

# DRAFT INTERNATIONAL STANDARD

## ISO/DIS 19475

ISO/TC 171/SC 1

Secretariat: BSI

Voting begins on:  
2020-09-23

Voting terminates on:  
2020-12-16

---

## Document management — Minimum requirements for the storage of documents

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

ICS: 37.080

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO/DIS 19475](https://standards.iteh.ai/catalog/standards/sist/fdce0be8-805b-47f0-abb9-0278ef4870ae/iso-dis-19475)

<https://standards.iteh.ai/catalog/standards/sist/fdce0be8-805b-47f0-abb9-0278ef4870ae/iso-dis-19475>

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

This document is circulated as received from the committee secretariat.



Reference number  
ISO/DIS 19475:2020(E)

© ISO 2020

## iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO/DIS 19475

<https://standards.iteh.ai/catalog/standards/sist/fdce0be8-805b-47f0-abb9-0278ef4870ae/iso-dis-19475>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 General</b> .....	<b>2</b>
4.1 Policy .....	2
4.2 Document types .....	3
4.3 Controlling a received and delivered document .....	4
4.4 Risks in document handling and measures.....	4
4.4.1 Receipt and formalization.....	4
4.4.2 Formalized for recipient and delivery .....	4
<b>5 Receipt and formalization</b> .....	<b>5</b>
5.1 Requirements.....	5
5.2 Controls for receiving.....	5
5.3 Controls for the formalization process.....	5
5.4 Document to be used at processing .....	6
5.5 Preserving the receiving and formalization contexts.....	6
<b>6 Delivery</b> .....	<b>6</b>
6.1 Requirements.....	6
6.2 Controls for the delivery process.....	7
6.3 Controls for the formalizing for recipient process.....	7
6.4 Preservation of the delivery context.....	7
6.5 Monitoring of the delivered document.....	8
<b>7 Storage</b> .....	<b>8</b>
7.1 Storage .....	8
<b>Annex A (informative) Formalization</b> .....	<b>9</b>
<b>Annex B (informative) Delivery</b> .....	<b>11</b>
<b>Annex C (informative) Requirements for EDMS/ECM</b> .....	<b>13</b>
<b>Bibliography</b> .....	<b>15</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee [or Project Committee] ISO/TC 171, Subcommittee SC 1.

This second edition cancels and replaces the first edition (ISO TS 19475 series), which has been technically revised.

The main changes from the previous edition are as follows:

- Clarified the relationship between business process and storage operations.
- Coordinated storage operations in accordance with the existing ISO standards involving storage.
- Integrated three parts standards into one parts standard.

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

Any feedback or questions about 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](http://www.iso.org/members.html).

## Introduction

This document specifies the minimum requirements for the operation of a document management system.

Overall business operations are composed of the functions of receiving the document(s), performing the work processes according to its contents, reporting the results of the processes and delivering an outcome. A document management system serves the basic purpose of controlling the handling of the received document, establishing the work processes and delivering the result of those processes. Therefore, the reliability of the business processes and the process itself heavily depend on the reliability of the document used as well as the reliability of the document management system.

The following operations are necessary for maintaining the reliability of business activities:

- An operation that maintains the reliability of the received documents;
- An operation that maintains the integrity of the process activities; and
- An operation that ensures the authenticity of the delivered documents.

The reliability of the work processes are demonstrated by the effectiveness evaluation of the internal control of the organizations. Management is responsible for creating evidence during their business activities, maintaining their authenticity and integrity and ensuring these will remain in place going forward. Retained documents produced as evidence of work are audited and assessed for validity. The framework and the controls for preserving documents are described in ISO 15489.

ISO 14641 describes the methods for storing a legitimately created electronic document and the guidelines for maintaining its integrity in perpetuity.

EDMS is an effective technology for handling storage to ensure the reliability of documents processed internally in an organization. For EDMS there is no precise standard. In these standards for EDMS, there is the requirement for references.

The above-mentioned mechanisms are a useful foundation for demonstrating the integrity of work processes.

However, in executing their business operations, organizations receive various types of document and deliver them to other organizations. Sharing documents has the potential for a variety of risks.

There is the risk that the organization may receive a document without any right to use it. There also is the risk that the document contains false information, or that the information was received through inappropriate communication channels. Or, the information is inappropriate for business purposes. Any of these circumstances will degrade the reliability of the work processes.

There also are risks involved when delivering a document to another organization. For example, it could be delivered to the wrong party or the information is not appropriate to be shared. Organizations need to take the necessary steps to mitigate these risks.

Organizations need to clarify their handling process procedures for receipt and delivery of documents. Document handling procedures need to include quality criteria for the documents to be processed.

By applying the controls described in this document, an organization can operate their document management system appropriately.

## **iTeh STANDARD PREVIEW** **(standards.iteh.ai)**

ISO/DIS 19475

<https://standards.iteh.ai/catalog/standards/sist/fdce0be8-805b-47f0-abb9-0278ef4870ae/iso-dis-19475>

# Document management — Minimum requirements for the storage of documents

## 1 Scope

This document specifies the minimum requirements necessary to maintain the authenticity, integrity and readability of documents managed by an electronic document management system. Clarifying the methods and procedures for appropriately handling electronic documents promotes the usability of the documents, in both a legal and business context.

This document expresses a general business process as a document handling process. The document handling processes include receiving, processing, and delivering the documents as follows:

- Formalizing the receipt of a document in a manner that is appropriate for a work process.
- Storing the formal document in the work process environment.
- Delivery of the document to another organization.

This document establishes the controls for execution of the work processes while maintaining the authenticity and integrity of the document received.

This document establishes the policies for the storage of documents used as part of the work process. It also details the controls for performing the receipt and conversion process appropriately.

To preserve an electronic document in such a manner that its integrity is maintained, adherence to ISO 14641 requirements is required.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes the requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14641, *Electronic document management — Design and operation of an information system for the preservation of electronic documents — Specifications*

## 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

#### EDMS

a software program that manages the creation, storage, and control of documents electronically

### 3.2

#### preservation system

a system retains documents and metadata as evidence of the handling of documents

### 3.3

#### **storage system**

information technology system that has the capability of managing electronically stored documents.

### 3.4

#### **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]

### 3.5

#### **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: ISO 15489-1: ISO 23081-1]

## 4 General

### 4.1 Policy

This document expresses a document handling in the framework of business process. The document handling processes include receipt, processing and delivery of documents, but are not limited to them. The relationships are shown in Figure 1.

When a document is received, the receiving organization stores it, and if necessary, sets the data format and form appropriate for the processing process.

Each receiving organization stores the document in a storage system, so that the change history of the document throughout the handling process is securely maintained. Maintaining a log of the handling process in the preservation system also is required.

After processing is complete, if necessary, the delivering organization formats the document appropriately for the recipient's use. The organization sending the document transfers or shares it to another organization.

The integrity of a delivered document can be tracked throughout the document processing process. Therefore, organizations can use work-related documentation to fulfil accountability.

**NOTE** This document specifies control measures for the smooth handling of storage operations related to the receipt of a document and the issuance and delivery of the processing results. Storage of the document(s) involved with the general handling processes are controlled in accordance with EDMS and ECM. (The requirements of EDMS/ECM are shown in [Annex C](#).) The preservation and maintenance of the evidential information of business execution are in accordance with the preservation system specified in ISO 14641.



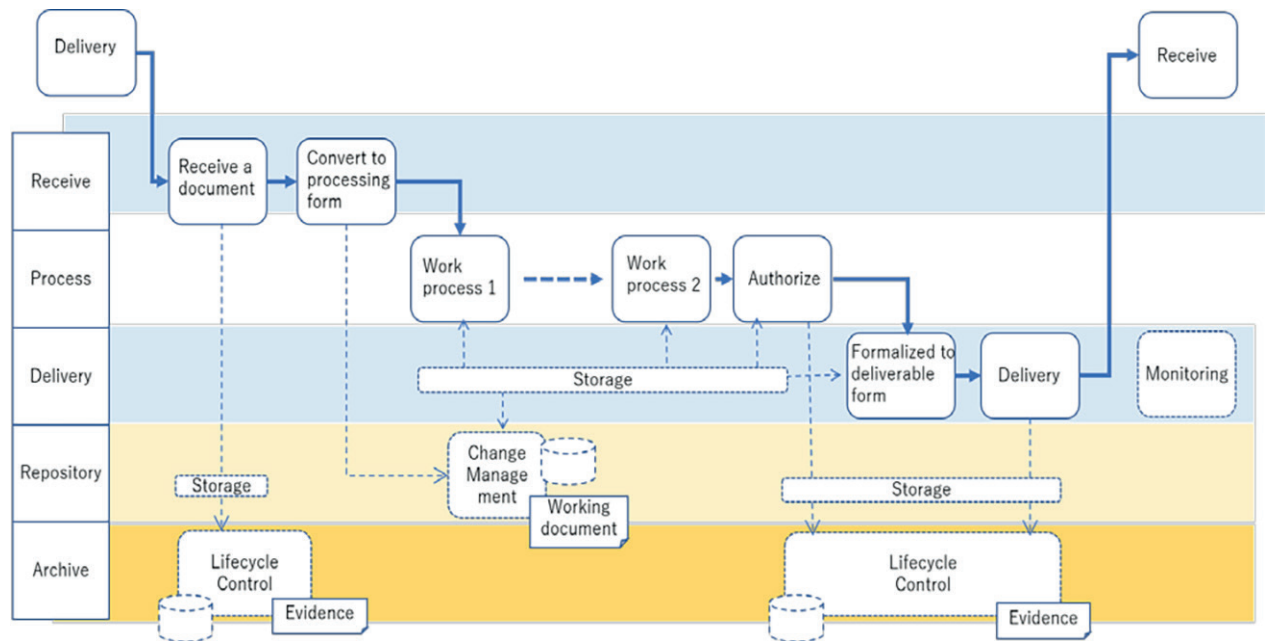


Figure 1

The organization validates that the document received contains the information required for processing, whether the organization had the right to receive it, etc. After the document is formalized a format appropriate for handling (it shall be verified that the conversion was made accurately).

Organizations with established handling processes use documents that are formalized in a format that is appropriate for that process. The organization reviews the document created by following the process along with the document received. This check confirms the quality of the processing results.

The approved document will be formalized as appropriate for the recipient's use prior to delivery. The delivered document is then stored within the preservation system. The delivered document is monitored in terms of use, transfer, copying, updates and deletion.

By handling the document according to the methods described in this document, the integrity of document handling is assured.

## 4.2 Document types

Types of document to be received by the organization are as follows:

- In paper form, such as an application document.
- A scanned electronic document from an original hard copy or photograph (jpeg image), etc.
- A document that was packaged with other forms of data (office systems, CAD, etc.)
- A document extracted from database information using an application program interface (API).
- A document obtained through a network via API (in this case, the document is not actually moving.)
- A document that is part of a data stream.

Each type of information needs a different type of control; therefore, having specific controls for each type reduces the risk of losing information or creating an error.

### 4.3 Controlling a received and delivered document

To maintain the quality of the handling process, the integrity of the document received and delivered shall be confirmed.

This is critical to ensure the reliability of the receipt the document, formalizing to deliverable form and delivery processes of the document.

To maintain reliability of these processes, manage the document as follows:

- Define the type of document to be handled.
- Define the handling procedure for each type of document.
- Note the context of the handling process so that each process can be audited
- When any problems are found during an audit, correction and improvement actions will be conducted.

NOTE “Context” is defined as information related to the document handling history. Examples include the document author, references, update log, handling logs related to processing, etc.

### 4.4 Risks in document handling and measures

#### 4.4.1 Receipt and formalization

An organization receives and formalizes the documents it receives in a format that is appropriate for its use in the organization. The formalized document is then used according to the handling process.

This chapter describes the risks associated with the organization responsible for receiving and formalizing the documents.

Examples of the risks are as follows:

- An organization can receive a document that it does not have the right to use.
- When inappropriate documentation is processed, the organization's decisions will not be made correctly.
- Incorrect worker assignments are the cause of information leakage and false information.
- When authenticity of the document received is not confirmed, it is not possible to maintain the quality of the documentation process and the delivered documents.

#### 4.4.2 Formalized for recipient and delivery

This chapter describes the risks associated delivery processes.

Examples of the risks are as follows:

- The delivery of the document is inconsistent with the work process (tampering).
- Inappropriate documents are delivered (error).
- The document is delivered to unauthorized users.
- The document is destroyed while in use.

## 5 Receipt and formalization

### 5.1 Requirements

Organizations should define handling methods for each type of document to properly control the documents they receive.

The type of document and the handling methods are defined according to the receiving policy and the contract with the vendor or customer.

NOTE The type of document is defined by its use and purpose. The format of the document is defined by its handling method.

### 5.2 Controls for receiving

The organization shall confirm the skill level of the person responsible for receiving the document before giving the work order.

The organization shall confirm whether the organization has the rights and privileges to use the received document.

An organization shall not receive types of document they do not have the rights and privileges to use.

The organization shall maintain the integrity of the document received and the document formalized in accordance with its purpose for processing.

The organization shall maintain the quality of the equipment involved in the receiving and formalizing processes.

NOTE 1 When outsourcing receipt duties to outside organization, care is taken to avoid receiving documents not authorized to be outsourced in their handling.

NOTE 2 An organization avoids the risk of receiving a document they are not authorized to process.

NOTE 3 The authenticity and reliability of the document received is either confirmed by such public credibility information as an electronic signature or time stamp, or the organizational trust or credibility of the party who sent the information.

### 5.3 Controls for the formalization process

Controls for the formalization process of the document received from an outside organization into a format appropriate for the document handling process are explained below.

Formalization processes for the purpose of conversion include digitizing a paper document received, registering or duplicating the document, whether received in paper form or an electronic file, and deploying a data file received into processing.

NOTE Security risks in terms of physical security or system security are not discussed in this document. Please refer to the relevant IT security standards.

When converting a document into a format that is appropriate for processing, the organization should ensure that the received document and the converted document are the same.

During the receipt process, handling shall be suspended if the information includes a document that is not able to be formalized. When the receipt process is suspended, the organization shall store the information in question and return the relevant document to the sender.

NOTE See [Annex A](#) for the controls for inspection of the document format received.