

ISO/IEC 8613-7:1994-11 (E)

Information technologie - Open Document Architecture (ODA) and interchange format: Raster graphics content architecture

Contents		Page
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	2
5	Conventions	3
6	General principles	3
6.1	Content architecture classes	3
6.1.1	Formatted content architecture class	3
6.1.2	Formatted processable content architecture class	3
6.2	Content	4
6.2.1	Binary mode.....	4
6.2.2	Colour mode	4
6.3	Presentation attributes	4
6.4	Content portion attributes	4
6.5	Coding of content information.....	4
6.6	Picture element (pel) array	4
6.7	Colour spaces applicable to the raster graphics content architecture	5
7	Principles of positioning pels	5
7.1	Basic concepts	6
7.1.1	Measurement units and directions	6
7.1.2	Coordinate systems	6
7.2	Pel image model	6
7.3	Positioning of pels	6
7.3.1	The clipped pel array	7
7.3.2	Discarded pels	7
7.4	Tiling	7
7.5	Positioning of pels in a basic layout object	9
7.5.1	Positioning Parameters	9
7.5.2	Positioning rules for formatted content.....	10
7.5.3	Positioning rules for formatted processable content.....	10
8	Definition of raster graphics presentation attributes	10
8.1	Shared presentation attributes	11
8.1.1	Clipping	11
8.1.2	Line Progression	12
8.1.3	Pel path.....	12
8.2	Layout presentation attributes.....	12
8.2.1	Initial offset	12
8.2.2	Pel transmission density	13
8.3	Logical presentation attributes.....	14
8.3.1	Image dimensions	14
8.3.2	Pel spacing.....	15
8.3.3	Spacing ratio.....	15

8.4	Content architecture class attributes	15
8.4.1	Content architecture class.....	15
9	Definition of raster graphics content portion attributes.....	16
9.1	Common coding attributes	16
9.1.1	Type of coding	16
9.2	Other coding attributes	17
9.2.1	Compression	17
9.2.2	Number of lines.....	18
9.2.3	Number of pels per line 1	8
9.2.4	Number of discarded pels.....	19
9.2.5	Number of lines per tile.....	19
9.2.6	Number of pels per tile line.....	19
9.2.7	Tiling offset.....	19
9.2.8	Tile types	20
9.2.9	Bits per colour component.....	20
9.2.10	Interleaving format	21
9.3	Content information attributes	21
9.4	Interactions with document architecture attributes.....	21
10	Formal definitions of raster graphics content architecture dependent data types	21
10.1	Introduction.....	21
10.2	Representation of presentation attributes	22
10.3	Representation of coding attributes.....	23
10.4	Representation of non-basic features and non-standard defaults.....	24
11	Coding schemes	25
11.1	CCITT Rec. T.6 encoding scheme.....	25
11.2	CCITT Rec. T.4 encoding schemes.....	25
11.3	Bitmap encoding scheme	26
11.4	Tiled encoding scheme	26
11.5	Direct value encoding scheme	27
11.6	Octet run-length encoding scheme	27
11.7	Packed index encoding scheme	27
12	Content layout process.....	28
12.1	Introduction	28
12.1.1	Purpose.....	28
12.1.2	Available area.....	28
12.1.3	Presentation attributes.....	28
12.1.4	Coding attributes	28
12.1.5	Raster graphics content architecture classes.....	28
12.1.6	Layout of the content	29
12.2	Notation	29
12.3	The fixed dimension content layout method	29
12.4	The scalable dimension content layout method	30
13	Content imaging process.....	31
13.1	Introduction	36
13.2	Content imaging process for formatted form	36
13.3	Content imaging process for formatted processable form.....	36
14	Definition of raster graphics content architecture classes.....	36
14.1	Summary of raster graphics presentation attributes.....	36
14.2	Summary of raster graphic content portion attributes	37
Annex A - Summary of raster graphics content architecture classes		38
A.1	Formatted raster graphics content architecture class.....	38
A.1.1	Presentation attributes	38
A.1.2	Content portion attributes.....	38
A.2	Formatted processable raster graphics content architecture class.....	39
A.2.1	Presentation attributes	39

A.2.2 Content portion attributes	40
Annex B - Summary of ASN.1 object identifiers	41
Annex C - SGML representation of raster graphics content-specific attributes for ODL.....	42
C.1 Introduction	42
C.2 Names and public identifiers.....	42
C.3 Representation of attribute values.....	42
C.3.1 Constructed Parameters	42
C.3.2 String parameters	42
C.3.3 Key word parameters	43
C.3.4 Integer parameters.....	43
C.4 Presentation attributes.....	43
C.4.1 Shared presentation attributes (format attribute-directives)	43
C.4.2 Layout presentation attributes (formal attributes)	43
C.4.3 Logical presentation attributes (format directives).....	43
C.5 Coding attributes	44
Index	45

LIST OF TABLES

Table 1 - Raster graphics presentation attributes	11
Table 2 - Default values of the presentation attribute "initial offset" (position of initial point)	13
Table 3 - Relation of pel spacing and line spacing to resolution	13
Table 4 - Default value of the presentation attribute "number of pels per line"	18
Table 5 - Dimensions of basic layout object.....	29
Table 6 - Raster graphics presentation attributes	37
Table 7 - Raster graphics content portion attributes.....	37
Table A.1 - Formatted raster graphics content architecture class presentation attributes	38
Table A.2 - Formatted processable raster graphics content architecture class content portion attributes	38
Table A.3 - Formatted processable raster graphics content architecture class presentation attributes	39
Table A.4 - Formatted processable raster graphics content architecture class content portion attributes	40
Table B.1 - Summary of ASN. 1 object identifiers	41

LIST OF FIGURES

Figure 1 - Relationships among the colour spaces for the Raster Graphics Content Architecture.....	5
Figure 2 - Example of direction.....	6
Figure 3 - Example of clipping a content portion.....	7
Figure 4 - Location of the pel array in the set of tiles.....	8
Figure 5 - Example of the tile content ordering.....	8
Figure 6 - Positioning of pels of the clipped pel array within a basic layout object	9

Figure 7 - Diagrams used to illustrate the process of determining the basic layout object dimensions..... 32

Figure 8 - Layout process for the presentation attribute "image dimensions" when a value is specified for the Parameter "automatic" 33

Figure 9 - Layout process for the presentation attribute "image dimensions" when a value is specified for the Parameter "width controlled" or "height controlled" 34

Figure 10 - Layout process for the presentation attribute "image dimensions" when a value is specified for the Parameter "area controlled" 35