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Information technology — Text and office systems — Referenced Data Transfer —

Part 2: Protocol specification

*Technologies de l'information — Bureautique — Transfert de données
référéncées —*

Partie 2: Spécification du protocole



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 10740-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Sub-Committee SC 18, *Document processing and related communication*.

ISO/IEC 10740 consists of the following parts, under the general title *Information technology – Text and office systems – Referenced Data Transfer*:

- *Part 1: Abstract service definition*
- *Part 2: Protocol specification.*

Annex A of this part of ISO/IEC is for information only.

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Introduction

This International Standard is one of a set of standards for distributed-office-applications which define abstract services and specify access protocols in accordance with the Application Layer of the Open Systems Interconnection (OSI) Reference Model (ISO 7498).

Distributed-office-applications are used by an integrated distributed office system, consisting of user nodes and server nodes linked by a network. The user nodes access the server nodes via the network, using access protocols.

In such an environment, data processing applications that within a single host act as a single piece, have been split among the different intelligent components of the system. This splitting has led to the need for standardization of inter-relationships between the different parts of an application.

In this environment the distributed-office-applications should satisfy the following objectives:

- Make easier the implementation of application-processes developed for a distributed environment based on micro-processors and large or medium sized mainframes interconnected through local area network or wide area network means;
- Reduce the processing delay time for document related activities such as document filing and retrieval, document distribution, printing, etc.;
- Allow concurrent processing of different tasks within the distributed office system;
- Reduce the overall size of an office system and facilitate its modular extension.

Within distributed-office-applications, there will be applications that will act as Accessees or Accessors of objects whose values are of comparatively large size, for example files, documents or body parts. ISO/IEC 10031-1 the Distributed-office-applications model, contains a functional model for these cases named Referenced Object Access (ROA). According to this model, the transfer of data-object-values conceptually involves three parties: an Initiator which requests the transfer, an Accessee which produces the data-object-value and an Accessor which consumes the data-object-value. To achieve economies in the use of transmission facilities and hence more efficient use of system resources, a mechanism is required whereby an Accessee can provide an Initiator with a reference to a data-object-value. This reference can then be given by the Initiator to the Accessor which can then contact the Accessee directly for example to obtain the data-object-value. This mechanism is known as the ROA. It provides a way to perform ROA-operations between an open-ended list of parties.

This Part of ISO/IEC 10740 describes the RDT protocol, a realization of the RDT abstract service as defined in ISO/IEC 10740-1. The RDT protocol realization takes the form of an RDT Application Service Element (ASE) and two RDT Application Contexts (ACs), together with conformance requirements for implementations.

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Part 2: Protocol specification

1 Scope

This Part of ISO/IEC 10740 describes the application-service-element (ASE) and the application-contexts (ACs) for the Referenced Data Transfer within distributed-office-applications. Its content covers four major areas:

- An introductory part in which references, definitions and abbreviations are collected together.
- Specification of the RDT Application Service Element (RDTSE).
- Specification of two RDT Application Contexts containing the RDTSE.
- Conformance requirements for the RDT Application Contexts.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 10740. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 10740 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7498:1984, *Information processing systems – Open Systems Interconnection – Basic Reference Model*.

ISO 7498-2:1989, *Information processing systems – Open Systems Interconnection – Basic Reference Model – Part 2: Security Architecture*.

ISO 8649:1988, *Information processing systems – Open Systems Interconnection – Service definition for the Association Control Service Element*.

ISO 8822:1988, *Information processing systems – Open Systems Interconnection – Connection oriented presentation service definition*.

ISO/IEC 8824:1990, *Information technology – Open Systems Interconnection – Specification of Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 8825:1990, *Information processing systems – Open Systems Interconnection – Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 9066-1:1989, *Information processing systems – Text communication – Reliable Transfer – Part 1: Model and service definition*.

ISO/IEC 9066-2:1989, *Information processing systems – Text communication – Reliable Transfer – Part 2: Protocol specification*.

ISO/IEC 9072-1:1989, *Information processing systems – Text communication – Remote Operations – Part 1: Model, notation and service definition*.