

Data dictionary for QIF Library IntermediatesPMI.xsd (normative)

schema location: [..\QIFLibrary\IntermediatesPMI.xsd](#)
 attributeFormDefault: **unqualified**
 elementFormDefault: **qualified**
 targetNamespace: <http://qifstandards.org/xsd/qif2>

Complex types

[ActualDatumFeatureType](#)
[ActualOffsetAlignmentOperationType](#)
[ActualOriginOffsetType](#)
[ActualPointWithNormalBaseType](#)
[AddressDescriptionType](#)
[AlignmentFeatureType](#)
[AlignmentOperationBaseType](#)
[AlignmentOperationsType](#)
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[CoordinateSystemActualTransformsType](#)
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[CustomerOrganizationType](#)
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[DatumTargetPointDefinitionType](#)
[DatumTargetRectangularAreaDefinitionType](#)
[DatumTargetSphereDefinitionType](#)
[DatumTranslationType](#)
[DatumType](#)
[DatumWithPrecedenceType](#)
[DegreesOfFreedomType](#)
[DirectionalOffsetType](#)
[DirectionFeatureType](#)

Simple types

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[AngleBetweenAnalysisModeEnumType](#)
[AngularCoordinateDirectionEnumType](#)
[CommonFileSpecEnumType](#)
[CompoundFeatureGeometryEnumType](#)
[CurveSubstituteFeatureAlgorithmEnumType](#)
[DegreeOfFreedomEnumType](#)
[DiameterModifierEnumType](#)
[DimensionModifierEnumType](#)
[DistanceBetweenAnalysisModeEnumType](#)
[FeatureOfSizeSubstituteFeatureAlgorithmEnumType](#)
[FormalStandardEnumType](#)
[InspectionStatusEnumType](#)
[IntersectionPlaneEnumType](#)
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[PrecedenceEnumType](#)
[ReducedDatumEnumType](#)
[ReferencedComponentEnumType](#)
[RetrievalMethodEnumType](#)
[SectionModifierEnumType](#)
[SurfaceSubstituteFeatureAlgorithmEnumType](#)

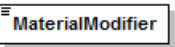
[EmployeeType](#)
[EntitiesExternalType](#)
[EntityExternalType](#)
[EventBaseType](#)
[ExternalFileReferenceType](#)
[FeatureOfSizeSubstituteFeatureAlgorithmType](#)
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[MultiLeadThreadSpecificationType](#)
[NominalDatumFeatureType](#)
[NominalOffsetAlignmentOperationType](#)
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ype](#)
[NotableEventsType](#)
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[PointWithNormalBaseType](#)
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[PressureToleranceType](#)
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[SecondaryAlignmentOperationType](#)
[SequencedBaseFeatureType](#)
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[SignOffsType](#)
[SingleLeadThreadSpecificationType](#)
[SoftwareType](#)
[SpeedToleranceType](#)
[SubstituteFeatureAlgorithmBaseType](#)
[SurfaceSubstituteFeatureAlgorithmType](#)
[TargetPointActualType](#)
[TargetPointNominalType](#)
[TemperatureToleranceType](#)
[TextThreadSpecificationType](#)
[ThreadSpecificationDetailedBaseType](#)
[ThreadSpecificationsType](#)
[ThreadSpecificationType](#)
[TimeToleranceType](#)
[ToleranceZonePerUnitAngleType](#)

[ToleranceZonePerUnitAreaType](#)
[ToleranceZonePerUnitLengthType](#)
[ToleranceZonePerUnitPolarAreaType](#)
[TransformInstanceType](#)
[TransformListType](#)
[VersionBaseType](#)
[VersionHistoryType](#)
[VersionReferenceType](#)
[VersionType](#)
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complexType **ActualDatumFeatureType**

diagram	
type	extension of DatumFeatureBaseType
properties	base DatumFeatureBaseType
children	FeatureItemId MaterialModifier
used by	element DatumWithPrecedenceType/ActualDatumFeature
annotation	documentation The ActualDatumFeatureType defines a DatumFeatureBaseType in which the datum feature is to be established from the actual feature.

element **ActualDatumFeatureType/MaterialModifier**

diagram			
type	MaterialModifierEnumType		
properties	content	simple	
facets	Kind	Value	Annotation
	enumeration	REGARDLESS	
	enumeration	LEAST	
	enumeration	MAXIMUM	
	enumeration	NONE	
annotation	documentation The MaterialModifier element is the material condition or material boundary modifier for the datum feature.		

complexType **ActualOffsetAlignmentOperationType**

diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber Origin
used by	element ActualOffset
annotation	documentation The ActualOffsetAlignmentOperationType defines information particular to an actual origin offset alignment operation.

element **ActualOffsetAlignmentOperationType/Origin**

diagram	
type	ActualOriginOffsetType
properties	minOcc 1 maxOcc 3 content complex
children	OriginEntity OriginDirection
annotation	documentation Each Origin element describes one alignment feature setting an origin in one direction.

complexType **ActualOriginOffsetType**

diagram	
children	OriginEntity OriginDirection
used by	element ActualOffsetAlignmentOperationType/Origin
annotation	documentation The ActualOriginOffsetType defines information particular to an actual origin offset.

element **ActualOriginOffsetType/OriginEntity**

diagram	
type	AlignmentFeatureType
properties	content complex
children	DatumDefinitionId BaseFeature
annotation	documentation The OriginEntity element is the feature or datum that defines an origin along the specified direction.

element **ActualOriginOffsetType/OriginDirection**

diagram	<div><div><div>UnitVectorType</div><div><div>attributes</div><div><div>linearUnit</div><div>decimalPlaces</div><div>significantFigures</div><div>validity</div><div>xDecimalPlaces</div><div>xSignificantFigures</div><div>xValidity</div><div>yDecimalPlaces</div><div>ySignificantFigures</div><div>yValidity</div><div>zDecimalPlaces</div><div>zSignificantFigures</div><div>zValidity</div></div></div></div><div><div>OriginDirection</div><div></div></div></div>																														
type	UnitVectorType																														
properties	content complex																														
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>length</td><td>3</td><td></td></tr></table>	Kind	Value	Annotation	length	3																									
Kind	Value	Annotation																													
length	3																														
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>Annotation</td></tr><tr><td>linearUnit</td><td>xs:token</td><td></td><td></td><td></td><td></td></tr><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td></td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td></td></tr><tr><td>validity</td><td>ValidityEnumType</td><td></td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	linearUnit	xs:token					decimalPlaces	xs:nonNegativeInteger					significantFigures	xs:nonNegativeInteger					validity	ValidityEnumType				
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decimalPlaces	xs:nonNegativeInteger																														
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validity	ValidityEnumType																														

	xDecimalPlaces xs:nonNegativeInteger xSignificantFigures xs:nonNegativeInteger xValidity ValidityEnumType yDecimalPlaces xs:nonNegativeInteger ySignificantFigures xs:nonNegativeInteger yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The OriginDirection element is the direction in the current coordinate system in which the origin is set.

complexType **ActualPointWithNormalBaseType**

diagram						
properties	abstract true					
children	Point Normal					
used by	complexTypes MeasurePointActualType TargetPointActualType					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The abstract ActualPointWithNormalBaseType is the base type for the results of measurement and actual point-defined-feature points. The direction of the optional normal vector is away from the material.					

attribute **ActualPointWithNormalBaseType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the point, used for referencing.

element **ActualPointWithNormalBaseType/Point**

diagram						
type	ActualPointType					
properties	content	complex				
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				

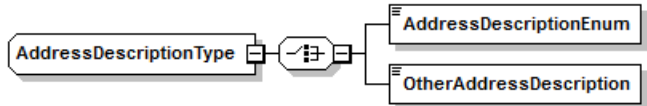
	xValidity ValidityEnumType yDecimalPlaces xs:nonNegativeInteger ySignificantFigures xs:nonNegativeInteger yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType combinedUncertainty xs:decimal meanError xs:decimal xCombinedUncertainty xs:decimal xMeanError xs:decimal yCombinedUncertainty xs:decimal yMeanError xs:decimal zCombinedUncertainty xs:decimal zMeanError xs:decimal
annotation	documentation The Point element is the location of the individual point.

element **ActualPointWithNormalBaseType/Normal**


diagram						
type	ActualUnitVectorType					
properties	minOcc 0 maxOcc 1 content complex					
facets	Kind Value Annotation length 3					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				

	xValidity ValidityEnumType yDecimalPlaces xs:nonNegativeInteger ySignificantFigures xs:nonNegativeInteger yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType combinedUncertainty xs:decimal meanError xs:decimal xCombinedUncertainty xs:decimal xMeanError xs:decimal yCombinedUncertainty xs:decimal yMeanError xs:decimal zCombinedUncertainty xs:decimal zMeanError xs:decimal
annotation	documentation The optional Normal element is the unit vector normal to the material at the locating point.

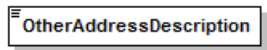
complexType **AddressDescriptionType**

diagram	
children	AddressDescriptionEnum OtherAddressDescription
used by	element PhysicalAddressType/Description
annotation	documentation The AddressDescriptionType defines the type of a physical address.

element **AddressDescriptionType/AddressDescriptionEnum**

diagram			
type	AddressDescriptionEnumType		
properties	content	simple	
facets	Kind	Value	Annotation
	enumeration	DELIVERY	
	enumeration	POSTAL	
	enumeration	VISITOR	
	enumeration	NOTDEFINED	
annotation	documentation The AddressDescriptionEnum element describes an often-used type of a physical address.		

element **AddressDescriptionType/OtherAddressDescription**

diagram	
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type	xs:string
properties	content simple
annotation	documentation The OtherAddressDescription element describes a type of a physical address in natural language.

complexType **AlignmentFeatureType**

diagram	
children	DatumDefinitionId BaseFeature
used by	elements ActualOriginOffsetType/OriginEntity PrimaryAlignmentOperationType/PrimaryEntity SecondaryAlignmentOperationType/SecondaryEntity
annotation	documentation The AlignmentFeatureType defines a reference to an alignment feature, either a datum or a feature item.

element **AlignmentFeatureType/DatumDefinitionId**


diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DatumDefinitionId element is the QIF id of the datum definition used in the alignment operation.					

element **AlignmentFeatureType/BaseFeature**

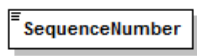
diagram	
type	BaseFeatureType
properties	content complex
children	ReferencedComponent FeatureItemid
annotation	documentation

	The BaseFeature element is the feature used in an alignment operation.
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complexType **AlignmentOperationBaseType**

diagram	
properties	abstract true
children	SequenceNumber
used by	element AlignmentOperation complexTypes ActualOffsetAlignmentOperationType BestFitAlignmentOperationType DatumPrecedenceAlignmentOperationType MachineCoordinateSystemOperationType NominalOffsetAlignmentOperationType NominalRotationAlignmentOperationType PrimaryAlignmentOperationType SecondaryAlignmentOperationType
annotation	documentation <p>The AlignmentOperationBaseType is the abstract base type that defines a coordinate system alignment operation with a sequence number for ordering. Each alignment operation takes place in the current coordinate system, which is established as follows.</p> <ol style="list-style-type: none"> 1. If a previous alignment operation exists, the current coordinate system is the coordinate system established by the previous alignment operation. 2. Otherwise, if the base coordinate system is defined, the current coordinate system is the base coordinate system. 3. Otherwise, the current coordinate system is the common coordinate system.

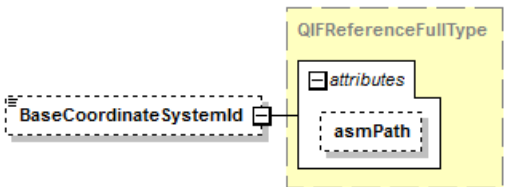
element **AlignmentOperationBaseType/SequenceNumber**

diagram	
type	xs:positiveInteger
properties	content simple
annotation	documentation <p>The SequenceNumber element is the sequence number of the alignment operation. The sequence numbers in an ordered set of alignment operations should be assigned 1, 2, 3, ...</p>

complexType **AlignmentOperationsType**

diagram	
children	AlignmentOperation BaseCoordinateSystemId
used by	element CoordinateSystemType/AlignmentOperations
annotation	documentation The AlignmentOperationsType defines a list of one or more ordered alignment operations.

element **AlignmentOperationsType/BaseCoordinateSystemId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity

	within an assembly.
annotation	documentation The optional BaseCoordinateSystemId element is the QIF id of the coordinate system on which the first alignment operation is based.

complexType **AngularToleranceDefinitionType**

diagram						
children	Attributes MaxValue MinValue MinValue					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the tolerance definition, used for referencing.
annotation	documentation The AngularToleranceDefinitionType defines a tolerance on an angle that can be referenced by its QIF id.					

attribute **AngularToleranceDefinitionType/@id**

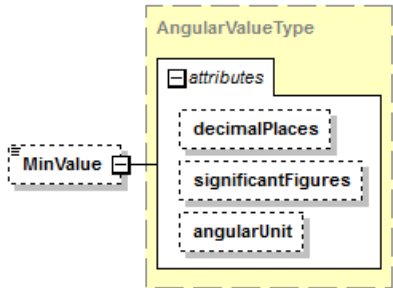
type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the tolerance definition, used for referencing.

element **AngularToleranceDefinitionType/MaxValue**

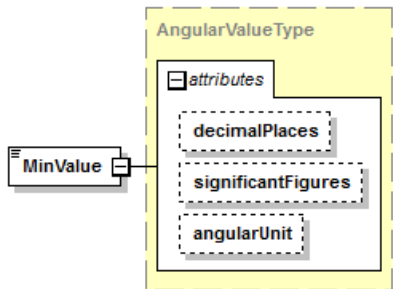
diagram						
type	AngularValueType					
properties	content complex					
attributes	Name decimalPlaces	Type xs:nonNegativeInteger	Use	Default	Fixed	Annotation documentation See documentation of SpecifiedDecimalType.

	significantFigures xs:nonNegativeInteger angularUnit xs:token	documentation See documentation of SpecifiedDecimalType. documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.	

element AngularToleranceDefinitionType/MinValue

diagram						
type	AngularValueType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType. documentation
	significantFigures	xs:nonNegativeInteger				See documentation of SpecifiedDecimalType. documentation
	angularUnit	xs:token				The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element AngularToleranceDefinitionType/MinValue

diagram						
type	AngularValueType					
properties	content	complex				

attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

complexType AngularToleranceType

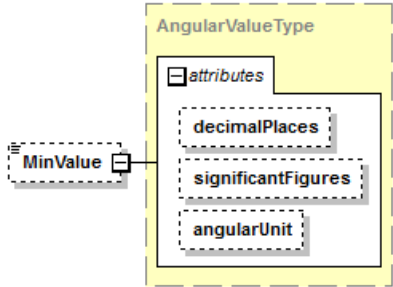
diagram	
children	MaxValue MinValue MinValue DefinitionId DefinedAsLimit
annotation	documentation The AngularToleranceType defines a tolerance on an angle.

element AngularToleranceType/MaxValue

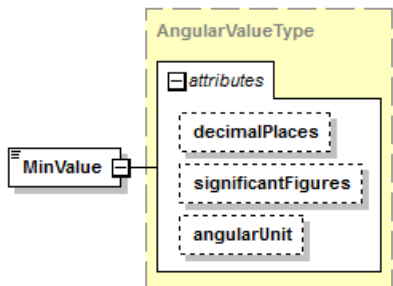
diagram	<pre>graph LR MaxValue[MaxValue] --- AngularValueType[AngularValueType] AngularValueType --- attributes[attributes] attributes --- decimalPlaces[decimalPlaces] attributes --- significantFigures[significantFigures] attributes --- angularUnit[angularUnit]</pre>																								
type	AngularValueType																								
properties	content complex																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>angularUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional angularUnit attribute defines the UnitName for the</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the
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decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the																				

	AngularValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.

element **AngularToleranceType/MinValue**

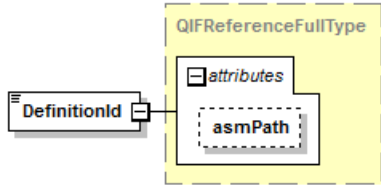
diagram						
type	AngularValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation	The optional MinValue element is the minimum specification limit or lower tolerance.				

element **AngularToleranceType/MinValue**


diagram						
type	AngularValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.

	angularUnit xs:token	documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.	

element **AngularToleranceType/DefinitionId**

diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DefinitionId element is the QIF id of an angular tolerance definition.					

element **AngularToleranceType/DefinedAsLimit**

diagram						
type	xs:boolean					
properties	content simple					
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.					

complexType **AreaToleranceType**

diagram	
children	MaxValue MinValue MinValue DefinedAsLimit
annotation	documentation The AreaToleranceType defines a tolerance on a quantity measured in area units.

element **AreaToleranceType/MaxValue**

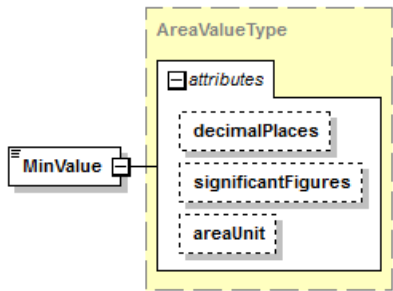
diagram																									
type	AreaValueType																								
properties	content complex																								
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>areaUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional areaUnit attribute defines the UnitName for the AreaValueType.</td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	areaUnit	xs:token				documentation The optional areaUnit attribute defines the UnitName for the AreaValueType.
Name	Type	Use	Default	Fixed	Annotation																				
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significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
areaUnit	xs:token				documentation The optional areaUnit attribute defines the UnitName for the AreaValueType.																				
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.																								

element **AreaToleranceType/MinValue**

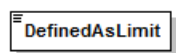
diagram	
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type	AreaValueType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	areaUnit	xs:token				documentation The optional areaUnit attribute defines the UnitName for the AreaValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element **AreaToleranceType/MinValue**

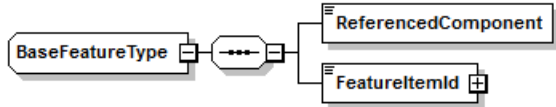
diagram						
type	AreaValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	areaUnit	xs:token				documentation The optional areaUnit attribute defines the UnitName for the AreaValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

element **AreaToleranceType/DefinedAsLimit**


diagram	
type	xs:boolean
properties	content simple
annotation	<div>documentation</div> <div>The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be</div>

	negative.
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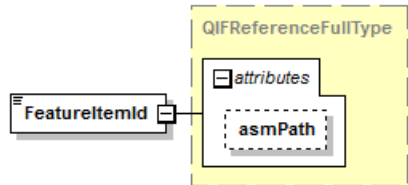
complexType BaseFeatureType

diagram	
children	ReferencedComponent FeatureItemid
used by	elements AlignmentFeatureType/BaseFeature DirectionalOffsetType/FeatureDirection complexType SequencedBaseFeatureType
annotation	documentation The BaseFeatureType defines a feature used in a construction or alignment.

element BaseFeatureType/ReferencedComponent

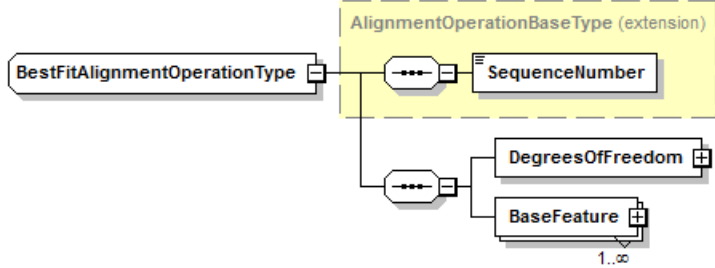
diagram										
type	ReferencedComponentEnumType									
properties	content simple									
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>enumeration</td><td>NOMINAL</td><td></td></tr><tr><td>enumeration</td><td>ACTUAL</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	NOMINAL		enumeration	ACTUAL	
Kind	Value	Annotation								
enumeration	NOMINAL									
enumeration	ACTUAL									
annotation	<p>documentation</p> <p>The ReferencedComponent element identifies whether the actual or nominal component of this feature is used in the construction or alignment.</p>									

element BaseFeatureType/FeatureItemid

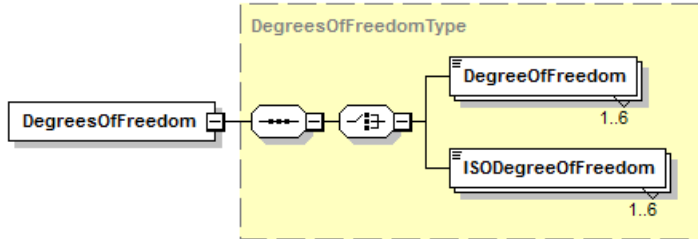
diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously

		identifies a model entity within an assembly.
annotation	documentation The FeatureItemId element is the QIF id of the feature item used in the construction or alignment.	

complexType **BestFitAlignmentOperationType**

diagram		
type	extension of AlignmentOperationBaseType	
properties	base AlignmentOperationBaseType	
children	SequenceNumber DegreesOfFreedom BaseFeature	
used by	element BestFit	
annotation	documentation The BestFitAlignmentOperationType defines information particular to a best fit alignment operation.	

element **BestFitAlignmentOperationType/DegreesOfFreedom**

diagram		
type	DegreesOfFreedomType	
properties	content complex	
children	DegreeOfFreedom ISODegreeOfFreedom	
annotation	documentation The DegreesOfFreedom element is the degrees of freedom for the best-fit alignment operation.	


element **BestFitAlignmentOperationType/BaseFeature**

diagram	
type	SequencedBaseFeatureType
properties	minOcc 1 maxOcc unbounded content complex
children	ReferencedComponent FeatureItemId SequenceNumber
annotation	documentation Each BaseFeature element is a base feature used in the best fit alignment. The number and placement of base features must be sufficient to control all degrees of freedom.

complexType **CollectionPlaneType**

diagram	
children	CollectionPlaneEnum DatumDefinitionId
annotation	documentation (ISO specific) The CollectionPlaneType defines a collection plane feature control frame modifier.

element **CollectionPlaneType/CollectionPlaneEnum**

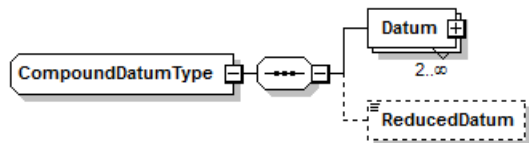
diagram			
type	ModifyingPlaneEnumType		
properties	content	simple	
facets	Kind enumeration enumeration enumeration	Value PARALLEL PERPENDICULAR INCLINED	Annotation
annotation	documentation The CollectionPlaneEnum element specifies how the collection plane is derived from the datum.		

element **CollectionPlaneType/DatumDefinitionId**

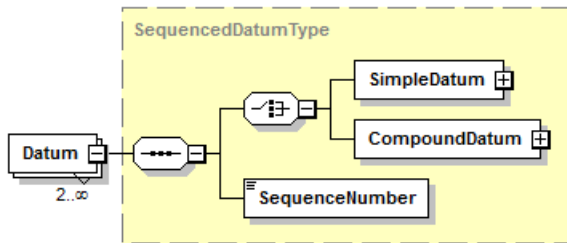
diagram	
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type	QIFReferenceFullType					
properties	content	complex				
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DatumDefinitionId element identifies the datum from which the collection plane is derived.					

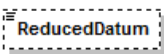
complexType CompoundDatumType

diagram	
children	Datum ReducedDatum
used by	elements SequencedDatumType/CompoundDatum DatumWithPrecedenceType/CompoundDatum
annotation	documentation The CompoundDatumType defines a compound datum specified by two or more datums with assigned labels.

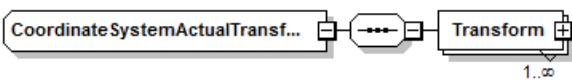
element CompoundDatumType/Datum

diagram						
type	SequencedDatumType					
properties	minOcc	2	maxOcc	unbounded	content	complex
children	SimpleDatum CompoundDatum SequenceNumber					
annotation	documentation Each Datum element gives a datum with assigned datum labels. At least two datums are required, and there is no maximum number. The sequence number is used to order the datums in the compound datum.					

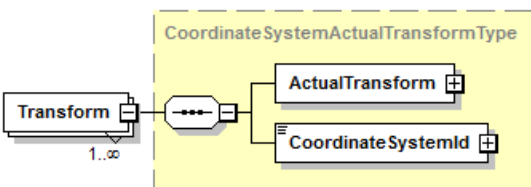
element **CompoundDatumType/ReducedDatum**

diagram	
type	ReducedDatumEnumType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration PT enumeration SL enumeration PL
annotation	documentation (ISO specific PT,SL,PL) The optional ReducedDatum element specifies that the compound datum is reduced to a simpler type to handle a case like (A-B)[PT].

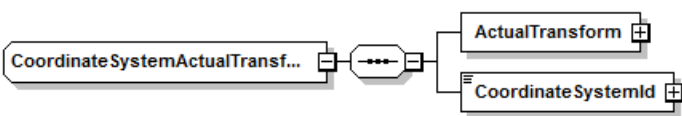
complexType **CoordinateSystemActualTransformsType**

diagram	
children	Transform
used by	element CoordinateSystemActualTransforms
annotation	documentation The CoordinateSystemActualTransformsType defines a list of coordinate system actual transforms.

element **CoordinateSystemActualTransformsType/Transform**

diagram	
type	CoordinateSystemActualTransformType
properties	minOcc 1 maxOcc unbounded content complex
children	ActualTransform CoordinateSystemId
annotation	documentation Each Transform element gives information about a coordinate system actual transform.

complexType **CoordinateSystemActualTransformType**

diagram	
children	ActualTransform CoordinateSystemId
used by	element CoordinateSystemActualTransformsType/Transform

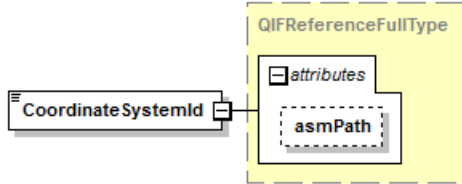
annotation	documentation The CoordinateSystemActualTransformType defines the actual transform associated with a coordinate system.
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element **CoordinateSystemActualTransformType/ActualTransform**

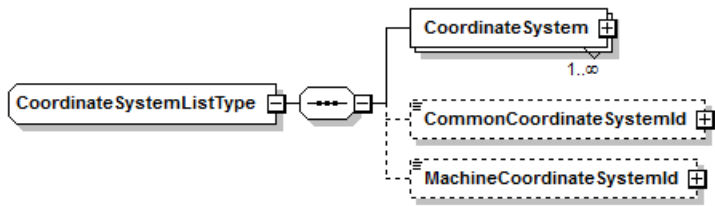
diagram						
type	TransformMatrixType					
properties	content complex					
children	Rotation Origin					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				

	zValidity	ValidityEnumType
annotation	documentation	The ActualTransform element gives the actual transformation matrix used to establish the coordinate system.

element **CoordinateSystemActualTransformType/CoordinateSystemId**

diagram						
type	QIFReferenceFullType					
properties	content	complex				
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation	The CoordinateSystemId element is the QIF id of the coordinate system to which the actual transform applies.				

complexType **CoordinateSystemListType**

diagram						
children	CoordinateSystem CommonCoordinateSystemId MachineCoordinateSystemId					
used by	element	CoordinateSystems				
annotation	documentation	The CoordinateSystemListType defines a list of one or more coordinate systems. The one coordinate system which corresponds to the common coordinate system in which all characteristics, features, and transforms are defined can be indicated. The coordinate system which represents the machine coordinate system may also be indicated.				

element **CoordinateSystemListType/CoordinateSystem**

diagram						
type	CoordinateSystemType					
properties	minOcc	1	maxOcc	unbounded	content	complex
children	Attributes Name NominalTransform InternalCADCoordinateSystemId ExternalCADCoordinateSystemId AlignmentOperations SequenceNumber					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the coordinate system, used for referencing.
annotation	documentation Each CoordinateSystem element is a coordinate system in the list.					

element **CoordinateSystemListType/CommonCoordinateSystemId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an

		id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional CommonCoordinateSystemId element is the QIF id of the coordinate system which corresponds to the common coordinate system.	

element **CoordinateSystemListType/MachineCoordinateSystemId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional MachineCoordinateSystemId element is the QIF id of the coordinate system which corresponds to the machine coordinate system.					

complexType **CoordinateSystemType**

diagram						
children	Attributes Name NominalTransform InternalCADCoordinateSystemId ExternalCADCoordinateSystemId AlignmentOperations SequenceNumber					
used by	element	CoordinateSystemListType/CoordinateSystem				
attributes	Name	Type	Use	Default	Fixed	Annotation
	id	QIFIdType	required			documentation The id attribute is the QIF id of the coordinate system, used for referencing.
annotation	documentation The CoordinateSystemType defines a coordinate system by giving a QIF id, some notes, a name, transform matrices and the alignment operations used to define the coordinate system.					

attribute **CoordinateSystemType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the coordinate system, used for referencing.

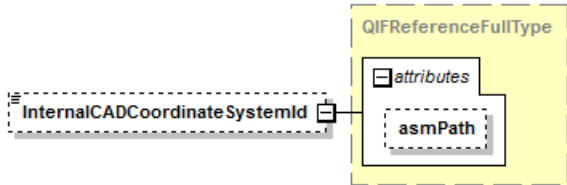
element **CoordinateSystemType/Name**

diagram					
type	xs:token				
properties	minOcc	0	maxOcc	1	content simple
annotation	documentation The optional Name element is the name of the coordinate system.				

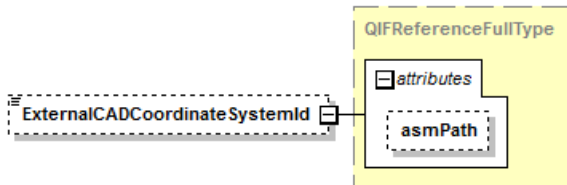
element **CoordinateSystemType/NominalTransform**

diagram						
type	TransformMatrixType					
properties	minOcc 0 maxOcc 1 content complex					
children	Rotation Origin					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The optional NominalTransform element gives the nominal transformation matrix used to establish the coordinate system.					

element **CoordinateSystemType/InternalCADCoordinateSystemId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional InternalCADCoordinateSystemId element identifies an associated coordinate system defined in an internal product definition.					

element **CoordinateSystemType/ExternalCADCoordinateSystemId**

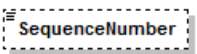
diagram						
type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path

		within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional ExternalCADCoordinateSystemId element identifies an associated coordinate system defined in an external product definition.	

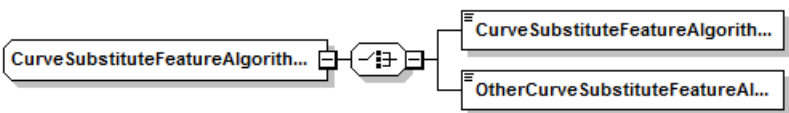
element **CoordinateSystemType/AlignmentOperations**

diagram		
type	AlignmentOperationsType	
properties	minOcc 0 maxOcc 1 content complex	
children	AlignmentOperation BaseCoordinateSystemId	
annotation	documentation The optional AlignmentOperations element gives the ordered series of alignment operations used to establish the coordinate system.	

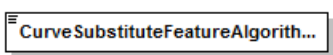
element **CoordinateSystemType/SequenceNumber**

diagram	
type	xs:positiveInteger
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional SequenceNumber element is the sequence number of the coordinate system used to order coordinate systems with the same name from an iterative alignment. The sequence numbers in an ordered set of coordinate systems should be assigned 1, 2, 3, ...


complexType **CurveSubstituteFeatureAlgorithmType**

diagram	
type	extension of SubstituteFeatureAlgorithmBaseType
properties	base SubstituteFeatureAlgorithmBaseType
children	CurveSubstituteFeatureAlgorithmEnum OtherCurveSubstituteFeatureAlgorithm
annotation	documentation The CurveSubstituteFeatureAlgorithmType defines the type of algorithm used to determine the substitute feature for a feature that is either a curve or a surface feature derived from a curve (revolved or extruded).

element **CurveSubstituteFeatureAlgorithmType/CurveSubstituteFeatureAlgorithmEnum**

diagram																
type	CurveSubstituteFeatureAlgorithmEnumType															
properties	content simple															
facets	<table><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr><tr><td>enumeration</td><td>LEASTSQUARES</td><td></td></tr><tr><td>enumeration</td><td>BSPLINE</td><td></td></tr><tr><td>enumeration</td><td>MINMAX</td><td></td></tr><tr><td>enumeration</td><td>UNDEFINED</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	LEASTSQUARES		enumeration	BSPLINE		enumeration	MINMAX		enumeration	UNDEFINED	
Kind	Value	Annotation														
enumeration	LEASTSQUARES															
enumeration	BSPLINE															
enumeration	MINMAX															
enumeration	UNDEFINED															
annotation	<p>documentation</p> <p>The CurveSubstituteFeatureAlgorithmEnum element describes an often-used type of algorithm used to determine the substitute feature for a feature that is either a curve or a surface feature derived from a curve (revolved or extruded).</p>															

element **CurveSubstituteFeatureAlgorithmType/OtherCurveSubstituteFeatureAlgorithm**

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherCurveSubstituteFeatureAlgorithm element describes the type of algorithm used to determine the substitute feature for a feature that is either a curve or a surface feature derived from a curve (revolved or extruded) in natural

	language.
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complexType CustomerOrganizationType

diagram	
type	extension of OrganizationType
properties	base OrganizationType
children	Name Address CustomerNumber
annotation	documentation The CustomerOrganizationType defines information about the supplier's view of the customer.

element CustomerOrganizationType/CustomerNumber

diagram	
type	xs:token
properties	content simple
annotation	documentation The CustomerNumber element is the supplier's number for the customer.

complexType DatumDefinitionsType

diagram	
children	DatumDefinition
annotation	documentation The DatumDefinitionsType defines a list of datum definitions.

element **DatumDefinitionsType/DatumDefinition**

diagram						
type	DatumDefinitionType					
properties	minOcc	1	maxOcc	unbounded	content	complex
children	Attributes DatumLabel DatumTargetIds FeatureNominalIds					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum definition, used for referencing.
annotation	documentation Each DatumDefinition element gives information about a datum.					

complexType **DatumDefinitionType**


diagram						
children	Attributes DatumLabel DatumTargetIds FeatureNominalIds					
used by	element	DatumDefinitionsType/DatumDefinition				
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum definition, used for

	referencing.
annotation	documentation The DatumDefinitionType defines information about a datum.

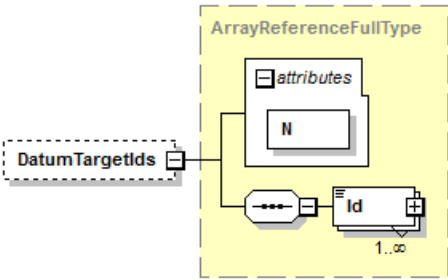
attribute DatumDefinitionType/@id

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the datum definition, used for referencing.

element DatumDefinitionType/DatumLabel

diagram	
type	xs:NMTOKEN
properties	content simple
annotation	documentation The DatumLabel element is the label applied to the datum feature.

element DatumDefinitionType/DatumTargetIds

diagram						
type	ArrayReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
children	Id					
attributes	Name N	Type NaturalType	Use required	Default	Fixed	Annotation documentation The required N attribute shows how many Id elements are present in this array.
annotation	documentation The optional DatumTargetIds element is a list of the QIF ids of datum targets associated with the datum.					

element **DatumDefinitionType/FeatureNominalIds**

diagram						
type	ArrayReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
children	Id					
attributes	Name N	Type NaturalType	Use required	Default	Fixed	Annotation documentation The required N attribute shows how many Id elements are present in this array.
annotation	documentation The optional FeatureNominalIds element is a list of QIF ids of feature nominals to be used to construct the datum.					

complexType **DatumFeatureBaseType**

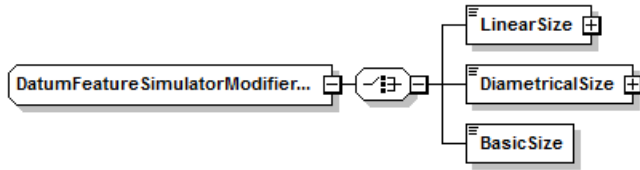
diagram	
properties	abstract true
children	FeatureItemId
used by	complexTypes ActualDatumFeatureType NominalDatumFeatureType
annotation	<p>documentation</p> <p>The DatumFeatureBaseType is the abstract base type that defines a component of a datum reference frame (i.e., one of the boxes on the right side of a feature control frame) when that component uses a datum feature without an assigned datum label.</p> <p>documentation</p> <p>The DatumFeatureType exists for DMIS harmonization.</p>

element **DatumFeatureBaseType/FeatureItemId**

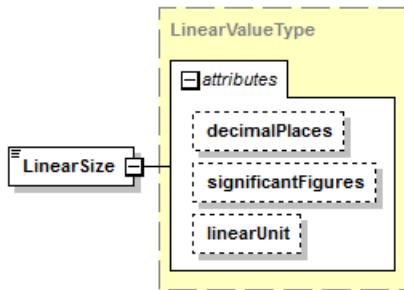
diagram						
type	QIFReferenceFullType					
properties	content	complex				

attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The FeatureItemId element is the QIF id of the feature item of the datum feature.					

complexType DatumFeatureSimulatorModifierType

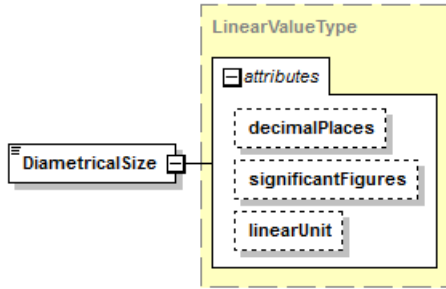
diagram						
children	LinearSize DiametricalSize BasicSize					
used by	element DatumType/DatumFeatureSimulatorModifier					
annotation	documentation The DatumFeatureSimulatorModifierType defines a datum feature simulator size modifier like that found in square brackets in a datum reference frame.					

element DatumFeatureSimulatorModifierType/LinearSize


diagram						
type	LinearValueType					
properties	content complex					
attributes	Name decimalPlaces	Type xs:nonNegativeInteger	Use	Default	Fixed	Annotation documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.

	linearUnit xs:token	documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The LinearSize element is the linear size of the datum feature simulator size modifier in a datum reference frame.	

element DatumFeatureSimulatorModifierType/DiametricalSize

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The DiametricalSize element is the diameter of the datum feature simulator size modifier in a datum reference frame.					

element DatumFeatureSimulatorModifierType/BasicSize

diagram	
type	xs:token
properties	content simple fixed BASIC
annotation	documentation The BasicSize element signifies that the size of the datum feature simulator is to be its basic size as indicated by [BASIC] or [BSC] in the datum reference frame.

complexType **DatumPrecedenceAlignmentOperationType**

diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber DatumReferenceFrameId PrimaryAxis SecondaryAxis
used by	element DatumPrecedence
annotation	documentation The DatumPrecedenceAlignmentOperationType defines information particular to a datum reference frame alignment operation using datum reference frame precedence and degrees of freedom rules.

element **DatumPrecedenceAlignmentOperationType/DatumReferenceFrameId**

diagram	<p>The diagram illustrates the structure of the DatumReferenceFrameId element. It is shown as a rectangular box with a small square handle on its right side. This box is connected by a line to a larger, yellow-shaded rectangular box labeled QIFReferenceFullType. Inside the yellow box, there is a smaller box labeled attributes, which contains a dashed-line box labeled asmPath. The asmPath box has a small square handle on its top-left corner.</p>					
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DatumReferenceFrameId element is the QIF id of the datum reference frame used in the alignment operation.					

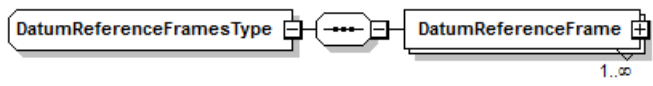
element **DatumPrecedenceAlignmentOperationType/PrimaryAxis**

diagram						
type	UnitVectorType					
properties	content	complex				
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation	The PrimaryAxis element is the direction in which the primary axis points in the current coordinate system, the direction defined by the axis or normal of the primary datum.				

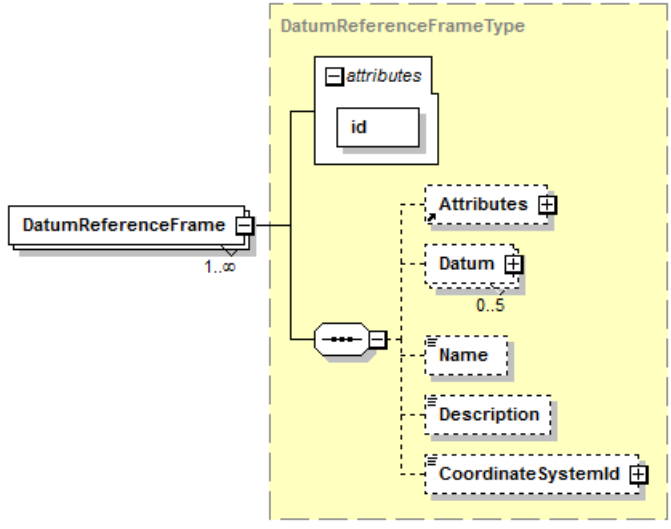
element **DatumPrecedenceAlignmentOperationType/SecondaryAxis**

diagram						
type	UnitVectorType					
properties	minOcc	0	maxOcc	1	content	complex
facets	Kind	Value	Annotation	length	3	
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The optional SecondaryAxis element is the direction in which the secondary axis points in the current coordinate system, the direction defined by the axis, normal, or relative location of the secondary datum if present in the datum reference frame.					

complexType **DatumReferenceFramesType**

diagram	
children	DatumReferenceFrame
annotation	documentation The DatumReferenceFramesType defines a list of datum reference frames.

element **DatumReferenceFramesType/DatumReferenceFrame**

diagram						
type	DatumReferenceFrameType					
properties	minOcc	1	maxOcc	unbounded	content	complex
children	Attributes Datum Name Description CoordinateSystemId					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum reference frame, used for referencing.
annotation	documentation Each DatumReferenceFrame element gives information about a datum reference frame.					

complexType **DatumReferenceFrameType**

diagram						
children	Attributes Datum Name Description CoordinateSystemId					
used by	element	DatumReferenceFramesType/DatumReferenceFrame				
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum reference frame, used for referencing.
annotation	documentation The DatumReferenceFrameType defines the datum reference component of a feature control frame. Each of the one to five parts of the datum reference component represents the contents of a box on the right side of the feature control frame. If no datums are referenced by a feature control frame (such as in a 'to itself' profile characteristic or in the lowermost segment of a composite profile or position) then a datum reference frame is still needed but it contains no datums.					

attribute **DatumReferenceFrameType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the datum reference frame, used for referencing.

element **DatumReferenceFrameType/Datum**

diagram	
type	DatumWithPrecedenceType
properties	minOcc 0 maxOcc 5 content complex
children	SimpleDatum NominalDatumFeature ActualDatumFeature CompoundDatum Precedence
annotation	documentation Each optional Datum element is a datum (simple, compound, or datum feature) with an assigned precedence (order).

element **DatumReferenceFrameType/Name**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Name element is the name of the datum reference frame, e.g. ABC, STARTUP, AD(m)E(m).

element **DatumReferenceFrameType/Description**

diagram	
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Description element is a description of the datum reference frame.

element **DatumReferenceFrameType/CoordinateSystemId**

diagram	
---------	--

type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional CoordinateSystemId element is the QIF id of the coordinate system in which the characteristic is evaluated.					

complexType DatumTargetCircularAreaDefinitionType

diagram	<p>The diagram illustrates the relationship between DatumTargetCircularAreaDefinitionType and DatumTargetDefinitionBaseType. DatumTargetCircularAreaDefinitionType is an extension of DatumTargetDefinitionBaseType. The base type has an attribute id. The extension adds several elements: Attributes, DatumTargetLabel, FeatureNominalId, MovableDatumTarget, and Circle. The id attribute is also shown as a required element.</p>					
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Circle					
used by	element DatumTargetCircularAreaDefinition					
attributes	Name	Type	Use	Default	Fixed	Annotation
	id	QIFIdType	required			documentation The id attribute is the QIF id of the datum target definition, used for referencing.

annotation	documentation The DatumTargetCircularAreaDefinitionType defines a datum target with a circular area.
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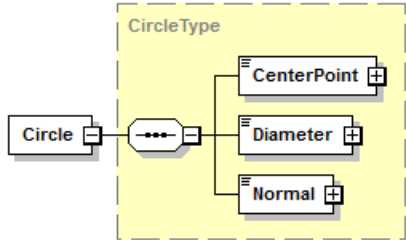
element **DatumTargetCircularAreaDefinitionType/Circle**

diagram	
type	CircleType
properties	content complex
children	CenterPoint Diameter Normal
annotation	documentation The Circle element is the circle that defines the basic size and location of a circular area datum target.

complexType **DatumTargetCircularLineDefinitionType**

diagram	<p>The diagram illustrates the structure of <code>DatumTargetCircularLineDefinitionType</code> as an extension of <code>DatumTargetDefinitionBaseType</code>. The base type is shown in a dashed yellow box and includes an <code>attributes</code> container with an <code>id</code> attribute. It also contains three optional components: <code>DatumTargetLabel</code>, <code>FeatureNominalId</code>, and <code>MovableDatumTarget</code>. The extension, <code>DatumTargetCircularLineDefinitionType</code>, adds a <code>Circle</code> component to the base type.</p>												
type	extension of DatumTargetDefinitionBaseType												
properties	base <code>DatumTargetDefinitionBaseType</code>												
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Circle												
used by	element DatumTargetCircularLineDefinition												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation documentation</th></tr><tr><td>id</td><td>QIFIdType</td><td>required</td><td></td><td></td><td>The id attribute is the QIF id of the datum target definition, used for referencing.</td></tr></table>	Name	Type	Use	Default	Fixed	Annotation documentation	id	QIFIdType	required			The id attribute is the QIF id of the datum target definition, used for referencing.
Name	Type	Use	Default	Fixed	Annotation documentation								
id	QIFIdType	required			The id attribute is the QIF id of the datum target definition, used for referencing.								
annotation	documentation The <code>DatumTargetCircularLineDefinitionType</code> defines a datum target that is a circular line.												

element **DatumTargetCircularLineDefinitionType/Circle**

diagram	 <p>The diagram shows a 'Circle' element connected to a dashed box labeled 'CircleType'. Inside 'CircleType', there are three sub-elements: 'CenterPoint', 'Diameter', and 'Normal', each with a plus sign icon indicating it is optional or a choice.</p>
type	CircleType
properties	content complex
children	CenterPoint Diameter Normal
annotation	documentation The Circle element is the circle that defines the basic size and location of a circular line datum target.

complexType **DatumTargetCylindricalAreaDefinitionType**

diagram						
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Cylinder					
used by	element DatumTargetCylindricalAreaDefinition					
attributes	Name	Type	Use	Default	Fixed	Annotation
	id	QIFIdType	required			documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetCylindricalAreaDefinitionType defines a datum target with a cylindrical area.					

element **DatumTargetCylindricalAreaDefinitionType/Cylinder**

diagram	
type	CylinderType
properties	content complex
children	CenterPoint Diameter Axis Length
annotation	documentation The Cylinder element is the cylinder that defines the basic size and location of a cylindrical area datum target.

complexType **DatumTargetDefinitionBaseType**


diagram	<pre>classDiagram class DatumTargetDefinitionBaseType { <<abstract>> +id } class Attributes class DatumTargetLabel class FeatureNominalId class MovableDatumTarget DatumTargetDefinitionBaseType "0..1" -- "0..1" Attributes DatumTargetDefinitionBaseType "0..1" -- "0..1" DatumTargetLabel DatumTargetDefinitionBaseType "0..1" -- "0..1" FeatureNominalId DatumTargetDefinitionBaseType "0..1" -- "0..1" MovableDatumTarget</pre>												
properties	abstract true												
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget												
used by	element DatumTarget complexType DatumTargetCircularAreaDefinitionType DatumTargetCircularLineDefinitionType DatumTargetCylindricalAreaDefinitionType DatumTargetIrregularAreaDefinitionType DatumTargetLineDefinitionType DatumTargetPointDefinitionType DatumTargetRectangularAreaDefinitionType DatumTargetSphereDefinitionType												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>id</td><td>QIFIdType</td><td>required</td><td></td><td></td><td>documentation The id attribute is the QIF id of the datum target definition, used for referencing.</td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	id	QIFIdType	required			documentation The id attribute is the QIF id of the datum target definition, used for referencing.
Name	Type	Use	Default	Fixed	Annotation								
id	QIFIdType	required			documentation The id attribute is the QIF id of the datum target definition, used for referencing.								
annotation	documentation The DatumTargetDefinitionBaseType is the abstract base type that defines a datum target definition.												

attribute **DatumTargetDefinitionBaseType/@id**

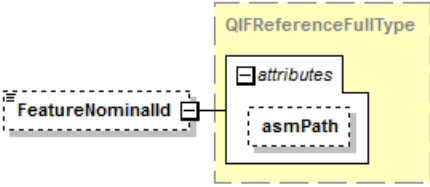
type	QIFIdType
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properties	use required
annotation	documentation The id attribute is the QIF id of the datum target definition, used for referencing.

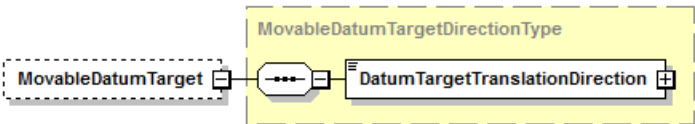
element DatumTargetDefinitionBaseType/DatumTargetLabel

diagram	 A rectangular box labeled 'DatumTargetLabel' with a small square icon in the top-left corner.
type	xs:token
properties	content simple
annotation	documentation The DatumTargetLabel element is the label for the datum target which includes both the datum name and the target number, for example 'A1'.

element DatumTargetDefinitionBaseType/FeatureNominalId

diagram	 A diagram showing a dashed box labeled 'FeatureNominalId' connected to a solid box labeled 'asmPath'. The 'asmPath' box is inside a larger yellow dashed box labeled 'QIFReferenceFullType'. The 'asmPath' box also has a small square icon in the top-left corner.					
type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional FeatureNominalId element is the QIF id of the feature nominal on which the datum target lies.					

element DatumTargetDefinitionBaseType/MovableDatumTarget

diagram	 A diagram showing a dashed box labeled 'MovableDatumTarget' connected to a solid box labeled 'DatumTargetTranslationDirection'. The 'DatumTargetTranslationDirection' box is inside a larger yellow dashed box labeled 'MovableDatumTargetDirectionType'. The 'DatumTargetTranslationDirection' box also has a small square icon in the top-left corner.
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type	MovableDatumTargetDirectionType
properties	minOcc 0 maxOcc 1 content complex
children	DatumTargetTranslationDirection
annotation	documentation The optional MovableDatumTarget element identifies the datum target as a movable datum target and specifies the allowed direction of movement.

complexType DatumTargetDefinitionsType

diagram						
children	DatumTarget					
attributes	Name	Type	Use	Default	Fixed	Annotation
	N	NaturalType	required			documentation The required N attribute shows how many objects are present in the list.
annotation	documentation The DatumTargetDefinitionsType defines a list of datum target definitions.					

attribute **DatumTargetDefinitionsType/@N**

type	NaturalType
properties	use required
facets	Kind Value Annotation minInclusive 1
annotation	documentation The required N attribute shows how many objects are present in the list.

complexType **DatumTargetIrregularAreaDefinitionType**

diagram	<p>The diagram illustrates the relationship between DatumTargetIrregularAreaDefinitionType and DatumTargetDefinitionBaseType. The base type is shown as a yellow box containing an attributes container with an id attribute. The extension type, DatumTargetIrregularAreaDefinitionType, is shown as a dashed box that inherits from the base type. It adds a Boundary attribute and a DatumTargetLabel attribute. The DatumTargetLabel attribute is further extended with FeatureNominalId and MovableDatumTarget attributes.</p>					
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Boundary					
used by	element DatumTargetIrregularAreaDefinition					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetIrregularAreaDefinitionType defines a datum target with an irregular area defined by a poly-line boundary.					

element **DatumTargetIrregularAreaDefinitionType/Boundary**

diagram	<div><div><div><div><div></div><div>attributes</div></div><div><div>N</div><div>linearUnit</div><div>decimalPlaces</div><div>significantFigures</div><div>validity</div><div>xDecimalPlaces</div><div>xSignificantFigures</div><div>xValidity</div><div>yDecimalPlaces</div><div>ySignificantFigures</div><div>yValidity</div><div>zDecimalPlaces</div><div>zSignificantFigures</div><div>zValidity</div></div></div><div><div>Boundary</div><div></div></div></div></div>						
type	PolyLineType						
properties	content	complex					
attributes	Name N	Type xs:positiveInteger	Use required	Default	Fixed	Annotation documentation The required N attribute gives the number of points represented by the array. The number of entries in the array must be 3N.	
	linearUnit	xs:token					
	decimalPlaces	xs:nonNegativeInteger					
	significantFigures	xs:nonNegativeInteger					
	validity	ValidityEnumType					
	xDecimalPlaces	xs:nonNegativeInteger					
	xSignificantFigures	xs:nonNegativeInteger					
	xValidity	ValidityEnumType					
	yDecimalPlaces	xs:nonNegativeInteger					
	ySignificantFigures	xs:nonNegativeInteger					
	yValidity	ValidityEnumType					

	zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The Boundary element is the basic boundary of an area datum target.

complexType **DatumTargetLineDefinitionType**

diagram	<p>The diagram illustrates the structure of DatumTargetLineDefinitionType. It is an extension of DatumTargetDefinitionBaseType. The base type includes an id attribute and three optional elements: Attributes, DatumTargetLabel, and FeatureNominalId. The extension adds a Line element.</p>					
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Line					
used by	element DatumTargetLineDefinition					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetLineDefinitionType defines a line datum target.					

element **DatumTargetLineDefinitionType/Line**

diagram						
type	LineSegmentType					
properties	content complex					
children	StartPoint EndPoint					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The Line element is the line that defines the basic location and direction of a line datum target.					

complexType **DatumTargetPointDefinitionType**

diagram	<p>The diagram illustrates the structure of DatumTargetPointDefinitionType as an extension of DatumTargetDefinitionBaseType. The base type is shown in a yellow dashed box and includes an id attribute and a choice of three elements: DatumTargetLabel, FeatureNominalId, and MovableDatumTarget. The extension, DatumTargetPointDefinitionType, is shown as a separate box connected to the base type, adding a Point attribute.</p>					
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Point					
used by	element DatumTargetPointDefinition					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetPointDefinitionType defines a point datum target point.					

element **DatumTargetPointDefinitionType/Point**

diagram						
type	PointType					
properties	content complex					
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The Point element is the basic location of a point datum target.					

complexType **DatumTargetRectangularAreaDefinitionType**

diagram						
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Rectangle					
used by	element DatumTargetRectangularAreaDefinition					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetRectangularAreaDefinitionType defines a datum target with a rectangular area.					

element **DatumTargetRectangularAreaDefinitionType/Rectangle**

diagram						
type	RectangleType					
properties	content complex					
children	Length CornerPoint Width WidthDirection LengthDirection					
annotation	documentation The Rectangle element is the rectangle that defines the basic size and location of a rectangle datum target.					


complexType **DatumTargetSphereDefinitionType**

diagram						
type	extension of DatumTargetDefinitionBaseType					
properties	base DatumTargetDefinitionBaseType					
children	Attributes DatumTargetLabel FeatureNominalId MovableDatumTarget Sphere					
used by	element DatumTargetSphereDefinition					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the datum target definition, used for referencing.
annotation	documentation The DatumTargetSphereDefinitionType defines a sphere datum target.					

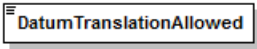
element **DatumTargetSphereDefinitionType/Sphere**

diagram						
type	SphereType					
properties	content complex					
children	CenterPoint Diameter					
annotation	documentation The Sphere element is the sphere that defines the basic size and location of a tooling ball used for the datum target point simulator.					

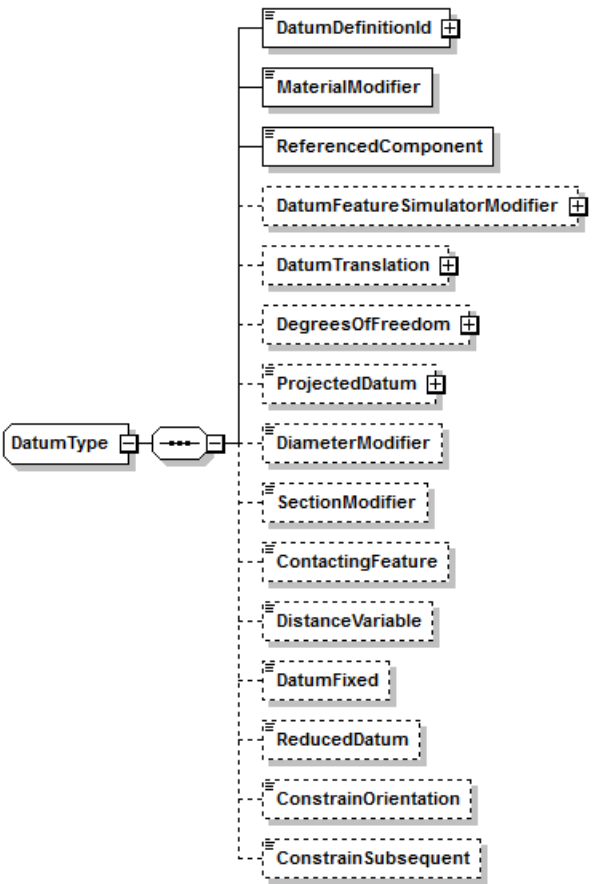
complexType **DatumTranslationType**

diagram	
children	DatumTranslationAllowed
used by	element DatumType/DatumTranslation
annotation	documentation The DatumTranslationType defines whether a datum can translate and therefore act as an aligning datum rather than a clocking datum.

element **DatumTranslationType/DatumTranslationAllowed**

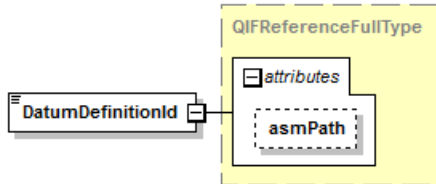
diagram	
type	xs:boolean
properties	content simple
annotation	documentation The DatumTranslationAllowed element indicates if the datum is an aligning datum ("true") rather than the default clocking datum ("false").

complexType **DatumType**

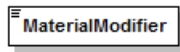
diagram	
children	DatumDefinitionId MaterialModifier ReferencedComponent DatumFeatureSimulatorModifier DatumTranslation DegreesOfFreedom ProjectedDatum DiameterModifier SectionModifier ContactingFeature DistanceVariable DatumFixed ReducedDatum ConstrainOrientation ConstrainSubsequent

	DatumFixed ReducedDatum ConstrainOrientation ConstrainSubsequent
used by	elements SequencedDatumType/SimpleDatum DatumWithPrecedenceType/SimpleDatum
annotation	documentation The DatumType defines a simple datum reference for use in a feature control frame.


element **DatumType/DatumDefinitionId**

diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DatumDefinitionId element is the QIF id of a datum definition type. A datum definition type assigns a datum label and can associate a feature with that datum label.					

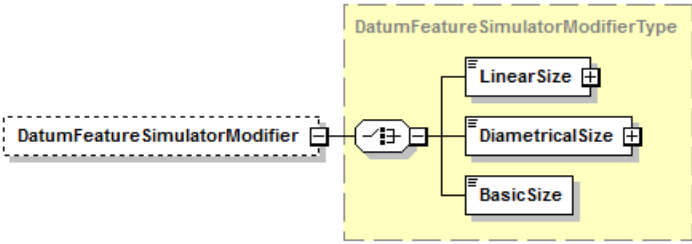
element **DatumType/MaterialModifier**

diagram						
type	MaterialModifierEnumType					
properties	content simple					
facets	Kind enumeration	Value REGARDLESS LEAST MAXIMUM NONE	Annotation			
annotation	documentation The MaterialModifier element is the material condition or material boundary modifier for the datum in a feature control frame. documentation ASME Y14.5 - 2009 Sections 1.3.38, 1.3.39, 3.4					

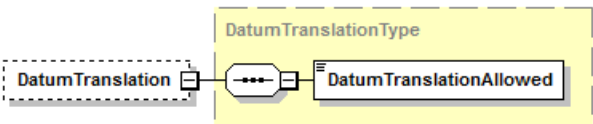
element **DatumType/ReferencedComponent**

diagram										
type	ReferencedComponentEnumType									
properties	content simple									
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>enumeration</td><td>NOMINAL</td><td></td></tr><tr><td>enumeration</td><td>ACTUAL</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	NOMINAL		enumeration	ACTUAL	
Kind	Value	Annotation								
enumeration	NOMINAL									
enumeration	ACTUAL									
annotation	<p>documentation</p> <p>The ReferencedComponent element identifies whether the datum is established from the actual feature or the nominal feature.</p>									

element **DatumType/DatumFeatureSimulatorModifier**

diagram							
type	DatumFeatureSimulatorModifierType						
properties	<table> <tr> <td>minOcc</td><td>0</td></tr> <tr> <td>maxOcc</td><td>1</td></tr> <tr> <td>content</td><td>complex</td></tr> </table>	minOcc	0	maxOcc	1	content	complex
minOcc	0						
maxOcc	1						
content	complex						
children	LinearSize DiametricalSize BasicSize						
annotation	<p>documentation</p> <p>The optional DatumFeatureSimulatorModifier element is the datum feature simulator size modifier found in a datum reference frame.</p>						

element **DatumType/DatumTranslation**

diagram							
type	DatumTranslationType						
properties	<table> <tr> <td>minOcc</td><td>0</td></tr> <tr> <td>maxOcc</td><td>1</td></tr> <tr> <td>content</td><td>complex</td></tr> </table>	minOcc	0	maxOcc	1	content	complex
minOcc	0						
maxOcc	1						
content	complex						
children	DatumTranslationAllowed						
annotation	<p>documentation</p> <p>The optional DatumTranslation element specifies whether datum translation is allowed as indicated by the datum translation symbol found in a datum reference frame.</p>						

element **DatumType/DegreesOfFreedom**

diagram	
type	DegreesOfFreedomType
properties	minOcc 0 maxOcc 1 content complex
children	DegreeOfFreedom ISODegreeOfFreedom
annotation	documentation The optional DegreesOfFreedom element gives the degrees of freedom controlled by the datum.

element **DatumType/ProjectedDatum**


diagram																									
type	LinearValueType																								
properties	minOcc 0 maxOcc 1 content complex																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>linearUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
Name	Type	Use	Default	Fixed	Annotation																				
decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.																				
annotation	documentation (ISO specific (P)) The optional ProjectedDatum element gives the distance a datum feature is projected in a feature control frame.																								

element **DatumType/DiameterModifier**


diagram	
type	DiameterModifierEnumType

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration PD enumeration MD enumeration LD
annotation	documentation (ISO specific PD,MD,LD) The optional DiameterModifier element is the diameter modifier for a threaded datum feature in a feature control frame.

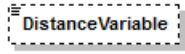
element **DatumType/SectionModifier**

diagram	
type	SectionModifierEnumType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration ACS enumeration ALS
annotation	documentation (ISO specific ACS,ALS) The optional SectionModifier element is the cross section modifier for a datum feature in a feature control frame.

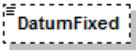
element **DatumType/ContactingFeature**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation (ISO specific CF) The optional ContactingFeature element when present and set to true indicates that the actual datum feature comes into contact with a nominal datum feature of a different type.

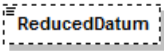
element **DatumType/DistanceVariable**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation (ISO specific DV) The optional DistanceVariable element when present and set to true indicates that the datum has a variable distance.

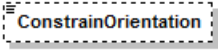
element **DatumType/DatumFixed**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation (ISO specific DF) The optional DatumFixed element when present and set to true indicates that the datum location has been fixed by higher precedence datums.

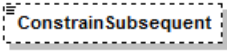
element **DatumType/ReducedDatum**

diagram	
type	<u>ReducedDatumEnumType</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration PT enumeration SL enumeration PL
annotation	documentation (ISO specific PT,SL,PL) The optional ReducedDatum element specifies that the datum feature is reduced to a simpler type.

element **DatumType/ConstrainOrientation**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation (ISO specific greaterthan/lessthan) The optional ConstrainOrientation element if present and set to true specifies that this datum constrains only the orientation of subsequent datums and the feature control frame.

element **DatumType/ConstrainSubsequent**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation (ISO specific lessthan/greaterthan) The optional ConstrainSubsequent element if present and set to true specifies that this datum constrains only subsequent datums and not the feature control frame itself.

complexType **DatumWithPrecedenceType**

diagram	
children	SimpleDatum NominalDatumFeature ActualDatumFeature CompoundDatum Precedence
used by	element DatumReferenceFrameType/Datum
annotation	documentation The DatumWithPrecedenceType defines a datum reference with precedence in a feature control frame.

element **DatumWithPrecedenceType/SimpleDatum**

diagram	
type	DatumType
properties	content complex
children	DatumDefinitionId MaterialModifier ReferencedComponent DatumFeatureSimulatorModifier DatumTranslation

	DegreesOfFreedom ProjectedDatum DiameterModifier SectionModifier ContactingFeature DistanceVariable DatumFixed ReducedDatum ConstrainOrientation ConstrainSubsequent
annotation	documentation The Datum element is a simple datum with an assigned label.

element **DatumWithPrecedenceType/NominalDatumFeature**

diagram	<p>The diagram shows a box labeled 'NominalDatumFeature' connected to a dashed box labeled 'NominalDatumFeatureType'. Inside this dashed box, there is a 'FeatureItemId' element. The connection is made through a small box containing three dots.</p>
type	NominalDatumFeatureType
properties	content complex
children	FeatureItemId
annotation	documentation The NominalDatumFeature element is a feature used as a datum without an assigned datum label. The nominal feature is used to establish the datum feature.

element **DatumWithPrecedenceType/ActualDatumFeature**

diagram	<p>The diagram shows a box labeled 'ActualDatumFeature' connected to a dashed box labeled 'ActualDatumFeatureType'. Inside this dashed box, there are two elements: 'FeatureItemId' and 'MaterialModifier'. The connection from 'ActualDatumFeature' splits to connect to both elements through small boxes containing three dots.</p>
type	ActualDatumFeatureType
properties	content complex
children	FeatureItemId MaterialModifier
annotation	documentation The ActualDatumFeature element is a feature used as a datum without an assigned datum label. The actual feature is used to establish the datum feature.

element **DatumWithPrecedenceType/CompoundDatum**

diagram	<p>The diagram shows a box labeled 'CompoundDatum' connected to a dashed box labeled 'CompoundDatumType'. Inside this dashed box, there is a 'Datum' element with a multiplicity of '2..∞' and a 'ReducedDatum' element. The connection from 'CompoundDatum' goes through a small box with three dots to the 'Datum' element. A dashed line also connects the 'Datum' element to the 'ReducedDatum' element.</p>
type	CompoundDatumType
properties	content complex
children	Datum ReducedDatum
annotation	documentation The CompoundDatum element is a compound datum with assigned labels separated by dashes.

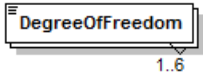
element **DatumWithPrecedenceType/Precedence**

diagram	
type	PrecedenceType
properties	content complex
children	PrecedenceEnum OtherPrecedence
annotation	<p>documentation</p> <p>The Precedence element is the precedence of the datum. It is the order in the feature control frame of the datum with respect to other datums, or the order of the datum in a compound datum with respect to other datums.</p> <p>documentation</p> <p>In any feature control frame or compound datum, no two datums may have the same precedence, and there may be no gaps in the precedences (for example, a QUATERNARY precedence may not be assigned unless PRIMARY, SECONDARY, and TERTIARY are also assigned).</p>

complexType **DegreesOfFreedomType**

diagram	
children	DegreeOfFreedom ISODegreeOfFreedom
used by	elements DatumType/DegreesOfFreedom BestFitAlignmentOperationType/DegreesOfFreedom
annotation	<p>documentation</p> <p>The DegreesOfFreedomType defines the degrees of freedom available for fitting or controlled by a datum reference frame (DRF = datum reference frame).</p>

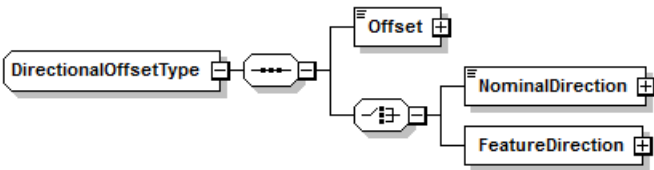
element **DegreesOfFreedomType/DegreeOfFreedom**

diagram																						
type	DegreeOfFreedomEnumType																					
properties	minOcc 1 maxOcc 6 content simple																					
facets	<table><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr><tr><td>enumeration</td><td>U</td><td></td></tr><tr><td>enumeration</td><td>V</td><td></td></tr><tr><td>enumeration</td><td>W</td><td></td></tr><tr><td>enumeration</td><td>X</td><td></td></tr><tr><td>enumeration</td><td>Y</td><td></td></tr><tr><td>enumeration</td><td>Z</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	U		enumeration	V		enumeration	W		enumeration	X		enumeration	Y		enumeration	Z	
Kind	Value	Annotation																				
enumeration	U																					
enumeration	V																					
enumeration	W																					
enumeration	X																					
enumeration	Y																					
enumeration	Z																					
annotation	documentation Each DegreeOfFreedom element specifies which degree of freedom is controlled.																					

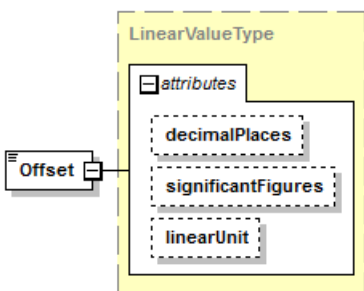
element **DegreesOfFreedomType/ISODegreeOfFreedom**

diagram	<div><div><div>ISODegreeOfFreedom</div><div>1..6</div></div></div>																					
type	ISODegreeOfFreedomEnumType																					
properties	<div><div>minOcc</div><div>1</div></div> <div><div>maxOcc</div><div>6</div></div> <div><div>content</div><div>simple</div></div>																					
facets	<table><thead><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr></thead><tbody><tr><td>enumeration</td><td>Rx</td><td></td></tr><tr><td>enumeration</td><td>Ry</td><td></td></tr><tr><td>enumeration</td><td>Rz</td><td></td></tr><tr><td>enumeration</td><td>Tx</td><td></td></tr><tr><td>enumeration</td><td>Ty</td><td></td></tr><tr><td>enumeration</td><td>Tz</td><td></td></tr></tbody></table>	Kind	Value	Annotation	enumeration	Rx		enumeration	Ry		enumeration	Rz		enumeration	Tx		enumeration	Ty		enumeration	Tz	
Kind	Value	Annotation																				
enumeration	Rx																					
enumeration	Ry																					
enumeration	Rz																					
enumeration	Tx																					
enumeration	Ty																					
enumeration	Tz																					
annotation	<div>documentation</div> <div>(ISO specific Rx,Ry,Rz,Tx,Ty,Tz) Each ISODegreeOfFreedom element specifies which degree of freedom is controlled.</div>																					

complexType **DirectionalOffsetType**

diagram	
children	Offset NominalDirection FeatureDirection
annotation	documentation The DirectionalOffsetType defines an offset or displacement in a specified direction.

element **DirectionalOffsetType/Offset**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of

	linearUnit xs:token	SpecifiedDecimalType. documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The Offset element is offset in the specified direction, a positive value will offset in the specified direction and a negative value will offset opposite the specified direction.	

element DirectionalOffsetType/NominalDirection

diagram						
type	UnitVectorType					
properties	content complex					
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				

	yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The NominalDirection element specifies the offset direction as a nominal unit vector.


element **DirectionalOffsetType/FeatureDirection**

diagram	
type	BaseFeatureType
properties	content complex
children	ReferencedComponent FeatureItemId
annotation	documentation The FeatureDirection element specifies the offset direction as a feature's vector, either nominal or actual depending on the value of ReferencedComponent.

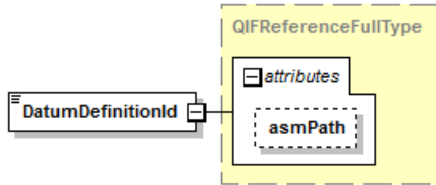
complexType **DirectionFeatureType**

diagram	
children	DirectionFeatureEnum DatumDefinitionId
annotation	documentation (ISO specific) The DirectionFeatureType defines a direction-feature feature control frame modifier.

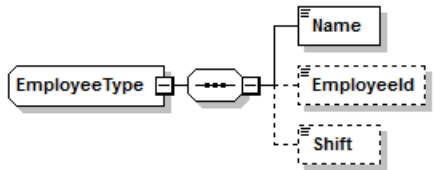
element **DirectionFeatureType/DirectionFeatureEnum**

diagram													
type	ModifyingPlaneEnumType												
properties	content simple												
facets	<table><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr><tr><td>enumeration</td><td>PARALLEL</td><td></td></tr><tr><td>enumeration</td><td>PERPENDICULAR</td><td></td></tr><tr><td>enumeration</td><td>INCLINED</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	PARALLEL		enumeration	PERPENDICULAR		enumeration	INCLINED	
Kind	Value	Annotation											
enumeration	PARALLEL												
enumeration	PERPENDICULAR												
enumeration	INCLINED												
annotation	<div>documentation</div> <div>The <code>DirectionFeatureEnum</code> element specifies how the direction is derived from the datum.</div>												


element **DirectionFeatureType/DatumDefinitionId**

diagram	 <p>The diagram shows a box labeled 'DatumDefinitionId' connected to a larger box labeled 'QIFReferenceFullType'. Inside 'QIFReferenceFullType' is a dashed box labeled 'asmPath' which is part of an 'attributes' group.</p>					
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DatumDefinitionId element identifies the datum from which the direction feature is derived.					

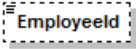
complexType **EmployeeType**

diagram	 <p>The diagram shows a box labeled 'EmployeeType' connected to a dashed box containing three elements: 'Name', 'EmployeeId', and 'Shift'.</p>					
children	Name EmployeeId Shift					
used by	element SignOffsType/Employee					
annotation	documentation The EmployeeType defines employee information.					


element **EmployeeType/Name**

diagram	 <p>The diagram shows a simple box labeled 'Name'.</p>					
type	xs:token					
properties	content simple					
annotation	documentation The Name element is the name of the employee.					

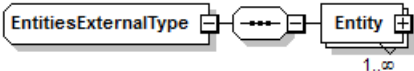
element **EmployeeType/EmployeeId**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional EmployeeId element is the company id number of the employee.

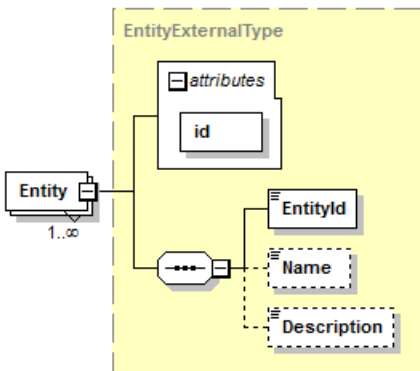
element **EmployeeType/Shift**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Shift element is the shift number of the employee.

complexType **EntitiesExternalType**

diagram	
children	Entity
annotation	documentation The EntitiesExternalType defines a list of external model entities.

element **EntitiesExternalType/Entity**

diagram																									
type	EntityExternalType																								
properties	minOcc 1 maxOcc unbounded content complex																								
children	EntityId Name Description																								
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>EntityId</td><td>xs:token</td><td>optional</td><td></td><td></td><td></td></tr><tr><td>Name</td><td>xs:token</td><td>optional</td><td></td><td></td><td></td></tr><tr><td>Description</td><td>xs:token</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	EntityId	xs:token	optional				Name	xs:token	optional				Description	xs:token	optional			
Name	Type	Use	Default	Fixed	Annotation																				
EntityId	xs:token	optional																							
Name	xs:token	optional																							
Description	xs:token	optional																							

	id	QIFIdType	required	documentation The id attribute is the QIF id of the model entity, used for referencing.
annotation	documentation Each Entity element gives the association of a QIF id with a model entity.			


complexType **EntityExternalType**

diagram						
children	EntityId Name Description					
used by	element	EntitiesExternalType/Entity				
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the model entity, used for referencing.
annotation	documentation The EntityExternalType defines the association of a model entity with a QIF id. The model to which an instance of EntityExternalType belongs will be found in an instance file as the grandparent of the instance.					


attribute **EntityExternalType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the model entity, used for referencing.

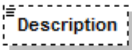
element **EntityExternalType/EntityId**

diagram	
type	xs:token
properties	content simple
annotation	<div>documentation</div> <div>The EntityId element is the persistent model entity identifier assigned on a drawing, in a CAD model file, or on a physical model.</div>

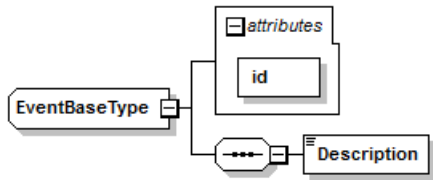
element **EntityExternalType/Name**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Name element is the name of the entity.

element **EntityExternalType/Description**

diagram	
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Description element is the description of the entity.


complexType **EventBaseType**

diagram						
properties	abstract true					
children	Description					
used by	complexType NotableEventType NotedEventType					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the event, used for referencing.
annotation	documentation The EventBaseType is the abstract base type that defines events.					

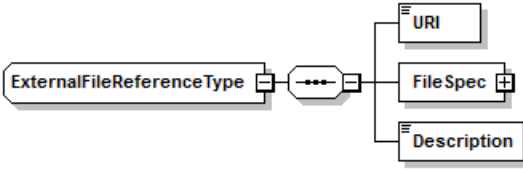
attribute **EventBaseType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the event, used for referencing.


element **EventBaseType/Description**

diagram	
type	xs:string
properties	content simple
annotation	documentation The Description element is the description of the event.

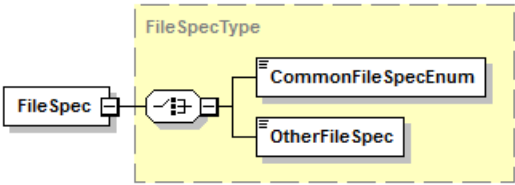
complexType **ExternalFileReferenceType**

diagram	
children	URI FileSpec Description


element **ExternalFileReferenceType/URI**

diagram	
type	xs:anyURI
properties	content simple
annotation	documentation The URI element is a Uniform Resource Identifier for the information, which may be, for example, a file or a web site.

element **ExternalFileReferenceType/FileSpec**

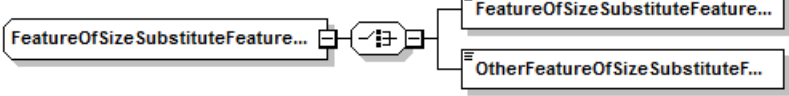
diagram	
type	FileSpecType
properties	content complex
children	CommonFileSpecEnum OtherFileSpec
annotation	documentation The FileSpec element describes the file type of the file found at the URI.

element **ExternalFileReferenceType/Description**


diagram	
type	xs:string

properties	content simple
annotation	documentation The Description element is a description of the information in the file found at the URI.


complexType FeatureOfSizeSubstituteFeatureAlgorithmType

diagram	
type	extension of SubstituteFeatureAlgorithmBaseType
properties	base SubstituteFeatureAlgorithmBaseType
children	FeatureOfSizeSubstituteFeatureAlgorithmEnum OtherFeatureOfSizeSubstituteFeatureAlgorithm
annotation	documentation The FeatureOfSizeSubstituteFeatureAlgorithmType defines the type of algorithm used to determine the substitute feature for a feature of size. It applies to features that may be (but are not necessarily) circumscribed or inscribed.

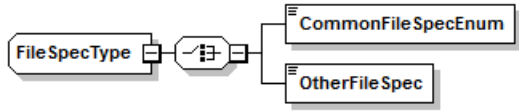
element FeatureOfSizeSubstituteFeatureAlgorithmType/FeatureOfSizeSubstituteFeatureAlgorithmEnum

diagram			
type	FeatureOfSizeSubstituteFeatureAlgorithmEnumType		
properties	content	simple	
facets	Kind enumeration	Value LEASTSQUARES	Annotation
	enumeration	MINMAX	
	enumeration	MINCIRCUMSCRIBED	
	enumeration	MAXINSCRIBED	
	enumeration	UNDEFINED	
annotation	documentation The FeatureOfSizeSubstituteFeatureAlgorithmEnum element describes an often-used type of algorithm used to determine the substitute feature for a feature of size.		

element FeatureOfSizeSubstituteFeatureAlgorithmType/OtherFeatureOfSizeSubstituteFeatureAlgorithm

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherFeatureOfSizeSubstituteFeatureAlgorithm element describes the type of algorithm used to determine the substitute feature for feature of size in natural language.

complexType **FileSpecType**


diagram	
children	CommonFileSpecEnum OtherFileSpec
used by	element ExternalFileReferenceType/FileSpec
annotation	documentation The FileSpecType defines the format of a file.

element **FileSpecType/CommonFileSpecEnum**

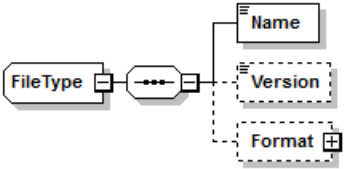
diagram	<div><div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>CommonFileSpecEnum</div></div></div>		
type	CommonFileSpecEnumType		
properties	content	simple	
facets	Kind enumeration	Value AVI BMP DOC DOCX DXF DTD GIF GZIP HTML IGES JPEG JPG MOV MPEG MPG PDF PNG PPM PPT PRT RAR RTF STL STEP STP TAR TIF TIFF TXT WMV	Annotation

	enumeration XLS
	enumeration XLSX
	enumeration XML
	enumeration XSD
	enumeration X_T
	enumeration ZIP
annotation	documentation The CommonFileSpecEnum element denotes a common file format.


element **FileSpecType/OtherFileSpec**

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherFileSpec element describes a file format in natural language.


complexType **FileType**

diagram	
children	Name Version Format
annotation	documentation The FileType defines file information.

element **FileType/Name**

diagram	
type	xs:token
properties	content simple
annotation	documentation The Name element is the fully qualified identifier (URI) of the file.

element **FileType/Version**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Version element is the version number of the file.

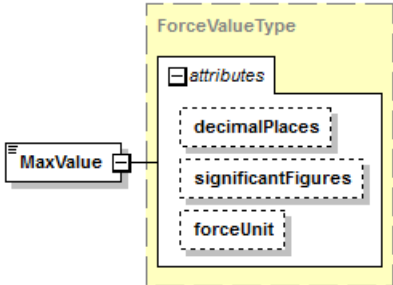
element **FileType/Format**

diagram	
type	DigitalModelFormatType
properties	minOcc 0 maxOcc 1 content complex
children	DigitalModelFormatEnum OtherDigitalModelFormat
annotation	documentation The optional Format element is the file format.

complexType **ForceToleranceType**

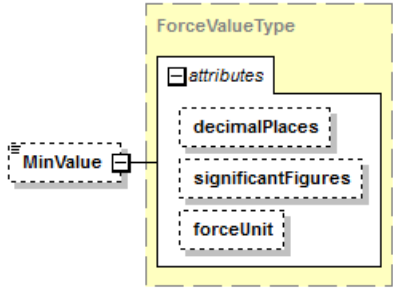
diagram	
children	MaxValue MinValue MinValue DefinedAsLimit
annotation	documentation The ForceToleranceType defines a tolerance on a quantity measured in force units.

element **ForceToleranceType/MaxValue**

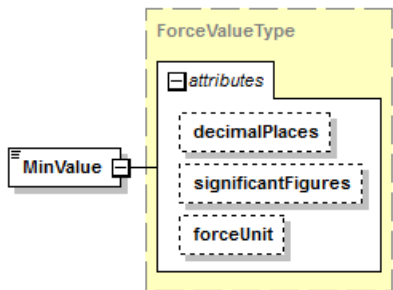
diagram						
type	ForceValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.

	forceUnit xs:token	documentation The optional forceUnit attribute defines the UnitName for the ForceValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.	

element ForceToleranceType/MinValue


diagram						
type	ForceValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	forceUnit	xs:token				documentation The optional forceUnit attribute defines the UnitName for the ForceValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element ForceToleranceType/MinValue

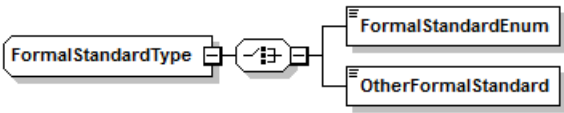
diagram						
type	ForceValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.

	significantFigures xs:nonNegativeInteger forceUnit xs:token	documentation See documentation of SpecifiedDecimalType. documentation The optional forceUnit attribute defines the UnitName for the ForceValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.	


element **ForceToleranceType/DefinedAsLimit**

diagram		
type	xs:boolean	
properties	content simple	
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.	

complexType **FormalStandardType**

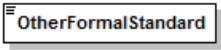
diagram		
children	FormalStandardEnum OtherFormalStandard	
annotation	documentation The FormalStandardType defines a formal Geometric Dimensioning and Tolerancing standard.	

element **FormalStandardType/FormalStandardEnum**

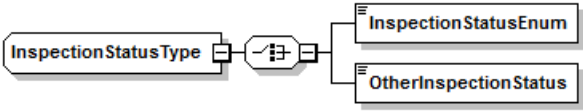
diagram																																						
type	FormalStandardEnumType																																					
properties	content simple																																					
facets	<table border="1"> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr><td>enumeration</td><td>ANSI</td><td></td></tr> <tr><td>enumeration</td><td>ASME-Y14.5-1982</td><td></td></tr> <tr><td>enumeration</td><td>ASME-Y14.5-1994</td><td></td></tr> <tr><td>enumeration</td><td>ASME-Y14.5-2009</td><td></td></tr> <tr><td>enumeration</td><td>ISO1101:1983</td><td></td></tr> <tr><td>enumeration</td><td>ISO1101:2004</td><td></td></tr> <tr><td>enumeration</td><td>ISO1101:2012</td><td></td></tr> <tr><td>enumeration</td><td>BS_8888_2004</td><td></td></tr> <tr><td>enumeration</td><td>JIS</td><td></td></tr> <tr><td>enumeration</td><td>DIN</td><td></td></tr> <tr><td>enumeration</td><td>COMPANY</td><td></td></tr> </tbody> </table>		Kind	Value	Annotation	enumeration	ANSI		enumeration	ASME-Y14.5-1982		enumeration	ASME-Y14.5-1994		enumeration	ASME-Y14.5-2009		enumeration	ISO1101:1983		enumeration	ISO1101:2004		enumeration	ISO1101:2012		enumeration	BS_8888_2004		enumeration	JIS		enumeration	DIN		enumeration	COMPANY	
Kind	Value	Annotation																																				
enumeration	ANSI																																					
enumeration	ASME-Y14.5-1982																																					
enumeration	ASME-Y14.5-1994																																					
enumeration	ASME-Y14.5-2009																																					
enumeration	ISO1101:1983																																					
enumeration	ISO1101:2004																																					
enumeration	ISO1101:2012																																					
enumeration	BS_8888_2004																																					
enumeration	JIS																																					
enumeration	DIN																																					
enumeration	COMPANY																																					

annotation	documentation The FormalStandardEnum element describes an often-used formal Geometric Dimensioning and Tolerancing standard.
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element **FormalStandardType/OtherFormalStandard**

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherFormalStandard element describes a formal Geometric Dimensioning and Tolerancing standard in natural language.


complexType **InspectionStatusType**

diagram	
children	InspectionStatusEnum OtherInspectionStatus
annotation	documentation The InspectionStatusType defines the status of an inspection.

element **InspectionStatusType/InspectionStatusEnum**

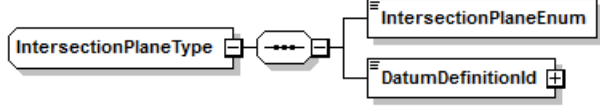
diagram			
type	InspectionStatusEnumType		
properties	content	simple	
facets	Kind enumeration	Value PASS enumeration FAIL enumeration REWORK enumeration SYSError enumeration UNKNOWN enumeration NOT_CALCULATED enumeration NOT_MEASURED enumeration UNDEFINED	Annotation
annotation	documentation The InspectionStatusEnum element describes an often-used status of an inspection.		

element **InspectionStatusType/OtherInspectionStatus**


diagram	
type	xs:string
properties	content simple

annotation	documentation The OtherInspectionStatus element describes the status of an inspection in natural language.
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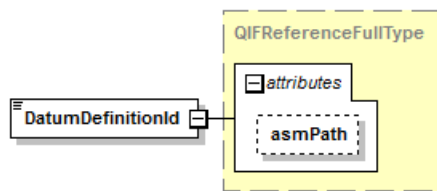
complexType IntersectionPlaneType

diagram	
children	IntersectionPlaneEnum DatumDefinitionId
annotation	documentation (ISO specific) The IntersectionPlaneType defines an intersection plane feature control frame modifier.

element IntersectionPlaneType/IntersectionPlaneEnum

diagram													
type	IntersectionPlaneEnumType												
properties	content simple												
facets	<table><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr><tr><td>enumeration</td><td>PARALLEL</td><td></td></tr><tr><td>enumeration</td><td>PERPENDICULAR</td><td></td></tr><tr><td>enumeration</td><td>INCLUDING</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	PARALLEL		enumeration	PERPENDICULAR		enumeration	INCLUDING	
Kind	Value	Annotation											
enumeration	PARALLEL												
enumeration	PERPENDICULAR												
enumeration	INCLUDING												
annotation	<div>documentation</div> <div>The IntersectionPlaneEnum element specifies how the intersection plane is derived from the datum.</div>												

element IntersectionPlaneType/DatumDefinitionId

diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a

		model entity within an assembly.
annotation	documentation The DatumDefinitionId element identifies the datum from which the intersection plane is derived.	

complexType **LinearToleranceDefinitionType**

diagram						
children	Attributes MaxValue MinValue MinValue					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the tolerance definition, used for referencing.
annotation	documentation The LinearToleranceDefinitionType defines a tolerance on a length that can be referenced by its QIF id.					

attribute **LinearToleranceDefinitionType/@id**

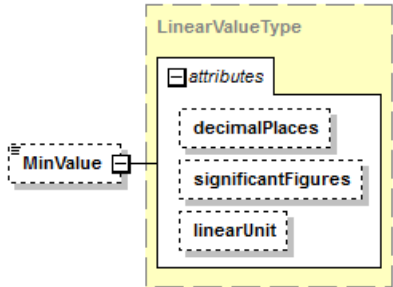
type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the tolerance definition, used for referencing.

element **LinearToleranceDefinitionType/MaxValue**

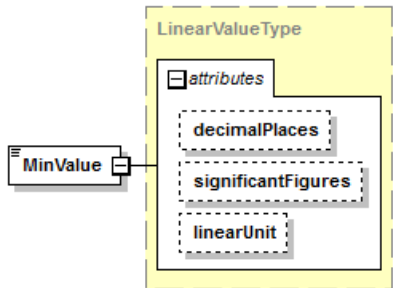
diagram						
type	LinearValueType					
properties	content complex					

attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.					

element LinearToleranceDefinitionType/MinValue

diagram						
type	LinearValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element LinearToleranceDefinitionType/MinValue

diagram						
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type	LinearValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

complexType LinearToleranceType

diagram						
children	MaxValue MinValue MinValue DefinitionId DefinedAsLimit					
annotation	documentation The LinearToleranceType defines a tolerance on a quantity measured in length units.					

element LinearToleranceType/MaxValue

diagram						
type	LinearValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit

		attribute defines the UnitName for the LinearValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.	

element LinearToleranceType/MinValue

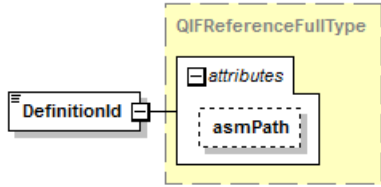
diagram						
type	LinearValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation	The optional MinValue element is the minimum specification limit or lower tolerance.				

element LinearToleranceType/MinValue


diagram						
type	LinearValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of

	linearUnit xs:token	SpecifiedDecimalType. documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.	

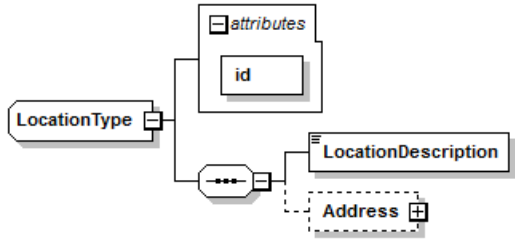
element **LinearToleranceType/DefinitionId**

diagram						
type	QIFReferenceFullType					
properties	content	complex				
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The DefinitionId element is the QIF id of a linear tolerance definition.					

element **LinearToleranceType/DefinedAsLimit**

diagram	
type	xs:boolean
properties	content simple
annotation	<p>documentation</p> <p>The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.</p>


complexType **LocationType**

diagram						
children	LocationDescription Address					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the location, used for referencing.
annotation	documentation The LocationType defines a physical location.					

attribute **LocationType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the location, used for referencing.

element **LocationType/LocationDescription**

diagram						
type	xs:string					
properties	content simple					
annotation	documentation The LocationDescription element gives a natural language description of a location. If an address is also given, the description need not duplicate that information.					

element **LocationType/Address**

diagram	
type	PhysicalAddressType
properties	minOcc 0 maxOcc 1 content complex
children	Description InternalLocation StreetNumber Street PostalBox Town Region PostalCode Country FacsimileNumber TelephoneNumber ElectronicMailAddress TelexNumber
annotation	documentation The optional Address element gives a physical address for a location.

complexType **MachineCoordinateSystemOperationType**

diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber
used by	element Machine
annotation	documentation The MachineCoordinateSystemOperationType defines a switch to machine coordinate system operation.

complexType **MassToleranceType**

diagram	
children	MaxValue MinValue MinValue DefinedAsLimit
annotation	documentation The MassToleranceType defines a tolerance on a quantity measured in mass units.

element **MassToleranceType/MaxValue**

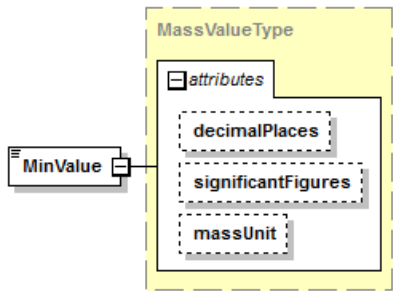
diagram																									
type	MassValueType																								
properties	content complex																								
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>massUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional massUnit attribute defines the UnitName for the MassValueType.</td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	massUnit	xs:token				documentation The optional massUnit attribute defines the UnitName for the MassValueType.
Name	Type	Use	Default	Fixed	Annotation																				
decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
massUnit	xs:token				documentation The optional massUnit attribute defines the UnitName for the MassValueType.																				
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.																								

element **MassToleranceType/MinValue**

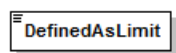
diagram	
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type	MassValueType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	massUnit	xs:token				documentation The optional massUnit attribute defines the UnitName for the MassValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element **MassToleranceType/MinValue**

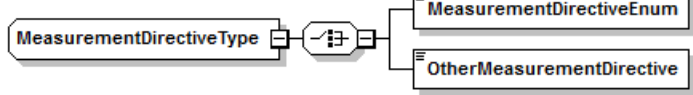
diagram						
type	MassValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	massUnit	xs:token				documentation The optional massUnit attribute defines the UnitName for the MassValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

element **MassToleranceType/DefinedAsLimit**


diagram	
type	xs:boolean
properties	content simple
annotation	<div>documentation</div> <div>The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be</div>

	negative.
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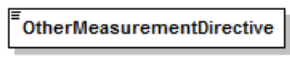
complexType MeasurementDirectiveType

diagram	
children	MeasurementDirectiveEnum OtherMeasurementDirective
annotation	documentation The MeasurementDirectiveType defines the method of measurement between two features.

element MeasurementDirectiveType/MeasurementDirectiveEnum

diagram			
type	MeasurementDirectiveEnumType		
properties	content	simple	
facets	Kind enumeration enumeration enumeration enumeration	Value MINIMUM MAXIMUM AVERAGE UNDEFINED	Annotation
annotation	documentation The MeasurementDirectiveEnum element describes an often-used method of measurement between two features.		

element MeasurementDirectiveType/OtherMeasurementDirective

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherMeasurementDirective element describes the method of measurement between two features in natural language.

complexType **MeasurePointActualType**

diagram						
type	extension of ActualPointWithNormalBaseType					
properties	base ActualPointWithNormalBaseType					
children	Point Normal Compensated ProbeRadius MeasurementDeviceId SensorId MeasurePointNominalId					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The MeasurePointActualType defines an actual measure point. In a MeasurePointActualType, the inherited Point element is the actual location of a point at which a measurement was taken, and the inherited Normal element is a vector pointing opposite the actual approach direction for measurement.					

element **MeasurePointActualType/Compensated**

diagram						
type	xs:boolean					
properties	content simple					
annotation	documentation The Compensated element describes whether the actual measured point has been compensated for probe radius. A value of "true" means the point has been compensated. A value of "false" means the point has not been compensated.					

element **MeasurePointActualType/ProbeRadius**

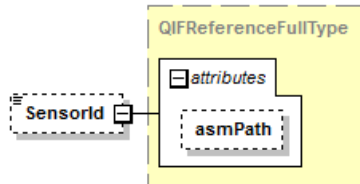
diagram						
type	ActualLinearValueType					
properties	minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	combinedUncertainty	NonNegativeDecimalType				documentation The optional combinedUncertainty attribute is a value expressing the combined uncertainty assigned to the SpecifiedDecimalType.
	meanError	NonNegativeDecimalType				documentation The optional meanError attribute is a value expressing the mean error assigned to the SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the unit used by LinearValueType.
annotation	documentation The optional ProbeRadius element is the effective (qualified) probe radius used for probe compensation.					

element **MeasurePointActualType/MeasurementDeviceId**

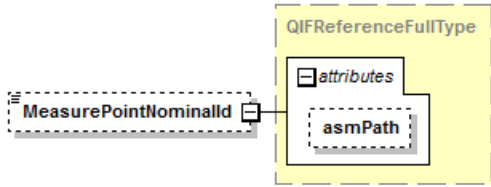
diagram						
type	QIFReferenceFullType					

properties	minOcc 0 maxOcc 1 content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional MeasurementDeviceId element is the QIF id of the measurement device used to measure the point.					

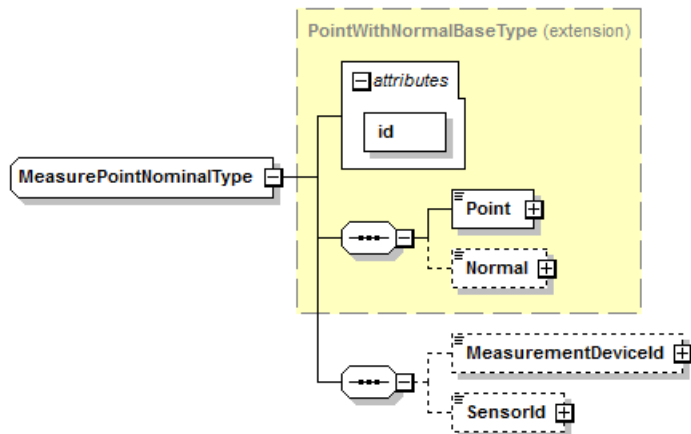
element **MeasurePointActualType/SensorId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional SensorId element is the QIF id of the sensor (e.g., probe tip) used to measure the point.					

element **MeasurePointActualType/MeasurePointNominalId**

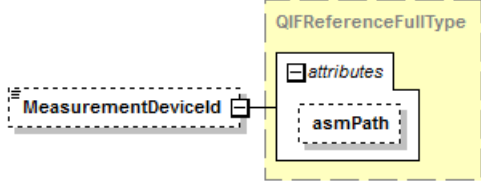
diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				<p>documentation</p> <p>The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.</p>
annotation	<p>documentation</p> <p>The optional MeasurePointNominalId element is the QIF id of the measure point nominal corresponding to this measure point actual.</p>					

complexType **MeasurePointNominalType**

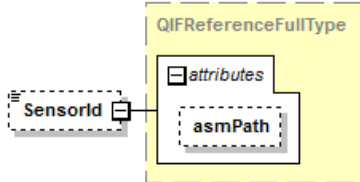
diagram							
type	extension of PointWithNormalBaseType						
properties	base PointWithNormalBaseType						
children	Point Normal MeasurementDeviceId SensorId						
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>Annotation</td></tr></table>	Name	Type	Use	Default	Fixed	Annotation
Name	Type	Use	Default	Fixed	Annotation		

	id QIFIdType required	documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The MeasurePointNominalType defines a nominal measure point. In a MeasurePointNominalType, the inherited Point element is the location of a point at which a measurement is to be taken, and the inherited Normal element is a vector pointing opposite an intended approach direction for measurement.	

element **MeasurePointNominalType/MeasurementDeviceId**


diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional MeasurementDeviceId element is the QIF id of the measurement device to be used to measure the point.					

element **MeasurePointNominalType/SensorId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex

attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional SensorId element is the QIF id of the sensor (e.g., probe tip) to be used to measure the point.					

complexType MovableDatumTargetDirectionType

diagram	
children	DatumTargetTranslationDirection
used by	element DatumTargetDefinitionBaseType/MovableDatumTarget
annotation	documentation The MovableDatumTargetDirectionType defines the direction in which a datum target can move.

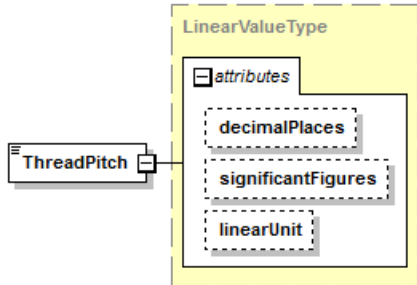
element **MovableDatumTargetDirectionType/DatumTargetTranslationDirection**

diagram						
type	UnitVectorType					
properties	content	complex				
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The DatumTargetTranslationDirection element is the vector direction in which the datum target can translate when a datum target is allowed to move in order to stabilize a datum reference frame.					

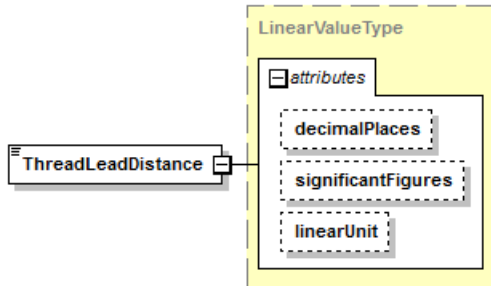
complexType **MultiLeadThreadSpecificationType**

diagram						
type	extension of ThreadSpecificationDetailedBaseType					
properties	base ThreadSpecificationDetailedBaseType					
children	Diameter ThreadSeries ThreadToleranceClass CrestDiameterToleranceClass LeftHanded ModifiedThread ThreadLengthEngagement ThreadPitch ThreadLeadDistance ThreadLeadStarts					
used by	element ThreadSpecificationType/MultiLeadSpecification					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the thread specification, used for referencing.
annotation	documentation The MultiLeadThreadSpecificationType defines information particular to a multi-lead thread.					

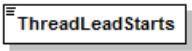
element **MultiLeadThreadSpecificationType/ThreadPitch**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The ThreadPitch element is the thread pitch for the multi thread specification.					

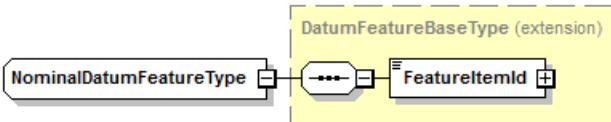
element **MultiLeadThreadSpecificationType/ThreadLeadDistance**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The ThreadLeadDistance element is the thread lead distance for the multi thread specification.					

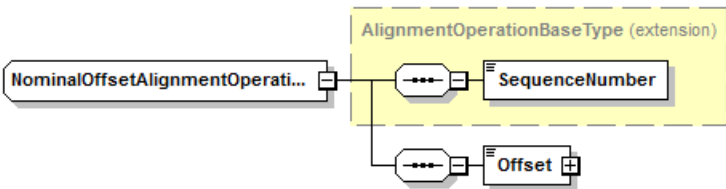
element **MultiLeadThreadSpecificationType/ThreadLeadStarts**

diagram	 The diagram shows a rectangular box with the text "ThreadLeadStarts" inside. The box has a small square icon in the top-left corner.
type	xs:positiveInteger
properties	content simple
annotation	documentation The ThreadLeadStarts element is the number of thread lead starts for the multi thread specification.

complexType **NominalDatumFeatureType**

diagram	 The diagram shows a rectangular box labeled "NominalDatumFeatureType". To its right is a dashed yellow box labeled "DatumFeatureBaseType (extension)". Inside this dashed box is a sequence of two elements: a box with three dots (representing a sequence) and a box labeled "FeatureItemId".
type	extension of DatumFeatureBaseType
properties	base DatumFeatureBaseType
children	FeatureItemId
used by	element DatumWithPrecedenceType/NominalDatumFeature
annotation	documentation The NominalDatumFeatureType defines a DatumFeatureBaseType in which the datum feature is to be established from the nominal feature.

complexType **NominalOffsetAlignmentOperationType**

diagram	 The diagram shows a rectangular box labeled "NominalOffsetAlignmentOperati...". To its right is a dashed yellow box labeled "AlignmentOperationBaseType (extension)". Inside this dashed box are two elements: a box with three dots (representing a sequence) containing "SequenceNumber", and another box with three dots (representing a sequence) containing "Offset".
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber Offset
used by	element NominalOffset
annotation	documentation The NominalOffsetAlignmentOperationType defines information particular to a nominal offset operation.

element **NominalOffsetAlignmentOperationType/Offset**

diagram						
type	VectorType					
properties	content	complex				
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation	The Offset element is the XYZ offset in the current coordinate system.				

complexType **NominalRotationAlignmentOperationType**

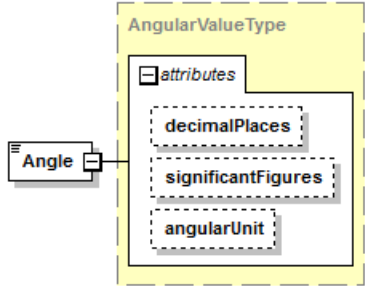
diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber RotationAxis Angle
used by	element NominalRotation
annotation	documentation The NominalRotationAlignmentOperationType defines information particular to a nominal rotation alignment operation.

element **NominalRotationAlignmentOperationType/RotationAxis**

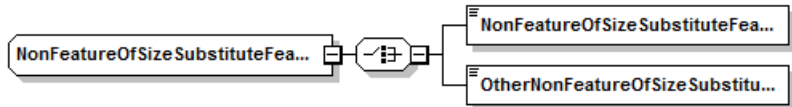
diagram	<p>The diagram illustrates the structure of the UnitVectorType and its relationship to the RotationAxis element. The UnitVectorType is a complex type containing a list of attributes: linearUnit, decimalPlaces, significantFigures, validity, xDecimalPlaces, xSignificantFigures, xValidity, yDecimalPlaces, ySignificantFigures, yValidity, zDecimalPlaces, zSignificantFigures, and zValidity. The RotationAxis element is shown as a complex type that is a specialization of the UnitVectorType.</p>												
type	UnitVectorType												
properties	content complex												
facets	Kind Value Annotation length 3												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>linearUnit</td><td>xs:token</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	linearUnit	xs:token				
Name	Type	Use	Default	Fixed	Annotation								
linearUnit	xs:token												

	decimalPlaces xs:nonNegativeInteger significantFigures xs:nonNegativeInteger validity ValidityEnumType xDecimalPlaces xs:nonNegativeInteger xSignificantFigures xs:nonNegativeInteger xValidity ValidityEnumType yDecimalPlaces xs:nonNegativeInteger ySignificantFigures xs:nonNegativeInteger yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The RotationAxis element is the direction in the current coordinate system about which the coordinate system is rotated.

element **NominalRotationAlignmentOperationType/Angle**

diagram						
type	AngularValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The Angle element is the angle through which the coordinate system is rotated. A positive angle represents a right-handed rotation about the rotation axis.					


complexType **NonFeatureOfSizeSubstituteFeatureAlgorithmType**

diagram						
type	extension of SubstituteFeatureAlgorithmBaseType					

properties	base SubstituteFeatureAlgorithmBaseType
children	NonFeatureOfSizeSubstituteFeatureAlgorithmEnum OtherNonFeatureOfSizeSubstituteFeatureAlgorithm
annotation	documentation The NonFeatureOfSizeSubstituteFeatureAlgorithmType defines the type of algorithm used to determine the substitute feature for a feature that is not a feature of size. It applies to features that may not be circumscribed or inscribed.

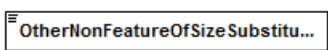
element

NonFeatureOfSizeSubstituteFeatureAlgorithmType/NonFeatureOfSizeSubstituteFeatureAlgorithmEnum

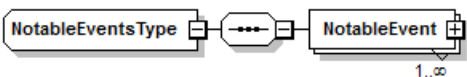
diagram			
type	NonFeatureOfSizeSubstituteFeatureAlgorithmEnumType		
properties	content	simple	
facets	Kind	Value	Annotation
	enumeration	LEASTSQUARES	
	enumeration	MINMAX	
	enumeration	UNDEFINED	
annotation	documentation The NonFeatureOfSizeSubstituteFeatureAlgorithmEnum element describes an often-used type of algorithm used to determine the substitute feature for a feature that is not a feature of size.		

element

NonFeatureOfSizeSubstituteFeatureAlgorithmType/OtherNonFeatureOfSizeSubstituteFeatureAlgorithm

diagram	
type	xs:string
properties	content simple
annotation	<div>documentation</div> <div>The OtherNonFeatureOfSizeSubstituteFeatureAlgorithm element describes the type of algorithm used to determine the substitute feature for a feature that is not a feature of size in natural language.</div>

complexType **NotableEventsType**

diagram			
children	NotableEvent		
annotation	documentation The NotableEventsType defines a list of notable events that might occur during an inspection.		


element **NotableEventsType/NotableEvent**

diagram						
type	NotableEventType					
properties	minOcc	1	maxOcc	unbounded	content	complex
children	Description Active					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the event, used for referencing.
annotation	documentation Each NotableEvent element gives information about a notable event that might occur during an inspection.					

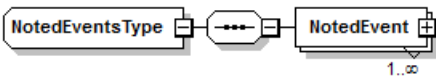
complexType **NotableEventType**

diagram	<p>The diagram shows a complex type NotableEventType which is an extension of EventBaseType. The EventBaseType extension is highlighted in a yellow dashed box. Inside this box, there is an attributes container with an id attribute. Below the attributes container, there are two optional elements: Description and Active, each preceded by a dashed line and a small square indicating optionality. The NotableEventType is shown as a separate box connected to the EventBaseType extension box.</p>					
type	extension of EventBaseType					
properties	base EventBaseType					
children	Description Active					
used by	element NotableEventsType/NotableEvent					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the event, used for referencing.
annotation	documentation The NotableEventType defines an event that might occur during an inspection, any instance of which (1) should be reported as a NotedEventType if it occurs and the Active element is "true" or (2) should not be reported if it occurs and the active element is "false".					

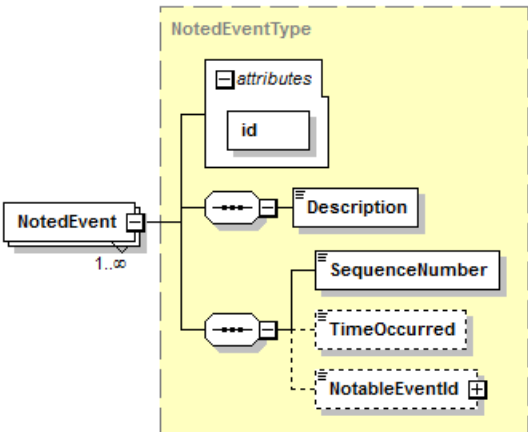
element **NotableEventType/Active**

diagram	
type	xs:boolean
properties	content simple
annotation	documentation The Active element indicates whether the event should be reported. A value of "true" means an event of this type should be reported. A value of "false" means an event of this type should not be reported.

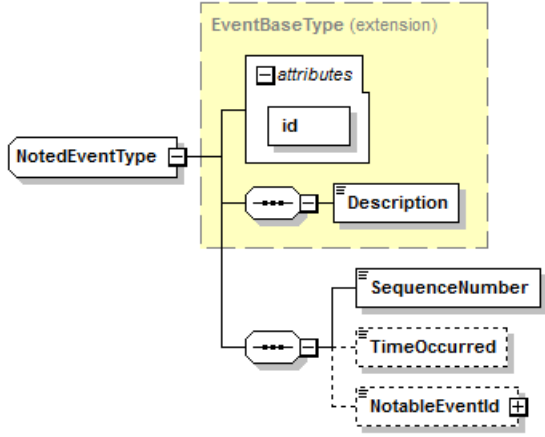
complexType **NotedEventsType**

diagram	
children	NotedEvent
annotation	documentation The NotedEventsType defines a list of inspection related events such as occurrence of E-Stop, speed change, broken tip, excessive force, out of area errors on CMM, changed digital caliper battery etc.

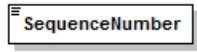
element **NotedEventsType/NotedEvent**

diagram						
type	NotedEventType					
properties	minOcc	1	maxOcc	unbounded	content	complex
children	Description SequenceNumber TimeOccurred NotableEventId					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the event, used for referencing.
annotation	documentation Each NotedEvent element gives information about an event that occurred during an inspection.					

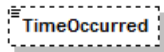
complexType **NotedEventType**

diagram						
type	extension of EventBaseType					
properties	base <code>EventBaseType</code>					
children	Description SequenceNumber TimeOccurred NotableEventId					
used by	element NotedEventsType/NotedEvent					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the event, used for referencing.
annotation	documentation The NotedEventType defines an instance of an event that occurred during an inspection. It may correspond to some notable event type.					

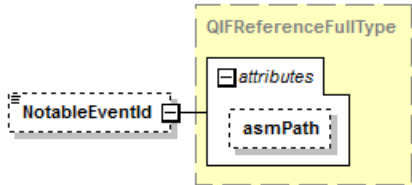
element **NotedEventType/SequenceNumber**

diagram						
type	xs:positiveInteger					
properties	content <code>simple</code>					
annotation	documentation The SequenceNumber element is the sequence number of a noted event in a list of noted events. Sequence numbers of noted event instances should be assigned in chronological order (1, 2, 3, ...).					

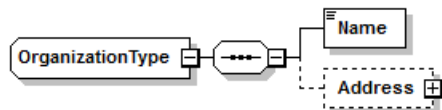
element **NotedEventType/TimeOccurred**

diagram						
type	xs:dateTime					
properties	minOcc	0	maxOcc	1	content	<code>simple</code>
annotation	documentation The optional TimeOccurred element is the date and time at which the event occurred.					


element **NotedEventType/NotableEventId**

diagram						
type	QIFReferenceFullType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The optional NotableEventId element is the QIF id of a notable event type of which this noted event is an instance.					

complexType **OrganizationType**

diagram	
children	Name Address
used by	complexType CustomerOrganizationType
annotation	documentation The OrganizationType defines information about an organization.

element **OrganizationType/Name**

diagram	
type	xs:token
properties	content simple
annotation	documentation

	The Name element is the name of the organization.
--	---


element OrganizationType/Address

diagram	
type	PhysicalAddressType
properties	minOcc 0 maxOcc 1 content complex
children	Description InternalLocation StreetNumber Street PostalBox Town Region PostalCode Country FacsimileNumber TelephoneNumber ElectronicMailAddress TelexNumber
annotation	documentation The optional Address element is the address of the organization.

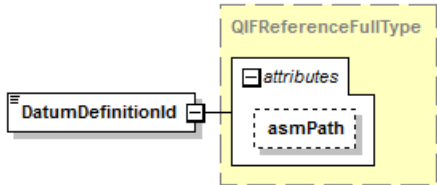
complexType OrientationPlaneType

diagram	
children	OrientationPlaneEnum DatumDefinitionId
annotation	documentation (ISO specific) The OrientationPlaneType defines an orientation plane feature control frame modifier.

element **OrientationPlaneType/OrientationPlaneEnum**

diagram						
type	ModifyingPlaneEnumType					
properties	content	simple				
facets	Kind	enumeration	Value	PARALLEL	Annotation	
		enumeration	PERPENDICULAR			
		enumeration	INCLINED			
annotation	documentation	The OrientationPlaneEnum element specifies how the orientation plane is derived from the datum.				

element **OrientationPlaneType/DatumDefinitionId**

diagram						
type	QIFReferenceFullType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	asmPath	QIFIdType				documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation	The DatumDefinitionId element identifies the datum from which the orientation plane is derived.				

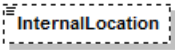
complexType **PhysicalAddressType**

diagram	
children	Description InternalLocation StreetNumber Street PostalBox Town Region PostalCode Country FacsimileNumber TelephoneNumber ElectronicMailAddress TelexNumber
used by	elements OrganizationType/Address LocationType/Address
annotation	documentation The PhysicalAddressType defines a physical address.


element **PhysicalAddressType/Description**

diagram	
type	AddressDescriptionType
properties	minOcc 0 maxOcc 1 content complex
children	AddressDescriptionEnum OtherAddressDescription
annotation	documentation The optional Description element characterizes the type of the address to distinguish among delivery, postal, and visitor addresses.


element **PhysicalAddressType/InternalLocation**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional InternalLocation element is an organization-defined address for internal mail delivery.

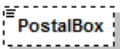
element **PhysicalAddressType/StreetNumber**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional StreetNumber element is the number of a location on a street.


element **PhysicalAddressType/Street**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Street element is the name of the street.


element **PhysicalAddressType/PostalBox**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional PostalBox element is the number of a postal box.

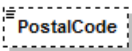
element **PhysicalAddressType/Town**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Town element is the name of a town or city.


element PhysicalAddressType/Region

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Region element is the name of a region.

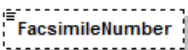
element PhysicalAddressType/PostalCode

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional PostalCode element is the code used by the country's postal service.

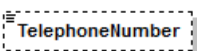
element PhysicalAddressType/Country

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Country element is the name of the country.

element PhysicalAddressType/FacsimileNumber

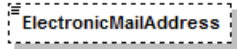
diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional FacsimileNumber element is the telephone number where facsimiles may be received.

element PhysicalAddressType/TelephoneNumber

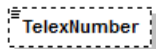
diagram	
type	xs:token
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation The optional TelephoneNumber element is the number where telephone calls may be received.

element **PhysicalAddressType/ElectronicMailAddress**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional ElectronicMailAddress element is the electronic mail address at which electronic messages may be received.

element **PhysicalAddressType/TelexNumber**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional TelexNumber element is the number at which telex messages may be received.

complexType **PointWithNormalBaseType**

diagram						
properties	abstract true					
children	Point Normal					
used by	complexTypees MeasurePointNominalType TargetPointNominalType					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The abstract PointWithNormalBaseType is the base type for measurement and point-defined-feature points. The direction of the optional normal vector is away from the material.					

attribute **PointWithNormalBaseType/@id**

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the point, used for referencing.

element **PointWithNormalBaseType/Point**

diagram						
type	PointType					
properties	content complex					
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				

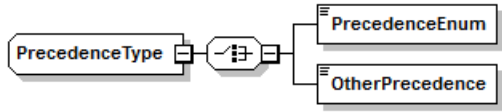
	zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The Point element is the location of the individual point.

element **PointWithNormalBaseType/Normal**

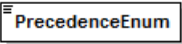
diagram						
type	UnitVectorType					
properties	minOcc	0	maxOcc	1	content	complex
facets	Kind	Value	Annotation	length	3	
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				

	zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType
annotation	documentation The optional Normal element is the unit vector normal to the material at the locating point.


complexType PrecedenceType

diagram	
children	PrecedenceEnum OtherPrecedence
used by	element DatumWithPrecedenceType/Precedence
annotation	documentation The PrecedenceType defines the precedence of a datum in a feature control frame or compound datum.

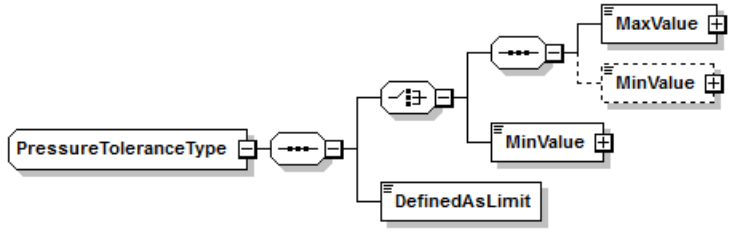
element PrecedenceType/PrecedenceEnum

diagram																						
type	PrecedenceEnumType																					
properties	content simple																					
facets	<table><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr><tr><td>enumeration</td><td>PRIMARY</td><td></td></tr><tr><td>enumeration</td><td>SECONDARY</td><td></td></tr><tr><td>enumeration</td><td>TERTIARY</td><td></td></tr><tr><td>enumeration</td><td>QUATERNARY</td><td></td></tr><tr><td>enumeration</td><td>QUINARY</td><td></td></tr><tr><td>enumeration</td><td>SENARY</td><td></td></tr></table>	Kind	Value	Annotation	enumeration	PRIMARY		enumeration	SECONDARY		enumeration	TERTIARY		enumeration	QUATERNARY		enumeration	QUINARY		enumeration	SENARY	
Kind	Value	Annotation																				
enumeration	PRIMARY																					
enumeration	SECONDARY																					
enumeration	TERTIARY																					
enumeration	QUATERNARY																					
enumeration	QUINARY																					
enumeration	SENARY																					
annotation	<div>documentation</div> <div>The <code>PrecedenceEnum</code> element describes an often-used precedence of a datum in a feature control frame or compound datum.</div>																					

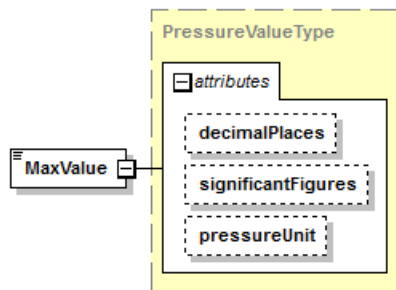
element PrecedenceType/OtherPrecedence

diagram	
type	xs:string
properties	content simple
annotation	documentation The OtherPrecedence element describes the precedence of a datum in a feature control frame or compound datum in natural language.

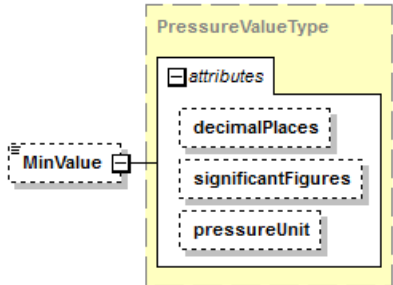
complexType **PressureToleranceType**

diagram	
children	MaxValue MinValue MinValue DefinedAsLimit
annotation	documentation The PressureToleranceType defines a tolerance on a quantity measured in pressure units.

element **PressureToleranceType/MaxValue**

diagram																									
type	PressureValueType																								
properties	content complex																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>pressureUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional pressureUnit attribute defines the UnitName for the PressureValueType.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	pressureUnit	xs:token				documentation The optional pressureUnit attribute defines the UnitName for the PressureValueType.
Name	Type	Use	Default	Fixed	Annotation																				
decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
pressureUnit	xs:token				documentation The optional pressureUnit attribute defines the UnitName for the PressureValueType.																				
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.																								

element **PressureToleranceType/MinValue**


diagram						
type	PressureValueType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	pressureUnit	xs:token				documentation The optional pressureUnit attribute defines the UnitName for the PressureValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element **PressureToleranceType/MinValue**

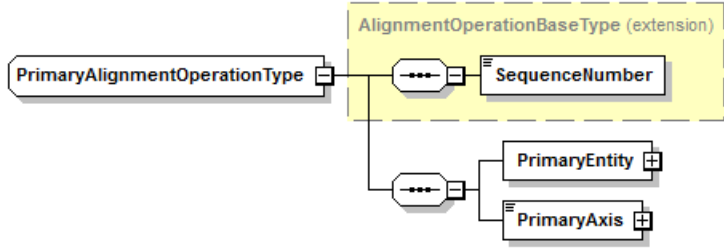
diagram						
type	PressureValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	pressureUnit	xs:token				documentation The optional pressureUnit attribute defines the UnitName for the PressureValueType.

annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.
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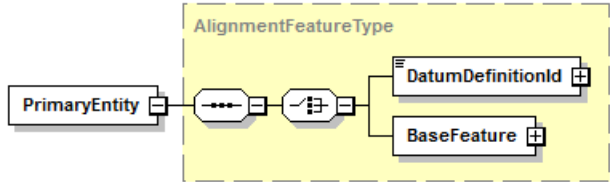
element **PressureToleranceType/DefinedAsLimit**

diagram	
type	xs:boolean
properties	content simple
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.

complexType **PrimaryAlignmentOperationType**

diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber PrimaryEntity PrimaryAxis
used by	element PrimaryAlignment
annotation	documentation The PrimaryAlignmentOperationType defines information particular to a primary alignment operation. In a primary alignment operation the coordinate system is aligned so that the actual feature axis or normal vector points exactly in the specified primary direction.

element **PrimaryAlignmentOperationType/PrimaryEntity**

diagram	
type	AlignmentFeatureType
properties	content complex
children	DatumDefinitionId BaseFeature
annotation	documentation The PrimaryEntity element is the feature or datum for the primary alignment operation. This feature or datum must have an axis or normal vector.

element **PrimaryAlignmentOperationType/PrimaryAxis**

diagram						
type	UnitVectorType					
properties	content complex					
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The PrimaryAxis element is the direction in which the primary axis points in the current coordinate system.					

complexType **SecondaryAlignmentOperationType**

diagram	
type	extension of AlignmentOperationBaseType
properties	base AlignmentOperationBaseType
children	SequenceNumber SecondaryEntity SecondaryAxis RotationAxis
used by	element SecondaryAlignment
annotation	<p>documentation</p> <p>The SecondaryAlignmentOperationType defines information particular to a secondary alignment operation. In a secondary alignment operation the coordinate system is aligned so that the actual feature axis or normal vector points as closely as possible in the specified secondary direction given the constraint that the primary alignment axis or rotation axis remains unchanged.</p>

element **SecondaryAlignmentOperationType/SecondaryEntity**

diagram	
type	AlignmentFeatureType
properties	content complex
children	DatumDefinitionId BaseFeature
annotation	<p>documentation</p> <p>The SecondaryEntity element is the feature or datum for the secondary alignment operation. This feature or datum must have an axis or normal vector.</p>

element **SecondaryAlignmentOperationType/SecondaryAxis**

diagram						
type	UnitVectorType					
properties	content	complex				
facets	Kind	Value	Annotation			
	length	3				
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation	The SecondaryAxis element is the direction in which the secondary axis points in the current coordinate system.				

element **SecondaryAlignmentOperationType/RotationAxis**

diagram						
type	UnitVectorType					
properties	minOcc	0	maxOcc	1	content	complex
facets	Kind	Value	Annotation	length	3	
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
annotation	documentation The optional RotationAxis element is the direction in the current coordinate system about which the coordinate system is rotated to establish the secondary axis. If absent the rotation axis will be the primary axis defined in a previous alignment operation.					

complexType **SequencedBaseFeatureType**

diagram	
type	extension of BaseFeatureType
properties	base <code>BaseFeatureType</code>
children	ReferencedComponent FeatureItemId SequenceNumber
used by	element BestFitAlignmentOperationType/BaseFeature
annotation	documentation The SequencedBaseFeatureType defines a feature that is one of a set of features used in a construction or alignment.

element **SequencedBaseFeatureType/SequenceNumber**

diagram	
type	xs:positiveInteger
properties	content <code>simple</code>
annotation	documentation The SequenceNumber element is an ordinal number specifying the order of the base feature in the construction or alignment.

complexType **SequencedDatumType**

diagram	
children	SimpleDatum CompoundDatum SequenceNumber
used by	element CompoundDatumType/Datum
annotation	documentation The SequencedDatumType defines a datum reference with a sequence number for ordering in a compound datum.

element **SequencedDatumType/SimpleDatum**

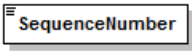
diagram	
type	DatumType
properties	content complex
children	DatumDefinitionId MaterialModifier ReferencedComponent DatumFeatureSimulatorModifier DatumTranslation DegreesOfFreedom ProjectedDatum DiameterModifier SectionModifier ContactingFeature DistanceVariable DatumFixed ReducedDatum ConstrainOrientation ConstrainSubsequent
annotation	documentation The Datum element is a simple datum with an assigned label.

element **SequencedDatumType/CompoundDatum**

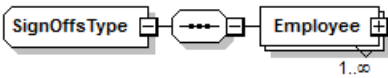
diagram	
type	CompoundDatumType
properties	content complex

children	Datum ReducedDatum
annotation	documentation (ISO specific) The CompoundDatum element is a nested compound datum.

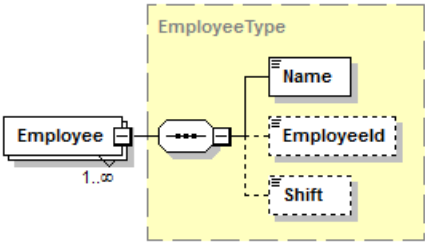
element [SequencedDatumType/SequenceNumber](#)

diagram	
type	xs:positiveInteger
properties	content simple
annotation	documentation The SequenceNumber element is the sequence number of the datum in a compound datum. The sequence numbers in an ordered set of datums should be assigned 1, 2, 3, ...

complexType [SignOffsType](#)

diagram	
children	Employee
used by	element VersionBaseType/SignOffs
annotation	documentation The SignOffsType defines a list of one or more employees who have signed off on a particular version of something.

element [SignOffsType/Employee](#)

diagram	
type	EmployeeType
properties	minOcc 1 maxOcc unbounded content complex
children	Name EmployeeId Shift
annotation	documentation Each Employee element is employee information for one employee involved in the sign off.

complexType **SingleLeadThreadSpecificationType**

diagram						
type	extension of ThreadSpecificationDetailedBaseType					
properties	base ThreadSpecificationDetailedBaseType					
children	Diameter ThreadSeries ThreadToleranceClass CrestDiameterToleranceClass LeftHanded ModifiedThread ThreadLengthEngagement ThreadDensity					
used by	element ThreadSpecificationType/SingleLeadSpecification					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the thread specification, used for referencing.
annotation	documentation The SingleLeadThreadSpecificationType defines information particular to a single lead thread.					

element **SingleLeadThreadSpecificationType/ThreadDensity**

diagram						
type	LinearValueType					

properties	content	complex				
attributes	<div> <div>Name</div> <div>decimalPlaces</div> <div>Type</div> <div>xs:nonNegativeInteger</div> <div>Use</div> <div></div> <div>Default</div> <div></div> <div>Fixed</div> <div></div> <div>Annotation</div> <div>documentation</div> <div>See documentation of SpecifiedDecimalType.</div> <div>documentation</div> <div>See documentation of SpecifiedDecimalType.</div> <div>documentation</div> <div>The optional linearUnit attribute defines the UnitName for the LinearValueType.</div> </div>	<div> <div>significantFigures</div> <div>xs:nonNegativeInteger</div> </div>				
	<div> <div>linearUnit</div> <div>xs:token</div> </div>					
annotation	<div>documentation</div> <div>The ThreadDensity element is the thread density for the single thread specification. The thread density is the number of threads per unit.</div>					

complexType **SoftwareType**

diagram	
children	VendorName ApplicationName Version Description
annotation	<div>documentation</div> <div>The SoftwareType defines information about a software application.</div>


element **SoftwareType/VendorName**

diagram	
type	xs:token
properties	content simple
annotation	<div>documentation</div> <div>The VendorName element is the company name of the software vendor.</div>


element **SoftwareType/ApplicationName**

diagram	
type	xs:token
properties	content simple
annotation	<div>documentation</div> <div>The ApplicationName element is the name of the software application.</div>

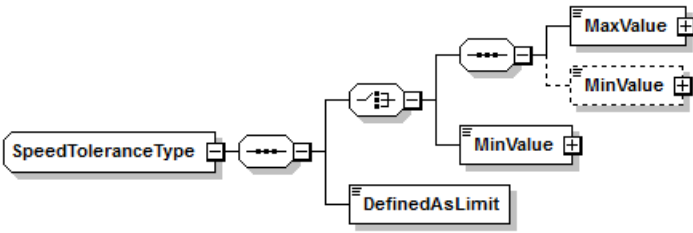
element **SoftwareType/Version**

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Version element is the version number of the software application.

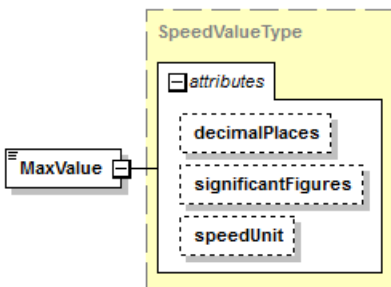
element **SoftwareType/Description**

diagram	
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Description element is the description of the software application.

complexType **SpeedToleranceType**

diagram	
children	MaxValue MinValue MinValue DefinedAsLimit
annotation	documentation The SpeedToleranceType defines a tolerance on a quantity measured in speed units.

element **SpeedToleranceType/MaxValue**

diagram						
type	SpeedValueType					
properties	content complex					
attributes	Name decimalPlaces	Type xs:nonNegativeInteger	Use	Default	Fixed	Annotation documentation See documentation of

	<p>significantFigures xs:nonNegativeInteger</p> <p>speedUnit xs:token</p>	<p>SpecifiedDecimalType. documentation See documentation of SpecifiedDecimalType. documentation The optional speedUnit attribute defines the UnitName for the SpeedValueType.</p>
annotation	<p>documentation The MaxValue element is the maximum specification limit or upper tolerance.</p>	

element **SpeedToleranceType/MinValue**


diagram						
type	SpeedValueType					
properties	minOcc	0	maxOcc	1	content	complex
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType. documentation
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType. documentation
	speedUnit	xs:token				documentation The optional speedUnit attribute defines the UnitName for the SpeedValueType.
annotation	<p>documentation The optional MinValue element is the minimum specification limit or lower tolerance.</p>					

element **SpeedToleranceType/MinValue**


diagram						
type	SpeedValueType					

properties	content	complex				
attributes	Name decimalPlaces significantFigures speedUnit	Type xs:nonNegativeInteger xs:nonNegativeInteger xs:token	Use	Default	Fixed	Annotation documentation See documentation of SpecifiedDecimalType. documentation See documentation of SpecifiedDecimalType. documentation The optional speedUnit attribute defines the UnitName for the SpeedValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

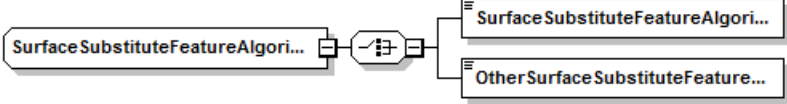
element **SpeedToleranceType/DefinedAsLimit**

diagram	
type	xs:boolean
properties	content simple
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.


complexType **SubstituteFeatureAlgorithmBaseType**

diagram	
properties	abstract true
used by	complexTypes CurveSubstituteFeatureAlgorithmType FeatureOfSizeSubstituteFeatureAlgorithmType NonFeatureOfSizeSubstituteFeatureAlgorithmType SurfaceSubstituteFeatureAlgorithmType
annotation	documentation The SubstituteFeatureAlgorithmBaseType is the abstract base type that defines the algorithm used to determine the substitute feature for a feature.


complexType **SurfaceSubstituteFeatureAlgorithmType**

diagram	
type	extension of SubstituteFeatureAlgorithmBaseType
properties	base SubstituteFeatureAlgorithmBaseType
children	SurfaceSubstituteFeatureAlgorithmEnum OtherSurfaceSubstituteFeatureAlgorithm
annotation	documentation The SurfaceSubstituteFeatureAlgorithmType defines the type of algorithm used to determine the substitute feature for a feature that is a general surface.

element **SurfaceSubstituteFeatureAlgorithmType/SurfaceSubstituteFeatureAlgorithmEnum**

diagram			
type	SurfaceSubstituteFeatureAlgorithmEnumType		
properties	content	simple	
facets	Kind	Value	Annotation
	enumeration	LEASTSQUARES	
	enumeration	BEZIER	
	enumeration	NURBS	
	enumeration	MINMAX	
	enumeration	UNDEFINED	
annotation	documentation The SurfaceSubstituteFeatureAlgorithmEnum element describes an often-used type of algorithm used to determine the substitute feature for a feature that is a general surface.		

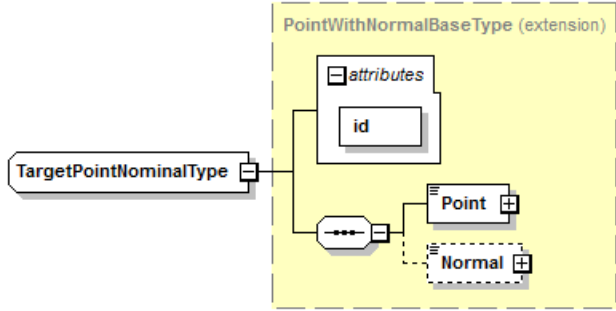
element **SurfaceSubstituteFeatureAlgorithmType/OtherSurfaceSubstituteFeatureAlgorithm**

diagram						
type	xs:string					
properties	content	simple				
annotation	documentation	The OtherSurfaceSubstituteFeatureAlgorithm element describes the type of algorithm used to determine the substitute feature for a feature that is a general surface in natural language.				

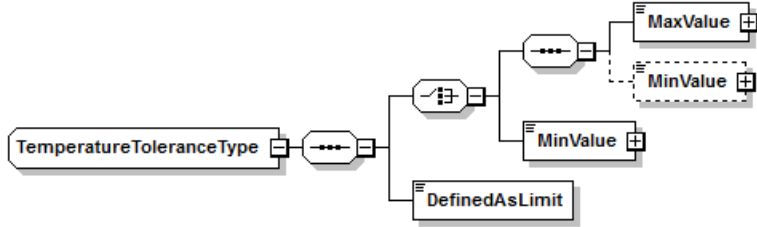
complexType **TargetPointActualType**

diagram						
type	extension of ActualPointWithNormalBaseType					
properties	base	ActualPointWithNormalBaseType				
children	Point Normal					
attributes	Name	Type	Use	Default	Fixed	Annotation
	id	QIFIdType	required			documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The TargetPointActualType defines an actual target point. Target points may be used to define a feature. Each TargetPointActualType corresponds to a TargetPointNominalType with the same sequence number.					

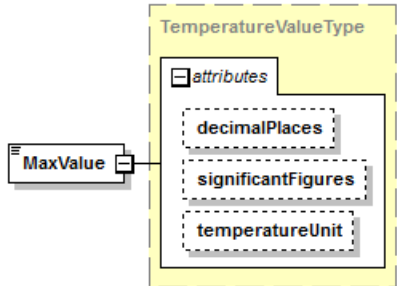
complexType **TargetPointNominalType**

diagram						
type	extension of PointWithNormalBaseType					
properties	base PointWithNormalBaseType					
children	Point Normal					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the point, used for referencing.
annotation	documentation The TargetPointNominalType defines a nominal target point. Target points may be used to define a feature.					

complexType **TemperatureToleranceType**

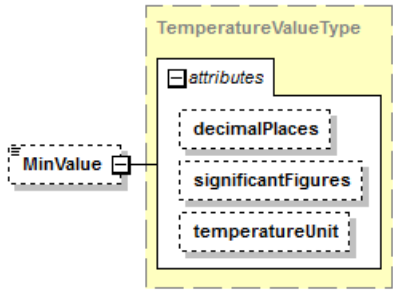
diagram						
children	MaxValue MinValue MinValue DefinedAsLimit					
annotation	documentation The TemperatureToleranceType defines a tolerance on a quantity measured in temperature units.					

element **TemperatureToleranceType/MaxValue**

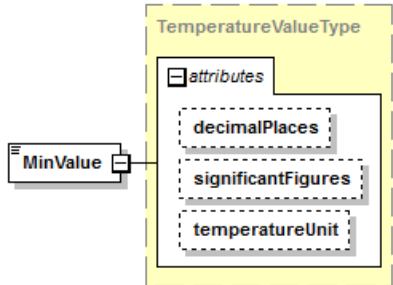
diagram						
type	TemperatureValueType					

properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	temperatureUnit	xs:token				documentation The optional temperatureUnit attribute defines the UnitName for the TemperatureValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.					


element TemperatureToleranceType/MinValue

diagram						
type	TemperatureValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	temperatureUnit	xs:token				documentation The optional temperatureUnit attribute defines the UnitName for the TemperatureValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

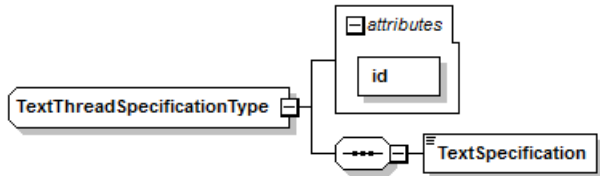
element **TemperatureToleranceType/MinValue**

diagram						
type	TemperatureValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	temperatureUnit	xs:token				documentation The optional temperatureUnit attribute defines the UnitName for the TemperatureValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.					

element **TemperatureToleranceType/DefinedAsLimit**

diagram						
type	xs:boolean					
properties	content simple					
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.					

complexType **TextThreadSpecificationType**


diagram						
children	TextSpecification					
used by	element ThreadSpecificationType/TextThreadSpecification					
attributes	Name	Type	Use	Default	Fixed	Annotation
	id	QIFIdType	required			documentation The id attribute is the

		QIF id of the thread specification, used for referencing.
annotation	documentation The TextThreadSpecificationType defines a thread specification in natural language.	

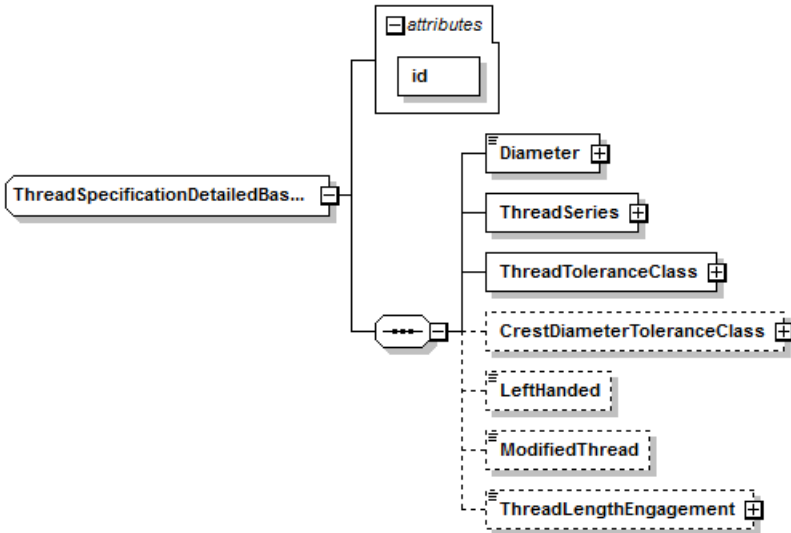
attribute **TextThreadSpecificationType/@id**

type	QIFIdType	
properties	use	required
annotation	documentation The id attribute is the QIF id of the thread specification, used for referencing.	

element **TextThreadSpecificationType/TextSpecification**

diagram		
type	xs:string	
properties	content	simple
annotation	documentation The TextSpecification element is the thread specification in natural language.	

complexType **ThreadSpecificationDetailedBaseType**

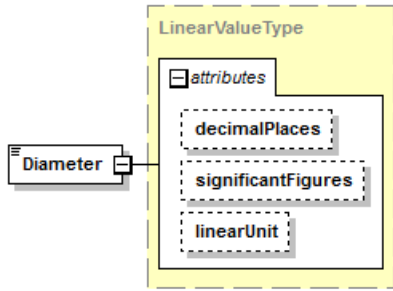
diagram						
properties	abstract	true				
children	Diameter ThreadSeries ThreadToleranceClass CrestDiameterToleranceClass LeftHanded ModifiedThread ThreadLengthEngagement					
used by	complexTypes	MultiLeadThreadSpecificationType SingleLeadThreadSpecificationType				
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the

	thread specification, used for referencing.
annotation	documentation The ThreadSpecificationDetailedBaseType is the abstract base type that defines detailed thread specifications. A detailed thread specification has elements defining each aspect of the thread in contrast to a simple thread specification string.

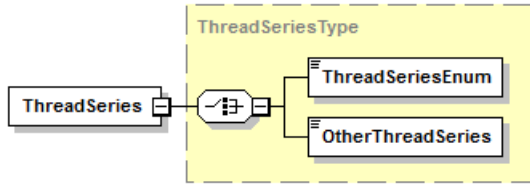
attribute ThreadSpecificationDetailedBaseType/@id

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the thread specification, used for referencing.

element ThreadSpecificationDetailedBaseType/Diameter

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The Diameter element is the basic major diameter of the thread. Note: the screw number is not used, the decimal equivalent for the screw number will be used (e.g., #10 screw number is equivalent to .190 inch).					

element ThreadSpecificationDetailedBaseType/ThreadSeries

diagram						
type	ThreadSeriesType					

properties	content complex
children	ThreadSeriesEnum OtherThreadSeries
annotation	documentation The ThreadSeries element is the thread series (e.g., UNC, M) for the thread. A thread series is sometimes called the thread form.

element ThreadSpecificationDetailedBaseType/ThreadToleranceClass

diagram	<p>The diagram shows a box labeled 'ThreadToleranceClass' connected by a line to a larger box labeled 'ThreadClassType'. Inside the 'ThreadClassType' box, there are two smaller boxes: 'ThreadClassEnum' and 'OtherThreadClass'.</p>
type	ThreadClassType
properties	content complex
children	ThreadClassEnum OtherThreadClass
annotation	documentation The ThreadToleranceClass element is the thread tolerance class for the pitch diameter of the thread. A thread class designation indicates the standard grade of tolerance and allowance specified for a thread -- typically a numeric class symbol and an internal and external character (e.g., 2A, 2B, 4h). For metric threads (e.g., M, MJ) the ThreadToleranceClass (e.g., 4g, 6H) indicates the combination of a tolerance grade (numeric) with a tolerance position (e.g., e, f, g, h, G, H) and specifies the allowance for the pitch diameter tolerance.

element ThreadSpecificationDetailedBaseType/CrestDiameterToleranceClass

diagram	<p>The diagram shows a box labeled 'CrestDiameterToleranceClass' connected by a line to a larger box labeled 'ThreadClassType'. Inside the 'ThreadClassType' box, there are two smaller boxes: 'ThreadClassEnum' and 'OtherThreadClass'.</p>
type	ThreadClassType
properties	minOcc 0 maxOcc 1 content complex
children	ThreadClassEnum OtherThreadClass
annotation	documentation The optional CrestDiameterToleranceClass element is the thread tolerance class for the crest diameter of the thread. The crest diameter is the major or minor diameter dependent upon if the thread is external or internal. The diameter tolerance class designation (e.g., 6g) indicates the combination of a tolerance grade (numeric) with a tolerance position (e.g., e, f, g, h, G, H). It specifies the allowance for the crest diameter tolerance.

element ThreadSpecificationDetailedBaseType/LeftHanded

diagram	<p>The diagram shows a box labeled 'LeftHanded'.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple

annotation	<p>documentation</p> <p>The optional LeftHanded element is a thread qualifier designator (e.g., LH per ASME B1.7 - Screw Threads Nomenclature Definitions and Letter Symbols and ASME Y14.6 - Screw Thread Representation) indicating a thread that is screwed in or on counterclockwise. If the LeftHanded element is present and set to "true", the thread is left handed. Otherwise, the thread is right handed.</p>
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element ThreadSpecificationDetailedBaseType/ModifiedThread

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>The optional ModifiedThread element is a thread modifier designator. If the ModifiedThread is "true", then the thread has a modifier designate. Otherwise, there is no modifier designated.</p>

element ThreadSpecificationDetailedBaseType/ThreadLengthEngagement

diagram						
type	LinearValueType					
properties	minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	<p>documentation</p> <p>The optional ThreadLengthEngagement element is the length of thread engagement for the thread. The length of thread engagement is the axial distance over which two mating threads, each having full form at both crest and root, are designated to engage. The length of thread engagement is designated by LE.</p>					

complexType ThreadSpecificationsType

diagram	
---------	--

children	ThreadSpecification
annotation	documentation The ThreadSpecificationsType defines a list of thread specifications.

element ThreadSpecificationsType/ThreadSpecification

diagram	
type	ThreadSpecificationType
properties	minOcc 1 maxOcc unbounded content complex
children	SingleLeadSpecification MultiLeadSpecification TextThreadSpecification
annotation	documentation Each ThreadSpecification element is a specification of a thread.

complexType ThreadSpecificationType

diagram	
children	SingleLeadSpecification MultiLeadSpecification TextThreadSpecification
used by	element ThreadSpecificationsType/ThreadSpecification
annotation	documentation The ThreadSpecificationType defines the thread specification.

element **ThreadSpecificationType/SingleLeadSpecification**

diagram						
type	SingleLeadThreadSpecificationType					
properties	content complex					
children	Diameter ThreadSeries ThreadToleranceClass CrestDiameterToleranceClass LeftHanded ModifiedThread ThreadLengthEngagement ThreadDensity					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the thread specification, used for referencing.
annotation	documentation The SingleLeadSpecification element is the verbose single lead thread specification.					

element **ThreadSpecificationType/MultiLeadSpecification**

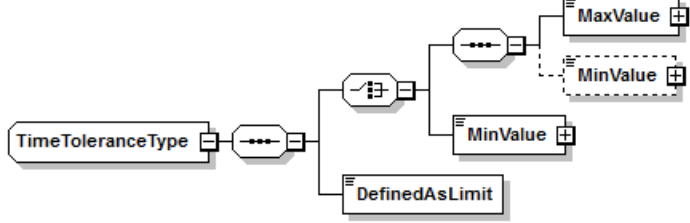
diagram						
type	MultiLeadThreadSpecificationType					
properties	content complex					
children	Diameter ThreadSeries ThreadToleranceClass CrestDiameterToleranceClass LeftHanded ModifiedThread ThreadLengthEngagement ThreadPitch ThreadLeadDistance ThreadLeadStarts					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the thread specification, used for referencing.
annotation	documentation The MultiLeadSpecification element is the verbose multi-lead thread specification.					

element **ThreadSpecificationType/TextThreadSpecification**

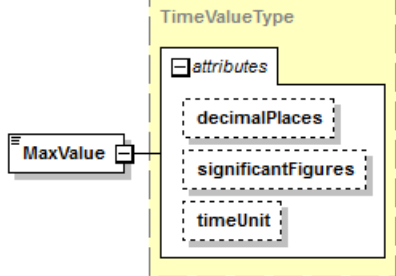
diagram						
type	TextThreadSpecificationType					

properties	content complex					
children	TextSpecification					
attributes	Name id	Type QIFIdType	Use required	Default	Fixed	Annotation documentation The id attribute is the QIF id of the thread specification, used for referencing.
annotation	documentation The TextThreadSpecification element is a thread specification in natural language.					

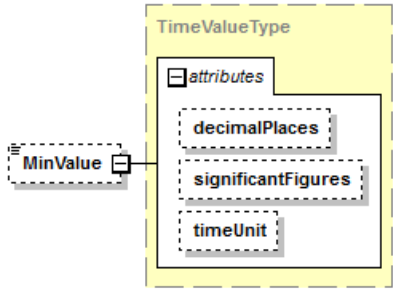
complexType TimeToleranceType

diagram						
children	MaxValue MinValue MinValue DefinedAsLimit					
annotation	documentation The TimeToleranceType defines a tolerance on a quantity measured in time units.					

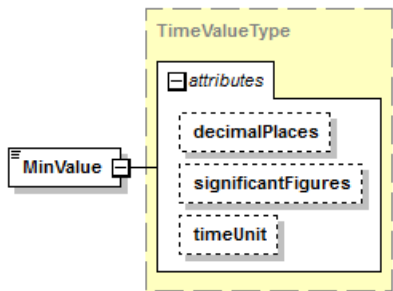
element TimeToleranceType/MaxValue

diagram						
type	TimeValueType					
properties	content	complex				
attributes	Name decimalPlaces	Type xs:nonNegativeInteger	Use	Default	Fixed	Annotation documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	timeUnit	xs:token				documentation The optional timeUnit attribute defines the UnitName for the TimeValueType.
annotation	documentation The MaxValue element is the maximum specification limit or upper tolerance.					

element **TimeToleranceType/MinValue**


diagram						
type	TimeValueType					
properties	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	timeUnit	xs:token				documentation The optional timeUnit attribute defines the UnitName for the TimeValueType.
annotation	documentation The optional MinValue element is the minimum specification limit or lower tolerance.					

element **TimeToleranceType/MinValue**

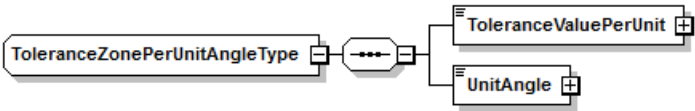
diagram						
type	TimeValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	timeUnit	xs:token				documentation The optional timeUnit attribute defines the UnitName for the

	TimeValueType.
annotation	documentation The MinValue element is the minimum specification limit or lower tolerance.

element TimeToleranceType/DefinedAsLimit

diagram	
type	xs:boolean
properties	content simple
annotation	documentation The DefinedAsLimit element signifies whether the MaxValue and MinValue represent actual values ('true') or the upper and lower tolerances, respectively ('false'). Also when DefinedAsLimit is set to 'false', the MaxValue and MinValue may be negative.

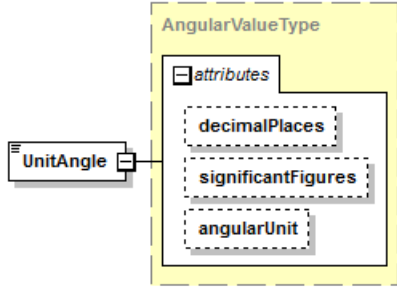
complexType ToleranceZonePerUnitAngleType

diagram	
children	ToleranceValuePerUnit UnitAngle
annotation	documentation The ToleranceZonePerUnitAngleType defines a per-unit-angle tolerance.

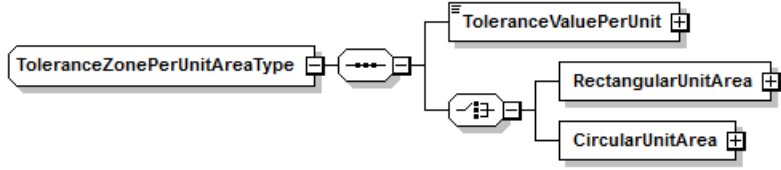
element ToleranceZonePerUnitAngleType/ToleranceValuePerUnit

diagram																									
type	LinearValueType																								
properties	content complex																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>linearUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
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significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.																				
annotation	<p>documentation</p> <p>The ToleranceValuePerUnit element is a tolerance value in linear units to be applied on a per unit angle basis.</p>																								

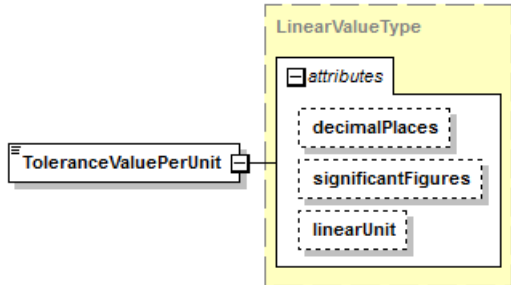
element **ToleranceZonePerUnitAngleType/UnitAngle**

diagram						
type	AngularValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The UnitAngle element is the angle in angular units over which the per-unit-angle tolerance is applied.					

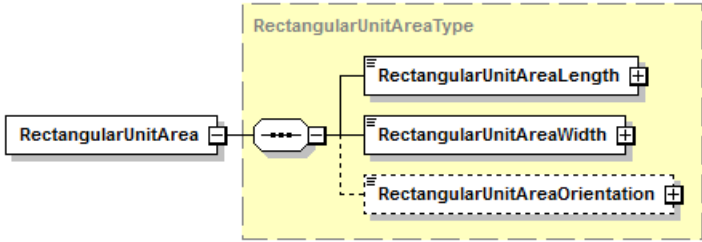
complexType **ToleranceZonePerUnitAreaType**

diagram						
children	ToleranceValuePerUnit RectangularUnitArea CircularUnitArea					
annotation	documentation The ToleranceZonePerUnitAreaType defines a per-unit-area tolerance. This may be used for flatness tolerance. documentation ASME Y14.5 - 2009 Section 5.4.2.2 DMIS 5.2 Section 6.199					

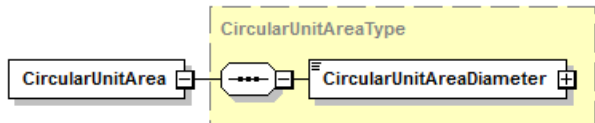
element **ToleranceZonePerUnitAreaType/ToleranceValuePerUnit**

diagram						
type	LinearValueType					
properties	content	complex				
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The ToleranceValuePerUnit element is the tolerance value in linear units to be applied on a per unit area basis.					

element **ToleranceZonePerUnitAreaType/RectangularUnitArea**

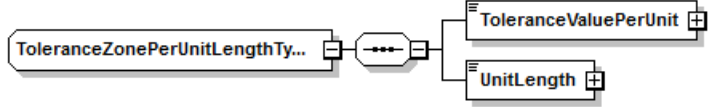
diagram	 <p>The diagram illustrates the relationship between the <code>RectangularUnitArea</code> element and the <code>RectangularUnitAreaType</code>. <code>RectangularUnitArea</code> is connected to <code>RectangularUnitAreaType</code> via a dashed line. <code>RectangularUnitAreaType</code> is a container type that includes three properties: <code>RectangularUnitAreaLength</code>, <code>RectangularUnitAreaWidth</code>, and <code>RectangularUnitAreaOrientation</code>. The <code>RectangularUnitAreaOrientation</code> property is highlighted with a dashed border.</p>
type	RectangularUnitAreaType
properties	content complex
children	RectangularUnitAreaLength RectangularUnitAreaWidth RectangularUnitAreaOrientation
annotation	documentation The <code>RectangularUnitArea</code> element gives the length and width of the rectangular region over which the per-unit-area tolerance is applied.

element **ToleranceZonePerUnitAreaType/CircularUnitArea**

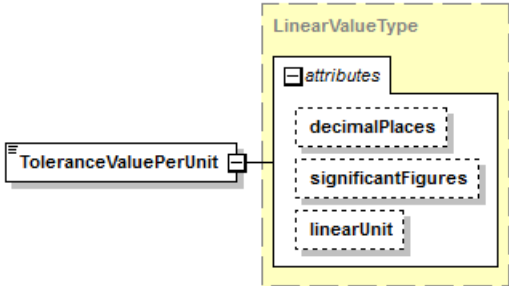
diagram						
type	CircularUnitAreaType					

properties	content complex
children	CircularUnitAreaDiameter
annotation	documentation The CircularUnitArea element gives the diameter of the circular region over which the per-unit-area tolerance is applied.

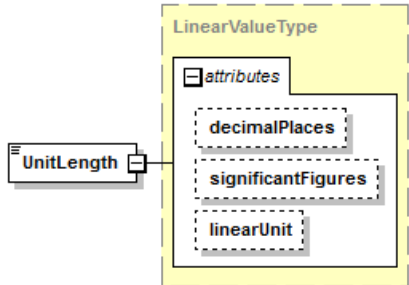
complexType **ToleranceZonePerUnitLengthType**

diagram	
children	ToleranceValuePerUnit UnitLength
annotation	documentation The ToleranceZonePerUnitLengthType defines a per-unit-length tolerance. documentation ASME Y14.5 - 2009 Section 5.4.1.3, Figure 5-4, Figure 5-5

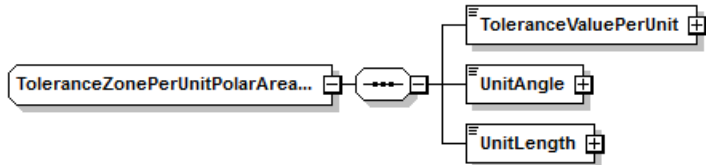
element **ToleranceZonePerUnitLengthType/ToleranceValuePerUnit**

diagram																									
type	LinearValueType																								
properties	content complex																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>decimalPlaces</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>significantFigures</td><td>xs:nonNegativeInteger</td><td></td><td></td><td></td><td>documentation See documentation of SpecifiedDecimalType.</td></tr><tr><td>linearUnit</td><td>xs:token</td><td></td><td></td><td></td><td>documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
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significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.																				
linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.																				
annotation	<p>documentation</p> <p>The ToleranceValuePerUnit element is a tolerance value in linear units to be applied on a per unit length basis.</p>																								

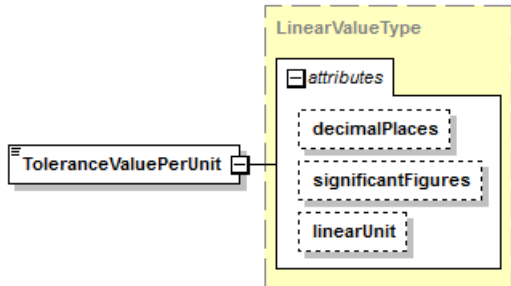
element **ToleranceZonePerUnitLengthType/UnitLength**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The UnitLength element is the length in linear units over which the per-unit-length tolerance is applied.					

complexType **ToleranceZonePerUnitPolarAreaType**

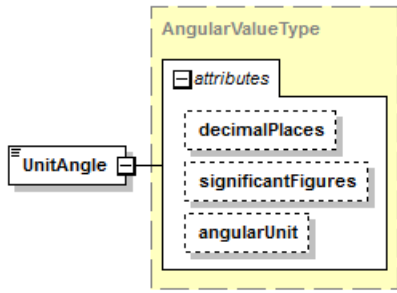
diagram						
children	ToleranceValuePerUnit UnitAngle UnitLength					
annotation	documentation The ToleranceZonePerUnitPolarAreaType defines a per-unit-polar-area tolerance. An angle and a length together define a cylindrical segment shaped zone over which the tolerance value applies.					

element **ToleranceZonePerUnitPolarAreaType/ToleranceValuePerUnit**

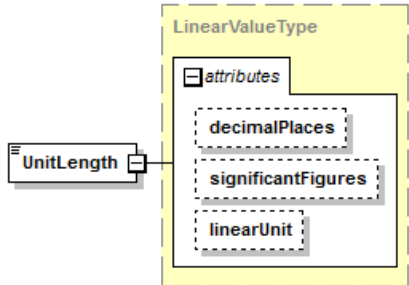
diagram						
type	LinearValueType					

properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The ToleranceValuePerUnit element is a tolerance value in linear units to be applied on a per-unit-polar-area basis.					

element **ToleranceZonePerUnitPolarAreaType/UnitAngle**

diagram						
type	AngularValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	angularUnit	xs:token				documentation The optional angularUnit attribute defines the UnitName for the AngularValueType.
annotation	documentation The UnitAngle element is the angle in angular units over which the per-unit-polar-area tolerance is applied.					

element **ToleranceZonePerUnitPolarAreaType/UnitLength**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The UnitLength element is the length in linear units over which the per-unit-polar-area is applied.					

complexType **TransformInstanceType**


diagram						
type	extension of TransformMatrixType					
properties	base TransformMatrixType					
children	Rotation Origin Attributes Name					
used by	element TransformListType/Transform					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				

	yDecimalPlaces xs:nonNegativeInteger ySignificantFigures xs:nonNegativeInteger yValidity ValidityEnumType zDecimalPlaces xs:nonNegativeInteger zSignificantFigures xs:nonNegativeInteger zValidity ValidityEnumType <u>id</u> QIFIdType required	documentation The id attribute is the QIF id of the transform, used for referencing.
annotation	documentation The TransformInstanceType defines a transform matrix that can be referenced via its QIF id.	

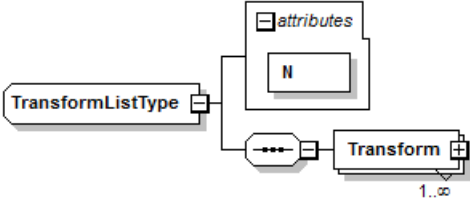
attribute TransformInstanceType/@id

type	QIFIdType
properties	use required
annotation	documentation The id attribute is the QIF id of the transform, used for referencing.

element TransformInstanceType/Name

diagram	
type	xs:token
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional Name element is the name of the transform.

complexType TransformListType

diagram						
children	Transform					
used by	element Transforms					
attributes	Name N	Type NaturalType	Use required	Default	Fixed	Annotation documentation The required N attribute shows how many objects are present in the list.

annotation	documentation The TransformListType defines a list of one or more transforms.
------------	--

attribute TransformListType/@N

type	NaturalType		
properties	use	required	
facets	Kind	Value	Annotation
	minInclusive	1	
annotation	documentation The required N attribute shows how many objects are present in the list.		

element TransformListType/Transform

diagram	
type	TransformInstanceType
properties	minOcc 1 maxOcc unbounded content complex

children	Rotation Origin Attributes Name					
attributes	Name	Type	Use	Default	Fixed	Annotation
	linearUnit	xs:token				
	decimalPlaces	xs:nonNegativeInteger				
	significantFigures	xs:nonNegativeInteger				
	validity	ValidityEnumType				
	xDecimalPlaces	xs:nonNegativeInteger				
	xSignificantFigures	xs:nonNegativeInteger				
	xValidity	ValidityEnumType				
	yDecimalPlaces	xs:nonNegativeInteger				
	ySignificantFigures	xs:nonNegativeInteger				
	yValidity	ValidityEnumType				
	zDecimalPlaces	xs:nonNegativeInteger				
	zSignificantFigures	xs:nonNegativeInteger				
	zValidity	ValidityEnumType				
	id	QIFIdType	required			documentation The id attribute is the QIF id of the transform, used for referencing.
annotation	documentation Each Transform element is a transform in the list.					

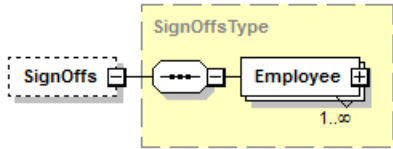
complexType **VersionBaseType**

diagram						
properties	abstract true					
children	TimeCreated SignOffs					
used by	complexType VersionReferenceType VersionType					
annotation	documentation The abstract VersionBase Type defines information about a version of a QIF instance file and is the base type for other version types.					

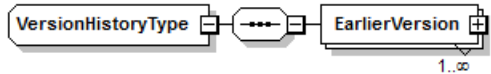
element **VersionBaseType/TimeCreated**

diagram						
type	xs:dateTime					
properties	minOcc	0	maxOcc	1	content	simple
annotation	documentation The optional TimeCreated element gives the time when the version was created.					

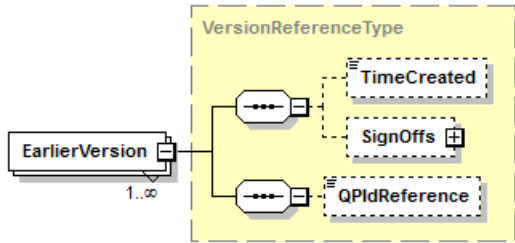
element **VersionBaseType/SignOffs**

diagram	 The diagram shows a dashed box labeled 'SignOffsType' containing a 'SignOffs' element (dashed box) connected to an 'Employee' element (solid box). The 'Employee' element has a multiplicity of '1..∞'.
type	SignOffsType
properties	minOcc 0 maxOcc 1 content complex
children	Employee
annotation	documentation The optional SignOffs element identifies the employees who signed off on the version.

complexType **VersionHistoryType**

diagram	 The diagram shows a 'VersionHistoryType' element (solid box) connected to an 'EarlierVersion' element (solid box). The 'EarlierVersion' element has a multiplicity of '1..∞'.
children	EarlierVersion
annotation	documentation The VersionsHistoryType defines information about earlier versions of a QIF instance file.

element **VersionHistoryType/EarlierVersion**

diagram	 The diagram shows an 'EarlierVersion' element (solid box) connected to a 'VersionReferenceType' element (dashed box). The 'EarlierVersion' element has a multiplicity of '1..∞'. The 'VersionReferenceType' element contains three sub-elements: 'TimeCreated' (solid box), 'SignOffs' (dashed box), and 'QPidReference' (dashed box). Each sub-element is connected to the 'VersionReferenceType' element via a dashed line.
type	VersionReferenceType
properties	minOcc 1 maxOcc unbounded content complex
children	TimeCreated SignOffs QPidReference
annotation	documentation Each EarlierVersion element contains information about one earlier version of the QIF instance file in which the VersionHistoryType appears.

complexType VersionReferenceType

diagram	
type	extension of VersionBaseType
properties	base VersionBaseType
children	TimeCreated SignOffs QPIdReference
used by	element VersionHistoryType/EarlierVersion
annotation	documentation The VersionReferenceType defines information about a version of an external QIF instance file.

element VersionReferenceType/QPIdReference

diagram	
type	QPIdReferenceType
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional QPIdReference element uses a QPId to identify a version of a QIF instance file.

complexType VersionType

diagram	
type	extension of VersionBaseType
properties	base VersionBaseType
children	TimeCreated SignOffs ThisInstanceQPId
annotation	documentation The VersionType defines information about the version of the QIF instance file in which the VersionType is placed.

element VersionType/ThisInstanceQPId

diagram	
type	QPIdType

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The optional ThisInstanceQPIid element is a UUID identifier of a version of a QIF instance file.

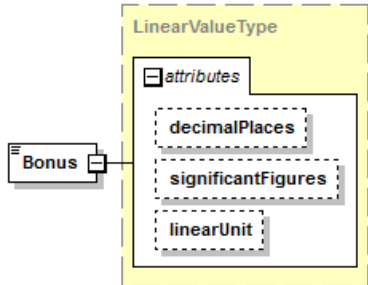
complexType ZoneDataType

diagram	
children	FeatureItemid Bonus ReferenceLength
annotation	documentation The ZoneDataType defines a tolerance zone.

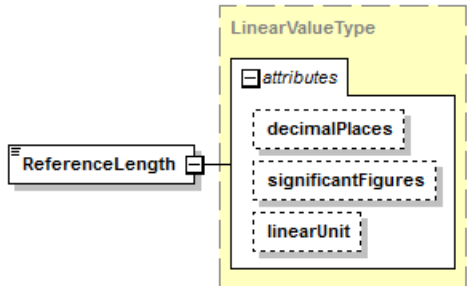
element ZoneDataType/FeatureItemid

diagram						
type	QIFReferenceFullType					
properties	content complex					
attributes	Name asmPath	Type QIFIdType	Use	Default	Fixed	Annotation documentation The optional asmPath attribute is an id which must be used for locating of the assembly path within the AsmPaths. The assembly path (instantiation chain) unambiguously identifies a model entity within an assembly.
annotation	documentation The FeatureItemid element is the QIF id of a feature item reference for zone data.					

element **ZoneDataType/Bonus**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The Bonus element is the size of the bonus to the tolerance zone.					

element **ZoneDataType/ReferenceLength**

diagram						
type	LinearValueType					
properties	content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	decimalPlaces	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	significantFigures	xs:nonNegativeInteger				documentation See documentation of SpecifiedDecimalType.
	linearUnit	xs:token				documentation The optional linearUnit attribute defines the UnitName for the LinearValueType.
annotation	documentation The ReferenceLength element is the length of the tolerance zone.					

simpleType AddressDescriptionEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element AddressDescriptionType/AddressDescriptionEnum		
facets	Kind enumeration	Value DELIVERY POSTAL VISITOR NOTDEFINED	Annotation
annotation	documentation The AddressDescriptionEnumType enumerates values that describe the type of a physical address.		

simpleType AngleBetweenAnalysisModeEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind enumeration	Value TWO DIMENSIONAL THREE DIMENSIONAL	Annotation
annotation	documentation The AngleBetweenAnalysisModeEnumType enumerates values that describe the analysis mode for an angle between characteristic. TWO DIMENSIONAL = evaluation is in a plane perpendicular to a vector. THREE DIMENSIONAL = evaluation is in three dimensional space not requiring a vector.		

simpleType AngularCoordinateDirectionEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind enumeration	Value ANGULAR AZIMUTH POLAR	Annotation
annotation	documentation The AngularCoordinateDirectionEnumType enumerates values that describe the direction for an angular coordinate characteristic. (See LinearCoordinateDirectionEnumType for usage guidelines.)		

simpleType CommonFileSpecEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element FileSpecType/CommonFileSpecEnum		
facets	Kind enumeration	Value AVI	Annotation

	enumeration	BMP
	enumeration	DOC
	enumeration	DOCX
	enumeration	DXF
	enumeration	DTD
	enumeration	GIF
	enumeration	GZIP
	enumeration	HTML
	enumeration	IGES
	enumeration	JPEG
	enumeration	JPG
	enumeration	MOV
	enumeration	MPEG
	enumeration	MPG
	enumeration	PDF
	enumeration	PNG
	enumeration	PPM
	enumeration	PPT
	enumeration	PRT
	enumeration	RAR
	enumeration	RTF
	enumeration	STL
	enumeration	STEP
	enumeration	STP
	enumeration	TAR
	enumeration	TIF
	enumeration	TIFF
	enumeration	TXT
	enumeration	WMV
	enumeration	XLS
	enumeration	XLSX
	enumeration	XML
	enumeration	XSD
	enumeration	X_T
	enumeration	ZIP
annotation	documentation	The FileSpecEnumType enumerates values that describe common file formats. The values are common file name suffixes that indicate file type.

simpleType **CompoundFeatureGeometryEnumType**

type	restriction of xs:NMTOKEN		
properties	base	xs:NMTOKEN	
facets	Kind	Value	Annotation
	enumeration	COAXIAL	
	enumeration	COPLANAR	
	enumeration	COCENTERED	

annotation	documentation The CompoundFeatureGeometryEnumType enumerates values that describe the base feature type for a compound feature whose feature elements must be concentric by center, axis or plane.
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simpleType CurveSubstituteFeatureAlgorithmEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	CurveSubstituteFeatureAlgorithmType/CurveSubstituteFeatureAlgorithmEnum	
facets	Kind	Value	Annotation
	enumeration	LEASTSQUARES	
	enumeration	BSPLINE	
	enumeration	MINMAX	
	enumeration	UNDEFINED	
annotation	documentation The CurveSubstituteFeatureAlgorithmEnumType enumerates values that describe the type of algorithm used to determine the substitute feature for a feature that is either a curve or a surface feature derived from a curve (revolved or extruded).		

simpleType DegreeOfFreedomEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	DegreesOfFreedomType/DegreeOfFreedom	
facets	Kind	Value	Annotation
	enumeration	U	
	enumeration	V	
	enumeration	W	
	enumeration	X	
	enumeration	Y	
	enumeration	Z	
annotation	documentation The DegreeOfFreedomEnumType enumerates values that describe a degree of freedom of a datum as specified by degrees of freedom modifiers found in a feature control frame, eg. [Au,v,z Bx,y Cw]. documentation ASME Y14.5 - 2009 Section 4.2 and Figure 4-1		

simpleType DiameterModifierEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	DatumType/DiameterModifier	
facets	Kind	Value	Annotation
	enumeration	PD	
	enumeration	MD	
	enumeration	LD	
annotation	documentation (ISO specific) The DiameterModifierEnumType enumerates values that describe diameter modifiers for threaded datum features.		

simpleType **DimensionModifierEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind enumeration	Value BASIC SET REFERENCE	Annotation
annotation	documentation The DimensionModifierEnumType enumerates values that signify that a dimension is a basic dimension, an un-measurable basic dimension that is set to its nominal value, or a reference dimension.		

simpleType **DistanceBetweenAnalysisModeEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind enumeration	Value ONEDIMENSIONAL TWO DIMENSIONAL THREEDIMENSIONAL	Annotation
annotation	documentation The DistanceBetweenAnalysisModeEnumType enumerates values that describe the analysis mode for a distance between characteristic. ONEDIMENSIONAL = evaluation is along an axis defined by a vector. TWO DIMENSIONAL = evaluation is in a plane perpendicular to a vector. THREEDIMENSIONAL = a point to point evaluation not requiring a vector.		

simpleType **FeatureOfSizeSubstituteFeatureAlgorithmEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	FeatureOfSizeSubstituteFeatureAlgorithmType/FeatureOfSizeSubstituteFeatureAlgorithmEnum	
facets	Kind enumeration	Value LEAST SQUARES MIN MAX MIN CIRCUMSCRIBED MAX INSCRIBED UNDEFINED	Annotation
annotation	documentation The FeatureOfSizeSubstituteFeatureAlgorithmEnumType enumerates values that describe the type of algorithm used to determine the substitute feature for a feature of size. It applies to features that may be (but are not necessarily) circumscribed or inscribed.		

simpleType **FormalStandardEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		

used by	element FormalStandardType/FormalStandardEnum		
facets	Kind	Value	Annotation
	enumeration	ANSI	
	enumeration	ASME-Y14.5-1982	
	enumeration	ASME-Y14.5-1994	
	enumeration	ASME-Y14.5-2009	
	enumeration	ISO1101:1983	
	enumeration	ISO1101:2004	
	enumeration	ISO1101:2012	
	enumeration	BS_8888_2004	
	enumeration	JIS	
	enumeration	DIN	
	enumeration	COMPANY	
annotation	documentation The FormalStandardEnumType enumerates formal Geometric Dimensioning and Tolerancing standards.		

simpleType InspectionStatusEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	InspectionStatusType/InspectionStatusEnum	
facets	Kind	Value	Annotation
	enumeration	PASS	
	enumeration	FAIL	
	enumeration	REWORK	
	enumeration	SYSError	
	enumeration	UNKNOWN	
	enumeration	NOT_CALCULATED	
	enumeration	NOT_MEASURED	
	enumeration	UNDEFINED	
annotation	documentation The InspectionStatusEnumType enumerates values that describe the status of an inspection.		

simpleType IntersectionPlaneEnumType

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	IntersectionPlaneType/IntersectionPlaneEnum	
facets	Kind	Value	Annotation
	enumeration	PARALLEL	
	enumeration	PERPENDICULAR	
	enumeration	INCLUDING	
annotation	documentation (ISO specific) The IntersectionPlaneEnumType enumerates values that describe the how the intersection plane is derived.		

simpleType **ISODegreeOfFreedomEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	DegreesOfFreedomType/ISODegreeOfFreedom	
facets	Kind	Value	Annotation
	enumeration	Rx	
	enumeration	Ry	
	enumeration	Rz	
	enumeration	Tx	
	enumeration	Ty	
	enumeration	Tz	
annotation	documentation (ISO specific) The ISODegreeOfFreedomEnumType enumerates values that describe a degree of freedom of a datum as specified by degrees of freedom modifiers found in a feature control frame.		

simpleType **LinearCoordinateDirectionEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind	Value	Annotation
	enumeration	XAXIS	
	enumeration	YAXIS	
	enumeration	ZAXIS	
	enumeration	RADIAL	
annotation	documentation The LinearCoordinateDirectionEnumType enumerates values that describe the direction for a linear coordinate characteristic. XAXIS and YAXIS are used with a 2D Cartesian coordinate system. RADIAL and ANGULAR are used with a 2D Polar coordinate system. XAXIS, YAXIS, and ZAXIS are used with a 3D Cartesian coordinate system. RADIAL, AZIMUTH, and ZAXIS are used with a 3D Cylindrical coordinate system. RADIAL, POLAR, and AZIMUTH are used with a 3D Spherical coordinate system.		

simpleType **MaterialModifierEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	elements	DatumType/MaterialModifier ActualDatumFeatureType/MaterialModifier	
facets	Kind	Value	Annotation
	enumeration	REGARDLESS	
	enumeration	LEAST	
	enumeration	MAXIMUM	
	enumeration	NONE	
annotation	documentation The MaterialModifierEnumType enumerates values that describe a material condition or material boundary modifier for a tolerance zone or a datum reference. documentation		

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simpleType **MeasurementDirectiveEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	MeasurementDirectiveType/MeasurementDirectiveEnum	
facets	Kind	Value	Annotation
	enumeration	MINIMUM	
	enumeration	MAXIMUM	
	enumeration	AVERAGE	
	enumeration	UNDEFINED	
annotation	documentation The MeasurementDirectiveEnumType enumerates values that describe the method of measurement between two features. MINIMUM = use minimum distance, MAXIMUM = use maximum distance, AVERAGE = use average distance, UNDEFINED = No specific method is required. Use any appropriate method.		

simpleType **ModifyingPlaneEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	elements	CollectionPlaneType/CollectionPlaneEnum DirectionFeatureType/DirectionFeatureEnum OrientationPlaneType/OrientationPlaneEnum	
facets	Kind	Value	Annotation
	enumeration	PARALLEL	
	enumeration	PERPENDICULAR	
	enumeration	INCLINED	
annotation	documentation (ISO specific) The ModifyingPlaneEnumType enumerates values that describe the modifying plane.		

simpleType **NonFeatureOfSizeSubstituteFeatureAlgorithmEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	NonFeatureOfSizeSubstituteFeatureAlgorithmType/NonFeatureOfSizeSubstituteFeatureAlgorithmEnum	
facets	Kind	Value	Annotation
	enumeration	LEASTSQUARES	
	enumeration	MINMAX	
	enumeration	UNDEFINED	
annotation	documentation The NonFeatureOfSizeSubstituteFeatureAlgorithmEnumType enumerates values that describe the type of algorithm used to determine the substitute feature for a feature that is not a feature of size. It applies to features that may not be circumscribed or inscribed.		

simpleType **NonToleranceEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind enumeration	Value MEASURED	Annotation documentation The MEASURED enumeration defines a characteristic as being a basic dimension which can be measured and therefore a valid actual value may exist.
	enumeration	SET	documentation The SET enumeration defines a characteristic as being a dimension which cannot be measured and therefore no valid actual value exists and the actual value is set to the nominal value for reporting purposes.
annotation	documentation The NonToleranceEnumType enumerates values that describe a dimension characteristic that is not tolerated but which nevertheless needs to be tracked and/or reported.		

simpleType **PrecedenceEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	PrecedenceType/PrecedenceEnum	
facets	Kind enumeration	Value PRIMARY	Annotation
	enumeration	SECONDARY	
	enumeration	TERTIARY	
	enumeration	QUATERNARY	
	enumeration	QUINARY	
	enumeration	SENARY	
annotation	documentation The PrecedenceEnumType enumerates values that describe the precedence of a datum in a feature control frame or compound datum.		

simpleType **ReducedDatumEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	elements	CompoundDatumType/ReducedDatum DatumType/ReducedDatum	
facets	Kind enumeration	Value PT	Annotation
	enumeration	SL	
	enumeration	PL	
annotation	documentation (ISO specific) The ReducedDatumEnumType enumerates values that describe the reduction of a datum feature to a simpler type, eg a sphere to a point (PT), a cone to a straight line (SL), an opposite planes feature to a plane (PL), etc.		

simpleType **ReferencedComponentEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	elements	DatumType/ReferencedComponent BaseFeatureType/ReferencedComponent	
facets	Kind enumeration	Value NOMINAL	Annotation

	enumeration ACTUAL
annotation	documentation The ReferencedComponentEnumType enumerates values that describe whether the nominal or actual component of a feature or coordinate system is used in a construction, characteristic or datum reference.

simpleType **RetrievalMethodEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
facets	Kind	Value	Annotation
	enumeration	AVERAGE	
	enumeration	MAXEXTREME	
	enumeration	MINEXTREME	
	enumeration	CLOSEST1D	
	enumeration	CLOSEST2D	
	enumeration	CLOSEST3D	
annotation	documentation The RetrievalMethodEnumType enumerates values that describe methods of retrieving a single point from a set of points in a cylindrical acceptance window. AVERAGE will average all points within the window. MAXEXTREME will retrieve the single point furthest in the direction of the cylinder's axis. MINEXTREME will retrieve the single point furthest against the direction of the cylinder's axis, CLOSEST1D will retrieve the single point closest to the cylinder center point along the cylinder's axis without regard to the perpendicular distance from the cylinder's axis. CLOSEST2D will retrieve the single point closest to the cylinder's axis without regard to the distance up or down the axis from the cylinder center point. CLOSEST3D will retrieve the single point closest to the cylinder's center point in three dimensions.		

simpleType **SectionModifierEnumType**

type	restriction of xs:NMTOKEN		
properties	base xs:NMTOKEN		
used by	element	DatumType/SectionModifier	
facets	Kind	Value	Annotation
	enumeration	ACS	
	enumeration	ALS	
annotation	documentation (ISO specific) The SectionModifierEnumType enumerates values that establish datums section by section: ACS = any cross section ALS = any linear section.		

simpleType **SurfaceSubstituteFeatureAlgorithmEnumType**

type	restriction of xs:NMTOKEN
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properties	base xs:NMTOKEN		
used by	element	SurfaceSubstituteFeatureAlgorithmType/SurfaceSubstituteFeatureAlgorithmEnum	
facets	Kind	Value	Annotation
	enumeration	LEASTSQUARES	
	enumeration	BEZIER	
	enumeration	NURBS	
	enumeration	MINMAX	
	enumeration	UNDEFINED	
annotation	documentation The SurfaceSubstituteFeatureAlgorithmEnumType enumerates values that describe the type of algorithm used to determine the substitute feature for a feature that is a general surface.		