TECHNICAL SPECIFICATION

ISO/TS 19475-1

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Document management — Minimum requirements for the storage of documents —

Part 1:
Capture

Gestion de documents — Exigences minimales pour le stockage des documents —

Partie 1: Capture

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 171, *Document management applications*, Subcommittee SC 1, *Quality, preservation and integrity of information*.

A list of all parts in the ISO 19475 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

When electronic documents are managed in a typical office environment, it is necessary to determine the processes required for their management. This includes identifying the type of documents to be managed and their importance to the organization. The volumes of electronic documents that require management is growing, as electronic documents are being created by an ever-increasing variety of combinations of hardware and software. It is essential that documents are managed in such a way that supports the management of the organization and its core business activities.

The ISO 19475 series specifies the minimum requirements necessary to maintain the authenticity, integrity and readability of documents managed by an electronic document management system. Clarifying the management of electronic documents promotes usability of the documents, in both a legal and business context.

The series is composed of three parts.

This document specifies requirements for the capture of documents into document management systems.

ISO/TS 19475-2 specifies requirements for the storage of documents. It is aimed at maintaining the authenticity and integrity of the stored documents.

ISO/TS 19475-3 specifies requirements for the evaluation of stored documents and for implementing decisions to either destroy the documents or transfer them to another storage facility.

This document specifies the minimum requirements that are necessary when operating a document management system to preserve the authenticity, integrity and readability of an electronic document. Implementing these requirements helps to demonstrate the authenticity of the documents. The organization managing the documents is able to maintain the quality of its document management systems by specifying and implementing the prescribed methods of operation.

The purpose of this document is to specify the minimum requirements that an organization implements in order to capture electronic documents. This document focuses on those electronic documents that may be required for legal, regulatory or business evidential purposes.

Document management — Minimum requirements for the storage of documents —

Part 1:
Capture

1 Scope

This document specifies requirements for maintaining the authenticity, integrity and readability of documents during capture processes.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
database
collection of machine-readable information organized so that it can be easily accessed, managed and updated

[SOURCE: ISO 5127:2017, 3.1.13.03]

3.2
metadata
data about other data, documents or records that describes their content, context, structure, data format, provenance, and/or rights attached to them

[SOURCE: ISO 5127:2017, 3.1.10.26.01]

3.3
storage system
information technology system with the capability of managing electronically stored documents

4 Capture

4.1 General

Capture is the process of creating or receiving information in the course of business activities and storing it as documents into a document management system.

The authenticity, integrity and readability of information that is to be captured needs to be assessed and verified. Capture processes may also need to convert information into an electronic format suitable

for storage and management, extract related metadata and information necessary for monitoring, and register the documents into the storage system.

Capture processes may include:

a) the information to be captured that is specified by business requirements;

b) the operational personnel inspecting and documenting the information to be captured for its authenticity, integrity and readability;

c) the capture operational personnel classifying the information, extracting metadata and recording this information in the storage system;

d) the capture operational personnel ensuring that the information necessary for monitoring the operations is extracted and recorded in the storage system;

e) the capture operational personnel comparing the received information and the documents once stored to inspect the quality of the stored documents.

Capture processes may include, if paper-based originals are received, scanning and digitization processes. If digital data are to be captured, they may need to be converted into a suitable data format for storage. Captured documents then need to be made available to users as necessary.

When transactional data are to be captured, the data that has been created or received are typically registered in a database schema. In such cases, the capture processes need to convert the data into a format that enables authenticity inspection, in compliance with business requirements.

4.2 Benefits and risks

The benefits of the proper capture of electronic documents include:

— confidence in the capture processes and systems;

— ability to demonstrate that authenticity, integrity and readability are not compromised during capture.

Capture-related risks include:

— document loss or damage due to a problem in the capture processes;

— loss of information due to inappropriate capture attributes;

— inappropriate documentation being captured due to an incorrect selection processes.

4.3 Policy

Capture processes need to be in compliance with the organization's information management policy. This policy needs to include a description of risks related to the capture of documents.

The section of the information management policy related to capture needs to include policies on:

— the roles and responsibilities related to capture;

— the method of inspecting the authenticity of documents to be captured;

— the method of monitoring the capture operations.

5 Controls

5.1 Requirements

Information received or created in business activity shall be captured in the form of documents. This may include the capture of information created, received or stored electronically as well as the capture of non-electronic documents by means of scanning.

The capture processes shall be such that the confirmation of the authenticity, integrity and readability of the information is assessed and confirmed.

The following principles shall govern the capture of documents:

a)   the policy for the capture process has been identified and documented;

b)   the roles and responsibilities of those implementing the capture processes have been defined;

c)   the file format for the documents has been determined, taking into account legal and retention requirements, and standardized formats are used where practical;

d)   the security classification for the documents has been determined and the appropriate security requirements have been implemented;

e)   any associated information (such as metadata and audit trail data) has been identified and captured.

5.2 Capture

5.2.1 Document capture

In capture operations, the authenticity of the documents created or received in the course of business activities shall be maintained. Capture processes shall include, where necessary, the conversion into a data format appropriate for the storage and management of the information content. These processes shall include the conversion of all related metadata and other information necessary for monitoring documents. Capture processes shall include the storage of documents into storage systems.

Capture process shall include:

a)   the specification of documents to be captured;

b)   the inspection of the documents prior to capture for authenticity issues;

c)   the appropriate capture mechanisms;

d)   the classification of captured documents in accordance with business rules;

e)   the extraction in association with captured documents of appropriate metadata and any other information necessary for the monitoring of captured documents;

f)   the transfer to storage systems;

g)   where appropriate, the comparison of original documents and captured electronic documents (for example, by viewing the original and the captured image side-by-side), including any quality control procedures;

h)   the ability to demonstrate that capture processes have taken place in accordance with business requirements (audit).

Where self-executing code or the other similar mechanisms are embedded in documents, measures shall be taken for preserving the original content and presentation of these documents. This is because the contents of these documents may change over time.

Where documents are made up of several components (for example, a word-processed file with an embedded spreadsheet), the relationship and content of the individual components shall be preserved. When information is preserved in its individual components, all the links to the components shall be preserved.

5.2.2 Database transactions

When information to be captured is in the form of a structured database, additional procedures may be necessary in order to be able to demonstrate that authenticity, integrity and readability has been maintained.

To capture database transactional information, the following additional process shall be included:

a) the selection of information to be captured in accordance with the business requirements;

b) the retention of any interdependencies between information;

c) the storage format appropriate to the information being captured, to enable accessibility by business systems.

5.2.3 Email and other communications

Where information to be captured is held in email or other communication systems, additional procedures may be necessary in order to be able to demonstrate that authenticity, integrity and readability has been maintained.

To capture information from email and other communication systems, the following additional process shall be included:

a) the identification of the communications to be captured;

b) the capture of any attached information, along with its association with the particular communication;

c) where necessary, the confirmation of the sender of the communication.

5.2.4 Paper-based documents

Where paper- (or microform-) based documents are to be captured, scanning technology shall be used. The technology shall be chosen dependent upon the type of paper to be captured and the intended use of the scanned images.

To capture information from paper-/microform-based documents, the following additional processes shall be included:

a) documentation of the capture processes and technology used;

b) the selection of suitable image format for the intended use of the document images;

c) the selection of capture processes to ensure that all necessary information from the original documents is accessible on the document images;

d) the selection of quality control processes to ensure that any scanning errors (skew, folded corners, mis-feeds, etc.) are identified and corrected;

e) the maintenance of the scanner equipment in accordance with the manufacturer's recommendations.

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