



Business Message Standard (BMS) Warehousing Common Library

BMS Release 3.1

1-May-2013, Issue 1



Document Summary

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BRAD Title:	BRAD Date:	BRAD Version
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Warehousing Inventory Management	25-Sep-2012	0.12

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change
1-May-2013	BMS 3.1 – issue 1	Coen Janssen	Publication of BMS release 3.1	First release of this message standard.

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1. Business Domain View

1.1. Problem Statement / Business Need

This standard is part of a global GS1 solution for warehouse management that will support the optimization of warehouse management operations in a scalable way. This will ultimately take out unnecessary cost of the supply chain.

1.2. Objective

This standard defines the transaction model and data model for the following business message(s):

- Warehouse Receiving Instruction – Message that supports the warehouse inbound process, and enables a Logistic Services Client (LSC) to inform his Logistic Services Provider (LSP) that goods will be arriving.

1.3. Audience

This document is intended for anyone interested in implementing the GS1 eCom standards for Transport and Logistics.

1.4. References

[LIM] GS1 Logistics Interoperability Model, 1.0, GS1 2007

[BRAD_WIO] BRAD Warehousing Inbound and Outbound Processes, 1.0, GS1 2012

[BRAD_WIM] BRAD Warehousing Inventory Management, 0.12, GS1 2012

[BMS_Shared] BMS Shared Common Library, 3.1, GS1 2012

[BMS_eCom] BMS eCom Common Library, 3.1, GS1 2012

1.5. Acknowledgements

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

1.5.1. Work Group

Function	Name	Company / organisation
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1.5.2. Development Team Members

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2. Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Warehousing
System Capabilities	GS1 System
Official Constraints	None

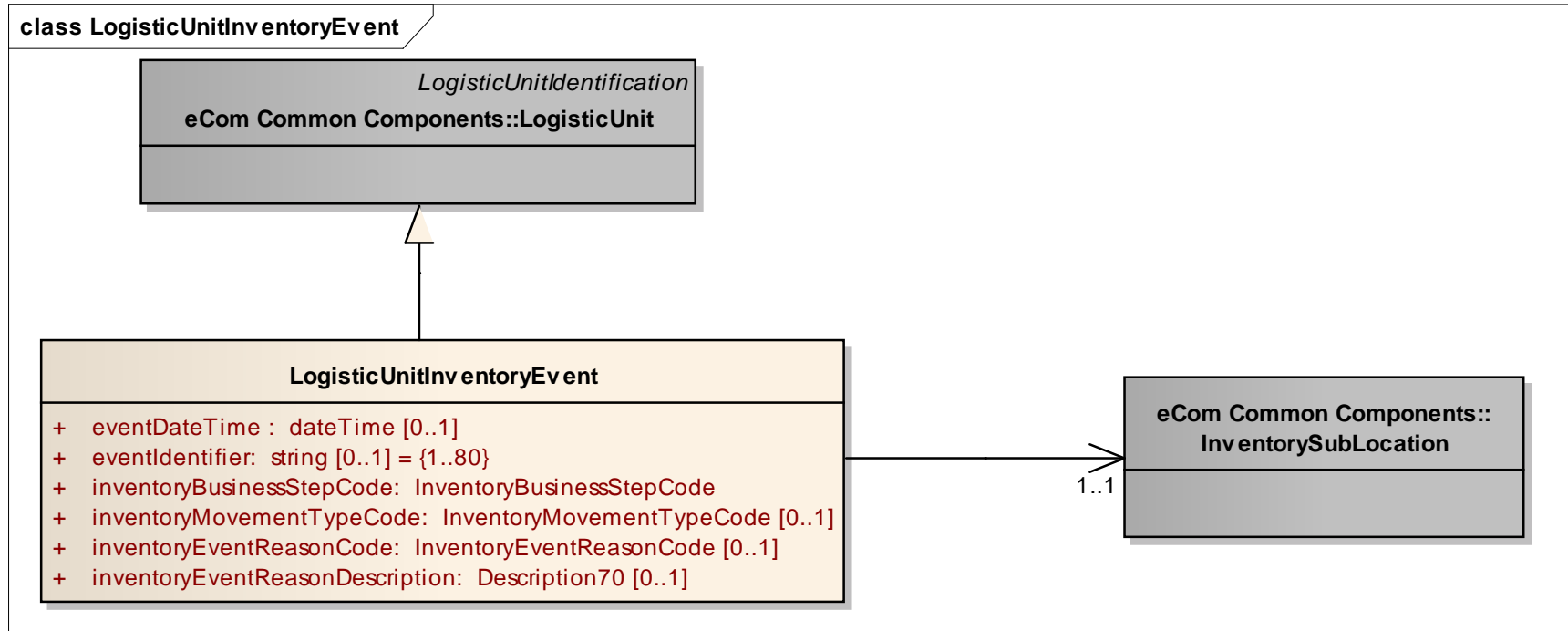
3. Business Transaction View

Not applicable

4. Business Information View

4.1. Logistic Unit Inventory Event

Class Diagram



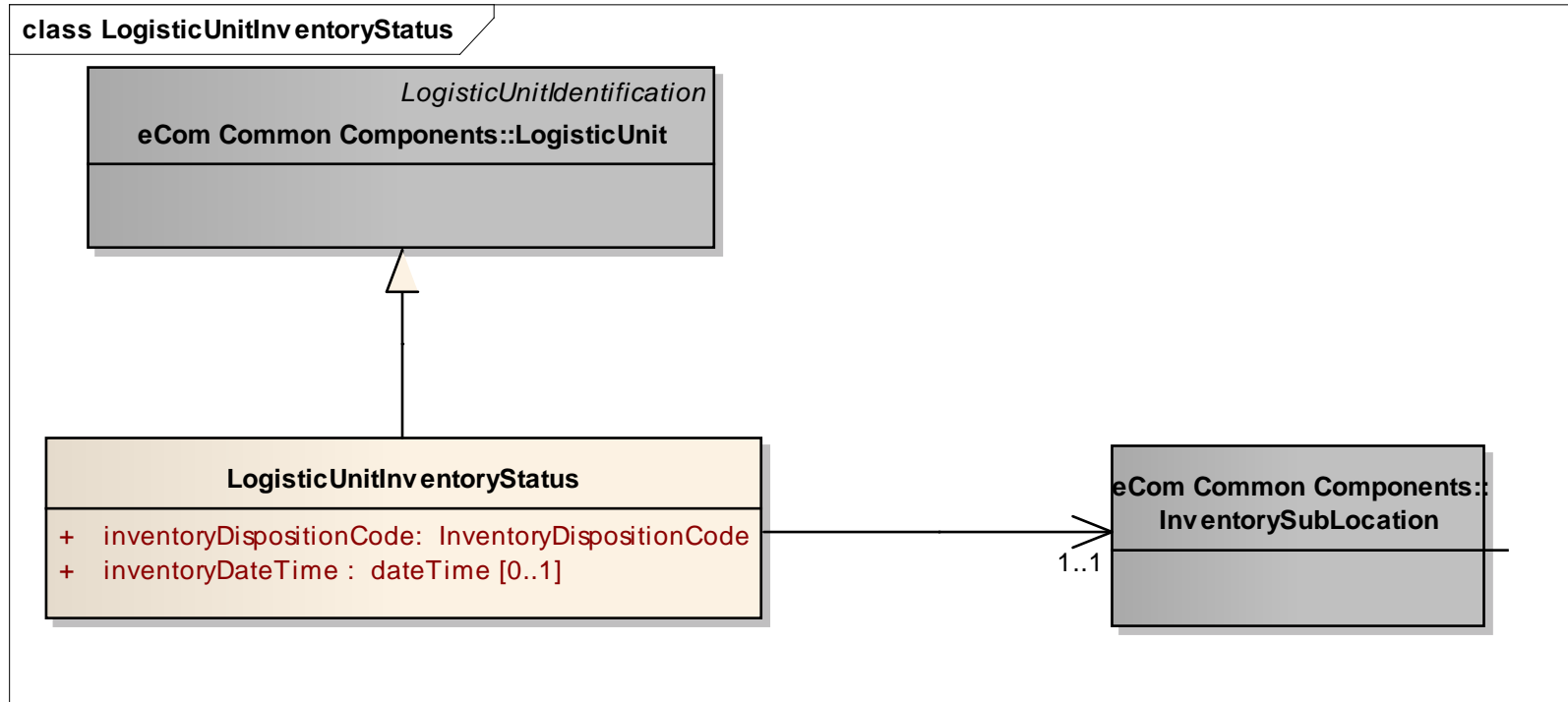
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
LogisticUnitInventoryEvent				Information specifying an inventory activity of a specific logistic unit at a specific sub-location at a specific point in time.	
Association		InventorySubLocation	1..1	The inventory sub location related to the event.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Generalization		LogisticUnit			
Attribute	eventDateTime	dateTime	0..1	The moment in time at which the event occurred.	
Attribute	eventIdentifier	string	0..1	The sequence number for this event.	
Attribute	inventoryBusinessStepCode	InventoryBusinessStepCode	1..1	Denotes a specific activity within a business process. The business step code of an event specifies what business process step was taking place that caused the event.	
Attribute	inventoryMovementTypeCode	InventoryMovementTypeCode	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	
Attribute	inventoryEventReasonCode	InventoryEventReasonCode	0..1	Code specifying the reason for this event.	
Attribute	inventoryEventReasonDescription	Description70	0..1	Textual description of the reason for this event.	

4.2. Logistic Unit Inventory Status

Class Diagram



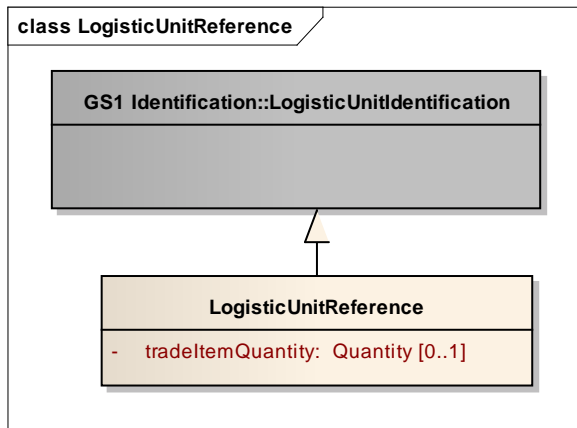
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
LogisticUnitInventoryStatus				Information specifying the inventory status of a logistic unit at a specific sub-location at a specific point in time.	
Generalization		LogisticUnit			
Association		InventorySubLocation	1..1	The inventory sub location where the inventory is located.	
Attribute	inventoryDispositionCode	InventoryDispositionCode	1..1	The inventory disposition code specifies the business condition of the inventory.	

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
Attribute	inventoryDateTime	dateTime	0..1	Date and time when the inventory for this item was assessed.	

4.3. Logistic Unit Reference

Class Diagram

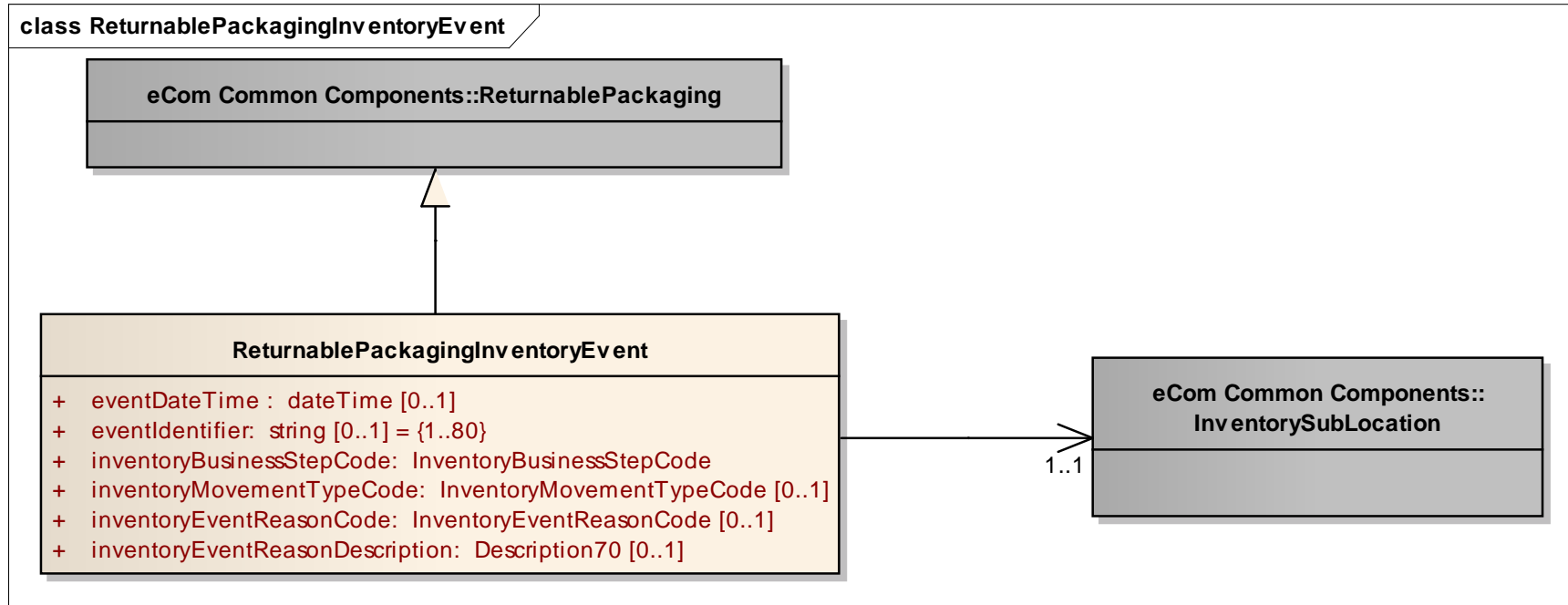


GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
LogisticUnitReference				Information on the quantity of a particular trade item that is contained in a particular logistic unit.	
Generalization		LogisticUnitIdentification			
Attribute	tradeItemQuantity	Quantity	0..1	The quantity of a particular trade item contained in a particular logistic unit.	

4.4. Returnable Packaging Inventory Event

Class Diagram



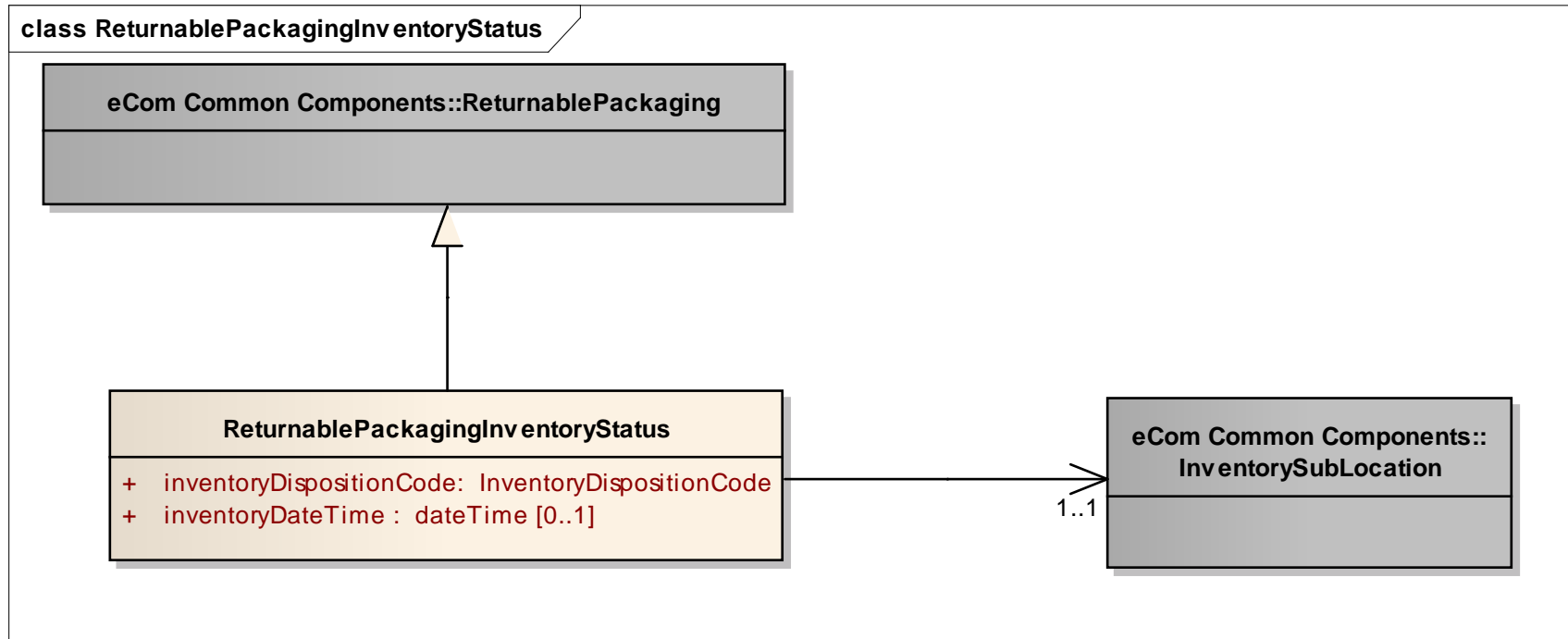
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ReturnablePackagingInventoryEvent				Information specifying an inventory activity of one or more returnable packaging items (of the same type) at a specific sub-location at a specific point in time.	
Generalization		ReturnablePackaging			
Association		InventorySubLocation	1..1		
Attribute	eventDateTime	dateTime	0..1	The moment in time at which the event occurred.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	eventIdentifier	string	0..1	The sequence number for this event.	
Attribute	inventoryBusinessStepCode	InventoryBusinessStep Code	1..1	Denotes a specific activity within a business process. The business step code of an event specifies what business process step was taking place that caused the event.	
Attribute	inventoryMovementTypeCode	InventoryMovementType Code	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	renamed from inventoryMovementIndicator
Attribute	inventoryEventReasonCode	InventoryEventReason Code	0..1	Code specifying the reason for this event.	
Attribute	inventoryEventReasonDescription	Description70	0..1	Textual description of the reason for this event.	

4.5. Returnable Packaging Inventory Status

Class Diagram



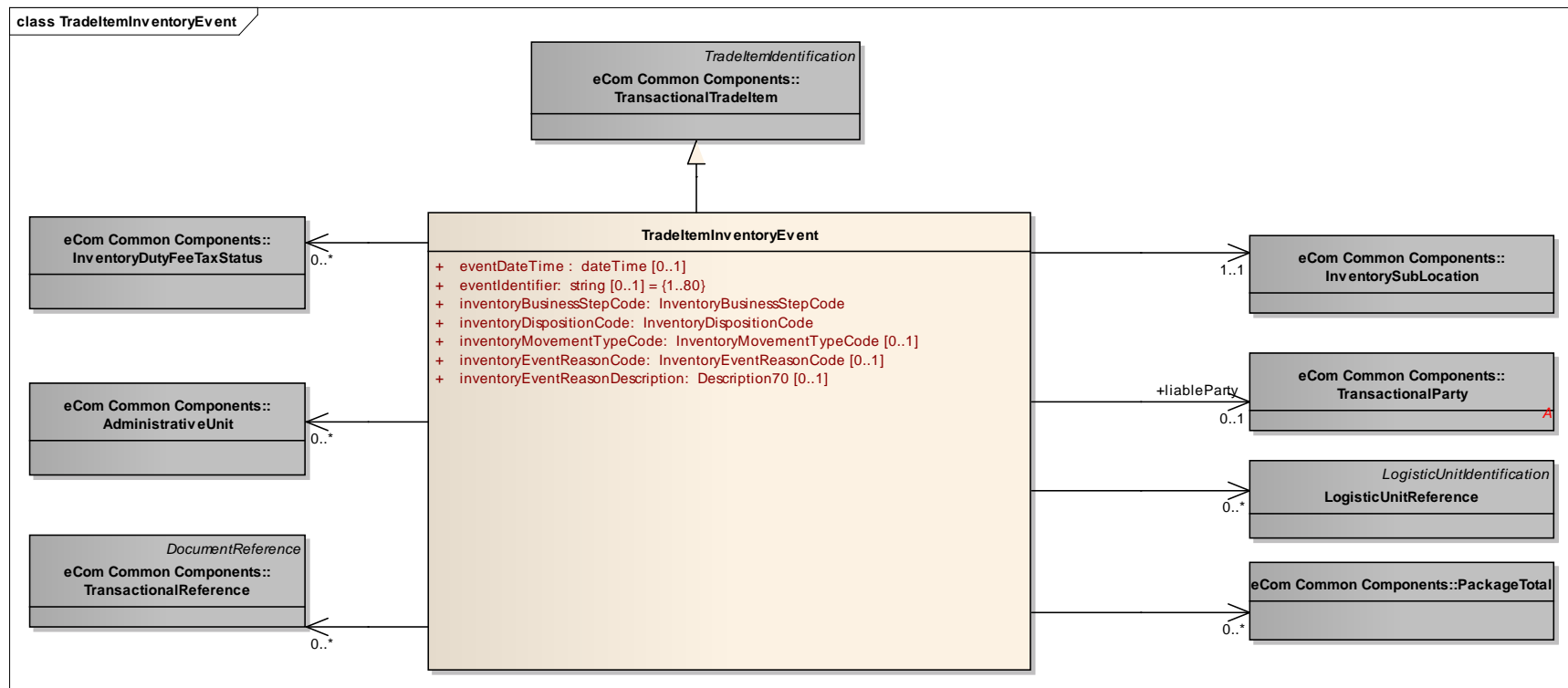
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
ReturnablePackagingInventoryStatus				Information specifying the inventory status of a set of returnable packaging items (of the same type) at a specific sub-location at a specific point in time.	
Generalization		ReturnablePackaging			
Association		InventorySubLocation	1..1	The inventory sub location where the inventory is located.	
Attribute	inventoryDispositionCode	InventoryDispositionCode	1..1	The inventory disposition code specifies the business condition of the inventory.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	inventoryDateTime	dateTime	0..1	Date and time when the inventory for this item was assessed.	

4.6. Trade Item Inventory Event

Class Diagram



GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
TradeltemInventoryEvent				Information specifying an	

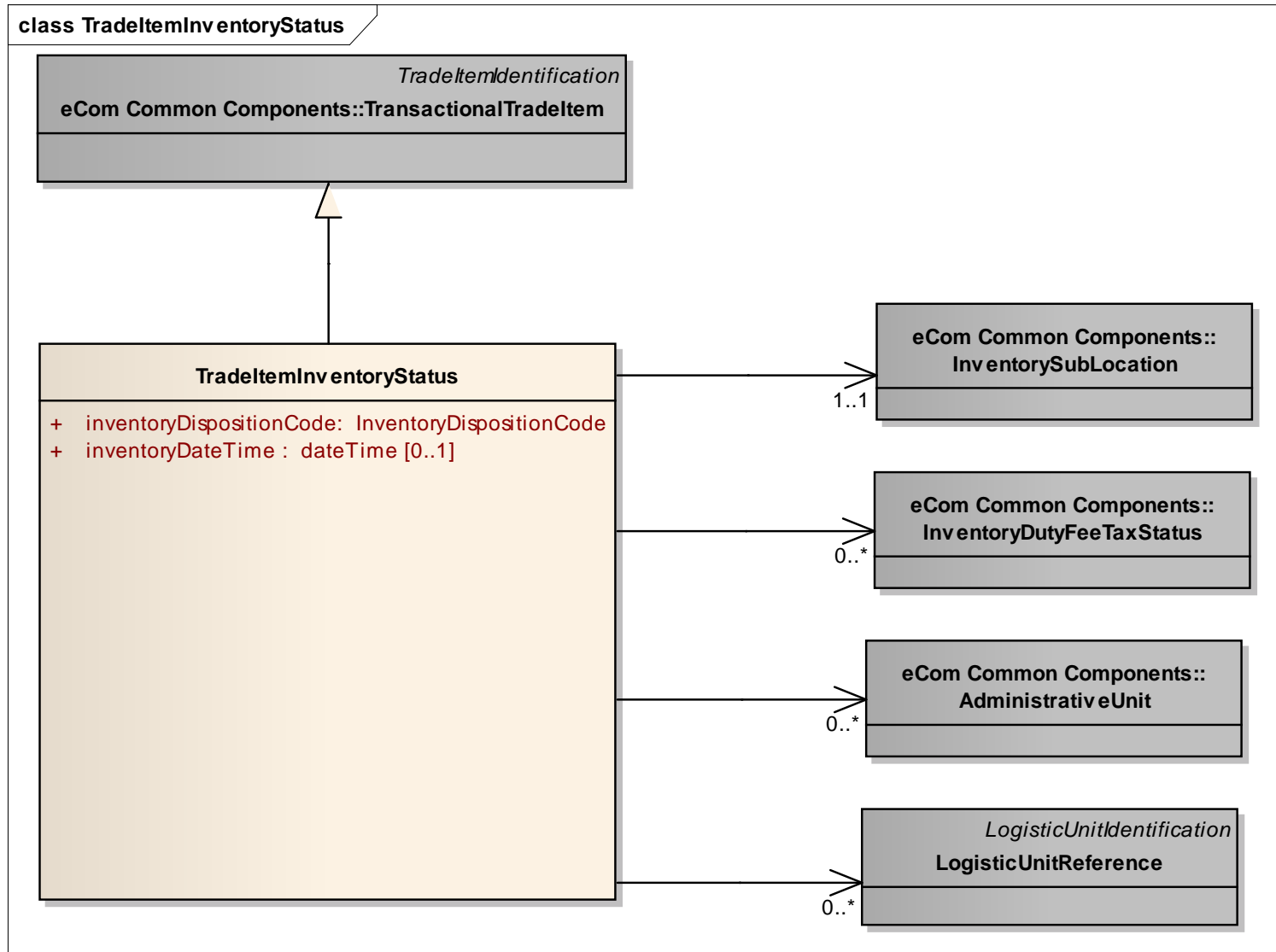
Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				inventory activity of one or more trade items (of the same type) at a specific sub-location at a specific point in time.	
Association	liableParty	TransactionalParty	0..1	Party that will be held liable for the cost incurred by the event.	
Association		TransactionalReference	0..*	References to the commercial transaction or to transport or legal documents related to the item.	
Association		InventorySubLocation	1..1	The inventory sub location related to the event.	
Association		AdministrativeUnit	0..*	The administrative unit related to the event.	
Generalization		TransactionalTradeItem			
Association		InventoryDutyFeeTaxStatus	0..*	The duty, fee or tax status related to the inventory event.	
Association		PackageTotal	0..*	Aggregate information per type of package included in the inventory item.	
Association		LogisticUnitReference	0..*	The logistic units that hold the trade item subject to the event.	
Attribute	eventDateTime	dateTime	0..1	The moment in time at which the event occurred.	
Attribute	eventIdentifier	string	0..1	The sequence number for this event.	
Attribute	inventoryBusinessStepCode	InventoryBusinessStepCode	1..1	Denotes a specific activity within a business process. The business step code of an event specifies what business process step was taking place that caused the event.	
Attribute	inventoryDispositionCode	InventoryDispositionCode	1..1	The inventory disposition code specifies the business condition of the inventory that is subject of the event.	
Attribute	inventoryMovementTypeCode	InventoryMovementTypeCode	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	
Attribute	inventoryEventReasonCode	InventoryEventReasonCode	0..1	Code specifying the reason for this event.	
Attribute	inventoryEventReasonDescription70	Description70	0..1	Textual description of the	



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
	scription			reason for this event.	

4.7. Trade Item Inventory Status

Class Diagram

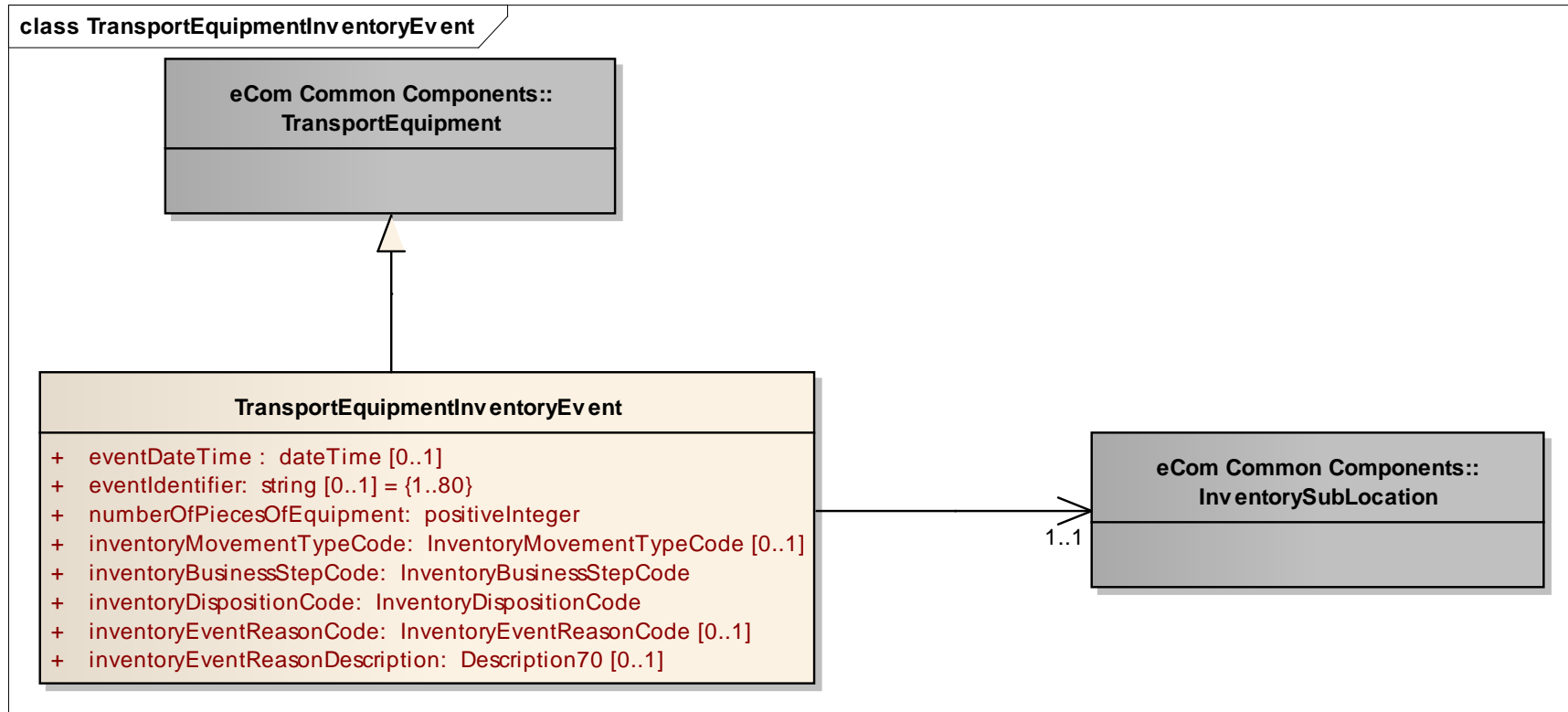


GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
TradeltemInventoryStatus				Information specifying the inventory status of a set of trade items (of the same type) at a specific sub-location at a specific point in time.	
Association		InventoryDutyFeeTaxSt atus	0..*	The duty, fee and tax status of the inventory.	
Association		AdministrativeUnit	0..*	The administrative unit to which the inventory has been allocated.	
Association		InventorySubLocation	1..1	The inventory sub location where the inventory is located.	
Association		LogisticUnitReference	0..*	The logistic units that contain the trade item.	
Generalization		TransactionalTradeltem			
Attribute	inventoryDispositionCode	InventoryDispositionCo de	1..1	The inventory disposition code specifies the business condition of the inventory.	
Attribute	inventoryDateTime	dateTime	0..1	Date and time when the inventory for this item was assessed.	

4.8. Transport Equipment Inventory Event

Class Diagram



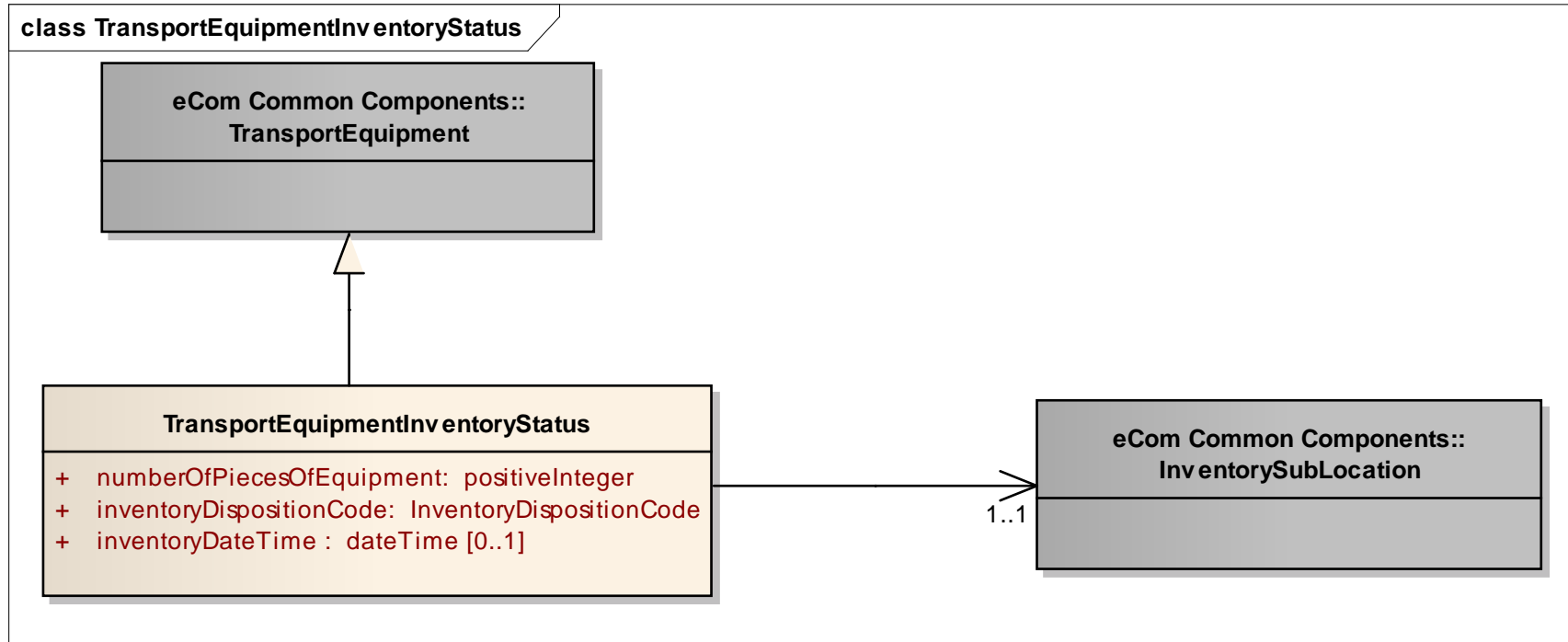
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
TransportEquipmentInventoryEvent				Information specifying an inventory activity of one or more pieces of transport equipment (of the same type) at a specific sub-location at a specific point in time.	
Association		InventorySubLocation	1..1		
Generalization		TransportEquipment			
Attribute	eventDateTime	dateTime	0..1	The moment in time at which	

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				the event occurred.	
Attribute	eventIdentifier	string	0..1	The sequence number for this event.	
Attribute	numberOfPiecesOfEquip ment	positiveInteger	1..1	The total number of pieces of the specified type of transport equipment.	
Attribute	inventoryMovementTypeC ode	InventoryMovementTyp eCode	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	renamed from inventoryMovementIndicat or
Attribute	inventoryBusinessStepCo de	InventoryBusinessStep Code	1..1	Denotes a specific activity within a business process. The business step code of an event specifies what business process step was taking place that caused the event.	
Attribute	inventoryDispositionCode	InventoryDispositionCo de	1..1	The disposition code of an event specifies the business condition of the (remaining) inventory subsequent to the event. The disposition is assumed to hold true until another event indicates a change of disposition.	
Attribute	inventoryEventReasonCo de	InventoryEventReason Code	0..1	Code specifying the reason for this event.	
Attribute	inventoryEventReasonDe scription	Description70	0..1	Textual description of the reason for this event.	

4.9. Transport Equipment Inventory Status

Class Diagram



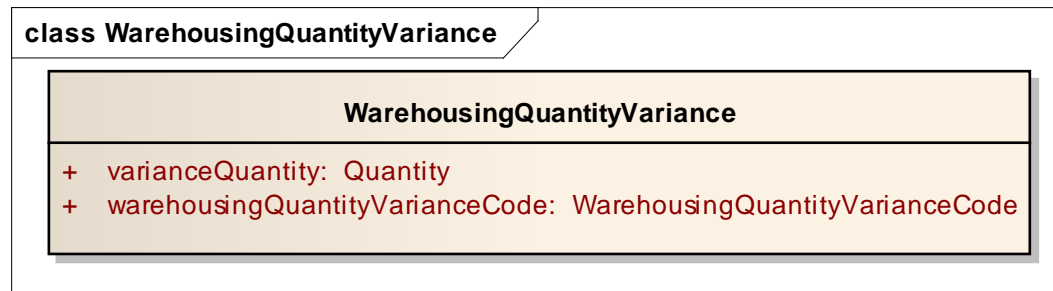
GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
TransportEquipmentInventoryStatus				Information specifying the inventory status of a set of pieces of transport equipment (of the same type) at a specific sub-location at a specific point in time.	
Generalization		TransportEquipment			
Association		InventorySubLocation	1..1	The inventory sub location where the inventory is located.	
Attribute	numberOfPiecesOfEquipment	positiveInteger	1..1	The total number of pieces of the specified type of transport equipment.	

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Attribute	inventoryDispositionCode	InventoryDispositionCode	1..1	The inventory disposition code specifies the business condition of the inventory.	
Attribute	inventoryDateTime	dateTime	0..1	Date and time when the inventory for this item was assessed.	

4.10. Warehousing Quantity Variance

Class Diagram

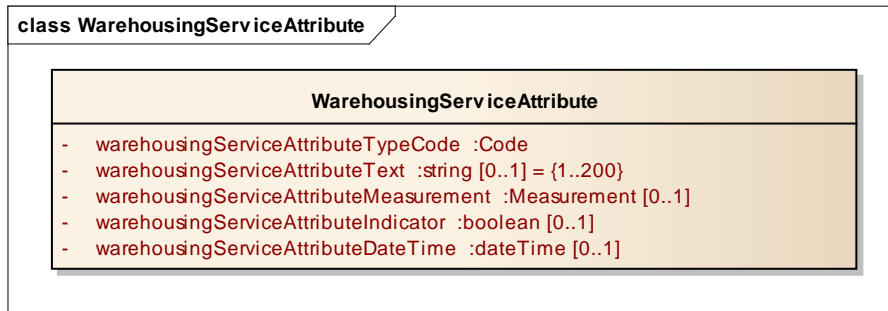


GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
WarehousingQuantityVariance				Quantity and reason of a shortage or surplus occurring in a warehousing process.	
Attribute	varianceQuantity	Quantity	1..1	The number of units of the variance.	
Attribute	warehousingQuantityVarianceCode	WarehousingQuantityVarianceCode	1..1	Code specifying the type and / or reason for the variance.	

4.11. Warehousing Service Attribute

Class Diagram

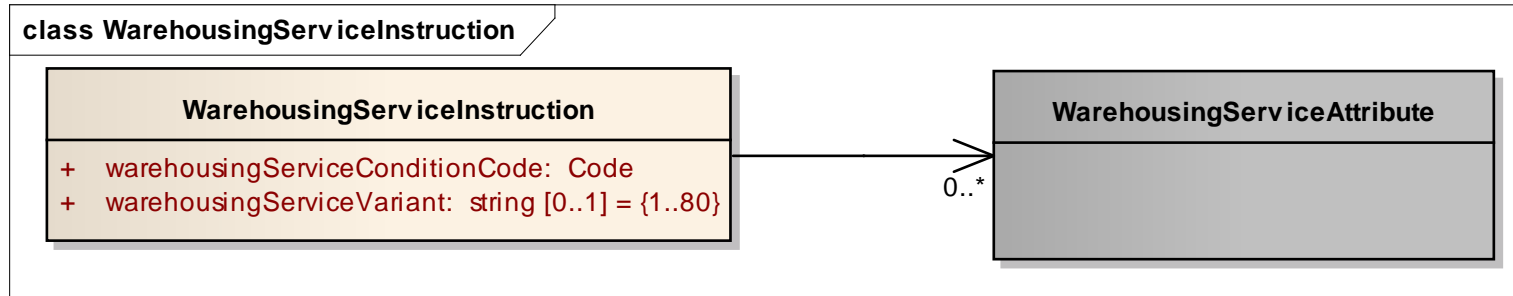


GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
WarehousingServiceAttribute				Piece of information used to further specify the details of a warehousing service.	
Attribute	warehousingServiceAttribute TypeCode	Code	1..1	Code specifying the type of warehousing service attribute. NOTE: For this attribute a GS1 code list is available (see paragraph 4.17.7 Warehousing Service Attribute Type Code), but also other code lists may be applied.	
Attribute	warehousingServiceAttribute Text	string	0..1	Textual value of the warehousing service attribute.	
Attribute	warehousingServiceAttribute Measurement	Measurement	0..1	Measurement value of the warehousing service attribute.	
Attribute	warehousingServiceAttributeI ndicator	boolean	0..1	Boolean value of the warehousing service attribute.	
Attribute	warehousingServiceAttribute DateTime	dateTime	0..1	Date time value of the warehousing service attribute.	

4.12. Warehousing Service Instruction

Class Diagram

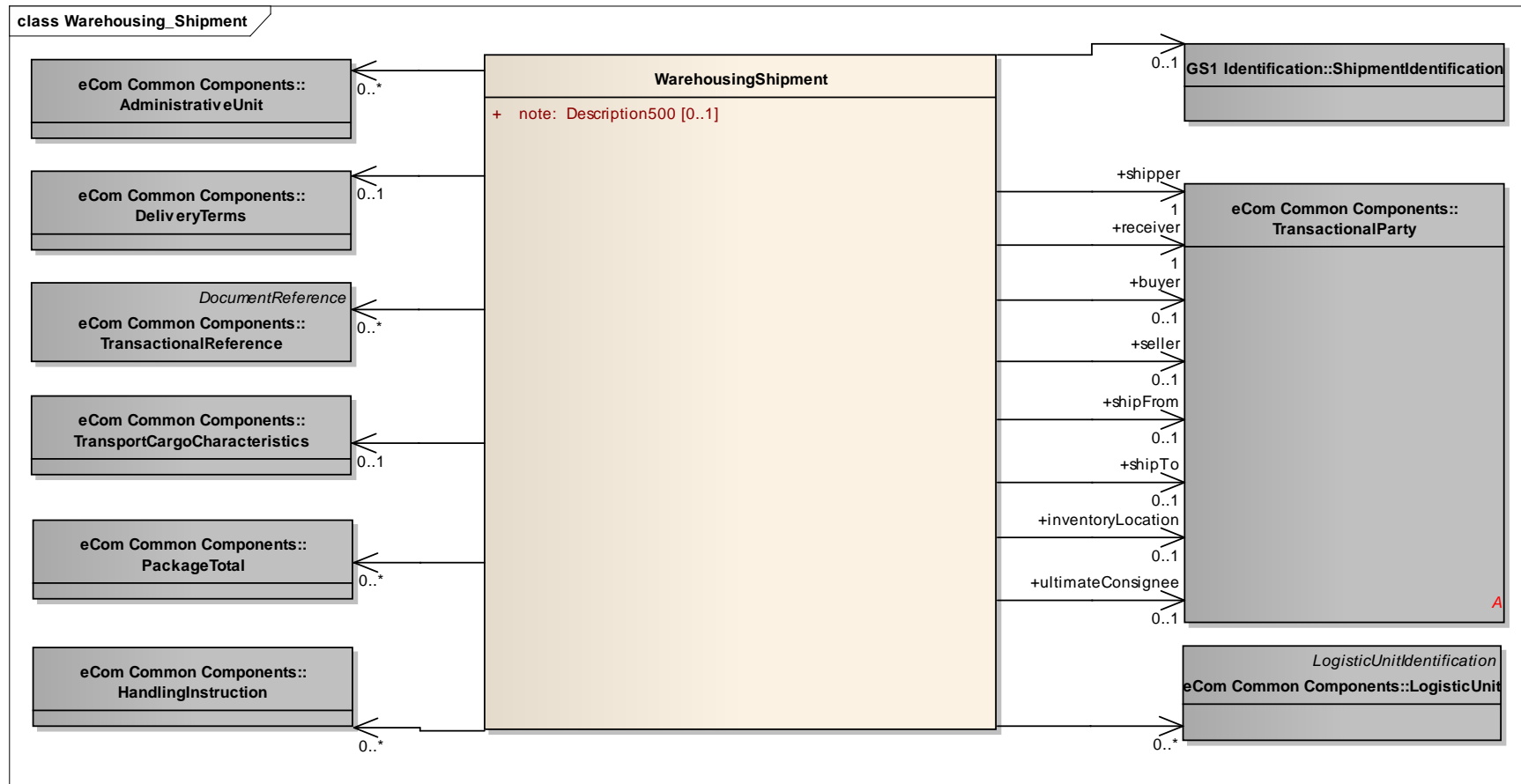


GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
WarehousingServiceInstruction				Instruction specifying a service to be carried out by the logistic services seller during a warehousing process, for example during inbound or outbound.	
Association		WarehousingServiceAttribute	0..*	information further specifying the details of a warehousing service.	
Attribute	warehousingServiceConditionCode	Code	1..1	Code specifying the type of warehousing service. NOTE: For this attribute a GS1 code list is available (see paragraph 4.17.6 Warehousing Service Condition Code), but also other code lists may be applied.	
Attribute	warehousingServiceVariant	string	0..1	Text identifying a specific variant of the warehousing service.	

4.13. Warehousing Shipment

Class Diagram



GDD Report

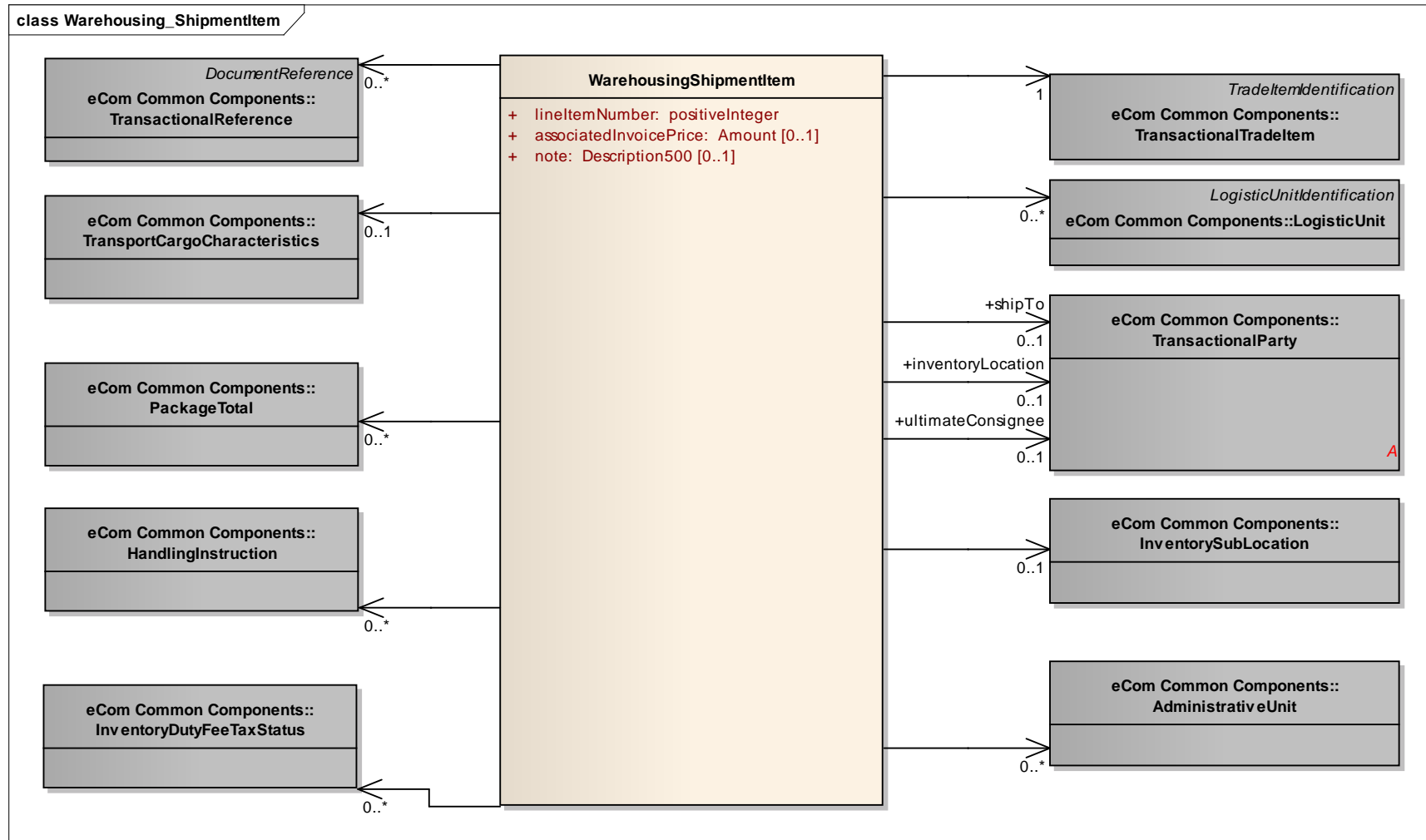
Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
WarehousingShipment				A shipment is an identifiable collection of one or more Trade Items available to be transported together from the shipper (Original	[brad-whiop:shm-1]

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				Consignor/Shipper), to the receiver (Final/Ultimate Consignee).	
Association	seller	TransactionalParty	0..1	Identifies the party which sells products or services to a buyer.	[brad-wio:shm-1.3]
Association	buyer	TransactionalParty	0..1	Identifies the party to which products or services are sold.	[brad-wio:shm-1.2]
Association		AdministrativeUnit	0..*	On or more administrative units related to the shipment.	[brad-wio:shm-1.10]
Association	receiver	TransactionalParty	1	A party which engages in receiving this shipment of goods.	[brad-wio:shm-1.5]
Association	shipper	TransactionalParty	1	A party which engages in shipping this shipment of goods.	[brad-wio:shm-1.4]
Association		PackageTotal	0..*	Aggregate information per type of package contained in the shipment.	[brad-wio:shm-1.14]
Association		ShipmentIdentification	0..1		[brad-whiop:shm-1.1]
Association		TransportCargoCharacteristics	0..1	Aggregate information on the goods that are contained in this shipment.	
	[brad-wio:shm-1.13]				
Association		TransactionalReference	0..*	One or more references to associated information in support of related business processes. E.g. a purchase order, a return authorization number.	[brad-wio:shm-1.12]
Association		HandlingInstruction	0..*	One or more instructions on the way to treat the goods during transport and storage.	[brad-wio:shm-1.15]
Association	shipFrom	TransactionalParty	0..1	The physical location from where goods will be or have been shipped.	[brad-wio:shm-1.6]
Association		DeliveryTerms	0..1	The applicable legal, customs, financial and insurance terms that have been agreed for the shipment.	[brad-wio:shm-1.11]
Association	ultimateConsignee	TransactionalParty	0..1	Identifies the party that is the final destination for the shipment.	[brad-wio:shm-1.9]
Association	inventoryLocation	TransactionalParty	0..1	Identification of the location	[brad-wio:shm-1.8]

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				(premises) where the goods will be stored.	
Association	shipTo	TransactionalParty	0..1	The physical location to where goods will be or have been shipped.	[brad-wio:shm-1.7]
Association		LogisticUnit	0..*	The logistic units contained in the shipment.	[brad-wio:shm-1.16]
Attribute	note	Description500	0..1	Free text used to convey information that is not processed by applications. Only meant to present the information to a user as on a screen, in a browser, etc.	

4.14. Warehousing Shipment Item

Class Diagram



GDD Report

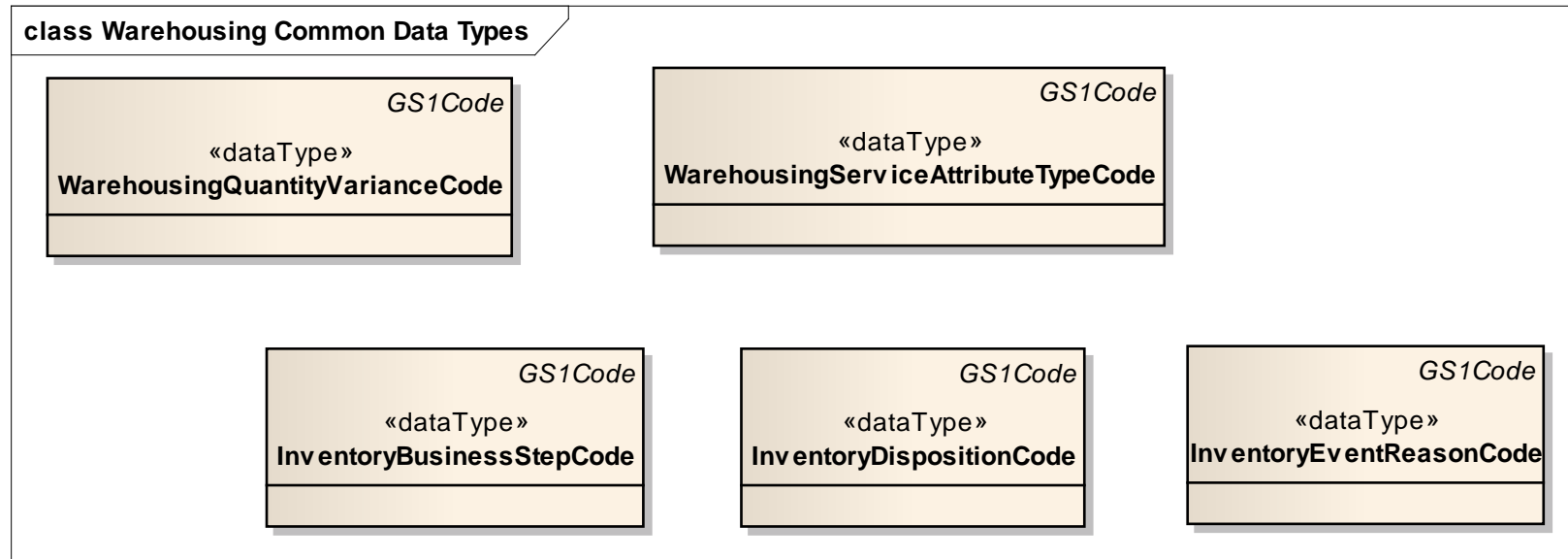
Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
WarehousingShipmentItem				A shipment item is collection	[brad-whiop.shm-2]

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				of trade items and related logistic units that can each be identified (uniquely) within a shipment.	
Association	shipTo	TransactionalParty	0..1	The physical location to where goods will be or have been shipped.	
Association		InventorySubLocation	0..1	Identification of the inventory sub-location where goods are stored.	[brad-wio:shm-2.4]
Association	inventoryLocation	TransactionalParty	0..1	Identification of the location where the goods are stored.	[brad-wio:shm-2.3]
Association		TransactionalTradeItem	1	Information on the trade item contained in the shipment.	[brad-wio:shm-2.2]
Association	ultimateConsignee	TransactionalParty	0..1	Identifies the party that is the final destination of the goods.	[brad-wio:shm-2.5]
Association		TransactionalReference	0..*	One or more references to associated information in support of related business processes. E.g. a purchase order, a return authorization number.	[brad-wio:shm-2.9]
Association		TradeItemInventoryStatus	0..*		[brad-wio:shm-2.13+2.6+2.7+2.8]
Association		LogisticUnit	0..*	Information on the logistic unit quantity of the trade item contained in it.	[brad-wio:shm-1.16]
Association		HandlingInstruction	0..*	One or more instructions on the way to treat the goods during transport and storage.	[brad-wio:shm-2.12]
Association		PackageTotal	0..*	Aggregate information per type of package contained in the shipment item.	[brad-wio:shm-2.11]
Association		TransportCargoCharacteristics	0..1		[brad-wio:shm-2.10]
Association		AdministrativeUnit	0..*	On or more administrative units related to the shipment item.	
Association		InventoryDutyFeeTaxStatus	0..*	The duty, fee and / or tax status related to the goods.	
Attribute	lineItemNumber	positiveInteger	1..1	The sequence number for this shipment item. BRAD SHI2	
Attribute	associatedInvoicePrice	Amount	0..1	The unit price of the trade item	[brad-wio:ecom-5]

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
				excluding taxes.	
Attribute	note	Description500	0..1	Free text used to convey information that is not processed by applications. Only meant to present the information to a user as on a screen, in a browser, etc.	

4.15. Warhousing Common Data Types

Class Diagram



GDD Report

Content	Attribute / Role	Datatype /Secondary class	Multipl icity	Definition	Requirements
InventoryBusinessStepCode					
Generalization		GS1Code			
InventoryDispositionCode					



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
Generalization		GS1Code			
InventoryEventReasonCode					
Generalization		GS1Code			
WarehousingQuantityVarianceCode					
Generalization		GS1Code			
WarehousingServiceAttributeTypeCode					
Generalization		GS1Code			

4.16. Internal Code Lists (Enumerations)

Not applicable

4.17. External Code Lists

4.17.1. Inventory Business Step Code

GS1 Code List	InventoryBusinessStepCode
GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	EPCIS CBV 1.0 – Business Step
Type Of Management	Restricted + Extended

Code Value		Code Name	Code Definition
accepting	not defined		Denotes a specific activity within a business process where an object (i.e. product, shipment or asset) arrives into a location causing a change of possession and/or responsibility.
arriving	not defined		Shipment is arriving at a location
assembling	not defined		Denotes an activity within a business process whereby one or more trade item(s) or identifiable component parts are combined with other objects creating a new finished product.
collecting	not defined		Denotes a specific activity within a business process where an object (i.e. product, asset, shipment or container) is picked up and collected for future disposal, recycling or reused.
commissioning	not defined		Process of associating an EPC with a particular object (product, shipment, asset or container). A tag may have been encoded and applied in this step, or may have been previously encoded.
decommissioning	not defined		Process of disassociating an EPC with an object (i.e. product, shipment, asset or container). EPC may be re-commissioned at some point in the future and read again – however only with new information.
departing	not defined		Shipment is leaving a location on its way to a destination
destroying	not defined		Process of terminating an object (i.e. product, shipment, asset or shipping container) The object and its EPC should not be the subject of subsequent events that require a physical observation; subsequent physical observations are likely indicative of error (such as a stray read of a tag inside an incinerator)
disassembling	not defined		Denotes a specific activity within a business process where a trade item is broken down into separate, uniquely identified component parts.
encoding	not defined		Process of writing an EPC code to a tag. EPC is not associated with an object (i.e. product, shipment, asset or container) at this step in the process.
entering_exiting	not defined		Denotes a specific activity within a business at the Entrance/Exit door of a facility. Customers are either leaving with purchased product or entering with product to be returned to the facility.

Code Value		Code Name	Code Definition
holding	not defined		Denotes a specific activity within a business process where an object (i.e. product, shipment, asset, or containers) is being segregated for further review.
inspecting	not defined		Process of reviewing product to address potential product or documentation defects
installing	not defined		Denotes a specific activity within a business process where part or component is put into a composite product or piece of equipment or machinery.
killing	not defined		Process of terminating an EPC RFID tag previously associated with an object. The object and its EPC code may continue to exist and be the subject of subsequent events (via a bar code, manual data entry, replacement tag, etc)
loading	not defined		Denotes a specific activity within a business process where an object (i.e. product, shipment, asset, or container) is loaded into shipping conveyance.
other	not defined		A business step not identified by any of the values listed in the core business vocabulary
packing	not defined		Denotes a specific activity within a business process that includes putting product (individuals, inners, cases, pallets) into a larger container – usually for shipping. Aggregation of one unit to another typically occurs at this point.
picking	not defined		Denotes a specific activity within a business process that includes the selecting of product to fill an order
receiving	not defined		Denotes a specific activity within a business process that indicates that an object (i.e. product, shipment or asset), is being received at a location and is added to the receiver's inventory.
removing	not defined		Denotes a specific activity within a business process where a part or component is taken out of a composite product, or piece of equipment or machinery.
repackaging	not defined		Denotes a specific activity within a business process where an object's packaging configuration is changed.
repairing	not defined		Denotes a specific activity within a business process where a malfunctioning product is repaired (typically by a post-sales service), without replacing it by a new one.
replacing	not defined		Denotes a specific activity within a business process where an object (part, product, asset, container) is substituted or exchanged for another object.
reserving	not defined		Process for an EPC number manager to provide a set of EPC numbers for use by another party.
retail_selling	not defined		Denotes a specific activity within a business process at a point-of-sale for the purpose of transferring ownership to a customer in exchange for something of value (currency, credit, etc).
shipping	not defined		Indicates the overall process of picking, staging, loading and departing. It may be used when more granular process step information is unknown or inaccessible. It may indicate a final event from a shipping point. The use of shipping is mutually exclusive from the use of departing, staging, or loading.
staging_outbound	not defined		Denotes a specific activity within a business process associated with the movement of an object (i.e. product, shipment, asset, container) from a facility to an area where it will await transport pick-up

Code Value		Code Name	Code Definition
stocking	not defined		Denotes a specific activity within a business process within a location to make a product available to the customer or for order fulfillment within a DC
storing	not defined		Denotes a specific activity within a business process where objects are moved into and out of storage within a location
transforming	not defined		Denotes a specific activity within a business process where one or more objects are an input into a process that irreversibly changes that object / those objects into a new object or objects; the output has a new identity and characteristics.
status_changing	not defined		Denotes an activity that leads to an administrative change of the objects, without being moved physically. Note: added for Warehousing project
counting	not defined		Denotes a physical counting activity of the objects. Note: added for Warehousing project
transferring	not defined		Denotes a physical move of the object within the warehouse or between different warehouses. Note: added for Warehousing project

4.17.2. Inventory Disposition Code

GS1 Code List	InventoryDispositionCode
GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	EPCIS CBV 1.0 – Disposition
Type Of Management	Restricted + Extended

Code Value	Code Name	Code Definition
active	not defined	Commissioned objects (product, shipment, asset, or container) introduced into the supply chain
container_closed	not defined	Object (product, shipment, asset,) has been loaded onto a container, the doors have been closed and the shipment sealed.
destroyed	not defined	Object (product, shipment, asset, or container) and/or EPC on packaging have been fully rendered nonusable
encoded	not defined	EPCs have been written to a tag
in_progress	not defined	Default disposition for object (product, shipment, asset, or container) proceeding through points in the supply chain.
in_transit	not defined	Object (product, shipment, asset, or container) being shipped between two trading partners
inactive	not defined	Decommissioned object (product, shipment, asset, or container) that may be reintroduced to the supply chain
non_sellable_damaged	not defined	Product that cannot be sold because it has a flaw
non_sellable_disposed	not defined	Product is non-sellable because it has been returned for disposal
non_sellable_expired	not defined	Product is non-sellable because current date is past expiration date
non_sellable_no_pedigree_match	not defined	In validating the pedigree for the product, no match was found, causing the product to be quarantined for further investigation and disposition
non_sellable_other	not defined	Product cannot be sold to a customer.

Code Value	Code Name	Code Definition
non_sellable_recalled	not defined	Product is non-sellable because of public safety reasons.
reserved	not defined	EPCs have been allocated by an EPC number manager for a third party
retail_sold	not defined	Product has been purchased by a customer
returned	not defined	Object (product, shipment, asset, or container) has been sent back for various reasons. It may or may not be sellable.
sellable_accessible	not defined	Product can be sold as is and customer can access product for purchase
sellable_not_accessible	not defined	Product can be sold as is, but customer cannot access product for purchase
unknown	not defined	Product condition is not known
non_sellable_quarantined	not defined	Product is non-sellable because it has been quarantined, for example awaiting quality inspection. Note: Added for the warehousing project.

4.17.3. Inventory Event Reason Code

GS1 Code List	InventoryEventReasonCode
GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	Not applicable
Type Of Management	Not applicable


Code Value	Code Name	Code Definition
DAMAGED_IN_WAREHOUSE		Inventory adjustment due to damage that occurred in the warehouse.
MATERIAL_SCRAPPED		Inventory adjustment due to goods being scrapped.
RECEIPT_DISCREPANCY		Inventory adjustment due to a discrepancy noticed during goods receipt.
DESPATCH_DISCREPANCY		Inventory adjustment due to a discrepancy noticed during goods despatch.
PHYSICAL_COUNT_DIFFERENCE		Inventory adjustment due to a discrepancy noticed during physical counting.
WAREHOUSE_TRANSFER		Inventory adjustment due to goods being moved to another location within the warehouse.
INTER_WAREHOUSE_TRANSFER		Inventory adjustment due to goods being moved to another warehouse.
ADMINISTRATIVE_TRANSFER		Inventory adjustment due to goods changing administrative status, for example changing from consigned to non-consigned stock.
QUALITY_INSPECTION_DIFFERENCE		Inventory adjustment due to a discrepancy noticed during quality inspection.

4.17.4. WarehousingQuantityVarianceCode

GS1 Code List	WarehousingQuantityVarianceCode
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GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	Not applicable
Type Of Management	Not applicable

Code Value	Code Name	Code Definition
ACCEPTED_IN_FULL	Accepted in full *	Not Available
DAMAGED_PRODUCT_OR_CONTAINER	Damaged product or container *	Not Available
GOOD_CONDITION	Good condition *	Not Available
HOLD	Hold *	Not Available
INCORRECT_PRODUCT	Incorrect product *	Not Available
MATERIAL_SCRAPPED	Material scrapped *	Not Available
NON_STANDARD_CONTAINER	Non standard container *	Not Available
QUALITY_PROBLEM	Quality problem *	Not Available
QUANTITY_OVER	Quantity over *	Not Available
QUANTITY_OVER_RETURN_TO_SUPPLIER	Quantity over return to supplier *	Not Available
QUANTITY_SHORT	Quantity short *	Not Available
REJECTED	Rejected *	Not Available
SUBSTITUTED_ITEM	Substituted item *	Not Available
DAMAGED_DURING_TRANSPORT	Damaged during transport	Not Available
DAMAGED_IN_WAREHOUSE	Damaged in warehouse	Not Available

 **Note:** Some of these values, marked with * have been taken from the ReceivingConditionCode, used in the Receiving Advice, but the code lists will be managed independently.

4.17.5. Warehousing Service Condition Code

GS1 Code List	WarehousingServiceConditionCode
GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	Not applicable
Type Of Management	Not applicable

Code Value	Code Name	Code Definition
ASSEMBLING		Service of assembling components into a final product.
CONDITIONING		Service of re-conditioning a product (for example after container transport) to make it suitable for sale.
CREATING_DOCUMENT		Service of creating documents that need to travel with the goods, for example a packing list or a bill of lading.

Code Value	Code Name	Code Definition
CREATING_LABEL		Service of creating a label for a product or logistic unit.
CUSTOMIZING		Service of customizing a product.
FITTING		Service of adjusting the size of clothes.
WRAPPING_GIFT		Service of enclosing a product in special gift wrapping paper or other material.
INSPECTING_QUALITY		Service of inspecting the quality of a product.
KITTING		Service of grouping and packaging individually separate items that are to be supplied together as one unit.
LOADING_SOFTWARE		Service of loading software in a product.
MEASURING		Service of measuring a logistic unit or product.
PALLETIZING		Service of building a pallet.
CHECKING_QUALITY		Service of checking the quality of a product.
RELABELING		Service of applying a new label to a product.
REPACKING		Service of applying new packaging to a product.
REPALLETIZING		Service where goods will be placed from one pallet type onto another pallet type.
TICKETING		Service of applying a price ticket to product.
UPDATING_SOFTWARE		Service of updating software in a product.
WEIGHING		Service of weighing a product or logistic unit.

4.17.6. Warehousing Service Attribute Type Code

GS1 Code List	WarehousingServiceAttributeTypeCode
GS1 Code List Version	#1 (March 2013)
Managing Agency	GS1
Based on Code List	Not applicable
Type Of Management	Not applicable

Code Value	Code Name	Code Definition
CUSTOMER		Service attribute defines the customer for which the service needs to be performed.
DOCUMENT_ID		Service attribute contains the document identifier to be applied.
DOCUMENT_TYPE		Service attribute contains the document type to be created.
LABEL_ID		Service attribute contains the label identifier to be applied.
LABEL_TYPE		Service attribute contains the label type to be created.
PACKAGE_DEPTH		Service attribute specifies the depth of the package to be created.
PACKAGE_HEIGHT		Service attribute specifies the height of the package to be created.
PACKAGE_WEIGHT		Service attribute specifies the weight of the package to be created.

Code Value	Code Name	Code Definition
PACKAGE_WIDTH		Service attribute specifies the width of the package to be created.
PALLET_DEPTH		Service attribute specifies the depth of the pallet to be created.
PALLET_HEIGHT		Service attribute specifies the height of the pallet to be created.
PALLET_TYPE		Service attribute specifies the type of pallet to be used.
PALLET_WEIGHT		Service attribute specifies the weight of the package to be created.
PALLET_WIDTH		Service attribute specifies the width of the package to be created.

5. Business Message Examples

Not applicable

6. Implementation Considerations

Not applicable

7. Appendices

Not applicable

8. Summary of Changes

8.1. BMS Release 3.1

First publication of this standard.