

Detailed Contents

List of Acronyms	xxi
Preface	xxiii
Acknowledgments	xxv
1 XML 1.0 and Namespaces	1
1.1 Elements	1
1.2 Elements, namespaces, and namespace declarations	2
1.3 Attributes	5
1.4 Attributes and namespaces	6
1.5 Processing instructions	6
1.6 Comments	7
1.7 Whitespace	8
1.8 Prohibited character literals	9
1.9 CDATA sections	11
1.10 XML declaration	11
1.11 Character references	13
1.12 Well-formed XML	13
1.13 References	14
2 Document Type Definitions	15
2.1 Introduction to DTDs	15
2.2 DOCTYPE	15
2.2.1 Internal declarations	16
2.2.2 External declarations	17
2.2.3 Internal and external declarations	18
2.3 ELEMENT	19
2.4 ATTLIST	21
2.5 ENTITY	24
2.5.1 Internal parameter entities	25
2.5.2 External parameter entities	28

2.5.3	Internal general entities	29
2.5.4	External general parsed entities	30
2.5.5	Unparsed entities	30
2.6	NOTATION	31
2.7	INCLUDE and IGNORE	32
2.8	References	33
3	XPath 1.0	35
3.1	Introduction to XPath	35
3.2	Location path expressions	39
3.2.1	Location steps	40
3.2.2	Axis	41
3.2.3	Node test	44
3.2.3.1	Node test by name	44
3.2.3.2	Node test by type	45
3.2.4	Predicate	46
3.2.5	Location path abbreviations	47
3.3	Basic expressions	48
3.3.1	Boolean expressions	48
3.3.2	Equality expressions	48
3.3.3	Relational expressions	51
3.3.4	Numerical expressions	51
3.4	Core Function Library	52
3.4.1	<code>boolean</code>	53
3.4.2	<code>ceiling</code>	54
3.4.3	<code>concat</code>	55
3.4.4	<code>contains</code>	55
3.4.5	<code>count</code>	56
3.4.6	<code>false</code>	56
3.4.7	<code>floor</code>	56
3.4.8	<code>id</code>	57
3.4.9	<code>lang</code>	58
3.4.10	<code>last</code>	58
3.4.11	<code>local-name</code>	59
3.4.12	<code>name</code>	59
3.4.13	<code>namespace-uri</code>	60
3.4.14	<code>normalize-space</code>	60
3.4.15	<code>not</code>	61

3.4.16	number	61
3.4.17	position	62
3.4.18	round	62
3.4.19	starts-with	63
3.4.20	string	63
3.4.21	string-length	64
3.4.22	substring	64
3.4.23	substring-after	65
3.4.24	substring-before	65
3.4.25	sum	66
3.4.26	translate	66
3.4.27	true	67
3.5	References	67
4	XPointer, XInclude, and XML Base	69
4.1	XPointer version 1.0	69
4.1.1	Full XPointers	70
4.1.2	Bare names	71
4.1.3	Child sequences	72
4.1.4	XPointer extensions to XPath	72
4.1.5	XPointer node tests	74
4.1.6	XPointer function library	74
4.1.6.1	end-point	74
4.1.6.2	here	75
4.1.6.3	origin	75
4.1.6.4	range	76
4.1.6.5	range-inside	77
4.1.6.6	range-to	77
4.1.6.7	start-point	78
4.1.6.8	string-range	78
4.2	XInclude	79
4.2.1	include	79
4.3	XML Base	81
4.3.1	xml:base	81
4.4	References	82
5	XSL Transformations 1.0	85
5.1	Introduction to XSLT programming	86

5.2	XSLT types and expressions	89
5.3	Patterns	90
5.4	Conflict resolution	91
5.5	Built-in templates	92
5.6	Exemplar-based transformation syntax	94
5.7	Attribute value templates	94
5.8	Whitespace	95
5.9	Element library	96
5.9.1	<code>apply-imports</code>	99
5.9.2	<code>apply-templates</code>	100
5.9.3	<code>attribute</code>	102
5.9.4	<code>attribute-set</code>	104
5.9.5	<code>call-template</code>	106
5.9.6	<code>choose</code>	107
5.9.7	<code>comment</code>	108
5.9.8	<code>copy</code>	109
5.9.9	<code>copy-of</code>	110
5.9.10	<code>decimal-format</code>	111
5.9.11	<code>element</code>	113
5.9.12	<code>fallback</code>	114
5.9.13	<code>for-each</code>	115
5.9.14	<code>if</code>	116
5.9.15	<code>import</code>	117
5.9.16	<code>include</code>	118
5.9.17	<code>key</code>	119
5.9.18	<code>message</code>	121
5.9.19	<code>namespace-alias</code>	122
5.9.20	<code>number</code>	124
5.9.21	<code>otherwise</code>	128
5.9.22	<code>output</code>	128
5.9.23	<code>param</code>	130
5.9.24	<code>preserve-space</code>	132
5.9.25	<code>processing-instruction</code>	133
5.9.26	<code>sort</code>	133
5.9.27	<code>strip-space</code>	135
5.9.28	<code>stylesheet</code>	136
5.9.29	<code>template</code>	136
5.9.30	<code>text</code>	140

5.9.31	<code>transform(stylesheet)</code>	141
5.9.32	<code>value-of</code>	143
5.9.33	<code>variable</code>	144
5.9.34	<code>when</code>	147
5.9.35	<code>with-param</code>	148
5.10	XSLT function library	148
5.10.1	<code>current</code>	149
5.10.2	<code>document</code>	150
5.10.3	<code>element-available</code>	152
5.10.4	<code>format-number</code>	153
5.10.5	<code>function-available</code>	154
5.10.6	<code>generate-id</code>	155
5.10.7	<code>key</code>	155
5.10.8	<code>system-property</code>	156
5.10.9	<code>unparsed-entity-uri</code>	157
5.11	References	157
6	SAX 2.0	159
6.1	SAX UML quick reference	159
6.2	SAX interfaces and classes	161
6.2.1	<code>Attributes</code>	162
6.2.2	<code>ContentHandler</code>	166
6.2.3	<code>DTDHandler</code>	175
6.2.4	<code>EntityResolver</code>	177
6.2.5	<code>ErrorHandler</code>	179
6.2.6	<code>Locator</code>	181
6.2.7	<code>XMLFilter</code>	183
6.2.8	<code>XMLReader</code>	185
6.3	Features and properties	190
6.4	References	191
7	DOM Level 2	193
7.1	DOM UML	193
7.2	DOM interfaces	193
7.2.1	<code>Attr</code>	195
7.2.2	<code>CDataSection</code>	197
7.2.3	<code>CharacterData</code>	197
7.2.4	<code>Comment</code>	199

7.2.5	Document	199
7.2.6	DocumentFragment	205
7.2.7	DocumentType	205
7.2.8	DOMImplementation	206
7.2.9	Element	207
7.2.10	Entity	211
7.2.11	EntityReference	212
7.2.12	NamedNodeMap	212
7.2.13	Node	215
7.2.14	NodeList	223
7.2.15	Notation	225
7.2.16	ProcessingInstruction	225
7.2.17	Text	226
7.3	References	226
8	XML Schema Datatypes	227
8.1	Datatype grouping	227
8.2	Datatypes	229
8.2.1	anyURI	229
8.2.2	base64Binary	231
8.2.3	boolean	232
8.2.4	byte	232
8.2.5	date	233
8.2.6	dateTime	234
8.2.7	decimal	235
8.2.8	double	236
8.2.9	duration	237
8.2.10	ENTITIES	238
8.2.11	ENTITY	239
8.2.12	float	240
8.2.13	gDay	241
8.2.14	gMonth	242
8.2.15	gMonthDay	242
8.2.16	gYear	243
8.2.17	gYearMonth	244
8.2.18	hexBinary	245
8.2.19	ID	245
8.2.20	IDREF	246

8.2.21	IDREFS	246
8.2.22	int	247
8.2.23	integer	248
8.2.24	language	249
8.2.25	long	250
8.2.26	Name	251
8.2.27	NCName	251
8.2.28	negativeInteger	252
8.2.29	NMTOKEN	253
8.2.30	NMTOKENS	253
8.2.31	nonNegativeInteger	254
8.2.32	nonPositiveInteger	255
8.2.33	normalizedString	256
8.2.34	NOTATION	257
8.2.35	positiveInteger	258
8.2.36	QName	259
8.2.37	short	259
8.2.38	string	260
8.2.39	time	261
8.2.40	token	262
8.2.41	unsignedByte	263
8.2.42	unsignedInt	264
8.2.43	unsignedLong	265
8.2.44	unsignedShort	266
8.3	Facets	267
8.3.1	enumeration	267
8.3.2	fractionDigits	268
8.3.3	length	269
8.3.4	maxExclusive	270
8.3.5	maxInclusive	271
8.3.6	maxLength	272
8.3.7	minExclusive	274
8.3.8	minInclusive	275
8.3.9	minLength	276
8.3.10	pattern	277
8.3.11	totalDigits	278
8.3.12	whiteSpace	279

8.4	Language constructs	280
8.4.1	<code>simpleType</code>	281
8.4.2	<code>restriction</code>	282
8.4.3	<code>list</code>	283
8.4.4	<code>union</code>	284
8.5	References	286
9	XML Schema Structures	287
9.1	Schema element groupings	287
9.2	Structures	290
9.2.1	<code>all</code>	291
9.2.2	<code>annotation</code>	293
9.2.3	<code>any</code>	293
9.2.4	<code>anyAttribute</code>	297
9.2.5	<code>appinfo</code>	300
9.2.6	<code>attribute</code>	301
9.2.7	<code>attributeGroup</code>	306
9.2.8	<code>choice</code>	307
9.2.9	<code>complexContent</code>	309
9.2.10	<code>complexType</code>	310
9.2.11	<code>documentation</code>	313
9.2.12	<code>element</code>	314
9.2.13	<code>extension</code>	320
9.2.14	<code>field</code>	324
9.2.15	<code>group</code>	325
9.2.16	<code>import</code>	327
9.2.17	<code>include</code>	329
9.2.18	<code>key</code>	330
9.2.19	<code>keyref</code>	333
9.2.20	<code>notation</code>	333
9.2.21	<code>redefine</code>	335
9.2.22	<code>restriction</code>	337
9.2.23	<code>schema</code>	340
9.2.24	<code>selector</code>	345
9.2.25	<code>sequence</code>	346
9.2.26	<code>simpleContent</code>	348
9.2.27	<code>unique</code>	349

9.3	XML Schema structures: instance attributes	350
9.3.1	nil	350
9.3.2	noNamespaceSchemaLocation	351
9.3.3	schemaLocation	352
9.3.4	type	353
9.4	References	355
10	SOAP 1.1	357
10.1	Introduction to SOAP messages	357
10.2	Elements in SOAP messages	358
10.2.1	Body	358
10.2.2	Envelope	360
10.2.3	Fault	360
10.2.4	Header	363
10.3	Attributes in SOAP messages	364
10.3.1	actor	364
10.3.2	encodingStyle	365
10.3.3	mustUnderstand	366
10.4	Introduction to SOAP serialization rules	367
10.4.1	Serialization of simple structured data	369
10.4.2	Serialization of structured data with multiple references	371
10.4.3	Dealing with null references in complex data structures	372
10.4.4	Serializing dynamically typed data	374
10.4.5	Arrays	375
10.4.6	Multidimensional arrays	376
10.4.7	Partial transmission of arrays	377
10.4.8	Sparse arrays	378
10.4.9	Jagged arrays	379
10.5	Introduction to the SOAP HTTP binding	381
10.5.1	Content-Type	381
10.5.2	Content-Length	382
10.5.3	SOAPAction	383
10.6	References	383
Index		385