SDMX Standards: Section 3a PaRT III

SDMX-ML:

Schema and Documentation

Structure Namespace

(Version 3.0)

September 2021

Contents

[1 Introduction 1](#_Toc82186174)

[2 Schema Documentation 1](#_Toc82186175)

[2.1 Structure Namespace 1](#_Toc82186176)

[2.1.1 Summary 1](#_Toc82186177)

[2.1.2 Global Elements 1](#_Toc82186178)

[2.1.3 Complex Types 6](#_Toc82186179)

[2.1.4 Simple Types 370](#_Toc82186180)

# Introduction

The structure namespace contains the definition of all structural metadata constructs. These constructs are intended to be very tightly coupled with the information model to ease the burden of implementers on translating the information from the XML messages into objects based on the information model.

The conformance with the information was achieved through derivation by extensions, restrictions, and substitutions. Because of some the limitations of XML Schema in these areas, it was often necessary to create intermediate type which formed the basis of the final types which make up the information that is actually exchanged in SDMX messages. The intermediate types are all abstract, so they are not explicitly used in a message. They do however serve the purpose of creating a strong relation of the schemas to the information model.

# Schema Documentation

## Structure Namespace

**http://www.sdmx.org/resources/sdmxml/schemas/v3\_0/structure**

### Summary

Referenced Namespaces:

| **Namespace** | **Prefix** |
| --- | --- |
| http://www.sdmx.org/resources/sdmxml/schemas/v3\_0/common | common |
| http://www.w3.org/2001/XMLSchema | xs |

Contents:

38 Global Elements  
235 Complex Types  
19 Simple Types

### Global Elements

**Structures (StructuresType):** Structures contains constructs for all structural metadata components.

***Item* (*ItemType*):** Item is an abstract element that serves as a substitution head for all items in an item scheme, including those items nested within other items. Concrete instances of this must use a concrete instance of ItemType.

Substitutions: Category, Code, *GeoRefCode*, GeoFeatureSetCode, GeoGridCode, Concept, *Organisation*, Agency, DataConsumer, DataProvider, MetadataProvider, OrganisationUnit, ReportingCategory, Transformation, VtlMapping, NamePersonalisation, Ruleset, UserDefinedOperator, CustomType

***Grouping* (*GroupingType*):** Grouping is an abstract element that serves as a substitution head for all structure groupings. Groupings contain a collection of component lists for a structure. Concrete instances of this must use a concrete instance of GroupingType.

Substitutions: DataStructureComponents, MetadataStructureComponents

***ComponentList* (*ComponentListType*):** ComponentList is an abstract element that serves as a substitution head for all component lists. Concrete instances of this must use a concrete instance of ComponentListType.

Substitutions: AttributeList, DimensionList, Group, MeasureList, MetadataAttributeList

***Component* (*ComponentType*):** Component is an abstract element that serves as a substitution head for all components. Concrete instances of this must use a concrete instance of ComponentType.

Substitutions: Attribute, MetadataAttributeUsage, Dimension, TimeDimension, GroupDimension, Measure, MetadataAttribute

**Category (CategoryType):** Category represents a set of nested categories which describe a simple classification hierarchy.

Substitution For: *Item*

**Code (CodeType):** Code describes a code in a codelist. In addition to the identification and description of the code, basic presentational information is also available. Presentational information not present may be added through the use of annotations.

Substitution For: *Item*

Substitutions: *GeoRefCode*, GeoFeatureSetCode, GeoGridCode

***GeoRefCode* (*GeoRefCodeType*):** GeoRefCode is the abstract base from which specific types of geographic codes will be derived.

Substitution For: Code

Substitutions: GeoFeatureSetCode, GeoGridCode

**GeoFeatureSetCode (GeoFeatureSetCodeType):** Is a geographic code in a geographic codelist. It adds a value to a code that folows a pattern to represent a geo feature set.

Substitution For: *GeoRefCode*

**GeoGridCode (GeoGridCodeType):** GeoGridCode is a code the represents a geographic grid cell that belongs to a specific grid definition.

Substitution For: *GeoRefCode*

**Concept (ConceptType):** Concept describes the details of a concept within a concept scheme.

Substitution For: *Item*

**DataStructureComponents (DataStructureComponentsType):** DataStructureComponents defines the grouping of the sets of metadata concepts that have a defined structural role in the data structure definition. Note that for any component or group defined in a data structure definition, its id must be unique. This applies to the identifiers explicitly defined by the components as well as those inherited from the concept identity of a component. For example, if two dimensions take their identity from concepts with same identity (regardless of whether the concepts exist in different schemes) one of the dimensions must be provided a different explicit identifier. Although there are XML schema constraints to help enforce this, these only apply to explicitly assigned identifiers. Identifiers inherited from a concept from which a component takes its identity cannot be validated against this constraint. Therefore, systems processing data structure definitions will have to perform this check outside of the XML validation. There are also two reserved identifiers in a data structure definition; TIME\_PERIOD, and REPORTING\_YEAR\_START\_DAY. These identifiers may not be used outside of their respective defintions (TimeDimension and ReportingYearStartDay). This applies to both the explicit identifiers that can be assigned to the components or groups as well as an identifier inherited by a component from its concept identity. For example, if an ordinary dimension (i.e. not the time dimension) takes its concept identity from a concept with the identifier TIME\_PERIOD, that dimension must provide a different explicit identifier.

Substitution For: *Grouping*

**AttributeList (AttributeListType):** AttributeList describes the attribute descriptor for the data structure definition. It is a collection of metadata concepts that define the attributes of the data structure definition.

Substitution For: *ComponentList*

**Attribute (AttributeType):** Attribute describes the definition of a data attribute, which is defined as a characteristic of an object or entity.

Substitution For: *Component*

**MetadataAttributeUsage (MetadataAttributeUsageType):** MetadataAttributeUsage refines the details of how a metadata attribute from the metadata structure referenced from the data structure is used. By default, metadata attributes can be expressed at any level of the data. This allows an attribute relationship to be defined in order restrict the reporing of a metadata attribute to a specific part of the data.

Substitution For: *Component*

**DimensionList (DimensionListType):** DimensionList describes the key descriptor for the data structure definition. It is an ordered set of metadata concepts that, combined, classify a statistical series, such as a time series, and whose values, when combined (the key) in an instance such as a data set, uniquely identify a specific series.

Substitution For: *ComponentList*

**Dimension (DimensionType):** Dimension describes the structure of a dimension, which is defined as a statistical concept used (most probably together with other statistical concepts) to identify a statistical series, such as a time series, e.g. a statistical concept indicating certain economic activity or a geographical reference area.

Substitution For: *Component*

**TimeDimension (TimeDimensionType):** TimeDimension is a special dimension which designates the period in time in which the data identified by the full series key applies.

Substitution For: *Component*

**Group (GroupType):** Group describes a group descriptor in a data structure definition. It is a set metadata concepts (and possibly their values) that define a partial key derived from the key descriptor in a data structure definition.

Substitution For: *ComponentList*

**GroupDimension (GroupDimensionType):** GroupDimension is a component which contains only a reference to a dimension in the key descriptor (DimensionList). Although it is conventional to declare dimensions in the same order as they are declared in the ordered key, there is no requirement to do so - the ordering of the values of the key are taken from the order in which the dimensions are declared. Note that the id of a dimension may be inherited from its underlying concept - therefore this reference value may actually be the id of the concept.

Substitution For: *Component*

**MeasureList (MeasureListType):** MeasureList describes the measure descriptor for a data structure.

Substitution For: *ComponentList*

**Measure (MeasureType):** Measure defines the structure of a measure, which is the concept that is the value of the phenomenon to be measured in a data set.

Substitution For: *Component*

**MetadataStructureComponents (MetadataStructureComponentsType):** MetadataStructureComponents defines the grouping of the sets of the components that make up the metadata structure definition.

Substitution For: *Grouping*

**MetadataAttributeList (MetadataAttributeListType):** MetadataAttributeList defines the set of metadata attributes that can be defined as a hierarchy, for reporting reference metadata about a target object. The identification of metadata attributes must be unique at any given level of the metadata structure. Although there are XML schema constraints to help enforce this, these only apply to explicitly assigned identifiers. Identifiers inherited from a concept from which a metadata attribute takes its identity cannot be validated against this constraint. Therefore, systems processing metadata structure definitions will have to perform this check outside of the XML validation.

Substitution For: *ComponentList*

**MetadataAttribute (MetadataAttributeType):** MetadataAttribute defines the a metadata attribute, which is the value of an attribute, such as the instance of a coded or uncoded attribute in a metadata structure definition.

Substitution For: *Component*

***Organisation* (*OrganisationType*):** Organisation is an abstract substitution head for a generic organisation.

Substitution For: *Item*

Substitutions: Agency, DataConsumer, DataProvider, MetadataProvider, OrganisationUnit

**Agency (AgencyType):** Agency is an organisation which maintains structural metadata such as classifications, concepts, data structures, and metadata structures.

Substitution For: *Organisation*

**DataConsumer (DataConsumerType):** DataConsumer describes an organisation using data as input for further processing.

Substitution For: *Organisation*

**DataProvider (DataProviderType):** DataProvider describes an organisation that produces data.

Substitution For: *Organisation*

**MetadataProvider (MetadataProviderType):** MetadataProvider describes an organisation that produces metadata .

Substitution For: *Organisation*

**OrganisationUnit (OrganisationUnitType):** OrganisationUnit describes a generic organisation, which serves not predefined role in SDMX.

Substitution For: *Organisation*

**ReportingCategory (ReportingCategoryType):** ReportingCateogry defines a reporting category, which is used to group structure usages into useful sub-packages.

Substitution For: *Item*

**Transformation (TransformationType):** Transformation describes the details of a single transformation within a transformation scheme.

Substitution For: *Item*

**VtlMapping (VtlMappingType):** VtlMapping details a mapping between SDMX and VTL transformation.

Substitution For: *Item*

**NamePersonalisation (NamePersonalisationType):** NamePersonalisation details a name personalisation that is used in a transformation.

Substitution For: *Item*

**Ruleset (RulesetType):** Ruleset details a ruleset within a ruleset scheme.

Substitution For: *Item*

**UserDefinedOperator (UserDefinedOperatorType):** UserDefinedOperator details a user defined operators within a user defined operator scheme.

Substitution For: *Item*

**CustomType (CustomTypeType):** CustomType details a custom type within a custom type scheme.

Substitution For: *Item*

### Complex Types

**StructuresType:** StructuresType describes the structure of the container for all structural metadata components. The structural components may be explicitly detailed, or referenced from an external structure document or registry service. Best practices dictate that, at a minimum, any structural component that is referenced by another structural component be included by reference.

Content:

ALL(AgencySchemesCategorisationsCategorySchemeMapsCategorySchemesCodelistsConceptSchemeMapsConceptSchemesCustomTypeSchemesDataConstraintsDataConsumerSchemesDataflowsDataProviderSchemesDataStructuresGeographicCodelistsGeoGridCodelistsHierarchiesHierarchyAssociationsMetadataConstraintsMetadataflowsMetadataProviderSchemesMetadataProvisionAgreementsMetadataStructuresNamePersonalisationSchemesOrganisationSchemeMapsOrganisationUnitSchemesProcessesProvisionAgreementsReportingTaxonomiesReportingTaxonomyMapsRepresentationMapsRulesetSchemesStructureMapsTransformationSchemesUserDefinedOperatorSchemesValueListsVtlMappingSchemes)

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| AgencySchemes | AgencySchemesType | AgencySchemes contains a collection of agency scheme descriptions. The agency schemes may be detailed in full, or referenced from an external structure document or registry service. |
| Categorisations | CategorisationsType | Categorisations contains a collection of structural object categorisations. This container may contain categorisations for many types of objects. The categorisations may be detailed in full, or referenced from an external structure document or registry service. |
| CategorySchemeMaps | CategorySchemeMapsTy pe | CategorySchemeMaps contains a collection of category scheme map descriptions. The category scheme maps may be detailed in full, or referenced from an external structure document or registry service. |
| CategorySchemes | CategorySchemesType | CategorySchemes contains a collection of category scheme descriptions. The category schemes may be detailed in full, or referenced from an external structure document or registry service. |
| Codelists | CodelistsType | Codelists contains a collection of code list descriptions. The code lists may be detailed in full, or referenced from an external structure document or registry service. |
| ConceptSchemeMaps | ConceptSchemeMapsTyp e | ConceptSchemeMaps contains a collection of concept scheme map descriptions. The concept scheme maps may be detailed in full, or referenced from an external structure document or registry service. |
| ConceptSchemes | ConceptSchemesType | ConceptSchemes contains a collection of concept scheme descriptions. The concept schemes described are contained within schemes. The concepts may be detailed in full, or referenced from an external structure document or registry service. |
| CustomTypeSchemes | CustomTypeSchemesTyp e | CustomTypeSchemes contains a collection of custom type schemes. The scheme may be detailed in full, or referenced from an external structure document or registry service. |
| DataConstraints | DataConstraintsType | DataConstraints contains a collection of data constraint descriptions. The constraints may be detailed in full, or referenced from an external structure document or registry service. |
| DataConsumerSchemes | DataConsumerSchemesT ype | DataConsumerSchemes contains a collection of data consumer scheme descriptions. The data consumer schemes may be detailed in full, or referenced from an external structure document or registry service. |
| Dataflows | DataflowsType | Dataflows contains a collection of data flow descriptions. The data flows may be detailed in full, or referenced from an external structure document or registry service. |
| DataProviderSchemes | DataProviderSchemesT ype | DataProviderSchemes contains a collection of data provider scheme descriptions. The data provider schemes may be detailed in full, or referenced from an external structure document or registry service. |
| DataStructures | DataStructuresType | DataStructures contains a collection of data structure definitions. The data structure definitions may be detailed in full, or referenced from an external structure document or registry service. |
| GeographicCodelists | GeographicCodelistsT ype | GeographicCodelists contains a collection of geographi codelist descriptions. The codelists may be detailed in full, or referenced from an external structure document or registry service. |
| GeoGridCodelists | GeoGridCodelistsType | GeoGridCodelists contains a collection of geographic grid codelist descriptions. The codelists may be detailed in full, or referenced from an external structure document or registry service. |
| Hierarchies | HierarchiesType | Hierarchies contains a collection of hierarchical code list descriptions. The hierarchical code lists may be detailed in full, or referenced from an external structure document or registry service. |
| HierarchyAssociation s | HierarchyAssociation sType | HierarchyAssociations contains a collection of hierarchy associations. The associations may be detailed in full, or referenced from an external structure document or registry service. |
| MetadataConstraints | MetadataConstraintsT ype | MetadataConstraints contains a collection of metadata constraint descriptions. The constraints may be detailed in full, or referenced from an external structure document or registry service. |
| Metadataflows | MetadataflowsType | Metadataflows contains a collection of metadata flow descriptions. The metadata flows may be detailed in full, or referenced from an external structure document or registry service. |
| MetadataProviderSche mes | MetadataProviderSche mesType | MetadataProviderSchemes contains a collection of metadata provider scheme descriptions. The meatadata provider schemes may be detailed in full, or referenced from an external structure document or registry service. |
| MetadataProvisionAgr eements | MetadataProvisionAgr eementsType | ProvisionAgreements contains a collection of provision agreements. The provision agreements may be detailed in full, or referenced from an external structure document or registry service. |
| MetadataStructures | MetadataStructuresTy pe | MetadataStructures contains a collection of metadata structure definition descriptions. The metadata structure definitions may be detailed in full, or referenced from an external structure document or registry service. |
| NamePersonalisationS chemes | NamePersonalisationS chemesType | NamePersonalisationSchemes contains a collection of name personalisation schemes. The scheme may be detailed in full, or referenced from an external structure document or registry service. |
| OrganisationSchemeMa ps | OrganisationSchemeMa psType | OrganisationSchemeMaps contains a collection of organisation scheme map descriptions. The organisation scheme maps may be detailed in full, or referenced from an external structure document or registry service. |
| OrganisationUnitSche mes | OrganisationUnitSche mesType | OrganisationUnitSchemes contains a collection of organisation unit scheme descriptions. The organisation unit schemes may be detailed in full, or referenced from an external structure document or registry service. |
| Processes | ProcessesType | Processes contains a collection of process descriptions. The processes may be detailed in full, or referenced from an external structure document or registry service. |
| ProvisionAgreements | ProvisionAgreementsT ype | ProvisionAgreements contains a collection of provision agreements. The provision agreements may be detailed in full, or referenced from an external structure document or registry service. |
| ReportingTaxonomies | ReportingTaxonomiesT ype | ReportingTaxonomies contains a collection of reporting taxonomy descriptions. The reporting taxonomies may be detailed in full, or referenced from an external structure document or registry service. |
| ReportingTaxonomyMap s | ReportingTaxonomyMap sType | ReportingTaxonomyMaps contains a collection of reporting taxonomy map descriptions. The reporting taxonomy maps may be detailed in full, or referenced from an external structure document or registry service. |
| RepresentationMaps | RepresentationMapsTy pe | RepresentationMaps contains a collection of representation map descriptions. The representation maps may be detailed in full, or referenced from an external structure document or registry service. |
| RulesetSchemes | RulesetSchemesType | RulesetSchemes contains a collection of ruleset schemes. The scheme may be detailed in full, or referenced from an external structure document or registry service. |
| StructureMaps | StructureMapsType | StructureMaps contains a collection of structure map descriptions. The structure maps may be detailed in full, or referenced from an external structure document or registry service. |
| TransformationScheme s | TransformationScheme sType | TransformationSchemes contains a collection of transformation schemes. The transformation schemes may be detailed in full, or referenced from an external structure document or registry service. |
| UserDefinedOperatorS chemes | UserDefinedOperatorS chemesType | UserDefinedOperatorSchemes contains a collection of user defined operator schemes. The scheme may be detailed in full, or referenced from an external structure document or registry service. |
| ValueLists | ValueListsType | ValueLists contains a collection of value list descriptions. The value lists may be detailed in full, or referenced from an external structure document or registry service. |
| VtlMappingSchemes | VtlMappingSchemesTyp e | VtlMappingSchemes contains a collection of VTL mapping schemes. The scheme may be detailed in full, or referenced from an external structure document or registry service. |

**AgencySchemesType:** AgencySchemesType describes the structure of the agency schemes container. It contains one or more agency scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

AgencyScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| AgencyScheme | AgencySchemeType | AgencyScheme provides the details of an agency scheme, in which agencies are described. |

**CategorisationsType:** CategorisationsType describes the structure of the categorisations container. It contains one or more categorisation of a specific object type, which can be explicitly detailed or referenced from an external structure document or registry service. This container may contain categorisations for multiple types of structural objects.

Content:

Categorisation+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Categorisation | CategorisationType | Categorisation allows for the association of an identifiable object to a category, providing for the classifications of the reference identifiable object. This must either contain the full details of the categorisation, or provide a name and identification information and reference the full details from an external structure document or registry service. |

**CategorySchemeMapsType:** CategorySchemeMapsType describes the structure of the category scheme maps container. It contains one or more category scheme map, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

CategorySchemeMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| CategorySchemeMap | CategorySchemeMapTyp e | CategorySchemeMap provides the details of a category scheme map, which descibes mappings between categories in different schemes. |

**CategorySchemesType:** CategorySchemesType describes the structure of the category schemes container. It contains one or more category scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

CategoryScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| CategoryScheme | CategorySchemeType | CategoryScheme provides the details of a category scheme, which is the descriptive information for an arrangement or division of categories into groups based on characteristics, which the objects have in common. This provides for a simple, leveled hierarchy or categories. |

**ConceptSchemeMapsType:** ConceptSchemeMapsType describes the structure of the concept scheme maps container. It contains one or more concept scheme map, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ConceptSchemeMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ConceptSchemeMap | ConceptSchemeMapType | ConceptSchemeMap provides the details of a concept scheme map, which descibes mappings between concepts in different schemes. |

**ConceptSchemesType:** ConceptSchemesType describes the structure of the concept schemes container. It contains one or more concept schemes, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ConceptScheme\*

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ConceptScheme | ConceptSchemeType | ConceptScheme provides the details of a concept scheme, which is the descriptive information for an arrangement or division of concepts into groups based on characteristics, which the objects have in common. It contains a collection of concept definitions, that may be arranged in simple hierarchies. |

**CodelistsType:** CodelistsType describes the structure of the codelists container. It contains one or more codelist, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

Codelist+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Codelist | CodelistType | Codelist provides the details of a codelist, which is defined as a list from which some statistical concepts (coded concepts) take their values. |

**CustomTypeSchemesType:** CustomTypeSchemesType describes the structure of the custom type schemes container. It contains one or more custom type scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

CustomTypeScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| CustomTypeScheme | CustomTypeSchemeType | CustomTypeScheme provides the details of a custom type scheme, in which user defined operators are described. |

**DataConstraintsType:** DataConstraintsType describes the structure of the data constraints container. It contains one or more data constraint, which can be explicitly detailed or referenced from an external structure document or registry service. This container may contain both attachment and content constraints.

Content:

DataConstraint+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataConstraint | DataConstraintType | DataConstraint specifies a sub set of the definition of the allowable or available content of a data set in terms of the content or in terms of the set of key combinations. |

**DataConsumerSchemesType:** DataConsumerSchemesType describes the structure of the data consumer schemes container. It contains one or more data consumer scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

DataConsumerScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataConsumerScheme | DataConsumerSchemeTy pe | DataConsumerScheme provides the details of an data consumer scheme, in which data consumers are described. |

**DataflowsType:** DataflowsType describes the structure of the data flows container. It contains one or more data flow, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

Dataflow+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Dataflow | DataflowType | Dataflow provides the details of a data flow, which is defined as the structure of data that will be provided for different reference periods. |

**DataProviderSchemesType:** DataProviderSchemesType describes the structure of the data provider schemes container. It contains one or more data provider scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

DataProviderScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataProviderScheme | DataProviderSchemeTy pe | DataProviderScheme provides the details of an data provider scheme, in which data providers are described. |

**DataStructuresType:** DataStructuresType describes the structure of the data structure definitions container. It contains one or more data structure definition, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

DataStructure+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataStructure | DataStructureType | DataStructure provides the details of a data structure definition, which is defined as a collection of metadata concepts, their structure and usage when used to collect or disseminate data. |

**GeographicCodelistsType:** GeographicCodelistsType describes the structure of the geographic code lists container. It contains one or more geographic codelist, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

GeographicCodelist+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| GeographicCodelist | GeographicCodelistTy pe | GeographiCodelist provides the details of a geographic codelists container, which comprises a set of GeoFeatureSetCodes, by adding a value in the Code that follows a pattern to represent a geo feature set. |

**GeoGridCodelistsType:** GeoGridCodelistsType describes the structure of the codelists container. It contains one or more geographic grid codelist, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

GeoGridCodelist+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| GeoGridCodelist | GeoGridCodelistType | GeoGridCodelist provides the details of a geographic grid code list, which comprises a set of GridCodes, which are related to the gridDefinition specified in the GeoGridCodelist. |

**HierarchiesType:** HierarchiesType describes the structure of the hierarchies container. It contains one or more hierarchy, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

Hierarchy+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Hierarchy | HierarchyType | Hierarchy provides the details of a hierarchy, which is defined as an organised collection of codes that may participate in many parent/child relationships with other codes in the list. |

**HierarchyAssociationsType:** HiearchyAssociationsType describes the structure of the hierarchy assoications container. It contains one or more hiearchy associations, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

HierarchyAssociation+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| HierarchyAssociation | HierarchyAssociation Type | HierarchyAssociation provides the details of a hiearchy assoication, which associates a hiearchy with an identifiable object in the context of another object. |

**MetadataConstraintsType:** MetadataConstraintsType describes the structure of the metadata constraints container. It contains one or more metadata constraint, which can be explicitly detailed or referenced from an external structure document or registry service. This container may contain both attachment and content constraints.

Content:

MetadataConstraint+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataConstraint | MetadataConstraintTy pe | MetadataConstraint specifies a sub set of the definition of the allowable content of a metadata set. |

**MetadataflowsType:** MetadataflowsType describes the structure of the metadata flows container. It contains one or more metadata flow, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

Metadataflow+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Metadataflow | MetadataflowType | Metadataflow provides the details of a metadata flow, which is defined as the structure of reference metadata that will be provided for different reference periods |

**MetadataProviderSchemesType:** MetadataProviderSchemesType describes the structure of the metadata provider schemes container. It contains one or more metadata provider scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

MetadataProviderScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataProviderSche me | MetadataProviderSche meType | MetadataProviderScheme provides the details of an metadata provider scheme, in which metadata providers are described. |

**MetadataProvisionAgreementsType:** MetadataProvisionAgreementsType describes the structure of the metadata provision agreements container. It contains one or more metadata provision agreement, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

MetadataProvisionAgreement+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataProvisionAgr eement | MetadataProvisionAgr eementType | MetadataProvisionAgreement provides the details of a metadata provision agreement, which is an agreement for a metadata provider to report reference metadata against a flow. |

**MetadataStructuresType:** MetadataStructuresType describes the structure of the metadata structure definitions container. It contains one or more metadata structure definition, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

MetadataStructure+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataStructure | MetadataStructureTyp e | MetadataStructure provides the details of a metadata structure definition, which is defined as a collection of metadata concepts, their structure and usage when used to collect or disseminate reference metadata. A metadata structure definition performs several functions: it groups sets of objects into "targets" against which reference metadata may be reported. Targets define the structure of the reference metadata "keys" which identify specific types of reported metadata, and describe the valid values for populating the keys. Also, metadata structure definitions provide a presentational organization of concepts for reporting purposes. The structure of reference metadata is derived from this presentational structure. |

**NamePersonalisationSchemesType:** NamePersonalisationSchemesType describes the structure of the name personalisation schemes container. It contains one or more name personalisation scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

NamePersonalisationScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| NamePersonalisationS cheme | NamePersonalisationS chemeType | NamePersonalisationScheme provides the details of a name personalisation scheme, in which name personalisations are described. |

**OrganisationSchemeMapsType:** OrganisationSchemeMapsType describes the structure of the organisation scheme maps container. It contains one or more organisation scheme map, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

OrganisationSchemeMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| OrganisationSchemeMa p | OrganisationSchemeMa pType | OrganisationSchemeMap provides the details of a organisation scheme map, which descibes mappings between organisations in different schemes. |

**OrganisationUnitSchemesType:** OrganisationUnitSchemesType describes the structure of the organisation unit schemes container. It contains one or more organisation unit scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

OrganisationUnitScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| OrganisationUnitSche me | OrganisationUnitSche meType | OrganisationUnitScheme provides the details of an organisation unit scheme, in which organisation units are described. |

**ProcessesType:** ProcessesType describes the structure of the processes container. It contains one or more process, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

Process+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Process | ProcessType | Process provides the details of a process, which is a scheme which defines or documents the operations performed on data in order to validate data or to derive new information according to a given set of rules. It is not meant to support process automation, but serves as a description of how processes occur. The primary use for this structural mechanism is the attachment of reference metadata regarding statistical processing. This must either contain the full details of the category scheme, or provide a name and identification information and reference the full details from an external structure document or registry service. |

**ProvisionAgreementsType:** ProvisionAgreementsType describes the structure of the provision agreements container. It contains one or more provision agreement, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ProvisionAgreement+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ProvisionAgreement | ProvisionAgreementTy pe | ProvisionAgreement provides the details of a provision agreement, which is an agreement for a data provider to report data against a flow. |

**ReportingTaxonomiesType:** ReportingTaxonomiesType describes the structure of the reporting taxonomies container. It contains one or more reporting taxonomy, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ReportingTaxonomy+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ReportingTaxonomy | ReportingTaxonomyTyp e | ReportingTaxonomy provides the details of a reporting taxonomy, which is a scheme which defines the composition structure of a data report where each component can be described by an independent data or metadata flow definition. |

**ReportingTaxonomyMapsType:** ReportingTaxonomyMapsType describes the structure of the reporting taxonomy maps container. It contains one or reporting taxonomy map, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ReportingTaxonomyMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ReportingTaxonomyMap | ReportingTaxonomyMap Type | ReportingTaxonomyMap provides the details of a reporting taxonomy map, which descibes mappings between reporting taxonomies. |

**RepresentationMapsType:** RepresentationMapsType describes the structure of the representation maps container. It contains one or more representation map, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

RepresentationMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| RepresentationMap | RepresentationMapTyp e | RepresentationMap provides the details of a represenation map, which describes mappings between various component represenations. |

**RulesetSchemesType:** RulesetSchemesType describes the structure of the ruleset schemes container. It contains one or more ruleset scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

RulesetScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| RulesetScheme | RulesetSchemeType | RulesetScheme provides the details of a ruleset scheme, in which rulesets are described. |

**StructureMapsType:** StructureMapsType describes the structure of the structure maps container. It contains one or more structure maps, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

StructureMap+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| StructureMap | StructureMapType | StructureMap provides the details or a structure map, which describes mapping between data structures or dataflows. |

**TransformationSchemesType:** TransformationSchemesType describes the structure of the transformations container. It contains one or more transformation schemes, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

TransformationScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TransformationScheme | TransformationScheme Type | TransformationScheme provides the details of a transformation scheme, in which transformations are described. |

**UserDefinedOperatorSchemesType:** UserDefinedOperatorSchemesType describes the structure of the user defined operator schemes container. It contains one or more user defined operator scheme, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

UserDefinedOperatorScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| UserDefinedOperatorS cheme | UserDefinedOperatorS chemeType | UserDefinedOperatorScheme provides the details of a user defined operator scheme, in which user defined operators are described. |

**ValueListsType:** ValueListsType describes the structure of the value lists container. It contains one or more value list, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

ValueList+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ValueList | ValueListType | ValueList provides the details of a value list, which is a closed set of values that can occur for a dimension, measure, or attribute. This may be a simple list of values, or a list of values with names and descriptions (similar to a codelist). |

**VtlMappingSchemesType:** VtlMappingSchemesType describes the structure of the VTL mappings schemes container. It contains one or more VTL mapping schemes, which can be explicitly detailed or referenced from an external structure document or registry service.

Content:

VtlMappingScheme+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| VtlMappingScheme | VtlMappingSchemeType | VtlMappingScheme provides the details of a VTL mapping scheme, in which VTL mappings are described. |

***ItemSchemeType*:** ItemSchemeType is an abstract base type for all item scheme objects. It contains a collection of items. Concrete instances of this type should restrict the actual types of items allowed within the scheme.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, *Item\**

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *Item* | *ItemType* | Item is an abstract element that serves as a substitution head for all items in an item scheme, including those items nested within other items. Concrete instances of this must use a concrete instance of ItemType. |

***ItemBaseType*:** ItemBaseType is an abstract base type that forms the basis for the ItemType. It requires that at least an id be supplied for an item.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

***ItemType*:** ItemType is an abstract base type for all items with in an item scheme. Concrete instances of this type may or may not utilize the nested item, but if so should restrict the actual types of item allowed.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, (Parent | *Item+*)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | NestedIDType |  |
| *Item* | *ItemType* | Item is an abstract element that serves as a substitution head for all items in an item scheme, including those items nested within other items. Concrete instances of this must use a concrete instance of ItemType. |

***UnnestedItemType*:** UnnestedItemType is an abstract base type for all items with in an item scheme that do not contain nested items.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

***StructureType*:** StructureType is an abstract base type for all structure objects. Concrete instances of this should restrict to a concrete grouping.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, *Grouping?*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *Grouping* | *GroupingType* | Grouping is an abstract element that serves as a substitution head for all structure groupings. Groupings contain a collection of component lists for a structure. Concrete instances of this must use a concrete instance of GroupingType. |

***GroupingType*:** GroupType is an abstract base type for specific structure groupings. It contains a collection of component lists. Concrete instances of this should restrict to specific concrete component lists.

Content:

*ComponentList\**

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| *ComponentList* | *ComponentListType* | ComponentList is an abstract element that serves as a substitution head for all component lists. Concrete instances of this must use a concrete instance of ComponentListType. |

***ComponentListType*:** ComponentListType is an abstract base type for all component lists. It contains a collection of components. Concrete types should restrict this to specific concrete components.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, *Component\**

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| *Component* | *ComponentType* | Component is an abstract element that serves as a substitution head for all components. Concrete instances of this must use a concrete instance of ComponentType. |

***ComponentBaseType*:** ComponentBaseType is an abstract type that only serves the purpose of forming the base for the actual ComponentType. It only restricts the format of the id attribute to the NCNameIDType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

***ComponentType*:** ComponentType is an abstract base type for all components. It contains information pertaining to a component, including an optional reference to a concept, an optional role played by the concept, an optional text format description, and an optional local representation.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity?, LocalRepresentation?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | *RepresentationType* | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

***StructureUsageType*:** StructureUsageType is an abstract base type for all structure usages. It contains a reference to a structure. Concrete instances of this type should restrict the type of structure referenced.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureUsageType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Structure?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Structure | StructureReferenceTy pe | Structure references the structure (data structure or metadata structure definition) which the structure usage is based upon. Implementations will have to refine the type to use a concrete structure reference (i.e. either a data structure or metadata structure definition reference). |

***RepresentationType*:** RepresentationType is an abstract type that defines a representation. Because the type of item schemes that are allowed as the an enumeration vary based on the object in which this is defined, this type is abstract to force that the enumeration reference be restricted to the proper type of item scheme reference.

Attributes:

minOccurs?, maxOccurs?

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| minOccurs (default: 1) | xs: nonNegativeInteger | The minOccurs attribute indicates the minimum number of value that must be reported for the component. |
| maxOccurs | OccurenceType | The maxOccurs attribute indicates the maximum number of values that can be reported for the component. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | TextFormatType | TextFormat describes an uncoded textual format. |
| Enumeration | AnyCodelistReference Type | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**TextFormatType:** TextFormatType defines the information for describing a full range of text formats and may place restrictions on the values of the other attributes, referred to as "facets".

Attributes:

textType?, isSequence?, interval?, startValue?, endValue?, timeInterval?, startTime?, endTime?, minLength?, maxLength?, minValue?, maxValue?, decimals?, pattern?, isMultiLingual?

Content:

SentinelValue\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType (default: String) | DataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| isSequence | xs:boolean | The isSequence attribute indicates whether the values are intended to be ordered, and it may work in combination with the interval, startValue, and endValue attributes or the timeInterval, startTime, and endTime, attributes. If this attribute holds a value of true, a start value or time and a numeric or time interval must supplied. If an end value is not given, then the sequence continues indefinitely. |
| interval | xs:decimal | The interval attribute specifies the permitted interval (increment) in a sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startValue | xs:decimal | The startValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates the starting point of the sequence. This value is mandatory for a numeric sequence to be expressed. |
| endValue | xs:decimal | The endValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates that ending point (if any) of the sequence. |
| timeInterval | xs:duration | The timeInterval attribute indicates the permitted duration in a time sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startTime | StandardTimePeriodTy pe | The startTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates the start time of the sequence. This value is mandatory for a time sequence to be expressed. |
| endTime | StandardTimePeriodTy pe | The endTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates that ending point (if any) of the sequence. |
| minLength | xs:positiveInteger | The minLength attribute specifies the minimum and length of the value in characters. |
| maxLength | xs:positiveInteger | The maxLength attribute specifies the maximum length of the value in characters. |
| minValue | xs:decimal | The minValue attribute is used for inclusive and exclusive ranges, indicating what the lower bound of the range is. If this is used with an inclusive range, a valid value will be greater than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| maxValue | xs:decimal | The maxValue attribute is used for inclusive and exclusive ranges, indicating what the upper bound of the range is. If this is used with an inclusive range, a valid value will be less than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| decimals | xs:positiveInteger | The decimals attribute indicates the number of characters allowed after the decimal separator. |
| pattern | xs:string | The pattern attribute holds any regular expression permitted in the similar facet in W3C XML Schema. |
| isMultiLingual (default: true) | xs:boolean | The isMultiLingual attribute indicates for a text format of type "string", whether the value should allow for multiple values in different languages. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| SentinelValue | SentinelValueType | SentinelValue defines a value that has a special meaning within the text format representation of a component. |

**SentinelValueType:** SentinelValueType defines the structure of a sentinel value. A sentinel is a value that has a special meaning within the text format representation of a component. The value is associated with a multi-lingual name and description.

Attributes:

value

Content:

Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| value | xs:anySimpleType | The sentinel value being described. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Name | TextType | Name is a reusable element, used for providing a human-readable name for an object. |
| Description | TextType | Description is a reusable element, used for providing a longer human-readable description of an object. |

**BasicComponentTextFormatType:** BasicComponentTextFormatType is a restricted version of the TextFormatType that restricts the text type to the representations allowed for all components except for target objects.

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType

Attributes:

textType?, isSequence?, interval?, startValue?, endValue?, timeInterval?, startTime?, endTime?, minLength?, maxLength?, minValue?, maxValue?, decimals?, pattern?, isMultiLingual?

Content:

SentinelValue\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType (default: String) | BasicComponentDataTy pe | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| isSequence | xs:boolean | The isSequence attribute indicates whether the values are intended to be ordered, and it may work in combination with the interval, startValue, and endValue attributes or the timeInterval, startTime, and endTime, attributes. If this attribute holds a value of true, a start value or time and a numeric or time interval must supplied. If an end value is not given, then the sequence continues indefinitely. |
| interval | xs:decimal | The interval attribute specifies the permitted interval (increment) in a sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startValue | xs:decimal | The startValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates the starting point of the sequence. This value is mandatory for a numeric sequence to be expressed. |
| endValue | xs:decimal | The endValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates that ending point (if any) of the sequence. |
| timeInterval | xs:duration | The timeInterval attribute indicates the permitted duration in a time sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startTime | StandardTimePeriodTy pe | The startTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates the start time of the sequence. This value is mandatory for a time sequence to be expressed. |
| endTime | StandardTimePeriodTy pe | The endTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates that ending point (if any) of the sequence. |
| minLength | xs:positiveInteger | The minLength attribute specifies the minimum and length of the value in characters. |
| maxLength | xs:positiveInteger | The maxLength attribute specifies the maximum length of the value in characters. |
| minValue | xs:decimal | The minValue attribute is used for inclusive and exclusive ranges, indicating what the lower bound of the range is. If this is used with an inclusive range, a valid value will be greater than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| maxValue | xs:decimal | The maxValue attribute is used for inclusive and exclusive ranges, indicating what the upper bound of the range is. If this is used with an inclusive range, a valid value will be less than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| decimals | xs:positiveInteger | The decimals attribute indicates the number of characters allowed after the decimal separator. |
| pattern | xs:string | The pattern attribute holds any regular expression permitted in the similar facet in W3C XML Schema. |
| isMultiLingual (default: true) | xs:boolean | The isMultiLingual attribute indicates for a text format of type "string", whether the value should allow for multiple values in different languages. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| SentinelValue | SentinelValueType | SentinelValue defines a value that has a special meaning within the text format representation of a component. |

**SimpleComponentTextFormatType:** SimpleComponentTextFormatType is a restricted version of the BasicComponentTextFormatType that does not allow for multi-lingual values.

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType (restriction)   
         SimpleComponentTextFormatType

Attributes:

textType?, isSequence?, interval?, startValue?, endValue?, timeInterval?, startTime?, endTime?, minLength?, maxLength?, minValue?, maxValue?, decimals?, pattern?

Content:

SentinelValue\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType (default: String) | SimpleDataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| isSequence | xs:boolean | The isSequence attribute indicates whether the values are intended to be ordered, and it may work in combination with the interval, startValue, and endValue attributes or the timeInterval, startTime, and endTime, attributes. If this attribute holds a value of true, a start value or time and a numeric or time interval must supplied. If an end value is not given, then the sequence continues indefinitely. |
| interval | xs:decimal | The interval attribute specifies the permitted interval (increment) in a sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startValue | xs:decimal | The startValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates the starting point of the sequence. This value is mandatory for a numeric sequence to be expressed. |
| endValue | xs:decimal | The endValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates that ending point (if any) of the sequence. |
| timeInterval | xs:duration | The timeInterval attribute indicates the permitted duration in a time sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startTime | StandardTimePeriodTy pe | The startTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates the start time of the sequence. This value is mandatory for a time sequence to be expressed. |
| endTime | StandardTimePeriodTy pe | The endTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates that ending point (if any) of the sequence. |
| minLength | xs:positiveInteger | The minLength attribute specifies the minimum and length of the value in characters. |
| maxLength | xs:positiveInteger | The maxLength attribute specifies the maximum length of the value in characters. |
| minValue | xs:decimal | The minValue attribute is used for inclusive and exclusive ranges, indicating what the lower bound of the range is. If this is used with an inclusive range, a valid value will be greater than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| maxValue | xs:decimal | The maxValue attribute is used for inclusive and exclusive ranges, indicating what the upper bound of the range is. If this is used with an inclusive range, a valid value will be less than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| decimals | xs:positiveInteger | The decimals attribute indicates the number of characters allowed after the decimal separator. |
| pattern | xs:string | The pattern attribute holds any regular expression permitted in the similar facet in W3C XML Schema. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| SentinelValue | SentinelValueType | SentinelValue defines a value that has a special meaning within the text format representation of a component. |

**CodedTextFormatType:** CodedTextFormatType is a restricted version of the SimpleComponentTextFormatType that only allows factets and text types applicable to codes. Although the time facets permit any value, an actual code identifier does not support the necessary characters for time. Therefore these facets should not contain time in their values.

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType (restriction)   
         SimpleComponentTextFormatType (restriction)   
               CodedTextFormatType

Attributes:

textType?, isSequence?, interval?, startValue?, endValue?, timeInterval?, startTime?, endTime?, minLength?, maxLength?, minValue?, maxValue?, pattern?

Content:

{Empty}

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType | CodeDataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| isSequence | xs:boolean | The isSequence attribute indicates whether the values are intended to be ordered, and it may work in combination with the interval, startValue, and endValue attributes or the timeInterval, startTime, and endTime, attributes. If this attribute holds a value of true, a start value or time and a numeric or time interval must supplied. If an end value is not given, then the sequence continues indefinitely. |
| interval | xs:integer | The interval attribute specifies the permitted interval (increment) in a sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startValue | xs:integer | The startValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates the starting point of the sequence. This value is mandatory for a numeric sequence to be expressed. |
| endValue | xs:integer | The endValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates that ending point (if any) of the sequence. |
| timeInterval | xs:duration | The timeInterval attribute indicates the permitted duration in a time sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startTime | StandardTimePeriodTy pe | The startTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates the start time of the sequence. This value is mandatory for a time sequence to be expressed. |
| endTime | StandardTimePeriodTy pe | The endTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates that ending point (if any) of the sequence. |
| minLength | xs:positiveInteger | The minLength attribute specifies the minimum and length of the value in characters. |
| maxLength | xs:positiveInteger | The maxLength attribute specifies the maximum length of the value in characters. |
| minValue | xs:integer | The minValue attribute is used for inclusive and exclusive ranges, indicating what the lower bound of the range is. If this is used with an inclusive range, a valid value will be greater than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| maxValue | xs:integer | The maxValue attribute is used for inclusive and exclusive ranges, indicating what the upper bound of the range is. If this is used with an inclusive range, a valid value will be less than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| pattern | xs:string | The pattern attribute holds any regular expression permitted in the similar facet in W3C XML Schema. |

**NonFacetedTextFormatType:** NonFacetedTextFormatType is a restricted version of the SimpleComponentTextFormatType that does not allow for any facets.

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType (restriction)   
         SimpleComponentTextFormatType (restriction)   
               NonFacetedTextFormatType

Attributes:

textType?

Content:

{Empty}

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType | SimpleDataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |

**TimeTextFormatType:** TimeTextFormat is a restricted version of the SimpleComponentTextFormatType that only allows time based format and specifies a default ObservationalTimePeriod representation and facets of a start and end time.

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType (restriction)   
         SimpleComponentTextFormatType (restriction)   
               TimeTextFormatType

Attributes:

textType?, startTime?, endTime?

Content:

SentinelValue\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType (default: ObservationalTimePeriod) | TimeDataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| startTime | StandardTimePeriodTy pe | The startTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates the start time of the sequence. This value is mandatory for a time sequence to be expressed. |
| endTime | StandardTimePeriodTy pe | The endTime attribute is used in conjunction with the isSequence and timeInterval attributes (which must be set in order to use this attribute). This attribute is used for a time sequence, and indicates that ending point (if any) of the sequence. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| SentinelValue | SentinelValueType | SentinelValue defines a value that has a special meaning within the text format representation of a component. |

***CategorisationBaseType*:** CategorisationBaseType defines the base refinement of the CategorisationType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *CategorisationBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CategorisationUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**CategorisationType:** CategorisationType is defines the structure for a categorisation. A source object is referenced via an object reference and the target category is referenced via the target category.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *CategorisationBaseType* (extension)   
                                       CategorisationType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, (Source, Target)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CategorisationUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | UrnReferenceType | Source is a reference to an object to be categorized. |
| Target | CategoryReferenceTyp e | Target is reference to the category that the referenced object is to be mapped to. |

**CategorySchemeType:** CategorySchemeType describes the structure of a category scheme. A category scheme is the descriptive information for an arrangement or division of categories into groups based on characteristics, which the objects have in common. This provides for a simple, leveled hierarchy or categories.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       CategorySchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, Category\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the category scheme. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the category scheme may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CategorySchemeUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Category | CategoryType | Category represents a set of nested categories which describe a simple classification hierarchy. |

**CategoryType:** CategoryType describes the details of a category. A category is defined as an item at any level in a classification. The Category element represents a set of nested categories which are child categories.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           CategoryType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Category\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CategoryUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Category | CategoryType | Category represents a set of nested categories which describe a simple classification hierarchy. |

***CodelistBaseType*:** CodelistType defines the structure of a codelist. A codelist is defined as a list from which some statistical concepts (coded concepts) take their values.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, (Code | GeoFeatureSetCode | GeoGridCode)\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Code | CodeType | Code describes a code in a codelist. In addition to the identification and description of the code, basic presentational information is also available. Presentational information not present may be added through the use of annotations. |

**CodelistType:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, (Code | GeoFeatureSetCode | GeoGridCode)\*, CodelistExtension\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Code | CodeType | Code describes a code in a codelist. In addition to the identification and description of the code, basic presentational information is also available. Presentational information not present may be added through the use of annotations.  **Substitutions:** GeoFeatureSetCode, GeoGridCode |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |

**CodeType:** CodeType describes the structure of a code. A code is defined as a language independent set of letters, numbers or symbols that represent a concept whose meaning is described in a natural language. Presentational information not present may be added through the use of annotations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           CodeType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CodeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. It may be used in place of a short description. |
| Description | TextType | Description provides a plain text, human-readable description of the code. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent provides the ability to describe simple hierarchies within a single codelist, by referencing the id value of another code in the same codelist. |

**CodelistExtensionType:** CodelistExtensionType defines the structure of a codelist to be extended by the codelist defining the extension. It provides a reference to the extended codelist and selection criteria to indicate the codes to be included in the extending codelist.

Attributes:

prefix?

Content:

Codelist, (InclusiveCodeSelection | ExclusiveCodeSelection)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| prefix | xs:string | A reference to a codelist may contain a prefix. If a prefix is provided, this prefix will be applied to all the codes in the codelist before they are imported into the extended codelist. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Codelist | CodelistReferenceTyp e |  |
| InclusiveCodeSelecti on | CodeSelectionType | Selection of codes from the referenced (extended) codelist to be included in the extending codelist. |
| ExclusiveCodeSelecti on | CodeSelectionType | Selection of codes from the referenced (extended) codelist to be excluded in the extending codelist. |

**CodeSelectionType:** CodeSelectionType defines the structure for code selection to be used as inclusive or exclusive extensions.

Content:

MemberValue+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MemberValue | MemberValueType | An explicit or wildcard selection of a code(s) from the codelist selected for inclusion/exclusion. If a wildcard expression is used, it is evaluated to determine codes selected for inclusion/exclusion. Otherwise, each member value is a distinct code. If the extended list is hierarchical, this can indicate whether child codes are to be included. |

**MemberValueType:** Allows for a ditinct reference or a wildcard expression for selecting codes from a codelist.

Derivation:

xs:anySimpleType (restriction)   
   xs:string (restriction)   
         WildcardedMemberValueType (extension)   
               MemberValueType

Attributes:

cascadeValues?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| cascadeValues | CascadeSelectionType | Indicates whether child codes should be selected when the codelist is hierarchical. Possible values are true (include the selected and child codes), false (only include the selected code(s)), and excluderoot (include the children but not the selected code(s)). |

***GeoCodelistBaseType*:** GeoCodelistBaseType is an abstract base refinement of a codelist that restricts the cods to be derived from the abstract GeoRefCode.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType (restriction)   
                                                   *GeoCodelistBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, *GeoRefCode\**, CodelistExtension\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *GeoRefCode* | *GeoRefCodeType* | GeoRefCode is the abstract base from which specific types of geographic codes will be derived. |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |

***GeoCodelistType*:** GeoCodelistType is an abstract refinement of a codelist from which specific types of geographic codelists will be derived.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType (restriction)   
                                                   *GeoCodelistBaseType* (extension)   
                                                         *GeoCodelistType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, geoType

Content:

Annotations?, Link\*, Name+, Description\*, *GeoRefCode\**, CodelistExtension\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| geoType | GeoCodelistTypeType | The type of geographic codelist. The will be refined and provided a fixed value in the specific geographic codelist type implementations. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *GeoRefCode* | *GeoRefCodeType* | GeoRefCode is the abstract base from which specific types of geographic codes will be derived. |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |

***GeoRefCodeType*:** GeoRefCodeType is the abstract base type defining the structure of geographic codes.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           CodeType (extension)   
                                 *GeoRefCodeType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CodeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. It may be used in place of a short description. |
| Description | TextType | Description provides a plain text, human-readable description of the code. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent provides the ability to describe simple hierarchies within a single codelist, by referencing the id value of another code in the same codelist. |

**GeographicCodelistType:** GeographicCodelistType defines the sturcture of a geographic codelist. It comprises a set of GeoFeatureSetCodes, by adding a value in the Code that follows a pattern to represent a geo feature set.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType (restriction)   
                                                   *GeoCodelistBaseType* (extension)   
                                                         *GeoCodelistType* (restriction)   
                                                               GeographicCodelistType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, geoType

Content:

Annotations?, Link\*, Name+, Description\*, GeoFeatureSetCode\*, CodelistExtension\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| geoType (fixed: GeographicCodelist) | GeoCodelistTypeType | The type of geographic codelist. The will be refined and provided a fixed value in the specific geographic codelist type implementations. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| GeoFeatureSetCode | GeoFeatureSetCodeTyp e | Is a geographic code in a geographic codelist. It adds a value to a code that folows a pattern to represent a geo feature set. |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |

**GeoFeatureSetCodeType:** GeoFeatureSetCodeType defines the structure of a geogrphic code.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           CodeType (extension)   
                                 *GeoRefCodeType* (extension)   
                                       GeoFeatureSetCodeType

Attributes:

id, urn?, uri?, value

Content:

Annotations?, Link\*, Name+, Description\*, Parent?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CodeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| value | xs:string | The geo feature set of the Code, which represents a set of points defining a feature in a format defined a predefined pattern (see section 6). |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. It may be used in place of a short description. |
| Description | TextType | Description provides a plain text, human-readable description of the code. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent provides the ability to describe simple hierarchies within a single codelist, by referencing the id value of another code in the same codelist. |

***GeoGridCodelistBaseType*:** GeoGridCodelistBaseType is the abstract base refinement for a geographic grid codelist.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType (restriction)   
                                                   *GeoCodelistBaseType* (extension)   
                                                         *GeoCodelistType* (restriction)   
                                                               *GeoGridCodelistBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, geoType

Content:

Annotations?, Link\*, Name+, Description\*, GeoGridCode\*, CodelistExtension\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| geoType (fixed: GeoGridCodelist) | GeoCodelistTypeType | The type of geographic codelist. The will be refined and provided a fixed value in the specific geographic codelist type implementations. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| GeoGridCode | GeoGridCodeType | GeoGridCode is a code the represents a geographic grid cell that belongs to a specific grid definition. |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |

**GeoGridCodelistType:** GeoGridCodelistType defines the structure of a geographic grid code list. These define a geographical grid composed of cells representing regular squared portions of the Earth.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *CodelistBaseType* (extension)   
                                             CodelistType (restriction)   
                                                   *GeoCodelistBaseType* (extension)   
                                                         *GeoCodelistType* (restriction)   
                                                               *GeoGridCodelistBaseType* (extension)   
                                                                     GeoGridCodelistType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, geoType

Content:

Annotations?, Link\*, Name+, Description\*, GeoGridCode\*, CodelistExtension\*, GridDefinition

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the code list. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the code list may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | CodelistUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| geoType (fixed: GeoGridCodelist) | GeoCodelistTypeType | The type of geographic codelist. The will be refined and provided a fixed value in the specific geographic codelist type implementations. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| GeoGridCode | GeoGridCodeType | GeoGridCode is a code the represents a geographic grid cell that belongs to a specific grid definition. |
| CodelistExtension | CodelistExtensionTyp e | CodelistExtension allows for the extension of codelists by referencing the codelists to be extended and providing inclusion/exclusion rules for selecting the codes to extend. The order of these is important as it is indicates the order of precedence of the extended codelists for conflict resolution of codes. However, the prefix property can be used to ensure uniqueness of inherited codes in the extending codelist, in case conflicting codes must be included. |
| GridDefinition | xs:string | Contains a regular expression string corresponding to the grid definition for the GeoGrid Codelist. |

**GeoGridCodeType:** GeoGridCodeType defines the structure of a geographic grid cell.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           CodeType (extension)   
                                 *GeoRefCodeType* (extension)   
                                       GeoGridCodeType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?, GeoCell

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CodeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. It may be used in place of a short description. |
| Description | TextType | Description provides a plain text, human-readable description of the code. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent provides the ability to describe simple hierarchies within a single codelist, by referencing the id value of another code in the same codelist. |
| GeoCell | xs:string | The value used to assign the Code to one cell in the grid. |

***ValueListBaseType*:** ValueListBaseType defines the base refinement of the ValueListType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ValueListBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ValueListUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**ValueListType:** ValueListType defines the structure of value list. These represent a closed set of values the can occur for a dimension, measure, or attribute. These may be values, or values with names and descriptions (similar to a codelist).

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ValueListBaseType* (extension)   
                                       ValueListType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, ValueItem\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ValueListUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ValueItem | ValueItemType |  |

**ValueItemType:** ValueItemType defines the structure of a value item. A value must be provided, and a longer name and description can be provided to provide additiona meaning to the value (similar to a code in a code list).

Derivation:

*AnnotableType* (extension)   
   ValueItemType

Attributes:

id

Content:

Annotations?, Name\*, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | xs:string |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Name | TextType | Name is a reusable element, used for providing a human-readable name for an object. |
| Description | TextType | Description is a reusable element, used for providing a longer human-readable description of an object. |

**ConceptSchemeType:** ConceptSchemeType describes the structure of a concept scheme. A concept scheme is the descriptive information for an arrangement or division of concepts into groups based on characteristics, which the objects have in common. It contains a collection of concept definitions, that may be arranged in simple hierarchies.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       ConceptSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, Concept\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the concept scheme. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the concept scheme may be used to create simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | ConceptSchemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Concept | ConceptType | Concept describes the details of a concept within a concept scheme. |

***ConceptBaseType*:** ConceptBaseType is an abstract base type the forms the basis of the ConceptType by requiring a name and id, and restricting the content of the id.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *ConceptBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the concept. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since concept id may be used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | ConceptUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent captures the semantic relationships between concepts which occur within a single concept scheme. This identifies the concept of which the current concept is a qualification (in the ISO 11179 sense) or subclass. |

**ConceptType:** ConceptType describes the details of a concept. A concept is defined as a unit of knowledge created by a unique combination of characteristics. If a concept does not specify a TextFormat or a core representation, then the representation of the concept is assumed to be represented by any set of valid characters (corresponding to the xs:string datatype of W3C XML Schema).

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *ConceptBaseType* (extension)   
                                 ConceptType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?, CoreRepresentation?, ISOConceptReference?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the concept. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since concept id may be used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | ConceptUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | SingleNCNameIDType | Parent captures the semantic relationships between concepts which occur within a single concept scheme. This identifies the concept of which the current concept is a qualification (in the ISO 11179 sense) or subclass. |
| CoreRepresentation | ConceptRepresentatio n |  |
| ISOConceptReference | ISOConceptReferenceT ype | Provides a reference to an ISO 11179 concept. |

**ConceptRepresentation:** ConceptRepresentation defines the core representation that are allowed for a concept. The text format allowed for a concept is that which is allowed for any non-target object component.

Derivation:

*RepresentationType* (restriction)   
   ConceptRepresentation

Attributes:

minOccurs?, maxOccurs?

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| minOccurs (default: 1) | xs: nonNegativeInteger | The minOccurs attribute indicates the minimum number of value that must be reported for the component. |
| maxOccurs | OccurenceType | The maxOccurs attribute indicates the maximum number of values that can be reported for the component. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | BasicComponentTextFo rmatType | TextFormat describes an uncoded textual format. |
| Enumeration | AnyCodelistReference Type | Enumeration references a codelist which enumerates the possible values that can be used as the representation of this concept. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**ISOConceptReferenceType:** ISOConceptReferenceType provides a reference to and ISO 11179 concept.

Content:

ConceptAgency, ConceptSchemeID, ConceptID

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ConceptAgency | xs:string |  |
| ConceptSchemeID | xs:string |  |
| ConceptID | xs:string |  |

***ConstraintBaseType*:** ConstraintBaseType is an abstract base type that forms the basis of the main abstract ConstraintType. It requires that a name be provided.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

***ConstraintType*:** ConstraintType is an abstract base type that specific types of constraints (data and metadata) restrict and extend to describe their details. These constraint types both define a constraint attachment and a release calendar.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType* (extension)   
                                       *ConstraintType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, role

Content:

Annotations?, Link\*, Name+, Description\*, ConstraintAttachment?, ReleaseCalendar?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| role | ConstraintRoleType | The role attribute indicates whether this constraint states what data is actually present for the constraint attachment, or if it defines what content is allowed. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ConstraintAttachment | *ConstraintAttachment Type* | ConstraintAttachment describes the collection of constrainable artefacts that the constraint is attached to. |
| ReleaseCalendar | ReleaseCalendarType | ReleaseCalendar defines dates on which the constrained data is to be made available. |

***DataConstraintBaseType*:** DataConstraintBaseType is an abstract base refinement of ConstraintType. The constraint attachment is restricted to constrainable artefacts related to data.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType* (extension)   
                                       *ConstraintType* (restriction)   
                                             *DataConstraintBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, role

Content:

Annotations?, Link\*, Name+, Description\*, ConstraintAttachment?, ReleaseCalendar?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataConstraintUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| role | ConstraintRoleType | The role attribute indicates whether this constraint states what data is actually present for the constraint attachment, or if it defines what content is allowed. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ConstraintAttachment | DataConstraintAttach mentType | ConstraintAttachment describes the collection of constrainable artefacts that the constraint is attached to. |
| ReleaseCalendar | ReleaseCalendarType | ReleaseCalendar defines dates on which the constrained data is to be made available. |

**DataConstraintType:** DataConstraintType defines the structure of a data constraint. A data constraint can specify either the available set of keys (DataKeySet) or set of component values (CubeRegion) in a data source, or the allowable keys that can be constructed from a data structure definition. Multiple such constraints may be present for a constrained artefact. For instance, there may be a constraing that specifies the values allowed for the data source (role is "Allowed") which can be used for validation or for constructing a partial code list, whilst another constraing can specify the actual content of a data source (role is "Actual").

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType* (extension)   
                                       *ConstraintType* (restriction)   
                                             *DataConstraintBaseType* (extension)   
                                                   DataConstraintType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, role

Content:

Annotations?, Link\*, Name+, Description\*, ConstraintAttachment?, ReleaseCalendar?, DataKeySet\*, CubeRegion[0..2]

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataConstraintUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| role | ConstraintRoleType | The role attribute indicates whether this constraint states what data is actually present for the constraint attachment, or if it defines what content is allowed. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ConstraintAttachment | DataConstraintAttach mentType | ConstraintAttachment describes the collection of constrainable artefacts that the constraint is attached to. |
| ReleaseCalendar | ReleaseCalendarType | ReleaseCalendar defines dates on which the constrained data is to be made available. |
| DataKeySet | DataKeySetType | DataKeySet defines a full, distinct set of dimension values and the attribute values associated with the key. |
| CubeRegion | CubeRegionType | CubeRegion defines a slice of the data set (dimensions and attribute values) for the constrained artefact. A set of included or excluded regions can be described. |

***MetadataConstraintBaseType*:** MetadataConstraintBaseType is an abstract base refinement of ConstraintType. The constraint attachment is restricted to constrainable artefacts related to metadata, and the only possible role is "Allowed".

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType* (extension)   
                                       *ConstraintType* (restriction)   
                                             *MetadataConstraintBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, role

Content:

Annotations?, Link\*, Name+, Description\*, ConstraintAttachment?, ReleaseCalendar?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataConstraintUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| role (fixed: Allowed) | ConstraintRoleType | The role attribute indicates whether this constraint states what data is actually present for the constraint attachment, or if it defines what content is allowed. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ConstraintAttachment | MetadataConstraintAt tachmentType | ConstraintAttachment describes the collection of constrainable artefacts that the constraint is attached to. |
| ReleaseCalendar | ReleaseCalendarType | ReleaseCalendar defines dates on which the constrained data is to be made available. |

**MetadataConstraintType:** MetadataConstraintType defines the structure of a metadata constraint. A metadata constraint can specify allowed attribute values for metadata described by the constrained artefact.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ConstraintBaseType* (extension)   
                                       *ConstraintType* (restriction)   
                                             *MetadataConstraintBaseType* (extension)   
                                                   MetadataConstraintType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, role

Content:

Annotations?, Link\*, Name+, Description\*, ConstraintAttachment?, ReleaseCalendar?, MetadataTargetRegion[0..2]

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataConstraintUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| role (fixed: Allowed) | ConstraintRoleType | The role attribute indicates whether this constraint states what data is actually present for the constraint attachment, or if it defines what content is allowed. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ConstraintAttachment | MetadataConstraintAt tachmentType | ConstraintAttachment describes the collection of constrainable artefacts that the constraint is attached to. |
| ReleaseCalendar | ReleaseCalendarType | ReleaseCalendar defines dates on which the constrained data is to be made available. |
| MetadataTargetRegion | MetadataTargetRegion Type | MetadataTargetRegion describes the values allowed for metadata attributes. |

**ReleaseCalendarType:** ReleaseCalendarType describes information about the timing of releases of the constrained data. All of these values use the standard "P7D" - style format.

Content:

Periodicity, Offset, Tolerance

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Periodicity | xs:string | Periodicity is the period between releases of the data set. |
| Offset | xs:string | Offset is the interval between January first and the first release of data within the year. |
| Tolerance | xs:string | Tolerance is the period after which the release of data may be deemed late. |

**DataKeySetType:** DataKeySetType defines a collection of full or partial data keys (dimension values).

Attributes:

isIncluded

Content:

Key+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| isIncluded | xs:boolean | The isIncluded attribute indicates whether the keys defined in this key set are inclusive or exclusive to the constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Key | DataKeyType | Key contains a set of dimension values which identify a full set of data. |

***ConstraintAttachmentType*:** ConstraintAttachmentType describes a collection of references to constrainable artefacts.

Content:

(DataProvider | MetadataProvider | MetadataSet+ | SimpleDataSource+ | (DataStructure+, QueryableDataSource\*) | (MetadataStructure+, QueryableDataSource\*) | (Dataflow+, QueryableDataSource\*) | (Metadataflow+, QueryableDataSource\*) | (ProvisionAgreement+, QueryableDataSource\*) | (MetadataProvisionAgreement+, QueryableDataSource\*))

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataProvider | DataProviderReferenc eType | DataProvider is reference to a data provider to which the constraint is attached. If this is used, then only the release calendar is relevant. The referenced is provided as a URN and/or a full set of reference fields. |
| MetadataProvider | MetadataProviderRefe renceType | MetadataProvider is reference to a metadata provider to which the constraint is attached. If this is used, then only the release calendar is relevant. The referenced is provided as a URN and/or a full set of reference fields. |
| MetadataSet | MetadataSetReference Type | MetadataSet is reference to a metadata set to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. |
| SimpleDataSource | xs:anyURI | SimpleDataSource describes a simple data source, which is a URL of a SDMX-ML data or metadata message. |
| DataStructure | DataStructureReferen ceType | DataStructure is reference to a data structure definition to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint which is attached to more than one data structure must only express key sets and/or cube regions where the identifiers of the dimensions are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| MetadataStructure | MetadataStructureRef erenceType | MetadataStructure is reference to a metadata structure definition to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint which is attached to more than one metadata structure must only express key sets and/or target regions where the identifiers of the target objects are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| Dataflow | DataflowReferenceTyp e | Dataflow is reference to a data flow to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one dataflow, and the dataflows do not necessarily have to be usages of the same data structure. However, a constraint which is attached to more than one data structure must only express key sets and/or cube regions where the identifiers of the dimensions are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| Metadataflow | MetadataflowReferenc eType | Metadataflow is reference to a metadata flow to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one metadataflow, and the metadataflows do not necessarily have to be usages of the same metadata structure. However, a constraint which is attached to more than one metadata structure must only express key sets and/or target regions where the identifiers of the target objects are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| ProvisionAgreement | ProvisionAgreementRe ferenceType | ProvisionAgreementReference is reference to a provision agreement to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one provision aggreement, and the provision agreements do not necessarily have to be references structure usages based on the same structure. However, a constraint which is attached to more than one provision agreement must only express key sets and/or cube/target regions where the identifier of the components are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| MetadataProvisionAgr eement | MetadataProvisionAgr eementReferenceType | ProvisionAgreementReference is reference to a provision agreement to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one provision aggreement, and the provision agreements do not necessarily have to be references structure usages based on the same structure. However, a constraint which is attached to more than one provision agreement must only express key sets and/or cube/target regions where the identifier of the components are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |

**DataConstraintAttachmentType:** DataConstraintAttachmentType restricts the base ConstraintAttachmentType to only allow artefacts related to data.

Derivation:

*ConstraintAttachmentType* (restriction)   
   DataConstraintAttachmentType

Content:

(DataProvider | SimpleDataSource+ | (DataStructure+, QueryableDataSource\*) | (Dataflow+, QueryableDataSource\*) | (ProvisionAgreement+, QueryableDataSource\*))

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DataProvider | DataProviderReferenc eType | DataProvider is reference to a data provider to which the constraint is attached. If this is used, then only the release calendar is relevant. The referenced is provided as a URN and/or a full set of reference fields. |
| SimpleDataSource | xs:anyURI | SimpleDataSource describes a simple data source, which is a URL of a SDMX-ML data or metadata message. |
| DataStructure | DataStructureReferen ceType | DataStructure is reference to a data structure definition to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint which is attached to more than one data structure must only express key sets and/or cube regions where the identifiers of the dimensions are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| Dataflow | DataflowReferenceTyp e | Dataflow is reference to a data flow to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one dataflow, and the dataflows do not necessarily have to be usages of the same data structure. However, a constraint which is attached to more than one data structure must only express key sets and/or cube regions where the identifiers of the dimensions are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| ProvisionAgreement | ProvisionAgreementRe ferenceType | ProvisionAgreementReference is reference to a provision agreement to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one provision aggreement, and the provision agreements do not necessarily have to be references structure usages based on the same structure. However, a constraint which is attached to more than one provision agreement must only express key sets and/or cube/target regions where the identifier of the components are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |

**MetadataConstraintAttachmentType:** MetadataConstraintAttachmentType restricts the base ConstraintAttachmentType to only allow artefacts related to metadata.

Derivation:

*ConstraintAttachmentType* (restriction)   
   MetadataConstraintAttachmentType

Content:

(MetadataProvider | MetadataSet+ | SimpleDataSource+ | (MetadataStructure+, QueryableDataSource\*) | (Metadataflow+, QueryableDataSource\*) | (MetadataProvisionAgreement+, QueryableDataSource\*))

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataProvider | MetadataProviderRefe renceType | MetadataProvider is reference to a metadata provider to which the constraint is attached. If this is used, then only the release calendar is relevant. The referenced is provided as a URN and/or a full set of reference fields. |
| MetadataSet | MetadataSetReference Type | MetadataSet is reference to a metadata set to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. |
| SimpleDataSource | xs:anyURI | SimpleDataSource describes a simple data source, which is a URL of a SDMX-ML data or metadata message. |
| MetadataStructure | MetadataStructureRef erenceType | MetadataStructure is reference to a metadata structure definition to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint which is attached to more than one metadata structure must only express key sets and/or target regions where the identifiers of the target objects are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| Metadataflow | MetadataflowReferenc eType | Metadataflow is reference to a metadata flow to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one metadataflow, and the metadataflows do not necessarily have to be usages of the same metadata structure. However, a constraint which is attached to more than one metadata structure must only express key sets and/or target regions where the identifiers of the target objects are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |
| MetadataProvisionAgr eement | MetadataProvisionAgr eementReferenceType | ProvisionAgreementReference is reference to a provision agreement to which the constraint is attached. The referenced is provided as a URN and/or a full set of reference fields. A constraint can be attached to more than one provision aggreement, and the provision agreements do not necessarily have to be references structure usages based on the same structure. However, a constraint which is attached to more than one provision agreement must only express key sets and/or cube/target regions where the identifier of the components are common across all structures to which the constraint is attached. |
| QueryableDataSource | QueryableDataSourceT ype | QueryableDataSource describes a queryable data source to which the constraint is attached. |

***RegionType*:** RegionType is an abstract type which defines a generic constraint region. This type can be refined to define regions for data or metadata sets. A region is defined by a collection of key values - each of which a collection of values for a component which disambiguates data (i.e. dimensions of a dataset). For each region, a collection of attribute values can be provided. Taken together, the key values and attributes serve to identify or describe a subset of a data or metadata set. Finally, the region can flagged as being included or excluded, although this flag only makes sense when the region is used in a particular context.

Derivation:

*AnnotableType* (extension)   
   *RegionType*

Attributes:

include?, validFrom?, validTo?

Content:

Annotations?, KeyValue\*, Component\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| include (default: true) | xs:boolean | The include attribute indicates that the region is to be included or excluded within the context in which it is defined. For example, if the regions is defined as part of a content constraint, the exclude flag would mean the data identified by the region is not present. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| KeyValue | *MemberSelectionType* | KeyValue contains a reference to a component which disambiguates the data (i.e. a dimension) and provides a collection of values for the component. The collection of values can be flagged as being inclusive or exclusive to the region being defined. Any key component that is not included is assumed to be wild carded, which is to say that the cube includes all possible values for the un-referenced key components. Further, this assumption applies to the values of the components as well. The values for any given component can only be sub-setted in the region by explicit inclusion or exclusion. For example, a dimension X which has the possible values of 1, 2, 3 is assumed to have all of these values if a key value is not defined. If a key value is defined with an inclusion attribute of true and the values of 1 and 2, the only the values of 1 and 2 for dimension X are included in the definition of the region. If the key value is defined with an inclusion attribute of false and the value of 1, then the values of 2 and 3 for dimension X are included in the definition of the region. Note that any given key component must only be referenced once in the region. |
| Component | *MemberSelectionType* | Component contains a reference to a component (data attribute, metadata attribute, or measure) and provides a collection of values for the referenced component. This serves to state that for the key which defines the region, the components that are specified here have or do not have (depending on the include attribute of the value set) the values provided. It is possible to provide a component reference without specifying values, for the purpose of stating the component is absent (include = false) or present with an unbounded set of values. As opposed to key components, which are assumed to be wild carded if absent, no assumptions are made about the absence of a component. Only components which are explicitly stated to be present or absent from the region will be know. All unstated components for the set cannot be assumed to absent or present. |

***MemberSelectionType*:** MemberSelectionType is an abstract base type which is used to provide a set of values for a referenced component. Implementations of this type will be based on a particular component type and refine the allowed values to reflect the types of values that are possible for that type of component.

Attributes:

id, include?, removePrefix?, validFrom?, validTo?

Content:

(Value+ | TimeRange)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NestedNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (default: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | SimpleComponentValue Type | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |
| TimeRange | TimeRangeValueType | TimeValue provides a value for a component which has a time representation. This is repeatable to allow for a range to be specified, although a single value can also be provided. An operator is available on this to indicate whether the specified value indicates an exact value or the beginning/end of a range (inclusive or exclusive). |

**DataKeyType:** DataKeyType is a region which defines a distinct full or partial data key. The key consists of a set of values, each referencing a dimension and providing a single value for that dimension. The purpose of the key is to define a subset of a data set (i.e. the observed value and data attribute) which have the dimension values provided in this definition. Any dimension not stated explicitly in this key is assumed to be wild carded, thus allowing for the definition of partial data keys.

Derivation:

*AnnotableType* (extension)   
   *RegionType* (restriction)   
         DataKeyType

Attributes:

include?, validFrom?, validTo?

Content:

Annotations?, KeyValue\*, Component\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| include (fixed: true) | xs:boolean | The include attribute has a fixed value of true for a distinct key, since such a key is always assumed to identify existing data or metadata. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| KeyValue | DataKeyValueType | KeyValue contains a reference to a component which disambiguates the data (i.e. a dimension) and provides a collection of values for the component. The collection of values can be flagged as being inclusive or exclusive to the region being defined. Any key component that is not included is assumed to be wild carded, which is to say that the cube includes all possible values for the un-referenced key components. Further, this assumption applies to the values of the components as well. The values for any given component can only be sub-setted in the region by explicit inclusion or exclusion. For example, a dimension X which has the possible values of 1, 2, 3 is assumed to have all of these values if a key value is not defined. If a key value is defined with an inclusion attribute of true and the values of 1 and 2, the only the values of 1 and 2 for dimension X are included in the definition of the region. If the key value is defined with an inclusion attribute of false and the value of 1, then the values of 2 and 3 for dimension X are included in the definition of the region. Note that any given key component must only be referenced once in the region. |
| Component | DataComponentValueSe tType | Component contains a reference to a component (data attribute, metadata attribute, or measure) and provides a collection of values for the referenced component. This serves to state that for the key which defines the region, the components that are specified here have or do not have (depending on the include attribute of the value set) the values provided. It is possible to provide a component reference without specifying values, for the purpose of stating the component is absent (include = false) or present with an unbounded set of values. As opposed to key components, which are assumed to be wild carded if absent, no assumptions are made about the absence of a component. Only components which are explicitly stated to be present or absent from the region will be know. All unstated components for the set cannot be assumed to absent or present. |

**DataKeyValueType:** DataKeyValueType is a type for providing a dimension value for the purpose of defining a distinct data key. Only a single value can be provided for the dimension.

Derivation:

*MemberSelectionType* (restriction)   
   DataKeyValueType

Attributes:

id, include?, removePrefix?

Content:

Value

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | SingleNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (fixed: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | SimpleKeyValueType | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |

**DataComponentValueSetType:** DataComponentValueSetType defines the structure for providing values for a data attributes, measures, or metadata attributes. If no values are provided, the component is implied to include/excluded from the region in which it is defined, with no regard to the value of the component. Note that for metadata attributes which occur within other metadata attributes, a nested identifier can be provided. For example, a value of CONTACT.ADDRESS.STREET refers to the metadata attribute with the identifier STREET which exists in the ADDRESS metadata attribute in the CONTACT metadata attribute, which is defined at the root of the report structure.

Derivation:

*MemberSelectionType* (restriction)   
   DataComponentValueSetType

Attributes:

id, include?, removePrefix?

Content:

(Value+ | TimeRange)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NestedNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (default: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | DataComponentValueTy pe | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |
| TimeRange | TimeRangeValueType | TimeValue provides a value for a component which has a time representation. This is repeatable to allow for a range to be specified, although a single value can also be provided. An operator is available on this to indicate whether the specified value indicates an exact value or the beginning/end of a range (inclusive or exclusive). |

**CubeRegionType:** CubeRegionType defines the structure of a data cube region. This is based on the abstract RegionType and simply refines the key and attribute values to conform with what is applicable for dimensions and attributes, respectively. See the documentation of the base type for more details on how a region is defined.

Derivation:

*AnnotableType* (extension)   
   *RegionType* (restriction)   
         CubeRegionType

Attributes:

include?

Content:

Annotations?, KeyValue\*, Component\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| include (default: true) | xs:boolean | The include attribute indicates that the region is to be included or excluded within the context in which it is defined. For example, if the regions is defined as part of a content constraint, the exclude flag would mean the data identified by the region is not present. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| KeyValue | CubeRegionKeyType | KeyValue contains a reference to a component which disambiguates the data (i.e. a dimension) and provides a collection of values for the component. The collection of values can be flagged as being inclusive or exclusive to the region being defined. Any key component that is not included is assumed to be wild carded, which is to say that the cube includes all possible values for the un-referenced key components. Further, this assumption applies to the values of the components as well. The values for any given component can only be sub-setted in the region by explicit inclusion or exclusion. For example, a dimension X which has the possible values of 1, 2, 3 is assumed to have all of these values if a key value is not defined. If a key value is defined with an inclusion attribute of true and the values of 1 and 2, the only the values of 1 and 2 for dimension X are included in the definition of the region. If the key value is defined with an inclusion attribute of false and the value of 1, then the values of 2 and 3 for dimension X are included in the definition of the region. Note that any given key component must only be referenced once in the region. |
| Component | ComponentValueSetTyp e | Component contains a reference to a component (data attribute, metadata attribute, or measure) and provides a collection of values for the referenced component. This serves to state that for the key which defines the region, the components that are specified here have or do not have (depending on the include attribute of the value set) the values provided. It is possible to provide a component reference without specifying values, for the purpose of stating the component is absent (include = false) or present with an unbounded set of values. As opposed to key components, which are assumed to be wild carded if absent, no assumptions are made about the absence of a component. Only components which are explicitly stated to be present or absent from the region will be know. All unstated components for the set cannot be assumed to absent or present. |

**MetadataTargetRegionType:** MetadataTargetRegionType defines the structure of a metadata target region. A metadata target region must define the report structure and the metadata target from that structure on which the region is based. This type is based on the abstract RegionType and simply refines the key and attribute values to conform with what is applicable for target objects and metadata attributes, respectively. See the documentation of the base type for more details on how a region is defined.

Derivation:

*AnnotableType* (extension)   
   *RegionType* (restriction)   
         MetadataTargetRegionType

Attributes:

include?, validFrom?, validTo?

Content:

Component\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| include (default: true) | xs:boolean | The include attribute indicates that the region is to be included or excluded within the context in which it is defined. For example, if the regions is defined as part of a content constraint, the exclude flag would mean the data identified by the region is not present. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Component | MetadataAttributeVal ueSetType | Component contains a reference to a component (data attribute, metadata attribute, or measure) and provides a collection of values for the referenced component. This serves to state that for the key which defines the region, the components that are specified here have or do not have (depending on the include attribute of the value set) the values provided. It is possible to provide a component reference without specifying values, for the purpose of stating the component is absent (include = false) or present with an unbounded set of values. As opposed to key components, which are assumed to be wild carded if absent, no assumptions are made about the absence of a component. Only components which are explicitly stated to be present or absent from the region will be know. All unstated components for the set cannot be assumed to absent or present. |

**CubeRegionKeyType:** CubeRegionKeyType is a type for providing a set of values for a dimension for the purpose of defining a data cube region. A set of distinct value can be provided, or if this dimension is represented as time, and time range can be specified.

Derivation:

*MemberSelectionType* (restriction)   
   CubeRegionKeyType

Attributes:

id, include?, removePrefix?, validFrom?, validTo?

Content:

(Value+ | TimeRange)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | SingleNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (default: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | CubeKeyValueType | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |
| TimeRange | TimeRangeValueType | TimeValue provides a value for a component which has a time representation. This is repeatable to allow for a range to be specified, although a single value can also be provided. An operator is available on this to indicate whether the specified value indicates an exact value or the beginning/end of a range (inclusive or exclusive). |

**ComponentValueSetType:** ComponentValueSetType defines the structure for providing values for a data attributes, measures, or metadata attributes. If no values are provided, the component is implied to include/excluded from the region in which it is defined, with no regard to the value of the component. Note that for metadata attributes which occur within other metadata attributes, a nested identifier can be provided. For example, a value of CONTACT.ADDRESS.STREET refers to the metadata attribute with the identifier STREET which exists in the ADDRESS metadata attribute in the CONTACT metadata attribute, which is defined at the root of the report structure.

Derivation:

*MemberSelectionType* (restriction)   
   ComponentValueSetType

Attributes:

id, include?, removePrefix?

Content:

(Value+ | TimeRange)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NestedNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (default: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | SimpleComponentValue Type | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |
| TimeRange | TimeRangeValueType | TimeValue provides a value for a component which has a time representation. This is repeatable to allow for a range to be specified, although a single value can also be provided. An operator is available on this to indicate whether the specified value indicates an exact value or the beginning/end of a range (inclusive or exclusive). |

**MetadataAttributeValueSetType:** MetadataAttributeValueSetType defines the structure for providing values for a metadata attribute. If no values are provided, the attribute is implied to include/excluded from the region in which it is defined, with no regard to the value of the metadata attribute.

Derivation:

*MemberSelectionType* (restriction)   
   MetadataAttributeValueSetType

Attributes:

id, include?, removePrefix?

Content:

(Value+ | TimeRange)?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NestedNCNameIDType | The id attribute provides the identifier for the component for which values are being provided. This base type allows for a nested identifier to be provided, for the purpose of referencing a nested component (i.e. a metadata attribute). However, specific implementations will restrict this representation to only allow single level identifiers where appropriate. |
| include (default: true) | xs:boolean | The include attribute indicates whether the values provided for the referenced component are to be included or excluded from the region in which they are defined. |
| removePrefix | xs:boolean | The removePrefix attribute indicates whether codes should keep or not the prefix, as defined in the extension of codelist. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Value | SimpleComponentValue Type | Value provides a simple value for the component, such as a coded, numeric, or simple text value. This type of component value is applicable for dimensions and attributes. |
| TimeRange | TimeRangeValueType | TimeValue provides a value for a component which has a time representation. This is repeatable to allow for a range to be specified, although a single value can also be provided. An operator is available on this to indicate whether the specified value indicates an exact value or the beginning/end of a range (inclusive or exclusive). |

**SimpleComponentValueType:** SimpleValueType contains a simple value for a component, and if that value is from a code list, the ability to indicate that child codes in a simple hierarchy are part of the value set of the component for the region.

Derivation:

xs:anySimpleType (restriction)   
   xs:string (extension)   
         SimpleComponentValueType

Attributes:

cascadeValues?, xml:lang?, validFrom?, validTo?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| cascadeValues (default: false) | CascadeSelectionType | The cascadeValues attribute, if true, indicates that if the value is taken from a code all child codes in a simple hierarchy are understood be included in the region. |
| xml:lang | xs:language | The xml:lang attribute specifies a language code for the value. This is used when the component value support multi-lingual values. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

**CubeKeyValueType:** CubeKeyValueType derives from the SimpleValueType, but does not allow for a locale (xml:lang).

Derivation:

xs:anySimpleType (restriction)   
   xs:string (extension)   
         SimpleComponentValueType (restriction)   
               CubeKeyValueType

Attributes:

cascadeValues?, validFrom?, validTo?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| cascadeValues (default: false) | CascadeSelectionType | The cascadeValues attribute, if true, indicates that if the value is taken from a code all child codes in a simple hierarchy are understood be included in the region. |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

**DataComponentValueType:** DataComponentValueType derives from the SimpleValueType, but does not allow for validity dates.

Derivation:

xs:anySimpleType (restriction)   
   xs:string (extension)   
         SimpleComponentValueType (restriction)   
               DataComponentValueType

Attributes:

cascadeValues?, xml:lang?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| cascadeValues (default: false) | CascadeSelectionType | The cascadeValues attribute, if true, indicates that if the value is taken from a code all child codes in a simple hierarchy are understood be included in the region. |
| xml:lang | xs:language | The xml:lang attribute specifies a language code for the value. This is used when the component value support multi-lingual values. |

**SimpleKeyValueType:** SimpleKeyValueType derives from the SimpleValueType, but does not allow for the cascading of value in the hierarchy, as keys are meant to describe a distinct full or partial key.

Derivation:

xs:anySimpleType (restriction)   
   xs:string (extension)   
         SimpleComponentValueType (restriction)   
               SimpleKeyValueType

Content:

**TimeRangeValueType:** TimeRangeValueType allows a time period value to be expressed as a range. It can be expressed as the period before a period, after a period, or between two periods. Each of these properties can specify their inclusion in regards to the range.

Attributes:

validFrom?, validTo?

Content:

(BeforePeriod | AfterPeriod | (StartPeriod, EndPeriod))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| validFrom | StandardTimePeriodTy pe |  |
| validTo | StandardTimePeriodTy pe |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| BeforePeriod | TimePeriodRangeType | BeforePeriod is the period before which the period is meant to cover. This date may be inclusive or exclusive in the range. |
| AfterPeriod | TimePeriodRangeType | AfterPeriod is the period after which the period is meant to cover. This date may be inclusive or exclusive in the range. |
| StartPeriod | TimePeriodRangeType | StartPeriod is the start date or the range that the queried date must occur within. This date may be inclusive or exclusive in the range. |
| EndPeriod | TimePeriodRangeType | EndPeriod is the end period of the range. This date may be inclusive or exclusive in the range. |

**TimePeriodRangeType:** TimePeriodRangeType defines a time period, and indicates whether it is inclusive in a range.

Derivation:

xs:anySimpleType (restriction)   
   ObservationalTimePeriodType (extension)   
         TimePeriodRangeType

Attributes:

isInclusive?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| isInclusive (default: true) | xs:boolean | The isInclusive attribute, when true, indicates that the time period specified is included in the range. |

***DataStructureBaseType*:** DataStructureBaseType describes base refinement of the StructureType for a data structure definition. A data structure definition is defined as a collection of metadata concepts, their structure and usage when used to collect or disseminate data.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureType* (restriction)   
                                       *DataStructureBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, DataStructureComponents?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataStructureUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| DataStructureCompone nts | DataStructureCompone ntsType | DataStructureComponents defines the grouping of the sets of metadata concepts that have a defined structural role in the data structure definition. Note that for any component or group defined in a data structure definition, its id must be unique. This applies to the identifiers explicitly defined by the components as well as those inherited from the concept identity of a component. For example, if two dimensions take their identity from concepts with same identity (regardless of whether the concepts exist in different schemes) one of the dimensions must be provided a different explicit identifier. Although there are XML schema constraints to help enforce this, these only apply to explicitly assigned identifiers. Identifiers inherited from a concept from which a component takes its identity cannot be validated against this constraint. Therefore, systems processing data structure definitions will have to perform this check outside of the XML validation. There are also two reserved identifiers in a data structure definition; TIME\_PERIOD, and REPORTING\_YEAR\_START\_DAY. These identifiers may not be used outside of their respective defintions (TimeDimension and ReportingYearStartDay). This applies to both the explicit identifiers that can be assigned to the components or groups as well as an identifier inherited by a component from its concept identity. For example, if an ordinary dimension (i.e. not the time dimension) takes its concept identity from a concept with the identifier TIME\_PERIOD, that dimension must provide a different explicit identifier. |

**DataStructureType:** DataStructureType defines the structure for a data structure definition. A data structure definition is defined as a collection of metadata concepts, their structure and usage when used to collect or disseminate data.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureType* (restriction)   
                                       *DataStructureBaseType* (extension)   
                                             DataStructureType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, DataStructureComponents?, Metadata?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataStructureUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| DataStructureCompone nts | DataStructureCompone ntsType | DataStructureComponents defines the grouping of the sets of metadata concepts that have a defined structural role in the data structure definition. Note that for any component or group defined in a data structure definition, its id must be unique. This applies to the identifiers explicitly defined by the components as well as those inherited from the concept identity of a component. For example, if two dimensions take their identity from concepts with same identity (regardless of whether the concepts exist in different schemes) one of the dimensions must be provided a different explicit identifier. Although there are XML schema constraints to help enforce this, these only apply to explicitly assigned identifiers. Identifiers inherited from a concept from which a component takes its identity cannot be validated against this constraint. Therefore, systems processing data structure definitions will have to perform this check outside of the XML validation. There are also two reserved identifiers in a data structure definition; TIME\_PERIOD, and REPORTING\_YEAR\_START\_DAY. These identifiers may not be used outside of their respective defintions (TimeDimension and ReportingYearStartDay). This applies to both the explicit identifiers that can be assigned to the components or groups as well as an identifier inherited by a component from its concept identity. For example, if an ordinary dimension (i.e. not the time dimension) takes its concept identity from a concept with the identifier TIME\_PERIOD, that dimension must provide a different explicit identifier. |
| Metadata | MetadataStructureRef erenceType | A data structure definition may be related to a metadata structure definition in order to use its metadata attributes as part of the data. Note that the referenced metadata set cannot contain nested metadata attributes, as these are not supported in the data. By default all metadata attributes can be associated at any level of the data. However, a metadata attribute usage can be used to provide a specific attribute relationshp for a given metadata attribute. |

***DataStructureComponentsBaseType*:** DataStructureComponentsBaseType is an abstract base type the serves as the basis for the DataStructureComponentsType. This type is necessary to allow for valid substitutions of component lists.

Derivation:

*GroupingType* (restriction)   
   *DataStructureComponentsBaseType*

Content:

{Empty}

**DataStructureComponentsType:** DataStructureComponentsType describes the structure of the grouping to the sets of metadata concepts that have a defined structural role in the data structure definition. At a minimum at least one dimension must be defined.

Derivation:

*GroupingType* (restriction)   
   *DataStructureComponentsBaseType* (extension)   
         DataStructureComponentsType

Content:

DimensionList, Group\*, AttributeList?, MeasureList?

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DimensionList | DimensionListType | DimensionList describes the key descriptor for the data structure definition. It is an ordered set of metadata concepts that, combined, classify a statistical series, such as a time series, and whose values, when combined (the key) in an instance such as a data set, uniquely identify a specific series. |
| Group | GroupType | Group describes a group descriptor in a data structure definition. It is a set metadata concepts (and possibly their values) that define a partial key derived from the key descriptor in a data structure definition. |
| AttributeList | AttributeListType | AttributeList describes the attribute descriptor for the data structure definition. It is a collection of metadata concepts that define the attributes of the data structure definition. |
| MeasureList | MeasureListType | MeasureList describes the measure descriptor for a data structure. |

***AttributeListBaseType*:** AttributeListBaseType is an abstract base type used as the basis for the AttributeListType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *AttributeListBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: AttributeDescriptor) | IDType | The id attribute is provided in this case for completeness. However, its value is fixed to AttributeDescriptor. |
| urn | AttributeDescriptorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**AttributeListType:** AttributeListType describes the attribute descriptor for the data structure definition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *AttributeListBaseType* (extension)   
                     AttributeListType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, (Attribute | MetadataAttributeUsage)+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: AttributeDescriptor) | IDType | The id attribute is provided in this case for completeness. However, its value is fixed to AttributeDescriptor. |
| urn | AttributeDescriptorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Attribute | AttributeType | Attribute describes the definition of a data attribute, which is defined as a characteristic of an object or entity. |
| MetadataAttributeUsa ge | MetadataAttributeUsa geType | MetadataAttributeUsage refines the details of how a metadata attribute from the metadata structure referenced from the data structure is used. By default, metadata attributes can be expressed at any level of the data. This allows an attribute relationship to be defined in order restrict the reporing of a metadata attribute to a specific part of the data. |

***AttributeBaseType*:** AttributeBaseType is an abstract base type that serves as the basis for the AttributeType. It restricts the text format base to a text format valid for data components (that does not allow for XHTML representation). The local representation is restricted to the values defined in codelist. The concept role is restricted to the values valid for a data attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *AttributeBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | DataAttributeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | AttributeRepresentat ionType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

**AttributeType:** AttributeType describes the structure of a data attribute, which is defined as a characteristic of an object or entity. The attribute takes its semantic, and in some cases it representation, from its concept identity. An attribute can be coded by referencing a code list from its coded local representation. It can also specify its text format, which is used as the representation of the attribute if a coded representation is not defined. Neither the coded or uncoded representation are necessary, since the attribute may take these from the referenced concept. An attribute specifies its relationship with other data structure components and is given an assignment status. These two properties dictate where in a data message the attribute will be attached, and whether or not the attribute will be required to be given a value. A set of roles defined in concept scheme can be assigned to the attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *AttributeBaseType* (extension)   
                           AttributeType

Attributes:

id?, urn?, uri?, usage?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?, ConceptRole\*, AttributeRelationship, MeasureRelationship?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | DataAttributeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| usage (default: optional) | UsageType | The usage attribute indicates whether an attribute value must be available for any corresponding existing observation. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | AttributeRepresentat ionType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |
| ConceptRole | ConceptReferenceType | ConceptRole references concepts which define roles which this attribute serves. |
| AttributeRelationshi p | AttributeRelationshi pType | AttributeRelationship describes how the value of this attribute varies with the values of other components. These relationships will be used to determine the attachment level of the attribute in the various data formats. |
| MeasureRelationship | MeasureRelationshipT ype | MeasureRelationship identifies the measures that the attribute applies to. If this is not used, the attribute is assumed to apply to all measures. |

**AttributeRelationshipType:** AttributeRelationshipType defines the structure for stating the relationship between an attribute and other data structure definition components.

Content:

(Dataflow | Dimension+ | Group | Observation)

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Dataflow | EmptyType | This means that the value of the attribute varies per dataflow. It is the data modeller's responsibility to design or use non-overlapping dataflows that do not have observations in common, otherwise the integrity of dataflow-specific attribute values is not assured by the model, e.g. when querying those data through its DSD. |
| Dimension | OptionalLocalDimensi onReferenceType | This is used to reference dimensions in the data structure definition on which the value of this attribute depends. An attribute using this relationship can be either a group, series (or section), or observation level attribute. The attachment level of the attribute will be determined by the data format and which dimensions are referenced. |
| Group | IDType | This is used as a convenience to referencing all of the dimension defined by the referenced group. The attribute will also be attached to this group. |
| Observation | EmptyType | This is used to specify that the value of the attribute is dependent upon the observed value. An attribute with this relationship will always be treated as an observation level attribute. |

**OptionalLocalDimensionReferenceType:**

Derivation:

xs:anySimpleType (restriction)   
   xs:string (restriction)   
         NestedIDType (restriction)   
               IDType (restriction)   
                     NCNameIDType (extension)   
                           OptionalLocalDimensionReferenceType

Attributes:

optional?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| optional (default: false) | xs:boolean |  |

**MeasureRelationshipType:** MeasureRelationshipType allows for the description of an attributes relationship to one or more measures

Content:

Measure+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Measure | NCNameIDType | This is a reference to a measure defined in this data structure definition. |

***MetadataAttributeUsageBaseType*:** MetadataAttributeUsageBaseType is the abstract base refinement of a metadata attribute usage. Since this is a usage of metadata attribute already defined in metadata structure, the typical id, concept identity, and representation are excluded in place of a local refernce to the metadata attribute being used.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MetadataAttributeUsageBaseType*

Attributes:

urn?, uri?

Content:

Annotations?, Link?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**MetadataAttributeUsageType:** MetadataAttributeUsageType defines the structure of how a metadata attribute is used in a data structure. This is a local reference to a metadata attribute from the metadata structure referenced by the data structure. An attribute relationship can be defined in order to describe the relationship of the metadata attribute to the data structure components.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MetadataAttributeUsageBaseType* (extension)   
                           MetadataAttributeUsageType

Attributes:

urn?, uri?

Content:

Annotations?, Link?, MetadataAttributeReference, AttributeRelationship

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| MetadataAttributeRef erence | NCNameIDType | MetadataAttributeReference is a local reference to a metadata attribute defined in the metadata structure referenced by this data structure. |
| AttributeRelationshi p | AttributeRelationshi pType | AttributeRelationship defines the relationship between the referenced metadata attribute and the components of the data structure. |

***DimensionListBaseType*:** DimensionListBaseType is an abstract base type used as the basis for the DimensionListType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *DimensionListBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: DimensionDescriptor) | IDType | The id attribute is provided in this case for completeness. However, its value is fixed to DimensionDescriptor. |
| urn | DimensionDescriptorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**DimensionListType:** DimensionListType describes the key descriptor for a data structure definition. The order of the declaration of child dimensions is significant: it is used to describe the order in which they will appear in data formats for which key values are supplied in an ordered fashion (exclusive of the time dimension, which is not represented as a member of the ordered key). Any data structure definition which uses the time dimension should also declare a frequency dimension, conventionally the first dimension in the key (the set of ordered non-time dimensions). If is not necessary to assign a time dimension, as data can be organised in any fashion required.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *DimensionListBaseType* (extension)   
                     DimensionListType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, Dimension+, TimeDimension?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: DimensionDescriptor) | IDType | The id attribute is provided in this case for completeness. However, its value is fixed to DimensionDescriptor. |
| urn | DimensionDescriptorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Dimension | DimensionType | Dimension describes the structure of a dimension, which is defined as a statistical concept used (most probably together with other statistical concepts) to identify a statistical series, such as a time series, e.g. a statistical concept indicating certain economic activity or a geographical reference area. |
| TimeDimension | TimeDimensionType | TimeDimension is a special dimension which designates the period in time in which the data identified by the full series key applies. |

***BaseDimensionBaseType*:** BaseDimensionBaseType is an abstract base type that serves as the basis for any dimension. It restricts the text format base to a text format valid for data components (that does not allow for XHTML representation).

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *BaseDimensionBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | *DataStructureReprese ntationType* | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

***BaseDimensionType*:** BaseDimensionType is an abstract base type which defines the basic structure of all dimensions.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *BaseDimensionBaseType* (extension)   
                           *BaseDimensionType*

Attributes:

id?, urn?, uri?, position?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?, ConceptRole\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| position | xs:int | The order of the dimensions in the key descriptor (DimensionList element) defines the order of the dimensions in the data structure. This position attribute explicitly specifies the position of the dimension in the data structure. It is optional and if specified must be consistent with the position of the dimension in the key descriptor. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | *DataStructureReprese ntationType* | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |
| ConceptRole | ConceptReferenceType | ConceptRole references concepts which define roles which this dimension serves. |

**DimensionType:** DimensionType describes the structure of an ordinary dimension, which is defined as a statistical concept used (most probably together with other statistical concepts) to identify a statistical series, such as a time series, e.g. a statistical concept indicating certain economic activity or a geographical reference area. The dimension takes its semantic, and in some cases it representation, from its concept identity. A dimension can be coded by referencing a code list from its coded local representation. It can also specify its text format, which is used as the representation of the dimension if a coded representation is not defined. Neither the coded or uncoded representation are necessary, since the dimension may take these from the referenced concept.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *BaseDimensionBaseType* (extension)   
                           *BaseDimensionType* (restriction)   
                                 DimensionType

Attributes:

id?, urn?, uri?, position?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?, ConceptRole\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | DimensionUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| position | xs:int | The order of the dimensions in the key descriptor (DimensionList element) defines the order of the dimensions in the data structure. This position attribute explicitly specifies the position of the dimension in the data structure. It is optional and if specified must be consistent with the position of the dimension in the key descriptor. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | SimpleDataStructureR epresentationType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |
| ConceptRole | ConceptReferenceType | ConceptRole references concepts which define roles which this dimension serves. |

**TimeDimensionType:** TimeDimensionType describes the structure of a time dimension. The time dimension takes its semantic from its concept identity (usually the TIME\_PERIOD concept), yet is always has a fixed identifier (TIME\_PERIOD). The time dimension always has a fixed text format, which specifies that its format is always the in the value set of the observational time period (see common:ObservationalTimePeriodType). It is possible that the format may be a sub-set of the observational time period value set. For example, it is possible to state that the representation might always be a calendar year. See the enumerations of the textType attribute in the LocalRepresentation/TextFormat for more details of the possible sub-sets. It is also possible to facet this representation with start and end dates. The purpose of such facts is to restrict the value of the time dimension to occur within the specified range. If the time dimension is expected to allow for the standard reporting periods (see common:ReportingTimePeriodType) to be used, then it is strongly recommended that the reporting year start day attribute also be included in the data structure definition. When the reporting year start day attribute is used, any standard reporting period values will be assumed to be based on the start day contained in this attribute. If the reporting year start day attribute is not included and standard reporting periods are used, these values will be assumed to be based on a reporting year which begins January 1.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *BaseDimensionBaseType* (extension)   
                           *BaseDimensionType* (restriction)   
                                 TimeDimensionType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: TIME\_PERIOD) | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | TimeDimensionUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | TimeDimensionReprese ntationType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

***GroupBaseType*:** GroupBaseType is an abstract base type that forms the basis for the GroupType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *GroupBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | GroupDimensionDescri ptorUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |

**GroupType:** GroupType describes the structure of a group descriptor in a data structure definition. A group may consist of a of partial key, or collection of distinct cube regions or key sets to which attributes may be attached. The purpose of a group is to specify attributes values which have the same value based on some common dimensionality. All groups declared in the data structure must be unique - that is, you may not have duplicate partial keys. All groups must be given unique identifiers.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               *GroupBaseType* (extension)   
                     GroupType

Attributes:

id, urn?, uri?

Content:

Annotations?, GroupDimension+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | GroupDimensionDescri ptorUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| GroupDimension | GroupDimensionType | GroupDimension is a component which contains only a reference to a dimension in the key descriptor (DimensionList). Although it is conventional to declare dimensions in the same order as they are declared in the ordered key, there is no requirement to do so - the ordering of the values of the key are taken from the order in which the dimensions are declared. Note that the id of a dimension may be inherited from its underlying concept - therefore this reference value may actually be the id of the concept. |

***GroupDimensionBaseType*:** GroupDimensionBaseType is an abstract base type which refines the base ComponentType in order to form the basis for the GroupDimensionType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *GroupDimensionBaseType*

Content:

{Empty}

**GroupDimensionType:** GroupDimensionType defines a dimension component with a group key descriptor component list. Although technically a component, this is essentially a reference to a dimension defined in the key descriptor. Therefore, the identification, name, and description, concept identity and representation properties that are typically available for a component are not allowed here, as they are all inherited from the referenced dimension.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *GroupDimensionBaseType* (extension)   
                           GroupDimensionType

Content:

DimensionReference

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| DimensionReference | NCNameIDType | DimensionReference provides a reference to a dimension defined in the key descriptor of the data structure definition in which this group key descriptor is defined. |

**MeasureListType:** MeasureListType describes the structure of the measure descriptor for a data structure definition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               MeasureListType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, Measure+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: MeasureDescriptor) | IDType | The id is the identifier for the object. |
| urn | MeasureDescriptorUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Measure | MeasureType | Measure defines the structure of a measure, which is the concept that is the value of the phenomenon to be measured in a data set. |

***MeasureBaseType*:** MeasureBaseType is an abstract base type that refines ComponentType to rerstrict the represenations to those which are applicable for a measure.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MeasureBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | MeasureUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | MeasureRepresentatio nType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

**MeasureType:** MeasureType defines the structure of a measure descriptor. In addition to the identifying concept and representation, a usage status and max occurs can be defined.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MeasureBaseType* (extension)   
                           MeasureType

Attributes:

id?, urn?, uri?, usage?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?, ConceptRole\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | MeasureUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| usage (default: optional) | UsageType | The usage attribute indicates whether a measure value must be available for any corresponding existing observation. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | MeasureRepresentatio nType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |
| ConceptRole | ConceptReferenceType | ConceptRole references concepts which define roles which this measure serves. |

***DataStructureRepresentationType*:** DataStructureRepresentationType is an abstract base type which defines the allowable representations for any data structure definition component. The enumeration must be restricted to the proper type for item scheme for a given component.

Derivation:

*RepresentationType* (restriction)   
   *DataStructureRepresentationType*

Attributes:

maxOccurs?

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| maxOccurs | OccurenceType | The maxOccurs attribute indicates the maximum number of values that can be reported for the component. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | SimpleComponentTextF ormatType | TextFormat describes an uncoded textual format. |
| Enumeration | AnyCodelistReference Type | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**AttributeRepresentationType:** AttributeRepresentationType defines the representation for a data attribute. A data attribute can be text (including XHTML and multi-lingual values), a simple value, or an enumerated value.

Derivation:

*RepresentationType* (restriction)   
   AttributeRepresentationType

Attributes:

minOccurs?, maxOccurs?

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| minOccurs (default: 1) | xs: nonNegativeInteger | The minOccurs attribute indicates the minimum number of value that must be reported for the component. |
| maxOccurs (default: 1) | OccurenceType | The maxOccurs attribute indicates the maximum number of values that can be reported for the component. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | BasicComponentTextFo rmatType | TextFormat describes an uncoded textual format. |
| Enumeration | AnyCodelistReference Type | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**MeasureRepresentationType:** MeasureRepresentationType defines the representation for a measure. A measure can be text (including XHTML and multi-lingual values), a simple value, or an enumerated value.

Derivation:

*RepresentationType* (restriction)   
   MeasureRepresentationType

Attributes:

minOccurs?, maxOccurs?

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| minOccurs (default: 1) | xs: nonNegativeInteger | The minOccurs attribute indicates the minimum number of value that must be reported for the component. |
| maxOccurs (default: 1) | OccurenceType | The maxOccurs attribute indicates the maximum number of values that can be reported for the component. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | BasicComponentTextFo rmatType | TextFormat describes an uncoded textual format. |
| Enumeration | AnyCodelistReference Type | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**SimpleDataStructureRepresentationType:** SimpleDataStructureRepresentationType defines the representation for any non-time dimension data structure definition component.

Derivation:

*RepresentationType* (restriction)   
   *DataStructureRepresentationType* (restriction)   
         SimpleDataStructureRepresentationType

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | SimpleComponentTextF ormatType | TextFormat describes an uncoded textual format. |
| Enumeration | CodelistReferenceTyp e | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

**TimeDimensionRepresentationType:** TimeDimensionRepresentationType defines the representation for the time dimension. Enumerated values are not allowed.

Derivation:

*RepresentationType* (restriction)   
   *DataStructureRepresentationType* (restriction)   
         SimpleDataStructureRepresentationType (restriction)   
               TimeDimensionRepresentationType

Content:

TextFormat

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | TimeTextFormatType | TextFormat describes an uncoded textual format. |

**DataflowType:** DataflowType describes the structure of a data flow. A data flow is defined as the structure of data that will provided for different reference periods. If this type is not referenced externally, then a reference to a data structure must be provided.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureUsageType* (restriction)   
                                       DataflowType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Structure?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataflowUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Structure | DataStructureReferen ceType | Structure provides a reference to the data structure definition which defines the structure of all data for this flow. |

***HierarchyBaseType*:** HierarchyBaseType is an abstract base class that is the basis for the HierarchyType. It requires that a name be supplied.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *HierarchyBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | HierarchyUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**HierarchyType:** HierarchyType describes the structure of a hierarchical codelist. A hierarchical code list is defined as an organised collection of codes that may participate in many parent/child relationships with other codes in the list.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *HierarchyBaseType* (extension)   
                                       HierarchyType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, hasFormalLevels

Content:

Annotations?, Link\*, Name+, Description\*, Level?, HierarchicalCode+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | HierarchyUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| hasFormalLevels | xs:boolean | If “true”, this indicates a hierarchy where the structure is arranged in levels of detail from the broadest to the most detailed level. If “false”, this indicates a hierarchy structure where the items in the hierarchy have no formal level structure. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Level | LevelType | In a formally leveled hierarchy, Level describes a group of codes which are characterised by homogeneous coding, and where the parent of each code in the group is at the same higher level of the hierarchy. In a value based hierarchy Level describes information about the codes at the specified nesting level. This structure is recursive to indicate the hierarchy of the levels. |
| HierarchicalCode | HierarchicalCodeType | HierarchicalCode is used to assemble the codes from the codelist(s) referenced into a hierarchy. |

***HierarchicalCodeBaseType*:** HierarchicalCodeBaseType is an abstract base type the creates the basis for the HierarchicalCodeType. It removes the urn and uri.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *HierarchicalCodeBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id attribute allows for an id to be assigned to the use of the particular code at that specific point in the hierarchy. This value is unique within the hierarchy being created, and is used to map the hierarchy against external structures. |
| urn | HierarchicalCodeUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**HierarchicalCodeType:** HierarchicalCodeType describes the structure of a hierarchical code. A hierarchical code provides for a reference to a code that is referenced within the hierarchical code list via either a complete reference to a code through either a URN or full set of reference fields. Codes are arranged in a hierarchy by this reference. Note that it is possible to reference a single code such that it has multiple parents within the hierarchy. Further, the hierarchy may or may not be a leveled one.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *HierarchicalCodeBaseType* (extension)   
               HierarchicalCodeType

Attributes:

id, urn?, uri?, validFrom?, validTo?

Content:

Annotations?, Link\*, Code, HierarchicalCode\*, Level?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id attribute allows for an id to be assigned to the use of the particular code at that specific point in the hierarchy. This value is unique within the hierarchy being created, and is used to map the hierarchy against external structures. |
| urn | HierarchicalCodeUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attriubte indicates the point in time in which the hiearchical code became effective. This can be used to track the historicity of codes changing over time. |
| validTo | xs:dateTime | The validTo attriubte indicates the point in time in which the hiearchical code became no longer effective. This can be used to track the historicity of codes changing over time. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Code | CodeReferenceType | Code provides a complete, explicit reference to a code through either its URN, or a complete reference to the codelist and code. |
| HierarchicalCode | HierarchicalCodeType | HierarchicalCode is used to nest referenced codes into a value based hierarchy. |
| Level | IDType | Level references a formal level defined within the hierarchy which defines this hierarchical code. This is only necessary if the nesting depth of the hierarchical code does not correspond to the nesting depth of the level to which it belongs (i.e. the hieararchical code is to skip down a level). Otherwise, the code is assumed to exist at the level in which the nesting depth of the level matches the nesting depth of the code. |

***LevelBaseType*:** LevelBaseType is an abstract base type that makes up the basis for the LevelType. It requires a name and id.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *LevelBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | LevelUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**LevelType:** LevelType describes a level in a hierarchical codelist. Where level is defined as a group where codes can be characterised by homogeneous coding, and where the parent of each code in the group is at the same higher level of the hierarchy.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *LevelBaseType* (extension)   
                     LevelType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, CodingFormat?, Level?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | LevelUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| CodingFormat | CodingTextFormatType | CodingFormat specifies the text formatting of the codes in this level. This includes facets such as the expected characters and the length of the codes. |
| Level | LevelType | Level describes the next level down in the hierarchy. |

**CodingTextFormatType:**

Derivation:

TextFormatType (restriction)   
   BasicComponentTextFormatType (restriction)   
         SimpleComponentTextFormatType (restriction)   
               CodingTextFormatType

Attributes:

textType?, isSequence?, interval?, startValue?, endValue?, minLength?, maxLength?, minValue?, maxValue?, pattern?

Content:

{Empty}

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| textType | SimpleCodeDataType | The textType attribute provides a description of the datatype. If it is not specified, any valid characters may be included in the text field (it corresponds to the xs:string datatype of W3C XML Schema) within the constraints of the facets. |
| isSequence | xs:boolean | The isSequence attribute indicates whether the values are intended to be ordered, and it may work in combination with the interval, startValue, and endValue attributes or the timeInterval, startTime, and endTime, attributes. If this attribute holds a value of true, a start value or time and a numeric or time interval must supplied. If an end value is not given, then the sequence continues indefinitely. |
| interval | xs:integer | The interval attribute specifies the permitted interval (increment) in a sequence. In order for this to be used, the isSequence attribute must have a value of true. |
| startValue | xs:positiveInteger | The startValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates the starting point of the sequence. This value is mandatory for a numeric sequence to be expressed. |
| endValue | xs:positiveInteger | The endValue attribute is used in conjunction with the isSequence and interval attributes (which must be set in order to use this attribute). This attribute is used for a numeric sequence, and indicates that ending point (if any) of the sequence. |
| minLength | xs:positiveInteger | The minLength attribute specifies the minimum and length of the value in characters. |
| maxLength | xs:positiveInteger | The maxLength attribute specifies the maximum length of the value in characters. |
| minValue | xs:positiveInteger | The minValue attribute is used for inclusive and exclusive ranges, indicating what the lower bound of the range is. If this is used with an inclusive range, a valid value will be greater than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| maxValue | xs:positiveInteger | The maxValue attribute is used for inclusive and exclusive ranges, indicating what the upper bound of the range is. If this is used with an inclusive range, a valid value will be less than or equal to the value specified here. If the inclusive and exclusive data type is not specified (e.g. this facet is used with an integer data type), the value is assumed to be inclusive. |
| pattern | xs:string | The pattern attribute holds any regular expression permitted in the similar facet in W3C XML Schema. |

***HierarchyAssociationBaseType*:** HierarchyAssociationBaseType defines the base refinement of the HierarchyAssociationType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *HierarchyAssociationBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | HierarchyAssociation UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**HierarchyAssociationType:** HierarchyAssociationType defines the structure of a hiearchy association, which links a hierarchy with and identifiable object in the context of another object (e.g. a dimension within the context of a dataflow).

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 HierarchyAssociationType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, LinkedHierarchy, LinkedObject, ContextObject?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| LinkedHierarchy | HierarchyReferenceTy pe | The associated hierarchy. |
| LinkedObject | UrnReferenceType | Associates the Identifiable Artefact that needs the Hierarchy. |
| ContextObject | UrnReferenceType | The context within which the association is performed. |

***MetadataflowBaseType*:** MetadataflowBaseType is an abstract base type that serves as the basis for the MetadataflowType. It restricts the structure to reference a metadata structure definition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureUsageType* (restriction)   
                                       *MetadataflowBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Structure?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataflowUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Structure | MetadataStructureRef erenceType | Structure provides a reference to the metadata structure definition describing the structure of all reference metadata for this flow. |

**MetadataflowType:** MetadataflowType describes the structure of a metadata flow. A dataflow is defined as the structure of reference metadata that will be provided for different reference periods. If this type is not referenced externally, then a reference to a metadata structure definition must be provided

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureUsageType* (restriction)   
                                       *MetadataflowBaseType* (extension)   
                                             MetadataflowType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Structure?, Target+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataflowUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Structure | MetadataStructureRef erenceType | Structure provides a reference to the metadata structure definition describing the structure of all reference metadata for this flow. |
| Target | WildcardUrnType | References identifiable structures to which the refernece metadata described by the referenced metadata structure should be restricted to. These references may include wildcards for parts of the reference. |

**MetadataStructureType:** MetadataStructureType is used to describe a metadata structure definition, which is defined as a collection of metadata concepts, their structure and usage when used to collect or disseminate reference metadata.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *StructureType* (restriction)   
                                       MetadataStructureType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, MetadataStructureComponents?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataStructureUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| MetadataStructureCom ponents | MetadataStructureCom ponentsType | MetadataStructureComponents defines the grouping of the sets of the components that make up the metadata structure definition. |

**MetadataStructureComponentsBaseType:** MetadataStructureComponentsBaseType is an abstract base type that forms the basis for the MetadataStructureComponentsType.

Derivation:

*GroupingType* (restriction)   
   MetadataStructureComponentsBaseType

Content:

{Empty}

**MetadataStructureComponentsType:** MetadataStructureComponentsType describes the structure of the grouping of the sets of the components that make up the metadata structure definition.

Derivation:

*GroupingType* (restriction)   
   MetadataStructureComponentsBaseType (extension)   
         MetadataStructureComponentsType

Content:

MetadataAttributeList

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| MetadataAttributeLis t | MetadataAttributeLis tType | MetadataAttributeList defines the set of metadata attributes that can be defined as a hierarchy, for reporting reference metadata about a target object. The identification of metadata attributes must be unique at any given level of the metadata structure. Although there are XML schema constraints to help enforce this, these only apply to explicitly assigned identifiers. Identifiers inherited from a concept from which a metadata attribute takes its identity cannot be validated against this constraint. Therefore, systems processing metadata structure definitions will have to perform this check outside of the XML validation. |

**MetadataAttributeListType:** MetadataAttributeListType describes the structure of a meta data attribute list. It comprises a set of metadata attributes that can be defined as a hierarchy.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *ComponentListType* (restriction)   
               MetadataAttributeListType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, MetadataAttribute+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: MetadataAttributeDescriptor) | IDType | The id attribute is provided in this case for completeness. However, its value is fixed to MetadataAttributeDescriptor. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| MetadataAttribute | MetadataAttributeTyp e | MetadataAttribute defines the a metadata attribute, which is the value of an attribute, such as the instance of a coded or uncoded attribute in a metadata structure definition. |

***MetadataAttributeBaseType*:** MetadataAttributeBaseType is an abstract base type the serves as the basis for the MetadataAttributeType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MetadataAttributeBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | MetadataAttributeUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | MetadataAttributeRep resentationType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |

**MetadataAttributeType:** MetadataAttributeType describes the structure of a metadata attribute. The metadata attribute takes its semantic, and in some cases it representation, from its concept identity. A metadata attribute may be coded (via the local representation), uncoded (via the text format), or take no value. In addition to this value, the metadata attribute may also specify subordinate metadata attributes. If a metadata attribute only serves the purpose of containing subordinate metadata attributes, then the isPresentational attribute should be used. Otherwise, it is assumed to also take a value. If the metadata attribute does take a value, and a representation is not defined, it will be inherited from the concept it takes its semantic from. The optional id on the metadata attribute uniquely identifies it within the metadata structured definition. If this id is not supplied, its value is assumed to be that of the concept referenced from the concept identity. Note that a metadata attribute (as identified by the id attribute) definition must be unique across the entire metadata structure definition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *ComponentBaseType* (extension)   
               *ComponentType* (restriction)   
                     *MetadataAttributeBaseType* (extension)   
                           MetadataAttributeType

Attributes:

id?, urn?, uri?, minOccurs?, maxOccurs?, isPresentational?

Content:

Annotations?, Link\*, ConceptIdentity, LocalRepresentation?, MetadataAttribute\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds an explicit identification of the component. If this identifier is not supplied, then it is assumed to be the same as the identifier of the concept referenced from the concept identity. Because structures require that every component be given a unique identifier, it may be necessary to assign an explicit identifier when more than one component in a structure reference concepts with same identifier. It is important to note that this applies strictly to the identifier of concept and not the URN. Therefore if two concepts with the same identifier from different concept schemes are referenced in the same structure, one of the components will have to provide a unique explicit identifier. The type of this identifier is restricted to the common:NCNameIDType. This is necessary, since component identifiers are used to create XML elements and attributes in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | MetadataAttributeUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| minOccurs (default: 1) | xs: nonNegativeInteger | The minOccurs attribute indicates the minimum number of times this metadata attribute must occur within its parent object. |
| maxOccurs (default: 1) | OccurenceType | The maxOccurs attribute indicates the maximum number of times this metadata attribute can occur within its parent object. |
| isPresentational (default: false) | xs:boolean | The isPresentational attribute indicates whether the metadata attribute should allow for a value. A value of true, meaning the metadata attribute is presentational means that the attribute only contains child metadata attributes, and does not contain a value. If this attribute is not set to true, and a representation (coded or uncoded) is not defined, then the representation of the metadata attribute will be inherited from the concept from which it takes its identity. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| ConceptIdentity | ConceptReferenceType | ConceptIdentity allows for the referencing of a concept in a concept scheme. The component takes its semantic from this concept, and if an id is not specified, it takes its identification as well. If a representation (LocalRepresentation) is not supplied, then the representation of the component is also inherited from the concept. Note that in the case of the component representation being inherited from the concept, the allowable representations for the component still apply. Therefore, if a component references a concept with a core representation that is not allowed for the concept, that representation must be locally overridden. For components which can specify a concept role, it is implied that the concept which is referenced also identifies a role for the component. |
| LocalRepresentation | MetadataAttributeRep resentationType | LocalRepresentation references item schemes that may be used to create the representation of a component. The type of this must be refined such that a concrete item scheme reference is used. |
| MetadataAttribute | MetadataAttributeTyp e | MetadataAttribute defines the a metadata attribute, which is the value of an attribute, such as the instance of a coded or uncoded attribute in a metadata structure definition. |

**MetadataAttributeRepresentationType:** MetadataAttributeRepresentationType defines the possible local representations of a metadata attribute.

Derivation:

*RepresentationType* (restriction)   
   MetadataAttributeRepresentationType

Content:

(TextFormat | (Enumeration, EnumerationFormat?))

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| TextFormat | BasicComponentTextFo rmatType | TextFormat describes an uncoded textual format. |
| Enumeration | CodelistReferenceTyp e | Enumeration references an item scheme that enumerates the allowable values for this representation. |
| EnumerationFormat | CodedTextFormatType | EnumerationFormat describes the facets of the item scheme enumeration. This is for the most part, informational. |

***OrganisationSchemeBaseType*:** OrganisationSchemeBaseType is an abstract base type for any organisation scheme.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType*

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

***OrganisationSchemeType*:** OrganisationSchemeType describes the structure of an organisation scheme.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType*

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, *Organisation\**

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *Organisation* | *OrganisationType* | Organisation is an abstract substitution head for a generic organisation. |

***BaseOrganisationType*:** BaseOrganisationType is an abstract base type the forms the basis for the OrganisationType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | IDType | If the particular organisation scheme allows, an organisation may reference a parent organisation defined in the same scheme. This does not affect the identification of the organisation, but rather only serves to state the relationship. |

***OrganisationType*:** OrganisationType in an abstract type which describes the structure of the details of an organisation. In addition to the basic organisation identification, contact details can be provided.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | IDType | If the particular organisation scheme allows, an organisation may reference a parent organisation defined in the same scheme. This does not affect the identification of the organisation, but rather only serves to state the relationship. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**AgencySchemeType:** AgencySchemeType defines a specific type of organisation scheme which contains only maintenance agencies. The agency scheme maintained by a particular maintenance agency is always provided a fixed identifier and is never versioned. Therefore, agencies can be added or removed without have to version the scheme. Agencies schemes have no hierarchy, meaning that no agency may define a relationship with another agency in the scheme. In fact, the actual parent agency for an agency in a scheme is the agency which defines the scheme.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType* (restriction)   
                                                   AgencySchemeType

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, Agency\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: AGENCIES) | IDType | The id is the identifier for the object. |
| urn | AgencySchemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Agency | AgencyType | Agency is an organisation which maintains structural metadata such as classifications, concepts, data structures, and metadata structures. |

**DataConsumerSchemeType:** DataConsumerSchemeType defines a type of organisation scheme which contains only data consumers. The data consumer scheme maintained by a particular maintenance agency is always provided a fixed identifier and is never versioned. Therefore, consumers can be added or removed without have to version the scheme. This scheme has no hierarchy, meaning that no organisation may define a relationship with another organisation in the scheme.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType* (restriction)   
                                                   DataConsumerSchemeType

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, DataConsumer\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: DATA\_CONSUMERS) | IDType | The id is the identifier for the object. |
| urn | DataConsumerSchemeUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| DataConsumer | DataConsumerType | DataConsumer describes an organisation using data as input for further processing. |

**DataProviderSchemeType:** DataProviderSchemeType defines a type of organisation scheme which contains only data providers. The data provider scheme maintained by a particular maintenance agency is always provided a fixed identifier and is never versioned. Therefore, providers can be added or removed without have to version the scheme. This scheme has no hierarchy, meaning that no organisation may define a relationship with another organisation in the scheme

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType* (restriction)   
                                                   DataProviderSchemeType

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, DataProvider\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: DATA\_PROVIDERS) | IDType | The id is the identifier for the object. |
| urn | DataProviderSchemeUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| DataProvider | DataProviderType | DataProvider describes an organisation that produces data. |

**MetadataProviderSchemeType:** MetadataProviderSchemeType defines a type of organisation scheme which contains only metadata providers. The metadata provider scheme maintained by a particular maintenance agency is always provided a fixed identifier and is never versioned. Therefore, providers can be added or removed without have to version the scheme. This scheme has no hierarchy, meaning that no organisation may define a relationship with another organisation in the scheme

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType* (restriction)   
                                                   MetadataProviderSchemeType

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, MetadataProvider\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id (fixed: METADATA\_PROVIDERS) | IDType | The id is the identifier for the object. |
| urn | MetadataProviderSche meUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| MetadataProvider | MetadataProviderType | MetadataProvider describes an organisation that produces metadata . |

**OrganisationUnitSchemeType:** OrganisationUnitSchemeType defines a type of organisation scheme which simply defines organisations and there parent child relationships. Organisations in this scheme are assigned no particular role, and may in fact exist within the other type of organisation schemes as well.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       *OrganisationSchemeBaseType* (extension)   
                                             *OrganisationSchemeType* (restriction)   
                                                   OrganisationUnitSchemeType

Attributes:

id, urn?, uri?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, OrganisationUnit\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | OrganisationUnitSche meUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| OrganisationUnit | OrganisationUnitType | OrganisationUnit describes a generic organisation, which serves not predefined role in SDMX. |

**AgencyType:** AgencyType defines the structure of an agency description. The contacts defined for the organisation are specific to the agency role the organisation is serving.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType* (restriction)   
                                       AgencyType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | NCNameIDType | The id attribute holds the identification of the agency. The type of this id is restricted to the common:NCNNameIDType. This is necessary, since the agency identifier will be used as part of the name for simple types in data and metadata structure specific schemas and therefore must be compliant with the NCName type in XML Schema (see common:NCNameIDType for further details). |
| urn | AgencyUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**DataConsumerType:** DataConsumerType defines the structure of a data consumer description. The contacts defined for the organisation are specific to the data consumer role the organisation is serving.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType* (restriction)   
                                       DataConsumerType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataConsumerUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**DataProviderType:** DataProviderType defines the structure of a data provider description. The contacts defined for the organisation are specific to the data provider role the organisation is serving.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType* (restriction)   
                                       DataProviderType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DataProviderUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**MetadataProviderType:** MetadataProviderType defines the structure of a metadata provider description. The contacts defined for the organisation are specific to the metadata provider role the organisation is serving.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType* (restriction)   
                                       MetadataProviderType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataProviderUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**OrganisationUnitType:** OrganisationUnitType defines the structure of an organisation unit description. In addition to general identification and contact information, an organisation unit can specify a relationship with another organisation unit from the same scheme which is its parent organisation.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *BaseOrganisationType* (extension)   
                                 *OrganisationType* (restriction)   
                                       OrganisationUnitType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Parent?, Contact\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | OrganisationUnitUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Parent | IDType | If the particular organisation scheme allows, an organisation may reference a parent organisation defined in the same scheme. This does not affect the identification of the organisation, but rather only serves to state the relationship. |
| Contact | ContactType | Contact describes a contact for the organisation, |

**ContactType:** ContactType describes the structure of a contact's details.

Attributes:

id?

Content:

Name\*, Department\*, Role\*, (Telephone | Fax | X400 | URI | Email)\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id attribute is used to carry user id information for the contact. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Name | TextType | Name is a reusable element, used for providing a human-readable name for an object. |
| Department | TextType | Department is designation of the organisational structure by a linguistic expression, within which the contact person works. |
| Role | TextType | Role is the responsibility of the contact person with respect to the object for which this person is the contact. |
| Telephone | xs:string | Telephone holds the telephone number for the contact person. |
| Fax | xs:string | Fax holds the fax number for the contact person. |
| X400 | xs:string | X400 holds the X.400 address for the contact person. |
| URI | xs:anyURI | URI holds an information URL for the contact person. |
| Email | xs:string | Email holds the email address for the contact person. |

***ProvisionAgreementBaseType*:** ProvisionAgreementBaseType defines the base refinement of the ProvisionAgreementType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ProvisionAgreementBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProvisionAgreementUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**ProvisionAgreementType:** ProvisionAgreementType describes the structure of a provision agreement. A provision agreement defines an agreement for a data provider to report data against a dataflow. Attributes which describe how the registry must behave when data or metadata is registered against this provision agreement are supplied.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ProvisionAgreementBaseType* (extension)   
                                       ProvisionAgreementType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Dataflow, DataProvider

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProvisionAgreementUr nType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Dataflow | DataflowReferenceTyp e | Dataflow provides a reference to a pre-existing dataflow in the registry. The reference is provided via a URN and/or a full set of reference fields. |
| DataProvider | DataProviderReferenc eType | DataProvider provides a reference to a pre-existing data provider in the registry. The reference is provided via a URN and/or a full set of reference fields. |

***MetadataProvisionAgreementBaseType*:** MetadataProvisionAgreementBaseType defines the base refinement of the MetadataProvisionAgreementType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *MetadataProvisionAgreementBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataProvisionAgr eementUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**MetadataProvisionAgreementType:** ProvisionAgreementType describes the structure of a provision agreement. A provision agreement defines an agreement for a data provider to report data or reference metadata against a flow. Attributes which describe how the registry must behave when data or metadata is registered against this provision agreement are supplied.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *MetadataProvisionAgreementBaseType* (extension)   
                                       MetadataProvisionAgreementType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Metadataflow, MetadataProvider, Target\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MetadataProvisionAgr eementUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Metadataflow | MetadataflowReferenc eType | Metadataflow provides a reference to a pre-existing metadataflow in the registry. The reference is provided via a URN and/or a full set of reference fields. |
| MetadataProvider | MetadataProviderRefe renceType | MetadataProvider provides a reference to a pre-existing metadata provider in the registry. The reference is provided via a URN and/or a full set of reference fields. |
| Target | WildcardUrnType | References identifiable structures to which the refernece metadata described by the metadata structure used by the metadaflow should be restricted to. These references may include wildcards for parts of the reference. |

***ProcessBaseType*:** ProcessBaseType defines the base refinement of the ProcessType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ProcessBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProcessUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**ProcessType:** ProcessType describes the structure of a process, which is a scheme which defines or documents the operations performed on data in order to validate data or to derive new information according to a given set of rules. Processes occur in order, and will continue in order unless a transition dictates another step should occur.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ProcessBaseType* (extension)   
                                       ProcessType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, ProcessStep\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProcessUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ProcessStep | ProcessStepType | ProcessStep defines a process step, which is a specific operation, performed on data in order to validate or to derive new information according to a given set of rules. |

***ProcessStepBaseType*:** ProcessStepBaseType is an abstract base type used as the basis for the ProcessStepType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ProcessStepBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProcessStepUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**ProcessStepType:** ProcessStepType describes the structure of a process step. A nested process step is automatically sub-ordinate, and followed as the next step. If the following step is conditional, it should be referenced in a transition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ProcessStepBaseType* (extension)   
                     ProcessStepType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, Input\*, Output\*, Computation?, Transition\*, ProcessStep\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ProcessStepUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Input | InputOutputType | Input references an object which is an input to the process step. |
| Output | InputOutputType | Output references an object which is an output form the process step. |
| Computation | ComputationType | Computation describes the computations involved in the process, in any form desired by the user (these are informational rather than machine-actionable), and so may be supplied in multiple, parallel-language versions. |
| Transition | TransitionType | Transition describes the next process steps. Each transition in a process step should be evaluated, allowing for multiple process step branches from a single process step. |
| ProcessStep | ProcessStepType | ProcessStep defines a process step, which is a specific operation, performed on data in order to validate or to derive new information according to a given set of rules. |

***TransitionBaseType*:** TransitionBaseType defines the base refinement of the TransitionType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *TransitionBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransitionUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**TransitionType:** TransitionType describes the details of a transition, which is an expression in a textual or formalised way of the transformation of data between two specific operations performed on the data.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *TransitionBaseType* (extension)   
               TransitionType

Attributes:

id?, urn?, uri?, localID?

Content:

Annotations?, Link\*, TargetStep, Condition+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransitionUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| localID | IDType | The localID attribute is an optional identification for the transition within the process. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| TargetStep | NestedIDType | TargetStep references a process step within the process that should be transitioned to, should the conditions described be met. |
| Condition | TextType | Condition is a textual description of the conditions to be met in order for the target step to be proceeded to. It is informational only (not machine-actionable), and may be supplied in multiple, parallel-language form. |

**ComputationType:** ComputationType describes a computation in a process.

Derivation:

*AnnotableType* (extension)   
   ComputationType

Attributes:

localID?, softwarePackage?, softwareLanguage?, softwareVersion?

Content:

Annotations?, Description+

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| localID | IDType | The localID attribute is an optional identification for the computation within the process. |
| softwarePackage | xs:string | The softwarePackage attribute holds the name of the software package that is used to perform the computation. |
| softwareLanguage | xs:string | The softwareLanguage attribute holds the coding language that the software package used to perform the computation is written in. |
| softwareVersion | xs:string | The softwareVersion attribute hold the version of the software package that is used to perform that computation. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Description | TextType | Description describe the computation in any form desired by the user (these are informational rather than machine-actionable), and so may be supplied in multiple, parallel-language versions, |

**InputOutputType:** InputOutputType describes the structure of an input or output to a process step. It provides a reference to the object that is the input or output.

Derivation:

*AnnotableType* (extension)   
   InputOutputType

Attributes:

localID?

Content:

Annotations?, ObjectReference

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| localID | IDType | The localID attribute is an optional identification for the input or output within the process. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| ObjectReference | UrnReferenceType | ObjectReference is an abstract substitution head that references the object that is an input or output. It is substituted with a concrete reference to an explicit object type. |

**ReportingTaxonomyType:** ReportingTaxonomyType describes the structure of a reporting taxonomy, which is a scheme which defines the composition structure of a data report where each component can be described by an independent structure or structure usage description.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       ReportingTaxonomyType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, ReportingCategory\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ReportingTaxonomyUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ReportingCategory | ReportingCategoryTyp e | ReportingCateogry defines a reporting category, which is used to group structure usages into useful sub-packages. |

***ReportingCategoryBaseType*:** ReportingCategoryBaseType is an abstract base type that serves as the basis for the ReportingCategoryType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *ReportingCategoryBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, ReportingCategory\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ReportingCategoryUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ReportingCategory | ReportingCategoryTyp e | ReportingCateogry defines a reporting category, which is used to group structure usages into useful sub-packages. |

**ReportingCategoryType:** ReportingCategoryType describes the structure of a reporting category, which groups structure usages into useful sub-packages. Sub ordinate reporting categories can be nested within the category definition.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *ReportingCategoryBaseType* (extension)   
                                 ReportingCategoryType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, ReportingCategory\*, (StructuralMetadata\* | ProvisioningMetadata\*)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ReportingCategoryUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| ReportingCategory | ReportingCategoryTyp e | ReportingCateogry defines a reporting category, which is used to group structure usages into useful sub-packages. |
| StructuralMetadata | StructureReferenceTy pe | StructuralMetadata provides a reference for data structure definition and metadata structure definition references which are grouped in the reporting category. It is assumed that all structural metadata objects referenced from a category will be of the same type. |
| ProvisioningMetadata | StructureUsageRefere nceType | ProvisioningMetadata provides a reference for dataflow and metadataflow references which are grouped in the reporting category. It is assumed that all provisioning metadata objects referenced from a category will be of the same type. |

***ItemSchemeMapBaseType*:** ItemSchemeMapBaseType is an abstract base type which forms the basis for the ItemSchemeMapType.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

***ItemSchemeMapType*:** ItemSchemeMapType is an abstract base type which forms the basis for mapping items between item schemes of the same type.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType* (extension)   
                                       *ItemSchemeMapType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, ItemMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | MaintainableUrnRefer enceType | Source provides a reference to the item scheme which items are mapped from. |
| Target | MaintainableUrnRefer enceType | Target provides a reference to the item scheme which items are mapped to. |
| ItemMap | SingleValueMappingTy pe |  |

**OrganisationSchemeMapType:** OrganisationSchemeMapType defines the structure of a map which identifies relationships between organisations in different organisation schemes.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType* (extension)   
                                       *ItemSchemeMapType* (restriction)   
                                             OrganisationSchemeMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, ItemMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | OrganisationSchemeMa pUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | OrganisationSchemeRe ferenceType | Source provides a reference to the item scheme which items are mapped from. |
| Target | OrganisationSchemeRe ferenceType | Target provides a reference to the item scheme which items are mapped to. |
| ItemMap | SingleValueMappingTy pe |  |

**CategorySchemeMapType:** CategorySchemeMapType defines the structure of a map which identifies relationships between categories in different category schemes.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType* (extension)   
                                       *ItemSchemeMapType* (restriction)   
                                             CategorySchemeMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, ItemMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CategorySchemeMapUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | CategorySchemeRefere nceType | Source provides a reference to the item scheme which items are mapped from. |
| Target | CategorySchemeRefere nceType | Target provides a reference to the item scheme which items are mapped to. |
| ItemMap | SingleValueMappingTy pe |  |

**ConceptSchemeMapType:** ConceptSchemeMapType defines the structure of a map which identifies relationships between concepts in different concept schemes.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType* (extension)   
                                       *ItemSchemeMapType* (restriction)   
                                             ConceptSchemeMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, ItemMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ConceptSchemeMapUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | ConceptSchemeReferen ceType | Source provides a reference to the item scheme which items are mapped from. |
| Target | ConceptSchemeReferen ceType | Target provides a reference to the item scheme which items are mapped to. |
| ItemMap | SingleValueMappingTy pe |  |

**ReportingTaxonomyMapType:** ReportingTaxonomyMapType defines the structure of a map which identifies relationships between reporting categories in different reporting taxonomies.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *ItemSchemeMapBaseType* (extension)   
                                       *ItemSchemeMapType* (restriction)   
                                             ReportingTaxonomyMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, ItemMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | ReportingTaxonomyMap UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | ReportingTaxonomyRef erenceType | Source provides a reference to the item scheme which items are mapped from. |
| Target | ReportingTaxonomyRef erenceType | Target provides a reference to the item scheme which items are mapped to. |
| ItemMap | SingleValueMappingTy pe |  |

***StructureMapBaseType*:** StructureMapBaseType defines the base refinement of the StructureMapType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *StructureMapBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | StructureMapUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**StructureMapType:** StructureMapType defines the structure for mapping components of one structure to components of another structure. A structure may be referenced directly meaning the map applies wherever the structure is used, or it may be a reference via a structure usage meaning the map only applies within the context of that usage. Using the related structures, one can make extrapolations between maps. For example, if key families, A, B, and C, are all grouped in a related structures container, then a map from data structure A to C and a map from data structure B to C could be used to infer a relation between data structure A to C.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *StructureMapBaseType* (extension)   
                                       StructureMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, Source, Target, EpochMap\*, DatePatternMap\*, FrequencyFormatMapping\*, ComponentMap\*, FixedValueMap\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | StructureMapUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Source | StructureOrUsageRefe renceType | Source provides a reference to a structure (data or metadata) or a structure usage (dataflow or metadataflow) from which components defined by the actual structure are to mapped. |
| Target | StructureOrUsageRefe renceType | Target provides a reference to a structure (data or metadata) or a structure usage (dataflow or metadataflow) to which components from the source are to mapped. |
| EpochMap | EpochMapType | Provides the ability to map source to target date formats. The source date is described as the number of epochs since a point in time, where the duration of each epoch is defined, e.g. number of milliseconds since 1970. |
| DatePatternMap | DatePatternMapType | Provides the ability to map source to target date formats. The source date is described as a pattern (for example MM-YYYY). |
| FrequencyFormatMappi ng | FrequencyFormatMappi ngType |  |
| ComponentMap | ComponentMapType | ComponentMap defines the relationship between the components of the source and target structures, including information on how the value from the source component relates to values in the target component. |
| FixedValueMap | FixedValueMapType | FixedValueMap defines a fixed value for a source or target component in the mapping. |

**FixedValueMapType:** FixedValueMapType defines the structure for providing a fixed value for a source or target component.

Derivation:

*AnnotableType* (extension)   
   FixedValueMapType

Content:

Annotations?, (Source | Target), Value\*

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Source | IDType |  |
| Target | IDType |  |
| Value | xs:string | The fixed value for the component. |

**ComponentMapType:** ComponentMapType defines the structure for relating a component in a source structure to a component in a target structure.

Derivation:

*AnnotableType* (extension)   
   ComponentMapType

Content:

Annotations?, Source+, Target+, RepresentationMap?

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Source | IDType |  |
| Target | IDType |  |
| RepresentationMap | RepresentationMapRef erenceType |  |

***FrequencyFormatMappingBaseType*:** FrequencyFormatMappingBaseType defines the base refinement of the FrequencyFormatMappingType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *FrequencyFormatMappingBaseType*

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | FrequencyFormatMappi ngUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |

**FrequencyFormatMappingType:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (restriction)   
         *FrequencyFormatMappingBaseType* (extension)   
               FrequencyFormatMappingType

Attributes:

id?, urn?, uri?

Content:

Annotations?, Link\*, FrequencyId, DatePattern

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | FrequencyFormatMappi ngUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| FrequencyId | IDType |  |
| DatePattern | xs:string |  |

***DateMapType*:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *DateMapType*

Attributes:

id?, urn?, uri?, resolvePeriod?

Content:

Annotations?, Link\*, (Source, Target)+, ( (FrequencyDimension, MappedFrequencies\*) | TargetFrequencyID)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| resolvePeriod | ResolvePeriodType | Indicates the point in time to resolve to when mapping from low fequency periods to higher frequency periods. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Source | IDType |  |
| Target | IDType |  |
| FrequencyDimension | IDType |  |
| MappedFrequencies | IDType |  |
| TargetFrequencyID | IDType |  |

***EpochMapBaseType*:** EpochMapBaseType defines the base refinement of the EpochMapType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *DateMapType* (restriction)   
               *EpochMapBaseType*

Attributes:

id?, urn?, uri?, resolvePeriod?

Content:

Annotations?, Link\*, (Source, Target)+, ( (FrequencyDimension, MappedFrequencies\*) | TargetFrequencyID)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | EpochMapUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| resolvePeriod | ResolvePeriodType | Indicates the point in time to resolve to when mapping from low fequency periods to higher frequency periods. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Source | IDType |  |
| Target | IDType |  |
| FrequencyDimension | IDType |  |
| MappedFrequencies | IDType |  |
| TargetFrequencyID | IDType |  |

**EpochMapType:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *DateMapType* (restriction)   
               *EpochMapBaseType* (extension)   
                     EpochMapType

Attributes:

id?, urn?, uri?, resolvePeriod?, basePeriod, epochPeriod

Content:

Annotations?, Link\*, (Source, Target)+, ( (FrequencyDimension, MappedFrequencies\*) | TargetFrequencyID)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | EpochMapUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| resolvePeriod | ResolvePeriodType | Indicates the point in time to resolve to when mapping from low fequency periods to higher frequency periods. |
| basePeriod | xs:string |  |
| epochPeriod | EpochPeriodType |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Source | IDType |  |
| Target | IDType |  |
| FrequencyDimension | IDType |  |
| MappedFrequencies | IDType |  |
| TargetFrequencyID | IDType |  |

***DatePatternMapBaseType*:** DatePatternMapBaseType defines the base refinement of the DatePatternMapType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *DateMapType* (restriction)   
               *DatePatternMapBaseType*

Attributes:

id?, urn?, uri?, resolvePeriod?

Content:

Annotations?, Link\*, (Source, Target)+, ( (FrequencyDimension, MappedFrequencies\*) | TargetFrequencyID)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DatePatternMapUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| resolvePeriod | ResolvePeriodType | Indicates the point in time to resolve to when mapping from low fequency periods to higher frequency periods. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Source | IDType |  |
| Target | IDType |  |
| FrequencyDimension | IDType |  |
| MappedFrequencies | IDType |  |
| TargetFrequencyID | IDType |  |

**DatePatternMapType:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *DateMapType* (restriction)   
               *DatePatternMapBaseType* (extension)   
                     DatePatternMapType

Attributes:

id?, urn?, uri?, resolvePeriod?, sourcePattern, locale

Content:

Annotations?, Link\*, (Source, Target)+, ( (FrequencyDimension, MappedFrequencies\*) | TargetFrequencyID)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | DatePatternMapUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| resolvePeriod | ResolvePeriodType | Indicates the point in time to resolve to when mapping from low fequency periods to higher frequency periods. |
| sourcePattern | xs:string | Describes the source date using conventions for describing years, months, days, etc. |
| locale | xs:string | The locale on which the input will be parsed according to the pattern. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Source | IDType |  |
| Target | IDType |  |
| FrequencyDimension | IDType |  |
| MappedFrequencies | IDType |  |
| TargetFrequencyID | IDType |  |

***RepresentationMapBaseType*:** RepresentationMapBaseType defines the base refinement of the RepresentationMapType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *RepresentationMapBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RepresentationMapUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**RepresentationMapType:**

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (restriction)   
                                 *RepresentationMapBaseType* (extension)   
                                       RepresentationMapType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?

Content:

Annotations?, Link\*, Name+, Description\*, (SourceCodelist | SourceDataType)+, (TargetCodelist | TargetDataType)+, RepresentationMapping\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RepresentationMapUrn Type | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| SourceCodelist | AnyCodelistReferenceTyp e |  |
| SourceDataType | DataType |  |
| TargetCodelist | AnyCodelistReferenceTyp e |  |
| TargetDataType | DataType |  |
| RepresentationMappin g | ValueMappingType |  |

**SingleValueMappingType:** SingleValueMappingType defines a mapping with a single source and optional target.

Derivation:

*AnnotableType* (extension)   
   SingleValueMappingType

Attributes:

validFrom?, validTo?

Content:

Annotations?, SourceValue, TargetValue?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| validFrom | xs:date |  |
| validTo | xs:date |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| SourceValue | MappedValueType | There should be a source value for each source represention (e.g. codelist, data type). Source values can be pattern matched by using regular expression or substrings using start/end indexes. |
| TargetValue | xs:string | The target value(s) is always an absolute string. However, if source value is a regular expression, the target value can output the capture group from the source. |

**ValueMappingType:** ValueMappingType defines a mapping of multiple sources to multiple targets.

Derivation:

*AnnotableType* (extension)   
   ValueMappingType

Attributes:

validFrom?, validTo?

Content:

Annotations?, SourceValue+, TargetValue\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| validFrom | xs:date |  |
| validTo | xs:date |  |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| SourceValue | MappedValueType | There should be a source value for each source represention (e.g. codelist, data type). Source values can be pattern matched by using regular expression or substrings using start/end indexes. |
| TargetValue | xs:string | The target value(s) is always an absolute string. However, if source value is a regular expression, the target value can output the capture group from the source. |

**MappedValueType:**

Derivation:

xs:anySimpleType (restriction)   
   xs:string (extension)   
         MappedValueType

Attributes:

isRegEx?, startIndex?, endIndex?

Content:

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| isRegEx | xs:boolean |  |
| startIndex | xs:int |  |
| endIndex | xs:int |  |

***VtlDefinitionSchemeType*:** VtlDefinitionSchemeType is an abstract extension of the ItemSchemeType for VTL schemes.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, *Item\**

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | MaintainableUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| *Item* | *ItemType* | Item is an abstract element that serves as a substitution head for all items in an item scheme, including those items nested within other items. Concrete instances of this must use a concrete instance of ItemType. |

***TransformationSchemeBaseType*:** TransformationSchemeBaseType is an abstract base type for the TransformationSchemeType. It restricts the item types to be only transformations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *TransformationSchemeBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, Transformation\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransformationScheme UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Transformation | TransformationType | Transformation describes the details of a single transformation within a transformation scheme. |

**TransformationSchemeType:** TransformationSchemeType describes the structure of a transformation scheme. A transformation scheme contains a set of transformations to be executed together (in the same run). It can contain any number of transformations that produce any number of results.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *TransformationSchemeBaseType* (extension)   
                                                   TransformationSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, Transformation\*, VtlMappingScheme?, NamePersonalisationScheme?, CustomTypeScheme?, RulesetScheme\*, UserDefinedOperatorScheme\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransformationScheme UrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Transformation | TransformationType | Transformation describes the details of a single transformation within a transformation scheme. |
| VtlMappingScheme | VtlMappingSchemeRefe renceType | References a VTL mapping scheme which defines aliases for given SDMX artefacts that are used in the transformations as well as the mapping methods used when converting between SDMX and VTL data structures. All aliases must be defined in the referenced scheme. This also must be used if the basic mapping methods are not used. |
| NamePersonalisationS cheme | NamePersonalisationS chemeReferenceType | References a name personalisation scheme, which defines the overriding of some standard VTL names (to be assigned to some measures and/or attributes of the data structure) with some corresponding personalised names. This must be used if transformations within a transformation scheme personalise standard names. All personalisations must be defined in the referenced scheme. |
| CustomTypeScheme | CustomTypeSchemeRefe renceType | References a custom type scheme which defines custom conversions of VTL scalar types to SDMX data types. This must be used if custom type conversions are used in the transformations defined in a transformation scheme. All custom conversions must be defined in the referenced scheme. |
| RulesetScheme | RulesetSchemeReferen ceType | References a ruleset scheme that defines one or more previously defined rulesets which can be invoked by VTL operators. If a transformation defined in a transformation scheme refers to a ruleset, the scheme in which the ruleset is defined must be referenced here. |
| UserDefinedOperatorS cheme | UserDefinedOperatorS chemeReferenceType | References a user defined operator scheme that defines one or more user defined operators used by the transformations defined in a transformation scheme. If a transformation in a transformation scheme refers to a user defined operator, the scheme in which the user defined operator is defined must be referenced here. |

***TransformationBaseType*:** TransformationBaseType defines the base refinement of the TransformationType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *TransformationBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransformationUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**TransformationType:** TransformationType defines the structure of a transformation. A transformation is an assignment of a VTL expression to a specific result.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *TransformationBaseType* (extension)   
                                       TransformationType

Attributes:

id, urn?, uri?, isPersistent

Content:

Annotations?, Link\*, Name+, Description\*, Expression, Result

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | TransformationUrnTyp e | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| isPersistent | xs:boolean | Indicates if the the result is permanently stored. A persistent result (value of true) can be used by transformation defined in other transformation schemes, but a non-persistent result (value of false) can only be used by transformations within the same transformation scheme. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Expression | xs:string | The right-hand side of the VTL statement. This is expression that is executed for this transformation. It include references to operands and other artefacts. The expression may contain references to SDMX artefacts using the reduced URN format; see Section 6 SDMX Standards ("SDMX Technical Notes"), 10.2.3 ("Abbreviation of the URN"). |
| Result | xs:string | The left-hand side of the VTL statement. This identifies the result artefact, which may be used in subsequent transformations. If the result is an SDMX artefact, the is expressed using the alias; see Section 6 SDMX Standards ("SDMX Technical Notes"), 10.2.3 ("Abbreviation of the URN"). |

**VtlMappingSchemeType:** VtlMappingSchemeType defines a set of mappings between SDMX and VTL.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (restriction)   
                                       VtlMappingSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?

Content:

Annotations?, Link\*, Name+, Description\*, VtlMapping\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | VtlMappingSchemeUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| VtlMapping | VtlMappingType | VtlMapping details a mapping between SDMX and VTL transformation. |

***VtlMappingBaseType*:** VtlMappingBaseType defines the base refinement of the VtlMappingType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *VtlMappingBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | VtlMappingUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**VtlMappingType:** VtlMappingType defines the structure of a single mapping between the reference to a SDMX artefact made from VTL transformations, rulesets, user defined operators and the corresponding SDMX structure identifier. These are used to assign an alternative names to SDMX Dataflows, Codelists, Concept Schemes, or Concepts. Although are distinct sub-classes in the Information Model, this structure serves to express them all. The references SDMX artefact serves to distinguish which type of sub-class (VtlDatflowMapping or VtlCodelistMapping, or VtlConceptMapping) is being described. When this is used to assign an alias for a SDMX Dataflow, this can also be used to indicate the methods used to convert the data structure from SDMX to VTL and vice-versa. Finally, this can be used to override the deault Basic mapping methods used for Dataflows by utilizing the GenericDataflow element in place of a reference to a specific Dataflow.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *VtlMappingBaseType* (extension)   
                                       VtlMappingType

Attributes:

id, urn?, uri?, alias

Content:

Annotations?, Link\*, Name+, Description\*, ( ( (Dataflow | GenericDataflow), ToVtlMapping?, FromVtlMapping?) | Codelist | Concept)

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | VtlMappingUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| alias | xs:string | The alias used to refer to the reference SDMX artefact in the transformations. This must be unique within the mapping scheme in which it is defined. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Dataflow | DataflowReferenceTyp e | A reference to the SDMX Dataflow that the mapping is defined for. This is used to create a VtlDataflowMapping. In this case, it is possible to specify the mapping details to and from VTL. |
| GenericDataflow | EmptyType | Indicates that the ToVtlMapping and FromVtlMapping are the default mapping methods to be applied, overriding the Basic methods if necessary. The mapping methods in this case would be applied to any dataflows that are not explicitly defined in other VtlMappings. |
| ToVtlMapping | ToVtlMappingType | Describes the mapping from a SDMX dataflow to a VTL data structure. |
| FromVtlMapping | FromVtlMappingType | Describes the mapping to a SDMX dataflow from a VTL data structure. |
| Codelist | CodelistReferenceTyp e | A reference to the SDMX Codelist that the mapping is defined for. This is used to create a VtlCodelistMapping. |
| Concept | ConceptReferenceType | A reference to the SDMX Concept that the mapping is defined for. This is used to create a VtlConceptMapping. |

**ToVtlMappingType:** ToVtlMappingType defines the mapping method and filter used when mapping from SDMX to VTL.

Attributes:

method?

Content:

ToVtlSubSpace?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| method | ToVtlMappingMethodTy pe | The mapping method used when mapping from SDMX to VTL. This is typically a StandardToVtlMappingMethodType, but can be any other value to allow for non-standard methods. The implied default is Basic. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| ToVtlSubSpace | SpaceKeyType | Identfies a sub space of the mapped dataflow that the mapping applies to. This is a collection of references to the dimensions that make up the space. |

**FromVtlMappingType:** FromVtlMappingType defines the mapping method and filter used when mapping from VTL to SDMX.

Attributes:

method?

Content:

FromVtlSuperSpace?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| method | FromVtlMappingMethod Type | The mapping method used when mapping from VTL to SDMX. This is typically a StandardFromVtlMappingMethodType, but can be any other value to allow for non-standard methods. The implied default is Basic for single-measure VTL data structures and Unpivot for multi-meausre VTL data structures. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| FromVtlSuperSpace | SpaceKeyType | Identfies a super space of the mapped dataflow that the mapping applies to. This is a collection of references to the dimensions that make up the space. |

**SpaceKeyType:** SpaceKey defines the structure of a super- or sub- space for a SDMX Dataflow. It is a collection of references to the dimensions that make up the space.

Content:

Key+

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Key | SingleNCNameIDType | A reference to a dimension by its identifier. |

**NamePersonalisationSchemeType:** NamePersonalisationSchemeType defines a set of personalisations of VTL standard names that are used in a set of transformations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             NamePersonalisationSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, NamePersonalisation\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | NamePersonalisationS chemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| NamePersonalisation | NamePersonalisationT ype | NamePersonalisation details a name personalisation that is used in a transformation. |

***NamePersonalisationBaseType*:** NamePersonalisationBaseType defines the base refinement of the NamePersonalisationType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *NamePersonalisationBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | NamePersonalisationU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**NamePersonalisationType:** NamePersonalisationType defines the structure of a name personalisation. A name personalisation is is used in place of a standard VTL name in some VTL operations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *NamePersonalisationBaseType* (extension)   
                                       NamePersonalisationType

Attributes:

id, urn?, uri?, vtlArtefact

Content:

Annotations?, Link\*, Name+, Description\*, VtlDefaultName, PersonalisedName

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | NamePersonalisationU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| vtlArtefact | xs:string | Identifies the type of VTL model artefact that is being personalised. In VTL 2.0, this is valuedomain or variable. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| VtlDefaultName | xs:string | Provides the VTL standard name that is being personalised. |
| PersonalisedName | xs:string | Provides the personalised name that is used in place of the VTL standard name in the transformation expressions. |

***RulesetSchemeBaseType*:** RulesetSchemeBaseType is an abstract base type for the RulesetSchemeType. It restricts the item types to be only rulesets.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *RulesetSchemeBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, Ruleset\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RulesetSchemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Ruleset | RulesetType | Ruleset details a ruleset within a ruleset scheme. |

**RulesetSchemeType:** RulesetSchemeType defines a collection of rulesets that are used in transformations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *RulesetSchemeBaseType* (extension)   
                                                   RulesetSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, Ruleset\*, VtlMappingScheme?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RulesetSchemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| Ruleset | RulesetType | Ruleset details a ruleset within a ruleset scheme. |
| VtlMappingScheme | VtlMappingSchemeRefe renceType | References a VTL mapping scheme which defines aliases for given SDMX artefacts that are used in the rulesets. Rulesets defined on value domains reference Codelists or Concept Schemes (the latter in VTL are considered as the Value Domains of the variables corresponding to the SDMX Measure Dimensions). The rulesets defined on variables reference Concepts (for which a definite representation is assumed). Therefore, a ruleset should only refer to Codelists, Concept Schemes, and Concepts. |

***RulesetBaseType*:** RulesetBaseType defines the base refinement of the RulesetType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *RulesetBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RulesetUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**RulesetType:** RulesetType defines the structure of a ruleset. A ruleset is a persistent set of rules which can be invoked by using appropriate VTL operators.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *RulesetBaseType* (extension)   
                                       RulesetType

Attributes:

id, urn?, uri?, rulesetType, rulesetScope

Content:

Annotations?, Link\*, Name+, Description\*, RulesetDefinition

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | RulesetUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| rulesetType | xs:string | The VTL type of the ruleset. In VTL 2.0, this is datapoint or hierarchical |
| rulesetScope | xs:string | This model artefact on which the ruleset is defined. In VTL 2.0, this is value domain or variable. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| RulesetDefinition | xs:string | A VTL statement for the definition of a ruleset. This must conform to the syntax of the VTL definition language. |

***UserDefinedOperatorSchemeBaseType*:** UserDefinedOperatorSchemeBaseType is an abstract base type for the UserDefinedOperatorSchemeType. It restricts the item types to be only user defined operators.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *UserDefinedOperatorSchemeBaseType*

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, UserDefinedOperator\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UserDefinedOperatorS chemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| UserDefinedOperator | UserDefinedOperatorT ype | UserDefinedOperator details a user defined operators within a user defined operator scheme. |

**UserDefinedOperatorSchemeType:** UserDefinedOperatorSchemeType defines a collection of user defined operators that are used in transformations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             *UserDefinedOperatorSchemeBaseType* (extension)   
                                                   UserDefinedOperatorSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, UserDefinedOperator\*, VtlMappingScheme?, RulesetScheme\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UserDefinedOperatorS chemeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| UserDefinedOperator | UserDefinedOperatorT ype | UserDefinedOperator details a user defined operators within a user defined operator scheme. |
| VtlMappingScheme | VtlMappingSchemeRefe renceType | References a VTL mapping scheme which defines aliases for given SDMX artefacts that are used in the user defined operators. Although the VTL user defined operators are conceived to be defined on generic operands, so that the specific artefacts to be manipulated are passed as parameters at the invocation, it is also possible that they reference specific SDMX artefacts like Dataflows, Codelists and ConceptSchemes. In this case, the mapping schemes referenced here define the mappings to those artefacts. |
| RulesetScheme | RulesetSchemeReferen ceType | References a ruleset scheme defining rulesets utilized in the user defined operators. |

***UserDefinedOperatorBaseType*:** UserDefinedOperatorBaseType defines the base refinement of the UserDefinedOperatorType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *UserDefinedOperatorBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UserDefinedOperatorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**UserDefinedOperatorType:** UserDefinedOperatorType defines the structure of a user defined operator. A user defined operator is a custom VTL operator (not existing in the standard library) that extends the VTL standard library for specific purposes. In addition to its identification and name, and definition of the operator must be provided.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *UserDefinedOperatorBaseType* (extension)   
                                       UserDefinedOperatorType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, OperatorDefinition

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | UserDefinedOperatorU rnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| OperatorDefinition | xs:string | A VTL statement for the definition of a new operator: it specifies the operator name, its parameters and their data types, the VTL expression that defines its behaviour. |

**CustomTypeSchemeType:** CustomTypeSchemeType defines a collection of custom types that are used in transformations.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (extension)   
               *VersionableType* (restriction)   
                     *MaintainableBaseType* (extension)   
                           *MaintainableType* (extension)   
                                 *ItemSchemeType* (extension)   
                                       *VtlDefinitionSchemeType* (restriction)   
                                             CustomTypeSchemeType

Attributes:

id, urn?, uri?, version?, validFrom?, validTo?, agencyID, isExternalReference?, serviceURL?, structureURL?, isPartial?, vtlVersion

Content:

Annotations?, Link\*, Name+, Description\*, CustomType\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CustomTypeSchemeUrnT ype | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |
| version | VersionType | This version attribute holds a version number (see common:VersionType definition for details). If not supplied, artefact is considered to be un-versioned. |
| validFrom | xs:dateTime | The validFrom attribute provides the inclusive start date for providing supplemental validity information about the version. |
| validTo | xs:dateTime | The validTo attribute provides the inclusive end date for providing supplemental validity information about the version. |
| agencyID | NestedNCNameIDType | The agencyID must be provided, and identifies the maintenance agency of the object. |
| isExternalReference (default: false) | xs:boolean | The isExternalReference attribute, if true, indicates that the actual object is not defined the corresponding element, rather its full details are defined elsewhere - indicated by either the registryURL, the repositoryURL, or the structureURL. The purpose of this is so that each structure message does not have to redefine object that are already defined elsewhere. If the isExternalReference attribute is not set, then it is assumed to be false, and the object should contain the full definition of its contents. If more than one of the registryURL, the repositoryURL, and the structureURL are supplied, then the application processing the object can choose the method it finds best suited to retrieve the details of the object. |
| serviceURL | xs:anyURI | The serviceURL attribute indicates the URL of an SDMX SOAP web service from which the details of the object can be retrieved. Note that this can be a registry or and SDMX structural metadata repository, as they both implement that same web service interface. |
| structureURL | xs:anyURI | The structureURL attribute indicates the URL of a SDMX-ML structure message (in the same version as the source document) in which the externally referenced object is contained. Note that this may be a URL of an SDMX RESTful web service which will return the referenced object. |
| isPartial (default: false) | xs:boolean | The isPartial, if true, indicates that only the relevant portion of the item scheme is being communicated. This is used in cases where a codelist is returned for a data structure in the context of a constraint. |
| vtlVersion | xs:string | Identifies the VTL version to which the items in the defined scheme comply. Note that definition schemes can only reference definition schemes using the same VTL version. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| CustomType | CustomTypeType | CustomType details a custom type within a custom type scheme. |

***CustomTypeBaseType*:** CustomTypeBaseType defines the base refinement of the CustomTypeType. Its purpose is to retrict the urn attribute.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *CustomTypeBaseType*

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CustomTypeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |

**CustomTypeType:** CustomTypeType defines the structure of a custom type. A custom type specifies a custom conversion for a VTL scalar type to a resulting data type. This conversion overrides the default conversion.

Derivation:

*AnnotableType* (extension)   
   *IdentifiableType* (extension)   
         *NameableType* (restriction)   
               *ItemBaseType* (extension)   
                     *ItemType* (restriction)   
                           *UnnestedItemType* (restriction)   
                                 *CustomTypeBaseType* (extension)   
                                       CustomTypeType

Attributes:

id, urn?, uri?

Content:

Annotations?, Link\*, Name+, Description\*, VtlScalarType, DataType, VtlLiteralFormat?, OutputFormat?, NullValue?

Attribute Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| id | IDType | The id is the identifier for the object. |
| urn | CustomTypeUrnType | The urn attribute holds a valid SDMX Registry URN (see SDMX Registry Specification for details). |
| uri | xs:anyURI | The uri attribute holds a URI that contains a link to a resource with additional information about the object, such as a web page. This uri is not a SDMX message. |

Element Documentation:

| **Name** | **Type** | **Documentation** |
| --- | --- | --- |
| Annotations | AnnotationsType | Annotations is a reusable element the provides for a collection of annotations. It has been made global so that restrictions of types that extend AnnotatableType may reference it. |
| Link | LinkType | Allows for the linking of other resources to identifiable objects. For example, if there is reference metadata associated with a structure, a link to the meatadata report can be dynamically inserted in the structure metadata. |
| Name | TextType | Name provides for a human-readable name for the object. This may be provided in multiple, parallel language-equivalent forms. |
| Description | TextType | Description provides for a longer human-readable description of the object. This may be provided in multiple, parallel language-equivalent forms. |
| VtlScalarType | xs:string | Identifies the VTL scalar type that is to be converted to an resulting output data type. |
| DataType | CustomTypeDataType | Identifies the resulting output data type the VTL scalar type is to be converted to. If this is an SDMX data type, it must use the proper SimpleDataType enumeration value. For all other data types, a string value can be used to identify the type. |
| VtlLiteralFormat | xs:string | The format in which the literals of the VTL scalar type are expressed in the transformations. This is only needed if the format is different than the output format expressed by means of the VTL type. |
| OutputFormat | xs:string | The format the VTL scalar type has to assume (e.g. YYYY-MM-DD; see VTL specifications), both for the literals in the VTL expressions and for the conversion to the output. |
| NullValue | xs:string | The value to be produced in the output of the conversion when a component has a null value. |

### Simple Types

**CodeDataType:** CodeDataType is a restriction of the basic data types that are applicable to codes. Although some of the higher level time period formats are perimitted, it should be noted that any value which contains time (which includes a time zone offset) is not allowable as a code identifier.

Derived by restriction of SimpleDataType .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| String | A string datatype corresponding to W3C XML Schema's xs:string datatype. |
| Alpha | A string datatype which only allows for the simple aplhabetic charcter set of A-Z, a-z. |
| AlphaNumeric | A string datatype which only allows for the simple alphabetic character set of A-Z, a-z plus the simple numeric character set of 0-9. |
| Numeric | A string datatype which only allows for the simple numeric character set of 0-9. This format is not treated as an integer, and therefore can having leading zeros. |
| BigInteger | An integer datatype corresponding to W3C XML Schema's xs:integer datatype. |
| Integer | An integer datatype corresponding to W3C XML Schema's xs:int datatype. |
| Long | A numeric datatype corresponding to W3C XML Schema's xs:long datatype. |
| Short | A numeric datatype corresponding to W3C XML Schema's xs:short datatype. |
| Boolean | A datatype corresponding to W3C XML Schema's xs:boolean datatype. |
| URI | A datatype corresponding to W3C XML Schema's xs:anyURI datatype. |
| Count | A simple incrementing Integer type. The isSequence facet must be set to true, and the interval facet must be set to "1". |
| InclusiveValueRange | This value indicates that the startValue and endValue attributes provide the inclusive boundaries of a numeric range of type xs:decimal. |
| ExclusiveValueRange | This value indicates that the startValue and endValue attributes provide the exclusive boundaries of a numeric range, of type xs:decimal. |
| Incremental | This value indicates that the value increments according to the value provided in the interval facet, and has a true value for the isSequence facet. |
| ObservationalTimePeriod | Observational time periods are the superset of all time periods in SDMX. It is the union of the standard time periods (i.e. Gregorian time periods, the reporting time periods, and date time) and a time range. |
| StandardTimePeriod | Standard time periods is a superset of distinct time period in SDMX. It is the union of the basic time periods (i.e. the Gregorian time periods and date time) and the reporting time periods. |
| BasicTimePeriod | BasicTimePeriod time periods is a superset of the Gregorian time periods and a date time. |
| GregorianTimePeriod | Gregorian time periods correspond to calendar periods and are represented in ISO-8601 formats. This is the union of the year, year month, and date formats. |
| GregorianYear | A Gregorian time period corresponding to W3C XML Schema's xs:gYear datatype, which is based on ISO-8601. |
| GregorianYearMonth | A time datatype corresponding to W3C XML Schema's xs:gYearMonth datatype, which is based on ISO-8601. |
| GregorianDay | A time datatype corresponding to W3C XML Schema's xs:date datatype, which is based on ISO-8601. |
| ReportingTimePeriod | Reporting time periods represent periods of a standard length within a reporting year, where to start of the year (defined as a month and day) must be defined elsewhere or it is assumed to be January 1. This is the union of the reporting year, semester, trimester, quarter, month, week, and day. |
| ReportingYear | A reporting year represents a period of 1 year (P1Y) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingYearType. |
| ReportingSemester | A reporting semester represents a period of 6 months (P6M) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingSemesterType. |
| ReportingTrimester | A reporting trimester represents a period of 4 months (P4M) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingTrimesterType. |
| ReportingQuarter | A reporting quarter represents a period of 3 months (P3M) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingQuarterType. |
| ReportingMonth | A reporting month represents a period of 1 month (P1M) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingMonthType. |
| ReportingWeek | A reporting week represents a period of 7 days (P7D) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingWeekType. |
| ReportingDay | A reporting day represents a period of 1 day (P1D) from the start date of the reporting year. This is expressed as using the SDMX specific ReportingDayType. |
| Month | A time datatype corresponding to W3C XML Schema's xs:gMonth datatype. |
| MonthDay | A time datatype corresponding to W3C XML Schema's xs:gMonthDay datatype. |
| Day | A time datatype corresponding to W3C XML Schema's xs:gDay datatype. |
| Duration | A time datatype corresponding to W3C XML Schema's xs:duration datatype. |

**WildcardedMemberValueType:** WildcardedMemberValueType allows for an optional wildcard characters ('%') in an identifier.

Derived by restriction of xs:string .  
Regular Expression Pattern: [A-Za-z0-9\_@$-%]+

**GeoCodelistTypeType:** GeoCodelistTypeType defines an enumeration of the speicfic types of geographic codelists.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| GeographicCodelist |  |
| GeoGridCodelist |  |

**ConstraintRoleType:** ConstraintRoleType defines a list of roles for a content constraint. A constraint can state which data is present or which content is allowed for the constraint attachment.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| Allowed | The constraint contains the allowed values for attachable object. |
| Actual | The constraints contains the actual data present for the attachable object. |

**SimpleOperatorType:** SimpleOperatorType provides an enumeration of simple operators to be applied to any value.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| notEqual | (!=) - value must not be equal to the value supplied. |
| equal | (=) - value must be exactly equal to the value supplied. |

**RangeOperatorType:** RangeOperatorType provides an enumeration of range operators to be applied to an ordered value.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| greaterThanOrEqual | (>=) - value must be greater than or equal to the value supplied. |
| lessThanOrEqual | (<=) - value must be less than or equal to the value supplied. |
| greaterThan | (>) - value must be greater than the value supplied. |
| lessThan | (<) - value must be less than the value supplied. |

**TextSearchOperatorType:** TextSearchOperatorType provides an enumeration of text search operators.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| contains | The text being searched must contain the supplied text. |
| startsWith | The text being searched must start with the supplied text. |
| endsWith | The text being searched must end with the supplied text. |
| doesNotContain | The text being searched cannot contain the supplied text. |
| doesNotStartWith | The text being searched cannot start with the supplied text. |
| doesNotEndWith | The text being searched cannot end with the supplied text. |

**OrderedOperatorType:** OrderedOperatorType combines the SimpleOperatorType and the RangeOperatorType to provide a full range or operators for any ordered value.

Union of:

SimpleOperatorType, RangeOperatorType.

**TextOperatorType:**

Union of:

SimpleOperatorType, TextSearchOperatorType.

**TimeOperatorType:** TimeOperatorType derives from the OrderedOperatorType to remove the notEqual operator.

Derived by restriction of OrderedOperatorType .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| equal |  |
| greaterThanOrEqual |  |
| lessThanOrEqual |  |
| greaterThan |  |
| lessThan |  |

**UsageType:** An enumeration of optional | mandatory to indicate the usage of an attribute or measure.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| mandatory |  |
| optional |  |

**SimpleCodeDataType:** SimpleCodeDataType restricts SimpleDataType to specify the allowable data types for a simple code. The possible values are simply Alpha, AlphaNumeric, or Numeric.

Derived by restriction of SimpleDataType .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| Alpha | A string datatype which only allows for the simple aplhabetic charcter set of A-Z, a-z. |
| AlphaNumeric | A string datatype which only allows for the simple alphabetic character set of A-Z, a-z plus the simple numeric character set of 0-9. |
| Numeric | A string datatype which only allows for the simple numeric character set of 0-9. This format is not treated as an integer, and therefore can having leading zeros. |

**EpochPeriodType:** EpochPeriodType defines an enumeration of epoch period types.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| nanosecond |  |
| millisecond |  |
| microsecond |  |
| second |  |
| day |  |

**ResolvePeriodType:** ResolvePeriodType defines an enumeration of how date periods should be resolved.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| startOfPeriod |  |
| endOfPeriod |  |
| midPeriod |  |

**StandardToVtlMappingMethodType:** A simple type enumerating the standard mapping methods when converting from data structures from SDMX to VLT.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| Basic | The default mapping method. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.3.1 ("Basic Mapping"). |
| Pivot | Method for mapping multi-measure data. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.3.2 ("Pivot Mapping"). |
| Basic-A2M | The basic mapping method, using attributes to measures. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.3.3 ("From SDMX DataAttributes to VTL Measures"). |
| Pivot-A2M | The pivot mapping method, using attributes to measures. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.3.3 ("From SDMX DataAttributes to VTL Measures"). |

**ToVtlMappingMethodType:** A simple type that allows for a standard to VTL mapping method enumeration value or a string value for other mapping methods.

Union of:

StandardToVtlMappingMethodType, xs:string.

**StandardFromVtlMappingMethodType:** A simple type enumerating the standard mapping methods when converting from data structures from VTL to SDMX.

Derived by restriction of xs:string .

Enumerations:

|  |  |
| --- | --- |
| **Value** | **Documentation** |
| Basic | The default mapping method, applicable only when the VLT data structure has just one measure component. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.4.1 ("Basic Mapping"). |
| Unpivot | The mapping method to be used when the VTL data structure has more than one measure component. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.4.2 ("Unpivot Mapping"). |
| M2A | Mapping of multi-measure VTL where on measure is mapped to the SDMX primary measure and the remaining measures are mapped as data attributes. See Section 6 SDMX Standards ("SDMX Technical Notes"), 10.3.4.3 ("From VTL Measures to SDMX DataAttributes"). |

**FromVtlMappingMethodType:** A simple type that allows for standard from VTL mapping method enumeration value or a string value for other mapping methods.

Union of:

StandardFromVtlMappingMethodType, xs:string.

**CustomTypeDataType:** A simple type that allows for a SDMX simple data type enumeration value or a string value for other data types.

Union of:

SimpleDataType, xs:string.