

ISO/IEC 8825-5:2021-06 (E)

Information technology - ASN.1 encoding rules - Part 5: Mapping W3C XML schema definitions into ASN.1

Contents		Page
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	33
	Annex C – Identification of the XSD module.....	37
	Annex D – Examples of mappings	38
	D.1 A Schema using simple type definitions	38
	D.2 The corresponding ASN.1 definitions.....	39
	D.3 Further examples.....	40
	Annex E – Use of the mapping to provide binary encodings for W3C XML Schema	60
	E.1 Encoding XSD Schemas	60
	E.2 Transfer without using the XSD Schema for Schemas	60
	E.3 Transfer using the XSD Schema for Schemas	60