

INTERNATIONAL
STANDARD

ISO/IEC
8613-6

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

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



Reference number
ISO/IEC 8613-6:1994(E)

Contents

	<i>Page</i>
1 Scope	1
2 Normative references	2
2.1 Identical Recommendations International Standards	2
2.2 Paired Recommendations International Standards equivalent in technical content	2
2.3 Additional references	2
3 Definitions	2
4 Abbreviations	3
5 Conventions	3
6 General principles	3
6.1 Content architecture classes	3
6.2 Content	4
6.3 Presentation attributes	4
6.4 Control functions	4
6.5 Graphic characters	5
6.6 Space characters	5
6.7 Coding of content information	5
6.8 Internal structure	5
6.8.1 Formatted content	5
6.8.2 Processable content	5
6.8.3 Formatted processable content	6
7 Character positioning	6
7.1 Basic concepts	6
7.1.1 Character fonts	6
7.1.2 Directions	7
7.1.3 Character image model	7
7.1.4 Character spacing	9
7.1.5 Active position	9
7.1.6 Positioning area	9
7.1.7 Line boxes	9
7.2 Positioning of character images within a line box	10
7.2.1 Spacing between characters	11
7.2.2 Alignment	12
7.2.3 Tabulation	12
7.2.4 Character ordering	12

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	7.2.5	Parallel annotation	14
	7.2.6	Subscript/superscript.....	15
	7.2.7	Pairwise kerning.....	15
	7.2.8	First line offset	15
	7.2.9	Itemization	15
	7.3	Positioning of line boxes within a basic layout object.....	15
8		Character imaging	17
	8.1	Emphasis.....	18
	8.1.1	Weight.....	18
	8.1.2	Posture	18
	8.1.3	Underlining	18
	8.1.4	Blinking	19
	8.1.5	Image inversion.....	19
	8.1.6	Crossing-out.....	19
	8.1.7	Colour	19
	8.2	Font selection	21
	8.2.1	Font specification.....	21
	8.2.2	Font designation.....	21
	8.2.3	Font invocation	21
	8.3	Subscript and superscript	21
	8.4	Character combinations.....	22
9		Definition of character presentation attributes	22
	9.1	Shared presentation attributes	23
	9.1.1	Alignment	23
	9.1.2	Character fonts	23
	9.1.3	Character orientation.....	24
	9.1.4	Character path	24
	9.1.5	Character spacing.....	24
	9.1.6	Code extension announcers.....	24
	9.1.7	First line offset	25
	9.1.8	Graphic character sets	25
	9.1.9	Graphic character subrepertoire	25
	9.1.10	Graphic rendition	26
	9.1.11	Itemization	26
	9.1.12	Kerning offset	27
	9.1.13	Line layout table	27
	9.1.14	Line progression.....	28
	9.1.15	Line spacing.....	28
	9.1.16	Pairwise kerning.....	28
	9.2	Layout presentation attributes	28
	9.2.1	Formatting indicator.....	28
	9.2.2	Initial offset	29
	9.3	Logical presentation attributes	29
	9.3.1	Indentation	29
	9.3.2	Orphan size	30
	9.3.3	Proportional line spacing	30
	9.3.4	Widow size.....	30
	9.4	Content architecture class attributes.....	31
	9.4.1	Content architecture class	31
	9.5	Interactions between presentation attributes and layout directives	31

10	Character content portion attributes	31
10.1	Common coding attributes	31
10.2	Other coding attributes.....	31
10.3	Content information	31
11	Formal definitions of character content architecture dependent data types	32
11.1	Introduction.....	32
11.2	Representation of presentation attributes.....	32
11.3	Representation of coding attributes.....	35
11.4	Representation of non-basic features and non-standard defaults	35
12	Graphic Characters.....	36
13	Definition of control functions and the character SPACE	36
13.1	Shared control functions	37
13.1.1	Carriage Return (CR).....	37
13.1.2	Graphic Character Composition (GCC).....	38
13.1.3	Identify Graphic Subrepertoire (IGS)	38
13.1.4	Line Feed (LF)	38
13.1.5	Partial Line Down (PLD).....	39
13.1.6	Partial Line Up (PLU).....	39
13.1.7	Set Character Spacing (SCS)	39
13.1.8	Select Graphic Rendition (SGR).....	39
13.1.9	Select Character Spacing (SHS)	42
13.1.10	Set Line Spacing (SLS).....	42
13.1.11	Start Reverse String (SRS).....	42
13.1.12	Selective Tabulation (STAB).....	42
13.1.13	Substitute Character (SUB).....	42
13.1.14	Select Line Spacing (SVS).....	43
13.1.15	Line Position Backward (VPB).....	43
13.1.16	Line Position Relative (VPR)	43
13.1.17	Code extension control functions.....	43
13.2	Layout control functions	43
13.2.1	Backspace (BS).....	43
13.2.2	Character Position Backward (HPB)	44
13.2.3	Character Position Relative (HPR)	44
13.2.4	No Justify (JFY).....	44
13.2.5	Set Additional Character Separation (SACS)	44
13.2.6	Set Reduced Character Separation (SRCS).....	44
13.2.7	Set SPACE Width (SSW)	44
13.3	Logical control functions	45
13.3.1	Break Permitted Here (BPH)	45
13.3.2	No Break Here (NBH)	45
13.3.3	Parallel Texts (PTX)	45
13.4	Delimiters.....	45
13.4.1	Start Of Original String (SOOS).....	45
13.4.2	Start Of String (SOS)	45
13.4.3	String Terminator (ST)	45
13.5	SPACE (SP).....	45
14	Content layout process	46
14.1	Introduction.....	46
14.1.1	Purpose.....	46
14.1.2	Available area	46

14.1.3	Presentation attributes	46
14.1.4	Character content architecture classes	46
14.1.5	Use of delimiters	47
14.1.6	Layout of the content	47
14.1.7	Layout sequence	47
14.1.8	Character sets	47
14.2	Content layout process for processable content	48
14.2.1	Single basic logical object to single basic layout object	48
14.2.2	Single basic logical object to multiple basic layout objects	52
14.2.3	Multiple basic logical objects to single basic layout object	52
14.3	Content layout process for formatted processable content	53
14.4	Content layout process for formatted content	53
15	Content imaging process	53
15.1	Introduction	53
15.2	Content imaging process for formatted content	53
15.2.1	Determination of initial point	54
15.2.2	Choosing character images	54
15.2.3	Formatting indicator	54
15.3	Content imaging process for formatted processable content	54
16	Interactions between presentation attributes and control functions	54
17	Definition of character content architecture classes	55
17.1	Formatted character content architecture class	55
17.2	Processable character content architecture class	56
17.3	Formatted processable character content architecture class	56
Annex A	– SGML representation of character content-specific attributes for ODL	58
A.1	Introduction	58
A.2	Names and public identifiers	58
A.3	Representation of attribute values	58
A.3.1	Constructed parameters	58
A.3.2	Parentheses	59
A.3.3	Alternative representation	59
A.3.4	String parameters	59
A.3.5	Keyword parameters	59
A.3.6	Integer parameters	59
A.4	Presentation attributes	59
A.4.1	Shared presentation attributes (format attribute-directives)	59
A.4.2	Layout presentation attributes (format attributes)	60
A.4.3	Logical presentation attributes (format directives)	60
A.5	Coding attributes	60
Annex B	– Summary of content architecture classes	61
B.1	Formatted character content architecture class	61
B.2	Processable character content architecture class	63
B.3	Formatted processable character content architecture class	65
Annex C	– Coded representations of control functions	67
Annex D	– Summary of object identifiers	68

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 8613-6 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 Rec. T.416.

This second edition cancels and replaces the first edition (ISO 8613-6:1989), 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*

Annex A forms an integral part of this part of ISO/IEC 8613. Annexes B, C and D are for information only.

Introduction

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

At present, the ITU-T Set of Recommendations in the T.410 series | International Standard ISO 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 set of ITU-T Recommendations | International Standards was originally in parallel with 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 (1998) 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 four annexes:

- Annex A (integral): SGML representation of character content-specific attributes for ODL;
- Annex B (non-integral): Summary of content architecture classes Summary of content architecture classes;
- Annex C (non-integral): Coded representations of control functions;
- Annex D (non-integral): Summary of object identifiers.

INTERNATIONAL STANDARD**ITU-T RECOMMENDATION****INFORMATION TECHNOLOGY –
OPEN DOCUMENT ARCHITECTURE (ODA) AND INTERCHANGE FORMAT:
CHARACTER 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 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, raster graphic elements and geometric graphic 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 communications 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 character content architecture that can be used in conjunction with the document architecture defined in ITU-T Rec. T.412 | ISO/IEC 8613-2;
- defines the internal structure of content conforming to this character content architecture;
- defines those aspects of rendition applicable to the presentation of character content;
- defines the presentation and content portion attributes applicable to this character content architecture;
- describes a character content layout process which, together with the document processing model described in ITU-T Rec. T.412 | ISO/IEC 8613-2, determines the layout of character content in basic layout objects.

2 Normative references

The following ITU-T Recommendations and International Standards contain provisions which, through references, in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and 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 edition of the Recommendations and 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 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.417 (1993) | ISO/IEC 8613-7:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Raster graphics content architectures*.
- ITU-T Recommendation T.418 (1993) | ISO/IEC 8613-8:1994, *Information technology – Open Document Architecture (ODA) and Interchange Format: Geometric 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 2022:1986, *Information processing – ISO 7-bit and 8-bit coded character sets – Code extension techniques*.
- ISO 2375:1985, *Data processing – Procedure for registration of escape sequences*.
- ISO/IEC 6429:1992, *Information technology – Control functions for coded character sets*.
- ISO 6937-1:1983, *Information processing – Coded character sets for text communication – Part 1: General introduction*.
- ISO 6937-2:1983, *Information processing – Coded character sets for text communication – Part 2: Latin alphabetic and non-alphabetic graphic characters*.
- ISO/IEC 7350:1991, *Information technology – Registration of repertoires of graphic characters from ISO 10367*.
- ISO/IEC 8613-10:1991, *Information technology – Text and office systems – Open Document Architecture (ODA) and interchange format – Part 10: Formal specifications*.
- ISO 8879:1986, *Information processing – Text and office systems – Standard Generalized Markup Language (SGML)*.
- ISO/IEC 9541-1:1991, *Information technology – Font information interchange: Part 1 – Architecture*.