

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*) specialty) , elements
Instance	<pre> <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> <specialty>{1,1}</specialty> <elements>{1,1}</elements> </data_element_set> </pre>

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.
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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, specialty, 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	<pre> <version> <name>{1,1}</name> <date>{1,1}</date> <status>{1,1}</status> </version> </pre>

Element date

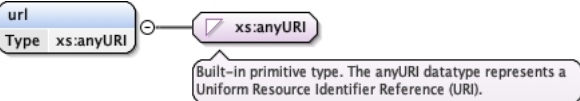
Diagram	
Type	xs:date
Used by	Element Group status_attrs

Element status


Diagram	
Type	restriction of xs:token

Facets	enumeration	proposed
	enumeration	published
	enumeration	retired
Used by	Element Group	status_attrs

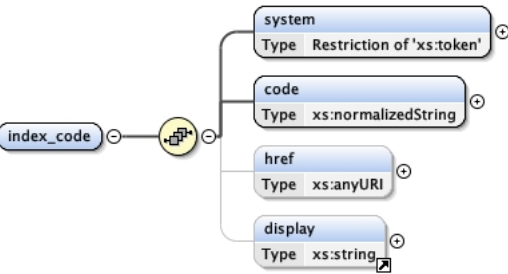
Element data_element_set / url

Diagram	
Type	xs:anyURI

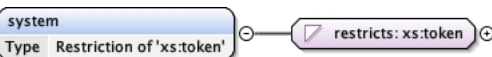
Element index_codes

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

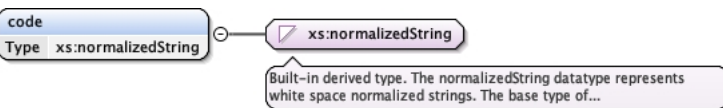
Element index_code

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

Element index_code / system

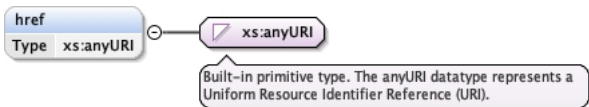
Diagram							
Type	restriction of xs:token						
Facets	<table> <tr> <td>enumeration</td> <td>RADLEX</td> </tr> <tr> <td>enumeration</td> <td>SNOMEDCT</td> </tr> <tr> <td>enumeration</td> <td>LOINC</td> </tr> </table>	enumeration	RADLEX	enumeration	SNOMEDCT	enumeration	LOINC
enumeration	RADLEX						
enumeration	SNOMEDCT						
enumeration	LOINC						

Element index_code / code

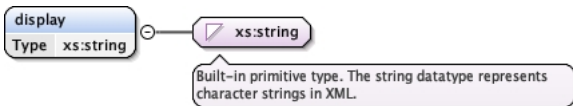
Diagram	
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Type	xs:normalizedString
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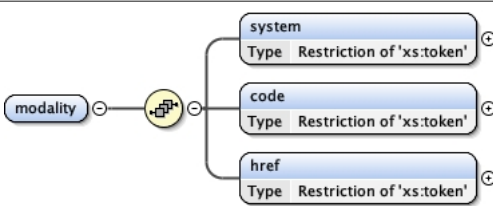
Element `index_code` / `href`

Diagram	
Type	xs:anyURI


Element `display`

Diagram	
Type	xs:string
Used by	Element <code>index_code</code>


Element `modality`

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

Element `modality` / `system`

Diagram	
Type	restriction of xs:token
Facets	enumeration <code>DICOM</code>

Element `modality` / `code`

Diagram																	
Type	restriction of xs:token																
Facets	<table border="1"> <tr><td>enumeration</td><td>CR</td></tr> <tr><td>enumeration</td><td>CT</td></tr> <tr><td>enumeration</td><td>DX</td></tr> <tr><td>enumeration</td><td>IVUS</td></tr> <tr><td>enumeration</td><td>MG</td></tr> <tr><td>enumeration</td><td>MR</td></tr> <tr><td>enumeration</td><td>NM</td></tr> <tr><td>enumeration</td><td>PT</td></tr> </table>	enumeration	CR	enumeration	CT	enumeration	DX	enumeration	IVUS	enumeration	MG	enumeration	MR	enumeration	NM	enumeration	PT
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 `href` / `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	<pre><age_range> <upper_bound>{0,1}</upper_bound> <lower_bound>{0,1}</lower_bound> </age_range></pre>	

Element `upper_bound`

Diagram	<p>Built-in primitive type. Corresponds to the IEEE single-precision 32-bit floating point type [IEEE 754-1985].</p>	
Type	xs:float	
Used by	Element	age_range

Element `lower_bound`

Diagram	<p>Built-in primitive type. Corresponds to the IEEE single-precision 32-bit floating point type [IEEE 754-1985].</p>	
Type	xs:float	
Used by	Element	age_range

Element person

Diagram					
Used by	<table> <tr> <td>Elements</td><td>data_element_set, image</td></tr> <tr> <td>Element Group</td><td>authors</td></tr> </table>	Elements	data_element_set, image	Element Group	authors
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	<table> <tr> <td>Element</td><td>person</td></tr> </table>	Element	person
Element	person		

Element twitter_handle

Diagram			
Type	xs:string		
Used by	<table> <tr> <td>Element</td><td>person</td></tr> </table>	Element	person
Element	person		

Element person / url

Diagram	
Type	xs:string

Element person / role

Diagram							
Type	restriction of xs:token						
Facets	<table> <tr> <td>enumeration</td><td>author</td></tr> <tr> <td>enumeration</td><td>editor</td></tr> <tr> <td>enumeration</td><td>translator</td></tr> </table>	enumeration	author	enumeration	editor	enumeration	translator
enumeration	author						
enumeration	editor						
enumeration	translator						

	enumeration	reviewer
	enumeration	contributor

Element organization

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

Element organization / abbreviation

Diagram	
Type	xs:string

Element organization / url

Diagram	
Type	xs:anyURI

Element comment

Diagram			
Type	xs:string		
Used by	<table> <tr> <td>Element</td> <td>organization</td> </tr> </table>	Element	organization
Element	organization		

Element organization / role

Diagram			
Type	restriction of xs:token		
Facets	<table> <tr> <td>enumeration</td> <td>contributor</td> </tr> </table>	enumeration	contributor
enumeration	contributor		

enumeration	sponsor
enumeration	translator
enumeration	reviewer
enumeration	author

Element event

Diagram	
Used by	Element Group history
Model	date , status
Instance	<pre> <event> <date>{1,1}</date> <status>{1,1}</status> </event> </pre>

Element specialty

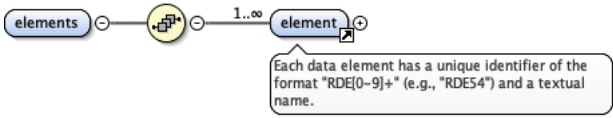
Diagram	
Used by	Elements data_element_set, element
Model	name , abbreviation
Instance	<pre> <specialty> <name>{1,1}</name> <abbreviation>{1,1}</abbreviation> </specialty> </pre>

Element specialty / abbreviation

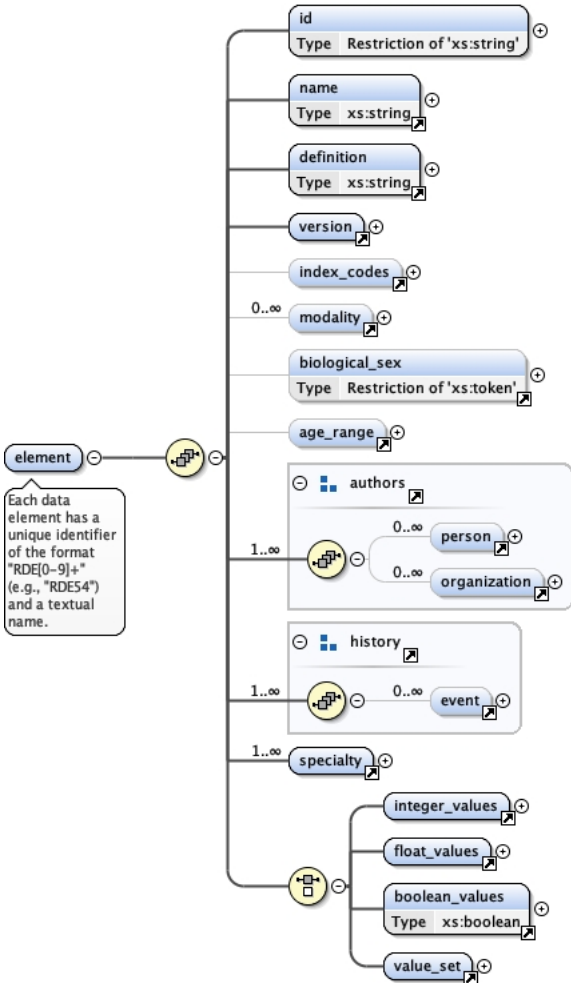
Diagram																																	
Type	restriction of xs:token																																
Facets	<table> <tr><td>enumeration</td><td>AB</td></tr> <tr><td>enumeration</td><td>BR</td></tr> <tr><td>enumeration</td><td>CA</td></tr> <tr><td>enumeration</td><td>CH</td></tr> <tr><td>enumeration</td><td>CT</td></tr> <tr><td>enumeration</td><td>ER</td></tr> <tr><td>enumeration</td><td>GI</td></tr> <tr><td>enumeration</td><td>GU</td></tr> <tr><td>enumeration</td><td>HN</td></tr> <tr><td>enumeration</td><td>IR</td></tr> <tr><td>enumeration</td><td>MI</td></tr> <tr><td>enumeration</td><td>MK</td></tr> <tr><td>enumeration</td><td>MR</td></tr> <tr><td>enumeration</td><td>NM</td></tr> <tr><td>enumeration</td><td>NR</td></tr> <tr><td>enumeration</td><td>OB</td></tr> </table>	enumeration	AB	enumeration	BR	enumeration	CA	enumeration	CH	enumeration	CT	enumeration	ER	enumeration	GI	enumeration	GU	enumeration	HN	enumeration	IR	enumeration	MI	enumeration	MK	enumeration	MR	enumeration	NM	enumeration	NR	enumeration	OB
enumeration	AB																																
enumeration	BR																																
enumeration	CA																																
enumeration	CH																																
enumeration	CT																																
enumeration	ER																																
enumeration	GI																																
enumeration	GU																																
enumeration	HN																																
enumeration	IR																																
enumeration	MI																																
enumeration	MK																																
enumeration	MR																																
enumeration	NM																																
enumeration	NR																																
enumeration	OB																																

enumeration	OI
enumeration	OT
enumeration	PD
enumeration	QI
enumeration	RS
enumeration	US
enumeration	VI

Element elements

Diagram		
Used by	Element	data_element_set
Model	element+	
Instance	<pre><elements> <element>{1,unbounded}</element> </elements></pre>	

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*, specialty+, (integer_values float_values boolean_values value_set)
Instance	<pre> <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> <specialty>{1,unbounded}</specialty> <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> </pre>

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	
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Type	xs:integer
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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

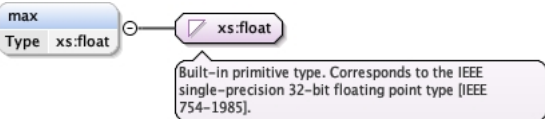
Element float_values

Diagram	
Used by	Element element
Model	min{0,1} , max{0,1} , step{0,1} , unit{0,1}
Instance	<pre><float_values> <min>{0,1}</min> <max>{0,1}</max> <step>{0,1}</step> <unit>{0,1}</unit> </float_values></pre>

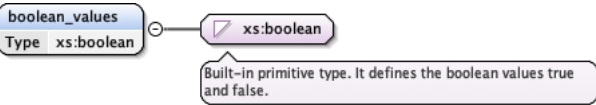
Element float_values / min

Diagram	
Type	xs:float

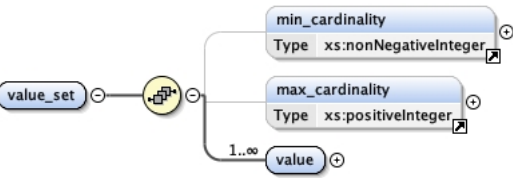
Element float_values / max

Diagram	
Type	xs:float

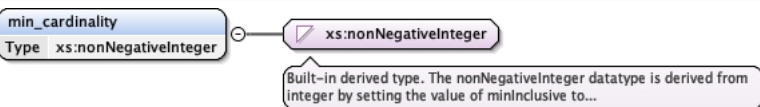
Element boolean_values

Diagram	
Type	xs:boolean
Used by	Element element

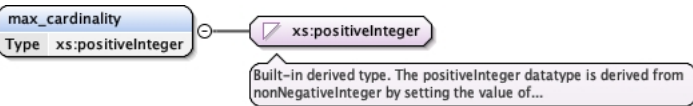
Element value_set

Diagram	
Used by	Element element
Model	min_cardinality{0,1} , max_cardinality{0,1} , value+
Instance	<pre> <value_set> <min_cardinality>{0,1}</min_cardinality> <max_cardinality>{0,1}</max_cardinality> <value>{1,unbounded}</value> </value_set> </pre>

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	<pre> <value> <value>{1,1}</value> <name>{1,1}</name> <definition>{0,1}</definition> <images>{0,1}</images> <index_codes>{0,1}</index_codes> </value> </pre>

Element value_set / value / value

Diagram	
Type	xs:Name

Element images

Diagram	
Used by	Element value_set/value
Model	image+
Instance	<pre> <images> <image>{1,unbounded}</image> </images> </pre>

Element image

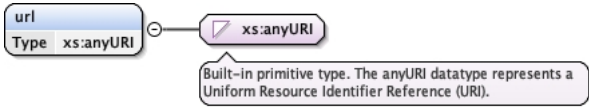
Diagram	
Used by	Element images
Model	url height width caption rights source person organization
Instance	<image>

```

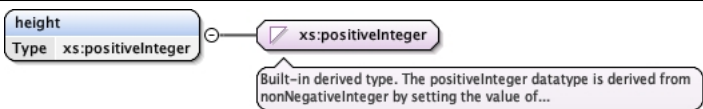
<url>{1,1}</url>
<height>{1,1}</height>
<width>{1,1}</width>
<caption>{1,1}</caption>
<rights>{1,1}</rights>
<source>{1,1}</source>
<person>{1,1}</person>
<organization>{1,1}</organization>
</image>

```

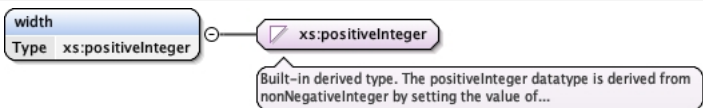
Element image / url

Diagram	
Type	xs:anyURI

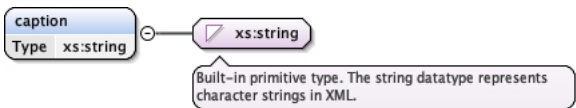
Element height

Diagram	
Type	xs:positiveInteger
Used by	Element image

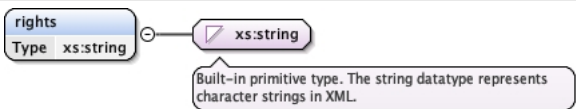
Element width

Diagram	
Type	xs:positiveInteger
Used by	Element image

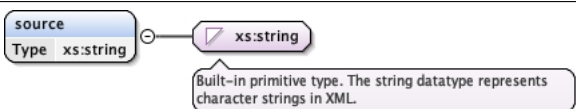
Element caption

Diagram	
Type	xs:string
Used by	Element image

Element rights

Diagram	
Type	xs:string
Used by	Element image

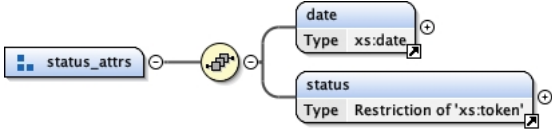
Element source

Diagram	
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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*