



Business Message Standard (BMS) Shared Common Library

Release 3.1.14

09-Apr-2020, Issue 1.9



Document Summary

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1. Business Domain View

1.1. Problem Statement / Business Need

Not Applicable

1.2. Objective

The objective is to document the components that are shared by GS1 BMS Standards in order to promote interoperability across GS1 domains (e.g. GDSN, eCom). This document contains only components that are determined to be foundational to all domains within GS1.

Shared components are used to enforce GS1 Architectural Principles (e.g. keys, message structure) or have common requirements across all contexts and include.

- GS1 Keys (e.g. Party Identification)
- Document Components (Document, Response)
- Common based on “global” concepts (e.g. Contact, Currency Exchange, Name and Address).

Universal components are defined as those that can be used in all domains without context specific requirements or are built around a static concept that does not change per context (e.g. postal address, geographical coordinate, dimension).

Shared components will be contained in a separate package and will be carefully managed to ensure that any changes that are made to any component do not have a negative impact across GS1 domains. A process will be in place to move components into the shared common if necessary. This will involve approvals across GS1 domains.

1.3. Audience

The primary audience for this document are individuals assigned as GS1 Business Process Analysts, Business Requirements Groups Managers, GDD Managers, and XML System Developers who are responsible for the completion and delivery of the Business Message Standards.

1.4. References

| Reference Name | Description |
|---------------------------------------------------------------|---------------------------------------------------------------|
| GS1 Modeling Best Practices Version 0.6.0 for Publication 2.0 | GS1 Modeling Best Practices Version 0.6.0 for Publication 2.0 |
| eb Methodology | eb Methodology |

1.5. Acknowledgements

The following is a list of individuals (and their companies) who participated in the creation, review and approval of this BMS.

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| Technical Development Lead | Ewa Iwicka | GS1 Global Office |
| Peer Review | Eric Kauz, Mark Van Eeghem, Coen Janssen | GS1 Global Office |

2. Business Context

| Context Category | Value(s) |
|----------------------|----------|
| Industry | All |
| Geopolitical | All |
| Product | All |
| Process | All |
| System Capabilities | All |
| Official Constraints | None |

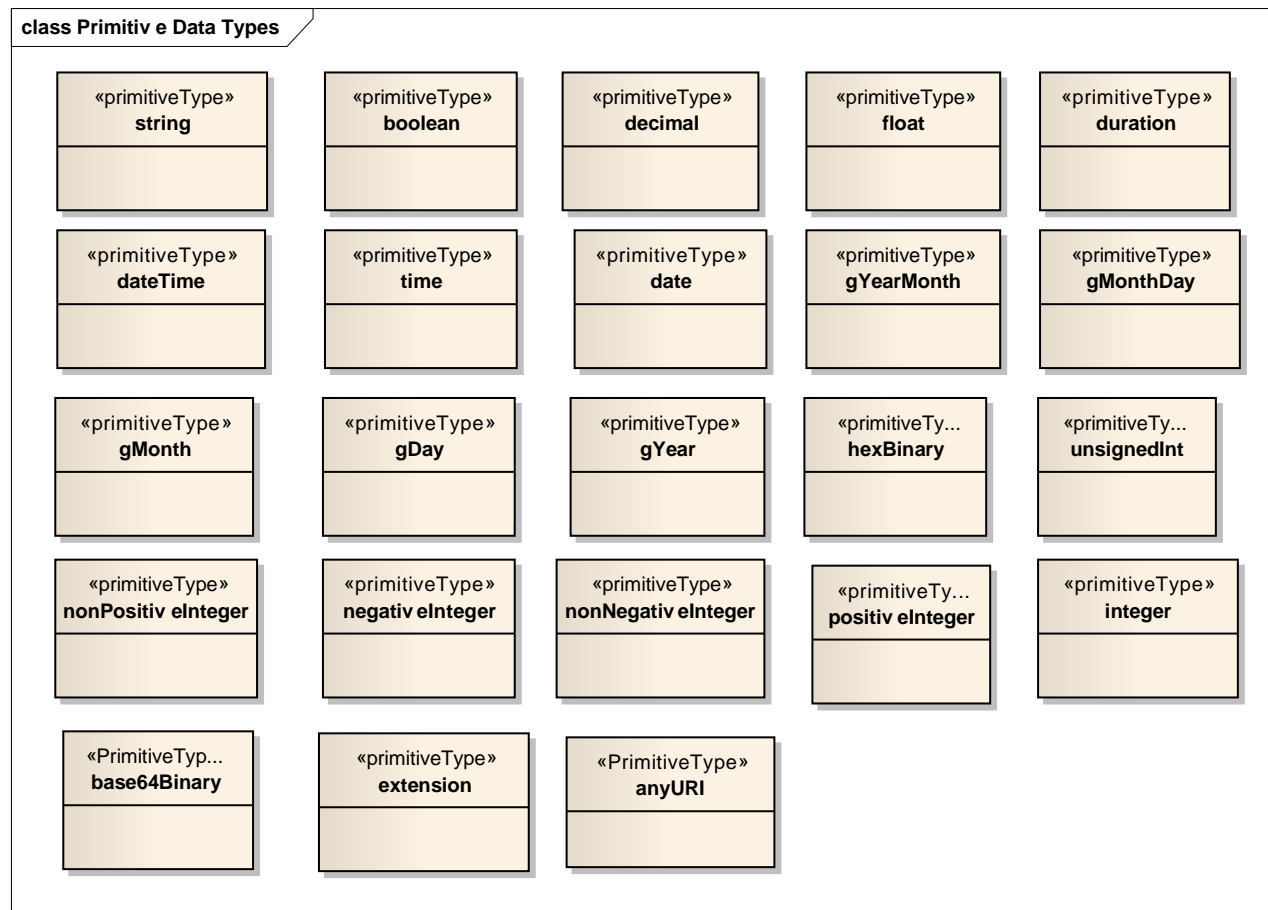
3. Business Transaction View

Not Applicable

4. Information Model (Including GDD)

4.1. Primitive Types

Class Diagram



GDD report

| Data Type | W3C Definition |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| anyURI | anyURI represents a Uniform Resource Identifier Reference (URI). An anyURI value can be absolute or relative, and may have an optional fragment identifier (i.e., it may be a URI Reference). |
| base64Binary | Represents Base64-encoded arbitrary binary data. |
| boolean | Support the mathematical concept of binary-valued logic: {true, false}. |
| decimal | A subset of the real numbers, which can be represented by decimal numerals. decimal has a lexical representation consisting of a finite-length sequence of decimal digits (#x30-#x39) separated by a period as a decimal indicator. An optional leading sign is allowed. |
| dateTime | Objects with integer-valued year, month, day, hour and minute properties, a decimal-valued second property, and a boolean time zoned property. |
| date | Intervals of exactly one day in length on the timelines of dateTime, beginning on the beginning moment of each day (in each time zone), i.e. '00:00:00', up to but not including '24:00:00' (which is identical with '00:00:00' of the next day). |
| duration | A duration of time. The lexical representation for duration is the [ISO 8601] extended format PnYn MnDTnH nMnS, where nY represents the number of years, nM the number of months, nD the number of days, 'T' is the date/time separator, nH the number of hours, nM the number of minutes and nS the number of seconds. The number of seconds can include decimal digits to arbitrary precision. |
| extension | The data type Extension corresponds to the XML Schema 'ExtensionType' which contains the 'xsd:any namespace="##any"' element to allow for adding extensions. |
| Float | Float consists of the values $m \times 2^e$, where m is an integer whose absolute value is less than 2^{24} , and e is an integer between -149 and 104, inclusive. |
| gYearMonth | gYearMonth represents a specific Gregorian month in a specific Gregorian year. The lexical representation for gYearMonth is the reduced (right truncated) lexical representation for dateTime: CCYY-MM. |
| gMonthDay | gMonthDay is a Gregorian date that recurs, specifically a day of the year such as the third of May. The lexical representation for gMonthDay is the left truncated lexical representation for date: --MM-DD. |
| gMonth | gMonth is a Gregorian month that recurs every year. The lexical representation for gMonth is the left and right truncated lexical representation for date: --MM. |
| gDay | gDay is a Gregorian day that recurs, specifically a day of the month such as the 5th of the month. The lexical representation for gDay is the left truncated lexical representation for date: ---DD . |
| gYear | gYear represents a Gregorian calendar year (e.g. 1999) |
| hexBinary | hexBinary represents arbitrary hex-encoded binary data. |
| integer | integer is ·derived· from decimal by fixing the value of ·fractionDigits· to be 0 and disallowing the trailing decimal point. |

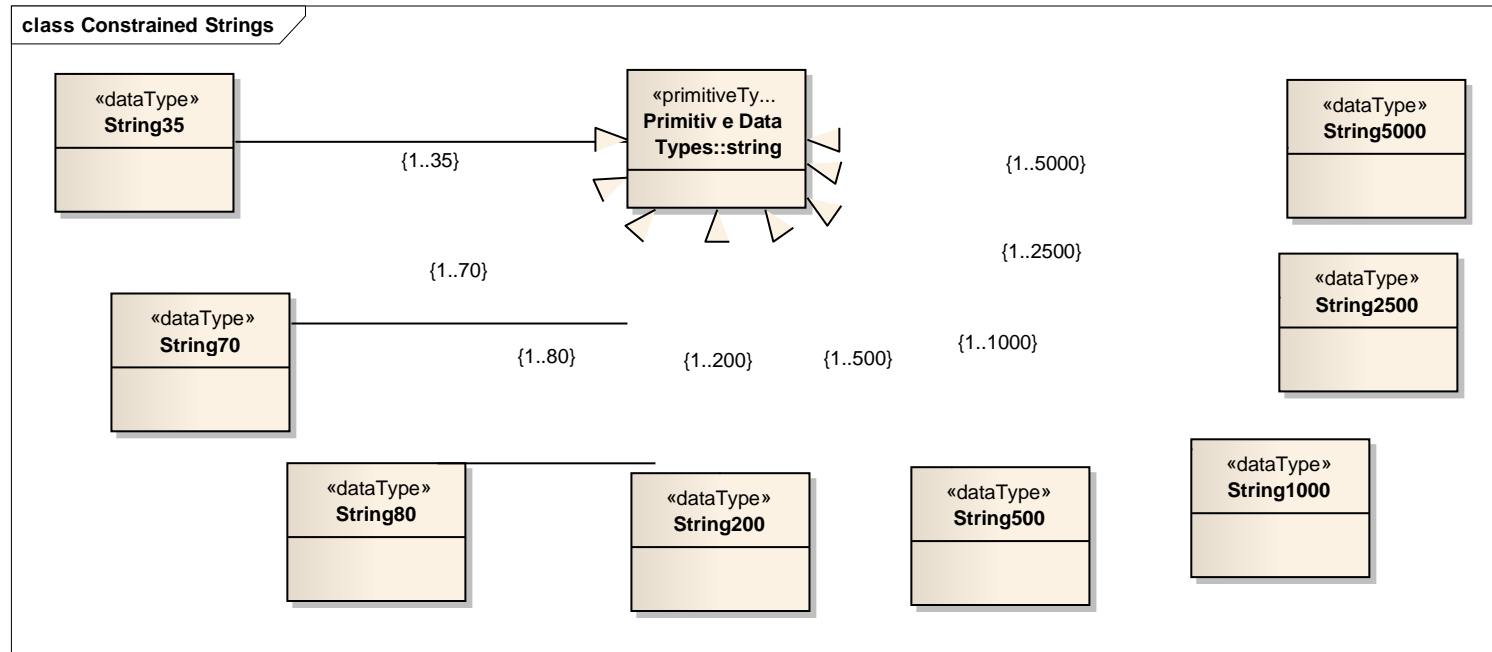
| Data Type | W3C Definition |
|--------------------|-------------------------------------------------------------------------------------------------------|
| negativeInteger | negativeInteger is ·derived· from nonPositiveInteger by setting the value of ·maxInclusive· to be -1. |
| nonPositiveInteger | nonPositiveInteger is ·derived· from integer by setting the value of ·maxInclusive· to be 0. |
| nonNegativeInteger | nonNegativeInteger is ·derived· from integer by setting the value of ·minInclusive· to be 0. |
| positiveInteger | Derived from nonNegativeInteger by setting the value of minInclusive· to be 1. |
| string | Represents character strings in XML |
| time | An instant of time that recurs every day. |
| unsignedInteger | unsignedInt is derived·from unsignedLong by setting the value of ·maxInclusive· to be 4294967295. |



Note: Source is XML Schema Part 2: Datatypes Second Edition, W3C Recommendation 28 October 2004. More details are available at the following link: <http://www.w3.org/TR/xmlschema-2/>

4.1.1. Constrained Strings

Class diagram



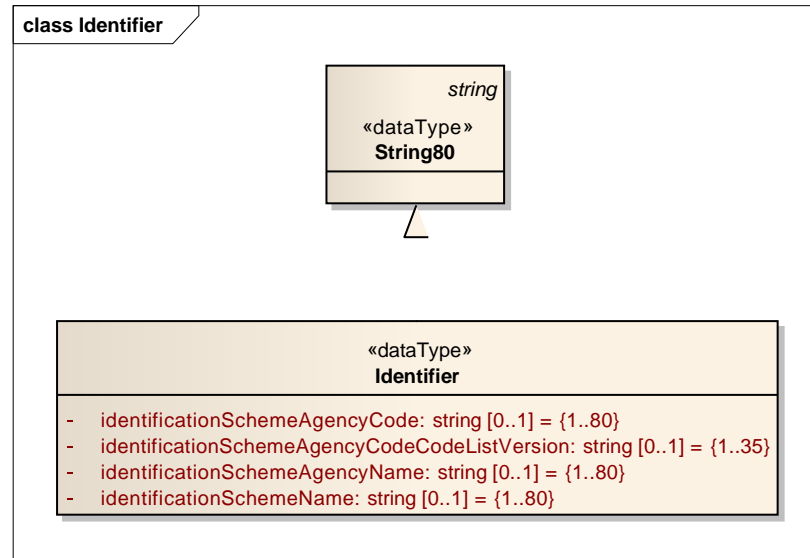
GDD report

Not applicable, these types were included for technical reasons.

4.2. Business Data Types

4.2.1. Identifier Data Type

Class Diagram



GDD Report

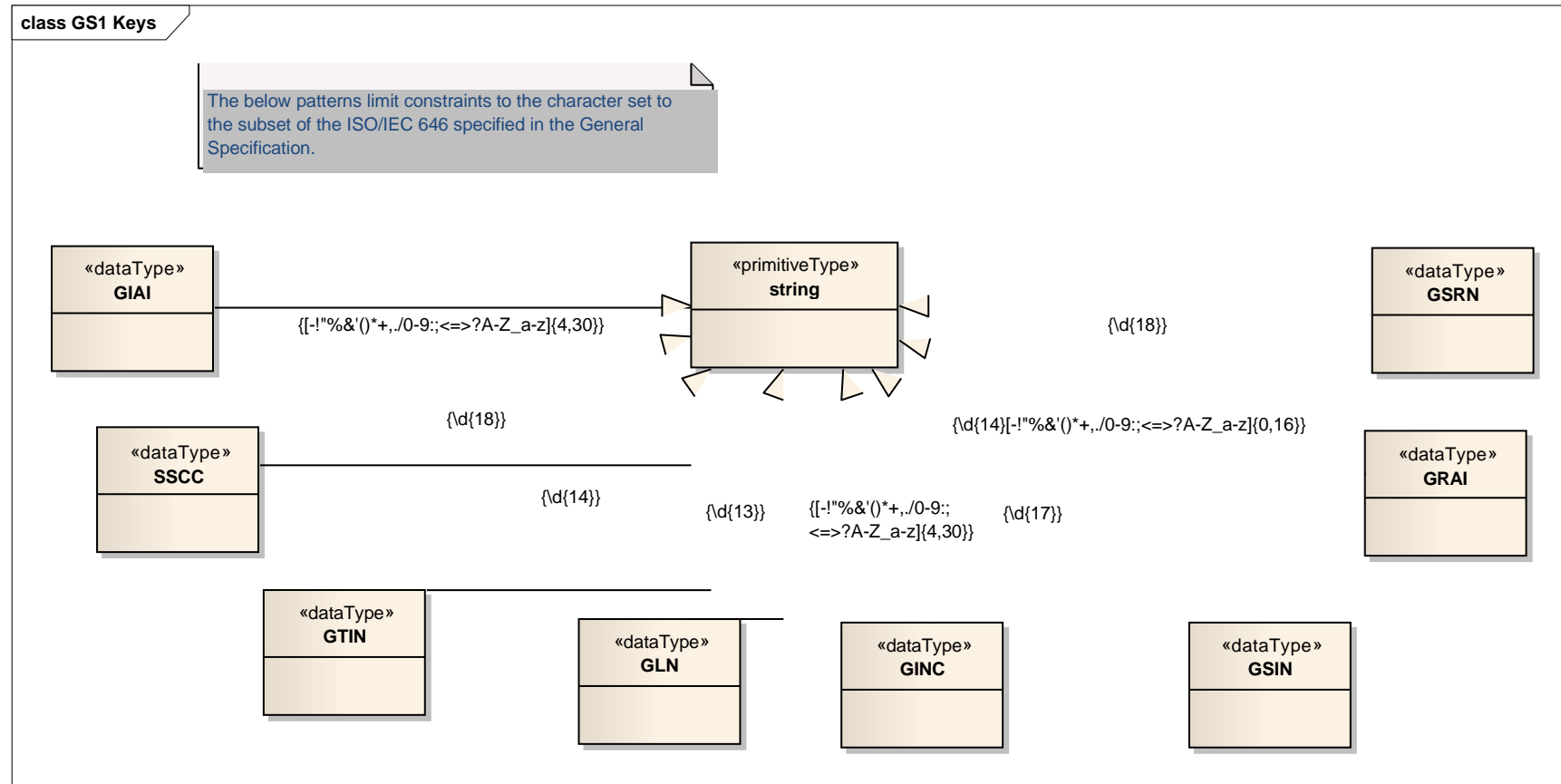
| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------|------------------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Identifier | | | | A value used to identify and distinguish uniquely, one instance of an object in an identification scheme from all other objects in the same scheme. | |
| Generalization | | String80 | | | |
| Attribute | identificationSchemeAgencyCode | string | 0..1 | The identification of the agency that maintains the identification scheme. | |
| Attribute | identificationSchemeAgencyCodeCode | string | 0..1 | The version of the code list of agency code lists. | |



| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------|--------------------------------|---------------------------|--------------|------------------------------------------------------------------|--------------|
| | ListVersion | | | | |
| Attribute | identificationSchemeAgencyName | string | 0..1 | The name of the agency that maintains the identification scheme. | |
| Attribute | identificationSchemeName | string | 0..1 | The name of the identification scheme. | |

4.2.2. GS1 Key Data Types

Class Diagram



Patterns

| Key | Pattern | Description |
|------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GIAI | <code>[!"%&'()*+,-./0-9;=<=>?A-Z_a-z]{4,30}</code> | Minimum 4, Maximum 30 alphanumeric characters restricted to A-Z (uppercase), a-z (lowercase), 0-9, and the special characters listed (e.g. %, &, etc..) ^{Note 1} |
| SSCC | <code>\d{18}</code> | Exactly 18 numeric digits |
| GTIN | <code>\d{14}</code> | Exactly 14 numeric digits |
| GLN | <code>\d{13}</code> | Exactly 13 numeric digits |
| GSIN | <code>\d{17}</code> | Exactly 17 numeric digits |
| GINC | <code>[!"%&'()*+,-./0-9;=<=>?A-Z_a-z]{4,30}</code> | Minimum 4, Maximum 30 alphanumeric characters restricted to A-Z (uppercase), a-z (lowercase), 0-9, and the special characters listed (e.g. %, &, etc..) ^{Note 1} |
| GRAI | <code>\d{14}[!"%&'()*+,-./0-9;=<=>?A-Z_a-z]{0,16}</code> | Exactly 14 numeric digits, followed by Minimum 0, Maximum 16 alphanumeric characters restricted to A-Z (uppercase), a-z (lowercase), 0-9, and the special characters listed (e.g. %, &, etc..) ^{Note 1} |
| GSRN | <code>\d{18}</code> | Exactly 18 numeric digits |



Note 1: The patterns limit constraints to the character set defined in the General Specification, which is a subset of ISO/IEC 646.

GDD Report

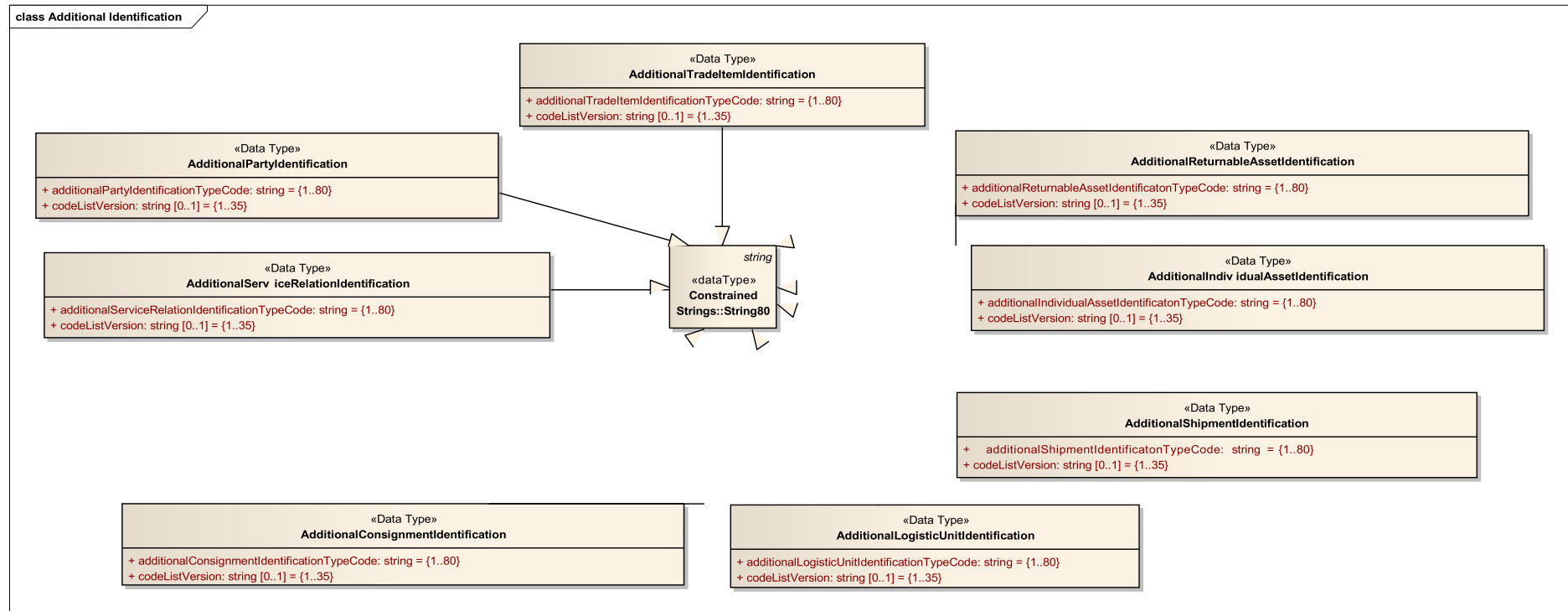
| Content | Attribute / Role | Datatype class / Secondary | Multiplicity | Definition | Requirements |
|----------------|------------------|----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| GIAI | | | | The GS1 Identification Key used to identify an Individual Asset. The key comprises a GS1 Company Prefix and Individual Asset Reference. | |
| Generalization | | string | | | |
| GINC | | | | The GS1 Identification Key used to identify a logical grouping of logistic or transport units that are assembled to be transported under one transport document (e.g. HWB). The key comprises a GS1 Company Prefix and the Freight Forwarder's or Carrier's transport reference. | |
| Generalization | | string | | | |



| Content | Attribute / Role | Datatype / Secondary class | Multiplicity | Definition | Requirements |
|----------------|------------------|----------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| GLN | | | | The Global Location Number (GLN) is the GS1 Identification Key used to identify physical locations or parties. The key is comprised of a GS1 Company Prefix, Location Reference, and Check Digit. | |
| Generalization | | string | | | |
| GRAI | | | | The GS1 Identification Key used to identify Returnable Assets. The key comprises a GS1 Company Prefix, Asset Type, Check Digit, and optional serial number. | |
| Generalization | | string | | | |
| GSIN | | | | The GS1 Identification Key used to identify a logical grouping of logistic or transport units that are assembled by the consignor (seller) for a transport Shipment from that consignor to one consignee (buyer) referencing a despatch advice and/or BOL. The key comprises a GS1 Company Prefix, Shipper Reference and Check Digit. | |
| Generalization | | string | | | |
| GSRN | | | | The GS1 Identification Key used to identify the relationship between a service provider and service recipient. The key comprises a GS1 Company Prefix, Service Reference, and Check Digit. | |
| Generalization | | string | | | |
| GTIN | | | | The GS1 Identification Key used to identify trade items. The key comprises a GS1 Company Prefix, an Item Reference and Check Digit. | |
| Generalization | | string | | | |
| SSCC | | | | The GS1 Identification Key used to identify logistics units. The key comprises an Extension digit, GS1 Company Prefix, Serial Reference, and Check Digit. | |
| Generalization | | string | | | |

4.2.3. Additional Key Data Types

Class Diagram



GDD Report: Additional Key Data Types

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|--------------------------------------------|---------------------------------------------|---------------------------|--------------|----------------------------------------------------------|--------------|
| AdditionalConsignmentIdentification | | | | Additional identification for a consignment. | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalConsignmentIdentificationTypeCode | string | 1..1 | The type of additional identification for a consignment. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain | |

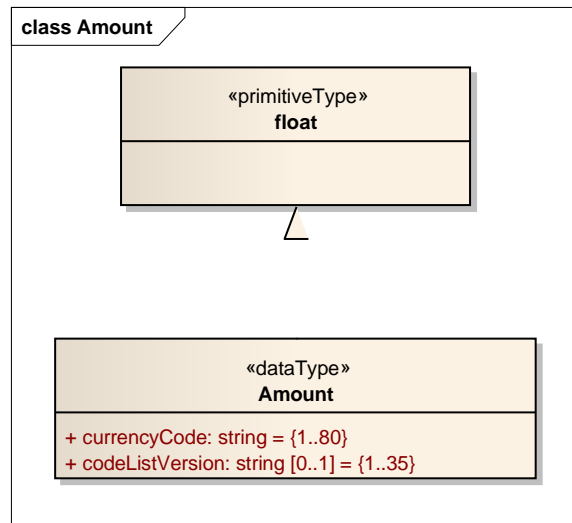
| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|------------------------------------------------|------------------------------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | | point in time. | |
| AdditionalIndividualAssetIdentification | | | | Additional identification for an individual asset. | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalIndividualAssetIdentificatonTypeCode | string | 1..1 | The type of additional identification for an individual asset. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalLogisticUnitIdentification | | | | Additional (non-SSCC) identification attached to a shipping container or shipping package and used for logistical and traceability purposes. | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalLogisticUnitIdentificationTypeCode | string | 1..1 | Additional (non-SSCC) identification attached to a shipping container or shipping package and used for logistical and traceability purposes. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalPartyIdentification | | | | A party identifier that is in addition to the GLN. | |
| Generalization | | String80 | | The identification value | |
| Attribute | additionalPartyIdentificationTypeCode | string | 1..1 | Identification of a party by use of a code in addition to the Global Location Number. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalReturnableAssetIdentification | | | | An identifier in addition to the GS1 identifier for a reusable entity owned by a company that is used for transport and storage of goods. | |
| Generalization | | String80 | | The identification value. | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|------------------------------------------------|-------------------------------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Attribute | additionalReturnableAssetIdentificatonTypeCode | string | 1..1 | An identifier in addition to the GS1 identifier for a reusable entity owned by a company that is used for transport and storage of goods. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalServiceRelationIdentification | | | | An identifier in addition to the GS1 identification used to identify the recipient of services in the context of a service relationship. | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalServiceRelationIdentificationTypeCode | string | 1..1 | TBD by workgroup | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalShipmentIdentification | | | | An identification in addition to the GS1 identification used to identify a logical grouping of logistic or transport units that are assembled by the consignor (seller) for a transport shipment from that consignor to one consignee (buyer). | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalShipmentIdentificatonTypeCode | string | 1..1 | An identification in addition to the GS1 identification used to identify a logical grouping of logistic or transport units that are assembled by the consignor (seller) for a transport shipment from that consignor to one consignee (buyer). | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| AdditionalTradeItemIdentification | | | | Additional Trade Item Identification Data type | |
| Generalization | | String80 | | The identification value. | |
| Attribute | additionalTradeItemIdentificationTypeCode | string | 1..1 | This code will be used to cross-reference | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------|--------------|
| | | | | the Vendors internal trade item number to the GTIN in a one to one relationship. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |

4.2.4. Amount Data Type

Class Diagram



GDD Report

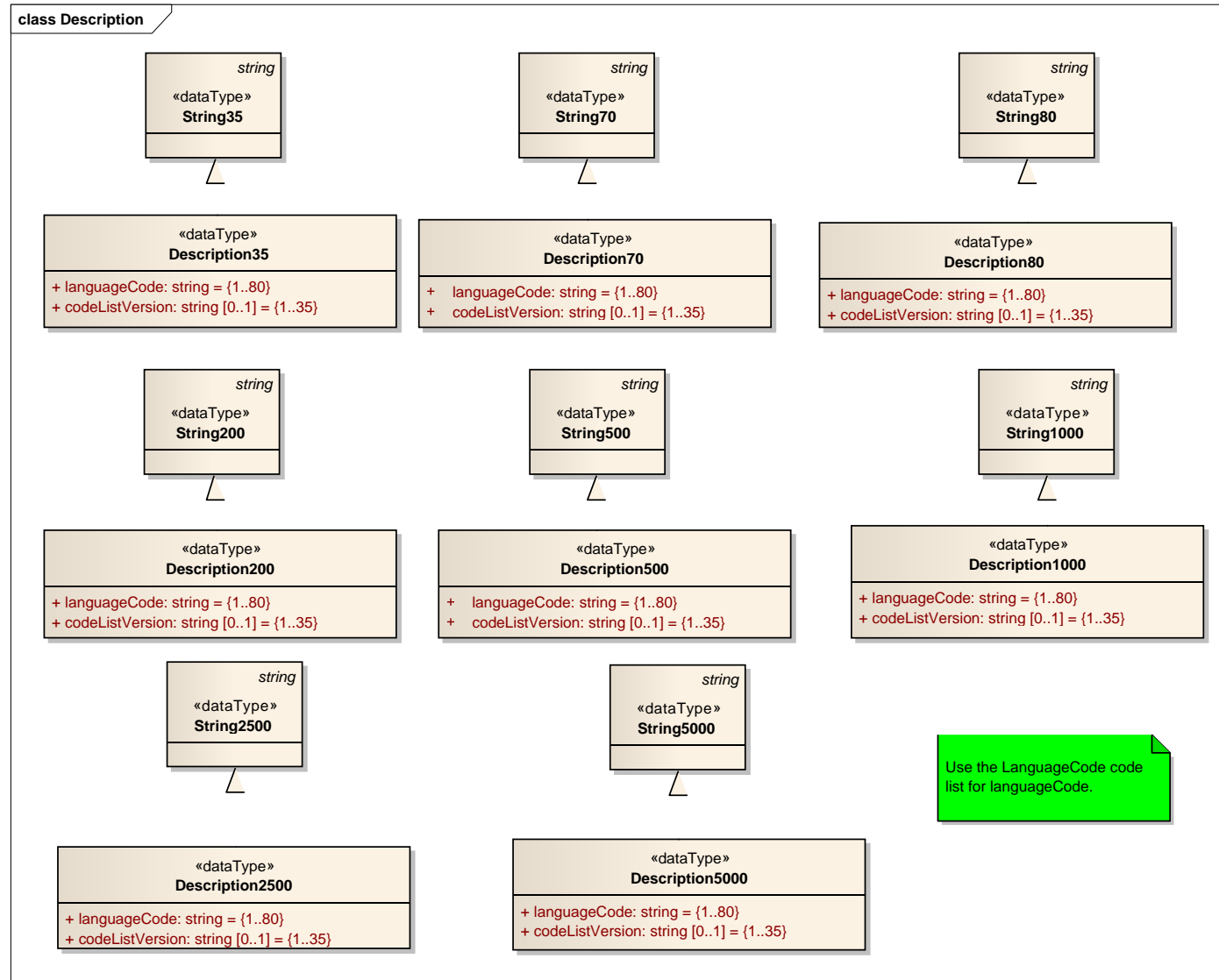
| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|------------------|---------------------------|--------------|----------------------------------------------------------------------|--------------|
| Amount | | | | A monetary amount with an associated currency code. | |
| Generalization | | float | | The amount value | |
| Attribute | currencyCode | string | 1..1 | A code representing the currency of a particular country or group of | |



| | | | | | |
|-----------|-----------------|--------|------|-----------------------------------------------------------|--|
| | | | | countries. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |

4.2.5. Description Data Types

Class Diagram



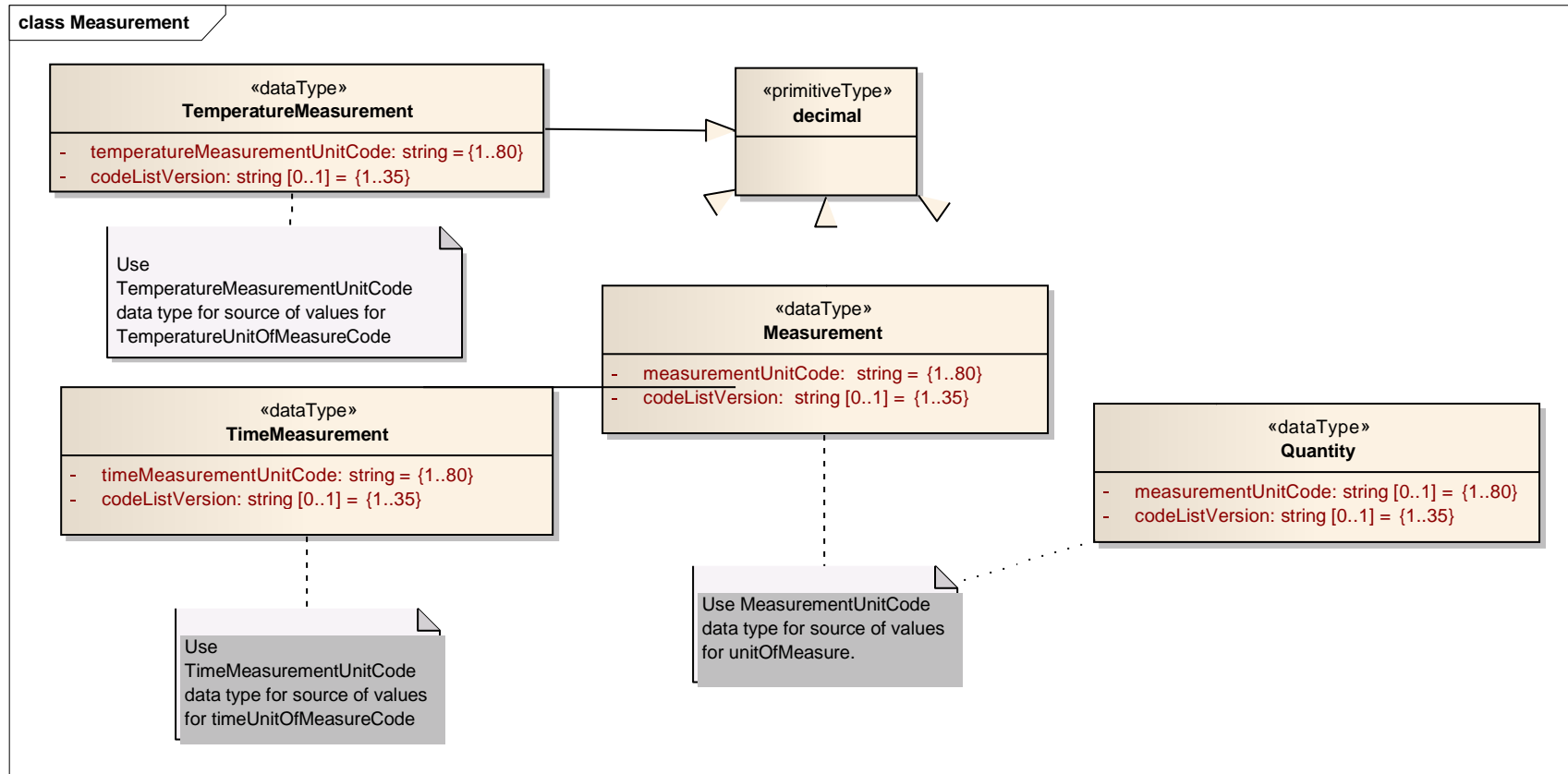
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------------|------------------|---------------------------|--------------|-------------------------------------------------------------------|--------------|
| Description1000 | | | | A string of no more than 1000 characters in a specified language. | |
| Generalization | | String1000 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description200 | | | | A string of no more than 200 characters in a specified language. | |
| Generalization | | String200 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description2500 | | | | A string of no more than 2500 characters in a specified language. | |
| Generalization | | String2500 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description35 | | | | A string of no more than 35 characters in a specified language. | |
| Generalization | | String35 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description500 | | | | A string of no more than 500 characters in a specified language. | |
| Generalization | | String500 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description5000 | | | | A string of no more than 5000 characters in a specified language. | |
| Generalization | | String5000 | | The description value. | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|------------------|---------------------------|--------------|-----------------------------------------------------------------|--------------|
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description70 | | | | A string of no more than 70 characters in a specified language. | |
| Generalization | | String70 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Description80 | | | | A string of no more than 80 characters in a specified language. | |
| Generalization | | String80 | | The description value | |
| Attribute | languageCode | string | 1..1 | A code representing the language used in the description. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |

4.2.6. Measurement and Quantity Data Types

Class Diagram



GDD Report

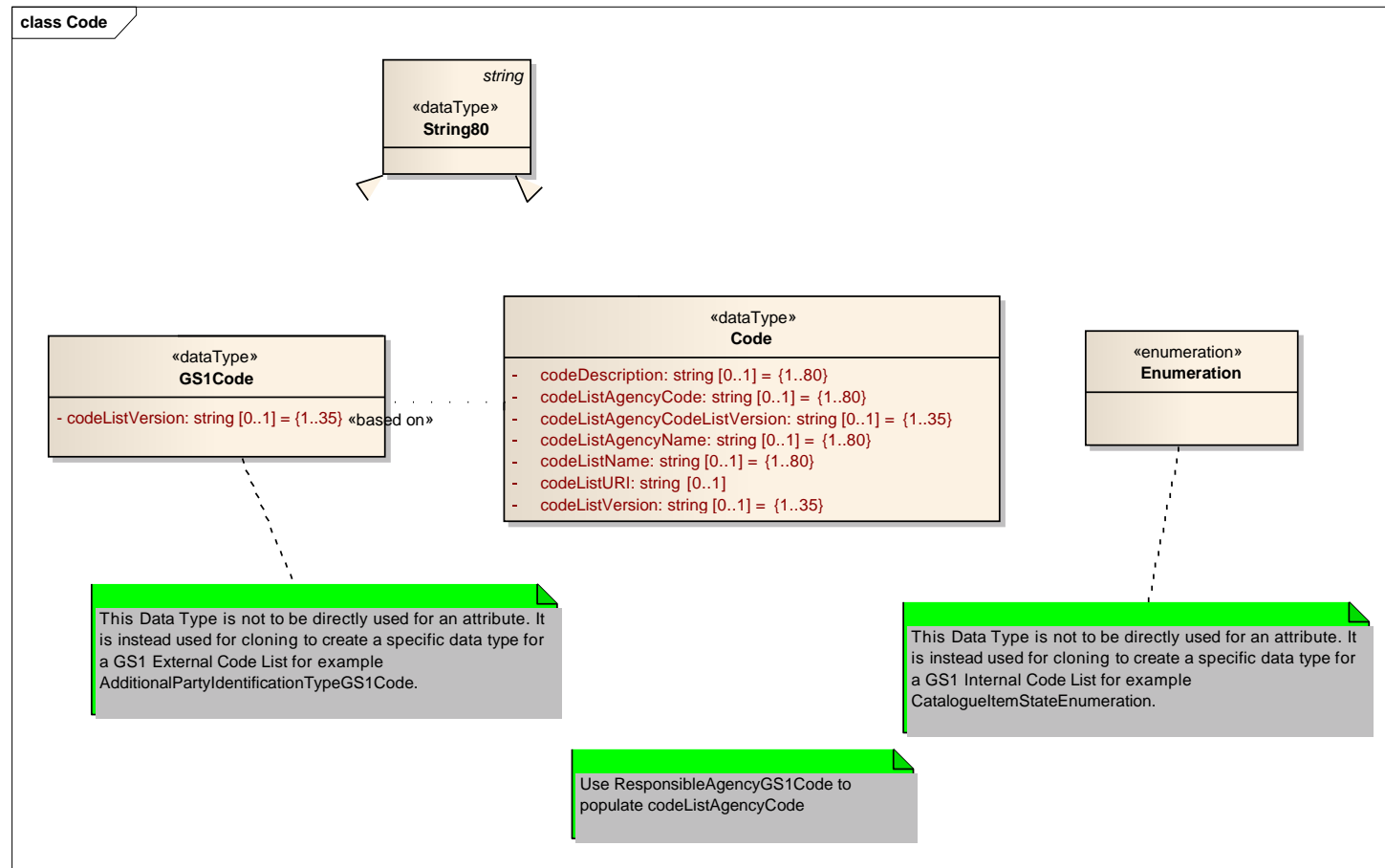
| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------|------------------|---------------------------|--------------|------------------------------------------------------|--------------|
| Measurement | | | | Provides measurement value and an associated unit of | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------------|--------------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------|--------------|
| | | | | measure code. | |
| Generalization | | decimal | | The Measurement Value. | |
| Attribute | measurementUnitCode | string | 1..1 | Any standardized, reproducible unit that can be used to measure any physical property. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| Quantity | | | | Provides quantity value and an associated unit of measure code. | |
| Generalization | | decimal | | The Quantity Value. | |
| Attribute | measurementUnitCode | string | 0..1 | Any standardized, reproducible unit that can be used to measure any physical property. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| TemperatureMeasurement | | | | Provides temperature measurement value and associated unit of measure code. | |
| Generalization | | decimal | | The Temperature Measurement Value | |
| Attribute | temperatureMeasurementUnitCode | string | 1..1 | Any standardized, reproducible unit that can be used to measure any physical property. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| TimeMeasurement | | | | Provides time measurement value and an associated unit of measure code. | |
| Generalization | | decimal | | The Time Measurement Value | |
| Attribute | timeMeasurementUnitCode | string | 1..1 | Any standardized, reproducible unit that can be used to measure any physical property. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |

4.3. Code Data Types

4.3.1. Code and GS1 Code Data Types

Class Diagram

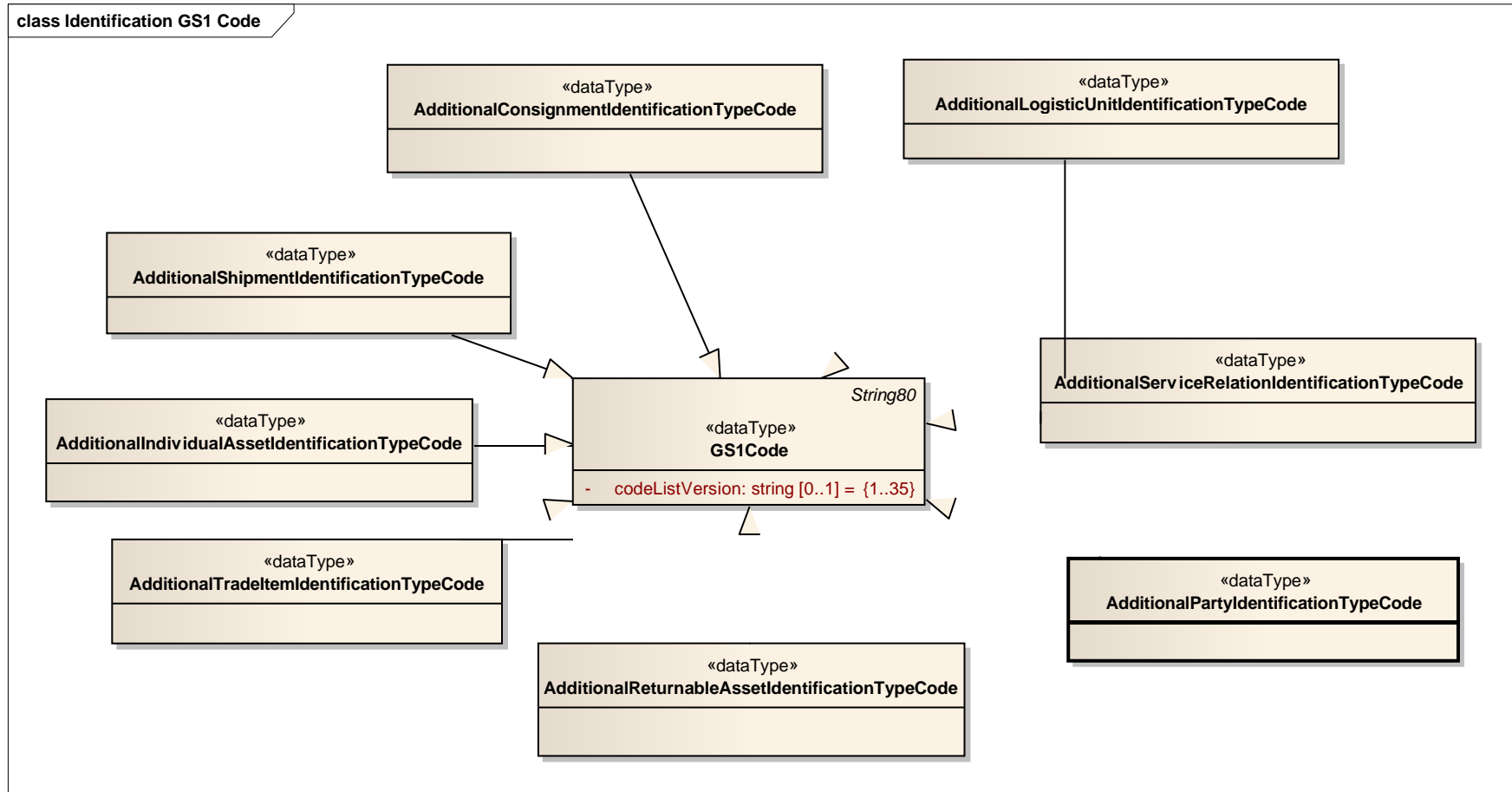


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|-------------------------------|---------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Code | | | | Generic code data type not linked to a specific code list. Besides the code value the code data type allows to specify additional information such as the responsible code list agency and the code list identification. | |
| Generalization | | String80 | | | |
| Attribute | codeDescription | string | 0..1 | A description for the code value provided. | |
| Attribute | codeListAgencyCode | string | 0..1 | A code representing the agency which manages the code list for example 5 for ISO. | |
| Attribute | codeListAgencyCodeListVersion | string | 0..1 | The snapshot of the Code List Agency code list at a certain point in time. | |
| Attribute | codeListAgencyName | string | 0..1 | A name of the agency which manages the code list for example ISO. | |
| Attribute | codeListName | string | 0..1 | The name of the code list which provides the code value. | |
| Attribute | codeListURI | string | 0..1 | A string that refers to the location of the code list which provides the code value. | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |
| GS1Code | | | | Generic code data type not linked to a specific code list. Besides the code value the GS1 code data type allows to specify the code list version. | |
| Generalization | | String80 | | | |
| Dependency | | Code | | | |
| Attribute | codeListVersion | string | 0..1 | The snapshot of the code list at a certain point in time. | |

4.3.2. Additional Identification Code Data Types

Class Diagram



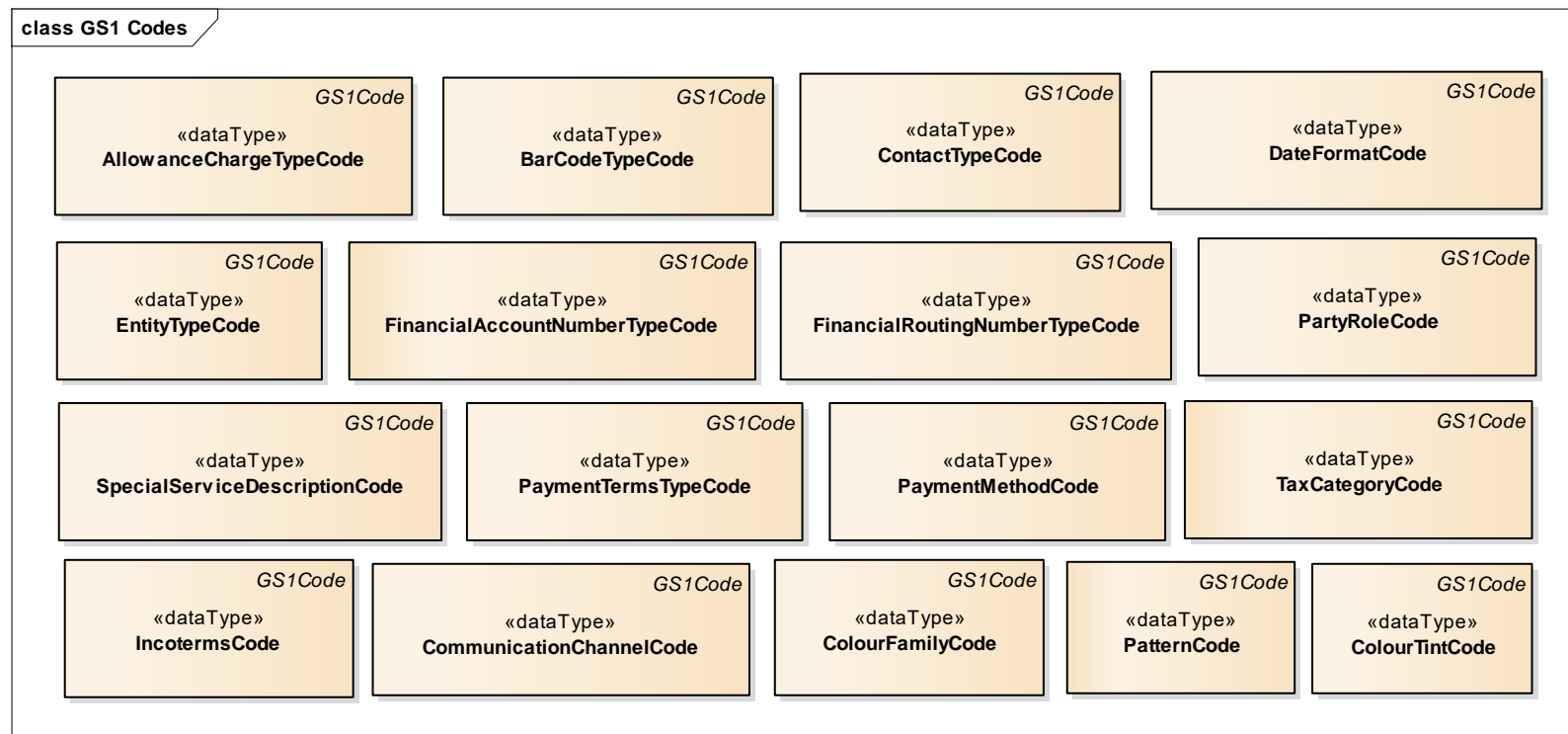
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------------------------------|------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| AdditionalConsignmentIdentificationTypeCode | | | | Code specifying an additional consignment identification type. Allowed code values are specified in GS1 Code List AdditionalConsignmentIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalDocumentIdentificationTypeCode | | | | Code specifying an additional document identification type. Allowed code values are specified in GS1 Code List AdditionalDocumentIdentificationTypeCode. | |
| AdditionalIndividualAssetIdentificationTypeCode | | | | Code specifying an additional individual asset identification type. Allowed code values are specified in GS1 Code List AdditionalIndividualAssetIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalLogisticUnitIdentificationTypeCode | | | | Code specifying a additional logistic unit identification type. Allowed code values are specified in GS1 Code List AdditionalLogisticUnitIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalPartyIdentificationTypeCode | | | | Code specifying a additional party identification type. Allowed code values are specified in GS1 Code List AdditionalPartyIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalReturnableAssetIdentificationTypeCode | | | | Code specifying an additional returnable asset identification type. Allowed code values are specified in GS1 Code List AdditionalReturnableAssetIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalServiceRelationIdentificationTypeCode | | | | Code specifying an additional individual service relation identification type. Allowed code values are specified in GS1 Code List AdditionalServiceRelationIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |
| AdditionalShipmentIdentificationTypeCode | | | | Code specifying an additional shipment identification type. Allowed code values are specified in GS1 Code List AdditionalShipmentIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------------------------|------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| AdditionalTradeItemIdentificationTypeCode | | | | Code specifying an additional trade item identification type. Allowed code values are specified in GS1 Code List AdditionalTradeItemIdentificationTypeCode. | |
| Generalization | | GS1Code | | | |

4.3.3. GS1 Code Data Types

Class Diagram



**GDD Report**

| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|--------------------------|------------------|---------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------|--------------|
| AllowanceChargeTypeCode | | | | Code specifying a type of allowance or charge. Allowed code values are specified in GS1 Code List AllowanceChargeTypeCode. | |
| Generalization | | GS1Code | | | |
| BarCodeTypeCode | | | | Code specifying a bar code type. Allowed code values are specified in GS1 Code List BarCodeTypeCode. | |
| Generalization | | GS1Code | | | |
| ColourFamilyCode | | | | Code specifying the family code of the product colour. Allowed code values are specified in GS1 Code List ColourFamilyCode. | |
| Generalization | | GS1Code | | | |
| ColourTintCode | | | | Code specifying the tint or shade code of the product colour. Allowed code values are specified in GS1 Code List ColourTintCode. | |
| Generalization | | GS1Code | | | |
| CommunicationChannelCode | | | | Code specifying a communication channel. Allowed code values are specified in GS1 Code List CommunicationChannelCode. | |
| Generalization | | GS1Code | | | |
| ContactTypeCode | | | | Code specifying a contact type. Allowed code values are specified in GS1 Code List ContactTypeCode. | |
| Generalization | | GS1Code | | | |
| DateFormatCode | | | | Code specifying a date format. Allowed code values are specified in GS1 Code List DateFormatCode. | |
| Generalization | | GS1Code | | | |
| EntityTypeCode | | | | Code specifying an entity type. Allowed code values are specified in GS1 Code List EntityTypeCode. | |
| Generalization | | GS1Code | | | |

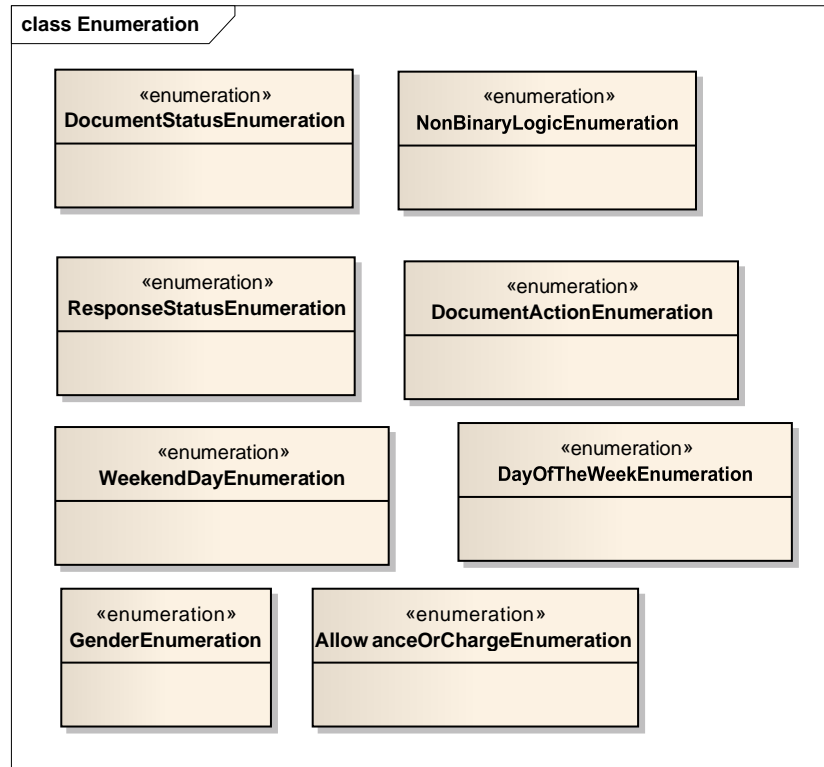


| | | | | | |
|--------------------------------|--|---------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| FinancialAccountNumberTypeCode | | | | Code specifying a financial account number type. Allowed code values are specified in GS1 Code List FinancialAccountNumberTypeCode. | |
| Generalization | | GS1Code | | | |
| FinancialRoutingNumberTypeCode | | | | Code specifying a financial routing number type. Allowed code values are specified in GS1 Code List FinancialRoutingNumberTypeCode. | |
| Generalization | | GS1Code | | | |
| IncotermsCode | | | | Code specifying delivery terms in accordance with the Internal Commercial Terms (Incoterms). Allowed code values are specified in GS1 Code List IncotermsCode. | |
| Generalization | | GS1Code | | | |
| PartyRoleCode | | | | Code specifying a party role. Allowed code values are specified in GS1 Code List PartyroleCode. | |
| Generalization | | GS1Code | | | |
| PatternCode | | | | Code specifying the pattern code of the product. Allowed code values are specified in GS1 Code List PatternCode. | |
| Generalization | | GS1Code | | | |
| PaymentTermsTypeCode | | | | Code specifying a payment terms type. Allowed code values are specified in GS1 Code List PaymentTermsTypeCode. | |
| Generalization | | GS1Code | | | |
| PaymentMethodCode | | | | Code specifying a payment method. Allowed code values are specified in GS1 Code List PaymentMethodCode. | |
| Generalization | | GS1Code | | | |
| SpecialServicesDescriptionCode | | | | Code specifying a special service. Allowed code values are specified in GS1 Code List SpecialServicesDescriptionCode. | |
| Generalization | | GS1Code | | | |
| TaxCategoryCode | | | | Code specifying a tax category. Allowed code values are specified in GS1 Code List TaxCategoryCode. | |
| | | | | | |



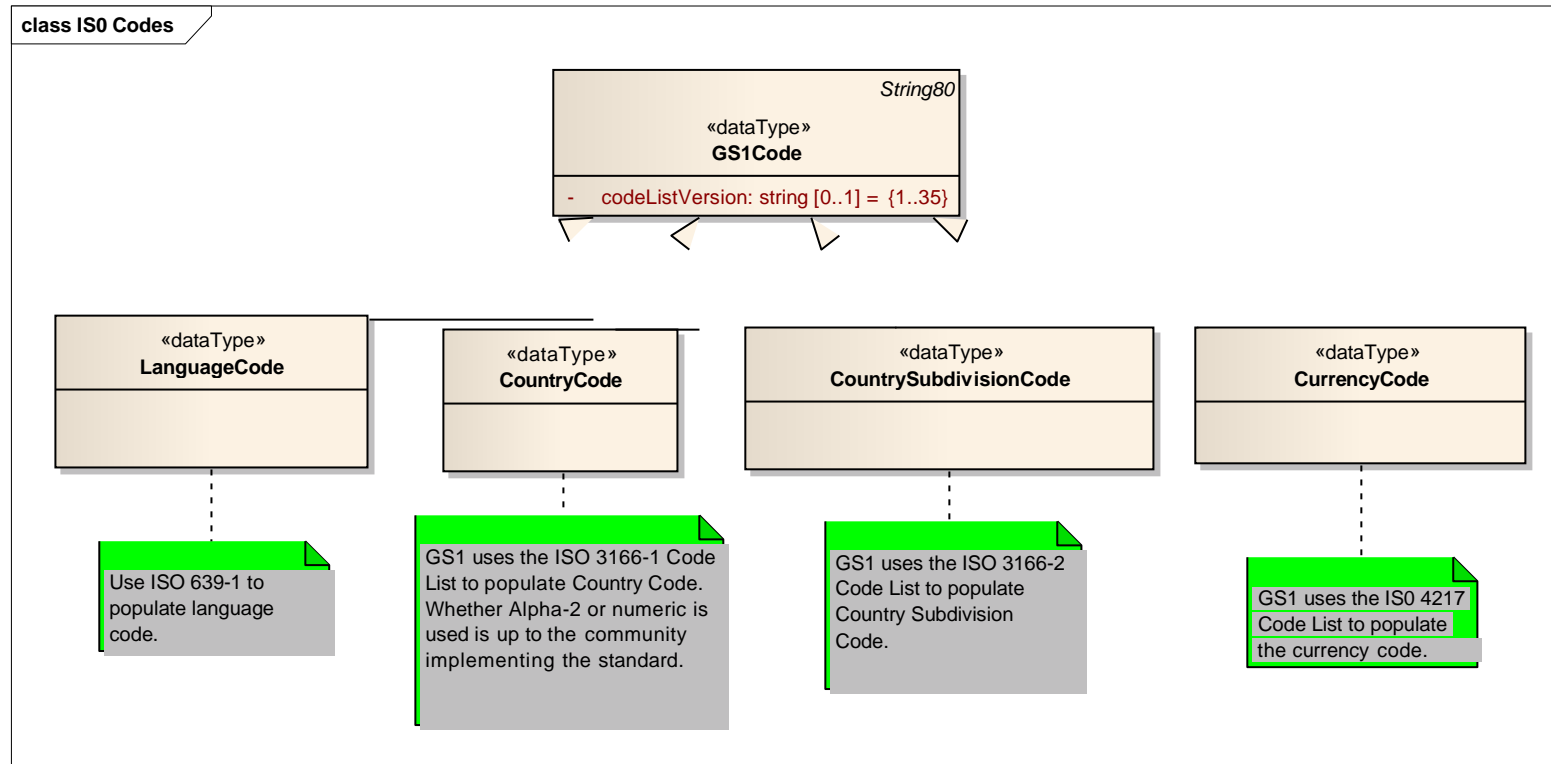
4.3.4. Enumerations

Class Diagram



4.3.5. ISO Code Data Types

Class Diagram



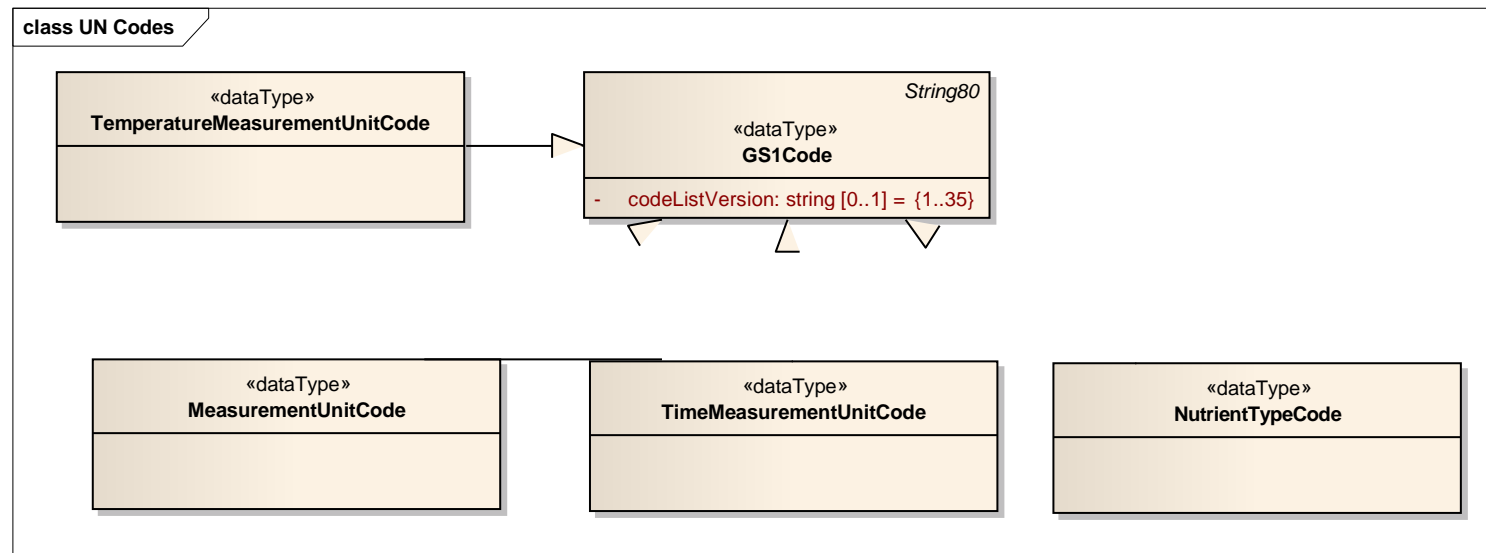
GDD report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|------------------------|------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------|--------------|
| CountryCode | | | | Code specifying a country. Allowed code values are specified in GS1 Code List CountryCode. | |
| Generalization | | GS1Code | | | |
| CountrySubdivisionCode | | | | Code specifying a country subdivision. Allowed code values are specified in GS1 Code List CountrySubdivisionCode. | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------|--------------|
| Generalization | | GS1Code | | | |
| CurrencyCode | | | | Code specifying a currency. Allowed code values are specified in GS1 Code List CurrencyCode. | |
| Generalization | | GS1Code | | | |
| LanguageCode | | | | Code specifying a language. Allowed code values are specified in GS1 Code List LanguageCode. | |
| Generalization | | GS1Code | | | |

4.3.6. UN Code Data Types

Class Diagram

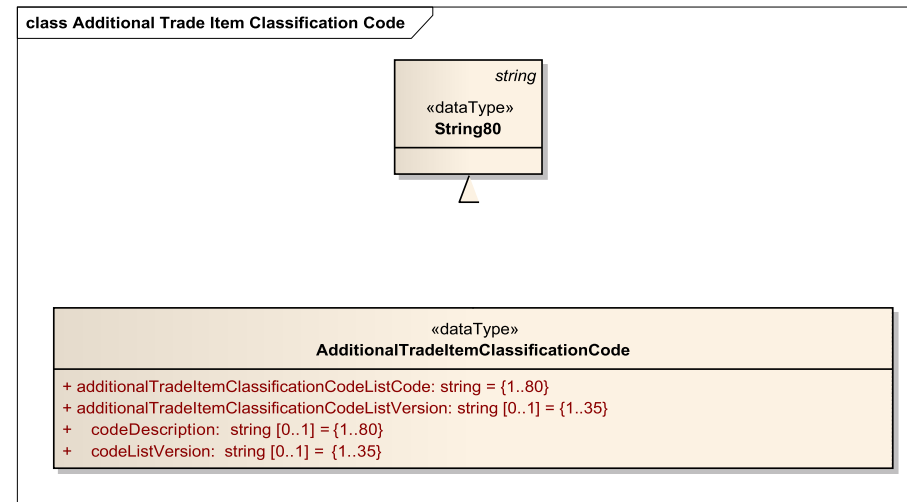


**GDD report**

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|--------------------------------|------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------|
| MeasurementUnitCode | | | | Code specifying a unit of measure. Allowed code values are specified in GS1 Code List MeasurementUnitCode. | |
| Generalization | | GS1Code | | | |
| TemperatureMeasurementUnitCode | | | | Code specifying a temperature unit of measure. Allowed code values are specified in GS1 Code List TemperatureMeasurementUnitCode. | |
| Generalization | | GS1Code | | | |
| TimeMeasurementUnitCode | | | | Code specifying a time unit of measure. Allowed code values are specified in GS1 Code List TimeMeasurementUnitCode. | |
| Generalization | | GS1Code | | | |
| NutrientTypeCode | | | | Code specifying a nutrient type. Allowed code values are specified in GS1 Code List NutrientTypeCode. | |
| Generalization | | GS1Code | | | |

4.3.7. Additional Trade Item Classification Code

Class Diagram

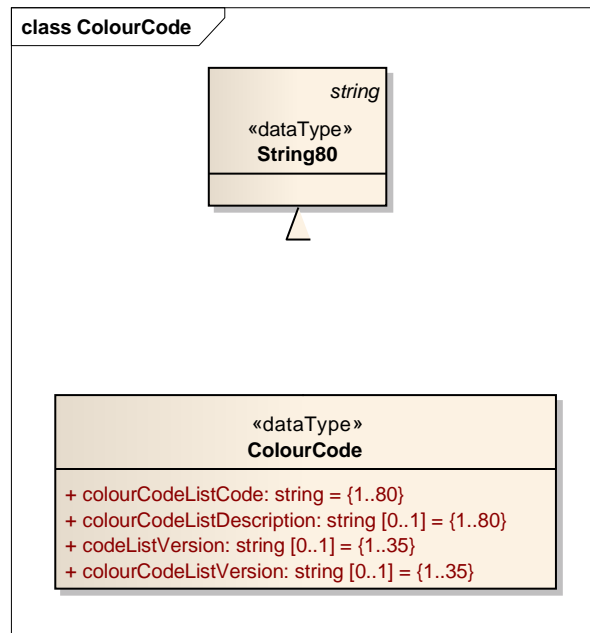


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|---------------------------------------|--------------------------------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| AdditionalTradeItemClassificationCode | | | | Code specifying an additional trade item classification other than the GS1 Global Product Classification. The applied classification scheme is specified as additional information together with the classification value. | |
| Generalization | | String80 | | Category code based on additional classification scheme provided in addition to Global Product Classification | |
| Attribute | additionalTradeItemClassificationCodeListCode | string | 1..1 | Code specifying the applied additional trade item classification scheme. Allowed values are specified in GS1 code list AdditionalTradeItemClassificationCodeListCode. | |
| Attribute | additionalTradeItemClassificationCodeListVersion | string | 0..1 | The version number of the GS1 code list AdditionalTradeItemClassificationCodeListCode. | |
| Attribute | codeDescription | string | 0..1 | A description for the code value provide by GS1. | |
| Attribute | codeListVersion | string | 0..1 | The version of the applied additional trade item classification scheme. | |

4.3.8. Colour Code

Class Diagram



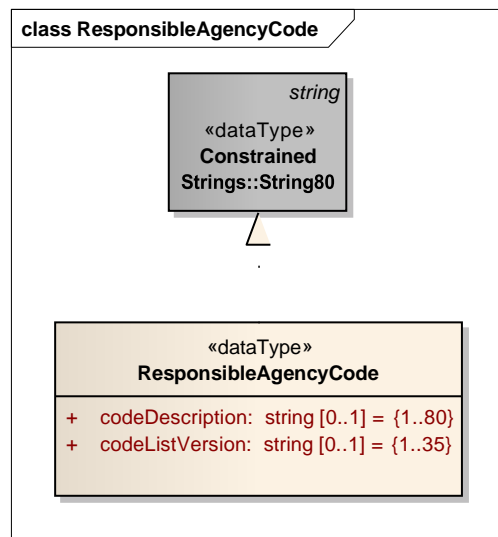
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|--------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| ColourCode | | | | A code depicting the colour of an object according to a specific code list. The applied code list is specified as additional information together with the colour code. | |
| Generalization | | String80 | | | |
| Attribute | colourCodeListCode | string | 1..1 | Code specifying a colour code list. Allowed code values are specified in GS1 Code List ColourCodeListCode. | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------|---------------------------|---------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Attribute | colourCodeListDescription | string | 0..1 | A description of the colour code list used to populate the colour code, for example National Retail Federation – Standard Colour & Size Codes. | |
| Attribute | codeListVersion | string | 0..1 | The version of the applied colour code list. | |
| Attribute | colourCodeListVersion | string | 0..1 | The version of the ColourCodeListCode code list. | |

4.3.9. Responsible Agency Code

Class Diagram

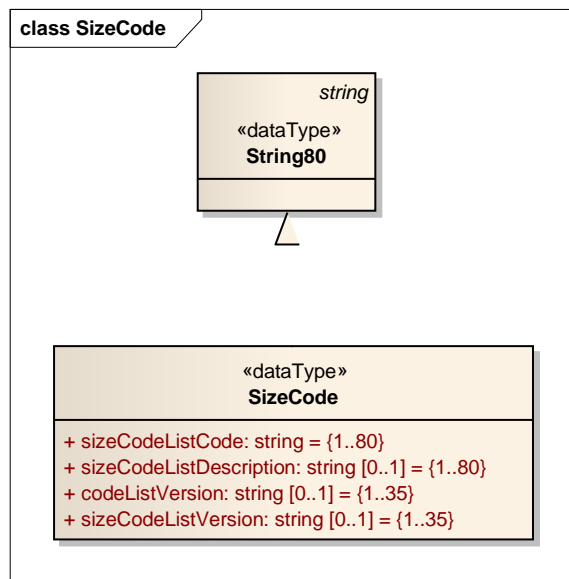


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------------------|------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------|--------------|
| ResponsibleAgencyCode | | | | Code specifying a responsible agency. Allowed code values are specified in GS1 Code List ResponsibleAgencyCode. | |
| Generalization | | String80 | | | |
| Attribute | codeDescription | string | 0..1 | A description of the code. | |
| Attribute | codeListVersion | string | 0..1 | The version of the code list. | |

4.3.10. Size Code

Class Diagram



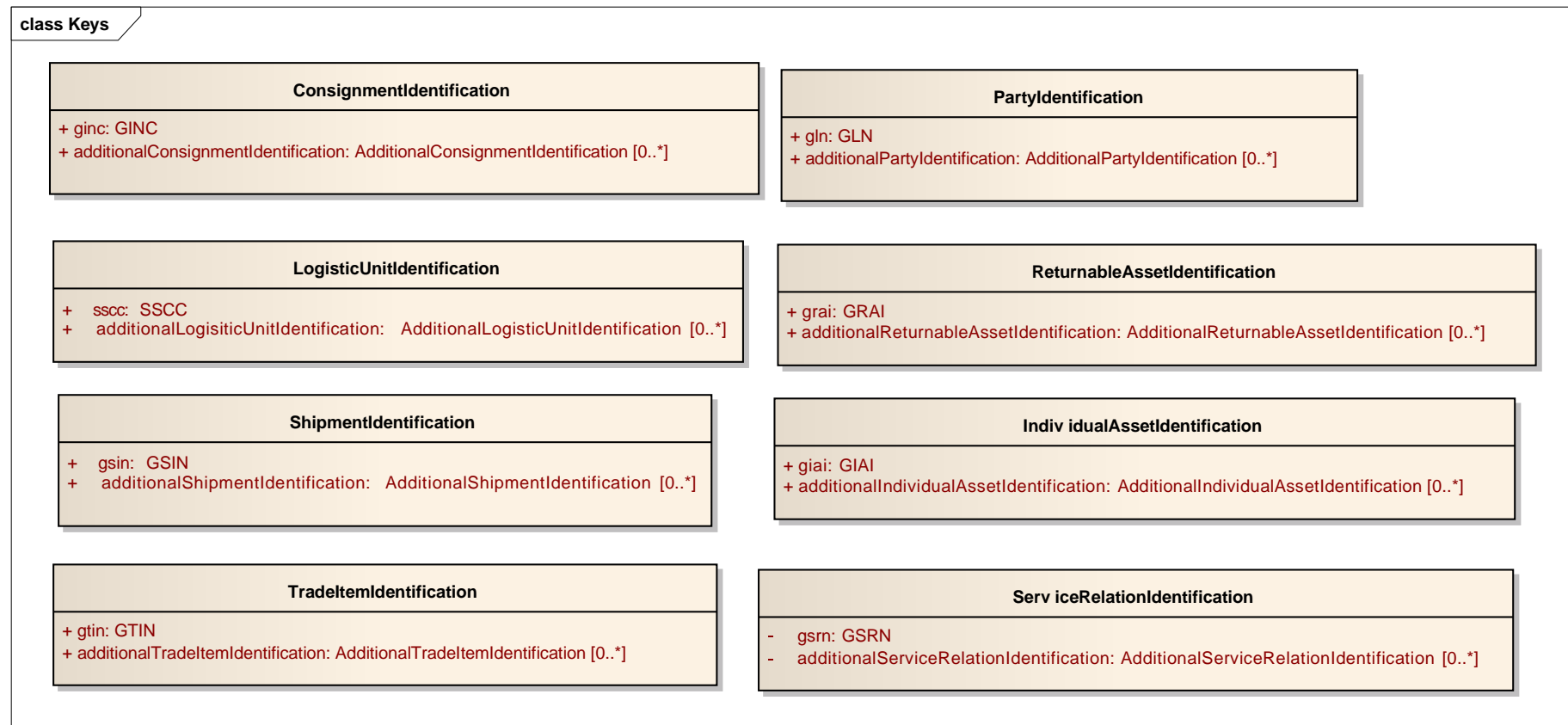
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|-------------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| SizeCode | | | | A code depicting the size of an object according to a specific code list. The applied code list is specified as additional information together with the size code. | |
| Generalization | | String80 | | A code depicting the size of an object according to a specified list of code | |
| Attribute | sizeCodeListCode | string | 1..1 | Code specifying a size code list. Allowed code values are specified in GS1 Code List SizeCodeListCode. | |
| Attribute | sizeCodeListDescription | string | 0..1 | A description of the size code list used to populate the size code for example National Retail Federation – Standard Colour & Size Codes | |
| Attribute | codeListVersion | string | 0..1 | The version of the applied size code list. | |
| Attribute | sizeCodeListVersion | string | 0..1 | The version of the SizeCodeListCode code list. | |

4.4. Components

4.4.1. GS1 Identification Components

Class Diagram



GDD Report

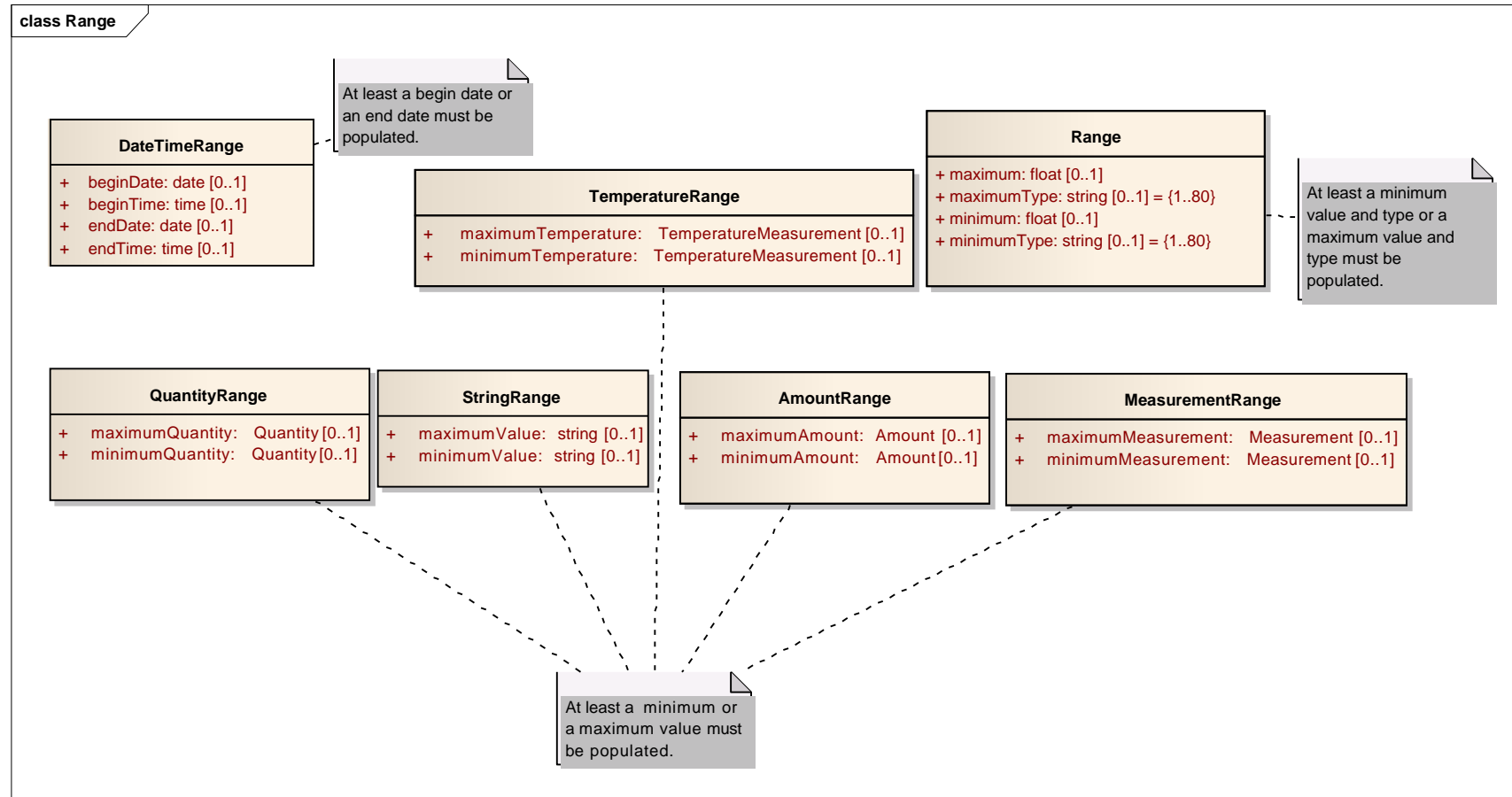
| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|---------|------------------|---------------------------|--------------|------------|--------------|
|---------|------------------|---------------------------|--------------|------------|--------------|

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|--------------------------------------|-----------------------------------------|-----------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| ConsignmentIdentification | | | | Information used to identify a consignment. | |
| Attribute | ginc | GINC | 1..1 | Global Identification Number for Consignment (GINC), the GS1 key used for the identification of consignments. | |
| Attribute | additionalConsignmentIdentification | AdditionalConsignmentIdentification | 0..* | Additional identification key used to identify a consignment. | |
| IndividualAssetIdentification | | | | Information used to identify an asset. | |
| Attribute | giai | GIAI | 1..1 | Global Individual Asset Identifier (GIAI), the GS1 key used for the identification of individual assets. | |
| Attribute | additionalIndividualAssetIdentification | AdditionalIndividualAssetIdentification | 0..* | Identifier of the asset, specified in addition to the GIAI. | |
| LogisticUnitIdentification | | | | The globally unique identification attached to a shipping container or shipping package and used for logistical and traceability purposes. | |
| Attribute | sscc | SSCC | 1..1 | Serial Shipping Container Code (SSCC), the GS1 key used for the identification of logistic units. | |
| Attribute | additionalLogisticUnitIdentification | AdditionalLogisticUnitIdentification | 0..* | Additional (non-SSCC) identification attached to a shipping container or shipping package and used for logistical and traceability purposes. | |
| PartyIdentification | | | | Information used to identify a party or location. | |
| Attribute | gln | GLN | 1..1 | Global Location Number (GLN), the GS1 key used for the identification of parties and locations. | |
| Attribute | additionalPartyIdentification | AdditionalPartyIdentification | 0..* | Identifier of the party or location, specified in addition to the GLN. | |
| ReturnableAssetIdentification | | | | Information used to identify a | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|--------------------------------------|-----------------------------------------|-----------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | | returnable asset. | |
| Attribute | grai | GRAI | 1..1 | Global Returnable Asset Identifier (GRAI), the GS1 key used for the identification of returnable assets. | |
| Attribute | additionalReturnableAssetIdentification | AdditionalReturnableAssetIdentification | 0..* | The additional identification Key used to identify returnable assets. | |
| ServiceRelationIdentification | | | | Information used to identify a service relation. | |
| Attribute | gsrn | GSRN | 1..1 | Global Service Relation Number (GSRN), the GS1 key used for the identification of relationships between service providers and service recipients. | |
| Attribute | additionalServiceRelationIdentification | AdditionalServiceRelationIdentification | 0..* | The additional key used to identify the relationship between a service provider and service recipient. | |
| ShipmentIdentification | | | | Information used to identify a shipment. | |
| Attribute | gsin | GSIN | 1..1 | Global Shipment Identification Number (GSIN), the GS1 key used for the identification of shipments. | |
| Attribute | additionalShipmentIdentification | AdditionalShipmentIdentification | 0..* | Additional identification key used to identify a shipment. | |
| TradeItemIdentification | | | | Provides the GTIN as the unique identifier for the item and optionally additional formats of non GTIN identifiers for the item. | |
| Attribute | gtin | GTIN | 1..1 | Global Trade Item Number (GTIN), the GS1 key used for the identification of trade items. | |
| Attribute | additionalTradeItemIdentification | AdditionalTradeItemIdentification | 0..* | Alternative means to the Global Trade Item Number to identify a trade item. | |

4.4.2. Range components

Class Diagram



GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|-------------|------------------|---------------------------|---------------|------------------------------------------------------------------------------------------------|--------------|
| AmountRange | | | | Provides the difference or interval between the minimum and maximum value amount including the | |

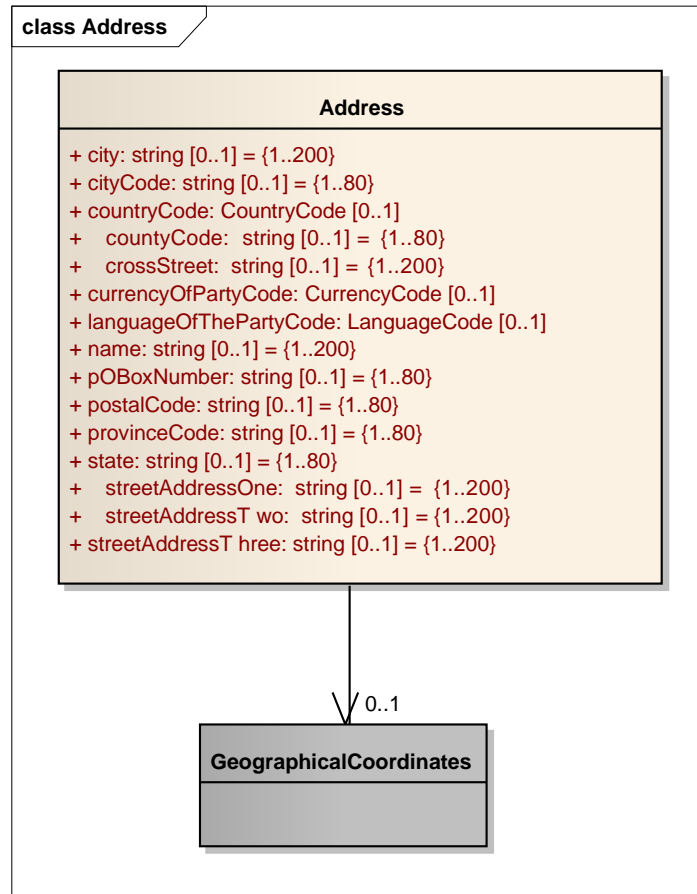
| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|-------------------------|--------------------|---------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | | associated currency. | |
| Attribute | maximumAmount | Amount | 0..1 | Defines the upper limit required to qualify for the amount. | |
| Attribute | minimumAmount | Amount | 0..1 | Defines the lower limit required to qualify for the amount. | |
| DateTimeRange | | | | Provides the difference or interval between the begin date/time and end date/time. | |
| Attribute | beginDate | date | 0..1 | Date specifying the first day for the date time range. | |
| Attribute | beginTime | time | 0..1 | Time specifying the start time for the date time range. | |
| Attribute | endDate | date | 0..1 | Date specifying the last day for the date time range. | |
| Attribute | endTime | time | 0..1 | Time specifying the end time for the date time range. | |
| MeasurementRange | | | | Provides the difference or interval between the minimum and maximum measurement including the associated unit of measure. | |
| Attribute | maximumMeasurement | Measurement | 0..1 | Specifies the upper limit of the measurement range. | |
| Attribute | minimumMeasurement | Measurement | 0..1 | Specifies the lower limit of the measurement range. | |
| QuantityRange | | | | Provides the difference or interval between the minimum and maximum value which may include the associated unit of measure. | |
| Attribute | maximumQuantity | Quantity | 0..1 | Specifies the upper limit of the quantity range. | |
| Attribute | minimumQuantity | Quantity | 0..1 | Specifies the lower limit of the quantity range. | |
| Range | | | | Provides the difference or interval between the minimum and maximum value. | |
| Attribute | maximum | float | 0..1 | Specifies the upper limit of the quantity range. | |
| Attribute | maximumType | string | 0..1 | Identifies the type of measurement the range is expressed in. | |
| Attribute | minimum | float | 0..1 | Specifies the lower limit of the quantity range. | |
| Attribute | minimumType | string | 0..1 | A code that identifies the unit of measure of the range lower limit. | |
| StringRange | | | | Provides the difference or interval between a minimum and maximum text value. | |
| Attribute | maximumValue | string | 0..1 | Specifies the upper limit of the string range. | |
| Attribute | minimumValue | string | 0..1 | Specifies the lower limit of the string range. | |



| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|-------------------------|--------------------|---------------------------|---------------|----------------------------------------------------------------------------------|--------------|
| TemperatureRange | | | | Provides the difference or interval between the minimum and maximum temperature. | |
| Attribute | maximumTemperature | TemperatureMeasurement | 0..1 | Specifies the upper limit of the temperature range. | |
| Attribute | minimumTemperature | TemperatureMeasurement | 0..1 | Specifies the lower limit of the temperature range. | |

4.4.3. Address

Class Diagram



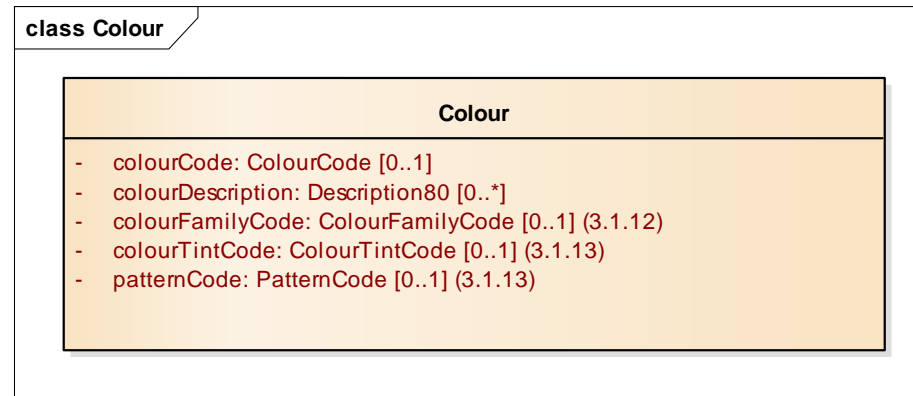
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplcity | Definition | Requirements |
|---------|------------------|---------------------------|-------------|------------------------------------------------------------------------------------|--------------|
| Address | | | | The location at which a particular organization or person may be found or reached. | |

| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|-------------|--------------------------|---------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Association | □ | GeographicalCoordinates □ | 0..1 | Geographical coordinates for the address. | |
| Attribute | city □ | string□ | 0..1 | Text specifying the name of the city. | |
| Attribute | cityCode □ | string□ | 0..1 | Identifier for a city, expressed as a short code rather than the full name | |
| Attribute | countryCode □ | CountryCode□ | 0..1 | Code specifying the country for the address. | |
| Attribute | countyCode □ | string□ | 0..1 | A code that identifies a county. A county is a territorial division in some countries, forming the chief unit of local administration. In the US, a county is a political and administrative division of a state. □ | |
| Attribute | crossStreet □ | string□ | 0..1 | A street intersecting a main street (usually at right angles) and continuing on both sides of it □ | |
| Attribute | currencyOfPartyCode □ | CurrencyCode□ | 0..1 | Code specifying the currency of an addressed party. | |
| Attribute | languageOfThePartyCode □ | LanguageCode□ | 0..1 | Code specifying the language of an addressed party. | |
| Attribute | name □ | string□ | 0..1 | The name of the party expressed in text. □ | |
| Attribute | pOBoxNumber □ | string□ | 0..1 | The number that identifies a PO box. A PO box is a box in a post office or other postal service location assigned to an organization where postal items may be kept. □ | |
| Attribute | postalCode □ | string□ | 0..1 | Text specifying the postal code for an address. | |
| Attribute | provinceCode □ | string□ | 0..1 | Text specifying a province in abbreviated format. | |
| Attribute | state □ | string□ | 0..1 | One of the constituent units of a nation having a federal government. □ | |
| Attribute | streetAddressOne □ | string□ | 0..1 | The first free form line of an address, This first part is printed on paper as the first line below the name. For example, the name of the street and the number in the street or the name of a building. □ | |
| Attribute | streetAddressTwo □ | string□ | 0..1 | The second free form line of an address, This second part is printed on paper as the second line below the name. The second free form line complements the first free form line to locate the party e.g. floor number, name of a building, suite number.□ | |
| Attribute | streetAddressThree | string | 0..1 | The third free form line of an address. This third part is printed on paper as the third line below the name. The third free form line complements the first and second free form lines where necessary. | |

4.4.4. Colour

Class Diagram



GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|---------------|---------------------|---------------------------|--------------|----------------------------------------------------------------|--------------|
| Colour | | | | Information specifying a colour in text and / or coded format. | |
| Attribute | colourCode □ | ColourCode□ | 0..1 | Information specifying a colour in text and / or coded format. | |
| Attribute | colourDescription □ | Description80□ | 0..* | A description of a colour of an object. | |
| Attribute | colourFamilyCode | ColourFamilyCode | 0..1 | Indicates the family code of the product colour. | |
| Attribute | colourTintCode | ColourTintCode | 0..1 | Indicates the tint or shade code of the product colour. | |
| Attribute | patternCode | PatternCode | 0..1 | Indicates the pattern code of the product. | |

4.4.5. Communication Channel

Class Diagram

class CommunicationChannel

CommunicationChannel

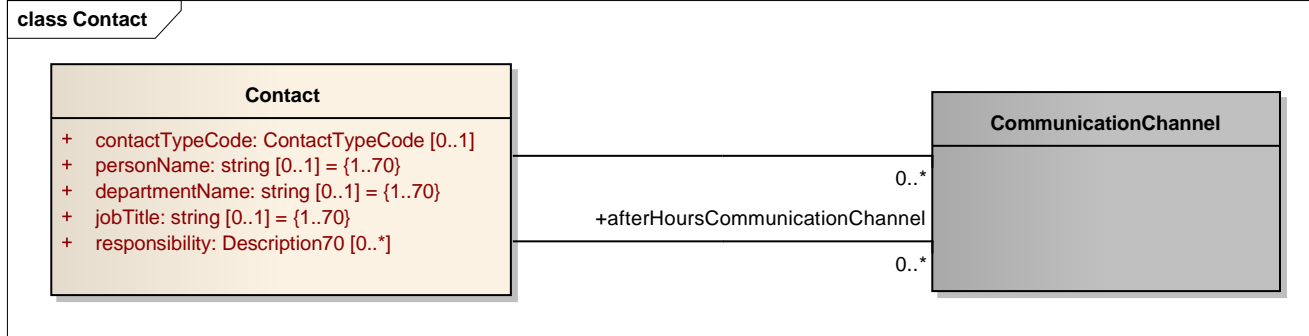
- + communicationChannelCode: CommunicationChannelCode
- + communicationValue: string = {1..200}
- + communicationChannelName: string [0..1] = {1..200}
- + isCommunicationChannelPreferred: NonBinaryLogicEnumeration [0..1] (3.1.14)

GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multipl icity | Definition | Requirements |
|-----------------------------|---------------------------------|---------------------------|------------------|--------------------------------------------------------------------------------------------------------------------|--------------|
| CommunicationChannel | | | | The channel or manner in which a communication can be made, such as telephone or email. | |
| Attribute | communicationChannelCode | CommunicationChannelCode | 1..1 | Code specifying the type of communication channel, for example TELEPHONE. | |
| Attribute | communicationValue | string | 1..1 | Text identifying the endpoint for the communication channel, for example a telephone number or an e-mail address. | |
| Attribute | communicationChannelName | string | 0..1 | The name of a specific communication channel for example Facebook, Twitter, etc. | |
| Attribute | isCommunicationChannelPreferred | NonBinaryLogicEnumeration | 0..1 | To show whether this is the preferred contact method by the supplier when there is more than one means of contact. | |

4.4.6. Contact

Class Diagram



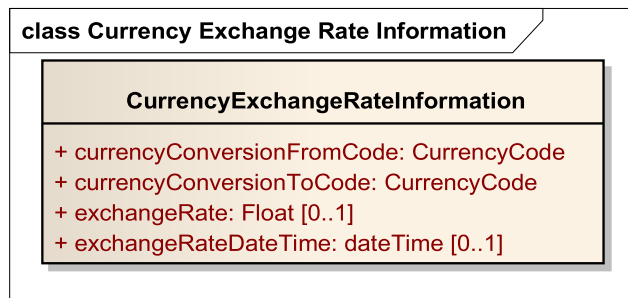
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------|--------------|
| Contact | | | | Information on an individual or department acting as point of contact for an organisation. | |
| Association | | CommunicationChannel | 0..* | The channel or manner in which a communication can be made with the contact, such as telephone or email. | |

| | | | | | |
|-------------|--------------------------------|----------------------|------|---------------------------------------------------------------------------------------------------------|--|
| Association | afterHoursCommunicationChannel | CommunicationChannel | 0..* | The channel or manner in which a communication can be made with the contact after regular office hours. | |
| Attribute | contactTypeCode | ContactTypeCode | 0..1 | A code determining the role of the contact for example Dangerous Goods 24 Hour Contact. | |
| Attribute | personName | string | 0..1 | The name of the individual that can be contacted to provide additional information | |
| Attribute | departmentName | string | 0..1 | The name of the department that can be contacted to provide additional information | |
| Attribute | jobTitle | string | 0..1 | The job title of the person that can be contacted | |
| Attribute | responsibility | Description70 | 0..* | Text further specifying the area of responsibility of the trade contact | |

4.4.7. Currency Exchange Rate Information

Class Diagram



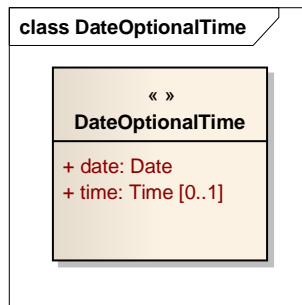
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------------------------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| CurrencyExchangeRateInformation | | | | Provides the currency exchange rate information. Rate at which one currency may be converted into another. Generally, one unit of the home currency is expressed in terms of another currency. For example, a North American bank may quote the exchange rate between the dollar and the Euro as the number of | |

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-----------|----------------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| | | | | dollars needed to buy one Euro. | |
| Attribute | currencyConversionFromCode | CurrencyCode | 1..1 | ISO Code for the currency from which an amount is converted | |
| Attribute | currencyConversionToCode | CurrencyCode | 1..1 | ISO Code for the currency to which an amount is converted | |
| Attribute | exchangeRate | float | 0..1 | The price of one currency in terms of another, that is, the number of units of one currency that may be exchanged for one unit of another currency. | |
| Attribute | exchangeRateDateTime | dateTime | 0..1 | The date as of which the currency exchange rate is valid. | |

4.4.8. Date Optional Time

Class Diagram

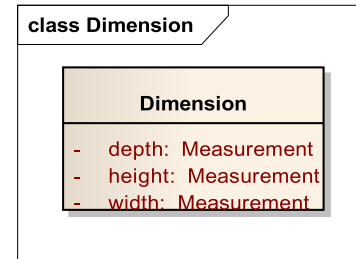


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|------------------|------------------|---------------------------|--------------|--------------------------------------------------------------|--------------|
| DateOptionalTime | | | | Provides a date with the optional ability to provide a time. | |
| Attribute | date | date | 1..1 | The specification of a day as calendar date. | |
| Attribute | time | time | 0..1 | The specification of a point in time during the day. | |

4.4.9. Dimension

Class Diagram

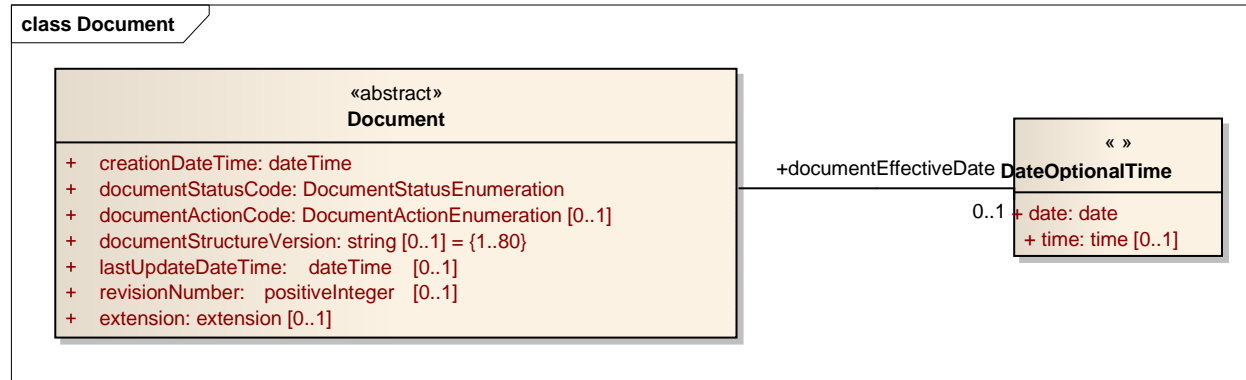


Dimension

| Content | Attribute / Role | Datatype /Secondary class | Multipli city | Definition | Requirements |
|-----------|------------------|---------------------------|------------------|------------------------------------------------------------------------------------------------------------|--------------|
| Dimension | | | | Provides the length, width, and depth of an item with their associated unit of measure. | |
| Attribute | depth | Measurement | 1..1 | Measurement of the distance between the front and the back. | |
| Attribute | height | Measurement | 1..1 | The vertical dimension from the lowest extremity to the highest extremity. | |
| Attribute | width | Measurement | 1..1 | The measurement of the extent of something from side to side. Width is the measurement from left to right. | |

4.4.10. Document

Class Diagram



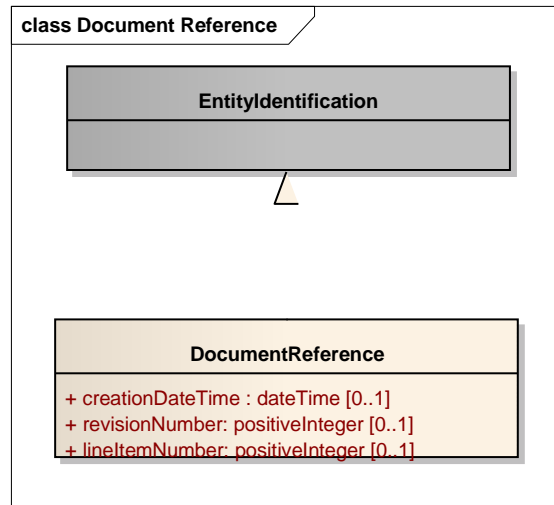
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------|--------------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------|--------------|
| Document | | | | Used to specify basic information about the content of the message including version number, creation date and time. | |
| Attribute | creationDateTime | dateTime | 1..1 | Date and time when the document was created. | |
| Attribute | documentStatusCode | DocumentStatusEnumeration | 1..1 | Indicates if the document is a copy or an original. | |
| Attribute | documentActionCode | DocumentActionEnumeration | 0..1 | Code specifying the action to be taken in the system of the recipient using the information in the document. | |
| Attribute | documentStructureVersion | string | 0..1 | Specification of the version of the standard on which the structure of the document is based, for example 3.0. | |
| Attribute | lastUpdateDateTime | dateTime | 0..1 | Date and time when the document was last updated. | |
| Attribute | revisionNumber | positiveInteger | 0..1 | Number to be used for identification and referencing of subsequent updates to a business document. | WR 12-153 |
| Association | documentEffectiveDate | DateOptionalTime | 0..1 | The date that the document becomes effective from commercial or legal point of view. | WR 12-265 |
| Extension | | extension | 0..1 | Extension point for inclusion of additional information | |

| | | | | | |
|--|--|--|--|---------------------------------------|--|
| | | | | through an extension to the document. | |
|--|--|--|--|---------------------------------------|--|

4.4.11. Document Reference

Class Diagram

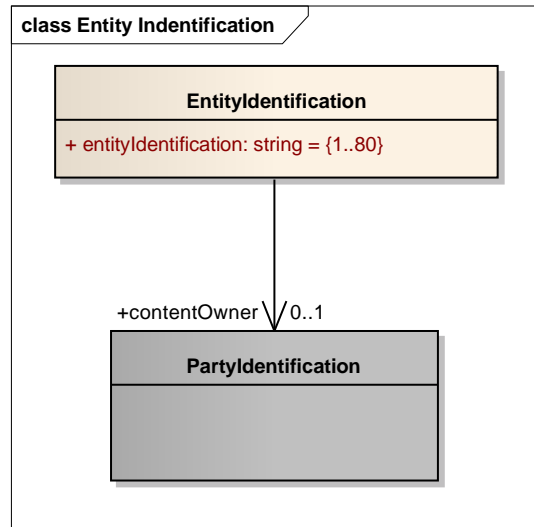


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------|------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------|--------------|
| DocumentReference | | | | Information identifying a document and potentially a line within the document for referencing purposes. | |
| Generalization | | EntityIdentification | | Identification of the referenced business document. | |
| Attribute | creationDateTime | dateTime | 0..1 | Date and time of creation of the referenced document. | |
| Attribute | revisionNumber | positiveInteger | 0..1 | Number to be used for identification and referencing of subsequent updates to a business document. | WR 12-153 |
| Attribute | lineItemNumber | positiveInteger | 0..1 | Number specifying a line in the referenced document. | |

4.4.12. Entity Identification

Class Diagram

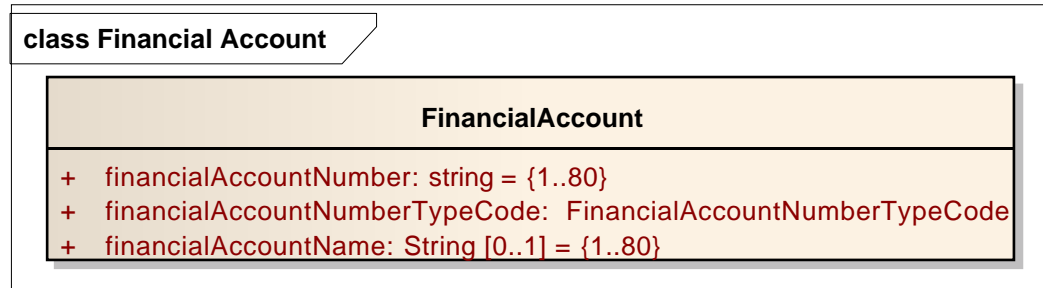


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|----------------------|----------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------------|--------------|
| EntityIdentification | | | | Information identifying a piece of information, such as an object or document. | |
| Association | contentOwner | PartyIdentification | 0..1 | Uniquely identifies the creator of a piece of information. | |
| Attribute | entityIdentification | string | 1..1 | The unique identifier of the piece of information, such as the object identification or the document identification. | |

4.4.13. Financial Account

Class Diagram

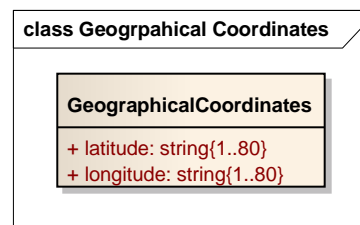


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------|--------------------------------|--------------------------------|--------------|------------------------------------------------------------------------------------|--------------|
| FinancialAccount | | | | Information identifying a client's financial account with a financial institution. | |
| Attribute | financialAccountNumber | string | 1..1 | Text specifying the number of the financial account. | |
| Attribute | financialAccountNumberTypeCode | FinancialAccountNumberTypeCode | 1..1 | Identifies the type of financial account number. | |
| Attribute | financialAccountName | string | 0..1 | Text specifying the name of the financial account. | |

4.4.14. Geographical Coordinates

Class Diagram

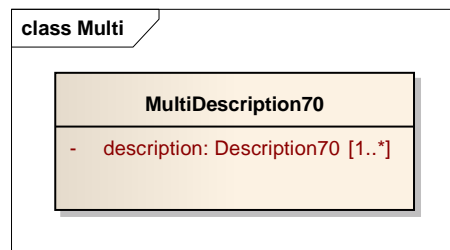


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|--------------------------------|------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| GeographicalCoordinates | | | | The longitude and latitude of a geographical location. | |
| Attribute | latitude | string | 1..1 | Angular distance North or South from the earth's equator measured through 90 degrees. | |
| Attribute | longitude | string | 1..1 | The arc or portion of the earth's equator intersected between the meridian of a given place and the prime meridian and expressed either in degrees or in time | |

4.4.15. Multi Description 70

Class Diagram

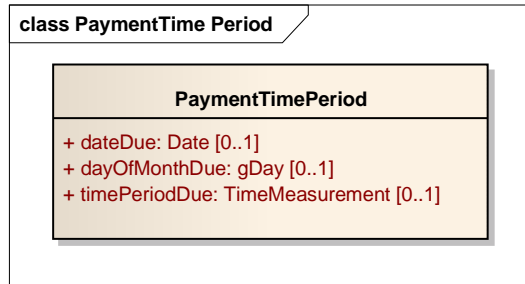


GDD Report

| Content | Attribute / Role | Datatype class /Secondary | Multiplicity | Definition | Requirements |
|---------------------------|------------------|---------------------------|--------------|---------------------------------------------------------------------------------------------------------------|--------------|
| MultiDescription70 | | | | Provides multiple iterations of descriptive text with a maximum length of 70 and an associated language code. | |
| Attribute | description | Description70 | 1..* | Text content of the description. | |

4.4.16. Payment Time Period

Class Diagram

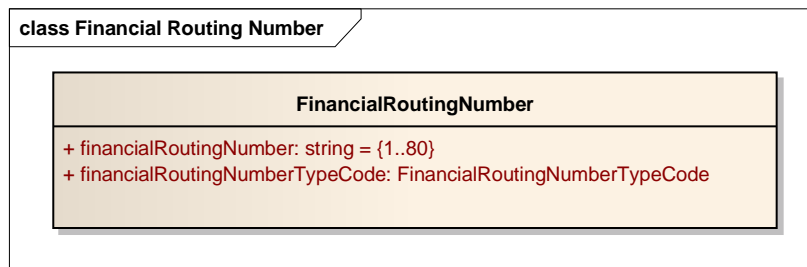


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------|------------------|---------------------------|--------------|----------------------------------------------------------------------------------------------------------------|--------------|
| PaymentTimePeriod | | | | Provides the payment time period information. | |
| Attribute | dateDue | date | 0..1 | Calendar date specifying when the payment is due. | |
| Attribute | dayOfMonthDue | gDay | 0..1 | The time at which a payment is due, expressed as a day of the month. | |
| Attribute | timePeriodDue | TimeMeasurement | 0..1 | Measurement specifying the duration of the period within which the payment is due, for example within 10 days. | |

4.4.17. Financial Routing Number

Class Diagram

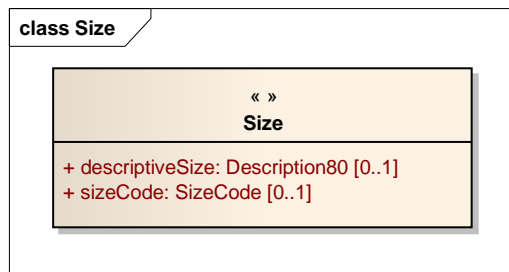


GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------------|------------------------------------|--------------------------------|--------------|----------------------------------------------------------------------------------------|--------------|
| FinancialRoutingNumber | | | | Provides the routing information regarding the routing number and routing number type. | |
| Attribute | financialRoutingNumber | string | 1..1 | Number assigned to a transaction in financial routing between parties. | |
| Attribute | financialRoutingNumber TypeCode | FinancialRoutingNumberTypeCode | 1..1 | Code specifying the type of financial routing, e.g. SWIFT. | |

4.4.18. Size

Class Diagram

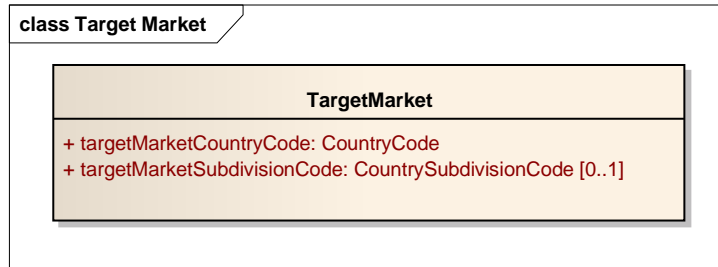


GDD Report

| Content | Attribute / Role | Datatype class /Secondary | Multiplicity | Definition | Requirements |
|-------------|------------------|---------------------------|--------------|-----------------------------------------------------------------------------------------------------------------|--------------|
| Size | | | | The physical dimensions or proportions of an object depicted as a code or a description. | |
| Attribute | descriptiveSize | Description80 | 0..1 | A description of the size of an object. | |
| Attribute | sizeCode | SizeCode | 0..1 | Code specifying the size of an object and the size coding system being applied, for example L (buyer assigned). | |

4.4.19. Target Market

Class Diagram

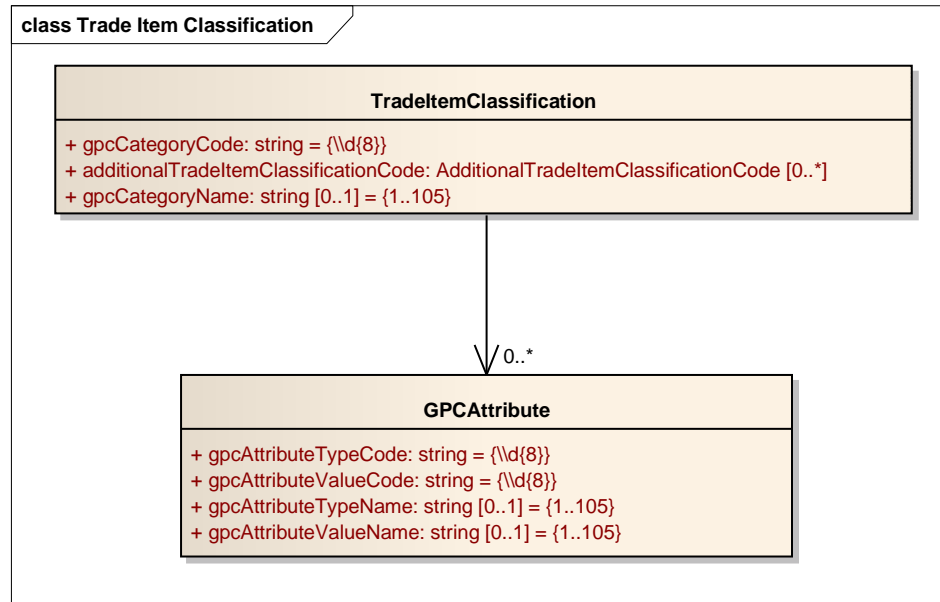


GDD Report

| Content | Attribute / Role | Datatype class | /Secondary | Multiplicity | Definition | Requirements |
|---------------------|-----------------------------|------------------------|------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| TargetMarket | | | | | Information specifying the geographical area where a trade item is intended to be sold. | |
| Attribute | targetMarketCountryCode | CountryCode | | 1..1 | The code that identifies the target market. The target market is at country level or higher geographical definition and is where a trade-item is intended to be sold. | |
| Attribute | targetMarketSubdivisionCode | CountrySubdivisionCode | | 0..1 | The Code for country sub-division definition used to indicate the geo-political subdivision of the target market (=country). | |

4.4.20. Trade Item Classification

Class Diagram



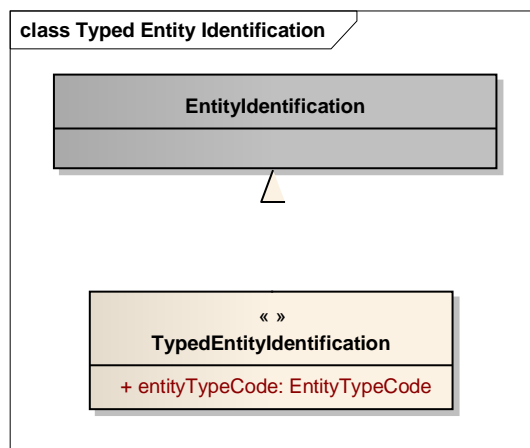
GDD Report

| Content | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition | Requirements |
|-------------------------|---------------------------------------|-------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------|--------------|
| TradeltemClassification | | | | Information specifying the product class to which a trade item belongs and the classification system being applied. | |
| Association | | GPCAttribute | 0..* | Contains information which identifies the GPC classification attribute for a trade item. | |
| Attribute | gpcCategoryCode | string | 1..1 | Code specifying a product category according to the GS1 Global Product Classification (GPC) standard. | |
| Attribute | additionalTradeltemClassificationCode | AdditionalTradeltemClassific ationCode | 0..* | Category code based on alternate classification schema chosen in addition to the Global Product Classification (GPC). | |

| | | | | | |
|----------------------|-----------------------|--------|------|----------------------------------------------------------------------------------------------------------------------|--|
| Attribute | gpcCategoryName | string | 0..1 | Name associated with the specified Global Product Classification (GPC) category code. | |
| GPCAAttribute | | | | Information on the type and value of a Global Product Classification (GPC) attribute. | |
| Attribute | gpcAttributeTypeCode | string | 1..1 | Code specifying the type of the Global Product Classification (GPC) attribute, for example 20000081 - Grape Variety. | |
| Attribute | gpcAttributeValueCode | string | 1..1 | The GS1 provided code which identifies the Global Product Classification Attribute Value. | |
| Attribute | gpcAttributeName | string | 0..1 | The GS1 provided text equivalent of the Global Product Classification Attribute Code. | |
| Attribute | gpcAttributeValueName | string | 0..1 | The GS1 provided text equivalent of the Global Product Classification Attribute Value Code. | |

4.4.21. Typed Entity Identification

Class Diagram



GDD Report

| Content | Attribute / Role | Datatype Secondary class | / Multiplicity | Definition | Requirements |
|----------------------------------|------------------|-----------------------------|----------------|------------------------------------------------------------------------------------------------------------------------|--------------|
| TypedEntityIdentification | | | | Information identifying a piece of information such as an object or document, also specifying the type of information. | |
| Generalization | | EntityIdentification | | This information on EntityIdentification for TypedEntityIdentification. | |
| Attribute | entityTypeCode | EntityTypeCode | 1..1 | Code specifying the type of information being identified, for example a Despatch Advice. | |

5. Business Message Examples

Not Applicable

6. Codes

6.1. GS1 Managed Codes

All GS1 managed codes applicable to GDSN can be found at the following link:

[GDSN Code List BMS](#)

7. Implementation Considerations

Not Applicable

8. Appendices

Not Applicable

9. Summary of Changes

9.1. BMS release 3.0

| Change | BMS Doc Version |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Baseline version for 3.0 Release. | 1.0.0 |
| BMS Public review: <ul style="list-style-type: none"> corrected design of Amount data type, reversed sequence of codeListVersion and currencyCode. Added in GDTI. Added SourceReference from BMS Artwork Content. | 1.0.0 |
| Updated for Increment 1 Release. <ul style="list-style-type: none"> Added following code values to Contact Type for product recall (PRO, PRM, PRC, PRR) Errata update on definition of amount. | 1.0.1 |

9.2. BMS release 3.1

| Change | BMS Doc Version |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| COMPONENT AND DATATYPE CHANGES Communication Channel Extended field length of communicationValue to 200. Added communicationChannelName. | issue 1 |

| Change | BMS Doc Version |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <p>New class anyURI Changes to Address class:</p> <p>Change to Document class:</p> <p>Change to Document Reference class:</p> | |
| <p>CODELIST CHANGES</p> <p>AdditionalTradeItemIdentificationCode</p> <p>Added values (ARTG_ID, AU_PROSTHESES_REBATE_CODE, NUMERO_RDN)</p> <p>Deprecated NDC AdditionalPartyIdentificationCode Added values PARTITA_IVA, CASHSSP ColourCodeListCode</p> <p>Added values 9 (RAL), 10 (NCS) (ECL March 2013)</p> <p>CommunicationChannelCode</p> <p>Added SOCIAL_MEDIA</p> <p>ContactTypeCode</p> <p>Added values (BVP,BXA,BYF,BZL,CXC,CYC,CZL,ZZZ,DMO,DNR,DOG,DPP,DQT,DSU</p> <p>NutrientTypeCode</p> <p>Added values (ENERSF,NACLI)</p> <p>PartyRoleCode</p> <p>Added values (PURCHASE_ORDER_RECEIVER, REGISTERED_AGENT, PARTY_RECEIVING_PRIVATE_DATA)</p> <p>AdditionalTradeItemClassificationCodeListCode:</p> <p>Added new codes 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 (GDD: published as ECL in March 2013)</p> <p>Added names for codes 7, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 30 Other updates:</p> <ul style="list-style-type: none"> ■ Name and definition for code value 6 (UNSPSC to ECCMA) ■ Definition of code value 16 (BRAD C07). ■ Name for code value 43 from 'US FDA Product Code Classification Database' to 'US FDA PCCD' ■ Name for code value 45 from SNOMED to SNOMED CT ■ Name for code value 46 from UMDS to UMDNS <p>IncotermsCode:</p> <p>removed code values and version, added Note to explain how to apply the code list version attribute.</p> <p>FinancialAccountNumberTypeCode:</p> <p>marked existing code values for deletion, added two new code values (IBAN_IDENTIFICATION, BBAN_IDENTIFICATION)</p> | |
| <p>LIBRARY ORGANIZATION</p> <ul style="list-style-type: none"> ■ Added PaymentTermsTypeCode and AllowanceChargeTypeCode.data types and associated code lists. Removed from eCom Common. ■ Added AllowanceOrChargeTypeEnumeration.data type and associated code list. ■ Removed AVP classes and data types from Common Library | |
| <p>NutrientTypeCode:</p> <ul style="list-style-type: none"> ■ Added HMB, L_CARNITINE, SALTEQ ■ Reverted code value for Iodized Salt to IODIZED_SALT to match 2.8 value. | |
| <p>AdditionalTradeItemClassificationCode:</p> <p>Updated Code Names for following codes (50, 51, 53).</p> | |

| Change | BMS Doc Version |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Updated definitions for AdditionalTradeItemIdentificationCode values of SUPPLIER_ASSIGNED, MODEL_NUMBER, MANUFACTURER_PART_NUMBER. | 1.1 |
| <ul style="list-style-type: none"> Added Code 11 (IFPS) to ColourCodeListCode Added Code 63 (NCM) to AdditionalTradeItemClassificationCode Added the following codes to the TaxCategoryCode (REDUCTION_IN_BASE, REDUCTION_IN_TAX_RATE, VALUE_ADDED, VALUE_ADDED_MARGIN). Added NUCLEOTIDE to Nutrient Type Code Added the following codes to the Entity Type Code List: 83 (Basic Party Registration), 84 (Registry Party Data Dump), 85 (Party Registration Response), 86(Catalogue Item Authorisation),87(Catalogue Item Authorisation Response), 88(Catalogue Item Hierarchical Withdrawal), 89(GS1 Response), 90(Price Synchronisation Document), 91 (Price Synchronisation Confirmation). | 1.2 |
| <ul style="list-style-type: none"> Added UCC_COMMUNICATION_IDENTIFICATION, UNKNOWN, UN_LOCATION_CODE to Additional Party Identification. Added BREEDER, CUTTER, FATTENER, GROWER, MINCER, SLAUGHTERER to Party Role List. Added G_HC to Nutrient Code List | 1.3 |
| <ul style="list-style-type: none"> Added following codes for December ECL:64 (CORE DIY), 65 (FDA Preferred Term Code), 66 (Medsafe Risk Classification), 67 (Medsafe Regulatory Classification). Nutrient Type Code: Added GINSENG for Dec ECL Size Code List Code: Added value 4 (EU/Nappy Diaper Size) for ECL. Additional Trade Item Classification: Updated definition of code 58 to match ECL. | 1.4 |
| <ul style="list-style-type: none"> AdditionalTradeItemClassificationCodeListCode <ul style="list-style-type: none"> Changed definition of Code: 58 Added codes 68, 69 AdditionalTradeItemIdentificationTypeCode <ul style="list-style-type: none"> Added codes: AIG, BFR, FDA_MEDICAL_DEVICE_LISTING, FDA_PRODUCT_CODE, ICCBBA, NZ_MEDICINES_TERMINOLOGY_CODE, PHARMACODE_CH, WAND_NUMBER Changed definition of code: INDUSTRY_ASSIGNED CommunicationChannelCode <ul style="list-style-type: none"> Added code: MOBILE_WEBSITE ContactTypeCode <ul style="list-style-type: none"> Added Codes: DIS, EXP,IMP, WLS NutrientTypeCode Added codes: X_ SALATRIM, X_CASNWH, X_FUNS, X_PROSOL, X_SUCRA ResponsibleAgencyCode <ul style="list-style-type: none"> Added codes: 9SE, ATO, IRD, LEV, REV | 1.5 |
| <ul style="list-style-type: none"> Removed code lists and enumerations and added link to a separate code list document. | 1.6 |

9.3. BMS release 3.1.12

| Change | BMS Doc Version |
|---------------------------------------------------------------------------------------------------------------------------|-----------------|
| <ul style="list-style-type: none"> Updated Section 4.4.4 ColourCode – added new attribute ColourFamilyCode | 1.7 |

9.4. BMS release 3.1.13

| Change | BMS Doc Version |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <ul style="list-style-type: none"> Updated Section 4.4.4 ColourCode – added new attribute ColourTintCode and PatternCode | 1.8 |

9.5. BMS release 3.1.14

| Change | BMS Doc Version |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <ul style="list-style-type: none"> WR 18-000303 – Section 4.4.5 - add new attribute isCommunicationChannelPreferred to the CommunicationChannel class | 1.9 |



