Northwestern University

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Annotation and Image Markup APIs

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Data Model Documentation

Data Model Detail

This document provides an overview of the data model. For simpler and more focused reports, simply copy this initial template and turn off the sections not required.

Logical Model

Type: **Package**
Package: Model
Detail: *Created on 8/24/2010. Last modified on 8/24/2010.*
Notes:

aim
Created By: on 7/14/2005
Last Modified: 8/24/2010, *Version:*3.0
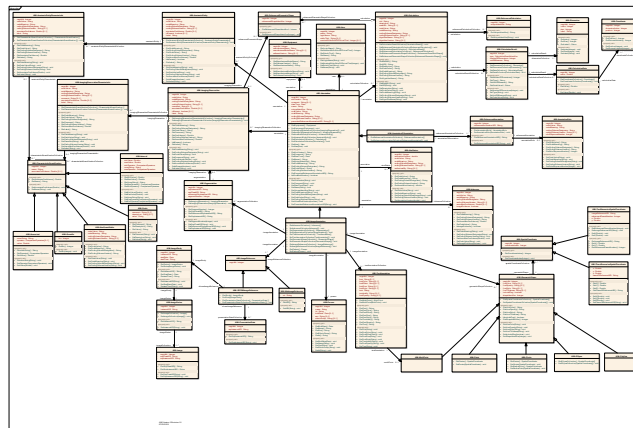
Figure: 1

Text

Database: <none>, *Package:* Logical Model
Detail: *Created on* 1/12/2009. *Last modified on*7/23/2010.
Notes: AIM Version 3 Revision 10
07/23/2010

ValueDomain

Type: **Package**
Package: Logical Model
Detail: *Created on 12/18/2007. Last modified on 12/18/2007.*
Notes:

CalculationResultIdentifier

Database: C++, *Package:* ValueDomain
Detail: *Created on* 12/19/2007. *Last modified on*1/4/2008.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	Scalar	String			0	0	0		Scalar
	Vector	String			0	0	0		Vector
	Histogram	String			0	0	0		Histogram
	Matrix	String			0	0	0		Metrix
	Array	String			0	0	0		Array

ComparisonOperators

Database: , *Package:* ValueDomain
Detail: Created on 4/29/2010. Last modified on4/29/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	Equal	String			0	0	0		
	NotEqual	String			0	0	0		
	LessThan	String			0	0	0		
	GreaterThan	String			0	0	0		
	LessThanEqual	String			0	0	0		
	GreaterThanEqual	String			0	0	0		

edu

Type: **Package**
Package: Logical Model
Detail: Created on 5/4/2007. Last modified on 6/1/2007.
Notes:

northwestern

Type: **Package**
Package: edu
Detail: Created on 5/4/2007. Last modified on 6/4/2007.
Notes:

radiology

Type: **Package**
Package: northwestern
Detail: Created on 5/4/2007. Last modified on 6/4/2007.
Notes:

AIM

Type: **Package**
Package: radiology
Detail: Created on 4/24/2007. Last modified on 5/30/2007.
Notes:

AimStatus

Database: , *Package:* AIM
Detail: Created on 3/10/2010. Last modified on4/20/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	annotationVersion	double			0	0	0		It captures a numerical, using a double value, version of an annotation.
	codeValue	String			0	0	0		Identifier for a concept in a coded vocabulary. Unique within a given vocabulary.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		Identifies the version of the coding scheme used.
	authorizedBy	String			0	0	0		It is used to identify authorization update of the annotation.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetAnnotationVersion	«property get»			
SetAnnotationVersion	«property set»	newVal		

Relationships

Columns	Association		Notes
	1	Annotation**.**annotation	
	0..1	AimStatus**.** aimStatus	

AnatomicEntityCharacteristic

Database: , *Package:* AIM
Detail: *Created on* 1/3/2009. *Last modified on* 7/28/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	codeValue	String			0	0	0		codeValue represents the identifier of the particular term in a coded vocabulary. Should be unique within a given coding scheme.
	codeMeaning	String			0	0	0		The human understandable meaning of the term as determined by the coding scheme.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		The version of the coding scheme used.
	annotatorConfidence	Double			0	0	0		A real number, between 0 and 1, indicating annotator's confidence that a characteristic is present.
	label	String			0	0	0		A human readable description of the anatomic entity characteristic.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeMeaning	«property get»			
GetCodeValue	«property get»			
GetCodingSchemeDesignator	«property get»			

Name	Type	Columns	Initial Code	Notes
SetCodeMeaning	«property set»	newVal		
SetCodeValue	«property set»	newVal		
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetAnnotatorConfidence	«property get»			
SetAnnotatorConfidence	«property set»	newVal		
GetLabel	«property get»			
SetLabel	«property set»	newVal		
GetCharacteristicQuantificationCollection				
SetCharacteristicQuantificationCollection		CharacteristicQuantification		

Columns	Association	Notes
	0..1 AnatomicEntityCharacteristic**.**anatomicEntityCharacteristic **0..*** CharacteristicQuantification**.** characteristicQuantificationCollection	
	1 AnatomicEntity**.**anatomicEntity **0..*** AnatomicEntityCharacteristic**.** anatomicEntityCharacteristicCollection	

AnnotationRole

Database: , *Package:* AIM
Detail: *Created on* 6/10/2009. *Last modified on* 6/10/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	codeValue	String			0	0	0		codeValue represents the identifier of the particular term in a coded vocabulary. Should be unique within a given coding scheme.

	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		Identifies the version of the coding scheme used.
	roleSequenceNumber	Integer			0	0	0		Repreresent ordering within the role.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetRoleSequenceNumber	«property get»			
SetRoleSequenceNumber	«property set»	newVal		

Relationships

Columns	Association		Notes
	1	ReferencedAnnotation**.**referencedAnnotation	
	0..1	AnnotationRole**.** annotationRole	

CalculationData

Database: C++, *Package:* AIM
Detail: *Created on* 9/21/2007. *Last modified on*8/14/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.

	value	Double			0	0	0		The data of the result.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCoordinateCollection				
GetValue	«property get»			The data of the result.
SetCoordinateCollection		ordinate		
SetValue	«property set»	newVal		The data of the result.

Relationships

Columns	Association		Notes
	1	CalculationData**.**calculationData	
	1..*	Coordinate**.** coordinateCollection	
	1	CalculationResult**.**calculationResult	
	0..*	CalculationData**.** calculationDataCollection	

CharacteristicQuantification

Database: , *Package:* AIM
Detail: *Created on* 11/17/2008. *Last modified on*12/30/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	name	String			0	0	0		The maximum value for that particular scale. The default value is 1.
	annotatorConfidence	Double			0	0	0		A real number, between 0 and 1, indicating annotator's confidence that a characteristic quantification is present.

Constraints

Name	Type	Columns	Initial Code	Notes
GetAnnotatorConfidence	«property get»			
GetName	«property get»			The maximum value for that particular scale. The default value is 1.
SetAnnotatorConfidence	«property set»	newVal		
SetName	«property set»	newVal		The maximum value for that particular

Name	Type	Columns	Initial Code	Notes
				scale. The default value is 1.

Relationships

Columns	Association	Notes
	0..1 AnatomicEntityCharacteristic**.**anatomicEntityCharacteristic **0..*** CharacteristicQuantification**.** characteristicQuantificationCollection	
	Scale**.** CharacteristicQuantification**.**	
	Quantile**.** CharacteristicQuantification**.**	
	Interval**.** CharacteristicQuantification**.**	
	0..1 ImagingObservationCharacteristic**.**imagingObservationCharacteristic **0..*** CharacteristicQuantification**.** characteristicQuantificationCollection	
	NonQuantifiable**.** CharacteristicQuantification**.**	
	Numerical**.** CharacteristicQuantification**.**	

Coordinate

Database: C++, *Package:* AIM
Detail: *Created on* 9/21/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	dimensionIndex	Integer			0	0	0		which dimension the data belongs to
	position	Integer			0	0	0		Position within the dimension

Constraints

Name	Type	Columns	Initial Code	Notes
GetPosition	«property get»			
SetPosition	«property set»	newVal		
GetDimensionIndex	«property get»			
SetDimensionIndex	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 CalculationData.calculationData **1..*** Coordinate. coordinateCollection	

Dimension

Database: C++, *Package:* AIM
Detail: *Created on* 9/21/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	index	Integer			0	0	0		Zero based unique index of the dimension
	size	Integer			0	0	0		How many members a dimension has
	label	String			0	0	0		A human readable description of the dimension

Constraints

Name	Type	Columns	Initial Code	Notes
GetIndex	«property get»			
SetIndex	«property set»	newVal		
GetSize	«property get»			
SetSize	«property set»	newVal		
GetLabel	«property get»			
SetLabel	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 CalculationResult.calculationResult **1..*** Dimension. dimensionCollection	

Equipment

Database: C++, *Package:* AIM
Detail: *Created on* 1/16/2008. *Last modified on* 1/16/2008.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes

	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	manufacturerName	String			0	0	0		Text to capture the name of the manufacturer of medical imaging equipment.
	manufacturerModel Name	String			0	0	0		Text to capture the manufacturer's model names of the (imaging) equipment that produced the composite instances.
	softwareVersion	String			0	0	0		Numeric value to designate manufacturer's software version of the equipment that produced the (imaging) composite instances.

Constraints

Name	Type	Columns	Initial Code	Notes
GetManufacturerModelName	«property get»			
GetSoftwareVersion	«property get»			
GetManufacturerName	«property get»			Text to capture the name of the manufacturer of medical imaging equipment.
SetManufacturerModelName	«property set»	newVal		
SetManufacturerName	«property set»	newVal		Text to capture the name of the manufacturer of medical imaging equipment.
SetSoftwareVersion	«property set»	newVal		

Relationships

Columns	Association		Notes
	1	Annotation**.**annotation	
	0..1	Equipment**.** equipment	

Image

Database: C++, *Package:* AIM
Detail: *Created on* 12/3/2007. *Last modified on*12/18/2007.

Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	sopClassUID	String			0	0	0		Unique identifier specific for a Service-Object Pair (SOP) class, as specified in the DICOM standard.
	sopInstanceUID	String			0	0	0		Unique identifer for a Service-Object Pair (SOP) instance, as specified in a DICOM tag.

Constraints

Name	Type	Columns	Initial Code	Notes
GetSopClassUID	«property get»			
SetSopClassUID	«property set»	newVal		
GetSopInstanceUID	«property get»			
SetSopInstanceUID	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 ImageSeries**.**imageSeries **1..*** Image**.** imageCollection	

ImageSeries

Database: C++, *Package:* AIM
Detail: *Created on* 12/3/2007. *Last modified on* 8/13/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	instanceUID	String			0	0	0		Unique identifer of a study series.

Constraints

Name	Type	Columns	Initial Code	Notes

Name	Type	Columns	Initial Code	Notes
GetInstanceUID	«property get»			Unique identifer of a study series.
SetInstanceUID	«property set»	newVal		Unique identifer of a study series.
GetImageCollection				
SetImageCollection		image		

Relationships

Columns	Association		Notes
	1	ImageSeries**.**imageSeries	
	1..*	Image**.** imageCollection	
	1	ImageStudy**.**imageStudy	
	1	ImageSeries**.** imageSeries	

ImageStudy

Database: C++, *Package:* AIM
Detail: *Created on* 12/3/2007. *Last modified on* 8/13/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	instanceUID	String			0	0	0		Unique identifier for an occurrence of a medical imaging study.
	startDate	Date			0	0	0		Date an imaging study started.
	startTime	String			0	0	0		Time in HR(24):Mn an imaging study started.

Constraints

Name	Type	Columns	Initial Code	Notes
GetInstanceUID	«property get»			Unique identifier for an occurrence of a medical imaging study.
SetInstanceUID	«property set»	newVal		Unique identifier for an occurrence of a medical imaging study.
GetSeries				
SetSeries		series		
GetStartDate	«property get»			Date an imaging study started.
GetstartTime	«property get»			
SetStartDate	«property	newVal		Date an imaging study

Name	Type	Columns	Initial Code	Notes
	set»			started.
SetstartTime	«property set»	newVal		

Relationships

Columns	Association		Notes
	1	DICOMImageReference**.**dicomImageReference	
	1	ImageStudy**.** imageStudy	
	1	ImageStudy**.**imageStudy	
	1	ImageSeries**.** imageSeries	

Inference

Database: , *Package:* AIM
Detail: *Created on* 11/17/2008. *Last modified on*7/30/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	codeValue	String			0	0	0		Identifier for a concept in a coded vocabulary. Unique within a given vocabulary.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		It is used to identify the version of a coding scheme if necessary to resolve ambiguity in the Code Value (0008,0100) or Code Meaning (0008,0104).
	annotatorConfidence	Double			0	0	0		A real number indicates the level of confidence between 0.0 to 1.0, where 1 is equal to 100%.
	imageEvidence	boolean			0	0	0		A flag, if set, indicates that the inference is considered by the annotator to be ground truth.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetAnnotatorConfidence	«property get»			A real number indicates the level of confidence between 0.0 to 1.0, where 1 is equal to 100%.
GetCodeValue	«property get»			
IsImageEvidence	«property get»			A flag, if set, indicates that the inference is considered by the annotator to be ground truth.
SetAnnotatorConfidence	«property set»	newVal		A real number indicates the level of confidence between 0.0 to 1.0, where 1 is equal to 100%.
SetCodeValue	«property set»	newVal		
SetImageEvidence	«property set»	newVal		A flag, if set, indicates that the inference is considered by the annotator to be ground truth.

Relationships

Columns	Association		Notes
	1	Annotation**.**annotation	
	0..*	Inference**.** inferenceCollection	

Interval

Database: *, Package:* AIM
Detail: *Created on* 3/3/2010. *Last modified on* 4/18/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	minValue	Double			0	0	0		The minimum value for that particular interval.
	maxValue	Double			0	0	0		The maximum value

									for that particular interval.
	minOperator	Comparis onOperat ors			0	0	0		An operator represents comparison operators, i.e. >, >=, <, <=,==,!=.
	ucumString	String			0	0	0		A string representation of UCUM unit for a number in Interval.
	maxOperator	Comparis onOperat ors			0	0	0		An operator represents comparison operators, i.e. >, >=, <, <=,==,!=.

Constraints

Name	Type	Columns	Initial Code	Notes
GetMinValue	«property get»			
SetMinValue	«property set»	newVal		
GetMaxValue	«property get»			
SetMaxValue	«property set»	newVal		
GetUcumString	«property get»			
SetUcumString	«property set»	newVal		
GetMaxOperator	«property get»			
GetMinOperator	«property get»			
SetMaxOperator	«property set»	newVal		
SetMinOperator	«property set»	newVal		

Relationships

Columns	Association	Notes
	Interval**.** CharacteristicQuantification**.**	

NonQuantifiable

Database: , *Package:* AIM
Detail: *Created on* 3/3/2010. *Last modified on* 4/26/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	codeValue	String			0	0	0		codeValue represents the identifier of the particular term in a coded vocabulary. Should be unique within a given coding scheme.
	codeMeaning	String			0	0	0		The human

								understandable meaning of the coded value.
	codingSchemeDesig nator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersi on	String			0	0	0		Identifies the version of the coding scheme used.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		

Relationships

Columns	Association	Notes
	NonQuantifiable**.** CharacteristicQuantification**.**	

Numerical

Database: , *Package:* AIM
Detail: *Created on* 12/30/2009. *Last modified on*4/18/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	ucumString	String			0	0	0		A string representation of UCUM unit for a number in Numerical.
	operator	Comparis onOperat ors			0	0	0		An operator represents comparison operators, i.e. >, >=, <, <=,==,!=.
	value	Double							

Constraints

Name	Type	Columns	Initial Code	Notes
GetucumString	«property get»			
SetucumString	«property	newVal		

Name	Type	Columns	Initial Code	Notes
	set»			
GetOperator	«property get»			
GetValue	«property get»			
SetOperator	«property set»	newVal		
SetValue	«property set»	newVal		

Relationships

Columns	Association	Notes
	Numerical**.** CharacteristicQuantification**.**	

Person

Database: C++, *Package:* AIM
Detail: *Created on* 1/16/2008. *Last modified on*9/2/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	name	String			0	0	0		The current legal name of the person registered on the clinical trial.
	id	String			0	0	0		The unique number assigned to identify a patient/participant on a protocol.
	birthDate	Date			0	0	0		The month, day and year on which the patient/participant was born.
	sex	String			0	0	0		Text code to represent a patient's sex determination.
	ethnicGroup	String			0	0	0		the patient's/participant's self declared ethnic origination, independent of racail origination, based on OMB approved categories.

Constraints

Name	Type	Columns	Initial Code	Notes

Name	Type	Columns	Initial Code	Notes
GetBirthDate	«property get»			The month, day and year on which the patient/participant was born.
GetName	«property get»			The current legal name of the person registered on the clinical trial.
GetSex	«property get»			Text code to represent a patient's sex determination.
SetBirthDate	«property set»	newVal		The month, day and year on which the patient/participant was born.
SetName	«property set»	newVal		The current legal name of the person registered on the clinical trial.
SetSex	«property set»	newVal		Text code to represent a patient's sex determination.
GetEthnicGroup	«property get»			
GetId	«property get»			The unique number assigned to identify a patient/participant on a protocol.
SetEthnicGroup	«property set»	newVal		
SetId	«property set»	newVal		The unique number assigned to identify a patient/participant on a protocol.

Relationships

Columns	Association	Notes
	1 ImageAnnotation**.**imageAnnotation 1 Person**.** person	

PresentationState

Database: , *Package:* AIM
Detail: *Created on* 4/18/2010. *Last modified on* 4/18/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	sopInstanceUID	String			0	0	0		Unique identifer for a

								Service-Object Pair (SOP) instance, as specified in a DICOM tag.

Constraints

Name	Type	Columns	Initial Code	Notes
GetSopInstanceUID	«property get»			
SetSopInstanceUID	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 DICOMImageReference**.**dicomImageReference **0..*** PresentationState**.** presentationStateCollection	

Quantile

Database: C++, *Package:* AIM
Detail: Created on 12/30/2009. Last modified on12/30/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	bin	Integer			0	0	0		An integer value which divides100 into equal proportions.

Constraints

Name	Type	Columns	Initial Code	Notes
GetBin	«property get»			
SetBin	«property set»	newVal		

Relationships

Columns	Association	Notes
	Quantile**.** CharacteristicQuantification**.**	

ReferencedGeometricShape

Database: , *Package:* AIM
Detail: Created on 1/9/2009. Last modified on1/12/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		
	referencedShapeIdentifier	Integer			0	0	0		It contains an integer value of a shapeIdentifier within an AIM Image Annotation.

Constraints

Name	Type	Columns	Initial Code	Notes
GetReferencedShapeIdentifier	«property get»			
SetReferencedShapeIdentifier	«property set»	newVal		

Relationships

Columns	Association	Notes
	0..1 ImagingObservation**.**imagingObservation **0..1** ReferencedGeometricShape**.** referencedGeometricShape	
	1 Calculation**.**calculation **0..*** ReferencedGeometricShape**.** referencedGeometricShapeCollection	

Scale

Database: C++, *Package:* AIM
Detail: *Created on* 12/30/2009. *Last modified on*3/3/2010.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	comment	String			0	0	0		Free text about the scale not intended for rendering.
	description	String			0	0	0		A human readable description of the scale.
	value	String			0	0	0		A numerical quantity or a set of words assigned.

Constraints

Name	Type	Columns	Initial Code	Notes
GetComment	«property get»			
SetComment	«property set»	newVal		
GetDescription	«property get»			
GetValue	«property get»			
SetDescription	«property set»	newVal		
SetValue	«property set»	newVal		

Relationships

Columns	Association	Notes
	Scale**.** CharacteristicQuantification**.**	

Segmentation

Database: , *Package:* AIM
Detail: *Created on* 12/16/2008. *Last modified on* 12/16/2008.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	sopInstanceUID	String			0	0	0		The Service Object Pair Instance Unique Identifier of the Segmentation.
	sopClassUID	String			0	0	0		Uniquely identifies the Service Object Pair (SOP) Class. A class represents a type of DICOM object, e.g. Segmentation Storage Class = 1.2.840.10008.5.1.4.1.1.66.4.
	referencedSopInstanceUID	String			0	0	0		The Service Object Pair Instance Unique Identifier of the image that Segmentation is referenced.
	segmentNumber	Integer			0	0	0		Identification number of the segment. The value of Segment Number (0062,0004) shall be unique within the Segmentation instance in which it is created.

Constraints

Name	Type	Columns	Initial Code	Notes
GetSegmentNumber	«property get»			
GetSopClassUID	«property get»			
SetSegmentNumber	«property set»	newVal		
SetSopClassUID	«property set»	newVal		
GetImagingObservation				
GetReferencedSopInstanceUID	«property get»			The Service Object Pair Instance Unique Identifier of the image that Segmentation is referenced.
SetImagingObservation		imagingObservation		

Name	Type	Columns	Initial Code	Notes
GetSopInstanceUID	«property get»			The Service Object Pair Instance Unique Identifier of the Segmentation.
SetReferencedSopInstanceUID	«property set»	newVal		The Service Object Pair Instance Unique Identifier of the image that Segmentation is referenced.
SetSopInstanceUID	«property set»	newVal		The Service Object Pair Instance Unique Identifier of the Segmentation.

Relationships

Columns	Association		Notes
	1	Segmentation**.**segmentation	
	0..1	ImagingObservation**.** imagingObservation	
	1	ImageAnnotation**.**imageAnnotation	
	0..*	Segmentation**.** segmentationCollection	

SpatialCoordinate

Database: C++, *Package:* AIM
Detail: *Created on* 10/1/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	coordinateIndex	Integer			0	0	0		The order in which a coordinate appears.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCoordinateIndex	«property get»			
SetCoordinateIndex	«property set»	newVal		

Relationships

Columns	Association		Notes
		ThreeDimensionSpatialCoordinate**.** SpatialCoordinate**.**	
	1	GeometricShape**.**geometricShape	
	1..*	SpatialCoordinate**.** spatialCoordinateCollection	
		TwoDimensionSpatialCoordinate**.** SpatialCoordinate**.**	

ThreeDimensionSpatialCoordinate

Database: , *Package:* AIM
Detail: Created on 1/14/2009. *Last modified on* 6/24/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	x	Double			0	0	0		X axis value.
	y	Double			0	0	0		Y axis value.
	z	Double			0	0	0		Z axis value.
	frameOfReferenceUID	String			0	0	0		Uniquely identifies the frame of reference for a Series.

Constraints

Name	Type	Columns	Initial Code	Notes
GetX	«property get»			
SetX	«property set»	newVal		
GetY	«property get»			
SetY	«property set»	newVal		
GetZ	«property get»			
SetZ	«property set»	newVal		
GetFrameOfReferenceUID	«property get»			
SetFrameOfReferenceUID	«property set»	newVal		

Relationships

Columns	Association	Notes
	ThreeDimensionSpatialCoordinate**.** SpatialCoordinate**.**	

TwoDimensionSpatialCoordinate

Database: C++, *Package:* AIM
Detail: Created on 11/7/2007. *Last modified on* 11/10/2008.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	imageReferenceUID	String			0	0	0		sopInstanceUID or URI
	referencedFrameNumber	Integer			0	0	0		Identifies the frame numbers within the Referenced SOP Instance to which the reference applies. The first frame shall be denoted as frame number 1. Or, the frame number of the

								frame that contains the image in the case of multi-frame images.
	x	Double			0	0	0	The row offset of the pixel from TLHC.
	y	Double			0	0	0	The column offset of the pixel from TLHC.

Constraints

Name	Type	Columns	Initial Code	Notes
SetReferencedFrameNumber	«property set»	newVal		
SetImageReferenceUID	«property set»	newVal		sopInstanceUID or URI
GetImageReferenceUID	«property get»			sopInstanceUID or URI
GetX	«property get»			The row offset of the pixel from TLHC.
GetY	«property get»			The column offset of the pixel from TLHC.
GetReferencedFrameNumber	«property get»			
SetX	«property set»	newVal		The row offset of the pixel from TLHC.
SetY	«property set»	newVal		The column offset of the pixel from TLHC.

Relationships

Columns	Association	Notes
	TwoDimensionSpatialCoordinate**.** SpatialCoordinate**.**	

AnatomicEntity

Database: C++, *Package:* AIM
Detail: *Created on* 5/4/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	codeValue	String			0	0	0		The code of the term in the native vocabulary.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was

										selected.
	codingSchemeVersion	String				0	0	0		Identifies the version of the coding scheme used.
	annotatorConfidence	Double				0	0	0		A real number, between 0 and 1, indicating annotator's confidence that a characteristic is present.
	isPresent	boolean				0	0	0		A boolean value indicates whether or not an imaging observation exist in observed image(s).
	label	String				0	0	0		A human readable description of the anatomic entity characteristic.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodeValue	«property get»			
GetCodingSchemeVersion	«property get»			
SetCodeValue	«property set»	newVal		
SetCodingSchemeVersion	«property set»	newVal		
GetAnatomicEntityCharacteristicCollection				
GetAnnotatorConfidence	«property get»			
SetAnatomicEntityCharacteristicCollection		AnatomicEntityCharacteristic		
SetAnnotatorConfidence	«property set»	newVal		
IsIsPresent	«property get»			
SetIsPresent	«property set»	newVal		
GetLabel	«property get»			
SetLabel	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 Annotation**.**annotation **0..*** AnatomicEntity**.** anatomicEntityCollection	
	1 AnatomicEntity**.**anatomicEntity **0..*** AnatomicEntityCharacteristic**.** anatomicEntityCharacteristicCollection	

Annotation

Database: C++, *Package:* AIM
Detail: *Created on* 4/17/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	aimVersion	String			0	0	0		The version of the AIM model used by this annotation.
	comment	String			0	0	0		Free text about the annotation not intended for rendering on the image.
	dateTime	Date			0	0	0		Date and Time (Julian) that the annotation was created
	name	String			0	0	0		Human readable colloquial name of the annotation not guaranteed to be unique
	uniqueIdentifier	String			0	0	0		A DICOM (style) unique identifier for this particular instance of an annotation. Used to reference a specific annotation.
	codeValue	String			0	0	0		codeValue represents the identifier of the particular term in a coded vocabulary. Should be unique within a given coding scheme.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from

								which the term was selected.
	codingSchemeVersion	String			0	0	0		Identifies the version of the coding scheme used.
	precedentReferencedAnnotationUID	String			0	0	0		A Digital Imaging and Communication in Medicine (DICOM) (style) unique identifier for referencing earlier instance of AIM annotation.

Constraints

Name	Type	Columns	Initial Code	Notes
GetAimVersion	«property get»			
SetAimVersion	«property set»	newVal		
GetComment	«property get»			
SetComment	«property set»	newVal		
GetDateTime	«property get»			Date and Time (Julian) that the annotation was created
SetDateTime	«property set»	newVal		Date and Time (JUlian) that the annotation wa created
GetName	«property get»			Human readable colloquial name of the annotation not guaranteed to be unique
SetName	«property set»	newVal		Human readable colloquial name of the annotation not guaranteed to be unique
GetEquipment				
SetEquipment		Equipment		
SetImagingObservationCollection		imagingObservation		
GetImagingObservationCollection				
GetAnatomicEntityCollection				
SetAnatomicEntityCollection		anatomicEntity		
GetCalculationCollection				
GetUniqueIdentifier	«property get»			A DICOM (style) unique identifier for this particular instance of an annotation. Used to reference a specific annotation.

Name	Type	Columns	Initial Code	Notes
SetCalculationCollection		Calculation		
SetUniqueIdentifier	«property set»	newVal		A DICOM (style) unique identifier for this particular instance of an annotation. Used to reference a specific annotation.
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetUser				
SetUser		User		
GetPrecedentReferencedAnnotationUID	«property get»			
IsAllowModification	«property get»			
SetAllowModification	«property set»	newVal		
SetPrecedentReferencedAnnotationUID	«property set»	newVal		

Relationships

Columns	Association		Notes
	1	Annotation**.**annotation	
	0..*	Inference. inferenceCollection	
	1	Annotation**.**annotation	
	0..*	AnatomicEntity**.** anatomicEntityCollection	
	1	Annotation**.**annotation	
	0..1	Equipment**.** equipment	
	1	Annotation**.**annotation	
	0..*	Calculation**.** calculationCollection	
	1	Annotation**.**annotation	
	0..1	AimStatus**.** aimStatus	
	1	Annotation**.**annotation	
	0..1	User**.** user	
		AnnotationOfAnnotation**.** Annotation**.**	
		ImageAnnotation**.** Annotation**.**	
	1	Annotation**.**annotation	
	0..*	ImagingObservation**.** imagingObservationCollection	

AnnotationOfAnnotation

Database: C++, *Package:* AIM
Detail: *Created on* 5/29/2007. *Last modified on*12/18/2007.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetReferencedAnnotationCollection				
SetReferencedAnnotationCollection		ReferencedAnnotation		

Relationships

Columns	Association	Notes
	1 AnnotationOfAnnotation**.**annotationOfAnnotation **1..*** ReferencedAnnotation**.** referencedAnnotationCollection	
	AnnotationOfAnnotation**.** Annotation**.**	

Calculation

Database: C++, *Package:* AIM
Detail: *Created on* 4/17/2007. *Last modified on*12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	uid	String			0	0	0		A unique identifier for a calculation such that an individual calculation can be referenced.
	description	String			0	0	0		A human understandable, brief description of the calculation.
	mathML	String			0	0	0		An optional mathMLrepresentaion of the calculation.
	codeValue	String			0	0	0		codeValue represents the identifier of the particular term in a coded vocabulary. Should be unique within a given coding scheme.
	codeMeaning	String			0	0	0		The human understandable

								meaning of the coded value.
	codingSchemeDesignator	String			0	0	0	The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0	Identifies the version of the coding scheme used.
	algorithmName	String			0	0	0	A name of the algorithm.
	algorithmVersion	String			0	0	0	Information describing a version of algorithm.

Constraints

Name	Type	Columns	Initial Code	Notes
GetMathML	«property get»			
GetUID	«property get»			
SetMathML	«property set»	newVal		
SetUID	«property set»	newVal		
GetDescription	«property get»			
SetDescription	«property set»	newVal		
SetCalculationResultCollection		CalculationResult		
SetReferencedCalculationCollection		referencedCalculation		
GetCalculationResultCollection				
GetReferencedCalculationCollection				
GetCodeValue	«property get»			
GetReferencedGeometricShapeCollection				
SetCodeValue	«property set»	newVal		
SetReferencedGeometricShapeCollection		ReferencedGeometricShape		
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property	newVal		

Name	Type	Columns	Initial Code	Notes
	set»			
GetAlgorithmName	«property get»			
SetAlgorithmName	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 Calculation**.**calculation **0..*** CalculationResult**.** calculationResultCollection	
	1 Calculation**.**calculation **0..*** ReferencedCalculation**.** referencedCalculationCollection	
	1 Annotation**.**annotation **0..*** Calculation**.** calculationCollection	
	1 Calculation**.**calculation **0..*** ReferencedGeometricShape**.** referencedGeometricShapeCollection	

CalculationResult

Database: C++, *Package:* AIM
Detail: Created on 5/14/2007. Last modified on12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	type	CalculationResultIdentifier			0	0	0		The type of result, for example, scalar, vector, histogram, array.
	numberOfDimensions	Integer			0	0	0		Total number of dimensions
	unitOfMeasure	String			0	0	0		A string representation of UCUM unit for the dimensions

Constraints

Name	Type	Columns	Initial Code	Notes
GetNumberOfDimensions	«property get»			
SetNumberOfDimensions	«property set»	newVal		
GetType	«property get»			Scalar, vector, histogram, array
SetType	«property set»	newVal		Scalar, vector, histogram, array
GetDimensionCollection				
SetDimensionCollection		dimension		

Name	Type	Columns	Initial Code	Notes
GetDataCollection				
SetDataCollection		data		
GetUnitOfMeasure	«property get»			
SetUnitOfMeasure	«property set»	newVal		
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 CalculationResult**.**calculationResult **1..*** Dimension**.** dimensionCollection	
	1 Calculation**.**calculation **0..*** CalculationResult**.** calculationResultCollection	
	1 CalculationResult**.**calculationResult **0..*** CalculationData**.** calculationDataCollection	

Circle

Database: C++, *Package:* AIM
Detail: Created on 4/18/2007. Last modified on 12/18/2007.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetCenter				
SetCenter		center		
GetRadiusPoint				
SetRadiusPoint		radiusPoint		

Relationships

Columns	Association	Notes
	Circle**.** GeometricShape**.**	

ImagingObservationCharacteristic

Database: C++, *Package:* AIM
Detail: Created on 7/17/2007. Last modified on 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	codeValue	String			0	0	0		The code of the term in the native

									vocabulary.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		Identifies the version of the coding scheme used.
	comment	String			0	0	0		Free text comment
	annotatorConfidence	Double			0	0	0		A real number, between 0 and 1, indicating annotator's confidence that a characteristic is present.
	label	String			0	0	0		A human readable description of the imaging observation characteristic.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeMeaning	«property get»			
GetCodeValue	«property get»			
GetCodingSchemeDesignator	«property get»			
SetCodeMeaning	«property set»	newVal		
SetCodeValue	«property set»	newVal		
SetCodingSchemeDesignator	«property set»	newVal		
GetComment	«property get»			
SetComment	«property set»	newVal		
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetAnnotatorConfidence	«property get»			
SetAnnotatorConfidence	«property set»	newVal		
GetLabel	«property get»			
SetLabel	«property set»	newVal		
GetCharacteristicQuantificati				

Name	Type	Columns	Initial Code	Notes
onCollection				
SetCharacteristicQuantificationCollection		CharacteristicQuantification		

Relationships

Columns	Association	Notes
	0..1 ImagingObservationCharacteristic**.**imagingObservationCharacteristic **0..*** CharacteristicQuantification**.** characteristicQuantificationCollection	
	1 ImagingObservation**.**imagingObservation **0..*** ImagingObservationCharacteristic**.** imagingObservationCharacteristicCollection	

ReferencedCalculation

Database: C++, *Package:* AIM
Detail: Created on 6/10/2007. Last modified on 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	uniqueIdentifier	String			0	0	0		Referenced calculation UID

Constraints

Name	Type	Columns	Initial Code	Notes
GetUniqueIdentifier	«property get»			
SetUniqueIdentifier	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 Calculation**.**calculation **0..*** ReferencedCalculation**.** referencedCalculationCollection	

TextAnnotation

Database: C++, *Package:* AIM
Detail: Created on 7/5/2007. Last modified on 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to

									identify, name, or characterize the nature, properties, or contents of a thing.
	font	String			0	0	0		Font type
	fontColor	String			0	0	0		Font color
	fontEffect	String			0	0	0		Font effect (bold, italic, etc.)
	fontSize	String			0	0	0		Font size in point
	fontStyle	String			0	0	0		Font style
	text	String			0	0	0		The text that makes up the markup.
	textJustify	String			0	0	0		Text position (Left, Right, Center)
	fontOpacity	String			0	0	0		Opacity level for the font as a percentage

Constraints

Name	Type	Columns	Initial Code	Notes
GetFont	«property get»			
SetFont	«property set»	newVal		
GetFontColor	«property get»			
SetFontColor	«property set»	newVal		
GetFontEffect	«property get»			
SetFontEffect	«property set»	newVal		
GetFontSize	«property get»			
SetFontSize	«property set»	newVal		
GetFontStyle	«property get»			
SetFontStyle	«property set»	newVal		
GetTextJustify	«property get»			
SetTextJustify	«property set»	newVal		
GetFontOpacity	«property get»			
SetFontOpacity	«property set»	newVal		
GetText	«property get»			
SetText	«property set»	newVal		
GetMultiPoint				
SetMultiPoint		multiPoint		

Relationships

Columns	Association		Notes
	1	ImageAnnotation**.**imageAnnotation	
	0..*	TextAnnotation**.** textAnnotationCollection	
	1	TextAnnotation**.**textAnnotation	
	0..1	MultiPoint**.** multiPoint	

ImageAnnotation

Database: C++, *Package:* AIM
Detail: *Created on* 4/17/2007. *Last modified on*12/18/2007.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetInferenceCollection				
SetInferenceCollection		Inference		
GetSegmentationCollection				
SetSegmentationCollection		Segmentation		
GetTextAnnotationCollection				
SetTextAnnotationCollection		TextAnnotation		
GetGeometricShapeCollection				
SetGeometricShapeCollection		GeometricShape		
GetImageReferenceCollection				
SetImageReferenceCollection		ImageReference		
GetPatient				
SetPatient		Patient		

Relationships

Columns	Association		Notes
	1	ImageAnnotation**.**imageAnnotation	
	1	Person**.** person	
	1	ImageAnnotation**.**imageAnnotation	
	1..*	ImageReference**.** imageReferenceCollection	
	1	ImageAnnotation**.**imageAnnotation	
	0..*	TextAnnotation**.** textAnnotationCollection	
	1	ImageAnnotation**.**imageAnnotation	
	0..*	Segmentation**.** segmentationCollection	
	1	ImageAnnotation**.**imageAnnotation	
	0..*	GeometricShape**.** geometricShapeCollection	
		ImageAnnotation**.**	
		Annotation**.**	

User

Database: C++, *Package:* AIM
Detail: *Created on* 5/14/2007. *Last modified on*9/2/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to

								identify, name, or characterize the nature, properties, or contents of a thing.
	name	String			0	0	0		The full name of the author of the annotation.
	loginName	String			0	0	0		The login name of the author on the software that is being used to create the annotation.
	roleInTrial	String			0	0	0		The role of the author in the clinical trial, for example, "reader", or "adjudicator".
	numberWithinRole OfClinicalTrial	Integer			0	0	0		An identifier assigned to the author by the clinical trial, for example, role might be "reader", and NumberWithinRole might be "42", or numberWithinRoleOf CLinicalTrial might be "A12345".

Constraints

Name	Type	Columns	Initial Code	Notes
GetLoginName	«property get»			
SetLoginName	«property set»	newVal		
GetNumberWithinRoleOfCli nicalTrial	«property get»			
SetNumberWithinRoleOfClin icalTrial	«property set»	newVal		
GetRoleInTrial	«property get»			
GetName	«property get»			The full name of the author of the annotation.
SetRoleInTrial	«property set»	newVal		
SetName	«property set»	newVal		The full name of the author of the annotation.

Relationships

Columns	Association		Notes
	1	Annotation**.**annotation	
	0..1	User**.** user	

DICOMImageReference

Database: C++, *Package:* AIM
Detail: *Created on* 5/15/2007. *Last modified on* 12/18/2007.

Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetStudy				
SetStudy		Study		
GetPresentationStateCollection				
SetPresentationStateCollection		PresentationState		

Relationships

Columns	Association	Notes
	1 DICOMImageReference.dicomImageReference 1 ImageStudy. imageStudy	
	1 DICOMImageReference.dicomImageReference 0..* PresentationState. presentationStateCollection	
	DICOMImageReference. ImageReference.	

Ellipse

Database: C++, *Package:* AIM
Detail: Created on 4/24/2007. *Last modified on*12/18/2007.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetEllipseCollection				
SetEllipseCollection		lineCollection		

Relationships

Columns	Association	Notes
	Ellipse. GeometricShape.	

GeometricShape

Database: C++, *Package:* AIM
Detail: Created on 4/17/2007. *Last modified on*11/10/2008.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	lineColor	String			0	0	0		Color of the line to be used for markup of the greometric shape.
	lineOpacity	String			0	0	0		Opacity of the line to

								be used for markup of the greometric shape.
	lineStyle	String			0	0	0		Style of the line to be used for markup of the greometric shape.
	lineThickness	String			0	0	0		Thickness of the line to be used for markup of the greometric shape.
	includeFlag	boolean			0	0	0		A boolean flag that determines if the particular shape in question is donut or hole.
	shapeIdentifier	Integer			0	0	0		A unique integer assigned to each shape within an annotation.

Constraints

Name	Type	Columns	Initial Code	Notes
GetLineColor	«property get»			
GetLineOpacity	«property get»			
GetLineStyle	«property get»			
GetLineThickness	«property get»			
GetSpatialCoordinateCollection				
SetLineColor	«property set»	newVal		
SetLineOpacity	«property set»	newVal		
SetLineStyle	«property set»	newVal		
SetLineThickness	«property set»	newVal		
SetSpatialCoordinateCollection		spatialCoordinateCollection		
IsIncludeFlag	«property get»			
SetIncludeFlag	«property set»	newVal		
GetShapeIdentifier	«property get»			A unique integer assigned to each shape within an annotation.
SetShapeIdentifier	«property set»	newVal		A unique integer assigned to each shape within an annotation.

Relationships

Columns	Association	Notes
	Polyline**.** GeometricShape**.**	

Columns	Association		Notes
		Point. GeometricShape.	
		Ellipse. GeometricShape.	
		Circle. GeometricShape.	
	1 **0..***	ImageAnnotation.imageAnnotation GeometricShape. geometricShapeCollection	
	1 **1..***	GeometricShape.geometricShape SpatialCoordinate. spatialCoordinateCollection	
		MultiPoint. GeometricShape.	

ImageReference

Database: C++, *Package:* AIM
Detail: *Created on* 5/15/2007. *Last modified on*12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.

Relationships

Columns	Association		Notes
	1 **1..***	ImageAnnotation.imageAnnotation ImageReference. imageReferenceCollection	
		DICOMImageReference. ImageReference.	
		WebImageReference. ImageReference.	

Point

Database: C++, *Package:* AIM
Detail: *Created on* 4/24/2007. *Last modified on*12/18/2007.
Notes:

Constraints

Name	Type	Columns	Initial Code	Notes
GetCenter				
SetCenter		spatialCoordinate		

Relationships

Columns	Association	Notes
	Point. GeometricShape.	

Polyline

Database: C++, *Package:* AIM
Detail: *Created on* 4/18/2007. *Last modified on* 11/6/2008.
Notes:

Relationships

Columns	Association	Notes
	Polyline**.** GeometricShape**.**	

ReferencedAnnotation

Database: C++, *Package:* AIM
Detail: *Created on* 4/24/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature, properties, or contents of a thing.
	referencedAnnotatio nUID	String			0	0	0		Referenced annotation ID

Constraints

Name	Type	Columns	Initial Code	Notes
GetReferencedAnnotationUI D	«property get»			Referenced annotation ID
SetReferencedAnnotationUI D	«property set»	newVal		Referenced annotation ID
GetAnnotationRole				
SetAnnotationRole		AnnotationRole		

Relationships

Columns	Association	Notes
	1 ReferencedAnnotation**.**referencedAnnotation **0..1** AnnotationRole**.** annotationRole	
	1 AnnotationOfAnnotation**.**annotationOfAnnotation **1..*** ReferencedAnnotation**.** referencedAnnotationCollection	

ImagingObservation

Database: C++, *Package:* AIM
Detail: *Created on* 5/6/2007. *Last modified on* 12/18/2007.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	cagridId	Integer			0	0	0		One or more characters used to identify, name, or characterize the nature,

									properties, or contents of a thing.
	codeValue	String			0	0	0		The code of the term in the native vocabulary.
	codeMeaning	String			0	0	0		The human understandable meaning of the coded value.
	codingSchemeDesignator	String			0	0	0		The designator of the vocabulary from which the term was selected.
	codingSchemeVersion	String			0	0	0		Identifies the version of the coding scheme used.
	comment	String			0	0	0		Free text comment
	annotatorConfidence	Double			0	0	0		A real number, between 0 and 1, indicating annotator's confidence that a characteristic is present.
	isPresent	boolean			0	0	0		A boolean value indicates whether or not an imaging observation exist in observed image(s).
	label	String			0	0	0		A human readable description of the anatomic entity characteristic.

Constraints

Name	Type	Columns	Initial Code	Notes
GetCodeMeaning	«property get»			
SetCodeMeaning	«property set»	newVal		
GetCodingSchemeDesignator	«property get»			
SetCodingSchemeDesignator	«property set»	newVal		
GetCodeValue	«property get»			
SetCodeValue	«property set»	newVal		
GetComment	«property get»			Free text comment
SetComment	«property set»	newVal		Free text comment
GetConfidence	«property get»			
SetConfidence	«property set»	newVal		

Name	Type	Columns	Initial Code	Notes
GetCodingSchemeVersion	«property get»			
SetCodingSchemeVersion	«property set»	newVal		
GetImagingObservationCharacteristicCollection				
SetImagingObservationCharacteristicCollection		ImagingObservationCharacteristic		
GetAnnotatorConfidence	«property get»			
SetAnnotatorConfidence	«property set»	newVal		
IsIsPresent	«property get»			
SetIsPresent	«property set»	newVal		
GetLabel	«property get»			
SetLabel	«property set»	newVal		

Relationships

Columns	Association	Notes
	1 Segmentation**.**segmentation **0..1** ImagingObservation**.** imagingObservation	
	1 ImagingObservation**.**imagingObservation **0..*** ImagingObservationCharacteristic**.** imagingObservationCharacteristicCollection	
	0..1 ImagingObservation**.**imagingObservation **0..1** ReferencedGeometricShape**.** referencedGeometricShape	
	1 Annotation**.**annotation **0..*** ImagingObservation**.** imagingObservationCollection	

WebImageReference

Database: C++, *Package:* AIM
Detail: *Created on* 5/15/2007. *Last modified on* 8/14/2009.
Notes:

Columns

PK	Name	Type	Not Null	Unique	Len	Prec	Scale	Init	Notes
	uri	String			0	0	0		Uniform Resource Identifier of the image.

Constraints

Name	Type	Columns	Initial Code	Notes
GetURI	«property get»			
SetURI	«property set»	newVal		

Relationships

Columns	Association	Notes

Columns	Association	Notes
	WebImageReference**.** ImageReference**.**	

MultiPoint

Database:	C++, *Package:* AIM
Detail:	*Created on 4/18/2007. Last modified on12/18/2007.*
Notes:	

Relationships

Columns	Association		Notes
	1	TextAnnotation**.**textAnnotation	
	0..1	MultiPoint**.** multiPoint	
		MultiPoint**.** GeometricShape**.**	

java

Type:	**Package**
Package:	Logical Model
Detail:	*Created on 12/18/2007. Last modified on 12/18/2007.*
Notes:	

lang

Type:	**Package**
Package:	java
Detail:	*Created on 7/14/2005. Last modified on 7/14/2005.*
Notes:	

Boolean

Database:	Java, *Package:* lang
Detail:	*Created on 10/20/2006. Last modified on10/20/2006.*
Notes:	

Double

Database:	<none>, *Package:* lang
Detail:	*Created on 7/27/2005. Last modified on7/27/2005.*
Notes:	

Integer

Database:	Java, *Package:* lang
Detail:	*Created on 7/15/2005. Last modified on7/27/2005.*
Notes:	

Long

Database:	Java, *Package:* lang
Detail:	*Created on 8/25/2005. Last modified on8/25/2005.*
Notes:	

String

Database:	\<none\>, *Package:* lang
Detail:	*Created on* 7/18/2005. *Last modified on*7/18/2005.
Notes:	

util

Type:	**Package**
Package:	java
Detail:	*Created on 7/15/2005. Last modified on 7/15/2005.*
Notes:	

Date

Database:	Java, *Package:* util
Detail:	*Created on* 7/15/2005. *Last modified on*7/15/2005.
Notes:	