

ISO/IEC 26300 :2006-12 (E)

Information technology_ - Open Document Format for Office Applications (OpenDocument)_v1.0

Table of Contents

1 Introduction.....	30
1.1 Introduction.....	30
1.2 Notation.....	30
1.3 Namespaces.....	30
1.4 Relax-NG Schema.....	32
1.5 Document Processing and Conformance.....	33
1.6 White-Space Processing and EOL Handling.....	34
1.7 MIME Types and File Name Extensions.....	34
2 Document Structure.....	36
2.1 Document Roots.....	36
2.1.1 Document Root Element Content Models.....	37
2.1.2 Document Root Attributes.....	38
2.2 Document Metadata.....	39
2.2.1 Pre-Defined vs. Custom Metadata.....	39
2.2.2 Sample Metadata.....	40
2.3 Body Element and Document Types.....	40
2.3.1 Text Documents.....	41
2.3.2 Drawing Documents.....	42
2.3.3 Presentation Documents.....	43
2.3.4 Spreadsheet Documents.....	44
2.3.5 Chart Documents.....	45
2.3.6 Image Documents.....	46
2.4 Application Settings.....	46
2.4.1 Sequence of Settings.....	47
2.4.2 Base Settings.....	47
2.4.3 Index Access of Sequences.....	48
2.4.4 Map Entry.....	48
2.4.5 Name Access of Sequences.....	49
2.4.6 Cursor Position Setting.....	49
2.5 Scripts.....	50
2.5.1 Script.....	50
2.6 Font Face Declarations.....	51
2.7 Styles.....	51
2.7.1 Location of Styles	52

2.8 Page Styles and Layout.....	54
3 Meta Data Elements.....	56
3.1 Pre-Defined Metadata Elements.....	56
3.1.1 Generator.....	56
3.1.2 Title.....	56
3.1.3 Description.....	56
3.1.4 Subject.....	57
3.1.5 Keywords.....	57
3.1.6 Initial Creator	57
3.1.7 Creator.....	57
3.1.8 Printed By.....	57
3.1.9 Creation Date and Time.....	58
3.1.10 Modification Date and Time.....	58
3.1.11 Print Date and Time.....	58
3.1.12 Document Template.....	58
3.1.13 Automatic Reload.....	59
3.1.14 Hyperlink Behavior.....	60
3.1.15 Language.....	61
3.1.16 Editing Cycles.....	61
3.1.17 Editing Duration.....	62
3.1.18 Document Statistics.....	62
3.2 User-defined Metadata.....	64
3.3 Custom Metadata.....	65
4 Text Content.....	66
4.1 Headings, Paragraphs and Basic Text Structure.....	66
4.1.1 Headings.....	66
4.1.2 Paragraphs.....	67
4.1.3 Common Paragraph Elements Attributes.....	67
4.2 Page Sequences.....	68
4.2.1 Page.....	69
4.3 Lists.....	70
4.3.1 List Block.....	70
4.3.2 List Item.....	71
4.3.3 List Header.....	73
4.3.4 Numbered Paragraphs.....	73
4.4 Text Sections.....	74
4.4.1 Section Attributes.....	74

4.4.2 Section Source.....	76
4.4.3 DDE Source.....	77
4.5 Page-bound graphical content.....	78
4.6 Change Tracking.....	78
4.6.1 Tracked Changes.....	78
4.6.2 Changed Regions.....	78
4.6.3 Insertion.....	79
4.6.4 Deletion.....	79
4.6.5 Format Change.....	81
4.6.6 Change Info.....	81
4.6.7 Change Marks.....	82
4.7 Text Declarations.....	82
5 Paragraph Elements Content.....	84
5.1 Basic Text Content.....	84
5.1.1 White-space Characters.....	84
5.1.2 Soft Hyphens, Hyphens, and Non-breaking Blanks.....	86
5.1.3 Attributed Text.....	86
5.1.4 Hyperlinks.....	87
5.2 Bookmarks and References.....	89
5.2.1 Bookmarks.....	89
5.2.2 References.....	90
5.3 Notes.....	91
5.3.1 Note Element.....	91
5.4 Ruby.....	93
5.5 Text Annotation.....	94
5.6 Index Marks.....	94
5.7 Change Tracking and Change Marks.....	94
5.8 Inline graphics and text-boxes.....	94
6 Text Fields.....	95
6.1 Common Characteristics of Field Elements.....	95
6.2 Document Fields.....	96
6.2.1 Date Fields.....	96
6.2.2 Time Fields.....	97
6.2.3 Page Number Fields.....	99
6.2.4 Page Continuation Text.....	100
6.2.5 Sender Fields.....	101
6.2.6 Author Fields.....	104

6.2.7 Chapter Fields.....	104
6.2.8 File Name Fields.....	105
6.2.9 Document Template Name Fields.....	106
6.2.10 Sheet Name Fields.....	107
6.3 Variable Fields.....	107
6.3.1 Declaring Simple Variables.....	108
6.3.2 Setting Simple Variables.....	108
6.3.3 Displaying Simple Variables.....	109
6.3.4 Simple Variable Input Fields.....	110
6.3.5 Declaring User Variables.....	111
6.3.6 Displaying User Variables.....	111
6.3.7 User Variable Input Fields.....	112
6.3.8 Declaring Sequence Variables.....	113
6.3.9 Using Sequence Fields.....	114
6.3.10 Expression Fields.....	115
6.3.11 Text Input Fields.....	116
6.4 Metadata Fields.....	116
6.4.1 Initial Creator.....	117
6.4.2 Document Creation Date.....	117
6.4.3 Document Creation Time.....	117
6.4.4 Document Description.....	117
6.4.5 User-Defined Document Information.....	118
6.4.6 Print Time.....	118
6.4.7 Print Date.....	119
6.4.8 Printed By.....	119
6.4.9 Document Title.....	119
6.4.10 Document Subject.....	119
6.4.11 Document Keywords.....	120
6.4.12 Document Revision Number.....	120
6.4.13 Document Edit Duration.....	120
6.4.14 Document Modification Time.....	120
6.4.15 Document Modification Date.....	121
6.4.16 Document Modified By.....	121
6.4.17 Document Statistics Fields.....	121
6.5 Database Fields.....	122
6.5.1 Database Field Data Source.....	123
6.5.2 Displaying Database Content.....	124

6.5.3	Selecting the Next Database Row.....	124
6.5.4	Selecting a Row Number.....	125
6.5.5	Displaying the Row Number.....	126
6.5.6	Display Current Database and Table.....	127
6.6	More Fields.....	127
6.6.1	Page Variable Fields.....	127
6.6.2	Placeholders.....	128
6.6.3	Conditional Text Fields.....	129
6.6.4	Hidden Text Field.....	131
6.6.5	Reference Fields.....	132
6.6.6	Script Fields.....	134
6.6.7	Macro Fields.....	135
6.6.8	Hidden Paragraph Fields.....	136
6.6.9	DDE Connection Fields.....	137
6.6.10	Measure Fields.....	137
6.6.11	Table Formula Field.....	137
6.7	Common Field Attributes.....	138
6.7.1	Variable Value Types and Values.....	138
6.7.2	Fixed.....	140
6.7.3	Variable Name.....	140
6.7.4	Description	141
6.7.5	Display.....	141
6.7.6	Formula.....	142
6.7.7	Formatting Style.....	143
6.7.8	Number Formatting Style.....	143
7	Text Indices.....	145
7.1	Index Marks.....	145
7.1.1	Table of Content Index Marks.....	145
7.1.2	User-Defined Index Marks.....	146
7.1.3	Alphabetical Index Mark.....	147
7.1.4	Bibliography Index Mark.....	149
7.2	Index Structure.....	150
7.2.1	Index Source.....	150
7.2.2	Index Body Section.....	151
7.2.3	Index Title Section.....	151
7.3	Table Of Content.....	151
7.3.1	Table of Content Source.....	152

7.3.2 Table of Content Entry Template.....	154
7.4 Index of Illustrations.....	155
7.4.1 Index of Illustration Source.....	156
7.4.2 Illustration Index Entry Template.....	157
7.5 Index of Tables.....	158
7.5.1 Table Index Source.....	158
7.5.2 Table Index Entry Template.....	159
7.6 Index of Objects.....	159
7.6.1 Object Index Source.....	159
7.6.2 Object Index Entry Template.....	161
7.7 User-Defined Index.....	161
7.7.1 User-Defined Index Source.....	161
7.7.2 User-Defined Index Entry Template.....	163
7.8 Alphabetical Index.....	164
7.8.1 Alphabetical Index Source.....	164
7.8.2 Auto Mark File.....	168
7.8.3 Alphabetical Index Entry Template.....	168
7.9 Bibliography.....	169
7.9.1 Bibliography Index Source.....	169
7.9.2 Bibliography Entry Template.....	170
7.10 index source styles.....	170
7.10.1 Index source style.....	171
7.11 Index title template.....	171
7.12 Index Template Entries.....	171
7.12.1 Chapter Information.....	172
7.12.2 Entry Text.....	172
7.12.3 Page Number.....	172
7.12.4 Fixed String.....	173
7.12.5 Bibliography Information.....	173
7.12.6 Tab Stop.....	174
7.12.7 Hyperlink Start and End.....	175
7.12.8 Example of an Index Entry Configuration.....	176
8 Tables.....	178
8.1 Basic Table Model.....	178
8.1.1 Table Element.....	178
8.1.2 Table Row	181
8.1.3 Table Cell	183

8.2 Advanced Table Model.....	189
8.2.1 Column Description	189
8.2.2 Header Columns.....	190
8.2.3 Column Groups.....	191
8.2.4 Header Rows.....	191
8.2.5 Row Groups.....	192
8.2.6 Subtables	192
8.3 Advanced Tables.....	196
8.3.1 Referencing Table Cells.....	196
8.3.2 Linked Tables.....	197
8.3.3 Scenario Tables.....	199
8.3.4 Shapes.....	202
8.4 Advanced Table Cells	202
8.4.1 Linked Table Cells.....	202
8.4.2 Cell Annotation	203
8.4.3 Detective.....	203
8.4.4 Detective Operation.....	204
8.4.5 Highlighted Range.....	205
8.5 Spreadsheet Document Content.....	206
8.5.1 Document Protection.....	206
8.5.2 Calculation Settings.....	206
8.5.3 Table Cell Content Validations.....	209
8.5.4 Label Ranges.....	213
8.5.5 Named Expressions.....	215
8.6 Database Ranges.....	217
8.6.1 Database Range	217
8.6.2 Database Source SQL	220
8.6.3 Database Source Table	221
8.6.4 Database Source Query.....	221
8.6.5 Sort	222
8.6.6 Sort By	224
8.6.7 Subtotal Rules	225
8.6.8 Subtotal Sort Groups	226
8.6.9 Subtotal Rule	226
8.6.10 Subtotal Field	227
8.7 Filters.....	228
8.7.1 Table Filter.....	228

8.7.2 Filter And.....	230
8.7.3 Filter Or	230
8.7.4 Filter Condition	230
8.8 Data Pilot Tables.....	232
8.8.1 Data Pilot Table.....	233
8.8.2 Source Cell Range.....	237
8.8.3 Source Service.....	238
8.8.4 Data Pilot Field.....	239
8.8.5 Data Pilot Level.....	242
8.8.6 Data Pilot Subtotals.....	242
8.8.7 Data Pilot Subtotal.....	243
8.8.8 Data Pilot Members.....	243
8.8.9 Data Pilot Member.....	244
8.8.10 Data Pilot Display Info.....	245
8.8.11 Data Pilot Sort Info.....	246
8.8.12 Data Pilot Layout Info.....	246
8.8.13 Data Pilot Field Reference.....	247
8.8.14 Data Pilot Groups.....	249
8.8.15 Data Pilot Group.....	251
8.8.16 Data Pilot Group Member.....	252
8.9 Consolidation.....	252
8.10 DDE Links.....	254
8.11 Change Tracking in Spreadsheets.....	254
8.11.1 Tracked Changes.....	254
8.11.2 Insertion.....	255
8.11.3 Dependencies.....	256
8.11.4 Dependence.....	257
8.11.5 Deletions.....	257
8.11.6 Cell Content Deletion.....	257
8.11.7 Change Deletion.....	257
8.11.8 Deletion.....	258
8.11.9 Cut Offs.....	259
8.11.10 Insertion Cut Off.....	260
8.11.11 Movement Cut Off.....	260
8.11.12 Movement.....	261
8.11.13 Target Range Address, Source Range Address.....	262
8.11.14 Change Track Cell.....	263

8.11.15 Cell Content Change.....	264
8.11.16 Cell Address.....	265
8.11.17 Previous.....	265
8.11.18 Common Change Tracking Attributes.....	266
9 Graphic Content.....	267
9.1 Enhanced Page Features for Graphical Applications.....	267
9.1.1 Handout Master.....	267
9.1.2 Layer Sets.....	268
9.1.3 Layer.....	269
9.1.4 Drawing Pages.....	269
9.1.5 Presentation Notes.....	273
9.2 Drawing Shapes.....	273
9.2.1 Rectangle.....	274
9.2.2 Line.....	274
9.2.3 Polyline.....	275
9.2.4 Polygon.....	276
9.2.5 Regular Polygon.....	276
9.2.6 Path.....	278
9.2.7 Circle.....	279
9.2.8 Ellipse.....	281
9.2.9 Connector.....	282
9.2.10 Caption.....	285
9.2.11 Measure.....	286
9.2.12 Control.....	287
9.2.13 Page Thumbnail.....	287
9.2.14 Grouping.....	288
9.2.15 Common Drawing Shape Attributes.....	289
9.2.16 Common Shape Attributes for Text and Spreadsheet Documents.....	292
9.2.17 Common Drawing Shape Content.....	295
9.2.18 Common Shape Attribute Groups.....	295
9.2.19 Glue Points.....	295
9.2.20 Event Listeners.....	297
9.3 Frames.....	297
9.3.1 Text Box.....	300
9.3.2 Image.....	302
9.3.3 Objects.....	303
9.3.4 Applet.....	305

9.3.5 Plugins.....	307
9.3.6 Parameters.....	308
9.3.7 Floating Frame.....	308
9.3.8 Contour.....	309
9.3.9 Alternative Text.....	310
9.3.10 Hyperlinks.....	310
9.3.11 Client Side Image Maps.....	312
9.4 3D Shapes.....	316
9.4.1 Scene.....	316
9.4.2 Light.....	320
9.4.3 Cube.....	321
9.4.4 Sphere.....	321
9.4.5 Extrude.....	322
9.4.6 Rotate.....	323
9.5 Custom Shape.....	323
9.5.1 Enhanced Geometry.....	324
9.5.2 Enhanced Geometry - Extrusion Attributes.....	327
9.5.3 Enhanced Geometry - Path Attributes.....	333
9.5.4 Enhanced Geometry - Text Path Attributes.....	337
9.5.5 Enhanced Geometry – Equation.....	338
9.5.6 Enhanced Geometry - Handle Attributes.....	340
9.6 Presentation Shapes.....	344
9.6.1 Common Presentation Shape Attributes.....	344
9.7 Presentation Animations.....	346
9.7.1 Sound.....	347
9.7.2 Show Shape.....	348
9.7.3 Show Text.....	351
9.7.4 Hide Shape.....	352
9.7.5 Hide Text.....	352
9.7.6 Dim.....	352
9.7.7 Play.....	353
9.7.8 Effect groups.....	353
9.8 SMIL Presentation Animations.....	353
9.8.1 Recommended Usage Of SMIL.....	354
9.8.2 Document Dependent SMIL Animation Attribute Values.....	355
9.8.3 SMIL Presentation Animation Attributes.....	357
9.9 Presentation Events.....	360

9.10 Presentation Text Fields.....	363
9.10.1 Header Field.....	363
9.10.2 Footer Field.....	363
9.10.3 Date and Time Field.....	363
9.11 Presentation Document Content.....	364
9.11.1 Presentation Declarations.....	364
9.11.2 Header field declaration.....	364
9.11.3 Footer field declaration.....	364
9.11.4 Date and Time field declaration.....	365
9.11.5 Presentation Settings.....	365
9.11.6 Show Definitions.....	369
10 Chart Content.....	371
10.1 Introduction to Chart Documents.....	371
10.2 Chart.....	371
10.3 Title, Subtitle and Footer.....	375
10.3.1 Title.....	375
10.3.2 Subtitle.....	376
10.3.3 Footer.....	376
10.4 Legend.....	376
10.5 Plot Area.....	378
10.5.1 3D Plot Area.....	380
10.6 Wall.....	380
10.7 Floor.....	381
10.8 Axis.....	382
10.8.1 Grid.....	383
10.9 Series.....	384
10.9.1 Domain.....	386
10.10 Categories.....	386
10.11 Data Point.....	386
10.12 Mean Value.....	387
10.13 Error Indicator.....	388
10.14 Regression Curves.....	388
10.14.1 Stock Chart Markers.....	389
11 Form Content.....	390
11.1 Form.....	391
11.1.1 Action.....	392
11.1.2 Target Frame.....	392

11.1.3 Method.....	393
11.1.4 Encoding Type.....	393
11.1.5 Allow Deletes.....	393
11.1.6 Allow Inserts.....	394
11.1.7 Allow Updates.....	394
11.1.8 Apply Filter.....	394
11.1.9 Command Type.....	394
11.1.10 Command.....	395
11.1.11 Data Source.....	395
11.1.12 Master Fields.....	395
11.1.13 Detail Fields.....	396
11.1.14 Escape Processing.....	396
11.1.15 Filter.....	396
11.1.16 Ignore Result.....	396
11.1.17 Navigation Mode.....	397
11.1.18 Order.....	397
11.1.19 Tabbing Cycle.....	397
11.1.20 Connection Resource.....	398
11.2 XForms Model.....	398
11.2.1 XForms Model.....	399
11.3 Controls.....	399
11.3.1 Text.....	400
11.3.2 Text Area.....	400
11.3.3 Password.....	401
11.3.4 File.....	402
11.3.5 Formatted Text.....	402
11.3.6 Number.....	404
11.3.7 Date And Time.....	405
11.3.8 Fixed Text.....	407
11.3.9 Combo Box.....	407
11.3.10 List Box.....	409
11.3.11 Button.....	410
11.3.12 Image.....	412
11.3.13 Check Box.....	412
11.3.14 Radio Button.....	414
11.3.15 Frame.....	415
11.3.16 Image Frame.....	415

11.3.17 Hidden.....	415
11.3.18 Grid.....	416
11.3.19 Value Range.....	417
11.3.20 Generic Control.....	419
11.4 Common Form and Control Attributes.....	419
11.4.1 Name.....	419
11.4.2 Control Implementation.....	420
11.4.3 Bind to XForms.....	420
11.5 Common Control Attributes.....	420
11.5.1 Button Type.....	420
11.5.2 Control ID.....	421
11.5.3 Current Selected.....	422
11.5.4 Value and Current Value.....	422
11.5.5 Disabled.....	423
11.5.6 Dropdown.....	424
11.5.7 For.....	424
11.5.8 Image Data.....	425
11.5.9 Label.....	425
11.5.10 Maximum Length.....	425
11.5.11 Printable.....	426
11.5.12 Read only.....	427
11.5.13 Selected.....	427
11.5.14 Size.....	427
11.5.15 Tab Index.....	428
11.5.16 Tab Stop.....	429
11.5.17 Target Frame.....	429
11.5.18 Target Location.....	430
11.5.19 Title.....	430
11.5.20 Visual Effect.....	431
11.5.21 Relative Image Position.....	431
11.5.22 Database Binding Attributes.....	432
11.6 Events.....	434
11.6.1 Events with an Equivalent HTML Event Type.....	434
11.6.2 Event Types.....	435
11.7 Properties.....	437
11.7.1 Property Set.....	437
11.7.2 Property.....	437

11.7.3 List Property.....	438
12 Common Content.....	441
12.1 Annotation.....	441
12.1.1 Creator.....	442
12.1.2 Creation Date and Time.....	442
12.1.3 Creation Date and Time String.....	442
12.2 Number Format.....	442
12.2.1 Prefix and Suffix.....	442
12.2.2 Format Specification.....	443
12.2.3 Letter Synchronization in Number Formats.....	443
12.3 Change Tracking Metadata.....	444
12.4 Event Listener Tables.....	444
12.4.1 Event Listener.....	445
12.5 Mathematical Content.....	446
12.6 DDE Connections.....	447
12.6.1 Container for DDE Connection Declarations.....	447
12.6.2 Declaring DDE Connections for Text Fields.....	447
12.6.3 Declaring DDE Connections for Tables	449
13 SMIL Animations.....	451
13.1 Basic Animation Elements.....	451
13.1.1 Animate.....	451
13.1.2 Set.....	451
13.1.3 Animate Motion.....	451
13.1.4 Animate Color.....	452
13.1.5 Animate Transform.....	453
13.1.6 Transition Filter.....	454
13.2 Animation Model Attributes.....	455
13.3 Common Animation Attributes.....	455
13.3.1 Animation Target Attributes.....	456
13.3.2 Animation Function Attributes.....	456
13.4 Animation Timing.....	459
13.4.1 Animation Timing Attributes.....	459
13.4.2 Parallel Animations.....	463
13.4.3 Sequential Animations.....	463
13.4.4 Iterative Animations.....	463
13.5 Media Elements.....	464
13.5.1 Audio.....	464

13.6 Special Elements.....	465
13.6.1 Command.....	465
14 Styles.....	467
14.1 Style Element.....	467
14.1.1 Style Mappings.....	471
14.2 Default Styles.....	473
14.3 Page Layout.....	473
14.3.1 Header and Footer Styles.....	474
14.4 Master Pages.....	475
14.4.1 Headers and Footers.....	477
14.4.2 Presentation Notes.....	479
14.5 Table Templates.....	481
14.5.1 Row and Column Styles.....	482
14.6 Font Face Declaration.....	483
14.6.1 CSS2/SVG Font Descriptors.....	484
14.6.2 Name.....	488
14.6.3 Adornments.....	488
14.6.4 Font Family Generic.....	488
14.6.5 Font Pitch.....	488
14.6.6 Font Character Set.....	489
14.7 Data Styles.....	489
14.7.1 Number Style.....	489
14.7.2 Currency Style.....	493
14.7.3 Percentage Style.....	495
14.7.4 Date Style.....	495
14.7.5 Time Style.....	501
14.7.6 Boolean Style.....	505
14.7.7 Text Style.....	505
14.7.8 Common Data Style Elements.....	506
14.7.9 Common Data Style Attributes.....	507
14.7.10 Transliteration.....	510
14.7.11 Common Data Style Child Element Attributes.....	511
14.8 Text Styles.....	513
14.8.1 Text Styles.....	513
14.8.2 Paragraph Styles.....	513
14.8.3 Section Styles.....	514
14.8.4 Ruby Style.....	514

14.9 Enhanced Text Styles.....	514
14.9.1 Line Numbering Configuration.....	514
14.9.2 Notes Configuration Element.....	518
14.9.3 Bibliography Configuration.....	521
14.10 List Style.....	523
14.10.1 Common List-Level Style Attributes.....	524
14.10.2 Number Level Style.....	525
14.10.3 Bullet Level Style.....	526
14.10.4 Image Level Style.....	528
14.10.5 List Level Style Example.....	528
14.11 Outline Style.....	529
14.11.1 Outline Level Style.....	529
14.12 Table Styles.....	531
14.12.1 Table Styles.....	531
14.12.2 Table Column Styles.....	531
14.12.3 Table Row Styles.....	532
14.12.4 Table Cell Styles.....	532
14.13 Graphic Styles.....	532
14.13.1 Graphic and Presentation Styles.....	532
14.13.2 Drawing Page Style.....	533
14.14 Enhanced Graphic Style Elements.....	534
14.14.1 Gradient.....	534
14.14.2 SVG Gradients.....	537
14.14.3 Hatch.....	540
14.14.4 Fill Image.....	542
14.14.5 Opacity Gradient.....	543
14.14.6 Marker.....	544
14.14.7 Stroke Dash.....	544
14.15 Presentation Page Layouts.....	546
14.15.1 Presentation Placeholder.....	547
14.16 Chart Styles.....	548
15 Formatting Properties.....	549
15.1 Simple and Complex Formatting Properties.....	549
15.1.1 Simple Formatting Properties.....	549
15.1.2 Complex Formatting Properties.....	550
15.1.3 Processing Rules for Formatting Properties.....	550
15.2 Page Layout Formatting Properties.....	550

15.2.1 Page Size.....	551
15.2.2 Page Number Format.....	551
15.2.3 Paper Tray.....	552
15.2.4 Print Orientation.....	552
15.2.5 Margins.....	552
15.2.6 Border.....	553
15.2.7 Border Line Width.....	553
15.2.8 Padding.....	553
15.2.9 Shadow.....	553
15.2.10 Background.....	553
15.2.11 Columns.....	554
15.2.12 Register-truth.....	554
15.2.13 Print.....	554
15.2.14 Print Page Order.....	555
15.2.15 First Page Number.....	555
15.2.16 Scale.....	555
15.2.17 Table Centering.....	556
15.2.18 Maximum Footnote Height.....	556
15.2.19 Writing Mode.....	557
15.2.20 Footnote Separator.....	557
15.2.21 Layout Grid.....	558
15.2.22 Layout Grid Base Height.....	558
15.2.23 Layout Grid Ruby Height.....	559
15.2.24 Layout Grid Lines.....	559
15.2.25 Layout Grid Color.....	559
15.2.26 Layout Grid Ruby Below.....	559
15.2.27 Layout Grid Print.....	560
15.2.28 Layout Grid Display.....	560
15.3 Header Footer Formatting Properties.....	560
15.3.1 Fixed and Minimum heights.....	561
15.3.2 Margins.....	561
15.3.3 Border.....	561
15.3.4 Border Line Width.....	561
15.3.5 Padding.....	562
15.3.6 Background.....	562
15.3.7 Shadow.....	562
15.3.8 Dynamic Spacing.....	562

15.4 Text Formatting Properties.....	563
15.4.1 Font Variant.....	563
15.4.2 Text Transformations.....	563
15.4.3 Color.....	564
15.4.4 Window Font Color.....	564
15.4.5 Text Outline.....	564
15.4.6 Line-Through Type.....	564
15.4.7 Line-Through Style.....	565
15.4.8 Line-Through Width.....	565
15.4.9 Line-Through Color.....	565
15.4.10 Line-Through Text.....	566
15.4.11 Line-Through Text Style.....	566
15.4.12 Text Position.....	566
15.4.13 Font Name.....	567
15.4.14 Font Family.....	567
15.4.15 Font Family Generic.....	568
15.4.16 Font Style.....	569
15.4.17 Font Pitch.....	569
15.4.18 Font Character Set.....	570
15.4.19 Font Size.....	570
15.4.20 Relative Font Size.....	571
15.4.21 Script Type.....	571
15.4.22 Letter Spacing.....	572
15.4.23 Language.....	572
15.4.24 Country.....	573
15.4.25 Font Style.....	573
15.4.26 Font Relief.....	574
15.4.27 Text Shadow.....	574
15.4.28 Underlining Type.....	575
15.4.29 Underlining Style.....	575
15.4.30 Underling Width.....	575
15.4.31 Underline Color.....	576
15.4.32 Font Weight.....	576
15.4.33 Text Underline Word Mode.....	577
15.4.34 Text Line-Through Word Mode.....	577
15.4.35 Letter Kerning.....	578
15.4.36 Text Blinking.....	578

15.4.37 Text Background Color.....	578
15.4.38 Text Combine.....	578
15.4.39 Text Combine Start and End Characters.....	579
15.4.40 Text Emphasis.....	579
15.4.41 Text Scale.....	579
15.4.42 Text Rotation Angle.....	580
15.4.43 Text Rotation Scale.....	580
15.4.44 Hyphenation.....	580
15.4.45 Hyphenation Remain Char Count.....	581
15.4.46 Hyphenation Push Char Count.....	581
15.4.47 Hidden or Conditional Text.....	581
15.5 Paragraph Formatting Properties.....	582
15.5.1 Fixed Line Height.....	582
15.5.2 Minimum Line Height.....	582
15.5.3 Line Distance.....	583
15.5.4 Font-Independent Line Spacing.....	583
15.5.5 Text Align.....	583
15.5.6 Text Align of Last Line.....	584
15.5.7 Justify Single Word.....	584
15.5.8 Keep Together.....	584
15.5.9 Widows.....	585
15.5.10 Orphans.....	585
15.5.11 Tab Stops.....	585
15.5.12 Tab Stop Distance.....	588
15.5.13 Hyphenation Keep.....	589
15.5.14 Maximum Hyphens.....	589
15.5.15 Drop Caps.....	589
15.5.16 Register True	591
15.5.17 Left and Right Margins.....	591
15.5.18 Text Indent.....	592
15.5.19 Automatic Text Indent.....	592
15.5.20 Top and Bottom Margins.....	592
15.5.21 Margins.....	593
15.5.22 Break Before and Break After.....	593
15.5.23 Paragraph Background Color.....	594
15.5.24 Paragraph Background Image.....	594
15.5.25 Border.....	596

15.5.26 Border Line Width.....	597
15.5.27 Padding.....	598
15.5.28 Shadow.....	599
15.5.29 Keep with Next.....	599
15.5.30 Line Numbering.....	600
15.5.31 Line Number Start Value.....	600
15.5.32 Text Autospace.....	600
15.5.33 Punctuation Wrap.....	600
15.5.34 Line Break.....	601
15.5.35 Vertical Alignment.....	601
15.5.36 Writing Mode.....	602
15.5.37 Automatic Writing Mode.....	602
15.5.38 Snap To Layout.....	602
15.5.39 Page Number.....	603
15.5.40 Background Transparency.....	603
15.6 Ruby Text Formatting Properties.....	603
15.6.1 Ruby Position.....	604
15.6.2 Ruby Alignment.....	604
15.7 Section Formatting Properties.....	604
15.7.1 Section Background.....	604
15.7.2 Margins.....	605
15.7.3 Columns.....	605
15.7.4 Column Specification.....	606
15.7.5 Column Separator.....	607
15.7.6 Protect.....	609
15.7.7 Don't Balance Text Columns.....	609
15.7.8 Writing Mode.....	609
15.7.9 Notes Configuration.....	610
15.8 Table Formatting Properties.....	610
15.8.1 Table Width.....	610
15.8.2 Table Alignment.....	611
15.8.3 Table Left and Right Margin.....	611
15.8.4 Table Top and Bottom Margin.....	611
15.8.5 Table Margins.....	611
15.8.6 Page Number.....	612
15.8.7 Break Before and Break After.....	612
15.8.8 Table Background and Background Image.....	612

15.8.9 Table Shadow.....	612
15.8.10 Keep with Next.....	612
15.8.11 May Break Between Rows.....	613
15.8.12 Border Model Property.....	613
15.8.13 Writing Mode.....	613
15.8.14 Display.....	613
15.9 Column Formatting Properties.....	614
15.9.1 Column Width.....	614
15.9.2 Optimal Table Column Width.....	615
15.9.3 Break Before and Break After.....	615
15.10 Table Row Formatting Properties.....	615
15.10.1 Row Height.....	615
15.10.2 Optimal Table Row Height.....	616
15.10.3 Row Background.....	616
15.10.4 Break Before and Break After.....	616
15.10.5 Keep Together.....	616
15.11 Table Cell Formatting Properties.....	617
15.11.1 Vertical Alignment.....	617
15.11.2 Text Align Source.....	617
15.11.3 Direction.....	618
15.11.4 Vertical Glyph Orientation.....	618
15.11.5 Cell Shadow.....	618
15.11.6 Cell Background.....	618
15.11.7 Cell Border.....	619
15.11.8 Diagonal Lines.....	619
15.11.9 Border Line Width.....	619
15.11.10 Padding.....	620
15.11.11 Wrap Option.....	620
15.11.12 Rotation Angle.....	620
15.11.13 Rotation Align.....	620
15.11.14 Cell Protect.....	621
15.11.15 Print Content.....	621
15.11.16 Decimal places.....	622
15.11.17 Repeat Content.....	622
15.11.18 Shrink To Fit.....	622
15.12 List-Level Style Properties.....	622
15.13 Stroke Properties.....	625

15.13.1 Stroke Style.....	625
15.13.2 Dash.....	625
15.13.3 Multiple Dashes.....	626
15.13.4 Width.....	626
15.13.5 Color.....	626
15.13.6 Start Marker.....	626
15.13.7 End Marker.....	627
15.13.8 Start Marker Width.....	627
15.13.9 End Marker Width.....	627
15.13.10 Start Marker Center.....	627
15.13.11 End Marker Center.....	627
15.13.12 Opacity.....	628
15.13.13 Line Join.....	628
15.14 Fill Properties.....	628
15.14.1 Fill Style.....	629
15.14.2 Color.....	629
15.14.3 Secondary Fill Color.....	630
15.14.4 Gradient.....	630
15.14.5 Gradient Step Count.....	630
15.14.6 Hatch.....	630
15.14.7 Solid Hatch.....	631
15.14.8 Fill Image.....	631
15.14.9 Fill Image Rendering Style.....	631
15.14.10 Fill Image Size.....	631
15.14.11 Fill Image Tile Reference Point.....	632
15.14.12 Fill Image Tile Translation.....	632
15.14.13 None and Linear Opacity.....	633
15.14.14 Gradient Opacity.....	633
15.14.15 Fill Rule.....	633
15.14.16 Symbol color.....	634
15.15 Text Animation Properties.....	634
15.15.1 Animation.....	634
15.15.2 Animation Direction.....	635
15.15.3 Animation Start Inside.....	635
15.15.4 Animation Stop Inside.....	635
15.15.5 Animation Repeat.....	635
15.15.6 Animation Delay.....	636

15.15.7 Animation Steps.....	636
15.16 Text and Text Alignment Properties.....	636
15.16.1 Auto Grow Width and Height.....	636
15.16.2 Fit To Size.....	637
15.16.3 Fit To Contour.....	637
15.16.4 Text Area Vertical Align.....	637
15.16.5 Text Area Horizontal Align.....	637
15.16.6 Word Wrap.....	638
15.16.7 List Styles.....	638
15.17 Color Properties.....	638
15.17.1 Color Mode	638
15.17.2 Color Inversion.....	639
15.17.3 Adjust Luminance.....	639
15.17.4 Adjust Contrast.....	639
15.17.5 Adjust Gamma.....	639
15.17.6 Adjust Red.....	640
15.17.7 Adjust Green.....	640
15.17.8 Adjust Blue.....	640
15.17.9 Adjust Opacity.....	640
15.18 Shadow Properties.....	640
15.18.1 Shadow.....	641
15.18.2 Offset.....	641
15.18.3 Color.....	641
15.18.4 Opacity.....	641
15.19 Connector Properties.....	642
15.19.1 Start Line Spacing.....	642
15.19.2 End Line Spacing.....	642
15.20 Measure Properties.....	642
15.20.1 Line Distance.....	642
15.20.2 Guide Overhang.....	643
15.20.3 Guide Distance.....	643
15.20.4 Start Guide.....	643
15.20.5 End Guide.....	643
15.20.6 Placing.....	644
15.20.7 Parallel.....	644
15.20.8 Text Alignment.....	644
15.20.9 Unit.....	645

15.20.10 Show Unit.....	645
15.20.11 Decimal Places.....	645
15.21 Caption Properties.....	645
15.21.1 Type.....	646
15.21.2 Angle Type.....	646
15.21.3 Angle.....	646
15.21.4 Gap.....	647
15.21.5 Escape Direction.....	647
15.21.6 Escape.....	647
15.21.7 Line Length.....	648
15.21.8 Fit Line Length.....	648
15.22 3D Geometry Properties.....	648
15.22.1 Horizontal Segments.....	648
15.22.2 Vertical Segments.....	648
15.22.3 Edge Rounding.....	649
15.22.4 Edge Rounding Mode.....	649
15.22.5 Back Scale.....	649
15.22.6 Depth.....	649
15.22.7 Backface Culling.....	650
15.22.8 End Angle.....	650
15.22.9 Close Front.....	650
15.22.10 Close Back.....	650
15.23 3D Lighting Properties.....	651
15.23.1 Mode.....	651
15.23.2 Normals Kind.....	651
15.23.3 Normals Direction.....	651
15.24 3D Texture Properties.....	652
15.24.1 Generation Mode.....	652
15.24.2 Kind.....	652
15.24.3 Filter.....	653
15.24.4 Mode.....	653
15.25 3D Material Properties.....	653
15.25.1 Colors.....	653
15.25.2 Shininess.....	654
15.26 3D Shadow Properties.....	654
15.26.1 Shadow.....	654
15.27 Frame Formatting Properties.....	654

15.27.1	Frame Widths.....	654
15.27.2	Frame Heights.....	655
15.27.3	Maximum Width and Height.....	655
15.27.4	Left and Right Margins.....	656
15.27.5	Top and Bottom Margins.....	656
15.27.6	Margins.....	656
15.27.7	Print Content.....	656
15.27.8	Protect.....	656
15.27.9	Horizontal Position.....	657
15.27.10	Horizontal Relation.....	658
15.27.11	Vertical Position.....	659
15.27.12	Vertical Relation.....	660
15.27.13	Frame Anchor.....	661
15.27.14	Border.....	661
15.27.15	Border Line Width.....	661
15.27.16	Padding.....	661
15.27.17	Shadow.....	662
15.27.18	Background.....	662
15.27.19	Columns.....	662
15.27.20	Editable.....	662
15.27.21	Wrapping.....	662
15.27.22	Dynamic Wrap Threshold.....	663
15.27.23	Paragraph-only Wrapping.....	663
15.27.24	Contour Wrapping.....	664
15.27.25	Contour Wrapping Mode.....	664
15.27.26	Run Through.....	664
15.27.27	Flow with Text.....	665
15.27.28	Overflow behavior.....	665
15.27.29	Mirroring.....	665
15.27.30	Clipping.....	666
15.27.31	Wrap Influence on Position.....	666
15.28	Floating Frame Formatting Properties.....	667
15.28.1	Display Scrollbar.....	667
15.28.2	Display Border.....	667
15.28.3	Margins.....	668
15.28.4	Object Formatting Properties.....	668
15.28.5	Visible Area.....	668

15.28.6 Draw Aspect.....	669
15.29 Chart Formatting Properties.....	669
15.29.1 Scale Text.....	670
15.30 Chart Subtype Properties.....	670
15.30.1 Three-dimensional Charts.....	670
15.30.2 Chart Depth.....	670
15.30.3 Chart Symbol.....	670
15.30.4 Chart Symbol Size.....	671
15.30.5 Bar Chart Properties.....	672
15.30.6 Stock Chart Properties.....	672
15.30.7 Line Chart Properties.....	673
15.30.8 Pie Chart Properties.....	674
15.30.9 Lines.....	674
15.30.10 Solid Charts Bars.....	674
15.30.11 Stacked Chart Bars.....	674
15.31 Chart Axes Properties.....	675
15.31.1 Linked Data Formats.....	675
15.31.2 Visibility.....	675
15.31.3 Scaling.....	675
15.31.4 Tick Marks.....	676
15.31.5 Labels.....	677
15.32 Common Chart Properties.....	677
15.32.1 Stacked Text.....	678
15.32.2 Rotation Angle.....	678
15.32.3 Data Labels.....	678
15.33 Statistical Properties.....	679
15.33.1 Mean Value.....	679
15.33.2 Error Category.....	679
15.34 Plot Area Properties.....	681
15.34.1 Series Source.....	681
15.35 Regression Curve Properties.....	681
15.35.1 Regression Type.....	682
15.36 Presentation Page Attributes.....	682
15.36.1 Transition Type.....	683
15.36.2 Transition Style.....	683
15.36.3 Transition Speed.....	685
15.36.4 Transition Type or Family.....	686

15.36.5 Transition Subtype.....	686
15.36.6 Transition Direction.....	686
15.36.7 Fade Color.....	686
15.36.8 Page Duration.....	687
15.36.9 Page Visibility.....	687
15.36.10 Sound.....	687
15.36.11 Background Size.....	687
15.36.12 Background Objects Visible.....	688
15.36.13 Background Visible.....	688
15.36.14 Display Header.....	688
15.36.15 Display Footer.....	688
15.36.16 Display Page Number.....	689
15.36.17 Display Date And Time.....	689
16 Data Types and Schema Definitions.....	690
16.1 Data Types.....	690
16.2 Other Definitions.....	695
16.3 Relax-NG Schema Suffix.....	696
17 Packages.....	697
17.1 Introduction.....	697
17.2 Zip File Structure.....	697
17.3 Encryption.....	698
17.4 MIME Type Stream.....	698
17.5 Usage of IRIs Within Packages.....	699
17.6 Preview Image.....	699
17.7 Manifest File.....	699
17.7.1 Relax-NG Schema.....	700
17.7.2 Manifest Root Element.....	700
17.7.3 File Entry.....	700
17.7.4 Encryption Data.....	701
17.7.5 Algorithm.....	702
17.7.6 Key Derivation.....	703
17.7.7 Relax-NG Schema Suffix.....	705
Appendix A. Strict Relax NG Schema.....	706
Appendix B. References.....	708
Appendix C. MIME Types and File Name Extensions (Non Normative).....	710
Appendix D. Core Features Sets (Non Normative).....	712
Appendix E. Changes From Previous Specification Versions (Non Normative).....	717

E.1. Changes from “Open Office Specification 1.0 Committee Draft 1”.....	717
E.2. Changes from “Open Document Format for Office Applications (OpenDocument) 1.0 Committee Draft 2”	717
E.3. Changes from “Open Document Format for Office Applications (OpenDocument) v1.0”	718
Appendix F. Acknowledgments (Non Normative).....	719