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BRAD Upstream Standards - Demand & Supply Signals	01-Nov-2004	0.1.0
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Document Change History

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01-Mar-2017	BMS 3.3 – Issue 1	Ewa Iwicka	BMS Release 3.3	See summary of changes
15-Oct-2018	BMS 3.4 – Draft for community review	Ewa Iwicka	BMS Release 3.4	See summary of changes



Date of Change	Version	Changed By	Reason for Change	Summary of Change
08-Nov-2019	BMS 3.4.1 – Issue 1	Radhika Chauhan	BMS Release 3.4.1	See summary of changes

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1 Business Domain View

1.1 Introduction

Message Definition

The Inventory Report message enables a party (the inventory reporting party) to provide information on inventory levels and inventory changes to another party (the inventory report to party).

Principles

The Inventory Report may be used to provide information on buyer inventory in case of supplier managed inventory, but also can be used to provide information about available stock at a seller. Also it can be applied by logistic service providers to provide information on the available stock to their client.

1.2 References

Reference Name
BMS Shared Common Library 3.4
BMS eCom Common Library 3.4
BRAD Upstream Standards - Demand & Supply Signals 0.1.0
BRD Inventory Activity or Inventory Status 0.6.2
BRAD Warehousing Inventory Managment [BRAD-WIM]

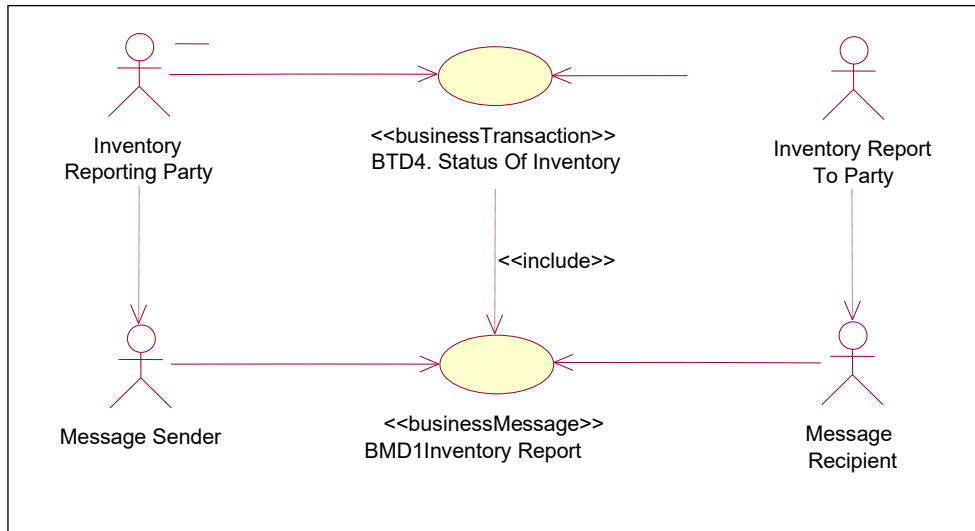
2 Business Context

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

3 Business Transaction View

3.1 Business Transaction - Status Of Inventory

Use Case Diagram



Use Case Description

Use Case ID	BTD4						
Use Case Name	Status of Inventory						
Use Case Description	This use case describes the exchange of the Inventory Status. The inventory Report provides the inventory levels of an item where items are stored.						
Actors (Goal)	Inventory Report To Party: The actor who receives the Inventory Status. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler). Inventory Reporting Party: The actor who transmits the Inventory Report. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler).						
Preconditions	Both trading partners have agreed upon the reporting dates and times.						
Post conditions	Success: The 'Inventory Report To Party' receives the Inventory Report message. Failure: The 'Inventory Report To Party' does not receive the Inventory Status message.						
Scenario	<p>Begins when: The submitter of the inventory report prepares the Inventory Report message on the agreed upon date and time.</p> <p>Continues with:</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Inventory Reporting Party</td> <td>Sends the Inventory Report.</td> </tr> </tbody> </table> <p>Ends when: The 'Inventory Report To Party' receives the Inventory Report message.</p>	Step #	Actor	Activity Step	1.	Inventory Reporting Party	Sends the Inventory Report.
Step #	Actor	Activity Step					
1.	Inventory Reporting Party	Sends the Inventory Report.					
Alternative Scenario	There are no alternative scenarios.						
Business Transaction Rules							

Activity Diagram(s)

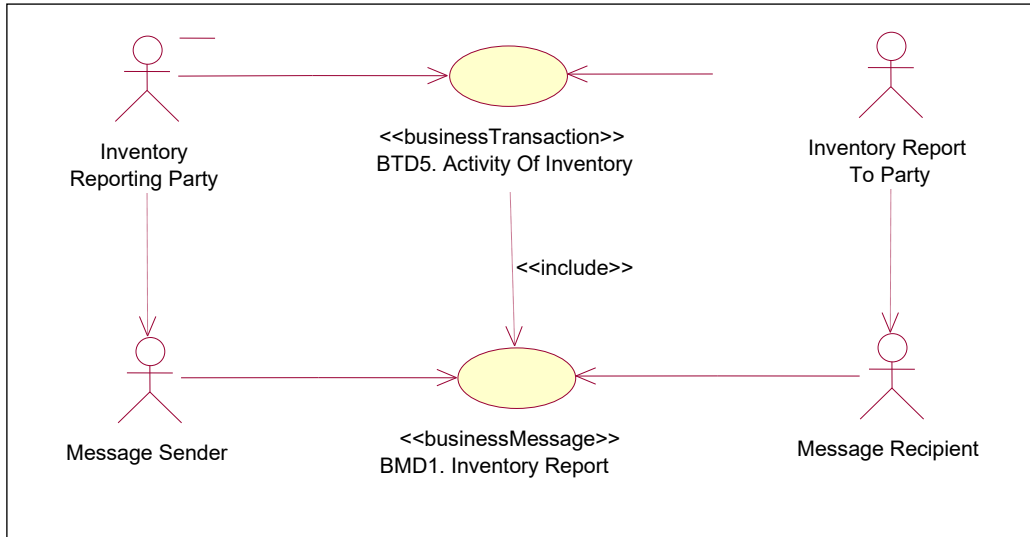
Not Applicable

Sequence Diagram(s) (optional)

Not Applicable

3.2 Business Transaction - Activity Of Inventory

Use Case Diagram



Use Case Description

Use Case ID	BTD5
Use Case Name	Activity of Inventory
Use Case Description	This use case describes the exchange of the Inventory Activity. The inventory activity provides the activity of an item.
Actors (Goal)	Inventory Report To Party: The actor who receives the Inventory Activity. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler). Inventory Reporting Party: The actor who transmits the Inventory Activity. This role can be played by various parties (Distributor, Manufacturer, Material Supplier, Owner of items, Place where items are stored, Retailer, Warehouse, and Wholesaler).
Preconditions	Both trading partners have agreed upon the reporting dates and times.
Post conditions	Success: The 'Inventory Report To Party' receives the Inventory Report message. Failure: The 'Inventory Report To Party' does not receive the Inventory Report message.

Use Case ID	BTD5						
Scenario	<p>Begins when: The submitter of the inventory activity prepares the Inventory Report message on the agreed upon date and time.</p> <p>Continues with:</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td></td> <td>Inventory Reporting Party</td> <td>Sends the Inventory Report.</td> </tr> </tbody> </table> <p>Ends when: The 'Inventory Report To Party' receives the Inventory Report message.</p>	Step #	Actor	Activity Step		Inventory Reporting Party	Sends the Inventory Report.
Step #	Actor	Activity Step					
	Inventory Reporting Party	Sends the Inventory Report.					
Alternative Scenario	There are no alternative scenarios.						
Business Transaction Rules							

Activity Diagram(s)

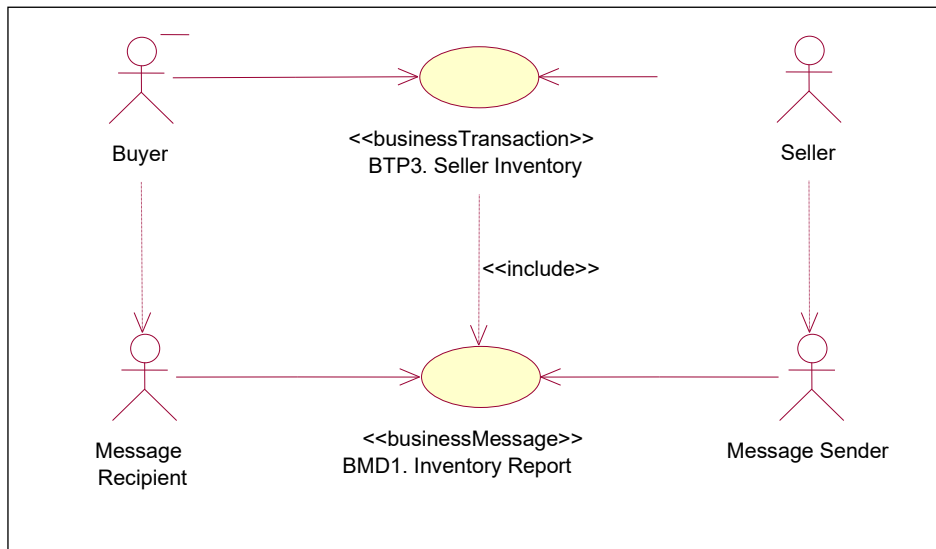
Not Applicable

Sequence Diagram(s)

Not Applicable

3.3 Business Transaction - Seller Inventory

Use Case Diagram



Use Case Description

Use Case ID	BTP3
Use Case Name	Seller Inventory
Use Case Description	The Seller Inventory transaction communicates at prescribed intervals the inventory levels of trade items in a specific location (plant, warehouse) to enable material requirements planning.
Actors (Goal)	Buyer: To receive the inventory level information of the Seller. Seller: To communicate his inventory level information.

Use Case ID	BTP3									
Preconditions	Inventory Status: CALCULATED									
Post conditions	Inventory Status: COMMUNICATED									
Scenario	<p>Begins when: The seller has calculated his inventory level. Continues with:</p> <table border="1"> <thead> <tr> <th>Step #</th> <th>Actor</th> <th>Activity Step</th> </tr> </thead> <tbody> <tr> <td></td> <td>Seller</td> <td>Sends the Inventory Report message to the buyer.</td> </tr> <tr> <td></td> <td>Buyer</td> <td>Receives the Inventory Report message.</td> </tr> </tbody> </table> <p>Ends when: buyer receives the Inventory Report message.</p>	Step #	Actor	Activity Step		Seller	Sends the Inventory Report message to the buyer.		Buyer	Receives the Inventory Report message.
Step #	Actor	Activity Step								
	Seller	Sends the Inventory Report message to the buyer.								
	Buyer	Receives the Inventory Report message.								
Alternative Scenario	There are no alternative scenarios.									
Business Transaction Rules	In the Inventory Report message the Buyer is the Inventory Report to Party and the Seller is the Inventory Reporting Party.									

Activity Diagram(s)

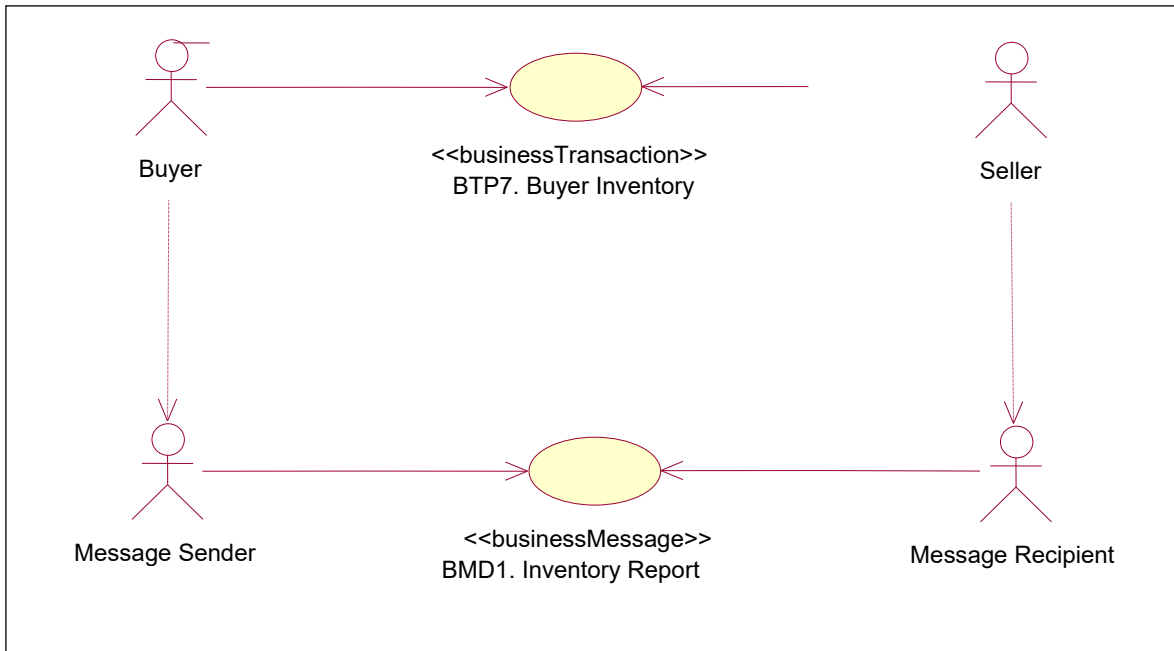
Not Applicable

Sequence Diagram(s)

Not Applicable

3.4 Business Transaction - Buyer Inventory

Use Case Diagram



Use Case Description

Use Case ID	BTP7
Use Case Name	Buyer Inventory
Use Case Description	The Buyer Inventory transaction communicates at prescribed intervals the inventory levels of trade items in a specific location (plant, warehouse) to enable material requirements planning.

Use Case ID	BTP7	
Actors (Goal)	Seller: To receive the inventory level information of the buyer. Buyer: To communicate his inventory level information.	
Preconditions	Inventory Status: CALCULATED	
Post conditions	Inventory Status: COMMUNICATED	
Scenario	Begins when: The buyer has calculated his inventory level.	
	Continues with:	
	Step #	Activity Step
		Buyer
	Seller	Receives the Inventory Report message.
	Ends when: seller receives the Inventory Report message.	
Alternative Scenario	There are no alternative scenarios.	
Business Transaction Rules	In the Inventory message the Seller is the Inventory Report to Party and the Buyer is the Inventory Reporting Party.	

Activity Diagram(s)

Not Applicable

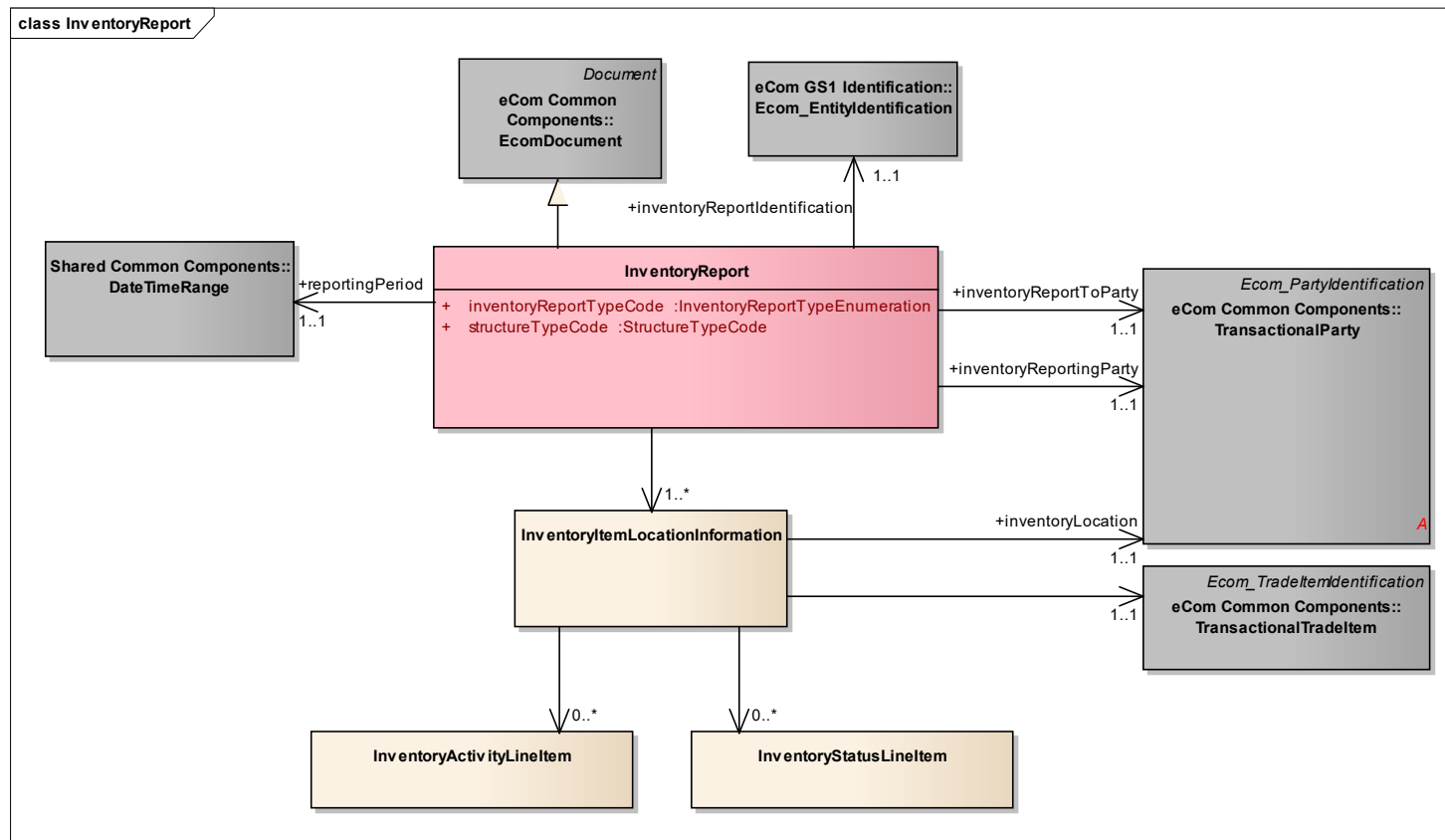
Sequence Diagram(s)

Not Applicable

4 Business Information View

4.1 Inventory Report (Message)

Class diagram



**GDD report**

The content of the InventoryReport class, its structure and component definitions can be accessed in the Global Data Dictionary:

http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:InventoryReport

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
InventoryReport				The Inventory Report enables a party (the inventory reporting party) to provide information on inventory levels and inventory changes to another party (the inventory report to party).	renamed from InventoryActivityOr InventoryStatus
Association	inventoryReportIdentification	Ecom_EntityIdentification	1..1	Unique identification of the inventory report, assigned by the inventory reporting party.	WR 15-000314
Association		InventoryItemLocationInformation	1..*	Contains the inventory information for a given trade item and location.	
Association	inventoryReportingParty	TransactionalParty	1..1	The identification of the party reporting about the inventory.	
Association	inventoryReportToParty	TransactionalParty	1..1	The identification of the party to which the inventory is being reported.	
Generalization		EcomDocument		Basic information about the content of the message including version number, creation date and time.	WR 14-000110
Association	reportingPeriod	DateTimeRange	1..1	The time period for which the inventory report provides information.	
Attribute	inventoryReportTypeCode	InventoryReportTypeEnumeration	1..1	Code specifying the type of inventory information being provided. E.g. inventory status information.	renamed from inventoryDocumentType and made enumeration instead of code.
Attribute	structureTypeCode	StructureTypeCode	1..1	Contains the type of grouping and sequence of the business document.	
InventoryItemLocationInformation				Contains the inventory information for a given trade item and location.	renamed from InventoryActivityOr InventoryStatus

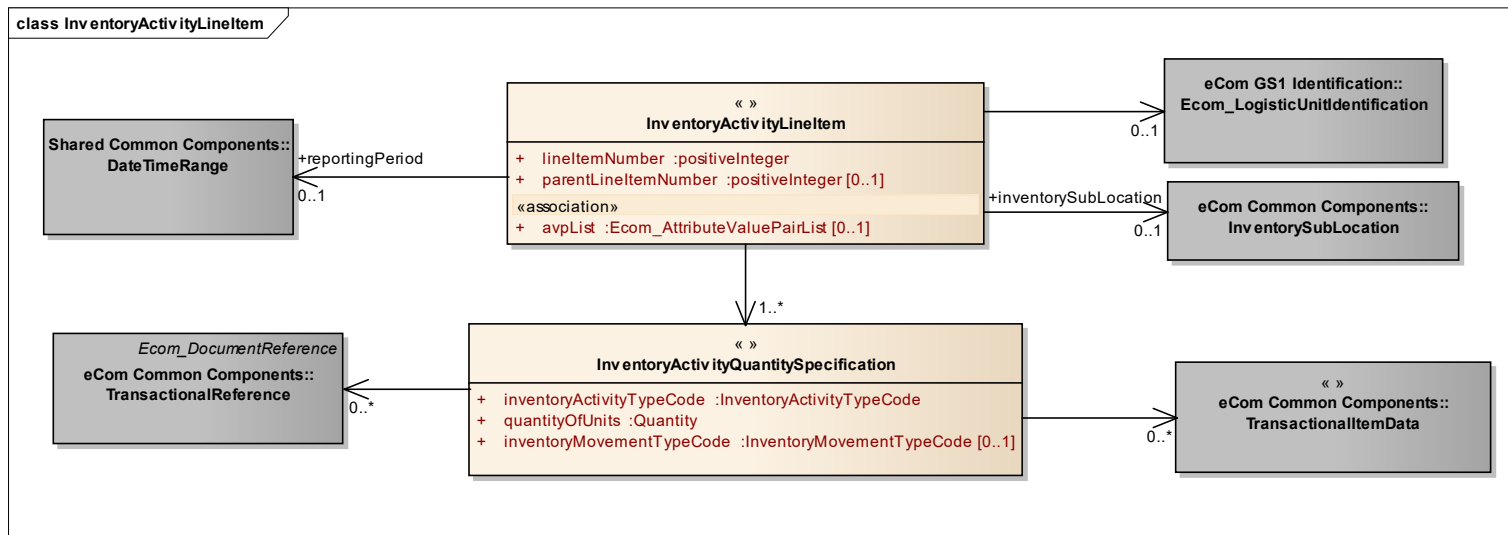
Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
Association		InventoryStatusLineItem	0..*	Information specifying the inventory status of a specific trade item at a specific location at a specific point in time.	
Association		TransactionalTradeItem	1..1	Contains the identification of the item for which the inventory information is specified.	
Association	inventoryLocation	TransactionalParty	1..1	Identification of the physical place where the items are located.	
Association		InventoryActivityLineItem	0..*	Information specifying the inventory activity of a specific trade item at a specific location in a specific time period.	



Note: Reference Shared Common Library Business Message (BMS) Release 3.4 and eCom Domain Common Library Business Message (BMS) Release 3.4 for all common information.

4.2 Inventory Activity Line Item

Class Diagram



GDD Report

The content of the `InventoryActivityLineItem` class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:InventoryActivityLineItem

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
InventoryActivityLineItem				Information specifying the inventory activity of a specific trade item at a specific location in a specific time period.	
Association		Ecom_LogisticUnitIdentification	0..1	Detailed identification of the logistic unit that contains the goods.	WR 15-000314
Association	inventorySubLocation	InventorySubLocation	0..1	Detailed identification of the location at which the goods are stored.	

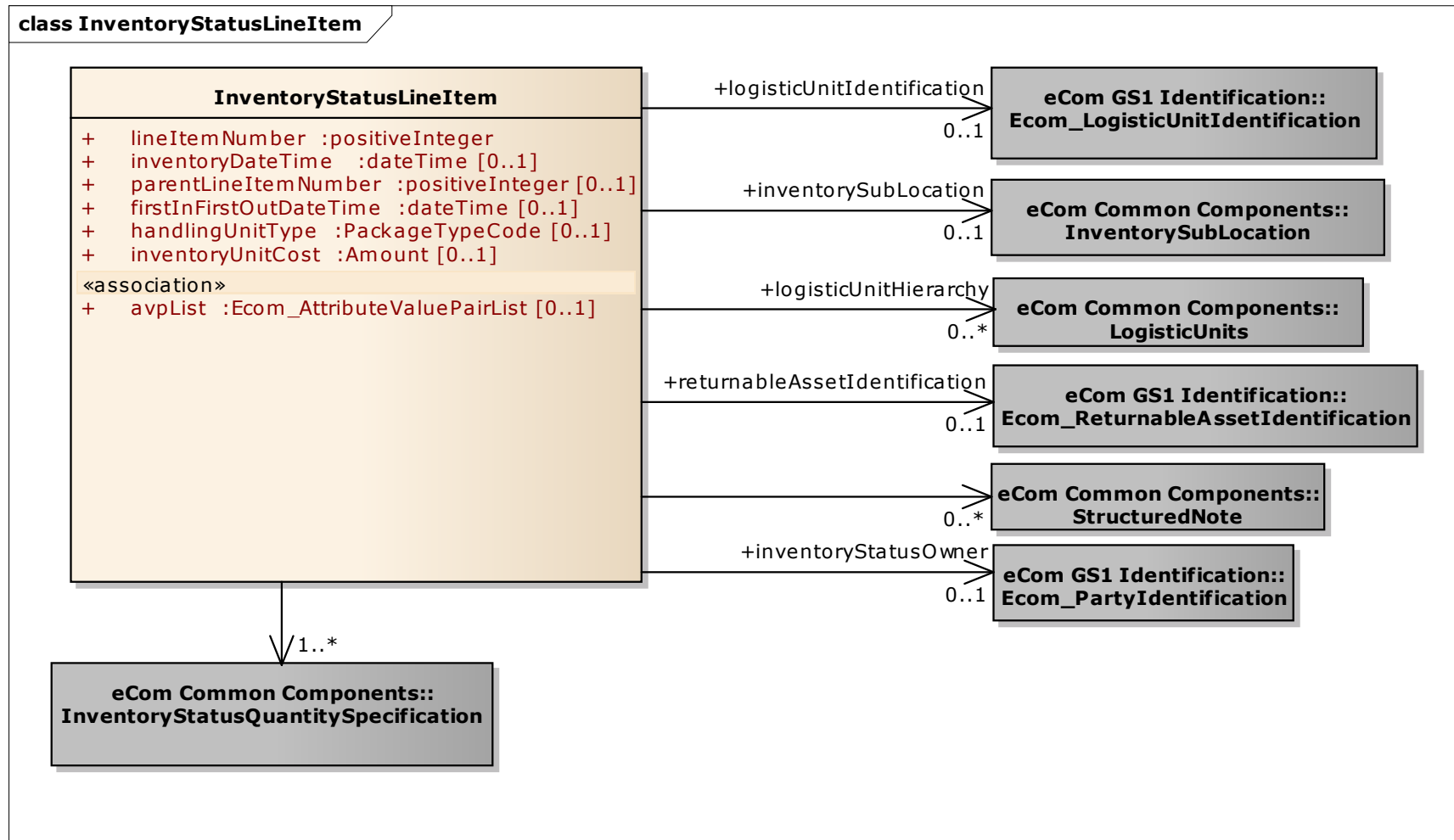
Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
Association		InventoryActivityQuantitySpecification	1..*	Supplies the inventory activity item information with the quantity of units, inventory activity type, an optional inventory movement indicator, and an optional reference number.	
Association	reportingPeriod	DateTimeRange	0..1	The time period on which the inventory activity line item provides information.	
Attribute	lineItemNumber	positiveInteger	1..1	Provides the line number associated to the Inventory Activity Line Item.	
Attribute	parentLineItemNumber	positiveInteger	0..1	The number of line item containing information about the parent of the current item. It allows establishing hierarchical link between the two items.	WR 14-000021 WR 14-000044
Attribute	avpList	Ecom_AttributeValuePairList	0..1	Temporary attributes introduced between minor versions.	WR 14-000110
InventoryActivityQuantitySpecification				Supplies the inventory activity item information with the quantity of units, inventory activity type, an optional inventory movement indicator, and an optional reference number.	
Association		TransactionalReference	0..*	Reference to a document or transaction related to the specified inventory activity.	
Association		TransactionalItemData	0..*	Detailed information on the item being reported on, such as best before date, batch number.	
Attribute	inventoryActivityTypeCode	InventoryActivityTypeCode	1..1	Code specifying the type of activity being reported for the inventory item.	
Attribute	quantityOfUnits	Quantity	1..1	The number of units and the unit of measure associated to the Inventory Item.	
Attribute	inventoryMovementTypeCode	InventoryMovementTypeCode	0..1	Code specifying whether the reported activity leads to an increase or decrease of the inventory quantity.	renamed from inventoryMovementIndicator



Note: Reference Shared Common Library Business Message (BMS) Release 3.4 and eCom Domain Common Library Business Message (BMS) Release 3.4 for all common information.

4.3 Inventory Status Line Item

Class Diagram



GDD Report

The content of the InventoryStatusLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary:

http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:InventoryStatusLineItem

Content	Attribute / Role	Datatype/Secondary class	Multiplicity	Definition	Requirements
InventoryStatusLineItem				Information specifying the inventory status of a specific trade item at a specific location at a specific point in time.	
Association	StructuredNote		0..*	Free text used to convey information that is not processed by applications, used when there is a need to make references to specific note in other messages.	WR 17-000311 - 17-000318
Association	logisticUnitHierarchy	LogisticUnits	0..*	Provides information about the hierarchy of logistic units.	WR 17-000311 - 17-000318
Association		InventoryStatusQuantitySpecification	1..*	Information about the stored goods per inventory status.	
Association	inventorySubLocation	InventorySubLocation	0..1	Detailed identification of the location at which the goods are stored.	
Association	returnableAssetIdentification	Ecom_ReturnableAssetIdentification	0..1	Information used to identify a returnable asset.	WR 17-000311 - 17-000318
Association	inventoryStatusOwner	Ecom_PartyIdentification	0..1	The party whom the Inventory Status Line Item is intended for.	WR 17-000311 - 17-000318
Association	logisticUnitIdentification	Ecom_LogisticUnitIdentification	0..1	Detailed identification of the logistic unit that contains the goods.	
Attribute	lineItemNumber	positiveInteger	1..1	Provides the line number associated to the Inventory Status Line Item.	
Attribute	inventoryDateTime	dateTime	0..1	Date and time the inventory for this line item was assessed. If this is not provided the beginDateTime provided at the business document level represents the inventoryDateTime.	
Attribute	parentLineItemNumber	positiveInteger	0..1	The number of line item containing information about the parent of the current item. It allows establishing hierarchical link between the two items.	
Attribute	firstInFirstOutDateTime	dateTime	0..1	The date and time when the goods should be considered for the FIFO delivery.	WR 17-000311 - 17-000318



Content	Attribute / Role	Datatype/Secondary class	Multiplicity	Definition	Requirements
Attribute	handlingUnitType	PackageTypeCode	0..1	Specifies the type of handling unit, which can be different than the type of unit which was ordered.	WR 17-000311 - 17-000318
Attribute	inventoryUnitCost	Amount	0..1	The cost associated with a unit of inventory.	WR 17-000311 - 17-000318
Attribute	avpList	Ecom_AttributeValuePairList	0..1	Temporary attributes introduced between minor versions.	



Note: Reference Shared Common Library Business Message (BMS) Release 3.4 and eCom Domain Common Library Business Message (BMS) Release 3.4 for all common information.

4.4 Enumerations (message specific)

Not applicable

4.5 Code Lists

Class	Codelist	Referenced in
InventoryReport	InventoryReportTypeEnumeration	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:InventoryReportTypeEnumeration
InventoryReport	StructureTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:StructureTypeCode
InventoryActivityQuantitySpecification	InventoryActivityTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:InventoryActivityTypeCode
InventoryActivityQuantitySpecification	InventoryMovementTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:InventoryMovementTypeCode
InventoryStatusLineItem	PackageTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:PackageTypeCode



Note: Refer to the Global Data Dictionary (GDD) for the code values.

5 Business Message Examples

5.1 Example 1

Inventory Status Example

This is an example of an Inventory Status message. The message is sent out on 9th February at 11 AM. The message is identified with the unique identification number IS25001.

The message is sent by the manufacturer - Inventory Reporting Party (GLN 9999999000010) to the material supplier - Inventory Report To Party (GLN 7777777000009).

The inventory status information is for two inventory locations; X (GLN 9999999000027) and Y (GLN 9999999000034).

The inventory status information is for three items; A (GTIN 01111111111116), B (GTIN 02222222222222) and C (GTIN 03333333333338).

All inventories have been assessed at February 9th at 8 AM, except for the inventory of item C at location X, this has been assessed at 12 PM the previous day.

Location X

For item A the inventory status is:

- Total inventory 25 of which 15 available for sale and 10 expired.
- For item B the inventory status is:
- Total inventory 50, completely on hand, containing 30 units with production date 2004-11-24 and 20 units with production date 2004-11-17.
- For item C the inventory status is:
- Total inventory 325, of which 300 units are on hold and 25 units are damaged..

Location Y

For item A the inventory status is:

- Total inventory 160 of which 80 are located on pallet 38888880000000083 and 80 on pallet 38888880000000113. Of the items on pallet 1 25 are available for sale, and 55 are expired. The items on pallet 2 are all available for sale.

Party, Item and Logistic Unit Information:

Line	InventoryLocation	TradeItem	LogisticUnit
1	9999999000027	01111111111116	n/a
2	9999999000027	02222222222222	n/a
3	9999999000027	03333333333338	n/a
4	9999999000034	03333333333338	38888880000000083
5	9999999000034	03333333333338	38888880000000113

Message Example

Attribute	Value
InventoryReport	
inventoryReportTypeCode	INVENTORY_STATUS
structureTypeCode	LOCATION_BY_ITEM
Document	
creationDateTime	2005-02-09T11.00.00
documentStatusCode	ORIGINAL



Attribute	Value
DateTimeRange (+reportingPeriod)	
beginDate	2005-02-09
beginTime	08.00.00
EntityIdentification (+inventoryReportIdentification)	
entityIdentification	IS25001
PartyIdentification (+contentOwner)	
gln	9999999000010
TransactionalParty (+inventoryReportToParty)	
gln	7777777000009
TransactionalParty (+inventoryReportingParty)	
gln	9999999000010
InventoryItemLocationInformation *1	
TransactionalParty (+inventoryLocation)	
gln	9999999000027
TransactionalTradeItem	
gtin	01111111111116
InventoryStatusLineItem *1.1	
lineItemNumber	1
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	AVAILABLE_FOR_SALE
quantityOfUnits	15 CARTONS
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	EXPIRED
quantityOfUnits	10 CARTONS
InventoryItemLocationInformation *2	
TransactionalParty (+inventoryLocation)	
Gln	9999999000027
TransactionalTradeItem	
Gtin	02222222222222
InventoryStatusLineItem *2.1	
lineItemNumber	2
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	ON_HAND
quantityOfUnits	50 PCS
TransactionalItemData	
productionDate	2004-11-24
TransactionalItemData	
productionDate	2004-11-17
InventoryItemLocationInformation *3	
TransactionalParty (+inventoryLocation)	

Attribute	Value
gln	9999999000027
TransactionalTradeItem	
gtin	03333333333338
InventoryStatusLineItem *3.1	
lineItemNumber	3
inventoryDateTime	2005-02-09T00.00.00
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	ON_HOLD
quantityOfUnits	300 PCS
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	DAMAGED
quantityOfUnits	25 PCS
InventoryItemLocationInformation *4	
TransactionalParty (+inventoryLocation)	
gln	9999999000034
TransactionalTradeItem	
gtin	03333333333338
InventoryStatusLineItem *4.1	
lineItemNumber	4
LogisticUnitIdentification	
sscc	38888880000000083
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	AVAILABLE_FOR_SALE
quantityOfUnits (value, unitOfMeasure)	25, PCS
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	EXPIRED
quantityOfUnits	55, PCS
InventoryStatusLineItem *4.2	
- lineItemNumber	5
LogisticUnitIdentification	
sscc	388888800000000113
InventoryStatusQuantitySpecification	
inventoryStatusTypeCode	AVAILABLE_FOR_SALE
quantityOfUnits	80, PCS

5.2 Example 2

Inventory Activity Example

The following is an example of an Inventory Activity message. The message is sent out on 9th of February at 11 AM. The message is unique identification number is IA25001.

The inventory information is sent by the retailer - Inventory Reporting Party (GLN 9999999000010) to the manufacturer - Inventory Report To Party (GLN 777777000009).



The inventory activity information is for three inventory locations; X (GLN 9999999000027), Y (GLN 9999999000034) and Z (GLN 9999999000041).

The inventory status information is for four items; A (GTIN 01111111111116), B (GTIN 02222222222222), C (GTIN 03333333333338) and D (GTIN 04444444444444).

The activities reported all took place between 10 PM on February 7th and 10 PM February 8th, except for Item A at location Y, there the end time is 11 PM.

Item A

On location X the following activity is reported:

- Quarantine 15, Recall 10

On location Y the following activity is reported:

- Destroyed 10 (decrease of inventory)

Item B

On location X the following activity is reported:

- Distressed 20 KGM, originating from lotnumber 123456789

Item C

On location X the following activity is reported:

- Despatch discrepancy of 300 units, received 25 units

On location Y the following activity is reported:

- Physical count 250 units

Item D

On location Z the following activity is reported:

- Damaged in facility 250 units.

Party, Item and Logistic Unit Information:

Line	TradeItem	InventoryLocation
1	01111111111116	9999999000027
2	01111111111116	9999999000034
3	02222222222222	9999999000027
4	03333333333338	9999999000027
5	03333333333338	9999999000034
6	04444444444444	9999999000041

Message Example

Attribute	Value
InventoryReport	
inventoryReportTypeCode	INVENTORY_ACTIVITY
structureTypeCode	ITEM_BY_LOCATION
Document	
creationDateTime	2005-02-09 11.00
documentStatusCode	ORIGINAL



Attribute	Value
<i>DateTimeRange (+reportingPeriod)</i>	
beginDate	2005-02-07
beginTime	22.00
endDate	2005-02-08
endTime	22.00
<i>EntityIdentification (+inventoryReportIdentification)</i>	
entityIdentification	IA25001
<i>PartyIdentification (+contentOwner)</i>	
gln	9999999000010
<i>TransactionalParty (+inventoryReportToParty)</i>	
gln	7777777000009
<i>TransactionalParty (+inventoryReportingParty)</i>	
gln	9999999000010
InventoryItemLocationInformation *1	
<i>TransactionalParty (+inventoryLocation)</i>	
gln	9999999000027
<i>TransactionalTradeItem</i>	
gtin	01111111111116
InventoryActivityLineItem *1.1	
lineItemNumber	1
<i>InventoryActivityQuantitySpecification</i>	
inventoryActivityTypeCode	QUARANTINE
quantityOfUnits	15 PCS
<i>InventoryActivityQuantitySpecification</i>	
inventoryActivityTypeCode	RECALL
quantityOfUnits	10 PCS
InventoryItemLocationInformation *2	
<i>TransactionalParty (+inventoryLocation)</i>	
gln	9999999000034
<i>TransactionalTradeItem</i>	
gtin	01111111111116
InventoryActivityLineItem *2.1	
lineItemNumber	2
<i>DateTimeRange (+reportingPeriod)</i>	
beginDate	2005-02-07
beginTime	22.00.00
endDate	2005-02-08
endTime	23.00.00
<i>InventoryActivityQuantitySpecification</i>	
inventoryActivityTypeCode	DESTROYED
quantityOfUnits	10 PCS



Attribute	Value
inventoryMovementTypeCode	MOVING_PRODUCT_OUT_OF_INVENTORY
InventoryItemLocationInformation *3	
TransactionalParty (+inventoryLocation)	
gln	9999999000027
TransactionalTradeItem	
gtin	02222222222222
InventoryActivityLineItem *3.1	
lineItemNumber	3
InventoryActivityQuantitySpecification	
inventoryActivityTypeCode	DISTRESSED
quantityOfUnits	20 KGM
TransactionalItemData	
lotNumber	123456789
InventoryItemLocationInformation *4	
TransactionalParty (+inventoryLocation)	
gln	9999999000027
TransactionalTradeItem	
gtin	03333333333338
InventoryActivityLineItem *4.1	
lineItemNumber	4
InventoryActivityQuantitySpecification	
inventoryActivityTypeCode	DESPATCH_DISCREPANCY
quantityOfUnits	300, PCS
TransactionalReference	
transactionalReferenceTypeCode	ALN
EntityIdentification	
entityIdentification	3391
InventoryActivityQuantitySpecification	
inventoryActivityTypeCode	RECEIPTS
quantityOfUnits	25, PCS
inventoryMovementTypeCode	MOVING_PRODUCT_INTO_INVENTORY
TransactionalReference	
transactionalReferenceTypeCode	ALQ
EntityIdentification	
entityIdentification	HIGH TICKET ITEM 4433
InventoryItemLocationInformation *5	
TransactionalParty (+inventoryLocation)	
gln	9999999000034
TransactionalTradeItem	
gtin	03333333333338
InventoryActivityLineItem *5.1	



Attribute	Value
lineItemNumber	5
InventoryActivityQuantitySpecification	
inventoryActivityTypeCode	PHYSICAL_COUNT
quantityOfUnits	250, PCS
InventoryItemLocationInformation *6	
TransactionalParty (+inventoryLocation)	
Gln	9999999000041
TransactionalTradeItem	
gtin	04444444444444
InventoryActivityLineItem *6.1	
lineItemNumber	6
InventoryActivityQuantitySpecification	
inventoryActivityTypeCode	DAMAGED_IN_FACILITY
quantityOfUnits	250, PCS
inventoryMovementTypeCode	MOVING_PRODUCT_OUT_OF_INVENTORY

6 Implementation Considerations

6.1 User Guide

The Functional User Guide contains more information about the structure and content of the message: http://www.gs1.org/docs/ecom/xml/3/3.4/eCom-Trade_messages.html#InventoryReport

6.2 Message Specific Considerations

Not Applicable

7 Summary of Changes

Any change in the GS1 standards is done based on the Work Request (WR) submitted by the GS1 User Companies or Member Organisations. All Work Requests are documented in the Work Request system available on the GS1 website: <http://wr.gs1.org>. The system is accessible to registered users. New visitors need to register first, to be able to access it. WRs can be searched by the number referenced in tables below, see: Search Work Requests. The number starts with the two last digits of the year when it was submitted, followed by the consecutive number within that year.



Note: WRs submitted earlier than February 2012 should be searched in Old Change Requests.

Change	Associated CR Number
Updated BMS to Major release 3.0.0 Updated BMS to reflect changes in modelling methodology. Renamed from "Inventory Activity or Inventory Status"	N/A
Public Review: Removed INVENTORY_STATUS_AND_ACTIVITY from InventoryReportTypeEnum	N/A
For BMS Publication: <ul style="list-style-type: none"> Updated date of document Clean-up of Document Change History Removed year from copyright statement in footer Corrected spelling of Section 11 Architectural Principles Updated architectural principles section to correct fields. 	N/A

7.1 BMS Release 3.1

Change	Associated CR
<div style="border: 1px solid black; padding: 5px;"> <p>class InventoryActivityLineItem - Maintenance View</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;">« »</p> <p style="text-align: center;">InventoryActivityLineItem</p> <p>+ lineItemNumber: positiveInteger</p> <p style="text-align: center;">maintenance</p> <p>Change: (Verified) 3.1 changed associated class of +inventorySubLocation (BRAD-WIM:IR-307)</p> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>class InventoryStatusLineItem - maintenance view</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;">InventoryStatusLineItem</p> <p>+ lineItemNumber: positiveInteger</p> <p>+ inventoryDateTime: dateTime [0..1]</p> <p style="text-align: center;">maintenance</p> <p>Change: (Verified) 3.1 changed associated class for +inventorySubLocation (BRAD-WIM:IR101)</p> </div> </div>	[BRAD WIM] IR101, IR307
Corrected the GLN, GTIN and SSCC numbers in the examples.	

7.2 BMS Release 3.2

Change	Associated WR
<p>Added Attribute Value Pair at the root, line item and sub line item levels</p> <pre> class InventoryReport - maintenance view class InventoryReport + inventoryReportTypeCode: InventoryReportTypeEnumeration + structureTypeCode: StructureTypeCode maintenance Change: (Verified) 3.2 changed generalisation from Document to eComDocument class to include AVP (WR 14-110) </pre>	<p>14-000110</p>
<ul style="list-style-type: none"> ■ Added a reference to parent line number to all LineItem classes, to support hierarchical items. (WRs 14-021 & 14-044) ■ Added Attribute Value Pair at the root, line item and sub line item levels (WR 14-110) <pre> class InventoryActivityLineItem - Maintenance View class InventoryActivityLineItem + lineItemNumber: positiveInteger + parentLineItemNumber: positiveInteger [0..1] «association» + avpList: Ecom_AttributeValuePairList [0..1] maintenance Change: (Complete) 3.1 changed associated class of +inventorySubLocation (BRAD-WIM:IR-307; WR 09-189) Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044) </pre>	<p>14-000021 14-000044 14-000110</p>
<ul style="list-style-type: none"> ■ Added a reference to parent line number to all LineItem classes, to support hierarchical items. (WRs 14-021 & 14-044) ■ Added Attribute Value Pair at the root, line item and sub line item levels (WR 14-110) <pre> class InventoryStatusLineItem - maintenance view class InventoryStatusLineItem + lineItemNumber: positiveInteger + inventoryDateTime : dateTime [0..1] + parentLineItemNumber: positiveInteger [0..1] «association» + avpList: Ecom_AttributeValuePairList [0..1] maintenance Change: (Complete) 3.1 changed associated class for +inventorySubLocation (BRAD-WIM:IR101; WR 09-189) Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044) </pre>	<p>14-000021 14-000044 14-000110</p>

7.3 BMS Release 3.3

Change	Associated WR
<p>Created Ecom_EntityIdentification class and changed association from the previous EntityIdentification</p> <pre> class InventoryReport - maintenance view classDiagram class Ecom_EntityIdentification { maintenance Change: (New) 3.3 New class (WR 15-314) } class InventoryReport { + inventoryReportTypeCode :InventoryReportTypeEnumeration + structureTypeCode :StructureTypeCode maintenance Change: (Complete) 3.2 changed generalisation from Document to eComDocument class to include AVP (WR 14-110) Change: (New) 3.3 changed association from EntityIdentification to Ecom_EntityIdentification (WR 15-314) } Ecom_EntityIdentification "1" -- "1..1" InventoryReport : +inventoryReportIdentification </pre>	<p>15-000314 Make GS1 identification keys optional in GS1 EDI XML</p>
<p>Created Ecom_LogisticUnitIdentification class and changed association from the previous LogisticUnitIdentification</p> <pre> class InventoryActivityLineItem - maintenance View classDiagram class InventoryActivityLineItem { + lineItemNumber :positiveInteger + parentLineItemNumber :positiveInteger [0..1] «association» + avpList :Ecom_AttributeValuePairList [0..1] maintenance Change: (Complete) 3.1 changed associated class of +inventorySubLocation (BRAD-WIM:IR-307; WR 09-189) Change: (Complete) 3.2 added +avpList (WR 14-110) Change: (Complete) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044) Change: (New) 3.3 changed association from LogisticUnitIdentification to Ecom_LogisticUnitIdentification (WR 15-314) } class Ecom_LogisticUnitIdentification { maintenance Change: (New) 3.3 New class (WR 15-314) } InventoryActivityLineItem "0..1" -- "0..1" Ecom_LogisticUnitIdentification </pre>	<p>15-000314 Make GS1 identification keys optional in GS1 EDI XML</p>
<p>Created Ecom_LogisticUnitIdentificationReport class and changed association from the previous LogisticUnitIdentification</p> <pre> class InventoryStatusLineItem - maintenance view classDiagram class InventoryStatusLineItem { + lineItemNumber :positiveInteger + parentLineItemNumber :positiveInteger [0..1] + inventoryDateTime :dateTime [0..1] «association» + avpList :Ecom_AttributeValuePairList [0..1] maintenance Change: (Complete) 3.1 changed associated class for +inventorySubLocation (BRAD-WIM:IR101; WR 09-189) Change: (Complete) 3.2 added +avpList (WR 14-110) Change: (Complete) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044) Change: (New) 3.3 changed association from LogisticUnitIdentification to Ecom_LogisticUnitIdentification (WR 15-314) } class Ecom_LogisticUnitIdentification { maintenance Change: (New) 3.3 New class (WR 15-314) } InventoryStatusLineItem "0..1" -- "0..1" Ecom_LogisticUnitIdentification </pre>	<p>15-000314 Make GS1 identification keys optional in GS1 EDI XML</p>

7.4 BMS Release 3.4

Change	Associated WR
<p>Added:</p> <ul style="list-style-type: none"> ■ association to StructuredNote ■ firstInFirstOutDateTime ■ association to Ecom_PartyIdentificationType named inventoryStatusOwner ■ association to Ecom_ReturnableAssetIdentification named returnableAssetIdentification, (GRAI instead of GIAI) ■ handlingUnitType ■ inventoryUnitCost ■ association to LogisticUnits class named logisticUnitHierarchy to the inventoryStatusLineItem class: <ul style="list-style-type: none"> ■ actualProcessedQuantity to InventoryStatusQuantitySpecification class: 	<p>17-000311 – 17-000318</p> <p>Add:</p> <ul style="list-style-type: none"> ■ aging profile name ■ catch quantity ■ first in first out date ■ item owner ■ GIAI ■ Handling unit identification <p>to the inventoryStatusLineItem</p>

7.5 BMS Release 3.4.1

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

8 Appendices

Not Applicable

9 Acknowledgements

9.1 Work Group

Function	Name	Company / organisation
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9.2 Development Team Members

Function	Name	Organisation
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