INTERNATIONAL STANDARD

ISO/IEC 8613-10

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Information technology — Open Document Architecture (ODA) and Interchange Format —

Part 10: Formal specifications

Technologies de l'information — Architecture de document ouverte (ODA) et format de transfert —

Partie 10: Spécifications formelles

Reference number
ISO/IEC 8613-10:1995(E)

Contents

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 8613-10 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 18, *Document processing and related communication*.

This second edition is a revision of the first edition (ISO/IEC 8613-10:1991). It also incorporates amendment 1:1991, amendment 2:1991, amendment 3:1992, amendment 4:1992 and amendment 5:1993.

ISO/IEC 8613 consists of the following parts, under the general title *Information technology — Open Document Architecture (ODA) and Interchange Format*:

- *Part 1: Introduction and general principles*
- *Part 2: Document structures*
- *Part 3: Abstract interface for the manipulation of ODA documents*
- *Part 4: Document profile*
- *Part 5: Open Document Interchange Format*
- *Part 6: Character content architectures*
- *Part 7: Raster graphics content architectures*
- *Part 8: Geometric graphics content architectures*
- *Part 9: Audio content architectures*
- *Part 10: Formal specifications*
- *Part 11: Tabular structures and tabular layout*
- *Part 12: Identification of document fragments*
- *Part 13: Spreadsheet*
- *Part 14: Temporal relationships and non-linear structures*

Annex A of this part of ISO/IEC 8613 is for information only.

Information technology — Open Document Architecture (ODA) and Interchange Format —

Part 10:
Formal specifications

1 Scope

The purpose of ISO/IEC 8613 is to facilitate the interchange of documents.

In the context of ISO/IEC 8613, documents are considered to be items such as memoranda, letters, invoices, forms and reports, which may include pictures and tabular material. The content elements used within the documents may include graphic characters, geometric graphics elements and raster graphics elements, all potentially within one document.

NOTE — ISO/IEC 8613 is designed to allow for extensions, including hypermedia features, spreadsheets and additional types of content such as audio and video.

In addition to the content types defined in this International Standard, ODA also provides for arbitrary content types to be included in documents.

ISO/IEC 8613 applies to the interchange of documents by means of data communications or the exchange of storage media.

It provides for the interchange of documents for either or both of the following purposes:

- to allow presentation as intended by the originator;
- to allow processing such as editing and reformatting.

The composition of a document in interchange can take several forms:

- formatted form, allowing presentation of the document;
- processable form, allowing processing of the document;
- formatted processable form, allowing both presentation and processing.

ISO/IEC 8613 also provides for the interchange of ODA information structures used for the processing of interchanged documents.

This part of ISO/IEC 8613

- specifies a formal description technique appropriate for describing the technical specifications of the document structures (ISO/IEC 8613-2), the document profile (ISO/IEC 8613-4) and the content architectures (currently ISO/IEC 8613-6, -7 and -8);
- gives formal specifications of the document structures, the document profile and the content architectures using this formal description technique.

The aim of the formal specifications of ODA (FODA) is to provide a precise and unambiguous interpretation of the technical specifications in other parts of ISO/IEC 8613 (currently parts 2, 4, 6, 7, and 8), using formal syntax and formal semantics.

FODA can be used

— as a basis for implementations of ISO/IEC 8613;

— as a validation tool for the verification of conforming systems;

— as a reference point for examining future extensions and revisions to ISO/IEC 8613.

If a discrepancy between the natural language text and the formal specifications should be discovered, the natural language text should be regarded as the valid interpretation of this International Standard until the discrepancy is resolved.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 8613. 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 8613 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/IEC 2022:1994, *Information technology — Character code structure and extension techniques.*

ISO/IEC 6429:1992, *Information technology — Control functions for coded character sets.*

ISO/IEC 6937:1994, *Information technology — Coded graphic character set for text communication — Latin alphabet.*

ISO 8601:1988, *Data elements and interchange formats — Information interchange — Representation of dates and times.*

ISO/IEC 8613-1:1994, *Information technology — Open Document Architecture (ODA) and Interchange format: Introduction and general principles.*

ISO/IEC 8613-2:1995, *Information technology — Open Document Architecture (ODA) and Interchange format: Document structures.*

ISO/IEC 8613-4:1994, *Information technology — Open Document Architecture (ODA) and Interchange format: Document profile.*

ISO/IEC 8613-6:1994, *Information technology — Open Document Architecture (ODA) and Interchange format: Character content architectures.*

ISO/IEC 8613-7:1994, *Information technology — Open Document Architecture (ODA) and Interchange format: Raster graphics content architectures.*

ISO/IEC 8613-8:1994, *Information technology — Open Document Architecture (ODA) and Interchange format: Geometric graphics content architectures.*

ISO/IEC 8632-1:1992, *Information technology — Computer graphics — Metafile for the storage and transfer of picture description information — Part 1: Functional specification.*

ISO/IEC 8632-3:1992, *Information technology — Computer graphics — Metafile for the storage and transfer of picture description information — Part 3: Binary encoding.*

ISO/IEC 9541-2:1991, *Information technology — Font information interchange — Part 2: Interchange format.*