

INTERNATIONAL  
STANDARD

**ISO/IEC**  
**8613-8**

Second edition  
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**Information technology — Open  
Document Architecture (ODA) and  
Interchange Format: Geometric graphics  
content architectures**

*Technologies de l'information — Architecture des documents ouverts  
(ODA) et format d'échange: Architecture des contenus des caractères  
graphiques géométriques*



Reference number  
ISO/IEC 8613-8:1994(E)

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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 8613-8 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 18, *Document processing and related communication*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation T 418.

This second edition cancels and replaces the first edition (ISO 8613-8:1989), which has been technically revised.

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*

## INTRODUCTION

This ITU-T Recommendation | International Standard was prepared as a joint publication by ITU-T Study Group 8 and ISO/IEC Joint Technical Committee 1.

At present, the ITU-T Recommendation T.410-Series | ISO/IEC 8613 consists of:

- Introduction and general principles;
  - Document structures;
  - Document profile;
  - Open document interchange formats;
  - Character content architectures;
  - Raster graphics content architectures;
  - Geometric graphics content architectures;
  - Formal Specification of the Open Document Architecture (FODA).
- (The formal specification is applicable to ISO/IEC 8613 only).

Further Recommendations | International Standards may be added to this series of ITU-T Recommendations | International Standards.

Development of this series of ITU-T Recommendations | International Standards was originally in parallel with the ECMA-101 standard: Open Document Architecture.

This series of ITU-T Recommendations | International Standards is a new edition of the CCITT T.410-Series of Recommendations (1988) and ISO 8613 (1989).

Significant technical changes are the inclusion of the following amendments as agreed by ITU-T and ISO/IEC:

- Alternative representation;
- Annex on use of MHS/MOTIS;
- Colour;
- Conformance Testing Annex;
- Document Application Profile, Proforma and Notation;
- Security;
- Streams;
- Styles;
- Tiled raster graphics.

In addition, a number of technical corrigenda have been applied to this ITU-T Recommendation | International Standard.

This ITU-T Recommendation | International Standard contains three annexes:

- Annex A summarises the ASN.1 object identifiers (non-integral);
  - Annex B describes the differences between character primitives in the geometric graphics and the content structured according to the character content architectures defined in ITU-T Rec. T.416 | ISO/IEC 8613-6 (non-integral);
  - Annex C describes the SGML representation of geometric graphics content-specific attributes for ODL (integral).
- (The use of Annex C is applicable to ISO/IEC 8613 only.)

## INTERNATIONAL STANDARD

## ITU-T RECOMMENDATION

# INFORMATION TECHNOLOGY – OPEN DOCUMENT ARCHITECTURE (ODA) AND INTERCHANGE FORMAT: GEOMETRIC GRAPHICS CONTENT ARCHITECTURES

## 1 Scope

The purpose of the ITU-T Rec. T.410-Series | ISO/IEC 8613 is to facilitate the interchange of documents.

In the context of these Recommendations | International Standards, documents are 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, raster graphics elements and geometric graphics elements, all potentially within one document.

NOTE – These Recommendations | International Standards are 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 these Recommendations | International Standards, ODA also provides for arbitrary content types to be included in documents.

These Recommendations | International Standards apply to the interchange of documents by means of data communication or the exchange of storage media.

These Recommendations | International Standards provide 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.

These Recommendations | International Standards also provide for the interchange of ODA information structures used for the processing of interchanged documents.

This ITU-T Recommendation | International Standard:

- defines a geometric graphics content architecture that can be used in conjunction with the document architecture defined in ITU-T Rec. T.412 | ISO/IEC 8613-2;
- defines an interface which allows the use of content structured according to ISO/IEC 8632 within documents structured according to ITU-T Rec. T.412 | ISO/IEC 8613-2;
- defines those aspects of positioning and imaging applicable to the presentation of this geometric graphics content architecture in a basic layout object;
- defines the presentation attributes applicable to this geometric graphics content architecture;
- describes a content layout process, which together with the document layout process described in ITU-T Rec. T.412 | ISO/IEC 8613-2, describes the layout of geometric graphics content in basic layout objects and determines the dimensions of these basic layout objects.

## 2 Normative references

The following ITU-T/CCITT Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations | International Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent editions of the Recommendations and International Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The ITU-T Secretariat maintains a list of currently valid ITU-T/CCITT Recommendations.

### 2.1 Identical Recommendations | International Standards

- ITU-T Recommendation T.411 (1993) | ISO/IEC 8613-1:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Introduction and general principles*.
- ITU-T Recommendation T.412 (1993) | ISO/IEC 8613-2:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Document structures*.
- ITU-T Recommendation T.414 (1993) | ISO/IEC 8613-4:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Document profile*.
- ITU-T Recommendation T.415 (1993) | ISO/IEC 8613-5:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Open Document Interchange Format*.
- ITU-T Recommendation T.416 (1993) | ISO/IEC 8613-6:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Character content architectures*.
- ITU-T Recommendation T.417 (1993) | ISO/IEC 8613-7:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Raster graphics content architectures*.

### 2.2 Paired Recommendations | International Standards equivalent in technical content

- CCITT Recommendation X.208 (1988), *Specification of Abstract Syntax Notation One (ASN.1)*.  
ISO/IEC 8824:1990, *Information technology – Open Systems Interconnection – Specification of Abstract Syntax Notation One (ASN.1)*.

### 2.3 Additional references

- ISO/IEC 646:1991, *Information technology – ISO 7-bit coded character set for information interchange*.
- 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 8879:1986, *Information processing – Text and office systems – Standard Generalized Markup Language (SGML)*.