

ISO 32000-1:2008-07 (E)

Document management - Portable document format - Part 1: PDF 1.7

Contents		Page
Foreword		vi
Introduction		vii
1	Scope	1
2	Conformance	1
2.1	General	1
2.2	Conforming readers	1
2.3	Conforming writers	1
2.4	Conforming products	2
3	Normative references	2
4	Terms and definitions	6
5	Notation	10
6	Version Designations	10
7	Syntax	11
7.1	General	11
7.2	Lexical Conventions	11
7.3	Objects	13
7.4	Filters	22
7.5	File Structure	38
7.6	Encryption	55
7.7	Document Structure	70
7.8	Content Streams and Resources	81
7.9	Common Data Structures	84
7.10	Functions	92
7.11	File Specifications	99
7.12	Extensions Dictionary	108
8	Graphics	110
8.1	General	110
8.2	Graphics Objects	110
8.3	Coordinate Systems	114
8.4	Graphics State	121
8.5	Path Construction and Painting	131
8.6	Colour Spaces	138
8.7	Patterns	173
8.8	External Objects	201
8.9	Images	203
8.10	Form XObjects	217
8.11	Optional Content	222
9	Text	237
9.1	General	237
9.2	Organization and Use of Fonts	237
9.3	Text State Parameters and Operators	243
9.4	Text Objects	248

9.5	Introduction to Font Data Structures	253
9.6	Simple Fonts	254
9.7	Composite Fonts	267
9.8	Font Descriptors	281
9.9	Embedded Font Programs	288
9.10	Extraction of Text Content	292
10	Rendering	296
10.1	General	296
10.2	CIE-Based Colour to Device Colour	297
10.3	Conversions among Device Colour Spaces	297
10.4	Transfer Functions	300
10.5	Halftones	301
10.6	Scan Conversion Details	316
11	Transparency	320
11.1	General	320
11.2	Overview of Transparency	320
11.3	Basic Compositing Computations	322
11.4	Transparency Groups	332
11.5	Soft Masks	342
11.6	Specifying Transparency in PDF	344
11.7	Colour Space and Rendering Issues	353
12	Interactive Features	362
12.1	General	362
12.2	Viewer Preferences	362
12.3	Document-Level Navigation	365
12.4	Page-Level Navigation	374
12.5	Annotations	381
12.6	Actions	414
12.7	Interactive Forms	430
12.8	Digital Signatures	466
12.9	Measurement Properties	479
12.10	Document Requirements	484
13	Multimedia Features	486
13.1	General	486
13.2	Multimedia	486
13.3	Sounds	506
13.4	Movies	507
13.5	Alternate Presentations	509
13.6	3D Artwork	511
14	Document Interchange	547
14.1	General	547
14.2	Procedure Sets	547
14.3	Metadata	548
14.4	File Identifiers	551
14.5	Page-Piece Dictionaries	551
14.6	Marked Content	552
14.7	Logical Structure	556
14.8	Tagged PDF	573
14.9	Accessibility Support	610
14.10	Web Capture	616
14.11	Prepress Support	627
Annex A (informative) Operator Summary		643
Annex B (normative) Operators in Type 4 Functions		647
Annex C (normative) Implementation Limits		649
Annex D (normative) Character Sets and Encodings		651
Annex E (normative) PDF Name Registry		673

Annex F (normative) Linearized PDF	675
Annex G (informative) Linearized PDF Access Strategies	695
Annex H (informative) Example PDF Files	699
Annex I (normative) PDF Versions and Compatibility	727
Annex J (informative) FDF Rename Flag Implementation Example	729
Annex K (informative) PostScript Compatibility -- Transparent Imaging Model	731
Annex L (informative) Colour Plates	733
Bibliography	745