Description of 3A18 Message

PIP® 3A18

Validated 11.00.00

Specification Information	
Name	Description Of 3A18 Message
PIP	Distribute Price And Availability Response
Cluster	Order Management
Segment	Quote and Order Entry
Publication Date	30 May 2012
Version Identifier	V11.01

Table of Content

Table of Figures

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 3A18
- Message Structure

1.6 Document Version History

Version	Date	Description
Validated 11.01.00	30 May 2012	Updated 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 PriceAndAvailabilityResponse

2.1.1 Interchange Diagram
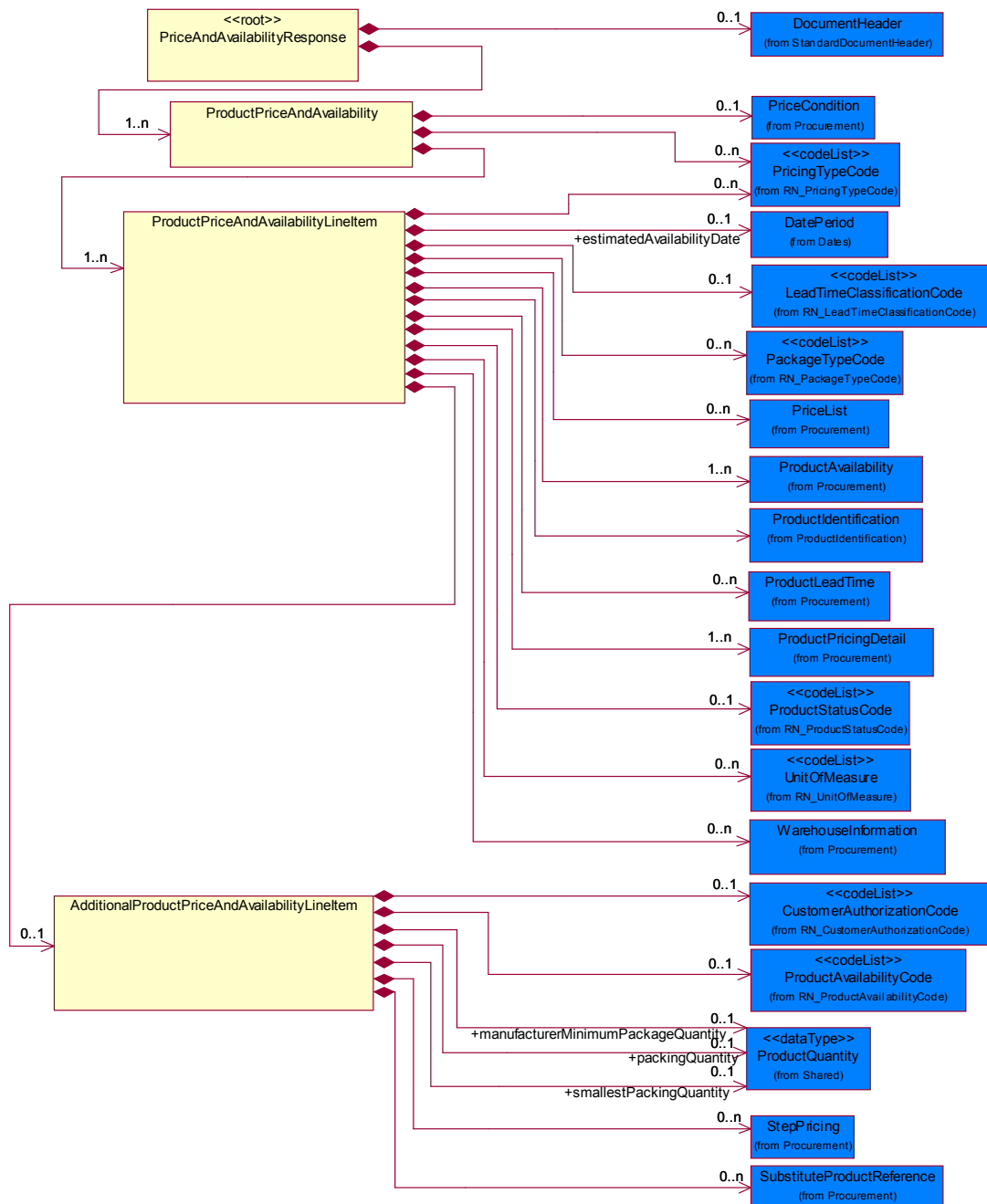
Figure 2-1 Interchange

2.1.2 Dependency Diagram
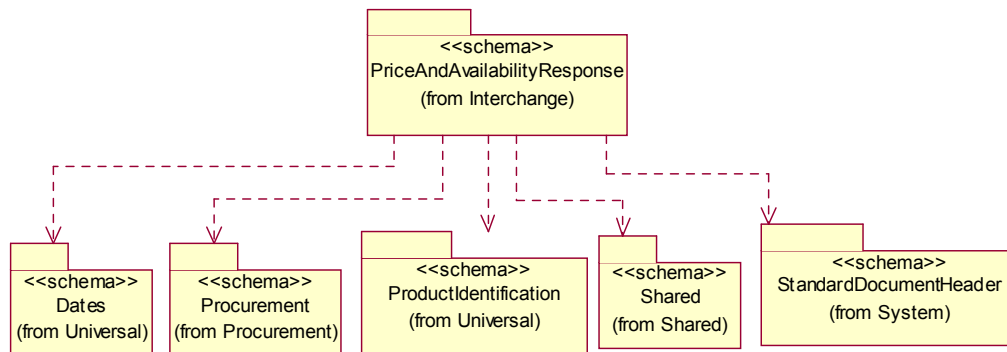
Figure 2-2 Dependency

2.1.3 AdditionalProductPriceAndAvailabilityLineItem

The collection of business properties that describe supplemental information, for a line item, given in a PriceAndAvailabilityResponse document.
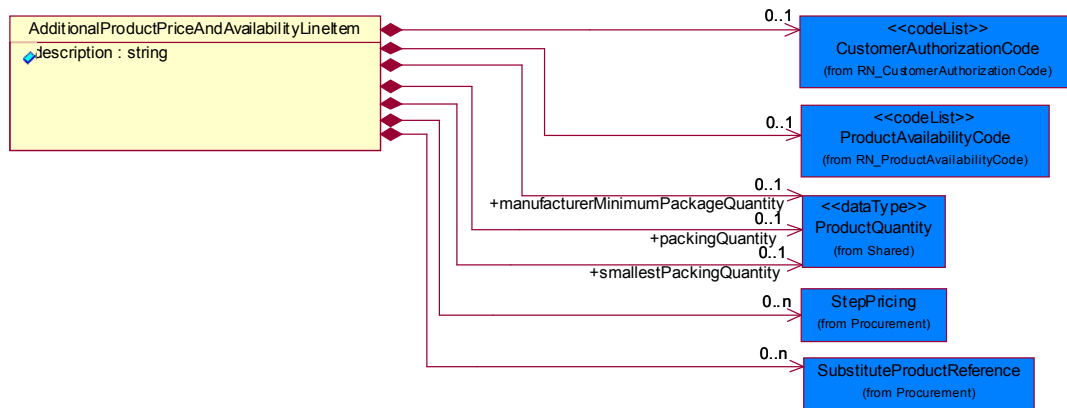
Figure 2-3 AdditionalProductPriceAndAvailabilityLineItem

Attribute	Type	Documentation
description	string	A description of a process, thing, action, etc.

Composition	Cardinality	Type	Documentation
CustomerAuthorizationCode	0..1	CustomerAuthorizationCode	Code identifying whether a customer is allowed to sell a product.
ProductAvailabilityCode	0..1	ProductAvailabilityCode	Code identifying a product's obtainability.
StepPricing	0..n	StepPricing	The collection of business properties that describe a product's variance in pricing in regards to specified date ranges and

30 May 2012

			quantities.
SubstituteProduct Reference	0..n	SubstituteProductRef erence	The collection of business properties describing a product that is being substituted for a requested product.
manufacturerMini mumPackageQua ntity	0..1	ProductQuantity	The product quantity in a defined package by a manufacturer.
packingQuantity	0..1	ProductQuantity	The quantity of products contained in an outer packing unit.
smallestPackingQ uantity	0..1	ProductQuantity	The quantity of products contained in an inner packing unit or a sub-packing unit.

2.1.4 PriceAndAvailabilityResponse

Top level object for a Price And Availability business document.
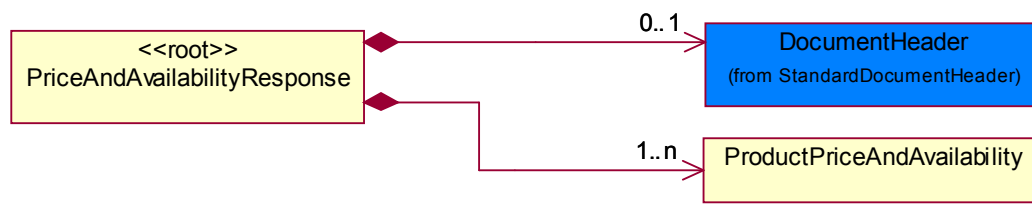
Figure 2-4 PriceAndAvailabilityResponse

Composition	Cardinality	Type	Documentation
ProductPriceAndA vailability	1..n	ProductPriceAndAvail ability	The collection of data structures for Price And Availability business document.
DocumentHeader	0..1	DocumentHeader	The object allows for the identification of the sender and receiver of the business document.

2.1.5 ProductPriceAndAvailability

The collection of data structures for Price And Availability business document.
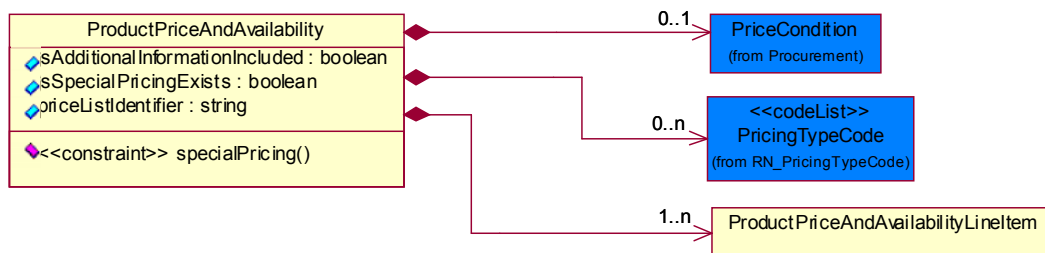
Figure 2-5 ProductPriceAndAvailability

Attribute	Type	Documentation
isAdditionalInformationIncluded	boolean	Indicates whether the responding business document has more information in it than what was original requested.
isSpecialPricingExists	boolean	Indicates whether the product has unique pricing associated with it.
priceListIdentifier	string	The unique identifier that references a specific price list used for product pricing.

Composition	Cardinality	Type	Documentation
PriceCondition	0..1	PriceCondition	The collection of business properties that define information for special pricing conditions.
ProductPriceAndAvailabilityLineItem	1..n	ProductPriceAndAvailabilityLineItem	The collection of business properties that describe a product entry for a product price and availability business document.
PricingTypeCode	0..n	PricingTypeCode	Code identifying the type of pricing available for a product.

Constraint	Documentation
specialPricing	If value of isSpecialPricingExists is equal to "true" then the occurrence of PriceCondition/specialPricingDatePeriod MUST be between 1 and 1.

2.1.6 ProductPriceAndAvailabilityLineItem

The collection of business properties that describe a product entry for a product price and availability business document.
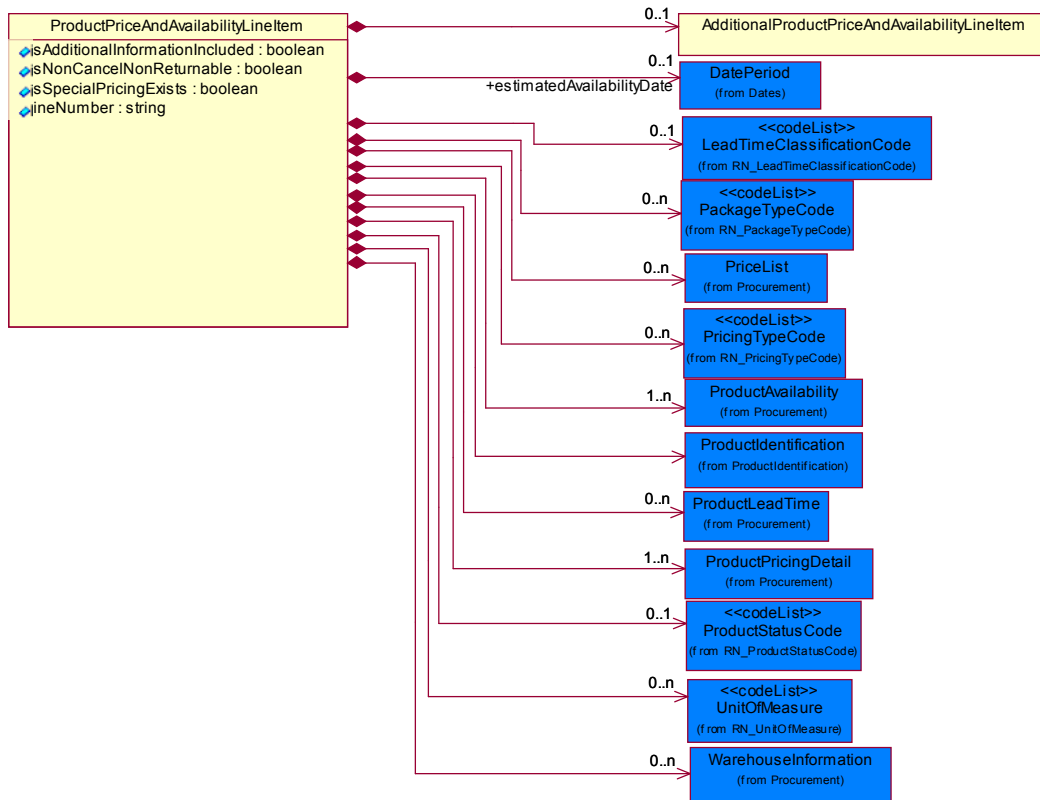
Figure 2-6 ProductPriceAndAvailabilityLineItem

Attribute	Type	Documentation
isAdditionalInformationIncluded	boolean	Indicates whether the responding business document has more information in it than what was original requested.
isNonCancelNonReturnable	boolean	Indicates whether the product is non-cancellable / non-returnable, if purchased.
isSpecialPricingExists	boolean	Indicates whether the product has unique pricing associated with it.
lineNumber	string	Number of the line in the document.

Composition	Cardinality	Type	Documentation
AdditionalProductPriceAndAvailabilityLineItem	0..1	AdditionalProductPriceAndAvailabilityLineItem	The collection of business properties that describe supplemental information, for a line item, given in a PriceAndAvailabilityResponse document.
estimatedAvailabi	0..1	DatePeriod	The estimated date the

| lityDate			product will be available.
LeadTimeClassificationCode	0..1	LeadTimeClassificationCode	Code identifying the classification of a product lead time for ordering.
UnitOfMeasure	0..n	UnitOfMeasure	Code identifying a product unit of measure.
PriceList	0..n	PriceList	The collection of business properties that describe product pricing in a proprietary price list document.
ProductAvailability	1..n	ProductAvailability	The collection of business properties that describe a product's time frame for being available to a customer.
ProductIdentification	1	ProductIdentification	The object provides the identifier(s) of a product.
ProductLeadTime	0..n	ProductLeadTime	The collection of business properties that describe lead time information about the product.
ProductPricingDetail	1..n	ProductPricingDetail	The collection of business properties that describe pricing information about a product.
WarehouseInformation	0..n	WarehouseInformation	The collection of business properties that describe warehouse information.
ProductStatusCode	0..1	ProductStatusCode	Code specifying the production status of an item.
PricingTypeCode	0..n	PricingTypeCode	Code identifying the type of pricing available for a product.
PackageTypeCode	0..n	PackageTypeCode	Code specifying the type of packaging for a product.

3. Domain ModelProcurement

3.1.1 Procurement

3.1.1.1 Dependency Diagram
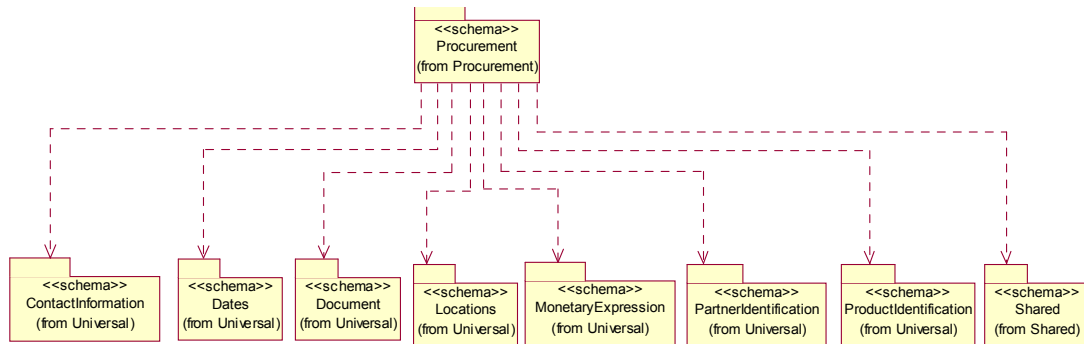
Figure 3-1 Dependency

3.1.1.2 IsCallFactory

An indicator for the receiver to call the manufacturer to obtain current information.
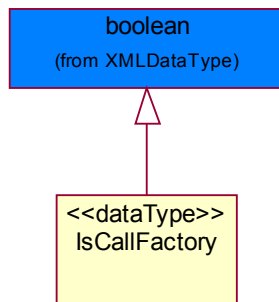
Figure 3-2 IsCallFactory

30 May 2012

3.1.1.3 LeadTimeQuantity

The collection of business properties that describe manufacturing lead time quantity from the time of order placement to the time the product ships.
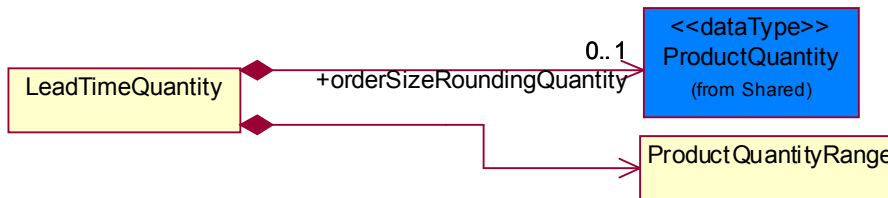
Figure 3-3 LeadTimeQuantity

Composition	Cardinality	Type	Documentation
ProductQuantityR ange	1	ProductQuantityR ange	The collection of business properties that describe an upper and lower range of product quantity.
orderSizeRoundin gQuantity	0..1	ProductQuantity	The quantity of products which is a standard ordering unit. Actual order quantities must be multiples of this quantity and is equal to or smaller than the minimum.

3.1.1.4 PriceCondition

The collection of business properties that define information for special pricing conditions.
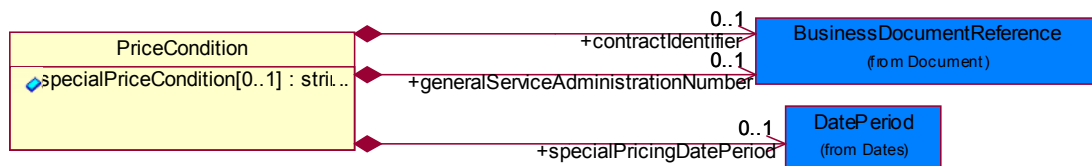
Figure 3-4 PriceCondition

Attribute	Type	Documentation
specialPriceCondition[0..1]	string	Textual description that identifies conditions under which special pricing is applicable.

Composition	Cardinality	Type	Documentation
specialPricingDate Period	0..1	DatePeriod	The date range indicating when a product's special pricing is valid.
generalServiceAd ministrationNumb er	0..1	BusinessDocumentRef erence	Identifying number relating to a pre-established end-user pricing agreement.
contractIdentifier	0..1	BusinessDocumentRef erence	The unique number that identifies a contract.

3.1.1.5 PriceList

The collection of business properties that describe product pricing in a proprietary price list document.
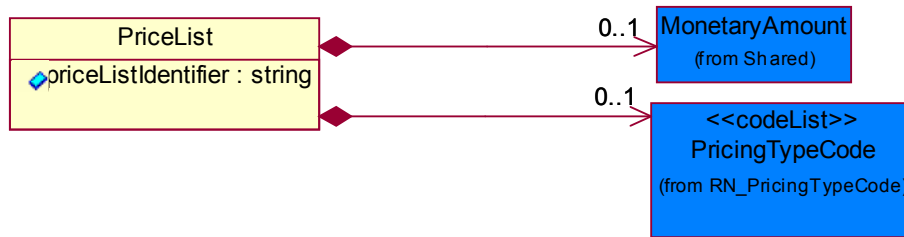
Figure 3-5 PriceList

Attribute	Type	Documentation
priceListIdentifier	string	The unique identifier that references a specific price list used for product pricing.

Composition	Cardinality	Type	Documentation
MonetaryAmount	0..1	MonetaryAmount	The collection of business properties that describe the monetary amount defined by a specified currency.
PricingTypeCode	0..1	PricingTypeCode	Code identifying the type of pricing available for a product.

3.1.1.6 ProductAvailability

The collection of business properties that describe a product's time frame for being available to a customer.
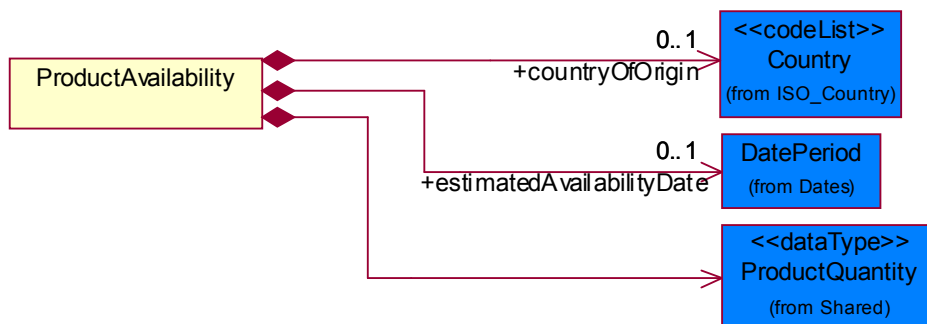
Figure 3-6 ProductAvailability

Composition	Cardinality	Type	Documentation
estimatedAvailabilityDate	0..1	DatePeriod	The estimate date the product will be available.
countryOfOrigin	0..1	Country	Country where product originates.
ProductQuantity	1	ProductQuantity	A quantity specifying the number of product units.

3.1.1.7 ProductLeadTime

The collection of business properties that describe lead time information about the product.
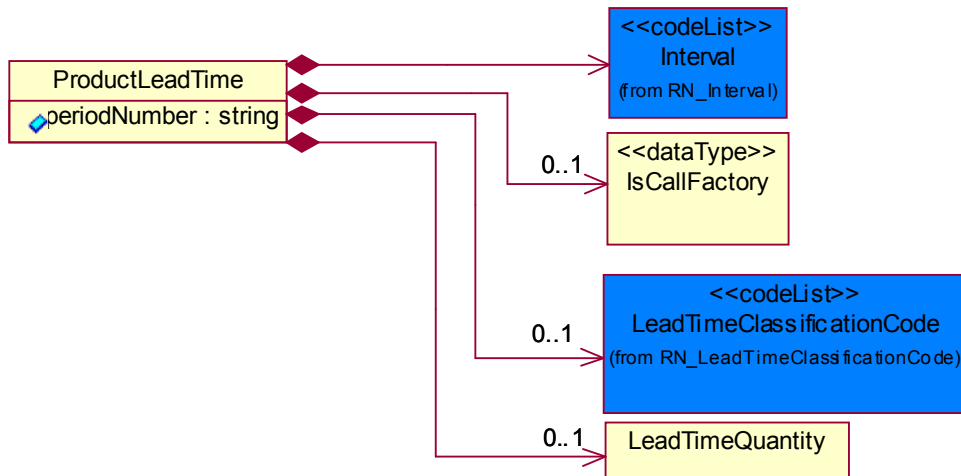
Figure 3-7 ProductLeadTime

Attribute	Type	Documentation
periodNumber	string	The number of measurable units in a date/time period.

Composition	Cardinality	Type	Documentation
LeadTimeQuantity	0..1	LeadTimeQuantity	The collection of business propeties that describe manufacturing lead time quantity from the time of order placement to the time the product ships.
IsCallFactory	0..1	IsCallFactory	An indicator for the receiver to call the manufacturer to obtain current information.
LeadTimeClassificationCode	0..1	LeadTimeClassificationCode	Code identifying the classification of a product lead time for ordering.
Interval	1	Interval	Code specifying a forecasting interval.

3.1.1.8 ProductPricingDetail

The collection of business properties that describe pricing information about a product.
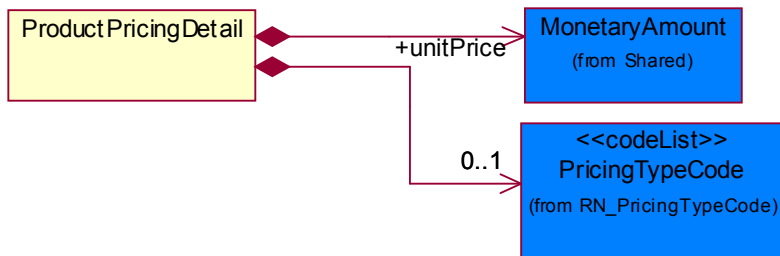
Figure 3-8 ProductPricingDetail

Composition	Cardinality	Type	Documentation
unitPrice	1	MonetaryAmount	Agreed upon sale price for each unit ordered.
PricingTypeCode	0..1	PricingTypeCode	Code identifying the type of pricing available for a product.

3.1.1.9 ProductQuantityRange

The collection of business properties that describe an upper and lower range of product quantity.
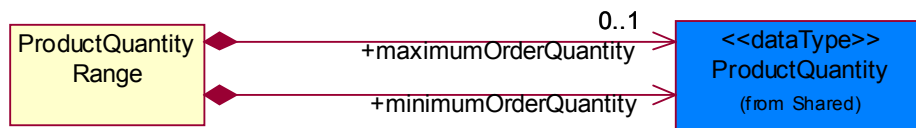
Figure 3-9 ProductQuantityRange

Composition	Cardinality	Type	Documentation
maximumOrderQuantity	0..1	ProductQuantity	A numeric expression of the maximum number of product line items that may be ordered.
minimumOrderQuantity	1	ProductQuantity	A numeric expression of the minimum number of product line items that may be ordered.

3.1.1.10 StepPricing

The collection of business properties that describe a product's variance in pricing in regards to specified date ranges and quantities.
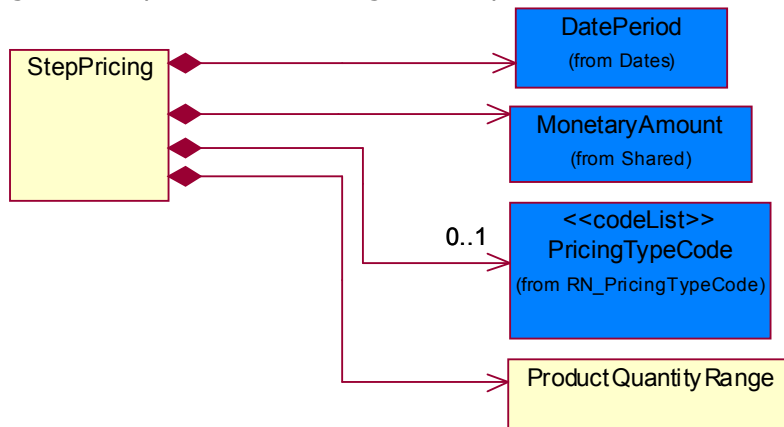
Figure 3-10 StepPricing

Composition	Cardinality	Type	Documentation
ProductQuantityRange	1	ProductQuantityRange	The collection of business properties that describe an upper and lower range of product quantity.
DatePeriod	1	DatePeriod	The business document must allow for the computation or statement of a duration based upon a beginning and an ending date.
MonetaryAmount	1	MonetaryAmount	The collection of business properties that describe the monetary amount defined by a specified currency.
PricingTypeCode	0..1	PricingTypeCode	Code identifying the type of pricing available for a product.

3.1.1.11 SubstituteProductReference

The collection of business properties describing a product that is being substituted for a requested product.
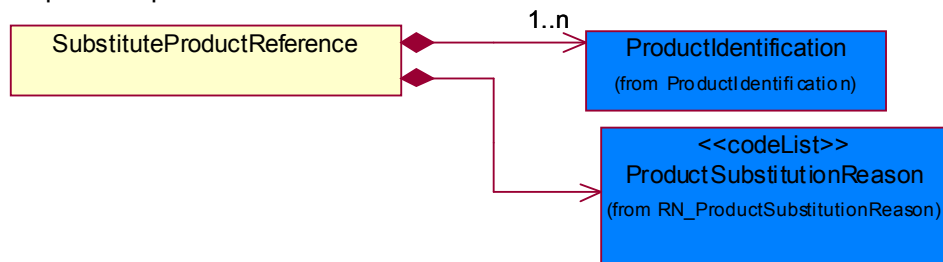
Figure 3-11 SubstituteProductReference

Composition	Cardinality	Type	Documentation
ProductSubstitutionReason	1	ProductSubstitutionReason	A code identifying the reason a product is substituted for the original product requested.
ProductIdentification	1..n	ProductIdentification	The object provides the identifier(s) of a product.

3.1.1.12 WarehouseInformation

The collection of business properties that describe warehouse information.
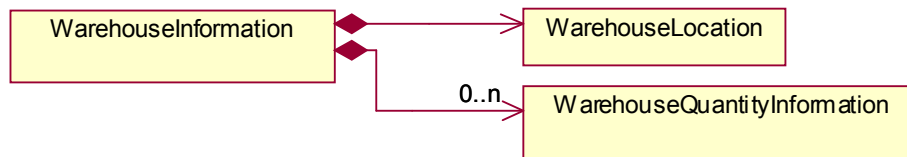
Figure 3-12 WarehouseInformation

Composition	Cardinality	Type	Documentation
WarehouseQuantityInformation	0..n	WarehouseQuantityInformation	The collection of business properties that describe the quantity and date that product is available at a warehouse.
WarehouseLocation	1	WarehouseLocation	The physical address or location identification for a warehouse.

3.1.1.13 WarehouseLocation

The physical address or location identification for a warehouse.
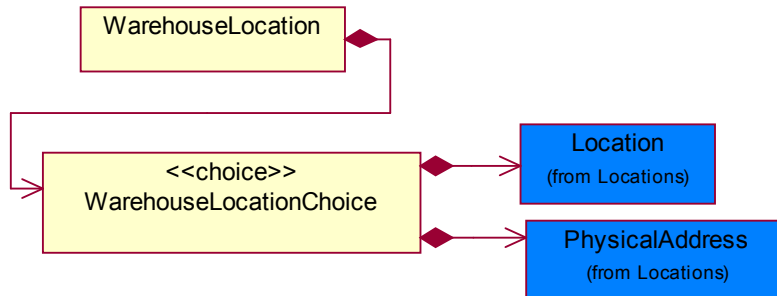
Figure 3-13 WarehouseLocation

Composition	Cardinality	Type	Documentation
WarehouseLocatio nChoice	1	WarehouseLocationCh oice	Choices of the physical address or location identification for a warehouse.

3.1.1.14 WarehouseLocationChoice

Choices of the physical address or location identification for a warehouse.

Composition	Cardinality	Type	Documentation
PhysicalAddress	1	PhysicalAddress	The business document must provide a physical address for a party to the business transaction.
Location	1	Location	The business document must specify a location.

3.1.1.15 WarehouseQuantityInformation

The collection of business properties that describe the quantity and date that product is available at a warehouse.
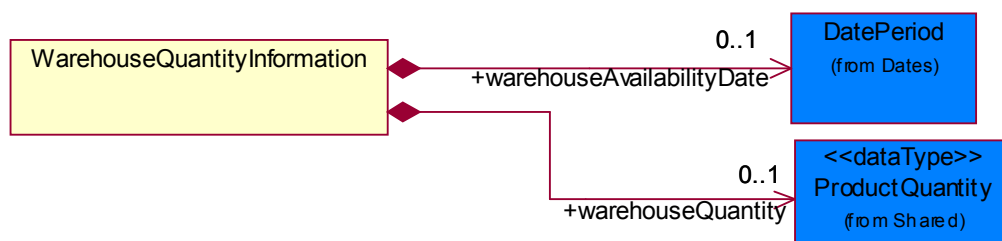
Figure 3-14 WarehouseQuantityInformation

Composition	Cardinality	Type	Documentation
warehouseAvailab	0..1	DatePeriod	The date period an item will be

| ilityDate | | | available at a particular warehouse. |
| warehouseQuantity | 0..1 | ProductQuantity | The product quantity associated with a warehouse. |

3.1.2 CodeList

3.1.2.1 ProductSubstitutionReason

A code identifying the reason a product is substituted for the original product requested.

Name	Documentation
BEP	Better Product - The requested part number is currently not available offering product upgrade.
CMP	Component of the identified product is a component of this referenced product.
DWN	Downgrade - The identified product is a downgrade for this referenced product.
IPN	Invalid Part Number - The requested part number is invalid.
PRE	Predecessor - The product that existed prior.
QRH	Quality / Reliability Hold.
REP	Retired product - The requested part number is no longer available.
RPL	Replace - The identified product is a replacement for this referenced product.
SCC	Successor - The superseding product that will be replacing the current product.

3.1.2.2 LeadTimeClassificationCode

Code identifying the classification of a product lead time for ordering.

Name	Documentation
ASA	As Available - A product marked as "As Available" orders for this product but supply is quite uncertain-normally this has been used when a product is being WDFM (withdraw from marketing) or has reached end of life (EOL).
ASS	Assembly - Time period required by a company production line to manufacture a component or module from sub components. This lead-time may include actual manufacturing cycle time, testing time, and queuing time.
CLF	Call Factory - Contact the factory for the most current information.
DTS	Dock to Stock - Time period required to move product from a product seller's or product receiver's dock through a warehousing process until the product is documented as available for buyer's use. If the seller's dock is identified, this lead-time also includes carrier transit time between seller's dock to buyer's dock.
EOL	End of Life.
INS	Individual Scheduled-a product marked as "Individual Scheduled" by the manufacturing facility. When doing this they will take into consideration the current supply situation / extended leadtime as well as capacity

	situation for the current product.
MAR	Market - Time period quoted by a seller for the availability of product. This lead time includes actual manufacturing cycle time and existing.
NOS	No Supply - A product marked "No Supply" and will not be able to fulfill orders for this product.
ODP	Order Processing - Time period required by a seller to receive a purchase order and respond with a confirmation to the buyer.
PLA	Planned Availability - A product marked as "Planned Availability" yet available on the market but has been announced with a certain date. Once this date has been passed the product will get a "normal" leadtime.
PRC	Procurement - Time period required by a buyer to process a quote or internal demand signal to issue a purchase order.
PRD	Production.
SUP	Start Up.
TRN	Transit - Time period required to move a product from one location to another.

3.1.2.3 ProductAvailabilityCode

Code identifying a product's obtainability.

Name	Documentation
FON	Found.
INV	Invalid.
MPF	Multiple Products Found.
NTF	Not Found.

3.1.2.4 CustomerAuthorizationCode

Code identifying whether a customer is allowed to sell a product.

Name	Documentation
NOL	Not authorized for sale on-line.
NRS	Not authorized for resale.
NSL	Not authorized to sell.
REQ	Authorization required.

3.2 Shared

3.2.1 Shared

3.2.1.1 Dependency Diagram
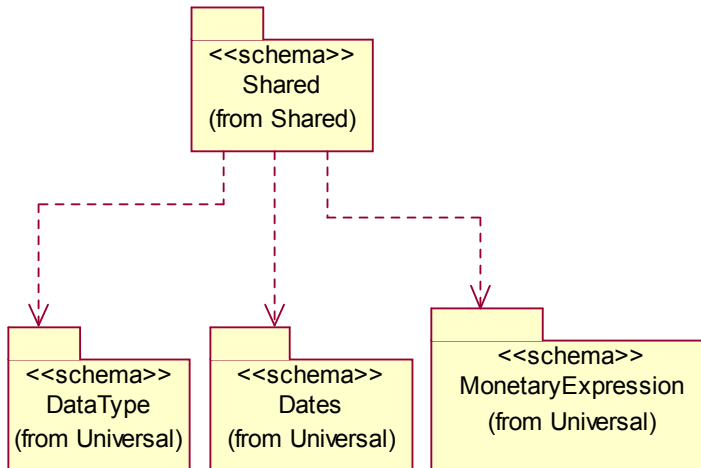
Figure 3-15 Dependency

3.2.1.2 MonetaryAmount

The collection of business properties that describe the monetary amount defined by a specified currency.
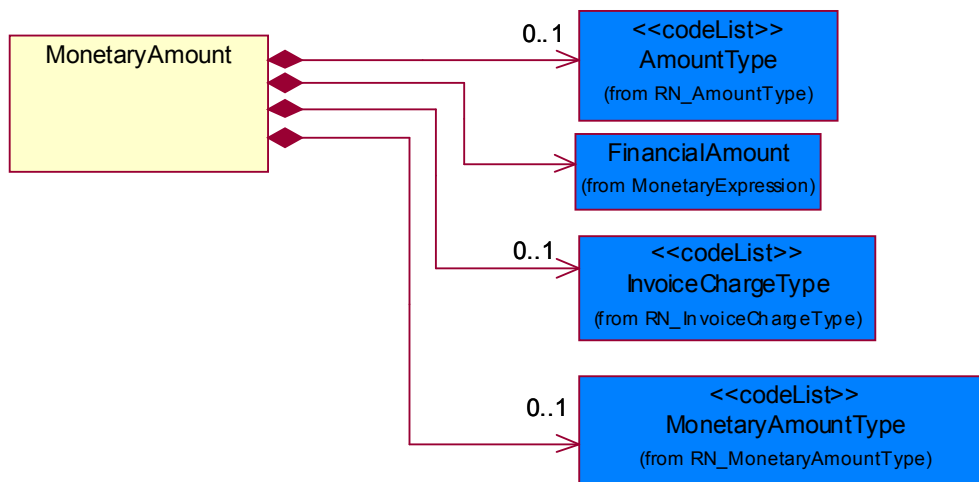
Figure 3-16 MonetaryAmount

Composition	Cardinality	Type	Documentation
FinancialAmount	1	FinancialAmount	The business document must express financial amounts.
InvoiceChargeType e	0..1	InvoiceChargeType	Code identifying the values for the types of charges contained in an invoice.
MonetaryAmount Type	0..1	MonetaryAmountType	Code identifying whether the monetary amount is a debit or credit.
AmountType	0..1	AmountType	Code identifying the type of monetary amount.

3.2.1.3 ProductQuantity

A quantity specifying the number of product units.
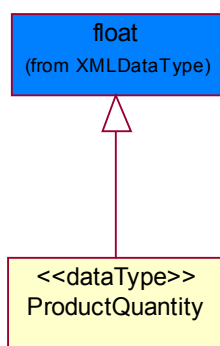
Figure 3-17 ProductQuantity

3.2.2 CodeList

3.2.2.1 InvoiceChargeType

Code identifying the values for the types of charges contained in an invoice.

Name	Documentation
ALC	Allowances and Charges.
CUC	Custom Charges.
DEA	Deposit Amount.
ESC	Expedited Shipping Charge - Charge for accelerating the delivery of a product.
FRC	Freight Charges.
HAC	Handling Charges.
LEC	Lease Charge - Charge for the use of a product in which the purchaser assumes certain responsibilities of ownership.
LIC	License Charge - Charge for the use of a product (usually software) in which the manufacturer maintains ownership of the product.
MAC	Maintenance Charge - Charge (usually periodic) for providing maintenance support for a product.

PUC	Purchase Charge - Charge for a product in which the buyer takes all responsibilities of ownership.
QUD	Quantity Discount.
REC	Rental Charge - Charge for the use of a product (usually hardware) in which the manufacturer maintains ownership of the product.

3.2.2.2 MonetaryAmountType

Code identifying whether the monetary amount is a debit or credit.

Name	Documentation
CRE	Credit.
DEB	Debit.
ZER	Zero remit.

3.2.2.3 PackageTypeCode

Code specifying the type of packaging for a product.

Name	Documentation
6PC	6 Pack-packaged in multiples of 6 units.
BAG	Bag.
BIN	Bin.
BOX	Box.
BPC	Bulk Pack - Packaged in large volume.
BUD	Bundle.
CAN	Can.
CAR	Carrier.
CLD	Cylinder.
CMS	CLAMSHELL - Packaged in a device with two hinged jaws.
COI	Coil.
CON	Container.
CPK	C-PAK - A powerful vacuum unit complete with filter/cyclone and starter placed inside a heavy-duty container; a flexfiber cyclone for coarse separation; or packaged in covered tape.
CRT	Crate.
CTN	Carton.
DRM	Drum.
DSM	Diskette Mailer - A container made of a small plastic magnetic disk enclosed in a stiff envelope with a radial slit; used to store data.
FLC	FLATPK Carrier - Packaged and laid in full length.
GLP	Gel Pack - Packaged in a colloid or semi-solid substance container.
IND	Individual - Each packed separately.
KDB	Knockdown Tote Bin.
KIT	Kit.
OTH	Other - The package type is not contained in this list; contact manufacturer for the specific package type.
PAG	Package.
PAK	Packed.
PAL	Pallet.

PBG	Plastic Ball Grind array.
PJA	Peanut Jar-packaged in a container filled with foam inserts.
PLC	PLC - Plastic Chip Carrier.
REB	Retail Box - Packaged in a container that is for direct sales to the consumer.
REL	Reel.
ROL	Roll.
SAC	Sack.
SDC	Standard Carton - General pack that is commonly used or established as an acceptable media.
SKI	Skid.
SLV	Sleeve.
SSP	Sample Shipper - A portion, piece, or segment that is representative of a whole.
TAP	Tape - Material/Method of holding a string of computer chips.
TBE	Tube - Packaged in a cylinder container.
TBN	Tote Bin.
TNR	Tape and Reel - Used to identify that a product is packaged in a tape and reel form.
TQF	Thin Quad Flat Package.
TRA	Tray - Packaged on a shallow flat receptacle with a raised edge or rim, used for carrying or holding pieces.
TUB	Tub.
WFB	Wafer Boat - A small thin circular slice of a semiconducting material, such as pure silicon, on which an integrated circuit can be formed.
WFP	Waffle Pack- Die that are packaged in a cavity with a defined matrix; typically a 2-inch or 4-inch square carrier with separate compartments for each die.

3.2.2.4 PricingTypeCode

Code identifying the type of pricing available for a product.

Name	Documentation
ACR	Authorized Cost and Resale.
ACS	Authorized Cost - The negotiated cost agreed upon between the supplier and distributor at the time the debit is authorized.
ACT	Authorized cost.
ANY	Any available.
ARS	Authorized resale.
ASP	Average Selling Price - Manufacturer's published price.
BPA	Budgetary Price Amount.
BPP	Broken Purchase Price.
BSH	Book-Ship.
CAT	Catalog price - Book (the supplier's published cost at the time of transaction) or Published Price.
CLM	Claim Amount.
CMC	Commercial.
CMD	Commodity.
CMF	Contract Manufacturing.

CON	Contract.
COS	Cost - Price for which the distributor purchased the parts.
CPL	Country Price List.
DBC	Disti Book Cost.
DFR	Duty free.
DIS	Distribution.
DPD	Duty paid.
DTP	Distribution price.
EDU	Education.
ERT	E-Rate.
EXC	Exception.
FGM	Federal government.
GEN	General.
HIE	Higher Education.
LCL	Local.
LGM	Local government.
LIS	List.
MPR	Market price.
MRP	Manufacturer's recommendation for unit pricing.
MSR	Manufacturer Suggested Retail Price (MSRP).
MUS	Minimum Unit Sale (MUS) - Manufacturer requirement of total dollar value for design opportunity.
NPF	Nonprofit.
OEM	Original Equipment Manufacturing (OEM).
OVP	OEM Volume Pricing - Original equipment manufacturing price per volume ordered.
PED	Primary Education.
QUO	Quote Price
RCS	Requested Cost (RCS) - Reseller requested cost to the manufacturer.
REX	Reseller Expects.
RFB	Refurbished.
RIN	Religious Institution.
RSP	Resale - Price the distributor is authorized to use for sale to their customer (RSP).
SCE	Special Education.
SEC	Security and management reseller.
SED	Secondary Education.
SEV	Service provider.
SGM	State Government.
SPD	Special Discount Price.
SPE	Special Education.
SPL	Samples.
SRP	Suggested Resale Price.
STR	Standard Rebate.
THP	Threshold Price.
TOC	Total Other Charges - Suggested resale price - The sum total of all distributor added charges to the customer for value added services, including but not limited to programming, tape and reel, labeling, date coding, kitting and in-house assembly.

3.2.2.5 ProductStatusCode

Code specifying the production status of an item.

Name	Documentation
ACT	Active.
ALO	The quantity available to buyer.
BOR	Back Ordered.
DCN	Discontinued. No longer available.
NPR	New Product.
POS	Purchase Order with Supplier.
REP	Replaced.

3.2.2.6 Interval

Code specifying a forecasting interval.

Name	Documentation
1WM	1st week of the month.
2WM	2nd week of the month.
3WM	3rd week of the month.
4WM	4th week of the month.
5DW	5 day work week-Monday through Friday.
5WM	5th week of the month.
CAD	Calendar day-period given as a number of days including weekends and holidays.
CAW	Calendar week-period given as a number of 7 day-weeks including holidays.
DAY	Day.
FMP	Four month period.
FRI	Friday.
HFM	Half month.
HFW	Half week.
HFY	Half year.
HOU	Hour.
IND	Indefinite-an indefinite period.
MIN	Minute.
MOD	Monday.
MON	Month.
MTF	Monday through Friday.
MTS	Monday through Saturday.
MTU	Monday through Sunday.
QUA	Quarter.
SAT	Saturday.
SUN	Sunday.
TDP	Ten days period-period of 10 days.
THU	Thursday.
TMP	Two month period.
TUE	Tuesday.
TWP	Two week period.
UNS	Unspecified.

WDY	Work day.
WED	Wednesday.
WEE	Week.
WOR	Working days - days when the partner company normally works.
YEA	Year.

3.2.2.7 AmountType

Code identifying the type of monetary amount.

Name	Documentation
DIP	Discount Percentage.
DIS	Discount Value - The monetary amount of the discount on the price applied to a customer order.
FRE	Freight Charges - The monetary amount to be paid for freight transportation.
INS	InsuranceCharges - The monetary amount to be paid for freight insurance.
MAT	Material Cost - This object represents the material cost for the product.
MIS	Miscellaneous Charges - The monetary amount to be paid for miscellaneous charges.
NET	Net Amount.
PRC	Processing Charges - The monetary amount to be paid by consignee for consignment manufacturer.
TOD	Total Amount Due - Total amount due upon receipt of statement.
TOT	Total Amount - Total price for an entire business document.
TOV	Total Value Added Amount - The total amount of the shipment including any value added tax.
UNI	Unit Price - Agreed upon sale price for each unit ordered.
VAD	Value Added Unit Price - The price of a unit including any value added tax.

4. Universal Structure

4.1 ContactInformation

4.1.1 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.
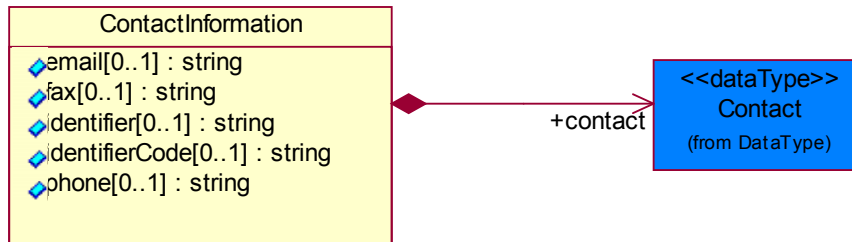
Figure 4-1 ContactInformation

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.

4.2 DataType

4.2.1 Contact

The name of the department, service or individual to be contacted within the organization.
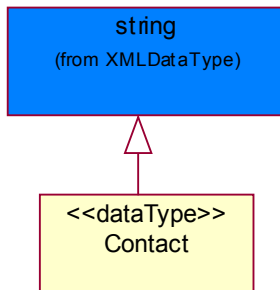
Figure 4-2 Contact

4.2.2 DUNS

A number assigned by Dun and Bradstreet to identify a business location.
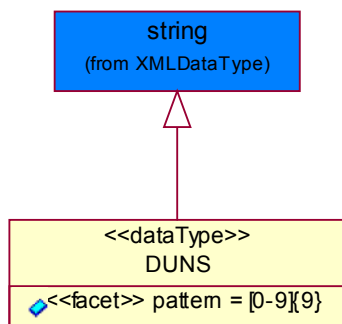
Figure 4-3 DUNS

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

4.2.3 DUNSPlus4

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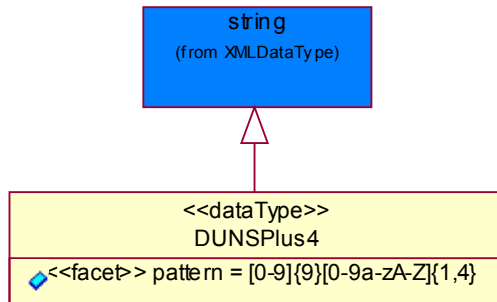
Figure 4-4 DUNSPlus4

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.

4.2.4 GLN

Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.
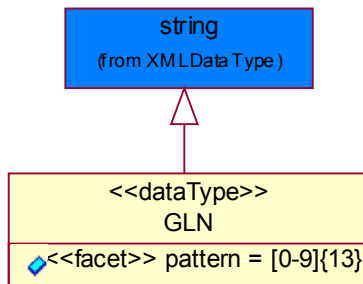
Figure 4-5 GLN

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

4.2.5 GTIN

Global Trade Identification Number (GTIN).
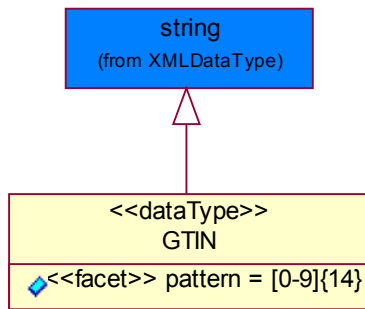
Figure 4-6 GTIN

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

4.3 Dates

4.3.1 DatePeriod

The business document must allow for the computation or statement of a duration based upon a beginning and an ending date.
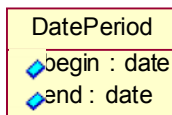
Figure 4-7 DatePeriod

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.

4.4 Document

4.4.1 BusinessDocumentReference

The business document reference object allows for the indirect referencing of a relationship to other business related documents.
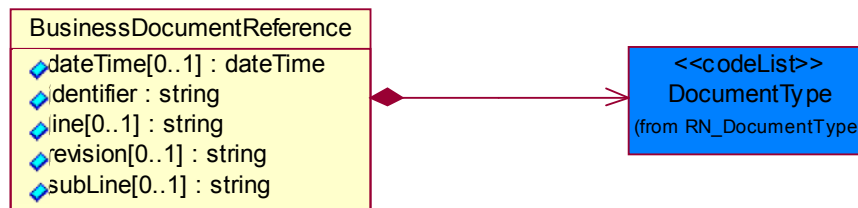
Figure 4-8 BusinessDocumentReference

Attribute	Type	Documentation
dateTime[0..1]	dateTime	The date-time stamp indicating on the referenced business document.
identifier	string	Unique identification of the referenced business document.
line[0..1]	string	References the specific line number of the specified business document.
revision[0..1]	string	Referenced the revision of the specified business document.
subLine[0..1]	string	References the specific subline number of the specified business document.

Composition	Cardinality	Type	Documentation
DocumentType	1	DocumentType	A code identifying the business context of a document.

4.5 Locations

4.5.1 AlternativeIdentifier

Identifies the specified code and the name of the organization that a code is utilized from.

Figure 4-9 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.).

4.5.2 Location

The business document must specify a location.
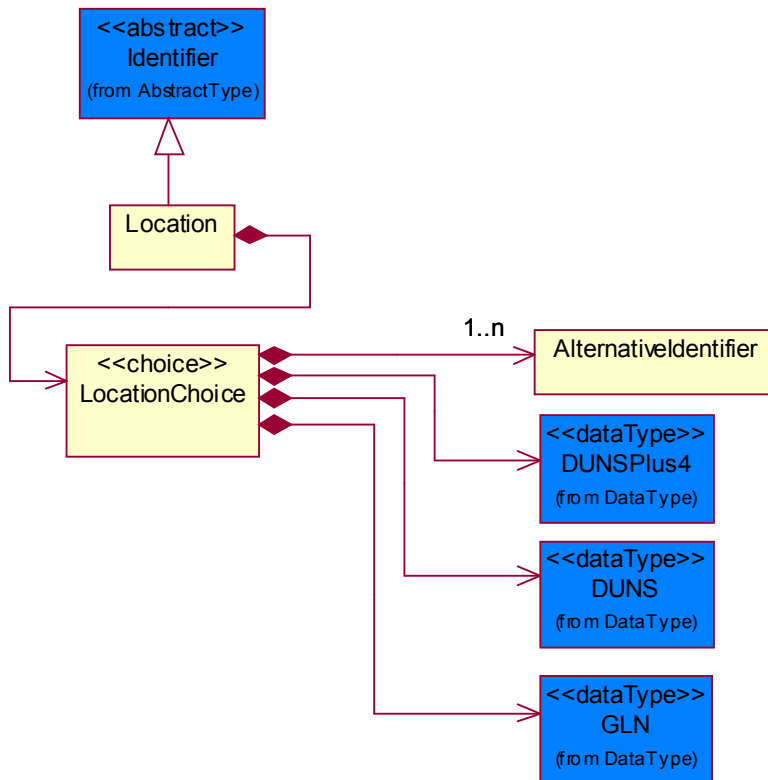
Figure 4-10 Location

Composition	Cardinality	Type	Documentation
LocationChoice	1	LocationChoice	

4.5.3 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.

4.5.4 PhysicalAddress

The business document must provide a physical address for a party to the business transaction.
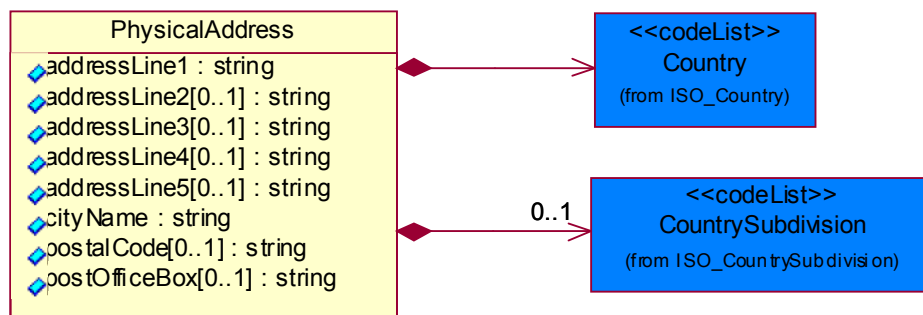
Figure 4-11 PhysicalAddress

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. |

4.6 MonetaryExpression

4.6.1 FinancialAmount

The business document must express financial amounts.
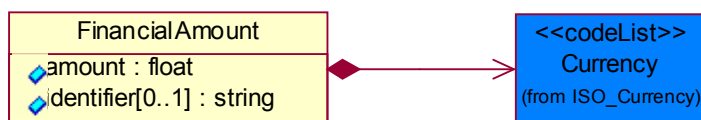
Figure 4-12 FinancialAmount

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.

4.6.2 PartnerIdentification

The business document must allow for the identity of one or more parties to the transaction.
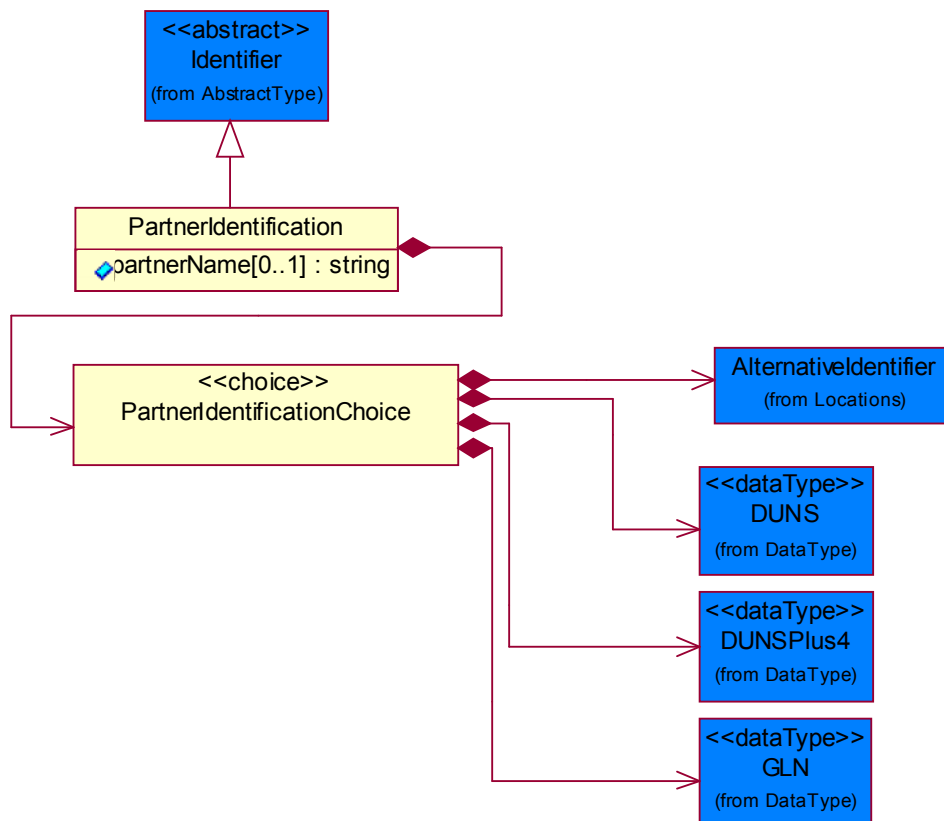
Figure 4-13 PartnerIdentification

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

Composition	Cardinality	Type	Documentation
PartnerIdentificationChoice	1	PartnerIdentificationChoice	

4.6.3 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.

4.7 ProductIdentification

4.7.1 ProductIdentification

The object provides the identifier(s) of a product.
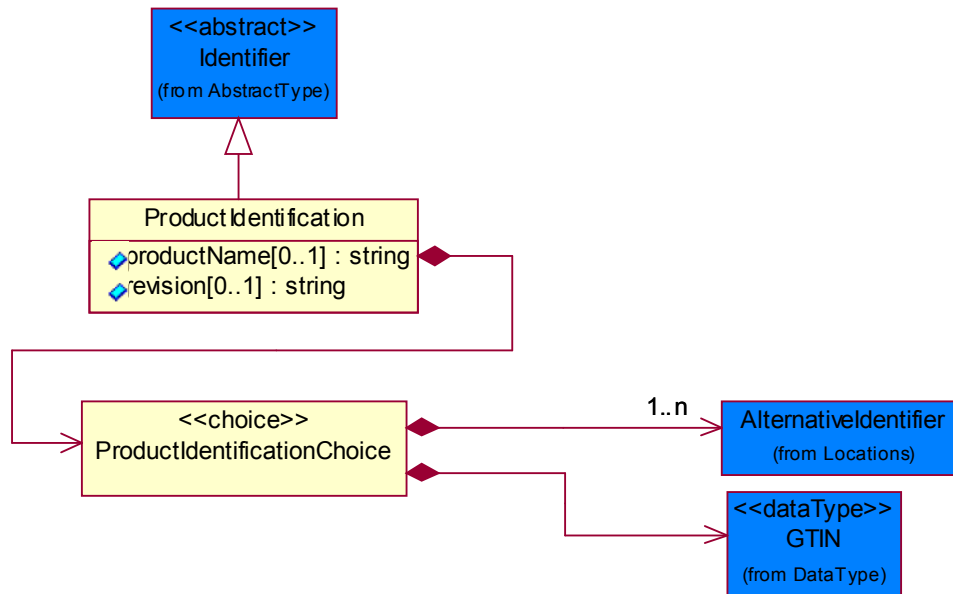
Figure 4-14 ProductIdentification

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	

4.7.2 ProductIdentificationChoice

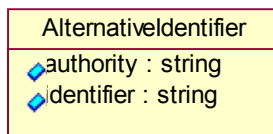| Composition	Cardinality	Type	Documentation
AlternativeIdentifier	1..n	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code is utilized from.
GTIN	1	GTIN	Global Trade Identification Number (GTIN).

4.8 CodeList

4.8.1 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. **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.

4.8.3 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.

4.8.4 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.

4.8.5 DocumentType

A code identifying the business context of a document.

Instance	Documentation
APM	Applied Promotions.
ARA	Authorization Request Approval.
CAR	Certificate of Analysis Response.
CBN	Product batch number of customer.
CCN	Customs clearance number.
CFA	Failure Analysis - Request document that will accompany the product providing characteristics of the component failure.
CIN	Commercial Invoice.
CNM	Traditional credit note or memo.
COA	Certificate of Analysis.
CON	In a virtual sourcing relationship, a third party trading partner is supplying a part to a customer on behalf of another company that has taken the order for the customer. In this case a Customer Order

	Number is associated to the request for material that is sent to the virtual trading partners.
COS	Consumption Notice.
COT	Contract.
CRN	Unique consumption reference number identifying the product consumption issue i.e. one-to-one relationship with physical flow.
DEM	Traditional debit note or memo.
DEN	Delivery Note.
DIN	Discontinuation Notice.
DOR	Delivery Order.
DRN	Drawing Number.
DRR	Design Registration Request.
ECO	Engineering Change Order - The proprietary unique identification number that represents an engineering change order.
EDD	Export Declaration Document.
EIR	Engineering Information Request.
EOL	End of Life.
FUO	Sales order or transfer order fulfilling demand out of a facility (outbound shipment).
IDD	Import Declaration Document.
INV	Invoice.
LID	Location Identifier. Data for on-site work that have to be done on the machine (associated with preventive maintenance order).
MEN	Master Event Number.
MID	Machine Identifier. Data for on-site work that have to be done on the machine (associated with preventive maintenance order).
MON	Model Number.
NTS	Notes.
OCL	The unique identifier assigned by the OEM for a warranty claim.
OGA	Other governmental agency issued document.
OPO	The unique identifier assigned by the OEM for a part order.
OPR	The unique identifier assigned by the OEM for a part return.
PCN	Product/Process Change.
PFA	Failure Analysis - Request document that will accompany the product providing characteristics of the product failure.
PII	Refers to previously issued invoice.
PLS	Unique number that identifies packing form prior to shipment.
POI	Purchase Order IN.
PON	Production order number for material release.
POO	Purchase Order OUT.
PRC	Product Catalog.
PSI	Refers to previously issued self-billing invoice.
PUO	Purchase Order.
QUO	Quote.
REC	Document identifying the receipt of materials or products into a facility against a purchase order or transfer order (inbound shipment).
REN	Release Number.
REO	Purchase order or transfer order replenishing inventory into a facility (inbound shipment).
REQ	Requisition.
RMA	Returned Material Authorization.

RPO	Purchase order for materials or product returned to and reworked by a supplier.
RTA	Remittance Advice - Remittance details.
SAO	Sales Order.
SBC	Credit Memo used in self-billing scenario.
SBD	Debit Memo used in self-billing scenario.
SBI	Invoice in self billing scenario.
SBN	Product batch number of supplier.
SCA	Similar to contracts - Contains the quantity of an article that is to be ordered from a vendor and the price for article or service that is to be procured.
SEN	Serial Number.
SEO	A document that gives a repair provider the necessary authorization to repair or upgrade a product either at the customer site or at the repair provider's site.
SHD	Shipping Document.
SNC	Shipset Number on Code List.
SPC	The unique identifier assigned by the ASP for a warranty claim.
SPN	Spec Number.
SPO	The unique identifier assigned by the ASP for a part order.
SPR	The unique identifier assigned by the ASP for a part return.
SPW	The unique identifier assigned by the ASP to reference a work order.
SRI	A document that contains the shipping reference number which allows the product to be tracked within the outsourced logistic providers network.
SWT	Switch Authorization.
TCS	Terms and Conditions.
TRO	Order which results in materials or products being moved from one facility to another (outbound shipment and inbound shipment).
WAB	Waybill.
WAC	Denotes a warranty claim.
WOO	Work Order.

4.8.6 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-initiation	[Mori]
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]
application/vnd.dpgraph	[Parker]
application/vnd.dreamfactory	[Appleton]
application/vnd.dxr	[Duffy]
application/vnd.ecdis-update	[Buettgenbach]
application/vnd.ecowin.chart	[Olsson]
application/vnd.ecowin.filerequest	[Olsson]
application/vnd.ecowin.fileupdate	[Olsson]
application/vnd.ecowin.series	[Olsson]
application/vnd.ecowin.seriesrequest	[Olsson]
application/vnd.ecowin.seriesupdate	[Olsson]
application/vnd.enliven	[Santinelli]
application/vnd.epson.esf	[Hoshina]
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]
application/vnd.fsc.weblaunch	[D.Smith]
application/vnd.fujitsu.oasys	[Togashi]
application/vnd.fujitsu.oasys2	[Togashi]
application/vnd.fujitsu.oasys3	[Okudaira]
application/vnd.fujitsu.oasysgp	[Sugimoto]
application/vnd.fujitsu.oasysprs	[Ogita]
application/vnd.fujixerox.ddd	[Onda]
application/vnd.fujixerox.docuworks	[Taguchi]
application/vnd.fujixerox.docuworks.binder	[Matsumoto]
application/vnd.fut-misnet	[Pruulmann]
application/vnd.grafeq	[Tupper]
application/vnd.groove-account	[Joseph]
application/vnd.groove-help	[Joseph]
application/vnd.groove-identity-message	[Joseph]
application/vnd.groove-injector	[Joseph]
application/vnd.groove-tool-message	[Joseph]
application/vnd.groove-tool-template	[Joseph]
application/vnd.groove-vcard	[Joseph]
application/vnd.hbci	[Hammann]
application/vnd.hhe.lesson-player	[Jones]
application/vnd.hp-HPGL	[Pentecost]
application/vnd.hp-hpid	[Gupta]
application/vnd.hp-hps	[Aubrey]
application/vnd.hp-PCL	[Pentecost]
application/vnd.hp-PCLXL	[Pentecost]
application/vnd.httphone	[Lefevre]

application/vnd.hzn-3d-crossword	[Minnis]
application/vnd.ibm.afplinedata	[Buis]
application/vnd.ibm.electronic-media	[Tantlinger]
application/vnd.ibm.MiniPay	[Herzberg]
application/vnd.ibm.modcap	[Hohensee]
application/vnd.ibm.secure-container	[Tantlinger]
application/vnd.informix-visionary	[Gales]
application/vnd.intercon.formnet	[Gurak]
application/vnd.intertrust.digibox	[Tomasello]
application/vnd.intertrust.nncp	[Tomasello]
application/vnd.intu.qbo	[Scratchley]
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application/vnd.kde.kformula	[Faure]
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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.koan	[Cole]
application/vnd.liberty-request+xml	[McDowell]
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application/vnd.lotus-freelance	[Wattenberger]
application/vnd.lotus-notes	[Laramie]
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application/vnd.lotus-wordpro	[Wattenberger]
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application/vnd.mediastation.cdkey	[Flurry]
application/vnd.meridian-slingshot	[Wedel]
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application/vnd.micrografx.igx	[Prevo]

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application/vnd.Mobius.DIS	[Kabayama]
application/vnd.Mobius.MBK	[Devasia]
application/vnd.Mobius.MQY	[Devasia]
application/vnd.Mobius.MSL	[Kabayama]
application/vnd.Mobius.PLC	[Kabayama]
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application/vnd.ms-lrm	[Ledoux]
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application/vnd.music-niff	[Butler]
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application/vnd.pg.osasli	[Gandert]
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application/vnd.powerbuilder6-s	[Guy]
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application/vnd.publishare-delta-tree	[Ben-Kiki]
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application/vnd.sss-ntf	[Bruno]
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application/whoispp-response	[RFC2958]
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audio/AMR-WB	[RFC3267]
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audio/G728	
audio/G729	
audio/G729D	
audio/G729E	
audio/GSM	
audio/GSM-EFR	
audio/L16	[RFC2586]
audio/L20	[RFC3190]
audio/L24	[RFC3190]
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audio/LPC	
audio/MP4A-LATM	[RFC3016]

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message/disposition-notification	[RFC2298]
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message/news	[RFC 1036, H.Spencer]
message/partial	[RFC2045,RFC2046]
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message/s-http	[RFC2660]
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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]
text/enriched	[RFC1896]
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text/plain	[RFC2646,RFC2046]

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video/MP2P	
video/MP2T	
video/MP4V-ES	[RFC3016]
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video/vnd.objectvideo	[Clark]
video/vnd.vivo	[Wolfe]

4.8.7 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.

5. System Structure

5.1 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.

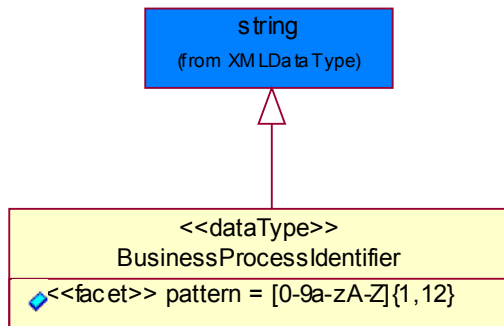**Figure 5-1 BusinessProcessIdentifier**

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

5.2 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.
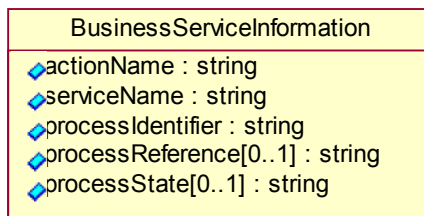
Figure 5-2 BusinessServiceInformation

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.

5.3 ContractInformation

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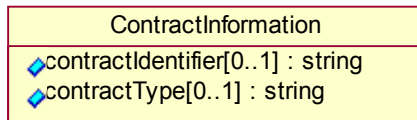

Figure 5-3 ContractInformation

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.

5.4 CorrelationInformation

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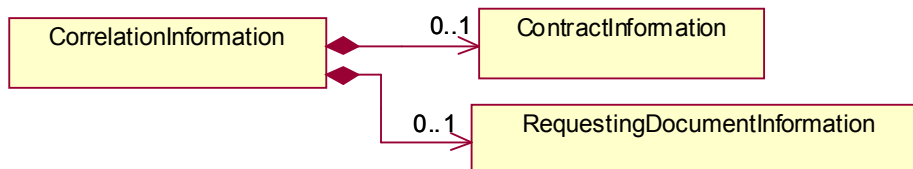

Figure 5-4 CorrelationInformation

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.

5.5 DocumentHeader

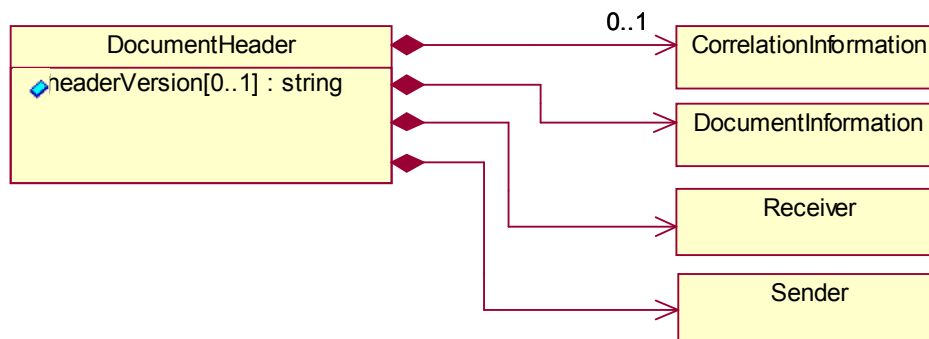The object allows for the identification of the sender and receiver of the business document.

Figure 5-5 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.

5.6 DocumentIdentification

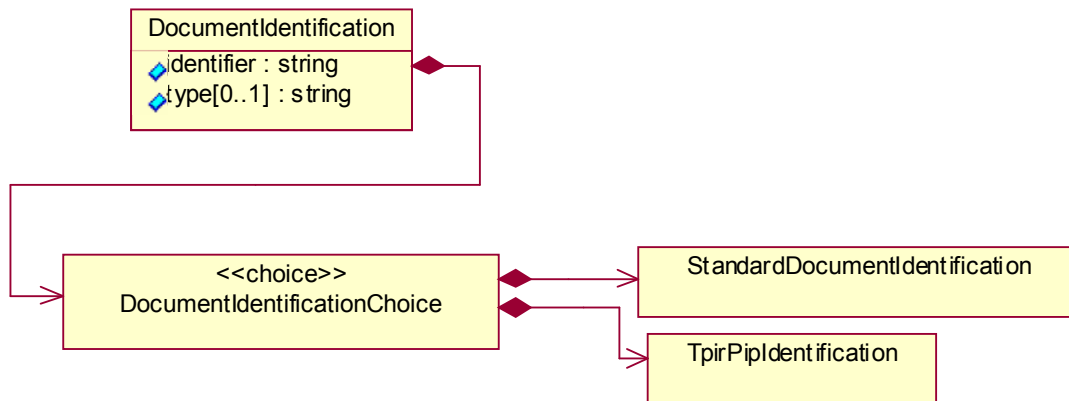The object specifies all information necessary to identify the business document.

Figure 5-6 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	

5.7 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.

5.8 DocumentInformation

The object specifies information to identify the business document, a summary of attachments, and information about the business document security.
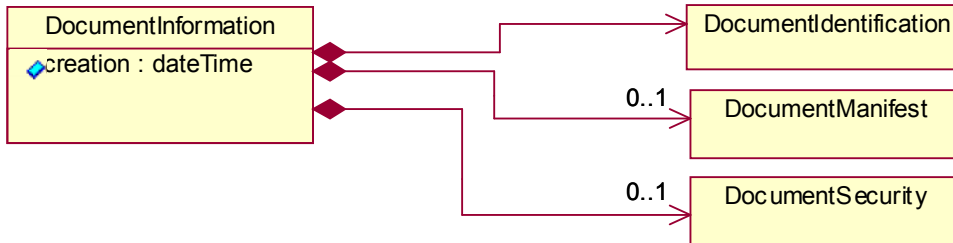

Figure 5-7 DocumentInformation

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.

5.9 DocumentManifest

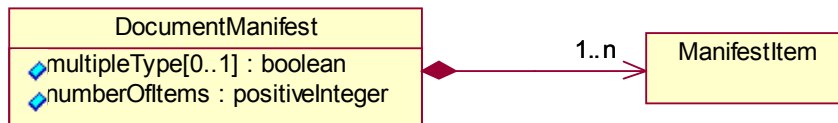The block provides a brief summary of attachments and Service Content.

Figure 5-8 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).

5.10 DocumentSecurity

The object provides additional granularity in specifying business document security (this is in addition to the specified PIP security).
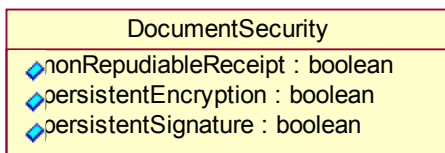
```
DocumentSecurity
nonRepudiableReceipt : boolean
persistentEncryption : boolean
persistentSignature : boolean
```

Figure 5-9 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.

5.11 ManifestItem

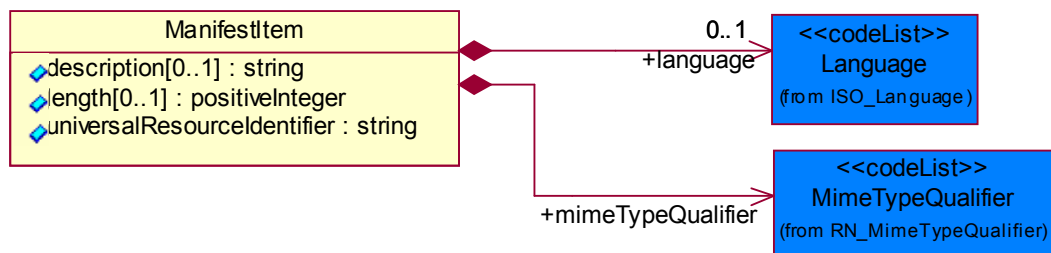The object provides details about the specific attachment(s).

Figure 5-10 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.

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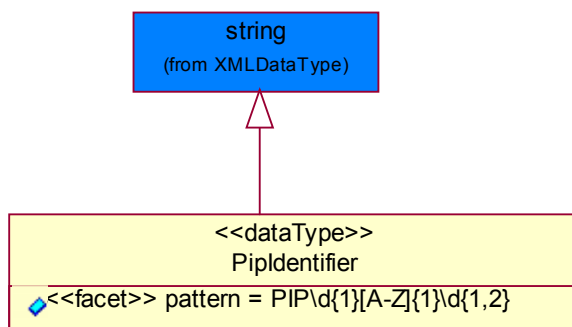
PIP Identification.[i.e. PIP3A4]

Figure 5-11 PipIdentifier

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

5.13 PipVersion

PIP version number (i.e. 02.02.00).
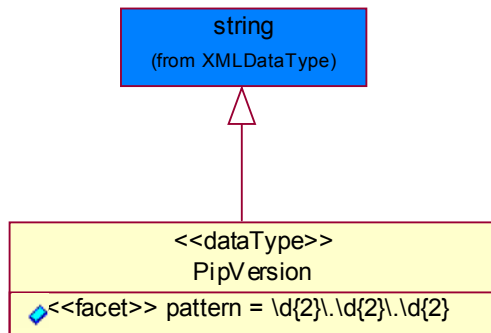
Figure 5-12 PipVersion

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

5.14 Receiver

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

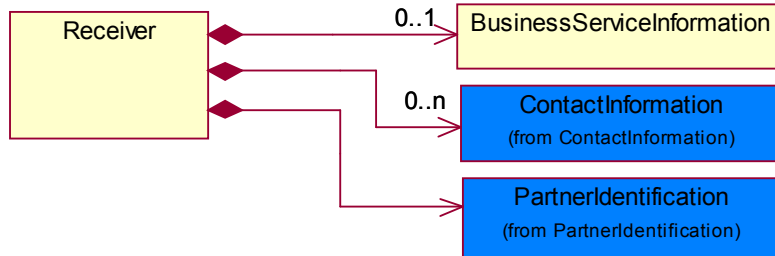
Figure 5-13 Receiver

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.

5.15 RequestingDocumentInformation

A block of information used to correlate a requesting document to a responding document in an executing choreography.
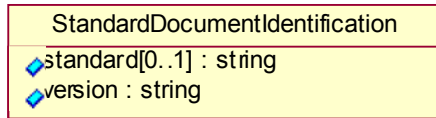
```
StandardDocumentIdentification
standard[0..1] : string
version : string
```

Figure 5-14 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.

5.16 Sender

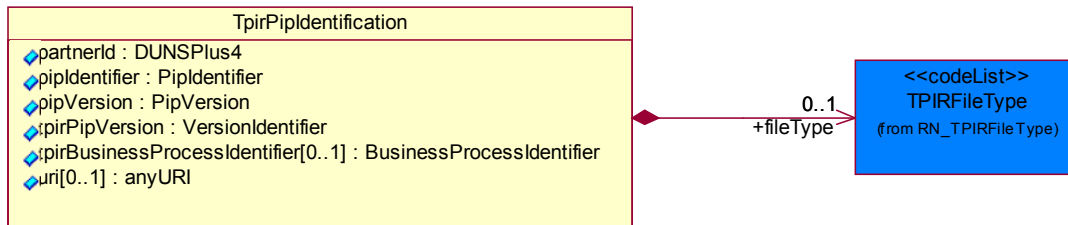The object allows the identification of the initiating party of the business message.

```
TpirPipIdentification
partnerId : DUNSPlus4
pipIdentifier : PipIdentifier
pipVersion : PipVersion
tpirPipVersion : VersionIdentifier
tpirBusinessProcessIdentifier[0..1] : BusinessProcessIdentifier
uri[0..1] : anyURI
```

```
<<codeList>>
TPIRFileType
(from RN_TPIRFileType)
```

0..1
+fileType

Figure 5-15 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 RNIF.
ContactInformatio	0..n	ContactInformatio	The business document must

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

5.17 StandardDocumentIdentification

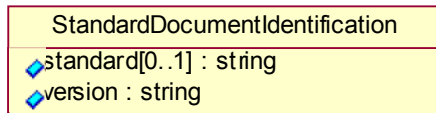The object specifies additional information necessary to identify the standard business document.

Figure 5-16 StandardDocumentIdentification

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

5.18 TpirPipIdentification

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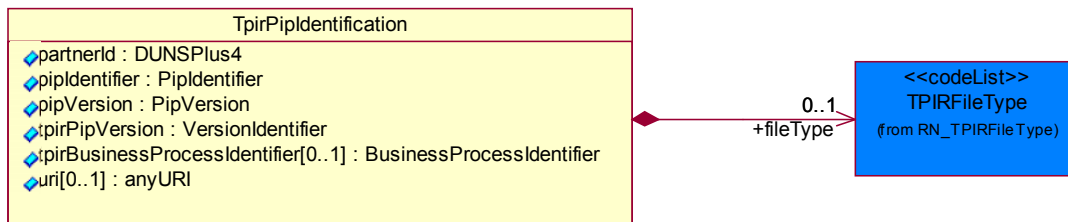

Figure 5-17 TpirPipIdentification

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).

5.19 VersionIdentifier

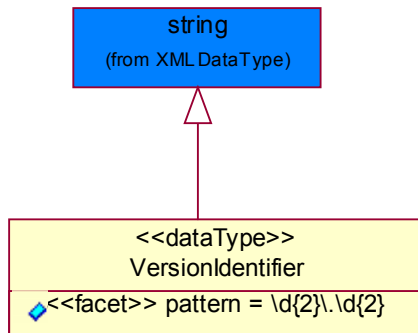Version Number (i.e., major and minor version number as XX.XX).

Figure 5-18 VersionIdentifier

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

5.20 CodeList

5.20.1 TPIRFileType

A code identifying the file type of TPIR form.

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

6. XML Data Type

6.1 anyURI

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

6.2 boolean

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

6.3 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.

6.4 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.

6.5 float

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

6.6 positiveInteger

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

6.7 string

Represents character string.