Schema documentation for CDE_schema.xsd

december 30, 2019

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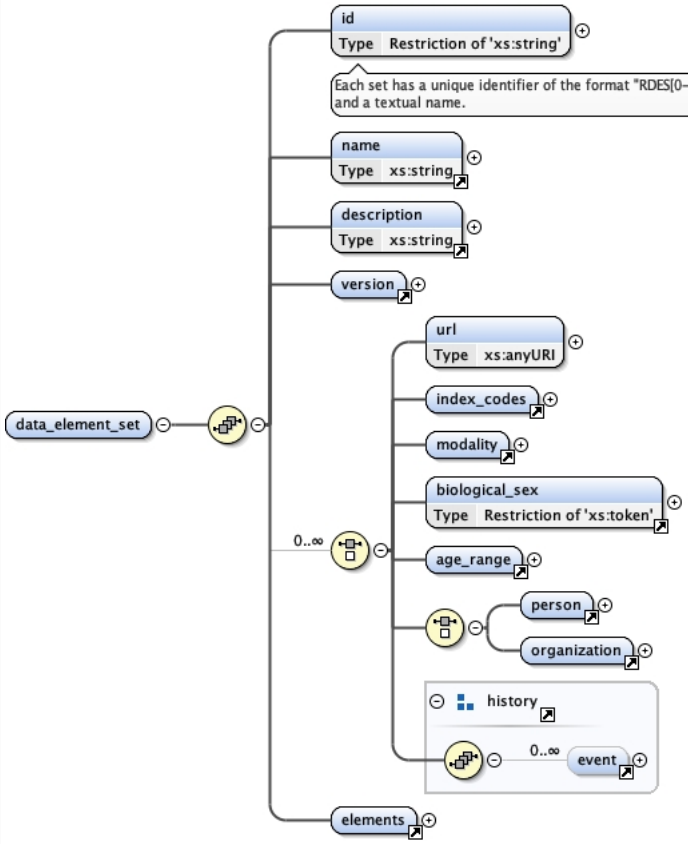
Schema(s)

Main schema `CDE_schema.xsd`

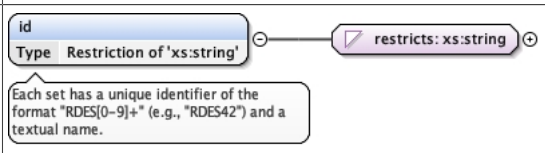
Element(s)

Element `data_element_set`

Diagram	
Model	id , name , description , version , (url | index_codes | modality | biological_sex | age_range | person | organization | (event*)) , elements

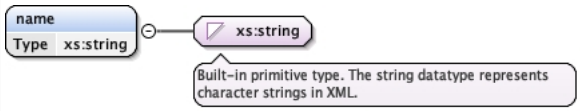
Instance	`<data_element_set>`
	`  <id>{1,1}</id>`
	`  <name>{1,1}</name>`
	`  <description>{1,1}</description>`
	`  <version>{1,1}</version>`
	`  <url>{1,1}</url>`
	`  <index_codes>{1,1}</index_codes>`
	`  <modality>{1,1}</modality>`
	`  <biological_sex>{1,1}</biological_sex>`
	`  <age_range>{1,1}</age_range>`
	`  <person>{1,1}</person>`
	`  <organization>{1,1}</organization>`
	`  <event>{0,unbounded}</event>`
	`  <elements>{1,1}</elements>`
	`</data_element_set>`

Element `data_element_set / id`

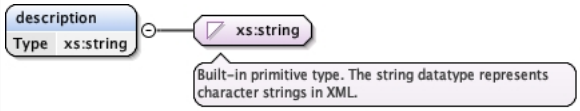
Annotations	`Each set has a unique identifier of the format "RDES[0-9]+" (e.g., "RDES42") and a textual name.`
Diagram	

Type	restriction of xs:string	
Facets	pattern	RDES\d+

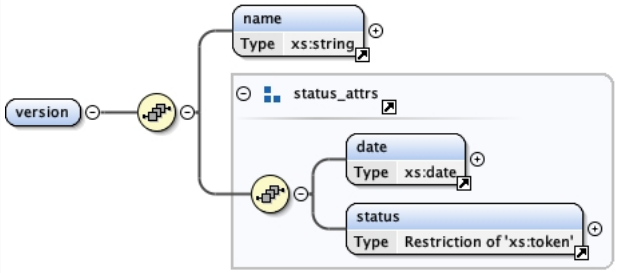
Element name

Diagram		
Type	xs:string	
Used by	Elements	data_element_set, element, organization, person, value_set/value, version

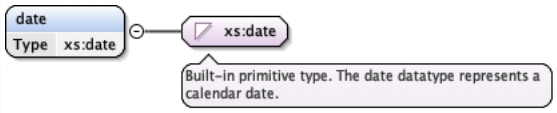
Element description

Diagram		
Type	xs:string	
Used by	Element	data_element_set

Element version

Diagram		
Used by	Elements	data_element_set, element
Model	name , date , status	
Instance	<version> <name>{1,1}</name> <date>{1,1}</date> <status>{1,1}</status> </version>	

Element date

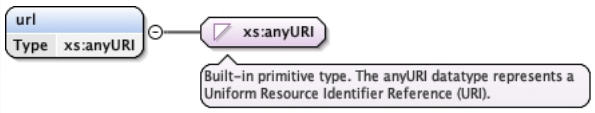
Diagram		
Type	xs:date	
Used by	Element Group	status_attrs

Element status

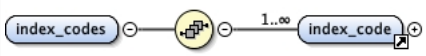
Diagram		
Type	restriction of xs:token	
Facets	enumeration	proposed
	enumeration	published

	enumeration	retired
Used by	Element Group	status_attrs

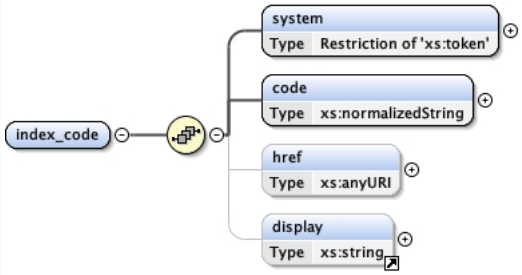
Element data_element_set / url

Diagram	
Type	xs:anyURI

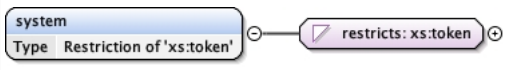
Element index_codes

Diagram	
Used by	Elements data_element_set, element, value_set/value
Model	index_code+
Instance	<index_codes> <index_code>{1,unbounded}</index_code> </index_codes>

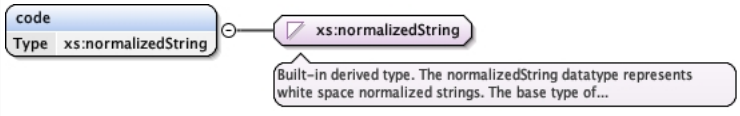
Element index_code

Diagram	
Used by	Element index_codes
Model	system , code , href{0,1} , display{0,1}
Instance	<index_code> <system>{1,1}</system> <code>{1,1}</code> <href>{0,1}</href> <display>{0,1}</display> </index_code>

Element index_code / system

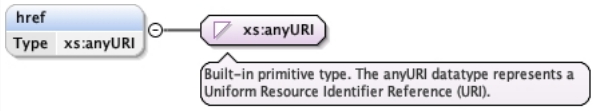
Diagram		
Type	restriction of xs:token	
Facets	enumeration	RADLEX
	enumeration	SNOMEDCT
	enumeration	LOINC

Element index_code / code

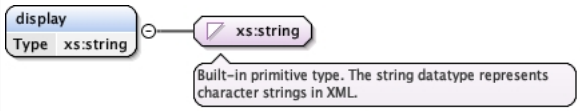
Diagram	

Type	xs:normalizedString

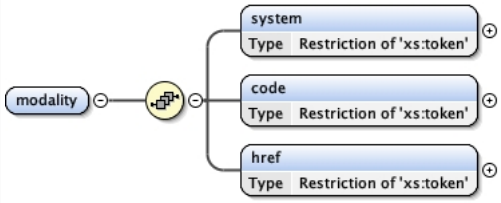
Element index_code / href

Diagram	
Type	xs:anyURI

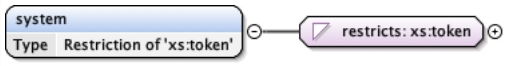
Element display

Diagram	
Type	xs:string
Used by	Element index_code

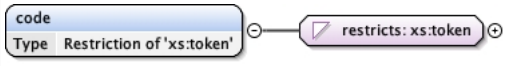
Element modality

Diagram	
Used by	Elements data_element_set, element
Model	system , code , href
Instance	<modality> <system>{1,1}</system> <code>{1,1}</code> <href>{1,1}</href> </modality>

Element modality / system

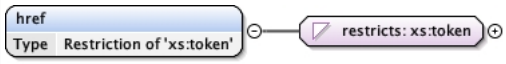
Diagram	
Type	restriction of xs:token
Facets	enumeration DICOM

Element modality / code

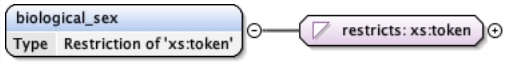
Diagram	
Type	restriction of xs:token
Facets	enumeration CR enumeration CT enumeration DX enumeration IVUS enumeration MG enumeration MR enumeration NM

	enumeration	PT
	enumeration	RF
	enumeration	RG
	enumeration	US
	enumeration	XA

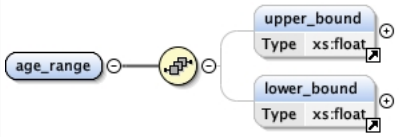
Element modality / href

Diagram		
Type	restriction of xs:token	
Facets	enumeration	http://dicom.nema.org/medical/dicom/current/output/html/part03.html#sect_C.7.3.1.1.1

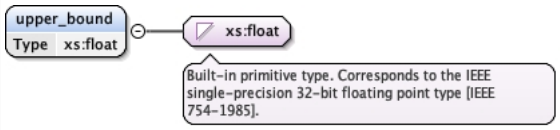
Element biological_sex

Diagram		
Type	restriction of xs:token	
Facets	enumeration	M
	enumeration	F
Used by	Elements	data_element_set, element

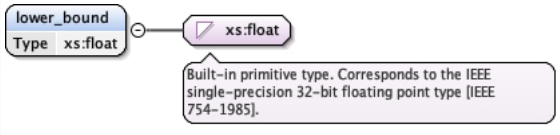
Element age_range

Diagram		
Used by	Elements	data_element_set, element
Model	upper_bound{0,1} , lower_bound{0,1}	
Instance	<age_range> <upper_bound>{0,1}</upper_bound> <lower_bound>{0,1}</lower_bound> </age_range>	

Element upper_bound

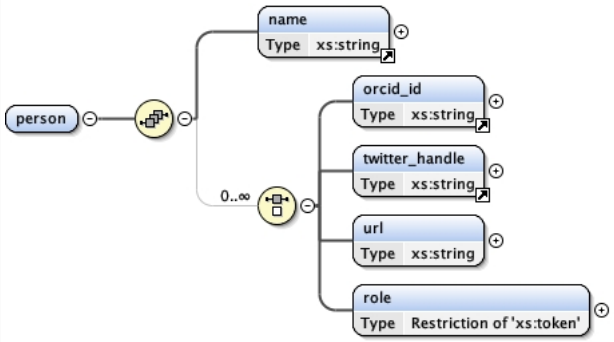
Diagram		
Type	xs:float	
Used by	Element	age_range

Element lower_bound

Diagram		

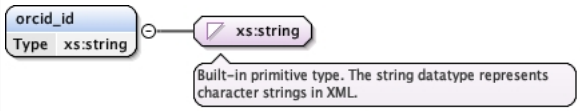
Type	xs:float
Used by	Element age_range

Element person

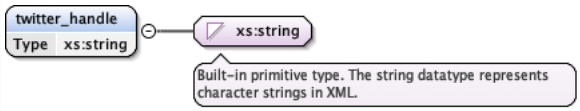
Diagram	
Used by	Elements data_element_set, image Element Group authors
Model	name , (orcid_id | twitter_handle | url | role)

Instance	<pre><person>
	  <name>{1,1}</name>
	  <orcid_id>{1,1}</orcid_id>
	  <twitter_handle>{1,1}</twitter_handle>
	  <url>{1,1}</url>
	  <role>{1,1}</role>
	</person></pre>

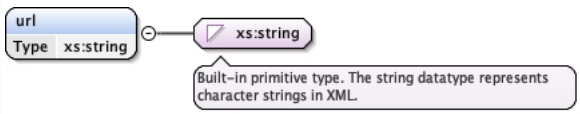
Element orcid_id

Diagram	
Type	xs:string
Used by	Element person

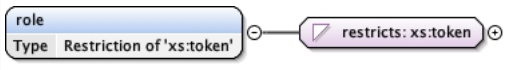
Element twitter_handle

Diagram	
Type	xs:string
Used by	Element person

Element person / url

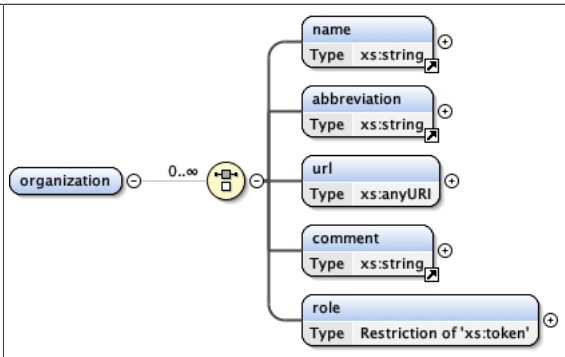
Diagram	
Type	xs:string

Element person / role

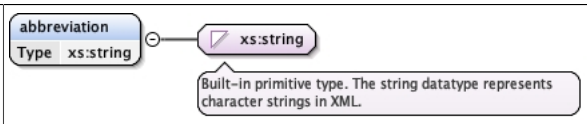
Diagram	

Type	restriction of xs:token	
Facets	enumeration	author
	enumeration	editor
	enumeration	translator
	enumeration	reviewer
	enumeration	contributor

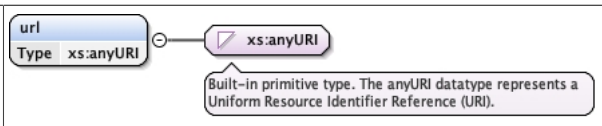
Element organization

Diagram		
Used by	Elements	data_element_set, image
	Element Group	authors
Model	name | abbreviation | url | comment | role	
Instance	<organization> <name>{1,1}</name> <abbreviation>{1,1}</abbreviation> <url>{1,1}</url> <comment>{1,1}</comment> <role>{1,1}</role> </organization>	

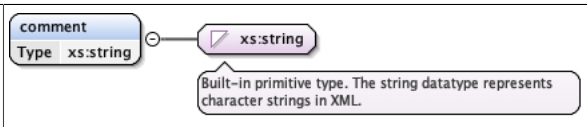
Element abbreviation

Diagram		
Type	xs:string	
Used by	Element	organization

Element organization / url

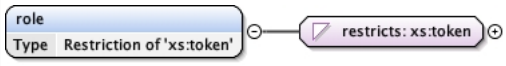
Diagram		
Type	xs:anyURI	

Element comment

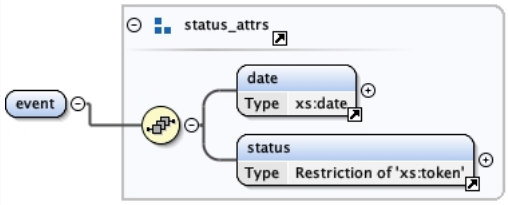
Diagram		
Type	xs:string	

Used by	Element	organization

Element `organization / role`

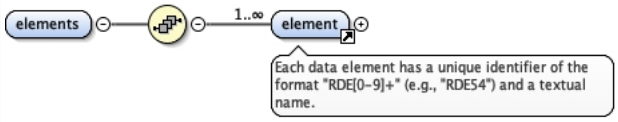
Diagram	
Type	restriction of xs:token
Facets	enumeration `contributor` enumeration `sponsor` enumeration `translator` enumeration `reviewer` enumeration `author`

Element `event`

Diagram	
Used by	Element Group history
Model	date , status

Instance	`<event>`
	`  <date>{1,1}</date>`
	`  <status>{1,1}</status>`
	`</event>`

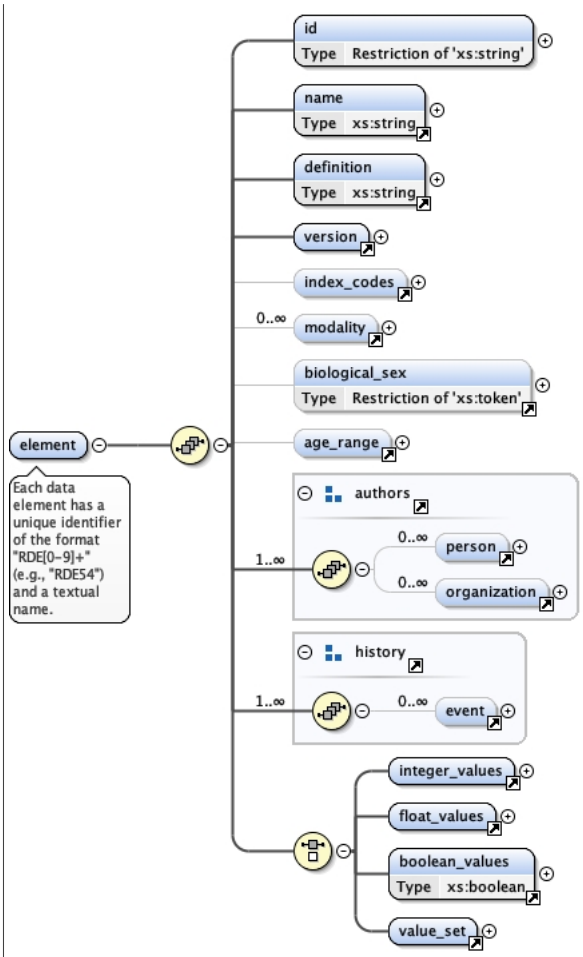
Element `elements`

Diagram	
Used by	Element data_element_set
Model	element+

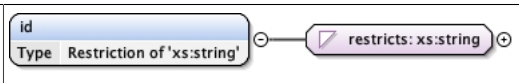
Instance	`<elements>`
	`  <element>{1,unbounded}</element>`
	`</elements>`

Element `element`

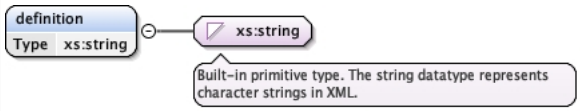
Annotations	`Each data element has a unique identifier of the format "RDE[0-9]+" (e.g., "RDE54") and a textual name.`

Diagram	
Used by	Element elements
Model	id , name , definition , version , index_codes{0,1} , modality* , biological_sex{0,1} , age_range{0,1} , person* , organization* , event* , (integer_values | float_values | boolean_values | value_set)
Instance	<element> <id>{1,1}</id> <name>{1,1}</name> <definition>{1,1}</definition> <version>{1,1}</version> <index_codes>{0,1}</index_codes> <modality>{0,unbounded}</modality> <biological_sex>{0,1}</biological_sex> <age_range>{0,1}</age_range> <person>{0,unbounded}</person> <organization>{0,unbounded}</organization> <event>{0,unbounded}</event> <integer_values>{1,1}</integer_values> <float_values>{1,1}</float_values> <boolean_values>{1,1}</boolean_values> <value_set>{1,1}</value_set> </element>

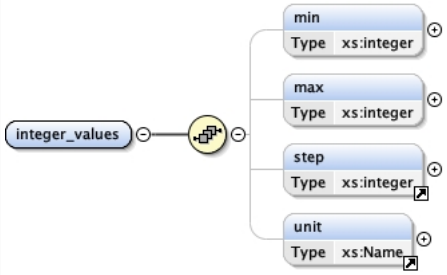
Element `element / id`

Diagram	
Type	restriction of xs:string
Facets	pattern RDE\d+

Element `definition`

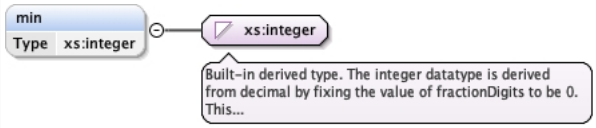
Diagram	
Type	xs:string
Used by	Elements element, value_set/value

Element `integer_values`

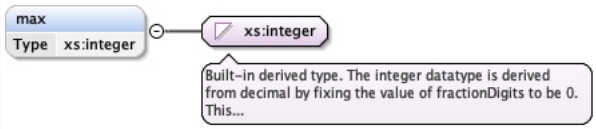
Diagram	
Used by	Element element
Model	min{0,1} , max{0,1} , step{0,1} , unit{0,1}

Instance	<pre><integer_values>
	  <min>{0,1}</min>
	  <max>{0,1}</max>
	  <step>{0,1}</step>
	  <unit>{0,1}</unit>
	</integer_values></pre>

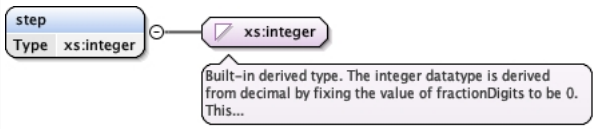
Element `integer_values / min`

Diagram	
Type	xs:integer

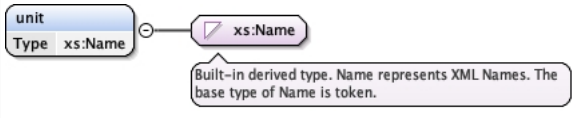
Element `integer_values / max`

Diagram	
Type	xs:integer

Element `step`

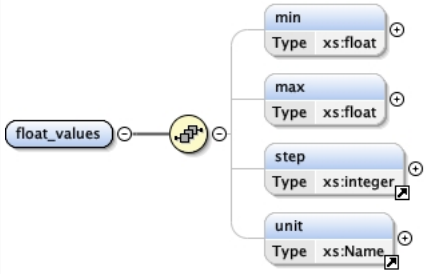
Diagram	
Type	xs:integer
Used by	Elements float_values, integer_values

Element `unit`

Diagram	

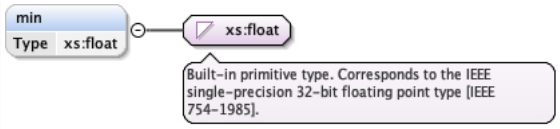
Type	xs:Name
Used by	Elements float_values, integer_values

Element `float_values`

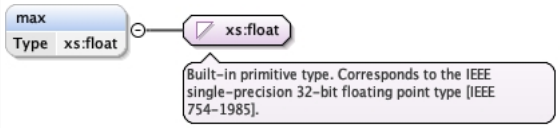
Diagram	
Used by	Element element
Model	min{0,1} , max{0,1} , step{0,1} , unit{0,1}

Instance	`<float_values>`
	`  <min>{0,1}</min>`
	`  <max>{0,1}</max>`
	`  <step>{0,1}</step>`
	`  <unit>{0,1}</unit>`
	`</float_values>`

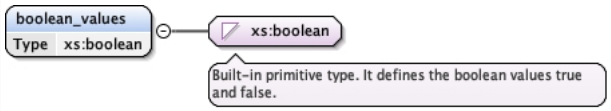
Element `float_values / min`

Diagram	
Type	xs:float

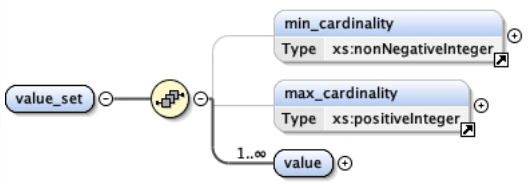
Element `float_values / max`

Diagram	
Type	xs:float

Element `boolean_values`

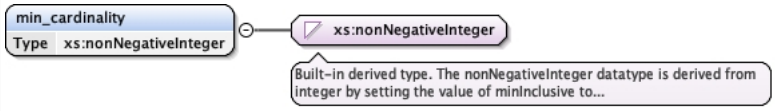
Diagram	
Type	xs:boolean
Used by	Element element

Element `value_set`

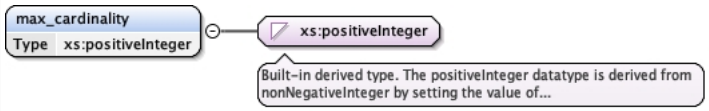
Diagram	
Used by	Element element

Model	min_cardinality{0,1} , max_cardinality{0,1} , value+
Instance	<value_set> <min_cardinality>{0,1}</min_cardinality> <max_cardinality>{0,1}</max_cardinality> <value>{1,unbounded}</value> </value_set>

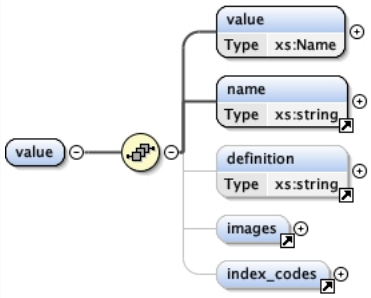
Element min_cardinality

Diagram	
Type	xs:nonNegativeInteger
Used by	Element value_set

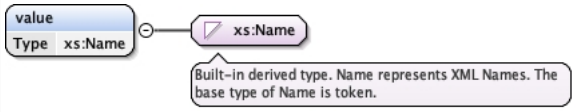
Element max_cardinality

Diagram	
Type	xs:positiveInteger
Used by	Element value_set

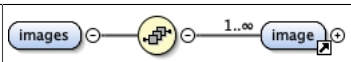
Element value_set / value

Diagram	
Model	value , name , definition{0,1} , images{0,1} , index_codes{0,1}
Instance	<value> <value>{1,1}</value> <name>{1,1}</name> <definition>{0,1}</definition> <images>{0,1}</images> <index_codes>{0,1}</index_codes> </value>

Element value_set / value / value

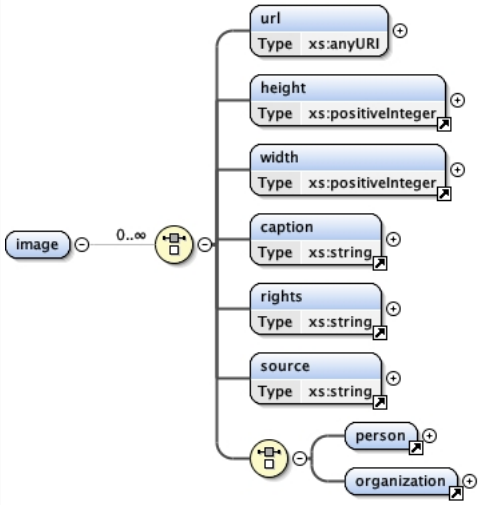
Diagram	
Type	xs:Name

Element images

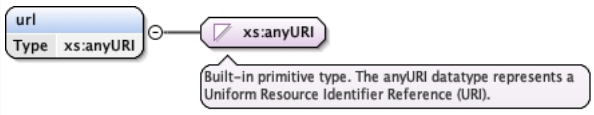
Diagram	
Used by	Element value_set/value
Model	image+

Instance	<images> <image>{1,unbounded}</image> </images>

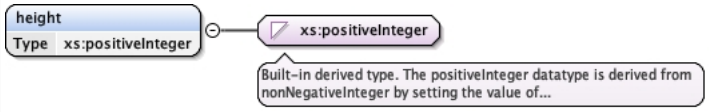
Element image

Diagram	
Used by	Element images
Model	url | height | width | caption | rights | source | person | organization
Instance	<image> <url>{1,1}</url> <height>{1,1}</height> <width>{1,1}</width> <caption>{1,1}</caption> <rights>{1,1}</rights> <source>{1,1}</source> <person>{1,1}</person> <organization>{1,1}</organization> </image>

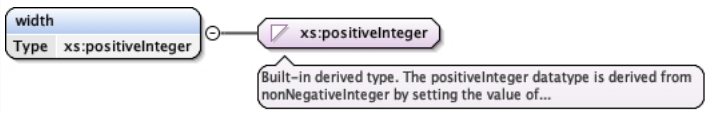
Element image / url

Diagram	
Type	xs:anyURI

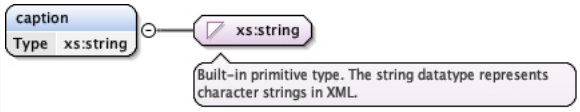
Element height

Diagram	
Type	xs:positiveInteger
Used by	Element image

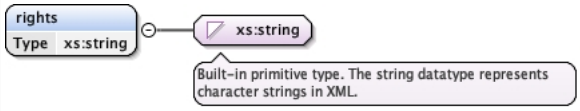
Element width

Diagram	
Type	xs:positiveInteger
Used by	Element image

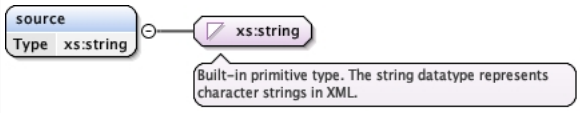
Element `caption`

Diagram	
Type	xs:string
Used by	Element image

Element `rights`

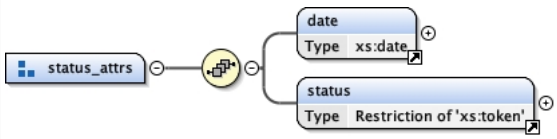
Diagram	
Type	xs:string
Used by	Element image

Element `source`

Diagram	
Type	xs:string
Used by	Element image

Element Group(s)

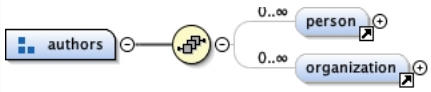
Element Group `status_attrs`

Diagram	
Used by	Elements event, version
Model	date , status

Element Group `history`

Diagram	
Used by	Elements data_element_set, element
Model	event*

Element Group `authors`

Diagram	
Used by	Element element
Model	person* , organization*