

ISO/IEC 8825-5:2015-11 (E)

Information technology - ASN.1 encoding rules: Mapping W3C XML schema definitions into ASN.1

CONTENTS

	<i>Page</i>
1 Scope	1
2 Normative references	1
2.1 Identical Recommendations International Standards	1
2.2 Additional references	2
3 Definitions	2
3.1 Imported definitions	2
3.2 Additional definitions	3
4 Abbreviations	3
5 Notation	3
6 Purpose and extent of standardization	3
7 Mapping XSD Schemas	4
8 Ignored schema components and properties	5
9 ASN.1 modules	6
10 Name conversion	6
10.1 General	6
10.2 Generating ASN.1 type definitions that are references to ASN.1 type assignments	7
10.3 Generating identifiers and type reference names	7
10.4 Order of the mapping	9
11 Mapping uses of XSD built-in types	10
12 Mapping facets	10
12.1 The length, minLength, and maxLength facets	11
12.2 The pattern facet	11
12.3 The whiteSpace facet	11
12.4 The enumeration facet	12
12.5 Other facets	14
13 Mapping simple type definitions	14
14 Mapping element declarations	16
15 Mapping attribute declarations	17
16 Mapping values of simple type definitions	17
17 Mapping model group definitions	17
18 Mapping model groups	17
19 Mapping particles	18
20 Mapping complex type definitions	19
21 Mapping wildcards	20
22 Mapping attribute uses	22
23 Mapping uses of simple and complex type definitions (general case)	22
24 Mapping special uses of simple and complex type definitions (substitutable)	23
25 Mapping special uses of simple and complex type definitions (substitutable, nillable)	24

26	Mapping special uses of simple type definitions (nillable)	25
27	Mapping special uses of complex type definitions (nillable).....	26
28	Mapping special uses of element declarations (head of element substitution group)	27
29	Generating special ASN.1 type assignments for types used in element declarations	27
30	Generating special ASN.1 type assignments for types belonging to a derivation hierarchy	29
31	Generating special ASN.1 type assignments for element substitution groups.....	29
	Annex A – ASN.1 type definitions corresponding to XSD built-in types for the Version 1 mapping	30
	Annex B – ASN.1 type definitions corresponding to XSD built-in types for the Version 2 mapping.....	34
	Annex C – Identification of the XSD module	38
	Annex D – Examples of mappings	39
	D.1 A Schema using simple type definitions	39
	D.2 The corresponding ASN.1 definitions.....	40
	D.3 Further examples.....	41
	Annex E – Use of the mapping to provide binary encodings for W3C XML Schema	61
	E.1 Encoding XSD Schemas	61
	E.2 Transfer without using the XSD Schema for Schemas	61
	E.3 Transfer using the XSD Schema for Schemas	61