can be used here.
What hardware and software will be used to support the scanning process and does it satisfy the technical requirements for producing acceptable digital copies?	Include a statement about the location, equipment and any specialist training required to be undertaken by staff or by contractors.

Section 2: Digitisation Image Specification

The Digitisation Image Specification should set-out the image requirements for each type of record, including:

- Resolution
- Type of image
- Bit-depth
- Colour management
- Output format(s)
- Compression algorithms

Guideline 8 - Digitisation and Disposal of Source Records goes into more detail about these requirements and sets out minimum standards that agencies must use for digitising Permanent records. You may also decide to adopt these standards if the source records have long-term value, or are likely to be needed as evidence of business activities in the future.

Questions to ask	What you should document in your plan
Are the technical specifications aligned to business requirements?	The digitised records need to be fit for purpose, and the essential characteristics of the records captured. These decisions must be documented. For example: • Certain types of records have to be scanned at a higher dpi. • The image formats selected must be appropriate for the retention period of the source records.
Are the digital file formats generated through the scanning process compliant with open standards, and are these formats suitable for long-term access?	This information is crucial if digitising Permanent value records, but also important if the digitised records are to be retained for a long time in the agency (e.g. personnel records, or client/case management records that must be retained for that person's lifetime). *Guideline 19 - Digital preservation formats* has more information about digital preservation formats.
Are you scanning text and documents or images and photographs?	If detail and precision are a key requirement, additional care will be needed to ensure that the technical quality of the digitised records is high and there should be greater attention paid to quality control and assurance practices.
Will you scan in colour?	Certain aspects of records may need to be captured in colour such as maps, graphs or plans or documents with low contrast (e.g. faded text, browning paper, coloured paper or coloured background).

Section 3: Digitisation Processing Plan

The Processing Plan should address the following:

- Process set-up
- Retrieval of records
- Pre-processing of records
- Scanning records
- Post-processing of source records
- Post-processing of images
- Capture of metadata
- Generation of records
- Registration of digitised records
- Return of source records
- Reprocessing of records

The Processing Plan describes the workflow process to generate full, accurate and complete records from the source documents. Detail will include: scanner configurations, record retrieval and return processes, scanning procedures, metadata that will be captured, registration into EDRMS, etc.

Metadata is needed to link the digitised records to some form of control. *Guideline 8 - Digitisation and Disposal of Source Records* sets out minimum metadata requirements for digitisation of Permanent value records.

Questions to ask	**What you should document in your plan**
Will the scanning process permit OCR, so that the scanned content can be machine-readable and searchable?	Digitisation processes can output different levels of quality, particularly those that convert the text into editable format using OCR technology. This should be considered at the outset and documented in the plan.
Who/what will create the metadata, what metadata standard(s) will be used, where will the metadata be stored and how will the metadata be managed?	Example statements: • Titling will be according to agency naming conventions which are attached to this plan • The scanning metadata is uploaded and automatically captured in the recordkeeping system in these fields… • Additional metadata that is required to be entered at the point of registration is…
Have you considered if you need to generate digital preservation and access copies?	If the records have a very long retention period, it may be worth capturing a high quality preservation master, from which access copies can be created as needed. This may require additional image processing steps which will need to be documented.
Are there any special handling requirements for scanning the records? For example, do bound volumes need to be taken apart?	This documents the steps that must be taken before the record is digitised. For example: • Staples or paper clips should be removed before scanning • Information which needs to be redacted
Is the handling and transportation of records carried out in accordance with the agency's records management policy, procedures and handling guidelines?	This section should include: • 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 unauthorised access, loss or damage to the records • Documentation required to be kept of the retrieval process

Questions to ask	What you should document in your plan
Is there adequate security and access control for the source records before, during and on return after digitisation?	Access, transport and storage of personal, sensitive or security classified information must be appropriately managed according to the Tasmanian Government Information Security Policy Manual[13] and documented in the plan.

Section 4: Management Plan for the Source Records

The Management Plan for the Source Records addresses the following:

- Disposal status of the source records and the period they are retained after digitisation
- Record management processes - this should cover the systems used to manage the source records until disposal, and the relationship (linking metadata) between the digitised records and the source records
- The disposal process and how it needs to be documented

Use this section of the plan to describe the processes for storage and disposal of the source records after digitisation has been carried out.

Questions to ask	What you should document in your plan
Have you determined how your agency intends to destroy the source records after digitisation?	For example your statement might read: "The source records are temporary (insert disposal schedule reference). The agency will retain the source records for six months after registration into the EDRMS to ensure that quality control processes have been successfully completed. The source records will then be confidentially destroyed, under the supervision of the Records Management Unit in accordance with Approved destruction methods for State records (2013: Guideline 21)."
Do the records have disposal coverage in current retention and disposal authorities?	Disposal of source records is authorised in the Disposal Schedule for Source Records (DA 2159), only if they are covered by a current Retention and Disposal Schedule. While this was described in Section 1, this also needs to be explicitly stated in this section of your Digitisation plan.

[13] http://www.egovernment.tas.gov.au/standards_and_guidelines/tasmanian_government_information_security_framework

Questions to ask	What you should document in your plan
Where will the source records be stored after digitisation and for how long?	Has the agency determined, documented and communicated to staff a standard period of time to retain the source records after digitisation for quality control purposes? Standard practice is to store source records for a minimum period of six months, subject to risk assessments and quality validation processes. If the scanning vendor is to store the source records before disposal, this should be documented in the Management Plan for Source Records, and in the contract or service agreement with the vendor.

Section 5: Management Plan for the Digitised Records

This section should cover your records management regime, security and access controls, storage, back-up and the eventual export of the digitised records from your system. This will ensure that the digitised records are appropriately managed for the required retention periods. The Management Plan for the Digitised Records should address the following:

- Record management - This section states how the digitised records are to be managed as records. It covers:
    - The recordkeeping system to be used to manage the digitised records.
    - Identification of the digitised record (document type, title, unique id, etc.)
    - Indexing and classification
    - Security and access control
    - Preservation and disposal processes
- Storage systems
- Back-up and restoration (daily, weekly, monthly, etc.)
- Disaster recovery - the process of making copies of the records and contextual metadata for the purpose of recovery of information lost due to a catastrophic failure should be covered. If included in agency-wide disaster recovery plans, this should be documented.
- Export - the process for exporting records and associated metadata from the recordkeeping system

Questions to ask	What you should document in your plan
Can you be confident of your ability to preserve the scanned copies in digital form for as long as required?	Migrating the digital records across new generations of hardware and software may be required. All digitised records must be included in agency-wide migration and digital preservation strategies so they can be retained for as long as required. The process for exporting the digitised records from the system they are stored in also needs to be determined. This should be referenced in your plan.

Questions to ask	What you should document in your plan
What recordkeeping system will be used to store and manage the digitised records?	Be sure to describe the agency recordkeeping system to be used to manage the digitised records. The process for indexing, classifying and applying security and access controls should be documented.
Can your system ensure that digitised records are: • Secure from unauthorised access or tampering • Accessible to those with authorisation to access them • In context with related records • Able to be maintained for as long as required?	Security and access controls should be documented, and cover both system security and physical security of the media and servers. Security must cover all copies of the data and include those held for back-up and disaster recovery regimes.
Are disposal actions documented in the metadata associated with the records?	All systems which hold digitised records must have the ability to document disposal actions in metadata fields linked to each record folder or group of records with like retention. This needs to be identified and documented in this section.
Storage and ongoing access - How will the scanned records be stored?	This section should describe the storage system and backup procedures for the server systems holding the record, including: • The type of media used • Any automatic storage of second copies (e.g. RAID storage) • The testing process used to detect any deterioration of the media or corruption of the records • Periodic refreshing of the media
Do you have a process for backups for business interruption or disaster?	This section should describe your: • Back-up software and process (including frequency). • Storage of back-ups (including security used to ensure authenticity) and 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. • Documentation of failures, restoration, and quality assurance.

Section 6: Quality Control and Assurance Plan

The Quality Control and Assurance Plan for the digitised records should address:

- Image accuracy
- Record accuracy

- Storage reliability
- Quality failure processes
- Logging and analysis

This section should describe how you ensure that the digitisation process produces full, complete and accurate digital records. This includes quality checks and failure rectification processes. Quality assurance processes should include both routine activities as part of the digitisation workflow (e.g. daily or on every document) and audit activities conducted periodically by a person different than the person operating the system (auditors).

A large back-scanning project requires stricter quality assurance processes than business process digitisation, where the business users are effectively carrying out routine audits. Quality checking must be completed before the source records are disposed of.

Questions to ask	**What you should document in your plan**
Have quality benchmarks been developed in liaison with stakeholders, approved and communicated?	A basic benchmark statement for stakeholders might read: "To ensure image accuracy the image must capture all of the content of the source records and the image must be legible."
What quality assurance mechanisms will be put in place to check the quality of the digitised records and their associated metadata (e.g. spot checks, random sampling)?	The Plan should cover image accuracy processes (e.g. quality of image, colour rendition) and address: • 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? For example: "The Image Quality Manager samples 100% of the digitised images as part of the quality control process." "Images are to be viewed to ensure that the scanned image is an accurate and legible reproduction of the original. Any discrepancies are to be verified against the original and resolved. Acceptance quality is determined as the *image is a true and accurate representation of the original document"* "The EDRMS Upload File is to be verified by the scanning vendor prior to delivery. Upload File should be verified for metadata accuracy and that the metadata is linked to the correct scanned image"

Questions to ask	What you should document in your plan
What digital continuity processes are in place to ensure that storage remains reliable?	Storage reliability processes for ensuring that the storage system can reliably hold the records for as long as they are required must be addressed in this section. Includes auditing of back-up and restore processes, periodic validation of copies of records on media, and preservation plans for managing media so that records can be migrated when at risk, and exported when required.
How do you identify problems, inaccuracies or poor quality images	Where a quality failure is identified, describe the processes in place to identify and check other records that could be affected to ensure that there is not a systematic problem (e.g. operator error, hardware/software error, storage error).
Are the results of quality checks documented?	Logging and analysis processes should allow for monitoring of trends and detection of systematic problems. If outsourcing, the onus is on the agency to ensure that the scanning vendor sends regular status reports. This should be documented in this section and in the contract or service agreement.

Are you ready to implement?

Don't start scanning yet. Once your project has been approved, more detailed project planning should occur. In particular, staffing, training and business process reengineering may have to be carefully planned.

Staffing

A digitisation project will require staff with different sets of knowledge, skills and experience, from project management to technical proficiency in scanning. Underestimating the skills required and/or providing inappropriate training or supervision may compromise the quality of the digitisation.

The implementation team need to be committed and engaged. Team members need to be technically proficient, but some should also have strong skills in project management and people management. To win support, team members must be able to negotiate with staff and adapt the technology and service platforms so that the solutions are flexible and tailored to the needs of users.

For in-house programs, your agency may need to conduct a skills audit to determine what existing skills are present within your staffing pool, and whether skill gaps need to be addressed through training and support or by hiring new staff or consultants. Depending on the size of your team and program, some staff may be required to take on multiple tasks. You will also need to consider how existing workloads will be affected.

If you are outsourcing, you will still need to have someone on staff able to understand and be responsible for digitisation initiatives.

Training

Training for digitisation should be organised if a skills gap exists. This may include:

- Sector-specific digitisation training

- Cascading training ('train the trainer'), where one person is trained and then trains others within an organisation
- Tailored training provided by external consultants
- Hardware-specific or software-specific training provided by vendors or service providers. Some vendors will offer technical training as part of their contracts

Gaining support

Senior management

It is important to secure senior management support for the life-time of your project. It is not enough to have them sign-off on your business case. Ideally, they should have ongoing engagement with the project and act as sponsors who advocate for the change and articulate its value to the agency. Ways you can achieve this are by demonstrating the software and hardware and what it can do, reporting to them regarding early 'wins' and keeping up the communication.

Managers and staff champions

Real organisational change is dependent on the support of business unit managers. They are the ones who effectively manage and monitor day-to-day operations within their units. If you 'win over' these people they can become advocates within their units and bring about real change. You may choose to individually target these managers and discuss and demonstrate potential outcomes in terms of business efficiencies that can be gained from your project.

Staff champions are those staff members who can see what you are trying to achieve and are actively willing to support it. It is valuable to harness the support of these champions. If they have the technical ability, they may well become the unit experts in digitisation and manipulating documents on screen, and they can help others who are struggling. Frequently, these are the individuals who find innovative ways to improve the digitisation process.

Involve staff in the process

Another means of gaining user support and achieving project aims is to build relationships by involving staff in discussions on how their work processes will change with the introduction of digitisation. Ensure that you involve staff members at times that are convenient to them and their managers to ensure that their workloads are not negatively affected.

The people who know the most about a business process and what changes are possible and how they might work better are the staff performing the process already. If their views are taken into account and they feel that they have been able to influence the nature of the change, they may be more inclined to accept it.

Always bear in mind that, after the initial inevitable disruption, digitisation should make staff members' jobs easier not harder. If problems occur, make sure staff feel comfortable to raise them and remedy them as quickly as you can.

Offer plenty of training and support

Many staff members will not have encountered digitisation before. They will be unfamiliar with both the technology and the new processes. It is important to arm staff members with the appropriate tools to manage the change. Your agency may need to invest in training projects. Other forms of support for staff should be implemented to smooth the transition to the new practices.

Communicate!

It is important to communicate regularly with staff at all levels to ensure that the digitisation project obtains and retains support and acceptance. Discussions with senior management should begin during the preparation and presentation of the business case. Once approved, the implementation team should consider communication strategies for all affected staff in the organisation.

Consider each target group and communicate to them in terms of 'what's in it for me?' Simple misconceptions can be removed easily with communication and may prevent some staff members from sabotaging your project.

Keep momentum going

The changes brought about by digitisation need to be organisation wide to bring real benefits. Over time, staff may revert to earlier practices or find workarounds that are not in the agency's best interests. For example:

- Over time staff start creating paper records or keeping copies of the digital images in paper on their desks because they don't trust the digital images.
- Staff print out the digital images, write on the paper versions (or cover with post it notes) and may – or may not - rescan.

You should be prepared for this and have ways to prevent, monitor and address these behaviours.

For more change management strategies see *Advice 55 - Change Management - Preparing for Change*.

Recommended Reading

- Guideline 8 - Digitisation and Disposal of Source Records (2015)
- Advice 30 - Digitisation dilemmas
- Office of eGoverment, Department of Premier and Cabinet, Tasmanian Government Project Management Guidelines Version 7.0 (July 2011)[16]
- Monash University Records & Archives, Student Files Digitisation Program - Digitisation Plan[17] (an example of a Digitisation Plan)

Further Advice

For more detailed advice, please contact:

Government Information Strategy Unit
Tasmanian Archive and Heritage Office
91 Murray Street
HOBART TASMANIA 7000
Telephone: 03 6165 5581
Email: gisu@education.tas.gov.au

Acknowledgements

- National Archives of Australia, Digitising accumulated paper records: A guide to initiating and planning digitisation projects, 2013
- NSW State Records, Managing digitisation programs and projects
- State Records of South Australia, Standards for Records Management
- Public Record Office Victoria, Standards & Policy Guide to Digitisation Requirements Guideline & Guideline 4: Writing a business case (PROS 10/10)
- JISC Digital Media, Digitisation Guide, 2015

[16] http://www.egovernment.tas.gov.au/project_management/tasmanian_government_project_management_guidelines
[17] http://www.adm.monash.edu.au/records-archives/records/student-records/digitisation-plan.html

Information Security Classification

This document has been security classified using the Tasmanian Government Information Security classification standard as PUBLIC and will be managed according to the requirements of the Tasmanian Government Information Security Policy.

Document Development History
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1.0	12-05-2015	Samara McIlroy	Initial Release	All

Amendments in this Release

Section Title	Section Number	Amendment Summary
		This is the first release of this document.

Issued: June 2015

Ross Latham
State Archivist

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Digitisation Plan for Legacy Records (Template)

Contents

Foreword

Purpose of this Template

This document comprises a Digitisation Plan Template which can be used by all Tasmanian agencies to prepare a Digitisation Plan for their legacy records.

The template should be considered a starting point only. Agencies must amend the template to suit their specific requirements, circumstances, and preferred terminology. Prompts are included throughout for site-specific information.

It is intended that Sections 1-8 are used as the basis for the plan.

The template can be used to cover all legacy records of an agency, or a plan can be prepared for each specific records set or particular project, as required.

The completed Digitisation Plan may be reviewed as part of TAHO's scheduled Audits of the recordkeeping function commencing in 2015.

How to Use this Template

Sections in blue (including this section) are for information or prompting only, and should be removed when specific instances of the Plan are developed.

Acknowledgements

This template is based on the Digitisation Plan for Post-Action Conversion (Template) developed by RIM Professionals Australasia, Local Government Chapter (Victoria) in consultation with Public Record Office of Victoria (PROV).

1 Introduction

1.1 Purpose

The purpose of this plan is to establish processes that must be followed to convert hardcopy documents to digital format, and then dispose of the source documents. The digitised record will be regarded as the official record of the agency. This plan applies to documents originally created and maintained in hardcopy format offsite (for example, forms); and/or the digitisation of hardcopy 'legacy' files. This includes both records digitised soon after action, and back scanning projects which may be concerned with digitising collections of records that are quite old [amend as required].

1.2 Scope

The digitisation plan applies to all legacy record digitisation activities irrespective of:

- the age of the records
- whether the records are temporary or permanent.

The plan does **not** apply where:

- the physical source document is to be retained as the official record of the agency *after* digitisation (i.e. the digitised copy is purely an access copy);
- the records are 'born digital': records that were created in a digital format and are held in that format;
- the records are digitised before they have been actioned by an officer of the agency (business process digitisation) such as the digitisation and capture of incoming mail.

1.3 Scope Definition

Records received by the Records unit [amend unit name, as appropriate] will be digitised after they have been actioned. This may be a regular process or a specific project [amend as required].
Large back scanning projects will need careful analysis to determine if they are genuine value for money, taking into account retention and access requirements, re-use and ongoing business value of the records concerned. These projects should be approved via the [insert Agency name] budget process to ensure that appropriate funds are obtained to pay for additional staff resources (in-house or outsourced).
The Records unit [amend unit name, as appropriate] will only consider digitising documents to meet a specific business need. Back scanning needs to be carefully justified, and is likely to only be worthwhile for documents which will be retrieved frequently, and which are retained long-term [insert agency-specific examples, if required]. The digitised document will become the official agency record and all actions must be taken on the digitised record, not on the hardcopy 'source' record.
The digitisation of agency records may be an ongoing business activity. These processes will largely be carried out by the Records unit [amend unit name, as appropriate]. Some key staff in other work areas may also be involved [provide additional details, or delete if not relevant]. Alternatively, the proposed digitisation may be a project to digitise frequently accessed legacy records. It is unlikely that this could be done by the normal Records Unit staff [amend unit name, as appropriate] due to the time and effort involved, unless additional resources are brought in. The work may be outsourced to another company, in which case [insert responsible Agency officer] needs to ensure the contractor is performing the work according to this Digitisation Plan, as if [insert responsible Agency name] was performing the work itself.
In either case, digitisation will be completed by staff with the appropriate training and equipment. For digitisation activities, the Records unit [amend unit name, as appropriate] have access to scanning equipment which enables batch scanning of documents (A3 or smaller) and also large documents such

as plans (up to A0 in size) [amend if required]. The Records unit [amend unit name, as appropriate] staff are highly trained in digitisation processes and the use of this equipment.
Any contractor engaged to do digitisation will be required to outline their staff training, equipment and processes to ensure it meets with [insert Agency name]'s standards and the requirements of this plan.

Definition of 'Official Record'

When a legacy document is digitised according to this Plan, the digitised record becomes the **official record** of the agency. The source record will be kept for a minimum of [insert the agreed period of time, pending your risk assessment] and will then be eligible for disposal under the authorisation of DA2159 (Disposal Schedule for Source records).
However, if the source record is retained as the official record after digitisation, then the digitised record is considered an access copy only. If the source record is used in a business process (for example, sent to a business unit for use in their processes), the document may be annotated or otherwise altered. In this case, it will not be possible to dispose of the physical source document without substantial additional work. For this reason, it is recommended that any further action required be undertaken utilising the digitised record as the 'official' record, and the source records disposed of accordingly.

1.3 Glossary

- **Digitised Record** – the copy of the record resulting from the conversion process (compare with **source** record). For example, the *digitised* copy of a paper record.
- **Digitisation** – the process of making a digitised copy which acts as a digital surrogate for the original physical record (e.g. paper document, map, plan or photograph)
- **Official Record –** where more than one copy of a record exists, the official record is the one used by the [insert Agency name] as part of work and retained for the length of the retention period. The official record should contain all annotations made to the document. Annotations must always be made to the official record instead of a copy. For example, where a record is digital, notes should be made against the digitised record, **not** a printed hard copy.
- **Back scanning** - any digitisation activity where source records are digitised *after* they have been actioned by an officer of an agency. The key characteristic is that this kind of post-action digitisation involves digitising the records that were used by the agency staff in carrying out the business of the agency, *after* they have been used.
- **Business process scanning** – any digitisation activity in which source records are digitised *before* they have been actioned by an officer of an agency. For example, the digitisation of paper records as they are opened in the mail room. The key characteristic is that this kind of pre-action conversion means that agency staff use the digitised records in carrying out the business of the agency.
- **Tasmanian Archive and Heritage Office (TAHO)** - the records and archival authority for Tasmania, responsible for assisting government agencies to manage their records.
- **Recordkeeping System** – an information system which captures, manages and provides access to records over time.
- **Source Record** – the copy of the record that is being converted into digital format (compare with **digitised** record). For example, the paper record that is being digitised. Source records are hardcopy.
- [insert additional terms or amend/delete as required]

2 References

2.1 Legislation

- Evidence Act 2001 (Tasmania)

- Archives Act 1983
- State Service Act 2000
- Electronic Transactions Act 2000 (Tasmania)
- Criminal Code Act 1924
- [insert additional legislation or amend/delete as required]

2.2 Standards and specifications

- Guideline 8 - Digitisation and Disposal of Source Records
- ISO/TR 13028-2010 Implementation Guidelines for Digitisation of Records
- General Disposal Schedule for Source Records (DA2159), Tasmanian Archive and Heritage Office

2.3 Digitisation Plan Governance

This Digitisation Plan will be reviewed periodically to ensure it is current and reflects changes to systems, processes, technology and standards.

The Records Unit Manager/Coordinator [amend position title, as appropriate] is responsible for facilitating this review, on an annual basis at a minimum, or after a shorter period if required.

The initial plan [insert document reference, if appropriate] is endorsed by the Secretary / Chief Executive Officer [amend position title, as appropriate]. All significant changes to that endorsed plan will also be endorsed by him/her. See Appendix 2 for an example statement.

2.4 Responsibilities

All staff must comply with the standards and processes established in this Digitisation Plan.
The Records Unit Manager/Coordinator [amend position title, as appropriate] is responsible for regular auditing to ensure that processes are being followed and the quality of the digitised records meets minimum standards documented in TAHO Guideline 8 - Digitisation and Disposal of Source Records.
The Secretary / Chief Executive Officer [amend position title, as appropriate] is responsible for endorsing the Plan before implementation, as required to meet TAHO standards.

3 Digitisation Activity Plan

This Digitisation Activity Plan outlines the digitisation process in detail so that full, accurate and complete digitised records will be generated. This plan applies to legacy back scanning digitisation only: i.e. the digitisation of records after they have been actioned, including back scanning projects.

3.1 Type and extent of records

This section should set out the quantity, material and format of the records. This should be expressed as items, containers or carriers, or storage space occupied (for example, 2,500 folders, 150 archive boxes, etc.) Further information can be provided in 3.11 Source document review. [NOTE: The amount of detail provided here will depend on agency policy and business needs and the extent of the investigation already conducted.]

3.2 Appraisal Analysis

All agency records must be assigned a retention class or category from the relevant retention and disposal schedule/s (R&DS). The records to be digitised are covered by [insert or attach specific and relevant retention and disposal schedule references and explanations].

A risk analysis must be completed for each record type being digitised (see Section 3.6: Risk Analysis). Source records may need to be retained due to their historical value or to minimize the risk of their authenticity being challenged, as part of [insert Agency name]'s Vital Records program or because they have value as artefacts. Examples of these types of records include:

- Records with a physical element attesting to their authenticity or evidential value e.g. corporate seal
- Significant (non-routine) contracts and agreements containing all signatures
- Bound Committee minutes and agendas
- Original works of art
- Records of international, national or cultural significance (pertaining to large infrastructure projects for example)
- Original proclamations, charters, testimonials and intergovernmental treaties and agreements
- Records of extreme personal significance e.g. an adoption file with hand written letters from a person's biological parents
- Records with aesthetic qualities e.g. a beautiful hand written ledger from the turn of the century, even though it only contains petty cash records
- Records of historical significance, which may benefit from being retained in their original format e.g. for museum display purposes.
- [insert/amend/delete record types as required, based on which source documents/record types your agency has decided to retain in hardcopy after digitisation]

Keeping an original record or source document due to its value as an artefact is a subjective decision best undertaken on a case by case basis.

[Note – Advice can be sought from TAHO on the value of records as artefacts. It is likely that records with these characteristics will be encountered during some back-scanning projects, in which case permission must be sought from TAHO before the source records can be destroyed].

3.3 Purpose of Digitisation

Source records are digitised primarily to [insert/amend/delete business drivers as required]:

i. **Enable quick and efficient access to information** – once documents are digitised and registered into a records system they can be quickly accessed by agency staff, and are available for viewing (depending on access restrictions) to multiple staff simultaneously;
ii. **Make business processes more efficient** – moving from a paper-based system to an electronic system removes unnecessary time and effort to administer a hardcopy (or hybrid) process;

iii. **Increase security and auditing of documents**– electronic records systems provide audit trails to show who has viewed, edited, distributed or exported documents; and
iv. **Enable disposal after digitisation rather than at the end of the retention period** – electronic documents are regarded as having the same evidentiary weight as the corresponding hardcopy source records. Disposal of the source records, *after required quality assurance processes have taken place*, may save [insert agency name] significant time and costs in the storage of hardcopy records.

3.4 Statement of Benefits

The following benefits can be realised by digitisation of legacy or 'post-action' conversion documents [insert/amend/delete benefits as required] :

i. All staff will have immediate access to a digitised registered document (dependent on security settings) irrespective of their office location or the location of the hardcopy document;
ii. Electronic records can be viewed/ accessed by more than one person simultaneously. This eliminates the reliance on individuals for knowledge as the document is accessible by multiple staff;
iii. Updates and actions completed can be added by multiple staff and are accessible immediately, enabling information to be shared across the agency and with customers as required, rather than relying on one or a certain few individuals to supply information;
iv. Electronic records can have access and edit controls applied and enforced by a records system to control who can view and edit documents, and allow version control and edit tracking;
v. Electronic records are not subject to the same risk of loss or physical damage that hardcopy records are. Time spent searching for lost hardcopy documents will be reduced;
vi. Electronic records can be work flowed or actioned electronically, speeding up processes and with the benefit of escalations or reminders built into the workflows
vii. Electronic records have viewable audit trails which enable system administrators to identify who has undertaken particular actions to a record (e.g. exported it from the system);
viii. Electronic records can be referenced in one or more business applications.
ix. Managing physical records is time consuming and costly for storage, retrieval and courier fees. Manual handling carries inherent risks to staff. Converting to an electronic records environment eliminates these costs, time delays and risks; and
x. Digitisation will allow the destruction of the source record after a short period of time, reducing the amount of storage space required for hard copy records, and associated costs such as retrieval. Where records storage is outsourced to a provider, retrieval and transportation costs may be supplementary to physical storage charges.

3.5 User Needs and Impacts

Staff will be required to use the digitised record, **not** the source record, for all business activities, as the digitised record is considered the official record of the agency. All notes and actions must be applied to the digitised record using the recordkeeping system. Working digitally may require the purchase of additional equipment, such as dual screens, larger screens or scanners for business units. Equipment costs must be taken into account in budgetary and change management processes. The shift to digital business processes requires strong and ongoing commitment from Management to support and drive the changes required.

[Process change may be required to enable digital workflows/actions. Analysis of process flows and practices may be required. Insert references to relevant documentation, such process changes descriptions, Process Maps, Change Management Plans, and Communication Plans]

Although the digitised record will be the official record for most digitised documents (e.g. standard size, black and white documents), some hardcopies *may* be required to be kept.

For example:

- Copies of significant contracts/agreements/leases containing all signatures and official seal;
- Documents for which colour is important and it was not captured accurately by colour scanning e.g. a schematic drawing, map or plan;

- [insert/amend/delete as appropriate]

The accessing of source records by business units should be restricted to only those document types or processes that are absolutely necessary: where source records continue to be distributed or used as part of a business process, they retain the status of official record, as they may be annotated or otherwise amended. The digitised record is then regarded as an access copy only. If source records are used in a business process, they MUST BE retained and managed in hardcopy. This significantly reduces the benefits described in Section 3.4: Statement of Benefits.

Source records that have been amended and returned to the Records unit [amend unit name, as appropriate] for digitisation will again become part of the normal digitisation process for back scanning records, however this is a potential duplication of effort, as well as increased risks around management and storage of redundant information. Therefore, appropriate examination of business processes should be undertaken to identify appropriate digitisation points prior to commencement of any digitisation activity.

3.6 Risk Analysis

The main risks of digitising records are that [insert/amend/delete risks as appropriate]:

- the authenticity of a record may be challenged and proof cannot be ascertained from the digitised record, but could have been from the source record;
- a digitised record may be incomplete due to a poor conversion (e.g. a page missing);
- a digitised record may be lost due to inadequate records management systems, particularly where the record is required to be retained long term.

The risks of digitising 'post-action' records can be summarised as follows:

Risk Description	**Likelihood**	**Consequence**	**Inherent Risk**	**Controls**	**Residual Risk**
The authenticity of the record cannot be ascertained from the digitising record	*Possible* - Could occur within "months to years"	*Major* – record cannot be relied upon in a legal context as an authentic record	Significant	Processes and metadata standards should be implemented as outlined in the *Section 7 -Management Plan for the Digitised Records*	Medium
A full and accurate record may not result from the digitising process, e.g. pages missing	*Likely* - Could occur within "weeks to months"	*Minor* – temporary loss of information - rescanning can be done	Medium	Processes outlined in *Section 8 - Quality Control & Assurance Plan*	Low
Digitised records may not be used as the official record of the business	*Likely* - Could occur within "weeks to months"	*Moderate* – source records may be annotated instead of the digitised records	Significant	Processes outlined in *Section 6 - Management Plan for the Source Records*.	Medium

Risk Description	Likelihood	Consequence	Inherent Risk	Controls	Residual Risk
Digitised records may be large in file size causing a slow response time to view from the desktop	*Likely* - Could occur within "weeks to months"	*Moderate* - staff may not accept digitised records due to usage issues	Significant	Large source records may be split to facilitate smaller electronic records being created, as per the *Section 5 - Digitisation Processing Plan.* Software and hardware may need to be upgraded and additional memory purchased.	Medium
Security of digitised records may be compromised due to the ease with which electronic documents are copied and disseminated	*Likely* - Could occur within "weeks to months"	*Major* – breach of privacy / confidentiality	High	Processes and security controls should be implemented as outlined in the *Section 7 - Management Plan for the Digitised Records*	Low
Digitised records may be lost due to hardware failure or disaster	*Unlikely* - Could occur in "years to decades"	*Major* – permanent loss of agency records	Significant	Backup and restore processes outlined in the *Section 7 - Management Plan for the Digitised Records*	Low
Organisational resistance to acceptance of digitised information as an official record	*Likely* - Could occur within "weeks to months"	*Moderate* - staff may not accept digitised records due to usage issues	High	Education, promotion & training. Active endorsement from Management	Low

3.7 Copyright and information security analysis

Copyright issues may not apply to back-scanning projects. These records are more likely to be generated or processed by the agency, making intellectual property issues redundant. However, [insert Agency name] information security policies must be adhered to.

3.8 Format Requirements

Some categories of source records must be retained in a specific format under legislation, regulation, government policy/directive, agency policy, standard, or written TAHO directive.
Format requirements for [insert Agency name] known at this time [insert date of Digitisation Plan creation] are outlined in TAHO Guideline 19 Digital Preservation Formats. Please refer to the Retention and Disposal Schedule for Records of Local Government (DA2200) for more specific guidance on records that must be retained in original format.
[The Records unit will confirm with each work area if any other format requirements exist, prior to implementing the digitisation process for the post-action conversion documents covered by this plan].

3.10 TAHO Loan Check

Records which are currently on loan from TAHO must not be destroyed. As usually only permanent records are transferred to TAHO, a thorough check should be made of any permanent records identified for disposal to ensure that they are not on loan, and the results of that check documented. A separate application for approval applies in the event that permanent records are not on loan. For more about this process, see Guideline 8 - Digitisation and Disposal of Source Records.

3.11 Source Document Review

[It is likely that a specific set of records to be digitised can be described by the certain Characteristics, particularly if it is a back-scanning project. Use the Characteristics in this template as a guide and populate characteristics based on your specific requirements]. **[See Appendix 1]:**

3.12 Location, Equipment and Resources

The digitisation of records will be carried out by staff with the appropriate training and equipment, usually the Records unit [amend unit name, as appropriate] where the digitisation is an ongoing activity, (that is, a particular record set is regularly sent to the Records unit for scanning). Where the digitisation is for a back scanning *project*, it will be more likely for it to be outsourced to a third party, or additional staff brought in for the duration of the project.
Staff undertaking digitisation require scanning equipment with capabilities for A4, A3 and up to AO documents; colour, black and white, and greyscale scanning; plus technical support for the maintenance of equipment and software. These staff will also need adequate training and support to ensure they undertake processes correctly.
If the digitisation process is outsourced to a third party, the contractor must follow all the same guidelines as if the agency was performing the work itself.

4 Digitisation Image Specification

This section sets out the digitisation image standards. The table below shows the minimum digitisation requirements for each type of Permanent source document that agencies capture and digitise to comply with Guideline 8 - Digitisation and Disposal of Source Records. [Amend to appropriate levels for your agency].

All documents shall be scanned using one of the following [insert agency name] approved image formats: [Select from the TAHO recommended and/or acceptable formats illustrated below. Agencies should not use JPEG because that is not a lossless file format].

TIFF should NOT be used for multi-page documents, as it is not widely supported in image viewing software, and can contribute to migration issues between systems down the track (e.g. pages can get

lost, systems compile documents differently, etc.). Multi-page documents should be scanned or converted into PDF/A format.

Source Document Type	Minimum Recommended Standards	Output Format
Black & White Text Based documents (clean, high contrast) *	Resolution: 300dpi Type of image: bi-tonal Bit-depth: 1 bit Compression: Lossless compression	PDF/A
Plans and drawings where colour is not meaningful	Resolution: 300dpi Type of image: bi-tonal Bit-depth: 1 bit Compression: Lossless compression	PDF/A TIFF
Documents where colour is present and important, or Faded, Low Contrast documents *	Resolution: 300dpi Type of image: Colour Bit-depth: 24 bit Colour Management: Embedded ICC colour profile Compression: Lossless compression	PDF/A TIFF
Colour Plans , Maps & Drawings)	Resolution: 300dpi Type of image: Colour Bit-depth: 24 bit Colour Management: Embedded ICC colour profile Compression: Lossless compression	PDF/A TIFF
Black and White Photos	Resolution: 600dpi Type of image: Greyscale Bit-depth: 8 bit Colour Management: Embedded ICC colour profile Compression: Lossless compression	PDF/A TIFF
Colour Photos	Resolution: 600dpi Type of image: Colour Bit-depth: 24 bit Colour Management: Embedded ICC colour profile Compression: Lossless compression	PDF/A TIFF
Handwritten Documents	If high contrast, use settings under Black & White Text Based documents. If low contrast, use settings under Faded, Low Contrast documents.	

[Amend table as appropriate for your agency]

* Where a document is mixed - black and white and colour - choose the highest resolution. Some scanners will automatically detect the highest resolution.

5 Digitisation Processing Plan

The Digitisation Processing Plan details the workflow used to generate full, accurate and complete records from the source documents.

5.1 Process Set-Up

The digitisation process is managed in a consistent manner, as follows:

Records are digitised by the Records Unit [amend unit name, as appropriate] or other appropriately trained staff.

The hardware used is [insert hardware/scanner model details]. The hardware is located at [insert machine location]. The machines are serviced regularly [insert service frequency] by an appropriate maintenance/service supplier. The machines are cleaned by staff regularly [insert frequency], according to [insert procedure if one exists].
The scanners use [insert software details including version number].

Scanner configurations are consistent across each machine [if more than one machine used]. Prior to scanning being undertaken, configuration settings are checked and confirmed. [The scanner settings should be configured to maximise image quality and improve efficiency through whatever features the scanner offers such as cropping, de-skewing, automatic orientation, blank page removal, etc.]

[It is recommended that each agency insert screen shots to capture the configuration settings used for hardware and software. Multiple hardware options may require separate screen shots to be documented.]

5.2 Retrieval of Records

Records are tracked so the location of source records is known at all times.
Records for digitisation are delivered to [insert location. If multiple locations include variations to the process for the different sites].
After receipt, documents to be digitised are sorted into various types (batches), if that has not already been done.
[Insert references to agency scanning process, the workflow map and list of batch types, as appropriate].

5.3 Pre-Processing of Records

With the adoption of the Digitisation Activity Plan, [insert Agency/Business Unit name] will scan legacy/post action records and destroy them after [insert an appropriate period of time pending your risk analysis]. This applies to any records, except for the records listed below which will be kept in their source format until their scheduled disposal date under an authorised Retention and Disposal Schedule.

[List any record types that are not to be destroyed. The list may include]:

- Signed contracts
- Signed agreements
- Endorsed plans
- Licenses
- Titles
- [add/amend/delete, as appropriate]

The documentation/correspondence listed below will not be digitised as these are not considered corporate records:

- Annual reports from other organisations
- Unsolicited marketing materials, invitations, advertising brochures, etc
- [add/amend/delete, as appropriate]

The physical preparation of records for digitising will be in accordance with [insert procedure document reference, or describe the process. The process may include the following details:]

- Separate into batches according to type of documentation, size, colour formats, orientation (portrait or landscape), single or double sided.
- Remove staples, paperclips and other binding systems.
- Flatten paper and remove creases
- Insert Separator pages (if required).
- Remove sticky notes (these may be scanned separately if containing important information).
- Scan records.

5.4 Scanning Records

The specific scanning requirements for each document will be identified for appropriate handling, and to ensure the resulting image is full, accurate and complete: this may include considerations for multilayer documents and various types such as plans and memos, or documents that are physically fragile.

For Scanner instructions refer to [insert reference to scanner instructions.]

For multilayer documents, (e.g. A4 and A0) , each section of the document may need to be scanned on different machines then merged into one document using PDF Writer or other software [insert agency process].

Documents which are thin or fragile may need special consideration to reduce the risk of damage to the source record.

All scanner and software settings will be set and confirmed before scanning commences.

Quality assurance procedures will be followed to ensure that all images satisfy usability requirements. Records Unit [amend unit name, as appropriate] samples 100% of the digitised images as part of the quality control process [insert agency quality control process].

Scanned images will be checked for clarity, readability and correct number of pages by the scanner operator once the scanning has been completed.

Random quality control checks of scanned documents on the system should also be undertaken (e.g. visual comparison of scanned image to original of one in every 5 documents). This is crucial for legacy or 'post-action' conversion when documents are not sent to an action officer, and errors may not be subsequently detected.

Documents will be checked for quality by two separate staff: at the time of scanning (by the scanning officer), and when the document is registered into the system (by the registration officer) [insert your own procedures or work instructions].

All source documents will be kept for [insert the agreed period of time, pending your agency's risk profile] to enable rescanning if required.

5.5 Post-Processing of Source Records

Documents must be reassembled in the correct order as soon as the scanning process is completed. [Coloured separator pages may assist in easy identification of each document]

[Insert procedures including what measure of reassembly is required (e.g. rebinding not required, and bulldog clips sufficient) including reference to sticky notes and other notes attached to documents. Note reassembly processes may not be required for in-house scanning of temporary value source records if QA processes are adequate – once audit has confirmed all pages have been scanned, etc.]

5.5 Post-Processing of Images

[Insert any procedures that describe any image editing that is carried out, e.g. image manipulation such as cropping, or enhancement such as sharpening, changes to image contrast and colour saturation. If none, state that.]

5.6 Capture of Metadata

All scanned documents are electronically stored in the agency's Recordkeeping system [insert name and version (e.g. TRIM 7.3.)] by either the Records unit [amend unit name, as appropriate] or other trained staff. The following process must be followed [insert process details – or attach in an Appendix, which may include the following].

- Select an image/batch from the document processing queue, network drive or other media (if scanned externally);
- Assess image quality against source document;
- Rotate pages to correct orientation if required;
- Select the appropriate record type; and
- Enter all required metadata in accordance with agency defined data entry conventions.

For permanent value records, the metadata captured must comply with TAHO's Guideline 8 - Digitisation and Disposal of Source Records as these records will be required to be transferred to TAHO.

The following standard set of metadata elements are recorded for scanned documents in [insert name and version (e.g. TRIM 7.3)] Recordkeeping system [Customise to suit your system/records]. Only mandatory metadata elements are listed in the first column. [The second and third columns of the table are populated with example data – customise to your own record set and system field names].

Metadata Element	**Recordkeeping System Metadata Field**	**Value [Customise to suit your system/records]**
Image or document level metadata:		
Creating software application	Additional field	*This document was scanned from hardcopy using a Kodak i2600 document scanner, and Kodak Capture Desktop Software. The hardcopy is eligible for destruction 6 months after registration.*
File size (extent)	Size	*This is automatically captured in the image metadata*
Resolution	Resolution	*This is automatically captured in the image metadata*
Image type	Image	*This is automatically captured in the image metadata*
Bit depth		*This is automatically captured in the image metadata*
Colour management		*This is automatically captured in the image metadata*
Output format		*This is automatically captured in the image metadata*
Compression		*This is automatically captured in the image metadata*
Image manipulation		*Information about de-speckling, de-skewing, or other digital enhancement*
Manipulation package		*Name of scanning or image software. For example, Adobe*

Metadata Element	Recordkeeping System Metadata Field	Value [Customise to suit your system/records]
		Photoshop, Corel Photo paint, GIMP. In practice, this may be the same as the creating software.
Record metadata:		
Unique Record Identifier	Document Number	*Document number is automatically assigned by the system upon registration*
Author/Creator	Customer	**Leisure Services**
Title/Name	Title (Free Text Part)	**Free Text**
Business Classification Subject/ Activity Descriptor	Subject	**Sport & Recreation**
Business Classification Function Descriptor	Topic Name	**Users / Memberships**
Date/Time Created	Document Date	*Date is automatically assigned by the system upon registration (defaults to date registered)*
Date/Time Transacted	Registered Date OR Revision Date	*Date is automatically assigned by the system upon revision / transaction*
Date/Time Registered	Registered Date OR Revision Date	*Date is automatically assigned by the system upon registration*
Responsible Officer	Responsible Officer	**Kohl, Malcolm**
File, folder, box (aggregated level) metadata:		
Unique Identifier	Box Number	**D15/012**
Information Security Classification	Security Marking	**SS&LS** (SS&L Confidential)
Rights statement	Additional Field	*Not applicable*
Disposal Class	Retention Code	**DA 2200 23.20.02**
Disposal Action	Retention Period	**Destroy 3 years after membership ceases**
	Topic Name	**Users / Memberships [year]**
	Internal Reference	*Membership Number, claim number, etc.*
	Notes	*Include any pertinent information relating to the document e.g. phone conversation with the member, details about re-digitisation, date of destruction of hardcopy.*

Metadata related to re-digitisation should also be captured, if applicable, e.g. in the Notes field of the record.
In addition to entering the above metadata elements, all staff are responsible for entering the correct titling details as identified in the [insert agency document naming conventions or similar instructions]. During registration, a note should be put against each digitised record or at the aggregated level (e.g. file, folder or box) on the recordkeeping system to state that "The source document that this record was imaged from has been destroyed under authorisation of DA2159, on [date]" as appropriate.
Each officer is responsible for capturing complete and accurate metadata upon document registration, except for system-generated metadata. Quality Assurance procedures must be established and applied daily, to ensure accurate and consistent metadata entry.

The quality of metadata applied at document registration is checked by the [insert position title, as appropriate] in accordance with the agreed standards. This ensures that, as far as possible, imaged records are identified and named consistently. If any staff member continues to make errors in metadata use, they will be required to undertake additional training to ensure they comply with standards in set-out in [insert agency standards, which must be based on Guideline 8 - Digitisation and Disposal of Source Records if digitising permanent records].

5.7 Generation of Records

Depending on the formats of the source record, the digitised record may require merging of images into a single document (For example, an A4 planning application may need to be merged with an A0

sized plan, or non-standard size pages with post-it notes). Multiple images are captured into a single document according to this process [insert document reference to process, or describe the process. e.g. Adobe Acrobat, PDF writer, Ezescan, Scanning software automatically completes – delete this section if it does not apply].

When it is not possible to merge the images into a single document (for example, due to excessive size), the process is [insert document reference to process, or describe the process.]

Computer files containing the documents generated through the digitisation process are named [insert your agency's naming scheme. This may have been established by the IT department or your scanner may set a default naming pattern.]

Before registration into the agency's Recordkeeping system [insert name and version (e.g. TRIM 7.3)] is finalised, a quality check is completed. The image is checked against the source document to ensure the correct metadata is applied to the correct document. A random audit check is also done to ensure that there are no errors. [Insert document reference to procedure/instructions].

5.8 Registration of Digitised Records

Once documents have been scanned they will be registered into the agency's Recordkeeping system [insert name and version (e.g. TRIM 7.3)].

DA2159 requires that the recordkeeping system holding legacy records be capable of transferring record metadata and contents to TAHO.

5.9 Return of Source Records

All scanned documents (with the exception of documents for which hard copies are being retained) are placed in batch folders / envelopes and stored in archive boxes. The day batches are stored in the Records area [amend as appropriate]. Each archive box is tracked (e.g. registered into the Recordkeeping system - insert procedure here) to allow for efficient location and retrieval of source records that have been scanned. These boxes will be kept for [insert the agreed period of time, pending your risk analysis,] before being destroyed.
A process should be established to track any source record that is subsequently provided to a staff member. Where possible this activity should be avoided. If staff are not given access to the source record, it removes the issue of which is the official record (see section 3.1).

5.10 Reprocessing of Records

If a document needs to be re-processed /re-scanned, it will be retrieved from the relevant box and scanned as per the normal processes. The scanning operator should be careful to avoid the error that was in the initial scan (for example, a page missing). This re-processed document will then be retained for a further [insert the agreed period of time, pending your risk analysis] from the date it was re-scanned. Information about the re-scan should be captured in the Notes field of the record. [Some systems allow for insertion or replacement which may negate the need for this as version control.]

6 Management Plan For Source Records

This Management Plan for Source Records outlines how source records will be managed over time after it has been established that the digitised record is a full and accurate copy of the source record, and thus can become the official record.

6.1 Disposal Status

The source records have the qualities outlined in the Digitisation Activity Plan Section 3.2 Appraisal analysis. DA2159 states that the source records can be disposed of under certain conditions set-out in TAHO Guideline 21 - Approved destruction methods for State records. Assuming the conditions outlined in other areas of this Digitisation Plan have been met (e.g. risk assessment and scanning validation processes are in place to ensure that a full and accurate copy of the source record has been created) source records can be disposed of after digitisation, unless:

(a) the source records have value as physical artefacts; and/or

(b) there is a requirement to retain the source records in a specific format under legislation, regulation, government policy/directive, agency policy, standard, or written TAHO directive; and/or

(c) the source record is unscheduled.

Disposal applies to both temporary and permanent source records, unless a risk analysis identifies that particular types of permanent source records should be maintained. However, before disposal of permanent source records is undertaken, an Application to Dispose of Permanent Records must be approved by TAHO For more advice about this process contact the Records unit [amend unit name, as appropriate].

Prior to, or as part of, converting the records [insert agency name] must have determined which records are of permanent value and which ones are of temporary value (i.e. they must be sentenced). The permanent value digitised records will need to be managed in such a way that metadata can be captured for transfer to TAHO when no longer required for business purposes.

The digitised permanent records must be managed in an EDRMS. If the required metadata is captured for all records, both temporary and permanent, it removes the worry about meeting any additional requirements for permanent records.

[insert agency-specific statement]

6.2 Disposal Process

After a source record has been digitised, it must be kept and maintained for [insert the agreed period of time, pending your agency risk analysis] after the date of registration into a recordkeeping system, after which time it can be destroyed if (a), (b) and (c) above do not apply, or it has not been identified as needing to be retained in hardcopy to suit [insert agency name] requirements (Refer to Section 3: Digitisation Activity Plan).

As the digitised records are not sent to staff to be actioned, it is anticipated that any errors or problems with the digitisation will not be identified immediately by staff, and possibly not within the [insert the agreed period of time, pending your agency risk analysis] timeframe. Therefore, the validation and quality assurance phase is critical for back scanning projects. For example, if a page is missing in the digitised record, or the scanned image is not clear, this must be identified by staff during the quality assurance phase of the digitisation.

When a digitisation error or omission is identified by staff, [inset agency process for communicating and correcting the error].

6.3 Record Management

A management system must be in place to manage the source records until their disposal. Where the records are eligible to be destroyed at the end of the [insert the agreed period of time] holding period, they should still be arranged so that it is possible to re-digitise the records if problems are detected during this period. See TAHO Advice 37 - Keeping Digital Records Accessible.

Hardcopy Source records

Hardcopy source records will be arranged in boxes / envelopes, in document/record number order, by the date registered [insert agency process]. A document/record number is assigned to each document upon its registration into the recordkeeping system. This way, if any source record needs to be retrieved, it can be located by the date registered by going to that particular envelope or box, and locating the document with the unique document number on it. Arranging by date registered also enables the easy identification of which batches of records are due for destruction, i.e. have passed the agreed retention period.

6.4 Audit Requirements

A record of any disposal must be maintained for disposal of both source and digitised records. For scanned documents as outlined in this Digitisation Plan, there is no requirement to keep lists of individual source records that have been destroyed. The destruction list would instead describe the box contents, e.g. "Finance - Direct Debit Forms – 01/05/10 – 30/06/10". The destruction list should be attached to paperwork from an approved supplier stating that the destruction was done on a certain day. This record of destruction will be saved into the agency Recordkeeping system by [Records staff] for evidentiary purposes. Source record destruction is not required to be added to the formal Register of Records Destroyed maintained by the agency.

During registration, a note should be put against each digitised record on the recordkeeping system to state that "The source document that this record was imaged from has been destroyed under authorisation of DA2159, on [date]." [Insert agency instruction. Depending on the records system a note may be able to be added to multiple records at one time to confirm the date the record was actually destroyed].

It will also be necessary to generate exceptions. For example, if a source record has been recalled during its [insert the agreed period of time] retention period (for a purpose other than rescanning), it is likely that it may need to be kept for a longer period. A report to identify these recalled documents should be made available.

7.0 Management Plan for Digitised Records

7.1 Record Management

[Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] is the official records management system of [the agency name], and all records that have been digitised must be captured and managed within [EDRMS name]. [EDRMS name] is a fully functional and compliant electronic document management system (EDRMS). All nominated hardcopy records will be converted into digital format by scanning, and captured into [EDRMS name]. Refer to agency procedure for converting and capturing paper records into [EDRMS name] for step by step instructions (Refer to 5.0 Digitisation Processing Plan).

[EDRMS name] is used to –

- Index the contents of the digital records to enable thorough searching.
- Apply the appropriate classification to each record as it's captured into the [Agency recordkeeping system] (refer to Agency's standard on classification for [record types involved in your digitisation project or process]).
- Secure access to sensitive records. Records that are deemed to be of a sensitive nature must have the appropriate level of security / access control (see Section 7.2 below).
- Monitor and audit access and modification to digital records.
- Sentence digital records.

- Electronically transfer permanent digital records to the Tasmanian Archive and Heritage Office (TAHO)]
- Preserve captured digital records for the prescribed length of time, according to the relevant disposal authority issued by TAHO.
- Apply consistent metadata to all captured records in accordance with the metadata set outlined in the Digitisation Processing Plan (see section 5.0 above).

This will support [insert agency name] digital information preservation strategies and ensure that digitised records remain accessible and usable in digital format for as long as they are required. See TAHO Advice 37 - Keeping Digital Records Accessible.

7.2 Security and access control

The appropriate level of security / access control for the digitised records is set as outlined in [Agency recordkeeping system Procedure Manual].

Security and access controls are most appropriately managed through the application of user controls in [insert name and version of agency recordkeeping system (e.g. TRIM 7.3)].

Legacy records that have been back-scanned will also require access decisions, so the Records Unit [amend unit name, as appropriate] may need to understand the history of the particular function or area of business, to understand the sensitivities that may have been captured in the records. The Records Unit [amend unit name, as appropriate] will conduct the appropriate analysis and make a determination on the access decisions in consultation with the appropriate staff. [Insert agency security/ access analysis that has been conducted. TIP: Don't forget to assess the security/access controls of any systems that hold digitised records managed by contractors on the agency's behalf].

7.3 Storage and Disaster Recovery

The [Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] stores documents on [Insert location details of EDRMS documents on your network, obtained from agency IT department. It is recommended this section is complemented with a diagram demonstrating your EDRMS document store infrastructure].

Disaster recovery of digital records are handled in accordance in the [insert agency name] IT Disaster Recovery Plan [insert document reference and name of agency plan].

Regular testing for the resilience of [insert agency name] digital records includes a regular test system restore. This includes the removal of objects in the EDRMS test database and new objects in [insert name and version of agency recordkeeping system (e.g. TRIM 7.3)]. A backup from the previous evening's production database is restored into test, and the restored data is then audited for authenticity before a successful restore is recorded.

In referring to Section 7.4: Backup and Restore, backup includes the creation of a data tape each night. These tapes are held off-site [insert location of tapes] for a period of [insert relevant period].

7.4 Back-up and restore

Digitised records are held in the production database of [insert name and version of agency recordkeeping system (e.g. TRIM 7.3)].

This is backed up in accordance with the IT Disaster Recovery plan.

[Insert diagram or procedures of how agency performs its structured backup over the above mentioned components].

7.5 Export

[Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] supports a bulk export feature, which can extract digital records and their associated metadata to a universally accepted file format including CSV and XML. These files can be used to migrate to another digital record keeping system, or for transfer to TAHO. [Insert details of your EDRMS capability to bulk export digital records].

8.0 Quality Control and Assurance Plan

8.1 Image Accuracy

This digitisation plan ensures [insert Agency name] is committed to the full and accurate digitisation of source documents before any disposal takes place. Before submitting images for registration into [Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] the scanning operator must undertake all actions specified in the Digitisation Processing Plan.

Scanning vendor specific quality assurance processes should be carried out on indexing, and registration metadata and any data entry. These processes are [insert/amend/delete quality assurance processes as required]:

- The EDRMS Upload File is to be verified by the scanning vendor prior to delivery.
- Upload File should be verified for metadata accuracy and that the metadata is linked to the correct scanned image.

The [insert position title] is responsible for performing the Quality Assurance tasks for digitisation. Source records will be retained for a minimum of [insert the agreed period of time] to support the Quality Assurance regime.

8.2 Record Accuracy

This plan is committed to ensuring [insert Agency name] captures full and accurate digital records of hard copy documents before destruction. During digitisation, sampling is undertaken to ensure full and accurate capture adhering to the guidelines issued by TAHO.

As outlined previously in Section 5.4, random quality control checks of scanned documents on the system should also be undertaken (e.g. visual comparison of scanned image to original of one in every 5 documents). The sampling rate is much higher than for business process digitisation (one in every 20 documents) where incoming mail is forwarded to action officers. Scanning vendor specific quality assurance processes should be carried out on indexing, and registration metadata and any data entry. As outlined in Section 5.4. quality checks are carried out when the document is registered into the system (by the registration officer).

8.3 Storage reliability

[Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] document store is located on [insert Agency name]'s network. The network is mirrored and replicates from the primary to secondary sites in real time.

Both storage sites have daily, monthly and annual backups kept in a rotating cycle.
Disaster recovery for [Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] is included in the [Insert name of agency Information Technology Services disaster recovery plan] for the

whole of agency. [Insert name and version of agency recordkeeping system (e.g. TRIM 7.3)] servers are incorporated into the [insert Agency name] server restoration and data integrity quality assurance procedure. [Insert agency specific backup and restoration processes, as appropriate].

8.3 Quality Failure Processes

If any image fails to meet the agency's quality assurance process then that image will be deleted and the source document digitised again. When digitised, the image will be inserted within the appropriate location of the record.

If metadata capture accuracy fails to meet the agency's quality assurance process then that metadata will be amended and the process for capture of metadata is reviewed on a monthly basis to reduce/eliminate these errors.

8.3 Logging and analysis

Logging and analysis processes should allow for monitoring of trends and detection of systematic problems. If outsourcing, the onus is on the agency to ensure that the scanning vendor sends regular status reports. This should be documented in this section and in the contract or service agreement.

The Records Unit [amend unit name, as appropriate] will log all known errors in the quality control log which is used for analysis of any error trends.

The Records Unit [amend unit name, as appropriate] will analyse the quality control log on a monthly basis, in order to detect error trends. Where substantial error patterns are identified, the relevant business area will be contacted, in order to discuss ways in which the area can reduce/eliminate these errors.

[Insert agency specific error logging processes, as appropriate]

APPENDIX 1. Characteristics

Records Set 1 = Applications for Leave Forms

The main characteristics of these documents are as follows:

Characteristics	Details
Type	A4 size
Quantity	15 per week, on average
Mix	All the same
Image size	150 Kb, on average
Document Structure	Single-sided forms
Document Condition	Very good, but corners sometimes dog-eared – requires straightening
Information Content	Text-based
Simplex or Duplex	Simplex

Records Set 2 = Building Permit files

The main characteristics of these documents are as follows:

Characteristics	Details
Type	Mix of A3, A4, and larger size documents (plans) up to A0
Quantity	1000 building permit files
Mix	Building permit files vary widely in number of documents and document types
Image size	Varies widely depending on document size and whether black and white or colour documents are to be scanned. [Suggest scanning a sample to determine averages]
Document Structure	Documents are connected together in a file, and will need to be taken out of the file for scanning. Some are stapled and staples will need to be removed. There are different sized documents in the one file.
Document Condition	Fairly good, but some older documents are yellowed and faded. A small number of files have been affected by poor storage conditions e.g. mouldy and snail eaten.
Information Content	Text-based, for non-plan documents. Drawings for plans.
Simplex or Duplex	Simplex and Duplex

APPENDIX 2. Chief Executive Officer Endorsement

The Digitisation Plan must be endorsed by the Chief Executive Officer, prior to implementation. Suggested wording is shown here, but may be customised for each agency:

I confirm that the agency has demonstrated that the requirements in Guideline 8 Digitisation and Management of Source Records has been satisfactorily met and can continue to be met when digitising the records described in this Plan. I understand that in meeting these requirements the agency will satisfy the requirements in the General Disposal Schedule for Source Records (DA2159).

_____

(Chief Executive)

_____

(Name of Agency)

_____

(Date)