Description of 2C2 Message

PIP® 2C2

Released 11.00.00

Specification Information	
Name	Request Engineering Change
PIP	Product Introduction
Cluster	Engineering Change Management
Segment	22 May 2012
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1. Document Management

1.1 Legal Disclaimer

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1.4 Acknowledgments

This document has been prepared by RosettaNet (http://www.rosettanet.org/) from requirements gathered during the Milestone Program and in conformance with the methodology.

1.5 Related Documents

- Associated PIP Message Schemas (included with PIP Specification only)
- Description of Partner Interface Process for 2C2
- Message Structure

1.6 Document Version History

Version	Date	Description
Released 11.00.00	22 May 2012	Released Version

1.7 Document Purpose

The purpose of the document is to explain the structure, the association between objects, the content of objects and the definition for single elements to a non-technical audience.

2. Interchange Model

2.1 EngineeringChangeRequest

2.1.1 Interchange Diagram
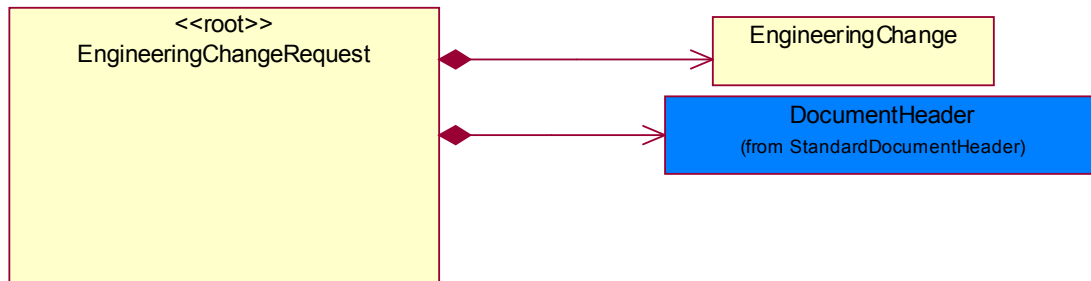
Figure 2-1 Interchange

2.1.2 AffectedItem

The collection of business properties that identify and describe the items affected by an engineering change.
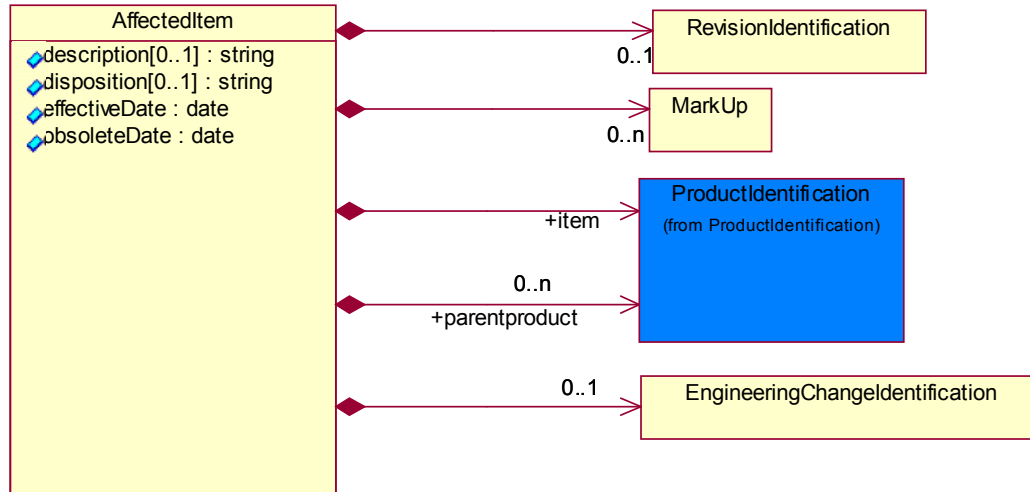
Figure 2-2 AffectedItem

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.
disposition[0..1]	string	Final settlement or outcome of a process.
effectiveDate	date	The date information or an activity becomes effective.
obsoleteDate	date	The date an item, part or revision becomes obsolete.

Composition	Cardinality	Type	Documentation
item	1	ProductIdentification	A finished good, part or assembly.
MarkUp	0..n	MarkUp	The collection of business properties that describe the nature and type of revisions to be made in an engineering change.
RevisionIdentification	0..1	RevisionIdentification	The collection of business properties that describe the details of an item, assembly or process prior to and subsequent to a proposed revision.
parentproduct	0..n	ProductIdentification	The object provides the identifier(s) of a product.
EngineeringChangeIdentification	0..1	EngineeringChangeIdentification	An engineering change is identified by a unique identifier.

2.1.3 ApprovedManufacturerListItem

The collection of business properties that identifies all the properties of the manufacturer and it's item or part that is approved by the Change Review Forum.
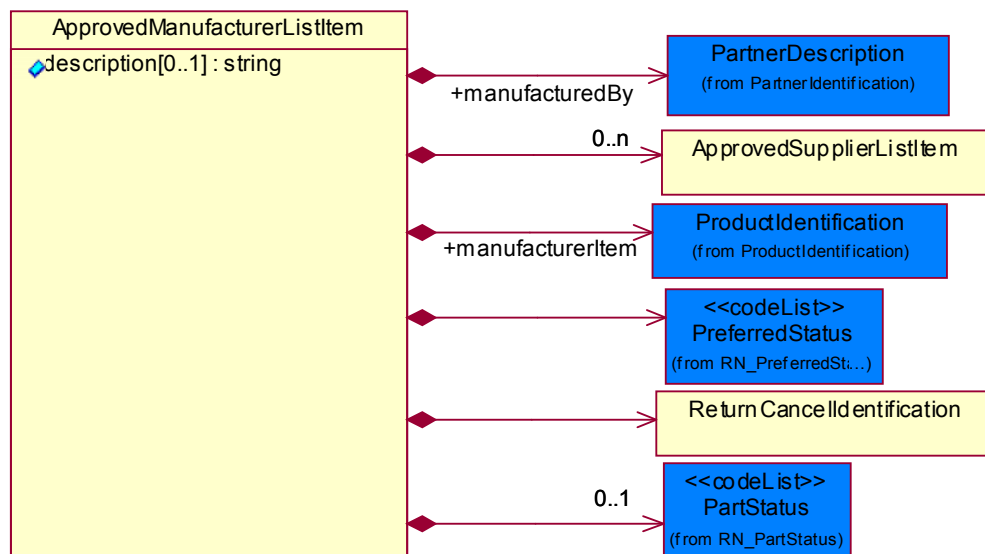
Figure 2-3 ApprovedManufacturerListItem

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
ApprovedSupplier ListItem	0..n	ApprovedSupplierList Item	The collection of business properties that identifies all the properties of the supplier and it's item or part that is approved by the Change Review Forum.
PartStatus	0..1	PartStatus	A unique identifier specifying the status of an item or assembly.
PreferredStatus	1	PreferredStatus	Code identifying the status of an approved product.
manufacturedBy	1	PartnerDescription	The party who creates, processes or produces goods especially in large quantities and by means of industrial machines.
manufacturerItem	1	ProductIdentification	Item information described from the perspective of the manufacturer.
ReturnCancelIden tification	1	ReturnCancelIdentifi cation	The collection of business properties that describe whether an order for an item, part or assembly is eligible for return or cancellation.

2.1.4 ApprovedManufacturerListMarkUp

The collection of business properties that describe the nature and type of revisions to be made to an ApprovedManufacturerList.
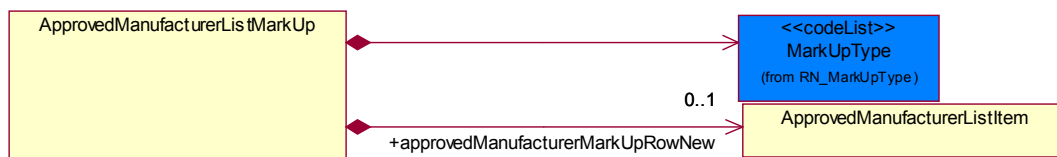
Figure 2-4 ApprovedManufacturerListMarkUp

Composition	Cardinality	Type	Documentation
approvedManufac turerMarkUpRowN ew	0..1	ApprovedManufactur erListItem	Describes specifications for an ApprovedManufacturerList after a proposed engineering change.
MarkUpType	1	MarkUpType	Code identifying the type of mark up.

2.1.5 ApprovedSupplierListItem

The collection of business properties that identifies all the properties of the supplier and it's item or part that is approved by the Change Review Forum.
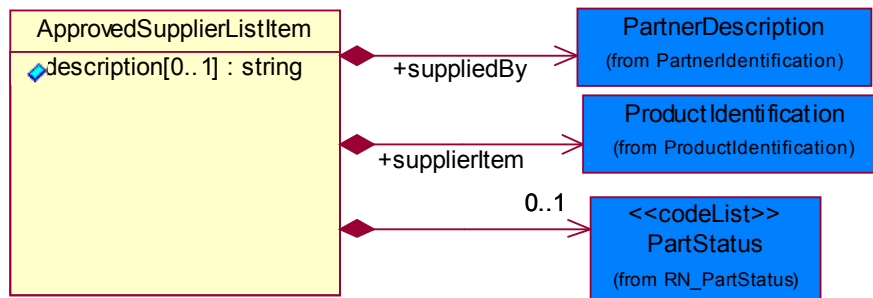
Figure 2-5 ApprovedSupplierListItem

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
PartStatus	0..1	PartStatus	A unique identifier specifying the status of an item or assembly.
suppliedBy	1	PartnerDescription	The party who supplies an item, part or assembly.
supplierItem	1	ProductIdentification	Item information described from the perspective of the supplier.

2.1.6 AttachmentMarkUp

The collection of business properties that describe the nature and type of revisions to be made to an Attachment.
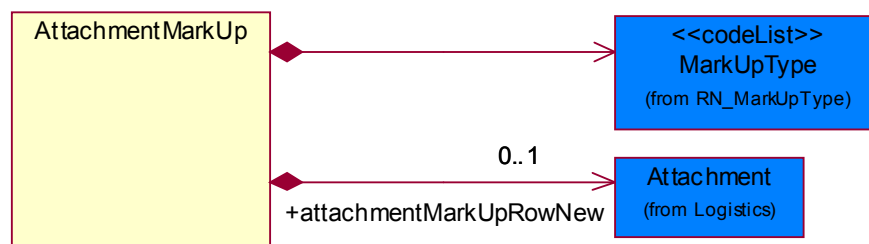
Figure 2-6 AttachmentMarkUp

Composition	Cardinality	Type	Documentation
attachmentMarkUpRowNew	0..1	Attachment	Describes specifications for an Attachment after a proposed engineering change.
MarkUpType	1	MarkUpType	Code identifying the type of mark up.

2.1.7 BillOfMaterialItem

The collection of business properties that describe an assembly, kit or single item. It may also be used to describe "phantom" parts.
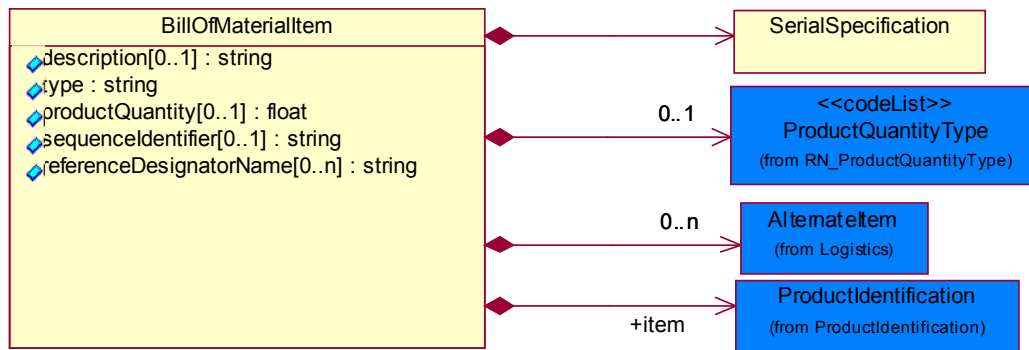
Figure 2-7 BillOfMaterialItem

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.
type	string	Code identifying the type of product or item on the Bill Of Material.
productQuantity[0..1]	float	A quantity specifying the number of product units.
sequenceIdentifier[0..1]	string	A proprietary identifier which identifies the order of a designated element within a specified set.
referenceDesignatorName[0..n]	string	Identifies a single instance of a component. Normally referenceDesignator is alphabetic, graphically on the schematic and is used in the electrical interconnect description.

Composition	Cardinality	Type	Documentation
AlternateItem	0..n	AlternateItem	The collection of business properties that describe a functional identical or comparable part that may be used in place of a primary or main part.
ProductQuantityType	0..1	ProductQuantityType	Code identifying the type of the quantity needed for assemblies or setting up.
item	1	ProductIdentification	A finished good, part or assembly.
SerialSpecification	1	SerialSpecification	The collection of business properties that describe serial number data used to uniquely identify a finished product.

2.1.8 BillOfMaterialMarkUp

The collection of business properties that describe the nature and type of revisions to be made to a BillOfMaterials.

Figure 2-8 BillOfMaterialMarkUp

Composition	Cardinality	Type	Documentation
billOfMaterialMark UpRowNew	0..1	BillOfMaterialItem	Describes specifications for a BillOfMaterial after a proposed engineering change.
billOfMaterialMark UpRowOld	0..1	BillOfMaterialItem	Describes specifications for a BillOfMaterial prior to a proposed engineering change.
MarkUpType	1	MarkUpType	Code identifying the type of mark up.

2.1.9 Change

The collection of business properties that describe or define all the engineering changes which are applicable for a specific object.
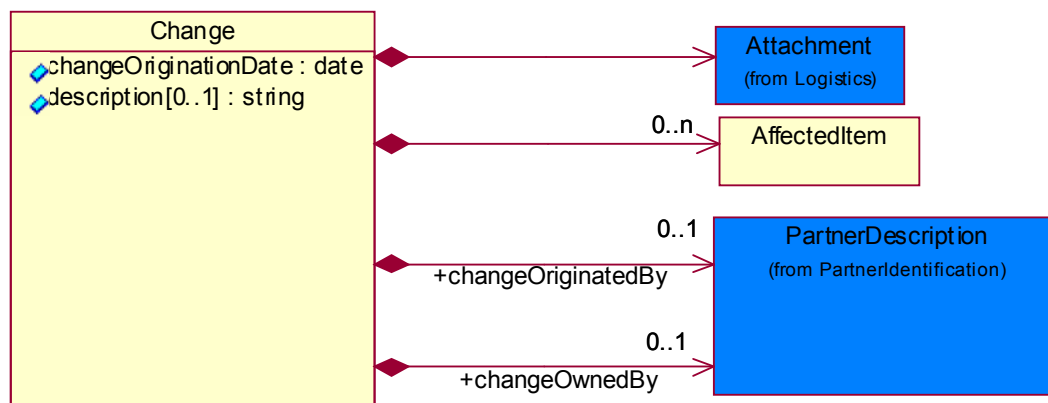
Figure 2-9 Change

Attribute	Type	Documentation
changeOriginationDate	date	The date a proposed change is originated.
description[0..1]	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
AffectedItem	0..n	AffectedItem	The collection of business properties that identify and describe the items affected by an engineering change.
changeOriginated By	0..1	PartnerDescription	The party who originates a proposed change.
changeOwnedBy	0..1	PartnerDescription	The party who owns or who is assigned responsibility for a proposed change.
Attachment	1	Attachment	A business property that describes additional information regarding a product or process.

2.1.10 EngineeringChange

Engineering Change is a change in components, assemblies, or documents such as processes and work instructions.
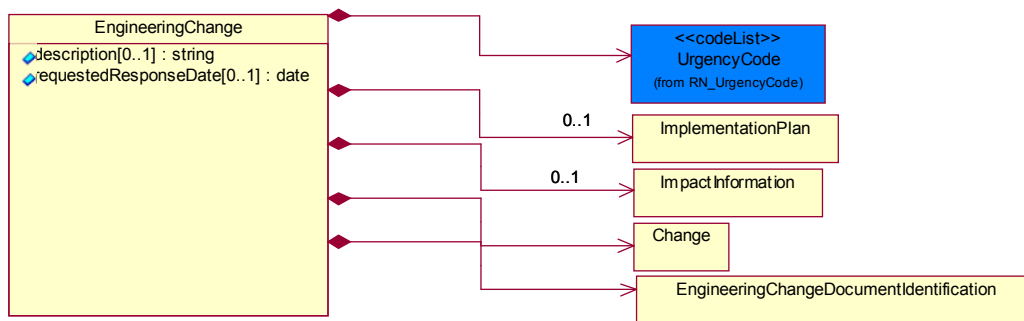
Figure 2-10 EngineeringChange

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.
requestedResponseDate [0..1]	date	The date for which a response has been requested to be transmitted.

Composition	Cardinality	Type	Documentation
Change	1	Change	The collection of business properties that describe or define all the engineering changes which are applicable for a specific object.
EngineeringChangeDocumentIdentification	1	EngineeringChangeDocumentIdentification	The collection of business properties that describe unique references used to identify documents during

			the lifetime of the Engineering Change cycle.
UrgencyCode	1	UrgencyCode	Code identifying the requirement for immediate action.
ImpactInformation	0..1	ImpactInformation	The collection of business properties that describe a financial or non-financial effect of an activity on another activity or process.
ImplementationPlan	0..1	ImplementationPlan	The collection of business properties that describe the plan for implementing an Engineering Change Order.

2.1.11 EngineeringChangeDocumentIdentification

The collection of business properties that describe unique references used to identify documents during the lifetime of the Engineering Change cycle.

EngineeringChangeDocumentIdentification
engineeringChangeRequestIdentifier : string
previousEngineeringChangeRequestIdentifier[0..1] : string
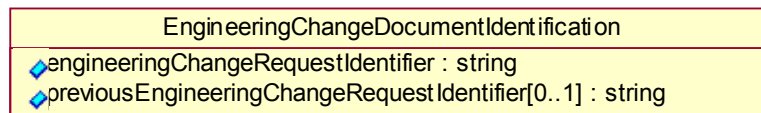
Figure 2-11 EngineeringChangeDocumentIdentification

Attribute	Type	Documentation
engineeringChangeRequestIdentifier	string	The proprietary unique identification number that represents an engineering change request.
previousEngineeringChangeRequestIdentifier[0..1]	string	The proprietary unique identification number that represents a previous engineering change request.

2.1.12 EngineeringChangeIdentification

An engineering change is identified by a unique identifier.

EngineeringChangeIdentification
id : string
                    0..1
DatePeriod
(from Dates)
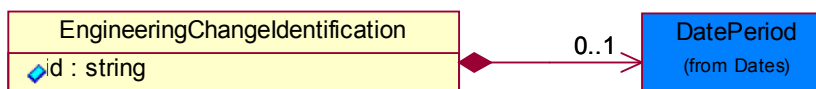
Figure 2-12 EngineeringChangeIdentification

Attribute	Type	Documentation
id	string	A unique identifier to identify an engineering change.

Composition	Cardinality	Type	Documentation
DatePeriod	0..1	DatePeriod	The business document must allow for the computation or statement of a duration based upon a beginning and an ending date.

2.1.13 EngineeringChangeRequest

Contains the disposition for the requested engineering change.   It contains the Engineering Change proprietary request number, response code that could be approve, reject or pending, and appropriate comments.

Composition	Cardinality	Type	Documentation
DocumentHeader	1	DocumentHeader	The object allows for the identification of the sender and receiver of the business document.
EngineeringChange	1	EngineeringChange	Engineering Change is a change in components, assemblies, or documents such as processes and work instructions.

2.1.14 ImpactInformation

The collection of business properties that describe a financial or non-financial effect of an activity on another activity or process.

Figure 2-13 ImpactInformation

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
financialImpact	0..1	FinancialAmount	The estimated financial cost if an activity is not implemented, e.g. an unimplemented engineering change.

2.1.15 ImplementationPlan

The collection of business properties that describe the plan for implementing an Engineering Change Order.

```
ImplementationPlan
requestedImplementationDate : date
```
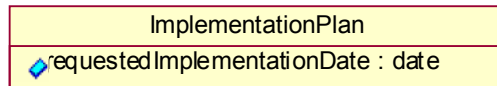
Figure 2-14 ImplementationPlan

Attribute	Type	Documentation
requestedImplementatio nDate	date	The date an implementation activity is requested to occur.

2.1.16 MarkUp

The collection of business properties that describe the nature and type of revisions to be made in an engineering change.

```
MarkUp          0..n      AttachmentMarkUp

                0..n      BillOfMaterialMarkUp

                0..n      ApprovedManufacturerListMarkUp
```
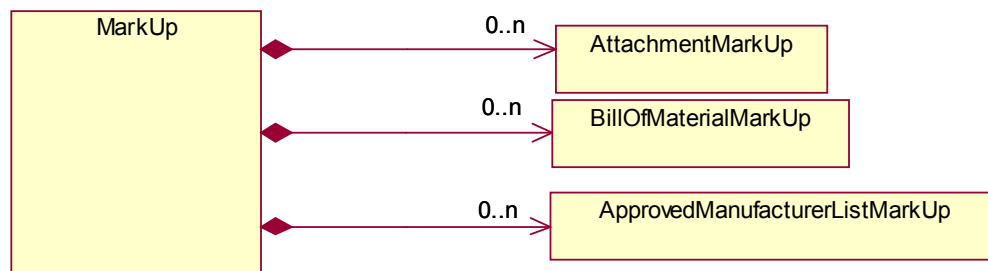
Figure 2-15 MarkUp

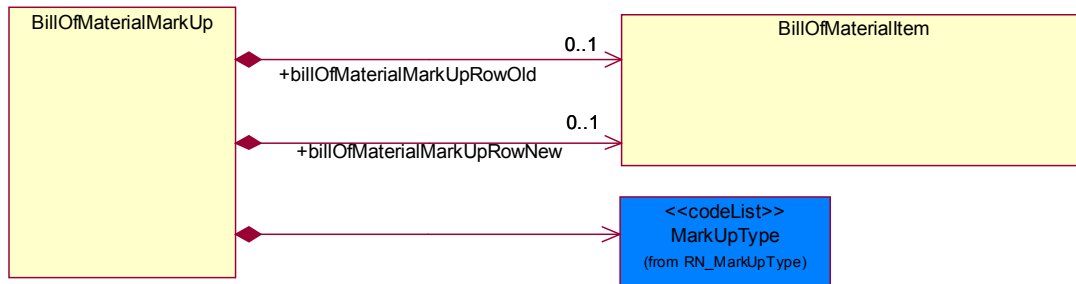| Composition	Cardinality	Type	Documentation
ApprovedManufacturerListMarkUp	0..n	ApprovedManufacturerListMarkUp	The collection of business properties that describe the nature and type of revisions to be made to an ApprovedManufacturerList
AttachmentMarkUp	0..n	AttachmentMarkUp	The collection of business properties that describe the nature and type of revisions to be made to an Attachment.
BillOfMaterialMarkUp	0..n	BillOfMaterialMarkUp	The collection of business properties that describe the nature and type of revisions to be made to a BillOfMaterials.

2.1.17 ReturnCancelIdentification

The collection of business properties that describe whether an order for an item, part or assembly is eligible for return or cancellation.
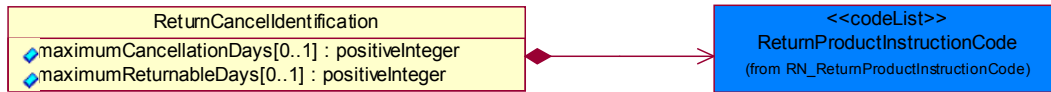
Figure 2-16 ReturnCancelIdentification

Attribute	Type	Documentation
maximumCancellationDays[0..1]	positiveInteger	The maximum number of days after an order is placed that an item is still cancelable before shipment.
maximumReturnableDays[0..1]	positiveInteger	The maximum number of days after an order is received that an item is still returnable.

Composition	Cardinality	Type	Documentation
ReturnProductInstructionCode	1	ReturnProductInstructionCode	Code identifying the special instruction of the part that shows the part can be cancelled after order or returned to the manufacturer.

2.1.18 RevisionIdentification

The collection of business properties that describe the details of an item, assembly or process prior to and subsequent to a proposed revision.
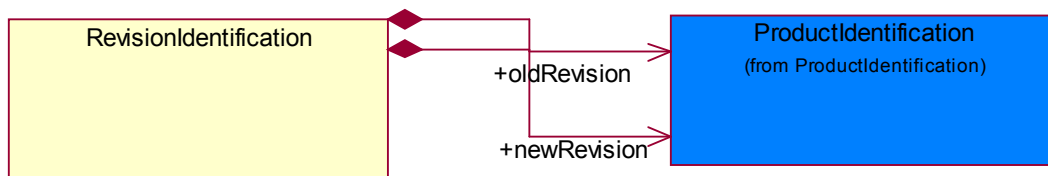
Figure 2-17 RevisionIdentification

Composition	Cardinality	Type	Documentation
newRevision	1	ProductIdentification	Details regarding an item, assembly or process after a proposed change.
oldRevision	1	ProductIdentification	Details regarding an item, assembly or process prior to a proposed change.

2.1.19 SerialNumberRange

The collection of business properties that describe a collection of sequential serial numbers.

```
SerialNumberRange
◆firstSerialNumber : string
◆increment : string
◆lastSerialNumber : string
◆SequenceNumber : string
```
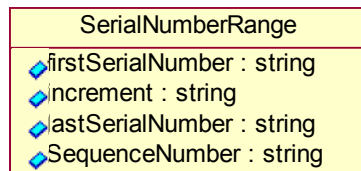
Figure 2-18 SerialNumberRange

Attribute	Type	Documentation
firstSerialNumber	string	The first or beginning serial number in a range of serial numbers.
increment	string	A factor which when applied to a serial number in a given range will yield the next serial number in that range.
lastSerialNumber	string	The last or ending serial number in a range of serial numbers.
SequenceNumber	string	A positive integer which identifies the order of a designated element within a specified set.

2.1.20 SerialSpecification

The collection of business properties that describe serial number data used to uniquely identify a finished product.

```
SerialSpecification
◆isSerializationRequired : boolean

                    0..n    SerialNumberRange

                    0..n    ProductSerialIdentification
                            (from ProductIdentification)
```
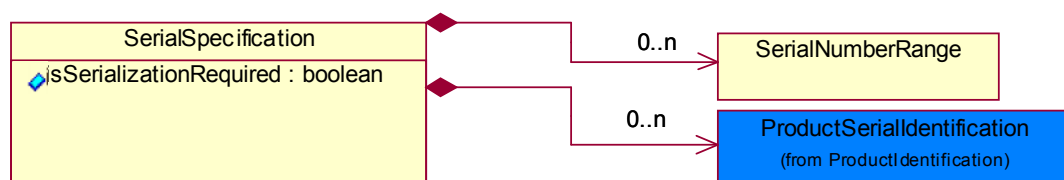
Figure 2-19 SerialSpecification

Attribute	Type	Documentation
isSerializationRequired	boolean	Indicates whether serial numbers must be enumerated.

Composition	Cardinality	Type	Documentation
ProductSerialIdentification	0..n	ProductSerialIdentification	The object provides the serial identifier of a product.
SerialNumberRange	0..n	SerialNumberRange	The collection of business properties that describe a collection of sequential serial numbers.

2.2 EngineeringChangeConfirmation

2.2.1 Interchange Diagram
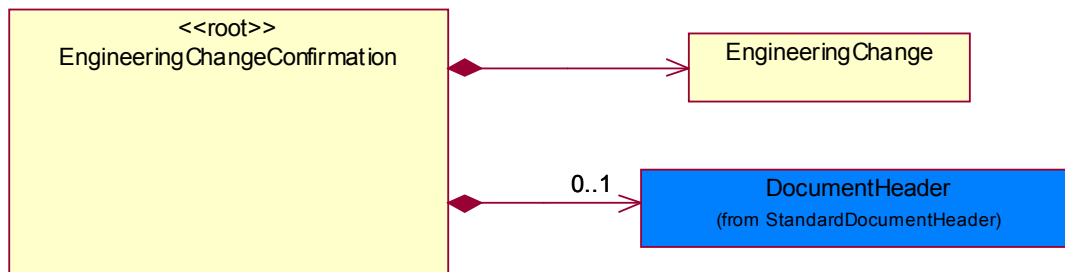
Figure 2-20 Interchange

2.2.2 EngineeringChange

Engineering Change is a change in components, assemblies, or documents such as processes and work instructions.
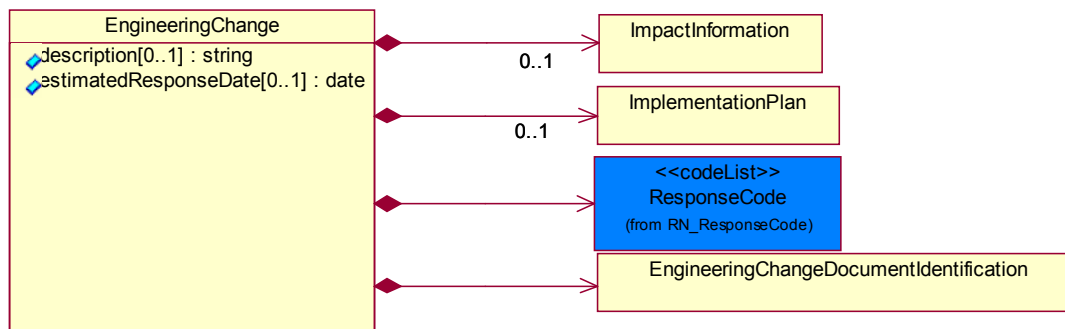
Figure 2-21 EngineeringChange

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.
estimatedResponseDate [0..1]	date	The date for which a response has been estimated to be transmitted.

Composition	Cardinality	Type	Documentation
EngineeringChangeDocumentIdentification	1	EngineeringChangeDocumentIdentification	The collection of business properties that describe unique references used to identify documents during the lifetime of the Engineering Change cycle.

ResponseCode	1	ResponseCode	Code identifying the general approval, rejection or pending response to a request.
ImpactInformation	0..1	ImpactInformation	The collection of business properties that describe a financial or non-financial effect of an activity on another activity or process.
ImplementationPlan	0..1	ImplementationPlan	The collection of business properties that describe the plan for implementing an Engineering Change Order.

### 2.2.3 EngineeringChangeConfirmation

Contains the necessary information for a stakeholder to convey a need for consideration of engineering action. This document is simply a request for a possible engineering action and not an instruction for change.

Composition	Cardinality	Type	Documentation
DocumentHeader	0..1	DocumentHeader	The object allows for the identification of the sender and receiver of the business document.
EngineeringChange	1	EngineeringChange	Engineering Change is a change in components, assemblies, or documents such as processes and work instructions.

2.2.4 EngineeringChangeDocumentIdentification

The collection of business properties that describe unique references used to identify documents during the lifetime of the Engineering Change cycle.

EngineeringChangeDocumentIdentification

◆engineeringChangeRequestIdentifier : string
◆previousEngineeringChangeRequestIdentifier[0..1] : string

Figure 2-22 EngineeringChangeDocumentIdentification

Attribute	Type	Documentation
engineeringChangeRequestIdentifier	string	The proprietary unique identification number that represents an engineering change request.
previousEngineeringChangeRequestIdentifier[0..1]	string	The proprietary unique identification number that represents a previous engineering change request.

2.2.5 ImpactInformation

The collection of business properties that describe a financial or non-financial effect of an activity on another activity or process.
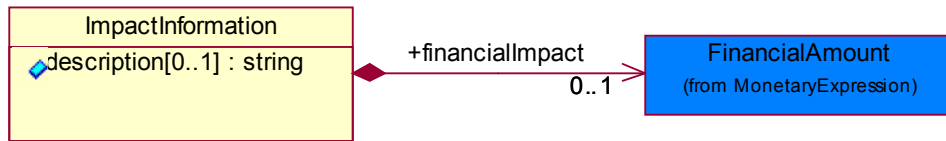
Figure 2-23 ImpactInformation

Attribute	Type	Documentation
description[0..1]	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
financialImpact	0..1	FinancialAmount	The estimated financial cost if an activity is not implemented, e.g. an unimplemented engineering change.

2.2.6 ImplementationPlan

The collection of business properties that describe the plan for implementing an Engineering Change Order.
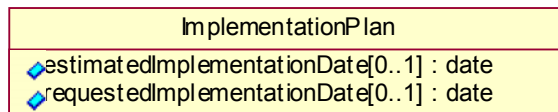
Figure 2-24 ImplementationPlan

Attribute	Type	Documentation
estimatedImplementationDate[0..1]	date	The estimated date for the implementation of an activity.
requestedImplementationDate[0..1]	date	The date an implementation activity is requested to occur.

2.3 Domain Model Logistics

2.3.1 Logistics

2.3.1.1 Dependency Diagram
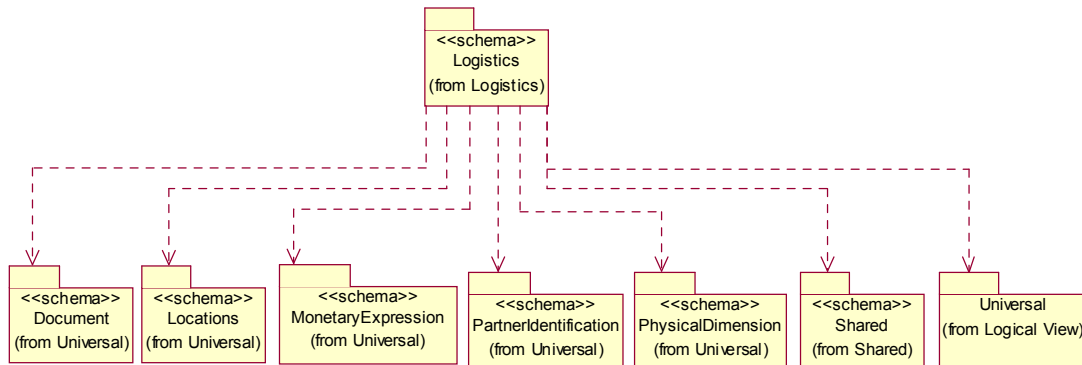
Figure 2-25 Dependency

2.3.1.2 AlternateItem

The collection of business properties that describe a functional identical or comparable part that may be used in place of a primary or main part.
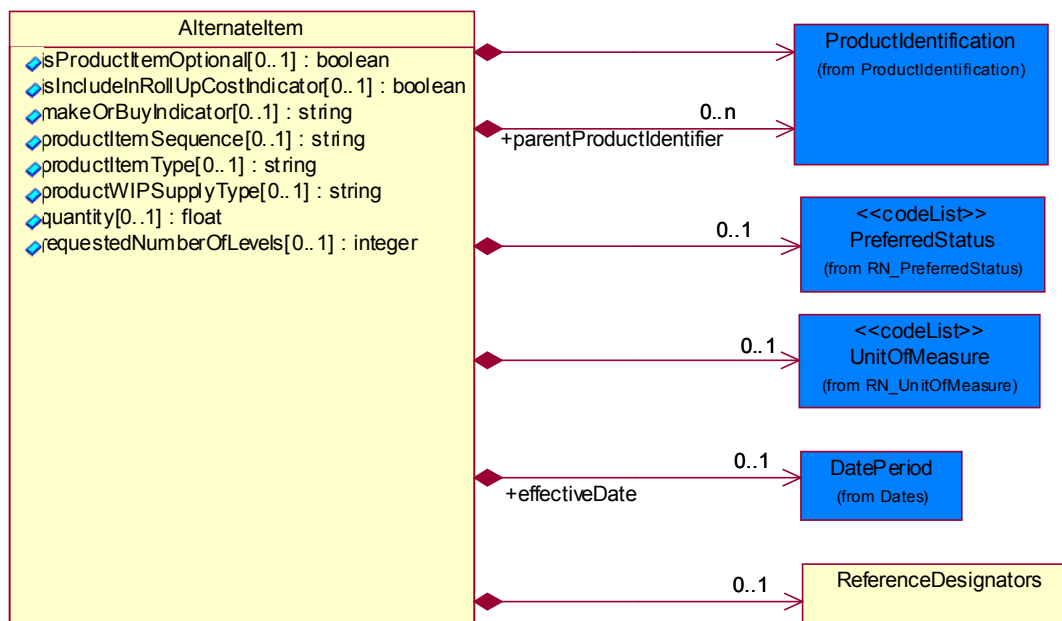
Figure 2-26 AlternateItem

Attribute	Type	Documentation
isProductItemOptional[0..1]	boolean	Determines if the item is optional.
isIncludeInRollUpCostIndicator[0..1]	boolean	Determines whether or not the item is considered for costing roll up.
makeOrBuyIndicator[0..1]	string	This is a make or buy indicator for the item.
productItemSequence[0..1]	string	The item sequence indicates the sequence of the item on the BOM.
productItemType[0..1]	string	This is type of the item. It can be assigned values such as MODEL, OPTION CLASS, etc.
productWIPSupplyType[0..1]	string	This is the supply type, a method of supplying component materials, for the item. It can be assigned values such as push, pull, etc.
quantity[0..1]	float	A quantity specifying the number of product units.
requestedNumberOfLevels[0..1]	integer	This is the requested number of levels of BOM information.

Composition	Cardinality	Type	Documentation
ReferenceDesignators	0..1	ReferenceDesignators	A reference designator unambiguously identifies a component in an electrical schematic (circuit diagram) or on a printed circuitboard (PCB). The reference designator usually consists of one or two letters followed by a number, e.g. R13, C1002.
effectiveDate	0..1	DatePeriod	The business document must allow for the computation or statement of a duration based upon a beginning and an ending date.
parentProductIdentifier	0..n	ProductIdentification	The object provides the identifier(s) of a product.
ProductIdentification	1	ProductIdentification	The object provides the identifier(s) of a product.
UnitOfMeasure	0..1	UnitOfMeasure	Code identifying a product unit of measure.
PreferredStatus	0..1	PreferredStatus	Code identifying the status of an approved product.

2.3.1.3 Attachment

A business property that describes additional information regarding a product or process.
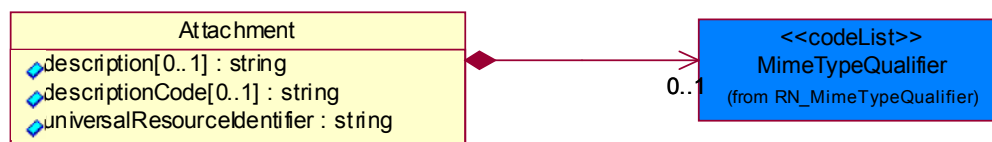
Figure 2-27 Attachment

Attribute	Type	Documentation
description[0..1]	string	A description of the attachment.
descriptionCode[0..1]	string	Code identifying the type of product attachment, e.g. assembly instructions, block diagrams, test requirements, etc.
universalResourceIdentifier	string	A network-centric identifier that provides the identity of a resource.

Composition	Cardinality	Type	Documentation
MimeTypeQualifier	0..1	MimeTypeQualifier	The MIME type as defined by IANA. Please refer to http://www.iana.org/assignments/media-types/ for a list of types.

2.3.1.4 ReferenceDesignators

A reference designator unambiguously identifies a component in an electrical schematic (circuit diagram) or on a printed circuitboard (PCB). The reference designator usually consists of one or two letters followed by a number, e.g. R13, C1002.
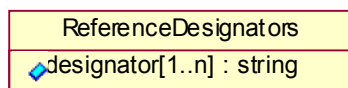
Figure 2-28 ReferenceDesignators

Attribute	Type	Documentation
designator[1..n]	string	A designator unambiguously identifies a component in an electrical schematic (circuit diagram) or on a printed circuitboard (PCB).

2.3.2 CodeList

2.3.2.1 MarkUpType

Code identifying the type of mark up.

Name	Documentation
Add	Add. Add mark up data instances.
DEL	Delete. Delete mark up data instances.
MOD	Modify. Modify mark up data instances.
NCH	No Change. No change to mark up instances.

2.3.2.2 PartStatus

A unique identifier specifying the status of an item or assembly.

Name	Documentation
ABO	Active by order. Part is available only by order and is not stocked.
ACQ	Acquisition. Part has not been qualified but must be used in manufacturing (i.e. customer requests use of an unqualified part).
AIS	Active in stock. Part is available immediately from stock.
ALL	Allocation. Part is under allocation.
APP	Approved. Part is approved.
CON	Conditional. Part has not been qualified but is used under certain conditions.
COO	Consigned. Part is supplied by vender or customer thereby denoting that the part is not purchased but consigned.
DIS	Disqualified. Part may not be used.
NON	Non-preferred. Part should not be used due to business reasons (i.e. cost/pricing).
OBS	Obsolete. Part is approved but is no longer being produced.
QHO	Quality hold. Part is held for quality issues which must be reconciled before the part can be used in production.
REF	Reference. Part is used only for reference.
UNQ	Unqualified. Part has not been qualified.
UQU	Under qualification. Part is under qualification.

2.3.2.3 PreferredStatus

Code identifying the status of an approved product.

Name	Documentation
ALT	Alternate. Alternate approved manufacturer or supplier.
DIS	Disqualified. This particular manufacturer or supplier has been disqualified from supplying this part at the approved revision level.
EOL	End of Life. A particular part that is going to be used in production only until current inventories are exhausted.
NAV	Not Available. This part is not available to the trading partners.
OTH	Other. Need agreement before the transaction may continue.

PAP	Pilot Approved. New Product Introduction (NPI) approved. This is used in a pilot or development of a product or product line and is not meant to be production approved.
PRI	Primary. Primary or preferred approved manufacturer or supplier.
SPL	Split. A particular part that is provided by different suppliers to reduce risk or get a price discount, etc.
UQU	Under Qualification. A particular part that is undergoing qualification testing for use in production.

2.3.2.4 ProductQuantityType

Code identifying the type of the quantity needed for assemblies or setting up.

Name	Documentation
ANE	As needed. Quantity is required when specifying bulk items such as adhesive or heat sink paste.
PAS	Per assembly. Quantity is required for an each occurrence, which is usually the case for most components such as resistors, SOC, VLSI, capacitors, etc.
PSE	Per setup. Quantity is required for such as a setup quantity of indirect materials used in a production run and cannot be known with certainty over how many assemblies this applies since it depends upon the quantity of the production run.
SHR	Shrinkage. Quantity is required to correct production quantities being ordered.
UPA	Use per a set quantity of assemblies. Quantity is required to assemble a specific part that consists of several items and that uses several smaller identical assemblies. This is also used to indirect materials spread over on pallet or packed in box.

2.3.2.5 ReturnProductInstructionCode

Code identifying the special instruction of the part that shows the part can be cancelled after order or returned to the manufacturer.

Name	Documentation
NAV	Not available. Return Product Instruction status is not available.
NCA	Non cancelable. Cancellation is not acceptable once order is placed for a part.
NCN	Non cancelable Non returnable. Both cancellation and return are not acceptable. Almost all specialty parts that are ordered for a particular project and do not have any other commercial value fall in this category.
NON	None. No special instruction. A part can be cancelled after order and can be returned to manufacturer for credit.
NRE	Non returnable. Return is not acceptable after the part is shipped.
RET	Return. Return product regardless of condition.
SAL	Salvage. Strip product of commercial valuable parts and scrap residual or recycle product in accordance with local rules and regulations covering the specific type of product.
SCR	Scrap. Dispose of product in accordance with local rules and regulations covering the specific type of product.

2.3.2.6 UrgencyCode

Code identifying the requirement for immediate action.

Name	Documentation
HIG	High. Level of immediate action is high.
Low	Low. Level of immediate action is low.
MED	Medium. Level of immediate action is medium.

2.3.2.7 ResponseCode

Code identifying the general approval, rejection or pending response to a request.

Name	Documentation
APP	Approve.
PEN	Pending.
REJ	Reject.

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3. Universal Structure

3.1 ContactInformation

3.1.1 ContactInformation

The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
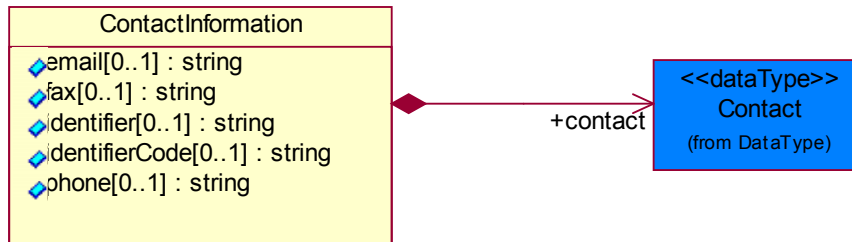
Figure 3-1 ContactInformation

Attribute	Type	Documentation
email[0..1]	string	The electronic mail for the specified contact.
fax[0..1]	string	The fax number for the specified contact.
identifier[0..1]	string	Identifies the role of the contact (i.e. Service Technician, Account Manager) in the Business Process.
identifierCode[0..1]	string	IdentifierCode is a unique security authorization code to identify the contact-ie. badge ID.
phone[0..1]	string	The telephone number for the specified contact.

Composition	Cardinality	Type	Documentation
contact	1	Contact	The name of the department, service or individual to be contacted within the organization.

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3.2 DataType

3.2.1 Contact

The name of the department, service or individual to be contacted within the organization.
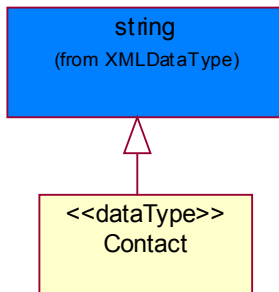
Figure 3-2 Contact

3.2.2 DUNS

A number assigned by Dun and Bradstreet to identify a business location.
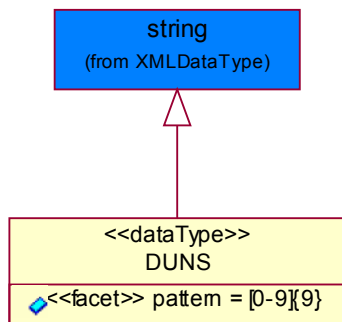
Figure 3-3 DUNS

Attribute	Type	Documentation
pattern		[0-9]{9}

3.2.3 DUNSPlus4

A identifier to specify a specific location within a business location.
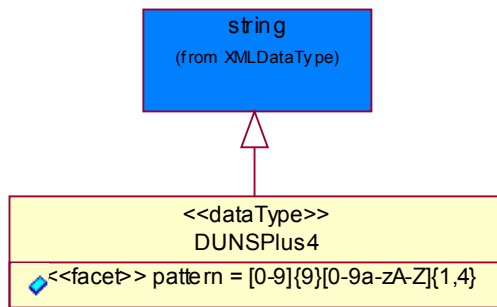
Figure 3-4 DUNSPlus4

Attribute	Type	Documentation
pattern		Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet, Inc. (D&B) plus an alphanumeric of length 4 suffix that may be assigned by a business concern.

3.2.4 GLN

Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.
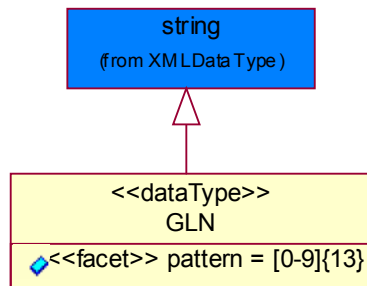
Figure 3-5 GLN

Attribute	Type	Documentation
pattern		[0-9]{13}

3.2.5 GTIN

Global Trade Identification Number (GTIN).
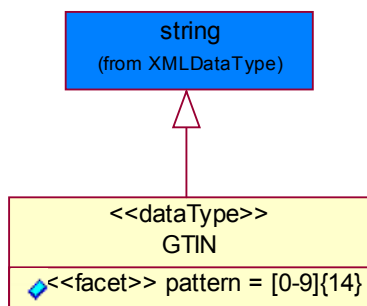
Figure 3-6 GTIN

Attribute	Type	Documentation
pattern		[0-9]{14}

3.3 Dates

3.3.1 DatePeriod
The business document must allow for the computation or statement of a duration based upon a beginning and an ending date.
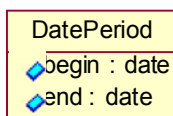
Figure 3-7 DatePeriod

Attribute	Type	Documentation
begin	date	The date indicating the beginning of the date period.
end	date	The date indicating the ending of the date period.

3.4 Locations

3.4.1 AlternativeIdentifier
Identifies the specified code and the name of the organization that a code is utilized from.
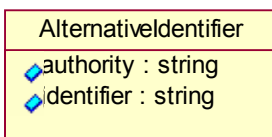
Figure 3-8 AlternativeIdentifier

Attribute	Type	Documentation
authority	string	The name of the organization that a code is

		utilized from.
identifier	string	The specified code to represent an entity (e.g. product, location, partner, etc.).

3.4.2 Location

The business document must specify a location.
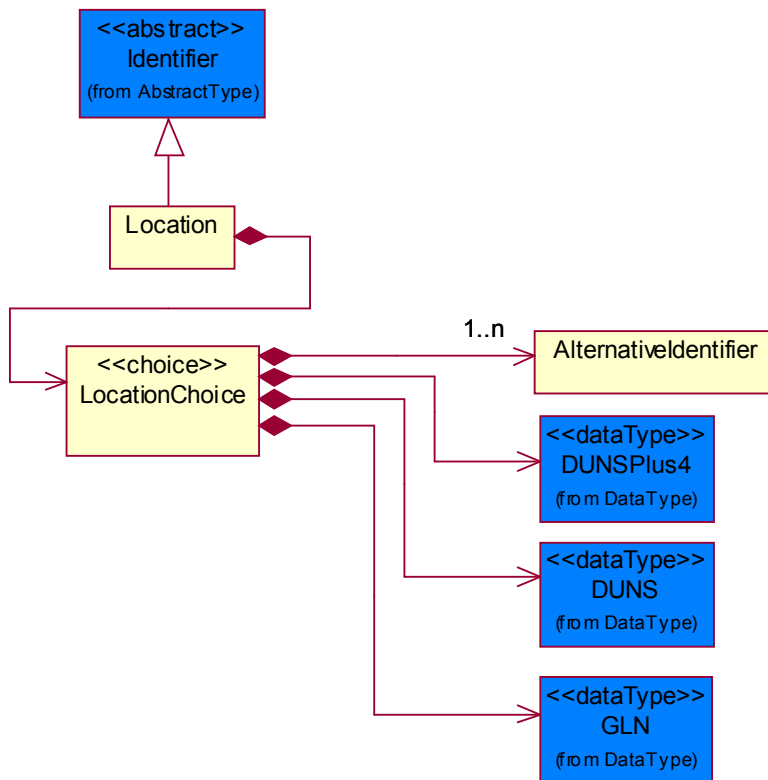
Figure 3-9 Location

Composition	Cardinality	Type	Documentation
LocationChoice	1	LocationChoice	

3.4.3 LocationChoice

Composition	Cardinality	Type	Documentation
DUNSPlus4	1	DUNSPlus4	A identifier to specify a specific location within a business location.
DUNS	1	DUNS	A number assigned by Dun and Bradstreet to identify a business location.
AlternativeIdentifier	1..n	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code

			is utilized from.
GLN	1	GLN	Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.

3.4.4 PhysicalAddress

The business document must provide a physical address for a party to the business transaction.
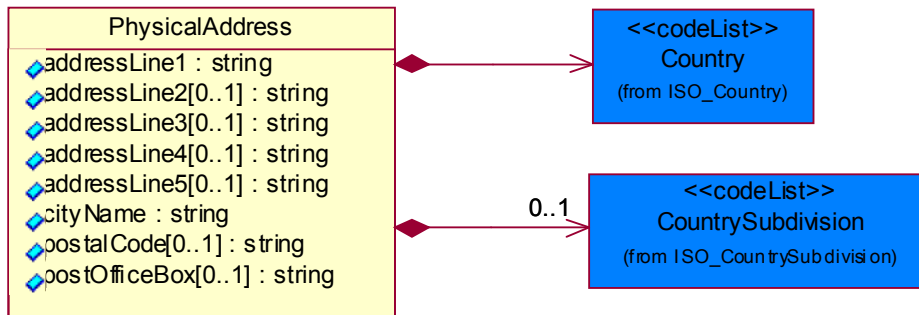
Figure 3-10 PhysicalAddress

Attribute	Type	Documentation
addressLine1	string	The first line of a physical address.
addressLine2[0..1]	string	The second line of a physical address.
addressLine3[0..1]	string	The third line of a physical address.
addressLine4[0..1]	string	The fourth line of a physical address.
addressLine5[0..1]	string	The fifth line of a physical address.
cityName	string	The name of a city.
postalCode[0..1]	string	Identifying geographic location as specified by a national postal code.
postOfficeBox[0..1]	string	The Post Office Box identifier used to identify a party's post office box.

Composition	Cardinality	Type	Documentation
Country	1	Country	For representation of Country name RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html If you need more information about the ISO standard please contact

			ISO for more details.
CountrySubdivision	0..1	CountrySubdivision	For representation of a Countries subdivisions RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html If you need more information about the ISO standard please contact ISO for more details.

3.5 MonetaryExpression

3.5.1 FinancialAmount

The business document must express financial amounts.
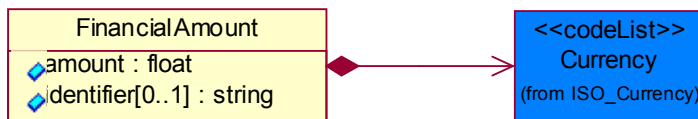
Figure 3-11 FinancialAmount

Attribute	Type	Documentation
amount	float	Specifies the monetary amount.
identifier[0..1]	string	Identifier is a unique identifier to which the specific price is tied - ie. promotion name/ program.

Composition	Cardinality	Type	Documentation
Currency	1	Currency	For representation of Currency codes RosettaNet has adopted ISO 4217; 1995. The British Standards Institution (BSI) is the ISO 4217 Maintenance Agency. Refer to the following web page to get the latest version of the standard: http://www.bsi-global.com/Technical+Information/Publications/_Publications/tig90.xalter

If you need more information about the ISO standard please contact ISO for more details. |

3.6 PartnerIdentification

3.6.1 FullPartner

The business document must describe the trading partners in the business transaction. This data structure provide the flexibility to describe a partner in all possible methods as for new, existing or known partner.
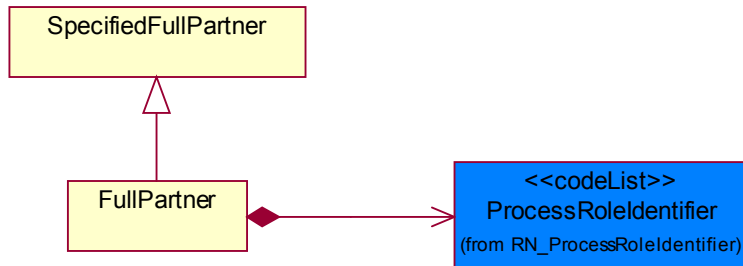
Figure 3-12 FullPartner

Composition	Cardinality	Type	Documentation
ProcessRoleIdentifier	1	ProcessRoleIdentifier	Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

3.6.2 IntermittentPartner

The business document must describe a physical address for a delivery.
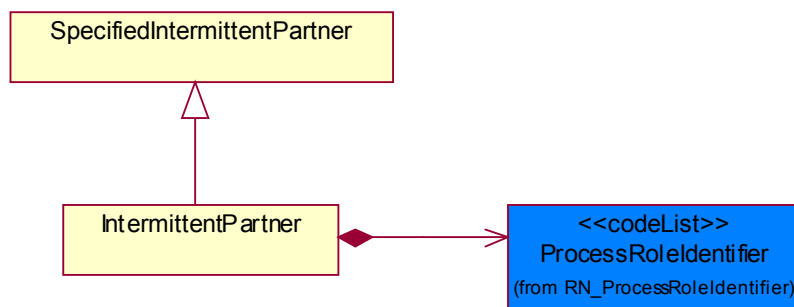
Figure 3-13 IntermittentPartner

Composition	Cardinality	Type	Documentation
ProcessRoleIdentifier	1	ProcessRoleIdentifier	Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

3.6.3 KnownPartner

The business document must describe the trading partners in the business transaction.
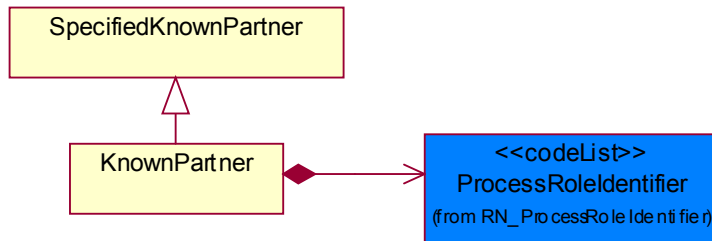
Figure 3-14 KnownPartner

Composition	Cardinality	Type	Documentation
ProcessRoleIdentifier	1	ProcessRoleIdentifier	Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

3.6.4 KnownPartnerContact

The business document must describe the trading partners in the business transaction.
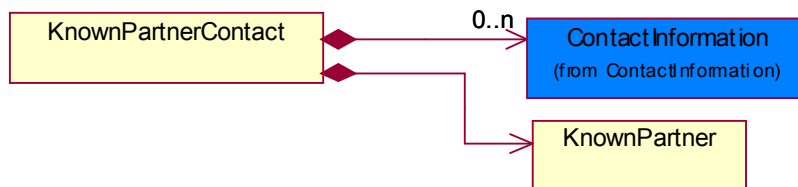
Figure 3-15 KnownPartnerContact

Composition	Cardinality	Type	Documentation
KnownPartner	1	KnownPartner	The business document must describe the trading partners in the business transaction.
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.

3.6.5 NewPartner

The business document must describe a new, existing (but known to only one of the parties to the transaction) or an unknown party to the business transaction.
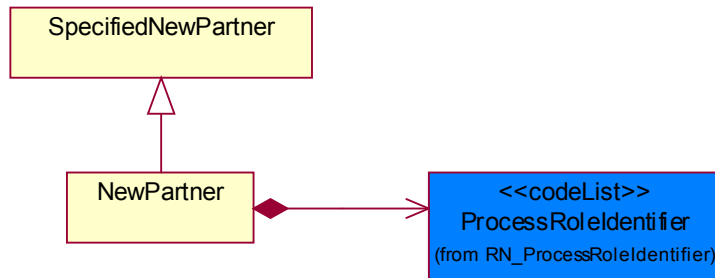
Figure 3-16 NewPartner

Composition	Cardinality	Type	Documentation
ProcessRoleIdentifier	1	ProcessRoleIdentifier	Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

3.6.6 PartnerDescription

The collection of business properties that describe a business partners' identity, their contact information, where they are physically located and their function in a supply chain.
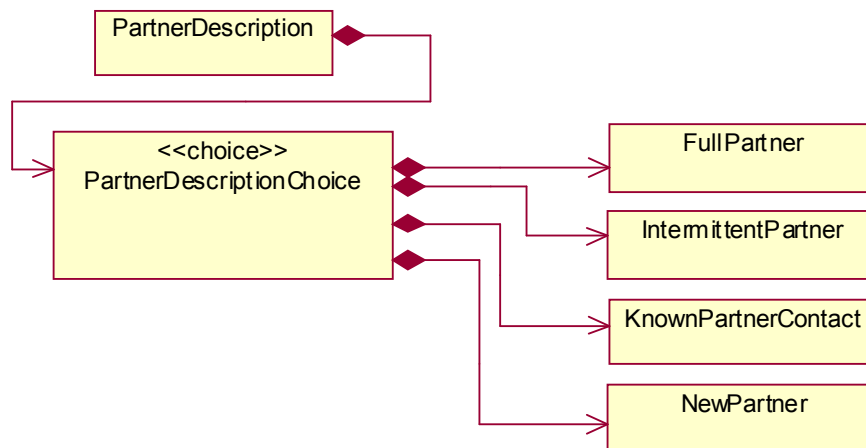
Figure 3-17 PartnerDescription

Composition	Cardinality	Type	Documentation
PartnerDescriptionChoice	1	PartnerDescriptionChoice	

3.6.7 PartnerDescriptionChoice

Composition	Cardinality	Type	Documentation
KnownPartnerContact	1	KnownPartnerContact	The business document must describe the trading partners in the business transaction.
IntermittentPartner	1	IntermittentPartner	The business document must describe a physical address for a delivery.
NewPartner	1	NewPartner	The business document must describe a new, existing (but known to only one of the parties to the transaction) or an unknown party to the business transaction.
FullPartner	1	FullPartner	The business document must describe the trading partners in the business transaction. This data structure provide the flexibility to describe a partner in all possible methods as for new, existing or known partner.

3.6.8 PartnerIdentification

The business document must allow for the identity of one or more parties to the transaction.
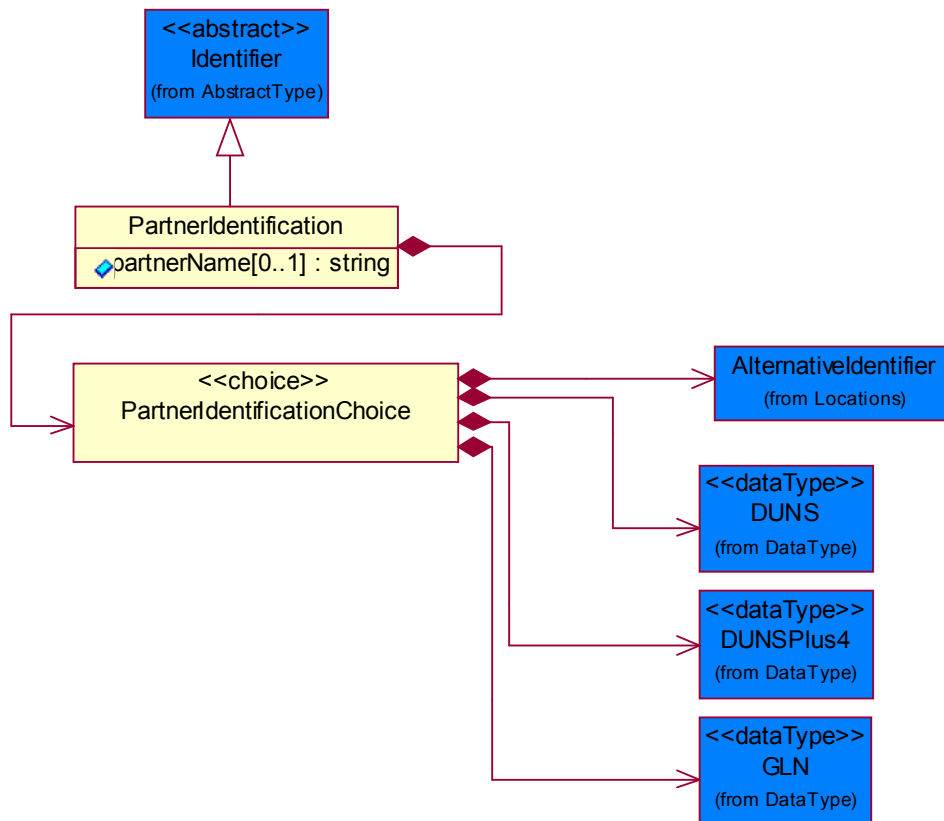
Figure 3-18 PartnerIdentification

Attribute	Type	Documentation
partnerName[0..1]	string	The name of the partner's company/business.

Composition	Cardinality	Type	Documentation
PartnerIdentificationChoice	1	PartnerIdentificationChoice	

3.6.9 PartnerIdentificationChoice

Composition	Cardinality	Type	Documentation
AlternativeIdentifier	1	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code is utilized from.
DUNS	1	DUNS	A number assigned by Dun and Bradstreet to identify a business location.
DUNSPlus4	1	DUNSPlus4	A identifier to specify a specific location within a

			business location.
GLN	1	GLN	Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.

3.6.10 SpecifiedFullPartner

The business document must describe the trading partners in the business transaction. This data structure provide the flexibility to describe a partner in all possible methods as for new, existing or known partner. This is specifically for partner who role has been specified.
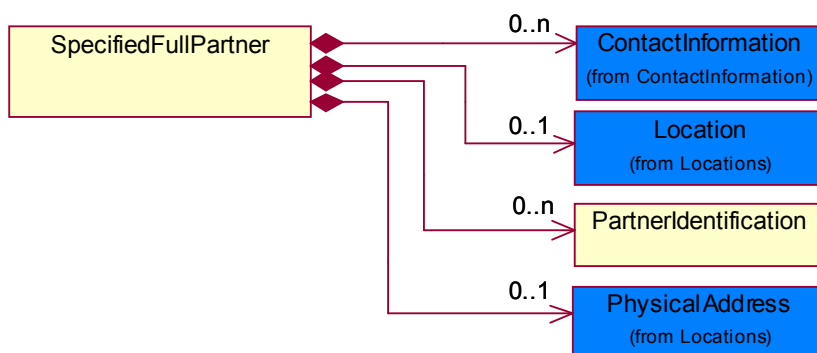
Figure 3-19 SpecifiedFullPartner

Composition	Cardinality	Type	Documentation
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
Location	0..1	Location	The business document must specify a location.
PartnerIdentification	0..n	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.
PhysicalAddress	0..1	PhysicalAddress	The business document must provide a physical address for a party to the business transaction.

3.6.11 SpecifiedIntermittentPartner

The business document must describe a physical address for a delivery.
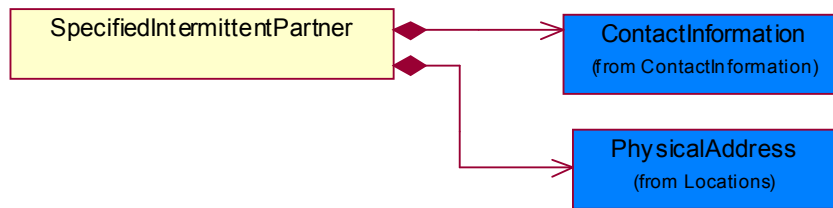
Figure 3-20 SpecifiedIntermittentPartner

Composition	Cardinality	Type	Documentation
ContactInformation	1	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
PhysicalAddress	1	PhysicalAddress	The business document must provide a physical address for a party to the business transaction.

3.6.12 SpecifiedKnownPartner

The business document must describe the trading partners in the business transaction.

Figure 3-21 SpecifiedKnownPartner

Composition	Cardinality	Type	Documentation
PartnerIdentification	1	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.

3.6.13 SpecifiedNewPartner

The business document must describe a new, existing (but known to only one of the parties to the transaction) or an unknown party to the business transaction.
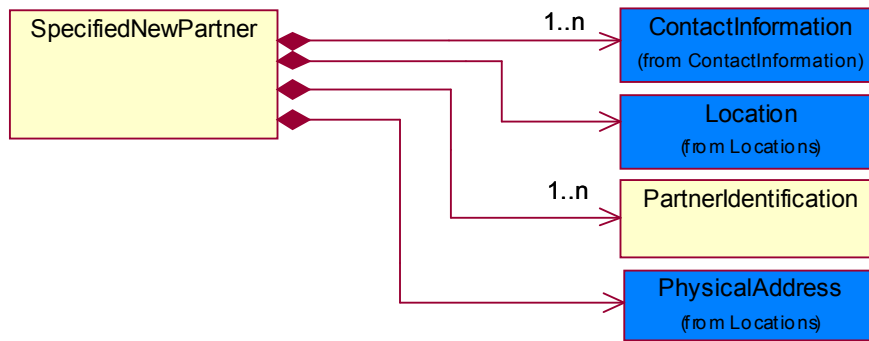
Figure 3-22 SpecifiedNewPartner

Composition	Cardinality	Type	Documentation
ContactInformation	1..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
Location	1	Location	The business document must specify a location.
PhysicalAddress	1	PhysicalAddress	The business document must provide a physical address for a party to the business transaction.
PartnerIdentification	1..n	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.

3.7 ProductIdentification

3.7.1 ProductIdentification

The object provides the identifier(s) of a product.
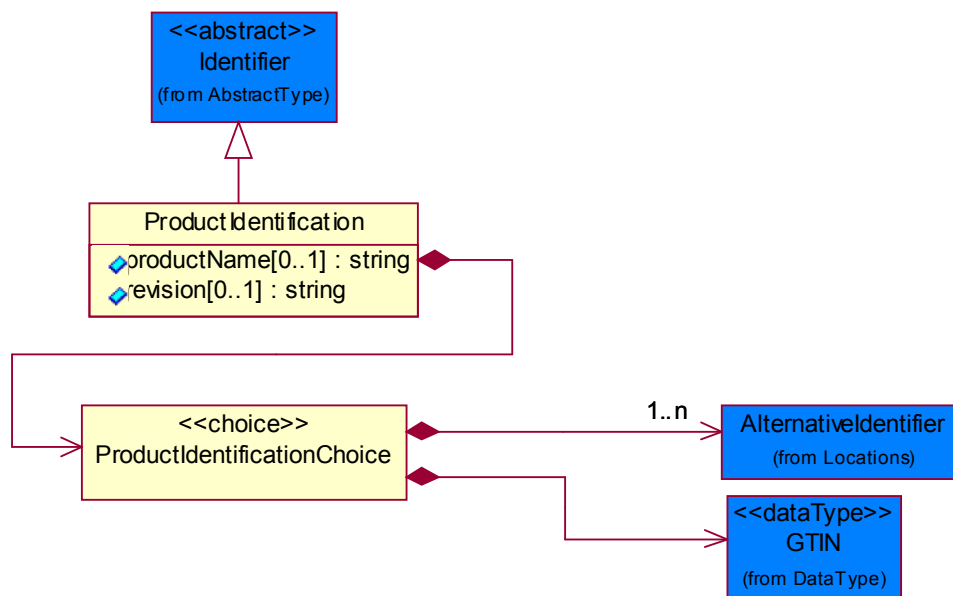
Figure 3-23 ProductIdentification

Attribute	Type	Documentation
productName[0..1]	string	The name of the product.
revision[0..1]	string	Referenced the specified product revision.

Composition	Cardinality	Type	Documentation
ProductIdentificationChoice	1	ProductIdentificationChoice	

3.7.2 ProductIdentificationChoice

Composition	Cardinality	Type	Documentation
AlternativeIdentifier	1..n	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code is utilized from.
GTIN	1	GTIN	Global Trade Identification Number (GTIN).

3.7.3 ProductSerialIdentification

The object provides the serial identifier of a product.

Figure 3-24 ProductSerialIdentification

Attribute	Type	Documentation
identifier	string	A unique serial identifier assigned to a product.

Composition	Cardinality	Type	Documentation
ProductIdentification	1	ProductIdentification	The object provides the identifier(s) of a product.

3.8 CodeList

3.8.1 Country

For representation of Country name RosettaNet has adopted ISO 3166-3; 1999.
Refer to the following web page to get the latest version of the standard:
 http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html

If you need more information about the ISO standard please contact ISO for more details.

3.8.2 CountrySubdivision

For representation of a Countries subdivisions RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard:
 http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html

If you need more information about the ISO standard please contact ISO for more details.

3.8.3 Currency

For representation of Currency codes RosettaNet has adopted ISO 4217; 1995. The British Standards Institution (BSI) is the ISO 4217 Maintenance Agency. Refer to the following web page to get the latest version of the standard:
 http://www.bsi-global.com/Technical+Information/Publications/_Publications/tig90.xalter

If you need more information about the ISO standard please contact ISO for more details.

3.8.4 Language

For representation of Language name RosettaNet has adopted   ISO 639-2; 1998.
Refer to the following web page to get the latest version of the standard:

http://www.loc.gov/standards/iso639-2/iso639jac.html

If you need more information about the ISO standard please contact ISO for more details.

3.8.5 MimeTypeQualifier

The MIME type as defined by IANA.

Please refer to http://www.iana.org/assignments/media-types/   for a list of types.

Instance	Documentation
application/activemessage	[Shapiro]
application/andrew-inset	[Borenstein]
application/applefile	[Faltstrom]
application/atomicmail	[Borenstein]
application/batch-SMTP	[RFC2442]
application/beep+xml	[RFC3080]
application/cals-1840	[RFC1895]
application/cnrp+xml	[RFCCNRP]
application/commonground	[Glazer]
application/cpl+xml	
application/cybercash	[Eastlake]
application/dca-rft	[Campbell]
application/dec-dx	[Campbell]
application/dicom	[RFC3240]
application/dvcs	[RFC3029]
application/EDI-Consent	[RFC1767]
application/EDIFACT	[RFC1767]
application/EDI-X12	[RFC1767]
application/eshop	[Katz]
application/font-tdpfr	[RFC3073]
application/http	[RFC2616]
application/hyperstudio	[Domino]
application/iges	[Parks]
application/index	[RFC2652]
application/index.cmd	[RFC2652]
application/index.obj	[RFC2652]
application/index.response	[RFC2652]
application/index.vnd	[RFC2652]
application/iotp	[RFC2935]
application/ipp	[RFC2910]
application/isup	[RFC3204]
application/mac-binhex40	[Faltstrom]
application/macwriteii	[Lindner]
application/marc	[RFC2220]
application/mathematica	[Van Nostern]
application/msword	[Lindner]
application/news-message-id	[RFC1036,Spencer]
application/news-transmission	[RFC1036, Spencer]
application/ocsp-request	[RFC2560]
application/ocsp-response	[RFC2560]

application/octet-stream	[RFC2045,RFC2046]
application/oda	[RFC2045,RFC2046]
application/ogg	[RFC-walleij-ogg-mediatype-08.txt]
application/parityfec	[RFC3009]
application/pdf	[Lindner]
application/pgp-encrypted	[RFC3156]
application/pgp-keys	[RFC3156]
application/pgp-signature	[RFC3156]
application/pkcs10	[RFC2311]
application/pkcs7-mime	[RFC2311]
application/pkcs7-signature	[RFC2311]
application/pkix-cert	[RFC2585]
application/pkixcmp	[RFC2510]
application/pkix-crl	[RFC2585]
application/postscript	[RFC2045,RFC2046]
application/prs.alvestrand.titrax-sheet	[Alvestrand]
application/prs.cww	[Rungchavalnont]
application/prs.nprend	[Doggett]
application/prs.plucker	[Janssen]
application/qsig	[RFC3204]
application/reginfo+xml	[RFC-ietf-sipping-reg-event-00.txt]
application/remote-printing	[RFC1486,Rose]
application/riscos	[Smith]
application/rtf	[Lindner]
application/sdp	[RFC2327]
application/set-payment	[Korver]
application/set-payment-initiation	[Korver]
application/set-registration	[Korver]
application/set-registration-initiation	[Korver]
application/sgml	[RFC1874]
application/sgml-open-catalog	[Grosso]
application/sieve	[RFC3028]
application/slate	[Crowley]
application/timestamp-query	[RFC3161]
application/timestamp-reply	[RFC3161]
application/tve-trigger	[Welsh]
application/vemmi	[RFC2122]
application/vnd.3gpp.pic-bw-large	[Meredith]
application/vnd.3gpp.pic-bw-small	[Meredith]
application/vnd.3gpp.pic-bw-var	[Meredith]
application/vnd.3gpp.sms	[Meredith]
application/vnd.3M.Post-it-Notes	[O'Brien]
application/vnd.accpac.simply.aso	[Leow]
application/vnd.accpac.simply.imp	[Leow]
application/vnd.acucobol	[Lubin]
application/vnd.acucorp	[Lubin]
application/vnd.adobe.xfdf	[Perelman]
application/vnd.aether.imp	[Moskowitz]
application/vnd.amiga.ami	[Blumberg]
application/vnd.anser-web-certificate-issue-	[Mori]

initiation	
application/vnd.anser-web-funds-transfer-initiation	[Mori]
application/vnd.audiograph	[Slusanschi]
application/vnd.blueice.multipass	[Holmstrom]
application/vnd.bmi	[Gotoh]
application/vnd.businessobjects	[Imoucha]
application/vnd.canon-cpdl	[Muto]
application/vnd.canon-lips	[Muto]
application/vnd.cinderella	[Kortenkamp]
application/vnd.claymore	[Simpson]
application/vnd.commerce-battelle	[Applebaum]
application/vnd.commonspace	[Chandhok]
application/vnd.contact.cmsg	[Patz]
application/vnd.cosmocaller	[Dellutri]
application/vnd.ctc-posml	[Kohlhepp]
application/vnd.cups-postscript	[Sweet]
application/vnd.cups-raster	[Sweet]
application/vnd.cups-raw	[Sweet]
application/vnd.curl	[Byrnes]
application/vnd.cybank	[Helmee]
application/vnd.data-vision.rdz	[Fields]
application/vnd.dna	[Searcy]
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application/vnd.epson.msf	[Hoshina]
application/vnd.epson.quickanime	[Gu]
application/vnd.epson.salt	[Nagatomo]
application/vnd.epson.ssf	[Hoshina]
application/vnd.ericsson.quickcall	[Tidwell]
application/vnd.eudora.data	[Resnick]
application/vnd.fdf	[Zilles]
application/vnd.ffsns	[Holstage]
application/vnd.FloGraphIt	[Floersch]
application/vnd.framemaker	[Wexler]
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application/vnd.ibm.MiniPay	[Herzberg]
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application/vnd.kde.kontour	[Faure]
application/vnd.kde.kpresenter	[Faure]
application/vnd.kde.kspread	[Faure]
application/vnd.kde.kword	[Faure]
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application/vnd.liberty-request+xml	[McDowell]
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application/whoispp-response	[RFC2958]
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audio/AMR-WB	[RFC3267]
audio/basic	[RFC2045,RFC2046]
audio/CN	[RFC3389]
audio/DAT12	[RFC3190]
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audio/EVRC0	[RFC-ietf-avt-evrc-smv-03.txt]

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audio/G726-24	
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audio/G726-40	
audio/G728	
audio/G729	
audio/G729D	
audio/G729E	
audio/GSM	
audio/GSM-EFR	
audio/L16	[RFC2586]
audio/L20	[RFC3190]
audio/L24	[RFC3190]
audio/L8	
audio/LPC	
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audio/mpa-robust	[RFC3119]
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message/disposition-notification	[RFC2298]
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message/http	[RFC2616]
message/news	[RFC 1036, H.Spencer]
message/partial	[RFC2045,RFC2046]
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message/s-http	[RFC2660]
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message/sipfrag	[RFC3420]
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multipart/parallel	[RFC2045,RFC2046]
multipart/related	[RFC2387]
multipart/report	[RFC1892]
multipart/signed	[RFC1847]
multipart/voice-message	[RFC2421,RFC2423]
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text/css	[RFC2318]
text/directory	[RFC2425]
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text/plain	[RFC2646,RFC2046]
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video/MP2P	
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video/MP4V-ES	[RFC3016]
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video/vnd.vivo	[Wolfe]

3.8.6 UnitOfMeasure

Code identifying a product unit of measure.

Instance	Documentation
10P	10-pack.
1BF	100 Board Feet.
1FC	20 Foot Container.
1GR	Gram/Cubic Centimeter.
1GT	10,000 Gallon Tankcar.
1KB	25 Kilogram Bulk Bag.
1KD	10 Kilogram Drum.
1KP	1000-pack.
1M2	1/Square Meter (1/M2).
1PA	20-Pack.
1PB	50 Pound Bag.
1PD	100 Pound Drum.
1PM	1/minute (1/min).
22S	Square Millimeter/Second (mm2/s).
2FC	40 Foot Container.
2GR	Gram/square meter.
2GT	20,000 Gallon Tankcar.
2KB	300 Kilogram Bulk Bag.
2KD	15 Kilogram Drum.
2PA	100-Pack.
3GR	Grams Per 100 Centimeters.

3KB	500 Kilogram Bulk Bag.
3KD	55 Gallon Drum.
3MH	Cubic Millimeters/Hour (mm3/hour).
4GR	Grams Per 100 Grams.
4KD	115 Kilogram Drum.
50P	50-pack.
5GR	Grams Per Cubic Centimeter.
6GR	Grams Per Square Centimeter.
7GR	Grams Per Square Meter.
ABC	Absorbance per centimeter (Absorbance per cm).
ABU	Absorbance per Unit (absorbance per unit).
ACC	Atoms per Cubic Centimeters (atoms per cu cm).
ACR	Acre.
ACS	Acidic strength/concentration.
ACT	Actual Pounds.
ACU	Activity unit (Activ.unit).
ALU	Aluminum Pounds Only.
AM1	Ampoule.
AMN	Ångstroms/Minute (Ångst/min).
AMP	Ampere.
ANG	Angstrom (A).
APB	Atomic Parts per Billion (atomic ppb).
APG	API Specific Gravity (API Grav).
APM	Atomic Parts per Million (atomic ppm).
APT	Atomic Parts per Trillion (atomic ppt).
APU	APHA Units (apha).
ASC	Atoms per Square Centimeters (atoms per sq cm).
ASM	Angstrom.
ASY	Assembly (ASY).
ATG	Atmospheric gauge.
ATM	Atmosphere absolute.
ATP	Atomic %.
ATY	Activity.
BAB	Base Box.
BAC	Batch.
BAE	Bale.
BAG	Bag.
BAL	Ball.
BAN	Band.
BAP	Batting Pound.
BAR	Bar.
BAS	Basket.
BAT	Batt.
BAW	Base Weight.
BEA	Beam.
BEC	Becquerel/kilogram.
BEL	Belt.
BHP	Brake HP.
BIL	Billet.
BIN	Bin.

BIT	Bit.
BKC	Bulk Car Load.
BLN	Balance.
BLO	Block.
BOA	Board.
BOF	Board Feet.
BOL	Bolt.
BOT	Bottle.
BOX	Box.
BRB	Bar absolute.
BRD	Barrels Per Day.
BRE	Barrel.
BRI	Barrel (Imperial).
BRM	Barrels Per Minute.
BTF	British Thermal Units (BTUs) Per Cubic Foot.
BTP	British Thermal Units (BTUs) Per Pound.
BTU	British Thermal Unit (BTU).
BUB	Bubbler.
BUC	Bucket.
BUD	Bushel, Dry Imperial.
BUK	Bunks.
BUL	Bulk.
BUN	Bundle.
BUP	Bulk Pack.
BUS	Bushel.
BYT	Bytes.
C0W	Counts per Wafer (Counts/wf).
C3M	Cubic centimeter per minute (cm3/minute).
CAA	Carat.
CAB	Carboy.
CAC	Card.
CAD	Candela.
CAG	Cartridge.
CAK	Cask.
CAL	Calorie.
CAN	Can.
CAO	Carload.
CAR	Car.
CAS	Case.
CAT	Canister.
CAW	Catchweight.
CC2	Centipoises per hour per square centimeters (cps per hr per sq cm).
CCC	Counts per Square Centimeters (Counts/cm2).
CD3	Cubic decimeter (Cubic dec).
CEL	Cell.
CEM	Centimeter.
CEP	Centipoises (CPS).
CET	Centiliter.
CGM	Centigram.
CHA	Chains (Land Survey).

CHE	Chest.
CM2	Square centimeter (cm2).
CMH	Centimeter/hour (cm/h).
CML	Colony/Milliliter (col/ml).
CMS	Centimeter/Second (cm/s).
CNN	Connector.
COG	Coil Group.
COI	Coil.
COL	Coulomb.
COM	Composite Product Pounds (Total Weight).
CON	Cone.
COT	Container.
COV	Cover.
CRA	Crate.
CRT	Carton.
CSE	Cassette.
CST	Centistokes.
CUB	Cubic centimeter.
CUC	Cubic centimeter/second.
CUF	Cubic Foot.
CUI	Cubic inch.
CUM	Cubic meter.
CUP	Cup.
CUY	Cubic yard.
CYC	Cycles.
CYL	Cylinder.
DAL	Dalton units (dalton).
DAY	Day.
DCB	Decibels.
DCG	Decagram.
DCL	Deciliter.
DCM	Defects per Square Centimeters (Defects/cm2).
DE1	Defects.
DE2	Degrees in Angles.
DE3	Degree.
DEA	Deal.
DEC	Decimeter.
DEF	Degree Fahrenheit.
DEG	Degree Celsius.
DEP	Dep. Factor.
DFW	Defects per Wafer (Defects/Wafer).
DGM	Decigram.
DIE	Die.
DIL	Display.
DIP	Dispenser.
DNC	Dynes per centimeter (Dynes per cm).
DOZ	Dozen.
DPM	Parts per Million per Day (ppm per day).
DRA	Dram.
DRU	Drum.

DRY	Dry Pounds.
EAC	Each.
ELE	Electrical Capacitance.
EML	Enzyme Units/Milliliter (Enzyme/ml).
ENU	Enzyme Units (Enzy.Units).
EQ2	Milliequivalent per 30 Kg (mequ/30Kg).
EQG	Milliequivalent per gram (milliequivalent per g).
EQK	Milliequivalent per Kilogram (mequ/Kg).
EQM	Milliequivalent per Millimeter (milliequivalent per mm).
FAR	Farads.
FFA	Femtofarad.
FIN	1/32 inch.
FLO	Fluid Ounce.
FOI	Fluid Ounce (Imperial).
FOO	Foot.
FOU	Fluid Ounce US.
FPS	Feet per second (Feet/s).
FRH	Sales FT3 at 60°F per hour (FTR/hour).
FRM	Sales FT3 at 60°F per minute (FTR/min).
FTR	Sales FT3 at 60°F, 14.7 psia (SFT3_60F_S).
FTS	Sales FT3 at 70°F, 14.7 psia (SFT3_70F_S).
FTT	1000 FT3 at 60°F, 14.7 psia (KFT3_60F_S).
FTU	1000 FT3 at 70°F, 14.7 psia (KFT3_70F_S).
FUU	Fuel Usage (Gallons).
G2S	Gram square per second (g²/s).
GAI	Gram act. ingrd. (g act.ing).
GAL	Gallon.
GAS	Gage Systems.
GAU	Gram Gold.
GCL	Gardner Color.
GEG	Keim/Gramm (keim/g).
GEQ	Gram per Equivalent (g/Eq).
GGM	Gram per gram mole (g/gmole).
GHG	Gram per Hectogram (g/hg).
GIH	Gigahertz.
GIJ	Gigajoules.
GIL	Gill (Imperial).
GM4	Gram per 100 Milliliters (g/100ml).
GME	Gram per Mole Equivalent (g/mole Eq).
GMO	Gram per Mol (g/mol).
GNL	Gram act.Ingrd per Liter (gai/liter).
GOB	Gross Barrels.
GOG	Gross Gallons.
GOH	Gigaohm (GOhm).
GOK	Gross Kilogram.
GOT	Gross Ton.
GOY	Gross Yard.
GPN	US Gallon per minute (gpm US).
GRA	Gram.
GRG	Great Gross (Dozen Gross).

GRK	Grams Per Kilogram.
GRL	Grams Per Liter.
GRM	Grams Per Milliliter.
GRN	Grain.
GRO	Gross.
GRP	Group.
HAG	Half Gallon.
HAH	Half Hour.
HAL	Half Liter.
HAN	Hank.
HEA	Heat lots.
HEC	Hectare.
HEL	Hectoliter.
HEP	Hectopascal.
HER	Hertz.
HGM	Hegman.
HNY	Henry.
HOS	Hours.
HOU	Hour.
HUA	Hundredth of a Carat.
HUB	Hundred Boxes.
HUC	Hundred Count.
HUS	Hundred Sheets.
HZM	Hertz per Minute (Hertz per min).
IH2	Inches of Water Gauge (inH2O-g).
IHG	Inches of Mercury Gauge (inHg-g).
ILB	Inch pounds (in.lb).
IMG	Imperial Gallons.
INC	Inch.
IPS	Inch per second (inch / sec).
JAR	Jar.
JKG	Joule/Kilogram (J/kg).
JMO	Joule/Mol (J/mol).
JOI	Joint.
JOU	Joule.
KAI	Kilogram act. Ingrd. (kg ac.ing.).
KAK	kg act.ingrd. / kg (kai/kg).
KBY	Kilobyte.
KCM	Kilogram per cm2 gauge (kg/cm2-g).
KD3	Kilogram per Cubic Decimeter (kg/dm3).
KEG	Keg.
KEL	Kelvin.
KGE	Container Fill Weight in Kg/Ea.
KGH	Kilogram per Hour (kg/h).
KGL	Kilograms per Liter (kg/L).
KGM	Kilogram/Mol (kg/mol).
KGS	Kilogram per Second (kg/s).
KHO	Kilometer/hour.
KIC	Kilogram per cubic meter.
KIE	Kilometer.

KIG	Kilogram.
KIH	Kilohertz.
KIK	Kilobecquerel/Kilogram.
KIL	Kiloampere.
KIM	Kilogram/square meter.
KIO	Kiloohm.
KIS	Kilogramm pro Sekunde.
KIT	Kit.
KIV	Kilovolt.
KIW	Kilowatt.
KJK	Kilojoule per kilogram (KJ/kg).
KJL	Kilojoule.
KJM	Kilojoule/Mol (KJ/mol).
KKG	Kilogram/Kilogram.
KMK	Cubic meter/Cubic meter (m3/m3).
KMN	Kelvin per Minute (K/min).
KMS	Kelvin per Second (K/s).
KNM	Kilonewton per square meter (kN/m2).
KNT	Kilonewton (ND).
KPA	Kilopascal (kPa).
KRU	Kreb Unit.
KTN	Kilotonne (kt).
KUD	Kubikdezimeter.
KUM	Kubikmeter pro Sekunde.
KVA	Kilovoltampere (kVA).
KWH	Kilowatt-hour.
KWR	Kilovolt ampere reactive hours (KVAH reac.).
LBH	US Pound per Hour (lb/hour).
LBM	US Pound per minute (lb/min).
LG2	Liter per Gram per Centimeter (l/g/cm).
LGC	Liters per Gram-Centimeters (l/g-cm).
LHK	Liter per 100 km (l/100 km).
LIF	Lifts.
LIM	Link.
LIQ	Liquid Pounds.
LIT	Liter.
LMI	Liter per Minute (l/min).
LMS	Liter per Molsecond (l/mol.s).
LOA	Load.
LOT	Lot.
LPD	Light Point Defects per Wafer (LPD/Wafer).
LPH	Liter per hour (l/hr).
LUG	Lug.
M15	Micron per 15 Square Millimeters (mu per 15 sq mm).
M20	Micron per 20 Square Millimeters (mu per 20 sq mm).
M25	Micron per 25 Square Millimeters (mu per 25 sq mm).
M26	Micron per 26 by 8 Millimeters (mu per 26 by 8 mm).
M2G	Meters square per gram (m sq per gram).
M3A	Sales m3 at 15 °C, 1 atmos (Sm3_15C_S).
M3B	Sales m3 at 21 °C, 1 atmos (Sm3_21C_S).

M3C	Sales m3 at 10 °C, 1 atmos (Sm3_10C_S).
M3D	Sales m3 at 43 °C, 1 bar (Sm3_43C_D).
M3E	Sales m3 at 9 °C, 1 bar (Sm3_9C_D).
M3F	Sales m3 at 15 °C, 1 bar (Sm3_15C_D).
M3G	Sales m3 at 27 °C, 1 atmos (Sm3_27C_S).
M3H	Cubic Meter per Hour (m3/h).
M3J	Sales m3 at 35 °C, 1 atmos (Sm3_35C_S).
M3K	Cubic Meter/Kilogram (m3/Kg).
M3M	Milliliter per Cubic Meter (ml/m3).
M3N	Mol per Cubic Meter (Mol/m3).
MAM	Milliamps/mm.
MAT	Mat.
MBY	Megabyte.
MBZ	Meterbar per Second (m.bar/s).
MC2	Millisecond per Centimeter (mS/cm).
MCA	Microampere (µA).
MCG	Microgram.
MCH	Micromhos (µmhos).
MCK	Microcuries per Kilogram (µci/kg).
MCL	Microcuries per Gaseous Liter (µc/l).
MCM	Milligrams Per Cubic Meter.
MCN	Metal Can.
MCP	Manifolded Cylinder Pack.
MCR	Micron.
MEG	Megagram.
MEH	Megahertz.
MEJ	Megajoule (MJ).
MEP	Megapascal.
MET	Meter.
MEW	Megawatt.
MFD	Microfarad (µF).
MGA	Milligram per Amp (mg per amp).
MGF	Milligram per Square Centimeter (mg/cm2).
MGG	Milligram per Gram (mg/g).
MGL	Microgram per Liter (µg/l).
MGM	Milligram.
MGO	Megohm (MOhm).
MGR	Micrograms per Gram (µg/g).
MGS	Milligram per Second (mg per sec).
MH1	Millimeter per Hour (mm/h).
MHC	Micromhos per Centimeter (µmhos/cm).
MHR	Meter per Hour (m/h).
MHV	Megavolt.
MIB	Million BTU's.
MIC	Mikrogram/cubic meter.
MIG	Micrograms Per Cubic Meter.
MIL	Mile.
MIM	Micrometer.
MIN	Minute.
MIP	Millipascal seconds.

MIS	Microsecond.
MIT	Miter.
MIV	Millivolt.
MIW	Milliwatt.
MJM	Wobbe Number (MJ/m3).
MJO	Millijoule.
MKG	Milligrams of KOH per Gram (mg KOH per g).
MKL	Millimol per Gram (mmol/g).
ML1	Milliliter per Liter (ml/l).
ML2	Milliliter per Liter (ml/l).
ML3	Mol per Liter (Mol/Liter).
ML4	Millimol per Liter (Millimol/l).
MLA	Milliampere.
MLB	Millibar.
MLC	Milligram/cubic meter.
MLG	Milliliter per Gallon (ml per gal).
MLI	Milliliter.
MLK	Milligram/kilogram.
MLL	Milligram/Liter.
MLM	Mole per Mole (mole/mole).
MLP	Mole Percent (% mole).
MLR	Microliter (µl).
MLS	Miles.
MLW	Milliliter act. Ingr. (ml act.in.).
MM3	Cubic Millimeter (mm3).
MMA	Millimeter per Year (mm/a).
MME	Millimeter.
MMG	Millimol/gram (mmol/g).
MMH	Millimeter H20.
MMK	Millimol/kilogram.
MMM	0.000001 meter (1 millionth of a meter). (Micrometer/Micron).
MMN	Meter per Minute (m/min).
MMO	Millimol.
MMS	Millimeter per Second (mm/s).
MNM	Millinewton per meter (mN/m).
MNT	Meganewton (MN).
MOK	Mol/kilogram.
MOL	Mol.
MON	Month.
MPB	Mass parts per billion (ppb(m)).
MPG	Miles per Gallon (US) (Mi/Gal(US)).
MPH	Megagrams Per Hour.
MPM	Mass Parts per Million (ppm(m)).
MPT	Mass Parts per Trillion (ppt(m)).
MPZ	Meterpascal per Second (m.Pa/s).
MQG	Mircoequivalent per Gram (microeq/g).
MRF	Millifarad (mF).
MS1	MilliSiemen per Centimeter (mS/cm).
MS2	Meter per Second Squared (m/s2).
MS3	Microsiemens per Centimeter (µS/cm).

MSC	Millisecond.
MSM	Milligrams Per Square Meter.
MTA	Millitesla.
MTQ	Meter pro Quadratsekunde.
MTR	Meter (m).
MTS	Meters per second.
MUL	Multichip - When 2 or more dies (chips) are merged into one package.
MVA	Megavoltampere (MVA).
MVS	Millivolts.
MVT	Millivolt.
MWH	Megawatt Hours (mwh).
MWR	Megavolt Ampere Reactive Hours (MVAH reac.).
MWT	Molecular Weight (mW).
MYS	Micro Siemens (mic. Siem.).
N2M	Newton/Square millimeter (N/mm2).
NAA	Nanoamps.
NAM	Nanometer.
NAS	Nanosecond.
NEB	Net Barrels.
NEG	Net Gallons.
NEI	Net Imperial Gallons.
NEL	Net Liters.
NEW	Newton.
NM2	Newton per Square Meter (N/m²).
NM3	Normal m3 at 0°C, 1 atmos (Normal m3).
NMH	Newton per Hour (N/h).
NMM	Newton per Millimeter (N/mm).
NMR	Normal m3 per Hour (Nm3/h).
NOL	Normality.
NPK	Nowpac Container (Nowpac).
NRG	Bar Gauge.
NRU	Nanofarad (nF).
NTU	Nephelometric Turbidity Units (NTU).
NTY	Equivalents per Liter (equ/l).
NUM	Numbers.
NWM	Newton per Meter (N/m).
NXM	Newton per 25 mm (N/25mm).
O2P	Percent Oxygen (% Oxygen).
OCT	Ohm/ct.
OHC	Ohm-Centimeter (ohm cm).
OHM	Ohm.
OMM	Ohm/mm.
ONE	One.
OPH	Operating hour (Oper. Hour).
OSQ	Ohm/sq.
OTP	One Thousand Pieces.
OUN	Ounce.
OVI	Ohm/via.
OZG	Ounce per Gallon (oz per gal).
PAC	Parcel.

PAD	Pad.
PAG	Package.
PAI	Pail.
PAK	Pack (PAK).
PAL	Pallet.
PAN	Panel.
PAR	Pair.
PAS	Pascal.
PAT	Packet.
PBA	PPBA Silicon (ppba Si).
PBW	Parts Per Billion by Weight (ppbw).
PC2	Parts per Square Centimeters (part per sq cm).
PCA	Percent Active (% Active).
PCL	Picocuries per Liter (pCi/l).
PEC	Percent.
PEG	Percentage.
PEH	Percent Per 1000 Hours.
PEN	Pennyweight.
PER	Per Hundred Pieces.
PEW	Percent Weight.
PF3	Per Cubic Foot (per cu ft).
PF4	Particles per Cubic Feet (particles per cu ft).
PFA	Percent Failed Area (Failed Area %).
PFR	Picofarad.
PH	PH Factor (pH).
PI2	Parts per Square Inch (part per sq in).
PID	Pint U.S. Dry.
PIE	Piece.
PIL	Pint - US liquid.
PL1	Parts per Liter (parts per l).
PL2	Parts per Milliliter (parts per ml).
PL3	Part per Millilitre (Part/ml).
PLA	Plate.
PLI	Pounds per Linear Inch (lb/Lin. In).
PLL	Pallet (Lift).
PLR	Per Liter.
PLT	Palette.
PLU	Pallet/Unit Load.
PMA	Percent Mass (%(m)).
PMI	Per Mille (%0).
PML	Particles per Milliliter (particles/mL).
PMO	Per Mille mass (%0(mass)).
PMP	Parts Per Million Platinum (ppm Pt).
PMV	Parts Per Million (weight/Vol) (ppm (w/v)).
PMW	Parts Per Million by Weight (ppmw).
PNJ	Particles per Injection (particles per inj).
PNT	Points.
POF	Pounds Per Foot.
POG	Pounds Per Gallon.
PON	Pound.

POP	Pounds Per Piece of Product.
POR	Pores.
POS	Pounds Per 1000 Square Feet.
POT	Pounds Per Thousand.
PP3	Parts per Million mole (ppm mole).
PP4	Parts per Billion Mole (ppb mole).
PPB	Parts per billion (US).
PPF	Parts per Ft3 (Parts/Ft3).
PPH	Parts Per Hundred (pph).
PPM	Parts per million.
PPP	Pounds Per Pound of Product.
PPT	Parts per Trillion (ppt).
PRS	Number of Persons.
PSA	Pounds per Square Inch Absolute.
PSC	Picosecond.
PSG	Pound per Square Inch Gauge (psi gauge).
PSI	PSI Unit (PSI).
PSS	Pascal second.
PSV	Poise.
PTL	Particles per Liter (Part/Liter).
PWF	Particles per Wafer (particles/wf).
QML	Kilomol (kmol).
QUA	Quart - US liquid.
RAC	Rack.
REA	Ream of 500 Sheets.
REE	Reel.
RIN	Ring.
RLU	Relative Light Unit (RLU).
ROD	Rod.
ROL	Roll.
RPM	Revolutions per Minute (Revs/min).
SAC	Sack.
SBB	Super Bulk Bag.
SCL	Scales.
SEC	Second.
SET	Set.
SHE	Sheet.
SHI	Shipment.
SHM	Sheet - Metric measure.
SHO	Shot.
SID	Disk (Disc).
SIE	Siemens per Meter (Siemens/m).
SKE	Skein.
SKI	Skid.
SLE	Sleeve.
SLI	Slip Sheet.
SMI	Square mile.
SMM	Square millimeter.
SPO	Spool.
SQF	Square foot.

SQI	Square inch.
SQK	Square kilometer.
SQM	Square meter.
SQS	Square meter/second.
SQU	Square.
SQY	Square Yard.
STI	Stick.
STM	Statute Mile.
STP	Steps.
STR	Strip.
STU	Stabilizer Units (SU).
SVU	Say Bolt Viscosity Units (SVU).
TAB	Tablet.
TAN	Tank.
TAR	Target pieces (target).
TAT	Tank Truck.
TES	Tesla.
THO	Thousand.
TM3	1/Cubic Meter (1/m3).
TNN	Tonne.
TOM	Ton per Cubic Meter (t/m3).
TON	Ton.
TOR	Torr.
TOT	Tote.
TPT	Pass Test (Pass).
TRA	Train.
TRF	Track Foot.
TRL	Trailer.
TRO	Troy.
TRU	Truckload.
TRY	Tray.
TRZ	Troy OZ.
TUB	Tube.
ULU	Unitless Unit of Measure.
UNT	Unit.
USG	US gallon.
USP	US pound.
UST	US ton.
VAL	VO mat. (Value).
VAP	Voltampere (VA).
VHN	Vickers Micro-Hardness (VHN10).
VIA	Vial.
VMP	Molar %.
VOL	Volt.
VPB	Volume Parts per Billion (ppb(V)).
VPC	Percent Volume (%(V)).
VPM	Volume Parts per Million (ppm(V)).
VPR	Per Mille Volume (%O(V)).
VPT	Volume parts per Trillion (ppt(V)).
VTA	Volts (Alternating Current).

VTD	Volts (Direct Current).
VTM	Volts Per Meter.
WAF	Wafer.
WAR	Watt.
WEE	Week.
WPT	Parts Per Trillion by Weight (pptw).
WRA	Wrap.
YAR	Yard.
YEA	Year.

3.8.7 ProcessRoleIdentifier

Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

Instance	Documentation
ADM	Administered by - The party who is the administrative authority of an account.
ALT	Alternate approval by - The party who has approved a request in the event the approver is not able to respond.
APP	Approval by - The party who has approved a request.
AUT	Authorized By - The party who has authorized a request.
BIF	Bill from - The party that will issue the invoice.
BIT	Bill to - The party that will pay the invoice.
CBK	Customs Broker - CustomsBroker This object represents the party that declare the shipment on behalf of declarant.
CLF	Collect From - To enable the buyer to specify the location of where products not supplied directly by the seller/installer may be collected.
CLM	Claimed By - This object represents the claimant.
CNC	Cancellation party - The party who is cancelling the shipping order.
COR	Change originated by - The party who originates a proposed change.
COW	Change owned by - The party who owns or who is assigned responsibility for a proposed change.
CRA	Credit applicant - The party who is applying for credit.
CRE	Created by - The party responsible for creating a process or task.
CSP	Contract Service Provider.
CWN	contractOwner - The party who is the owner of the contract. For example, in the direct business, the buyer is the contract owner. In the distribution business, the buyer is the distributor and the contract owner is the reseller.
DCE	DesignCustomerApplicationEngineer. The demand customer's Field Application Engineer.
DCT	Declared To - This object represents the party that the declaration goes to.
DCU	DesignCustomer. The owner of the product for which the design has been created.
DIS	Distributed by - The party who supplies products to retailers.
DLR	Declared By - This object represents the party that declare the shipment.
DST	Distributed To - This object represents the party to send information to.
FCP	Forecast Partner - The collection of business properties that describes

	the partner types for a forecast.
FIA	From Install At - The collection of sender business properties that describes a business partners' identity, their contact information, where they are physically located and their function in a supply chain.
FIN	Financed by - The party who is the financier.
FNB	Founded by - The party who performs the act, process, or art of casting metals.
FOR	Forwarded to - The party to whom a business document has been forwarded.
IMB	Imported By - The party responsible for importing the product.
INL	Inventory location - The party where the inventory product entry is located.
INO	Inventory owner - The party that owns the inventory product entry.
ITF	In transit from - The party sending the product quantity in a product location transfer.
ITL	installAt - The partner and/or location to which the product must be set up for use or service.
ITT	In transit to - The party receiving the product quantity in a product location transfer.
LGP	Logistics Provided By - The party who handles the details of an operation.
MFG	Manufactured by - The party who creates, processes or produces goods especially in large quantities and by means of industrial machines.
OWN	Owned by - The party who owns a process.
PAE	ProductProviderFieldApplicationEngineer. The product provider Field Application Engineer.
PCW	Primary Contract With - The primary party with whom a contract is formed.
PNB	Planning By - The party who establishes goals, policies or procedures.
PSR	ProductProviderSalesRepresentative. The product provider sales representative.
PUR	Purchased by - The party who is a purchaser of a product.
REA	Requested approval by - The party who has been selected to approve a request.
REC	Received by - The party who has received a product shipment.
REQ	Requested by - The party who has initiated a request.
RES	Respond to - The party to whom a responding business document must be sent when it is not equal to the partner specified in the document header.
RET	Return by - The party responsible for either carrying or forwarding the returned product.
REV	Reviewed by - The party responsible for reviewing a business document.
RFR	receivedFrom - The partner and/or location from where the product was shipped.
RLS	Released By - This object represents the party that releases the goods.
RMT	remitTo - The partner to which payment for a business document is sent.
RPB	Repaired By - The collection of business properties used to identify the business partner responsible for the repair or rework of a product.
RQT	Refer Quote To - The partner to whom a quote request is being

	referred.
RSF	Requested Ship From - The party where the product is requested to be shipped from.
RTT	ReturnTo - The partner and/or location to which the returned product must be delivered.
SBF	Self-billing from - The party who initiates the billing in self-billing scenario.
SBT	Self-billing to - The party whom the invoice is addressed to.
SCB	Subcontracted By - The party who is contracted to perform part or all of another party's contract.
SCP	Shipping charges paid by - The party responsible for administering payment of the shipping charges.
SCW	Secondary Contract With - The subsequent party(ies) with whom a contract is formed.
SHF	Ship From - The collection of business properties used to identify the business partner initiating a shipment or transaction.
SHT	Ship To - The partner and/or location to which the product must be delivered.
SLD	Sold to - The party to whom a product has been sold.
SOB	Sold By - The seller involved in a business transaction.
SPL	Supplied by - The party who supplies an item, part or assembly.
SPS	Service Provider Site - Identification for the location of the ASP site that is ordering the replacement parts and/or performing the repair.
SRT	Submit returns to - The party to whom product returns are to be submitted.
STR	Stored By - This object represents the party that stores the goods.
SVA	ShipVia - The partner and/or location through which the product must be shipped, such as the "cross dock" at a shipping hub. It must not be specified for the last leg, since this would be the same as the final destination specified in the ShipmentInformation/shipTo.
TFR	Transfer From - The party responsible for making the payment (Payer).
TIA	To Install At - The collection of receiver business properties that describes business partners' identity, their contact information, where they are physically located and their function in a supply chain.
TMT	Transfer Manufacturing To - The movement of the manufacturing process to another site.
TRA	Transported by - The party responsible for either carrying or forwarding the product.
TSB	Tested By - The collection of business properties used to identify the specific location and resources used to conduct a defined cycle or steps or measurements required to confirm a result or event.
TTR	Transfer To - The party who is receiving the payment (payee).
ULR	Ultimate recipient - The party who ultimately receives the shipment, when an intermediate party takes responsibility for payment and final delivery.
USE	Used by - The party who is the end user of the product.
UST	Unstuffed By - This object represents the party that unstuffs the goods.
WHB	Warehoused By - The party who stocks or stores products.

4. System Structure

4.1 BusinessProcessIdentifier

A Business Process Identifier to uniquely define the TPIR-PIP 'role' within a Business Scenario at a company or MNC level. The identifier MUST be composed of alphanumeric characters only and its length MUST be between one and twelve characters.

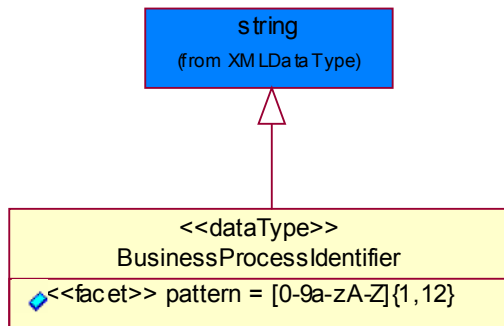**Figure 4-1 BusinessProcessIdentifier**

Attribute	Type	Documentation
pattern		[0-9a-zA-Z]{1,12}

4.2 BusinessServiceInformation

The object allows the specification of the business service utilized within the partner company.   This may or may not be the same as the information sent by the RNIF.
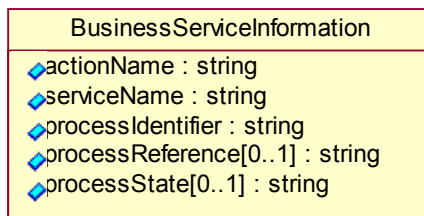
Figure 4-2 BusinessServiceInformation

Attribute	Type	Documentation
actionName	string	The name of Action. For RosettaNet usually any of Request/Confirm/Notify/Query/Response.
serviceName	string	The name of the Business Activity with the "Request/Confirm" part removed. E.g., for the Activity "Request Purchase Order"==> "Purchase Order".
processIdentifier	string	The name of the PIP e.g. Notify of Forecast Reply.
processReference[0..1]	string	The URN for the PIP that includes

		Cluster/Segment/Process pattern used to identify the interface process (such as PIP3A4)
processState[0..1]	string	The business process (or service) state of the sender of a document. When a service receives this document, the receiver may use the state as a precondition.

4.3 ContractInformation

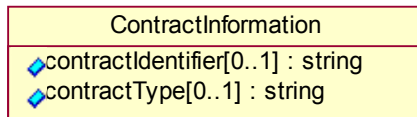A block of information used to correlate a contract in an executing choreography.

ContractInformation
contractIdentifier[0..1] : string
contractType[0..1] : string

Figure 4-3 ContractInformation

Attribute	Type	Documentation
contractIdentifier[0..1]	string	Unique identification of a contract between the Sender and the Receiver
contractType[0..1]	string	The type of the contract: an attribute describing the type of the ContractIndentification. Valid values are URI, URN,ebXMLCPA, or other values defined by partners.

4.4 CorrelationInformation

A block of information used to correlate a requesting document to a responding document and to the contract in an executing choreography.
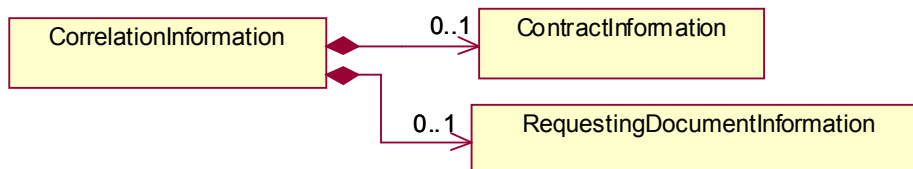
CorrelationInformation
0..1 ContractInformation
0..1 RequestingDocumentInformation

Figure 4-4 CorrelationInformation

Composition	Cardinality	Type	Documentation
ContractInformation	0..1	ContractInformation	A block of information used to correlate a contract in an executing choreography.
RequestingDocumentInformation	0..1	RequestingDocumentInformation	A block of information used to correlate a requesting document to a responding document in an executing choreography.

4.5 DocumentHeader

The object allows for the identification of the sender and receiver of the business document.
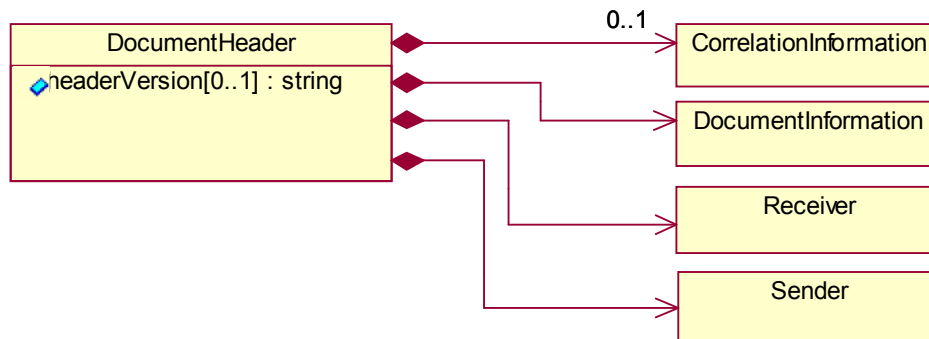

Figure 4-5 DocumentHeader

Attribute	Type	Documentation
headerVersion[0..1]	string	The UN/CEFACT version of the document header.

Composition	Cardinality	Type	Documentation
Sender	1	Sender	The object allows the identification of the initiating party of the business message.
CorrelationInformation	0..1	CorrelationInformation	A block of information used to correlate a requesting document to a responding document and to the contract in an executing choreography.
DocumentInformation	1	DocumentInformation	The object specifies information to identify the business document, a summary of attachments, and information about the business document security.
Receiver	1	Receiver	The object allows the identification of the receiving party of the business message.

4.6 DocumentIdentification

The object specifies all information necessary to identify the business document.
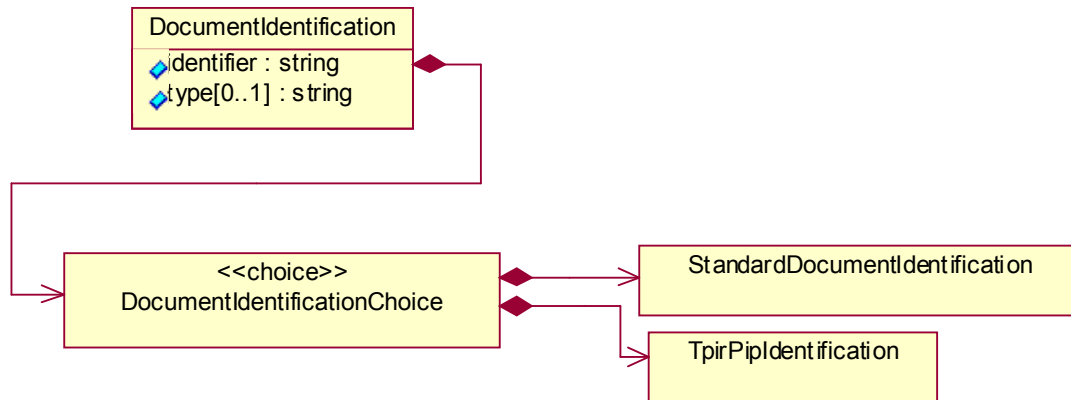
Figure 4-6 DocumentIdentification

Attribute	Type	Documentation
identifier	string	The unique identifier for the document being sent.
type[0..1]	string	Name of the Action Message

Composition	Cardinality	Type	Documentation
DocumentIdentificationChoice	1	DocumentIdentificationChoice	

4.7 DocumentIdentificationChoice

Composition	Cardinality	Type	Documentation
StandardDocumentIdentification	1	StandardDocumentIdentification	The object specifies additional information necessary to identify the standard business document.
TpirPipIdentification	1	TpirPipIdentification	The object specifies all information necessary to uniquely identify a TPIR-PIP within a Registry or trading partner repository.

4.8 DocumentInformation

The object specifies information to identify the business document, a summary of attachments, and information about the business document security.
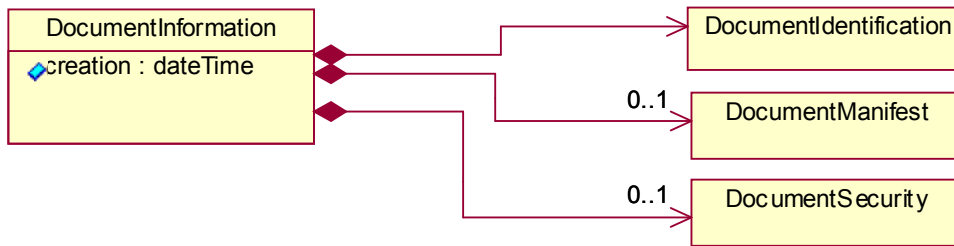
Figure 4-7 DocumentInformation

Attribute	Type	Documentation
creation	dateTime	The creation date and time of the specified Business Document (i.e. the Purchase Order date).

Composition	Cardinality	Type	Documentation
DocumentIdentification	1	DocumentIdentification	The object specifies all information necessary to identify the business document.
DocumentSecurity	0..1	DocumentSecurity	The object provides additional granularity in specifying business document security (this is in addition to the specified PIP security).
DocumentManifest	0..1	DocumentManifest	The block provides a brief summary of attachments and Service Content.

4.9 DocumentManifest

The block provides a brief summary of attachments and Service Content.
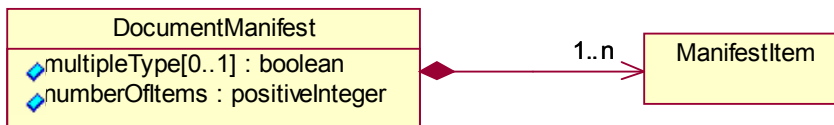
Figure 4-8 DocumentManifest

Attribute	Type	Documentation
multipleType[0..1]	boolean	Indicates whether the manifest contains documents of multiple types. True if yes, and False if no.
numberOfItems	positiveInteger	Total number of documents in the message. The physical count of the attachments in the payload plus the RosettaNet Business Message (for Service Content). The value of this field will be at least 1.

Composition	Cardinality	Type	Documentation
ManifestItem	1..n	ManifestItem	The object provides details about the specific attachment(s).

4.10 DocumentSecurity

The object provides additional granularity in specifying business document security (this is in addition to the specified PIP security).

Figure 4-9 DocumentSecurity

Attribute	Type	Documentation
nonRepudiableReceipt	boolean	The value "true" will indicate that a signed acknowledgement for the business document is necessary.
persistentEncryption	boolean	The value "true" will indicate that the Business Document (including the header) needs to be encrypted when stored or transported.
persistentSignature	boolean	The value "true" will indicate that a signature is required to be stored with the document while stored or transported.

4.11 ManifestItem

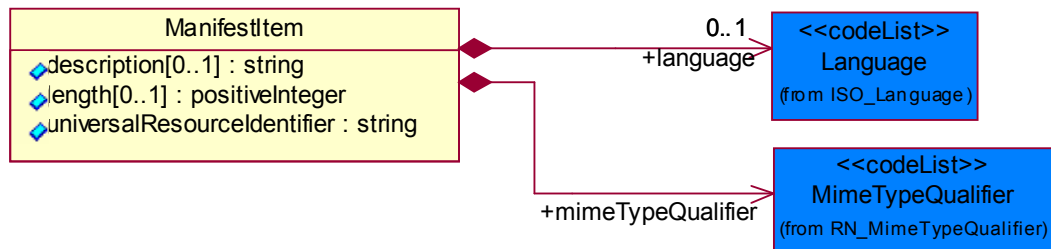The object provides details about the specific attachment(s).

Figure 4-10 ManifestItem

Attribute	Type	Documentation
description[0..1]	string	A description of the attachment.
length[0..1]	positiveInteger	The size of the attachment in bytes (i.e. 1 000 000 bytes)
universalResourceIdentifier	string	The generic set of all names/addresses that are short strings that refer to resources.

Composition	Cardinality	Type	Documentation

mimeTypeQualifier	1	MimeTypeQualifier	The MIME type as defined by IANA. Please refer to http://www.iana.org/assignments/media-types/ for a list of types.
language	0..1	Language	For representation of Language name RosettaNet has adopted ISO 639-2; 1998. Refer to the following web page to get the latest version of the standard: http://www.loc.gov/standards/iso639-2/iso639jac.html If you need more information about the ISO standard please contact ISO for more details.

4.12 PipIdentifier
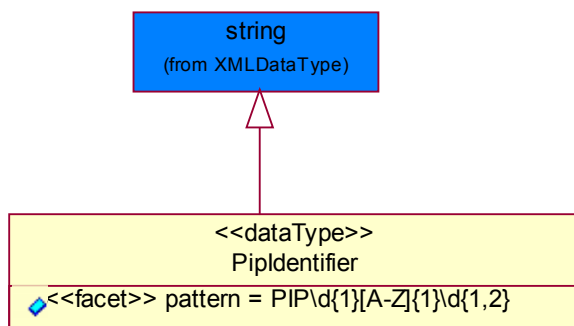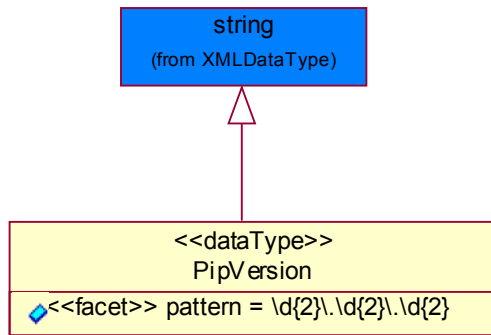
PIP Identification.[i.e. PIP3A4]

Figure 4-11 PipIdentifier

Attribute	Type	Documentation
pattern		PIP\d{1}[A-Z]{1}\d{1,2}

4.13 PipVersion

PIP version number (i.e. 02.02.00).

Figure 4-12 PipVersion

Attribute	Type	Documentation
pattern		\d{2}\.\d{2}\.\d{2}

4.14 Receiver

The object allows the identification of the receiving party of the business message.
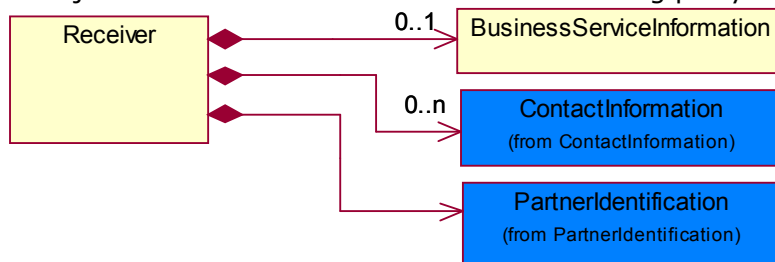
Figure 4-13 Receiver

Composition	Cardinality	Type	Documentation
BusinessServiceInformation	0..1	BusinessServiceInformation	The object allows the specification of the business service utilized within the partner company. This may or may not be the same as the information sent by the RNIF.
PartnerIdentification	1	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.

4.15 RequestingDocumentInformation

A block of information used to correlate a requesting document to a responding document in an executing choreography.

```
RequestingDocumentInformation
businessProcessInstanceIdentifier[0..1] : string
responseDateTime[0..1] : dateTime
requestingDocumentCreationDateTime[0..1] : dateTime
requestingDocumentInstanceIdentifier : string
```

Figure 4-14 RequestingDocumentInformation

Attribute	Type	Documentation
businessProcessInstance Identifier[0..1]	string	The identifier for the public business process instance being sent that both the sender and receiver can identify.
responseDateTime[0..1]	dateTime	The expected time to receive the response. This can not be greater than the PIP TimeToPerform.
requestingDocumentCre ationDateTime[0..1]	dateTime	The date-time of the requesting business document.
requestingDocumentInst anceIdentifier	string	The Business Document identification number that identifies the requesting Business Document.

4.16 Sender

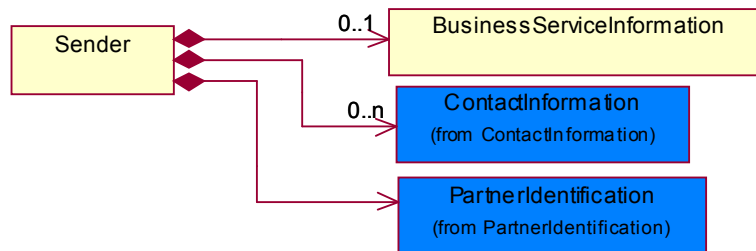The object allows the identification of the initiating party of the business message.

Figure 4-15 Sender

Composition	Cardinality	Type	Documentation
PartnerIdentificati on	1	PartnerIdentificati on	The business document must allow for the identity of one or more parties to the transaction.
BusinessServiceIn formation	0..1	BusinessServiceIn formation	The object allows the specification of the business service utilized within the partner company. This may or may not be the same as the information sent by the

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			RNIF.
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.

4.17 StandardDocumentIdentification

The object specifies additional information necessary to identify the standard business document.
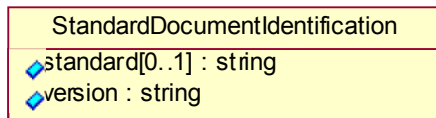

Figure 4-16 StandardDocumentIdentification

Attribute	Type	Documentation
standard[0..1]	string	Identifies the standard used to submit the business document. (e.g. RosettaNet).
version	string	PIP3A4v01.00

4.18 TpirPipIdentification

The object specifies all information necessary to   uniquely identify a TPIR-PIP within a Registry or trading partner repository.
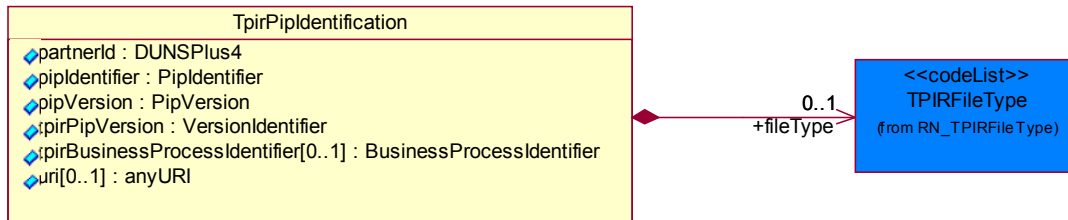

Figure 4-17 TpirPipIdentification

Attribute	Type	Documentation
partnerId	DUNSPlus4	The Trading Partner Identification of MNC that is creating this TPIR PIP.
pipIdentifier	PipIdentifier	A TPIR PIP Identification [i.e., 3A4).
pipVersion	PipVersion	A TPIR PIP version number (i.e., 02.02.00)
tpirPipVersion	VersionIdentifier	A TPIR-PIP Version Number (i.e., major and minor version number as XX.XX).
tpirBusinessProcessIdentifier[0..1]	BusinessProcessIdentifier	A Business Process Identifier to uniquely define the TPIR-PIP 'role' within a Business Scenario at a company or MNC level. The identifier MUST be composed of

		alphanumeric characters only and its length MUST be between one and twelve characters.
uri[0..1]	anyURI	Describes the destination uri for the TPIR form.

Composition	Cardinality	Type	Documentation
fileType	0..1	TPIRFileType	Describes the file type of the TPIR form (PDF, XDP or XML).

4.19 VersionIdentifier

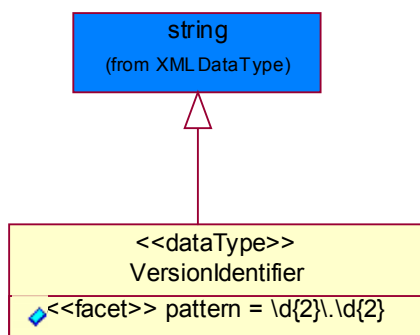Version Number (i.e., major and minor version number as XX.XX).

Figure 4-18 VersionIdentifier

Attribute	Type	Documentation
pattern		\d{2}\.\d{2}

4.20 CodeList

4.20.1 TPIRFileType

A code identifying the file type of TPIR form.

Name	Documentation
PDF	Portable Document Format.
XDP	XML Data Package.
XML	eXtensible Markup Language.

5. XML Data Type

5.1 anyURI

Represents a URI as defined by RFC 2396. An anyURI value can be absolute or relative, and may have an optional fragment identifier.

5.2 boolean

Represents Boolean values, which are either "true" or "false".

5.3 date

For the represents a calendar date.
The pattern for a date is CCYY-MM-DD where CC represents the century, YY the year, MM the month, and DD the day, with an optional time zone indicator as allowed for dateTime.

5.4 dateTime

Represents a specific instance of time.
The pattern for dateTime is CCYY-MM-DDThh:mm:ss where CC represents the century, YY the year, MM the month, and DD the day, preceded by an optional leading negative (-) character to indicate a negative number. If the negative character is omitted, positive (+) is assumed. The T is the date/time separator and hh, mm, and ss represent hour, minute, and second respectively. Additional digits can be used to increase the precision of fractional seconds if desired. For example, the format ss.ss... with any number of digits after the decimal point is supported. The fractional seconds part is optional.

This representation may be immediately followed by a "Z" to indicate Coordinated Universal Time (UTC) or to indicate the time zone. For example, the difference between the local time and Coordinated Universal Time, immediately followed by a sign, + or -, followed by the difference from UTC represented as hh:mm (minutes is required). If the time zone is included, both hours and minutes must be present.

5.5 float

Represents single-precision 32-bit floating-point numbers.

5.6 integer

Represents a sequence of decimal digits with an optional leading sign (+ or -). This data type is derived from decimal.

5.7 positiveInteger

Represents an integer that is greater than zero. This data type is derived from nonNegativeInteger.

5.8 string

Represents character string.