

Class Model

Package in package 'Evans Straw MVF MetaModel'

Class Model
Version Phase 1.0 Proposed
ewallace created on 7/14/2017. Last modified 7/14/2017

Evan's MVF MetaModel diagram

Class diagram in package 'Class Model'

Draft of a metamodel for the Multiple Vocabulary Facility.

Evan's MVF MetaModel
Version 1.0
ewallace created on 7/14/2017. Last modified 7/21/2017

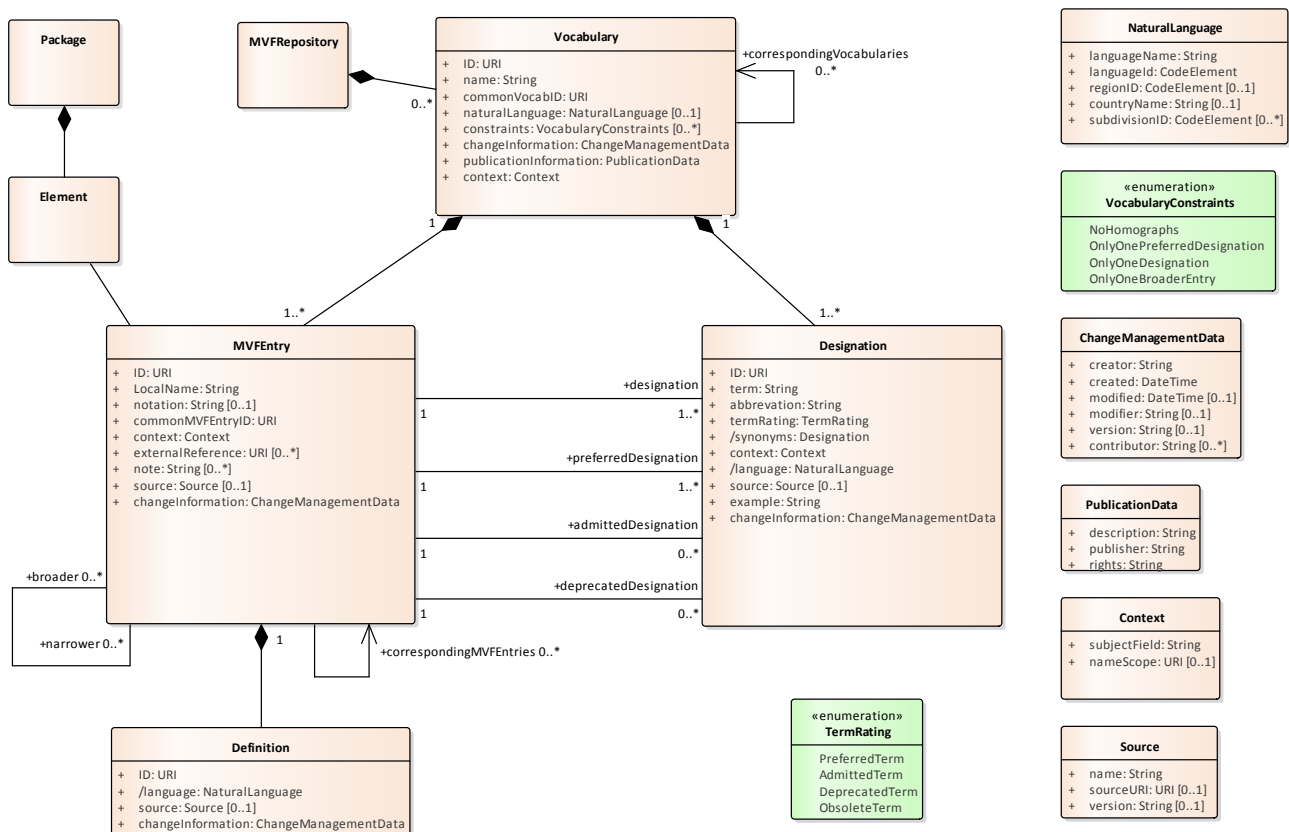


Figure 1: Evan's MVF MetaModel

MVF Datatypes diagram

Class diagram in package 'Class Model'

MVF Datatypes
Version 1.0
ewallace created on 7/19/2017. Last modified 7/19/2017

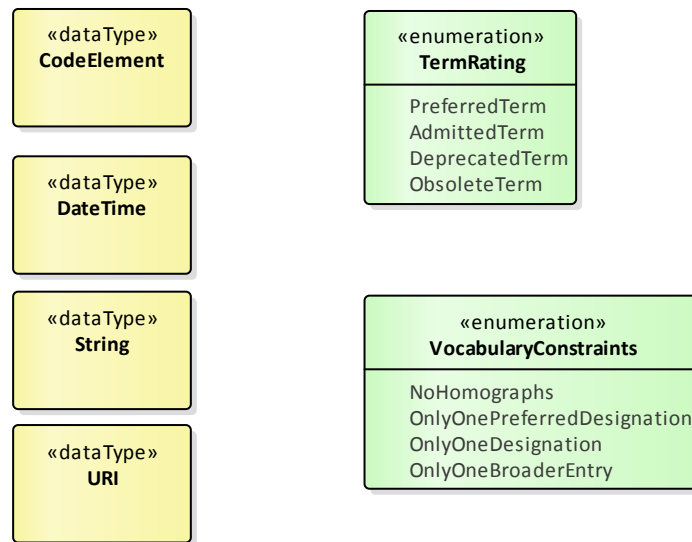


Figure 2: MVF Datatypes



ChangeManagementData

Class in package 'Class Model'

Data related to the authorship or updating of the material in question.

ChangeManagementData
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/18/2017. Last modified 7/18/2017

ATTRIBUTES	
<p> creator : String Public</p> <p>dc:creator</p>	[Is static False. Containment is Not Specified.]
<p> created : DateTime Public</p> <p>dc:created</p>	[Is static False. Containment is Not Specified.]
<p> modified : DateTime Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Most recent date of modification. dct:modified</p>	[Is static False. Containment is Not Specified.]
<p> modifier : String Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>Most recent entity responsible for a modification of the resource.</p>	[Is static False. Containment is Not Specified.]



ATTRIBUTES	
 version : String Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	[Is static False. Containment is Not Specified.]
 contributor : String Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False) dct:contributor	[Is static False. Containment is Not Specified.]

Context

Class in package 'Class Model'

Something giving scope for a term or vocabulary. The scope may include the speech community targeted.

Context
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/17/2017. Last modified 7/19/2017

ATTRIBUTES	
 subjectField : String Public Subject area (or domain) of intended application of the vocabulary or element.	[Is static False. Containment is Not Specified.]
 nameScope : URI Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	[Is static False. Containment is Not Specified.]

Definition

Class in package 'Class Model'

A description representing a notion or thing that differentiates it from other words or things. (paraphrased from ISO 1087)

Definition
 Version 1.0 Phase 1.0 Proposed
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OUTGOING STRUCTURAL RELATIONSHIPS	
 Aggregation from Definition to MVFEntry	[Direction is 'Source -> Destination'.]

ATTRIBUTES

ATTRIBUTES	
<p>◆ ID : URI Public</p>	[Is static False. Containment is Not Specified.]
<p>◆ language : NaturalLanguage Public</p> <p>The natural language used for this definition. Derived from the naturalLanguage for the owning Vocabulary.</p>	[Is static False. Containment is Not Specified.]
<p>◆ source : Source Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The source from which the definition was taken, if any.</p>	[Is static False. Containment is Not Specified.]
<p>◆ changeInformation : ChangeManagementData Public</p> <p>Information on latest changes to this element.</p>	[Is static False. Containment is Not Specified.]

Designation

Class in package 'Class Model'


A symbol for a notion or thing and metadata associated with that symbol.

Designation
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OUTGOING STRUCTURAL RELATIONSHIPS	
<p>← Aggregation from Designation to Vocabulary</p>	[Direction is 'Source -> Destination'.]

ATTRIBUTES	
<p>◆ ID : URI Public</p>	[Is static False. Containment is Not Specified.]
<p>◆ term : String Public</p> <p>The text used to designate the notion or thing.</p>	[Is static False. Containment is Not Specified.]
<p>◆ abbreviation : String Public</p>	

ATTRIBUTES	
<p>An acronym, initialism, or other kind of abbreviation that can be used in place of the Term to designate a notion or thing.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> termRating : TermRating Public</p> <p>A rating given to the term used for this Designation that tells users of the vocabulary which term is preferred or supported for the designated notion or thing.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> synonyms : Designation Public</p> <p>Other Designations that identify the same notion or thing as this Designation. Derived from the designations for the MVFEntry that 'owns' this designation.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> context : Context Public</p> <p>A description of the area or situation in which this Designation applies.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> language : NaturalLanguage Public</p> <p>The natural language used for this Designation. Derived from the naturalLanguage for the owning Vocabulary.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> source : Source Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> example : String Public</p> <p>An example of the Designation used in a sentence.</p> <p>[Is static False. Containment is Not Specified.]</p>	
<p> changeInformation : ChangeManagementData Public</p> <p>Information on latest changes to this element.</p> <p>[Is static False. Containment is Not Specified.]</p>	

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p> <p>Target: Public designation (Class) Designation Cardinality: [1..*]</p>	

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public preferredDesignation (Class) Designation Cardinality: [1..*]</p> <p>Relations to the preferred or primary terms associated with this MVFEntry.</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public admittedDesignation (Class) Designation Cardinality: [0..*]</p> <p>Relations to the secondary or admitted terms associated with this MVFEntry.</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public deprecatedDesignation (Class) Designation Cardinality: [0..*]</p> <p>Relation to designations no longer to be used for this MVFEntry.</p>

Element

Class in package 'Class Model'

An element in a model based on OMG technologies.

Element
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/17/2017. Last modified 7/17/2017

OUTGOING STRUCTURAL RELATIONSHIPS	
<p> Aggregation from Element to Package</p>	<p>[Direction is 'Source -> Destination'.]</p>

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) Element</p>	<p>Target: Public (Class) MVFEntry</p>




MVFEntry





Class in package 'Class Model'

Entity corresponding to a notion or thing for which a definition and one or more terms should be associated.

MVFEntry
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/14/2017. Last modified 7/14/2017

OUTGOING STRUCTURAL RELATIONSHIPS
<p>← Aggregation from MVFEntry to Vocabulary</p> <p style="text-align: right;">[Direction is 'Source -> Destination'.]</p>
INCOMING STRUCTURAL RELATIONSHIPS
<p>⇒ Aggregation from Definition to MVFEntry</p> <p style="text-align: right;">[Direction is 'Source -> Destination'.]</p>
ATTRIBUTES
<p>◆ ID : URI Public</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ LocalName : String Public</p> <p>ID local to the vocabulary of the entry or term. This is appended to the vocabulary's URI to construct the URI for this element instance.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ notation : String Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>A set of symbols identifying a concept in a structured vocabulary. (paraphrased from ISO 25964-1-2011). These symbols may be part of a scheme to order and structure the concepts within a vocabulary.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ commonMVFEntryID : URI Public</p> <p>A single ID shared by all corresponding MVFEntries within a set of corresponding vocabularies (i.e. vocabularies designed to describe and designate the same set of notions or things for a particular context using different languages).</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ context : Context Public</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>
<p>◆ externalReference : URI Public</p> <p>Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>

ATTRIBUTES	
<p> note : String Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	[Is static False. Containment is Not Specified.]
<p> source : Source Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	[Is static False. Containment is Not Specified.]
<p> changeInformation : ChangeManagementData Public</p>	[Is static False. Containment is Not Specified.]

ASSOCIATIONS	
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public designation (Class) Designation Cardinality: [1..*]</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public preferredDesignation (Class) Designation Cardinality: [1..*]</p> <p>Relations to the preferred or primary terms associated with this MVFEntry.</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public admittedDesignation (Class) Designation Cardinality: [0..*]</p> <p>Relations to the secondary or admitted terms associated with this MVFEntry.</p>
<p> Association (direction: Source -> Destination)</p> <p>Source: Public (Class) MVFEntry</p>	<p>Target: Public correspondingMVFEEntries (Class) MVFEntry Cardinality: [0..*]</p> <p>MVFEEntries from corresponding vocabularies that are a skos:exactMatch to this MVFEEntry (i.e. the MVFEEntries are for the same notion or thing by design).</p>
<p> Association (direction: Unspecified)</p>	

ASSOCIATIONS	
<p>Source: Public broader (Class) MVFEntry Cardinality: [0..*]</p> <p>Roughly representing something more general</p>	<p>Target: Public narrower (Class) MVFEntry Cardinality: [0..*]</p> <p>Roughly representing something more specific or specialized</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) MVFEntry Cardinality: [1]</p>	<p>Target: Public deprecatedDesignation (Class) Designation Cardinality: [0..*]</p> <p>Relation to designations no longer to be used for this MVFEntry.</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public (Class) Element</p>	<p>Target: Public (Class) MVFEntry</p>
<p> Association (direction: Source -> Destination)</p> <p>Source: Public (Class) MVFEntry</p>	<p>Target: Public correspondingMVFEentries (Class) MVFEntry Cardinality: [0..*]</p> <p>MVFEentries from corresponding vocabularies that are a skos:exactMatch to this MVFEntry (i.e. the MVFEentries are for the same notion or thing by design).</p>
<p> Association (direction: Unspecified)</p> <p>Source: Public broader (Class) MVFEntry Cardinality: [0..*]</p> <p>Roughly representing something more general</p>	<p>Target: Public narrower (Class) MVFEntry Cardinality: [0..*]</p> <p>Roughly representing something more specific or specialized</p>

MVFRepository

Class in package 'Class Model'

- A container for a set of vocabularies for
- choosing a vocabulary for a given model
 - creating a new vocabulary that reuses elements from another?
 - containing interrelations among vocabulary elements?

MVFRepository
Version 1.0 Phase 1.0 Proposed
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INCOMING STRUCTURAL RELATIONSHIPS	
<p>➔ Aggregation from Vocabulary to MVFRepository</p>	<p>[Direction is 'Source -> Destination'.]</p>

NaturalLanguage

Class in package 'Class Model'

Name and codes to identify a language and its area of use.

NaturalLanguage
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/17/2017. Last modified 7/17/2017

ATTRIBUTES	
<p>◆ languageName : String Public</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ languageId : CodeElement Public</p> <p>ID of the language in which this vocabulary was expressed.</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ regionID : CodeElement Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ countryName : String Public</p> <p>Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ subdivisionID : CodeElement Public</p> <p>Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p>	<p>[Is static False. Containment is Not Specified.]</p>

Package

Class in package 'Class Model'

Package
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/17/2017. Last modified 7/17/2017

INCOMING STRUCTURAL RELATIONSHIPS

INCOMING STRUCTURAL RELATIONSHIPS	
<p>⇒ Aggregation from Element to Package</p>	<p>[Direction is 'Source -> Destination'.]</p>

PublicationData

Class in package 'Class Model'

Information related to the publication and conditions of use of the resource.

PublicationData
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/18/2017. Last modified 7/18/2017

ATTRIBUTES	
<p>◆ description : String Public</p> <p>dc:description</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ publisher : String Public</p> <p>dc:publisher</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ rights : String Public</p> <p>dc:rights</p>	<p>[Is static False. Containment is Not Specified.]</p>


Source

Class in package 'Class Model'

The reference from which the term, definition, or MVFEntry was taken.

Source
 Version 1.0 Phase 1.0 Proposed
 ewallace created on 7/18/2017. Last modified 7/18/2017

ATTRIBUTES	
<p>◆ name : String Public</p> <p>Name of the source reference for this resource.</p>	<p>[Is static False. Containment is Not Specified.]</p>
<p>◆ sourceURI : URI Public</p>	

ATTRIBUTES	
Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	
Universal Resource Identifier of the source.	[Is static False. Containment is Not Specified.]
 version : String Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)	
Version of the source if it has one.	[Is static False. Containment is Not Specified.]



Vocabulary




Class in package 'Class Model'

A collection of terms and definitions in a single natural language.



Vocabulary
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/14/2017. Last modified 7/19/2017

OUTGOING STRUCTURAL RELATIONSHIPS	
 Aggregation from Vocabulary to MVFRepository	[Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS	
 Aggregation from Designation to Vocabulary	[Direction is 'Source -> Destination'.]
 Aggregation from MVFEntry to Vocabulary	[Direction is 'Source -> Destination'.]

ATTRIBUTES	
 ID : URI Public	[Is static False. Containment is Not Specified.]
 name : String Public	[Is static False. Containment is Not Specified.]
 commonVocabID : URI Public	
A persistent unique ID shared by all vocabularies that correspond (that is, those that include MVFEntries for the same set of notions or things for a particular target context but include Designations and Definitions in different natural languages).	[Is static False. Containment is Not Specified.]

ATTRIBUTES	
<p> naturalLanguage : NaturalLanguage Public Multiplicity: ([0..1], Allow duplicates: 0, Is ordered: False)</p> <p>The natural language in which the terms and definitions of this vocabulary are expressed.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p> constraints : VocabularyConstraints Public Multiplicity: ([0..*], Allow duplicates: 0, Is ordered: False)</p> <p>Constraints that should apply to this vocabulary.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p> changeInformation : ChangeManagementData Public</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p> publicationInformation : PublicationData Public</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	
<p> context : Context Public</p> <p>Information about the area that this vocabulary addresses (i.e. its intended context of use). This identifies the target speech community for this vocabulary.</p> <p style="text-align: right;">[Is static False. Containment is Not Specified.]</p>	

ASSOCIATIONS	
<p> Association (direction: Source -> Destination)</p> <p>Source: Public (Class) Vocabulary</p> <p>Target: Public correspondingVocabularies (Class) Vocabulary Cardinality: [0..*]</p> <p>Vocabularies in the library that have corresponding MVFEntries and terms and definitions for the entries in a different natural language.</p>	
<p> Association (direction: Source -> Destination)</p> <p>Source: Public (Class) Vocabulary</p> <p>Target: Public correspondingVocabularies (Class) Vocabulary Cardinality: [0..*]</p> <p>Vocabularies in the library that have corresponding MVFEntries and terms and definitions for the entries in a different natural language.</p>	

DataType in package 'Class Model'

A type for expressing codes such as for languages and countries.

CodeElement
Version 1.0 Phase 1.0 Proposed
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DateTime

DataType in package 'Class Model'

Date and Time in 8601 format.

DateTime
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/18/2017. Last modified 7/18/2017

String

DataType in package 'Class Model'

String
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/17/2017. Last modified 7/17/2017

TermRating

Enumeration in package 'Class Model'

Indication of the priority of usage of a term for a given concept.

TermRating
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/14/2017. Last modified 7/14/2017

ATTRIBUTES	
<p> PreferredTerm : Public</p> <p>The term recommended to represent a given concept.</p> <p style="text-align: right;">[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p> AdmittedTerm : Public</p> <p>A term that can be used to represent a concept, but is non-preferred.</p> <p style="text-align: right;">[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	
<p> DeprecatedTerm : Public</p> <p>A term rated as undesired.</p> <p style="text-align: right;">[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>	

ATTRIBUTES
<p>◆ ObsoleteTerm : Public</p> <p>"A term no longer in common use" (ISO 1087-1)</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

URI

DataType in package 'Class Model'

Universal Resource Identifier

URI
Version 1.0 Phase 1.0 Proposed
ewallace created on 7/17/2017. Last modified 7/17/2017

VocabularyConstraints

Enumeration in package 'Class Model'

Constraints that the authors wish to apply to a vocabulary.

VocabularyConstraints
Version 1.0 Phase 1.0 Proposed
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ATTRIBUTES
<p>◆ NoHomographs : Public</p> <p>A string value for 'term' should not appear more than once in the set of Designations in a vocabulary with this constraint.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ OnlyOnePreferredDesignation : Public</p> <p>An MVFEntry should have exactly one preferredDesignation.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ OnlyOneDesignation : Public</p> <p>There should be exactly one designation for each MVFEntry (i.e. no synonyms).</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>
<p>◆ OnlyOneBroaderEntry : Public</p> <p>Any MVFEntry should have at most one broader MVFEntry related to it. This constraint is used to build monohierarchical classifications of concepts.</p> <p>[Stereotype is «enum». Is static False. Containment is Not Specified.]</p>

