ISO/IEC 19757-2:2008-12 (E)

Information technology - Document Schema Definition Language (DSDL) - Part 2: Regular-grammar-based validation - RELAX NG

Contents

Page

Foreword iii

Introduction iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Notation 4
4.1 EBNF 4
4.2 Inference rules 4
4.2.1 Variables 4
4.2.2 Propositions 5
4.2.3 Expressions 6

5 Data model 7

6 Full syntax 8

7 Simplification 9
7.1 General 9
7.2 Annotations 9
7.3 Whitespace 9
7.4 datatypeLibrary attribute 9
7.5 type attribute of value element 10
7.6 href attribute 10
7.7 externalRef element 10
7.8 include element 10
7.9 name attribute of element and attribute elements 11
7.10 ns attribute 11
7.11 QNames 11
7.12 div element 11
7.13 Number of child elements 11
7.14 mixed element 12
7.15 optional element 12
7.16 zeroOrMore element 12
7.17 Constraints 12
7.18 combine attribute 13
7.19 grammar element 13
7.20 define and ref elements 13
7.21 notAllowed element 14
7.22 empty element 14

8 Simple syntax 14

9 Semantics 15
9.1 Inference rules 15
9.2 Name classes 15
9.3 Patterns 16

9.3.1 choice pattern ... 16
9.3.2 group pattern ... 16
9.3.3 empty pattern ... 16
9.3.4 text pattern ... 16
9.3.5 oneOrMore pattern ... 17
9.3.6 interleave pattern ... 17
9.3.7 element and attribute pattern ... 17
9.3.8 data and value pattern ... 18
9.3.9 Built-in datatype library ... 18
9.3.10 list pattern ... 19
9.4 Validity ... 19

10 Restrictions ... 19
10.1 General ... 19
10.2 Prohibited paths ... 19
10.2.1 General ... 19
10.2.2 attribute pattern ... 20
10.2.3 oneOrMore pattern ... 20
10.2.4 list pattern ... 20
10.2.5 except element in data pattern ... 20
10.2.6 start element ... 21
10.3 String sequences ... 21
10.4 Restrictions on attributes ... 23
10.5 Restrictions on interleave ... 23
11 Conformance ... 23

Annex A (normative) RELAX NG schema for RELAX NG ... 24

Annex B (informative) Examples ... 30

B.1 Data model ... 30
B.2 Full syntax example ... 31
B.3 Simple syntax example ... 31
B.4 Validation example ... 32

Annex C (normative) RELAX NG Compact syntax ... 34

C.1 Introduction ... 34
C.2 Syntax ... 34
C.3 Lexical structure ... 36
C.4 Declarations ... 37
C.5 Annotations ... 39
C.5.1 Support for annotations ... 39
C.5.2 Initial annotations ... 39
C.5.3 Documentation shorthand ... 39
C.5.4 Following annotations ... 40
C.5.5 Grammar annotations ... 40
C.6 Conformance ... 40
C.6.1 Types of conformance ... 40
C.6.2 Validator ... 41
C.6.3 Structure preserving translator ... 41
C.6.4 Non-structure preserving translator ... 41
C.7 Media type registration template for the RELAX NG Compact Syntax ... 41

Bibliography ... 43