



Logistics Inventory Report Request and Report

Business Message Standard (BMS)

Release 3.2

01-Dec-2014, Issue 1



Document Summary

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Business Requirements Document (BRAD) Reference

BRAD Title	BRAD Issue Date	BRAD Version
Warehousing Inbound and Outbound processes	25-Jul-2012	1.0

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change
12-Jan-2012	BMS 3.0 – Issue 1	Mark Van Eeghem	BMS Release 3.0	See summary of changes
01-May-2013	BMS 3.1 – Issue 1	Coen Janssen	BMS Release 3.1	See summary of changes
01-Dec-2014	BMS 3.2 – Issue 1	Ewa Iwicka	BMS Release 3.2	See summary of changes

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1. Business Domain View

1.1. Introduction

Message Definition

Logistics Inventory Request Message Definition

The Logistics Inventory Request message enables a party to request an inventory report from another party, using specific selection criteria.

Logistics Inventory Report Message Definition

The Logistics Inventory Report enables a party to report on inventory status and events as registered in his system.

Principles

These messages support the inventory management process.

1.2. References

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

[BRAD_WIM] BRAD Warehousing Inventory Management, 1.0, GS1 2012

[BMS_Shared] BMS Shared Common Library, 3.2, GS1 2014

[BMS_eCom] BMS eCom Common Library, 3.2, GS1 2014

[BMS_Warehousing] BMS Warehousing Common Library, 3.2, GS1 2014

2. Business Context

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

3. Business Transaction View

3.1. Business Transaction – Issue Inventory Report Request

Use case diagram



Use case description

Use case description	
Use Case Name	Issue Inventory Report Request
Use Case Description	The Inventory Report-to Party informs the Inventory Reporting Party that an inventory report is requested.
Actors (Goal)	Inventory Report-to Party Inventory Reporting Party
Performance Goals	Not applicable
Preconditions	none
Post conditions	The Inventory Reporting Party has been informed on the report request.
Main Scenario	<ul style="list-style-type: none"> ■ Inventory Report-to Party sends the request to the Inventory Reporting Party. ■ Inventory Reporting Party receives the request.
Alternative Scenario(s)	Not applicable
Related Requirements	
Related Rules	

Activity diagram

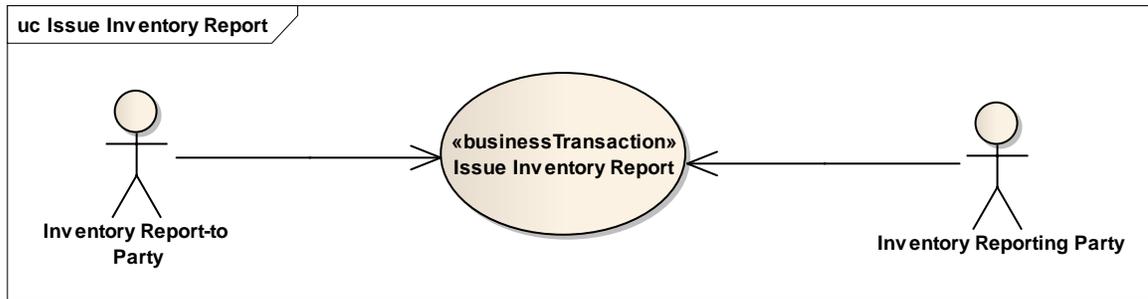
Not applicable

Communication diagram



3.2. Business Transaction – Issue Inventory Report

Use case diagram



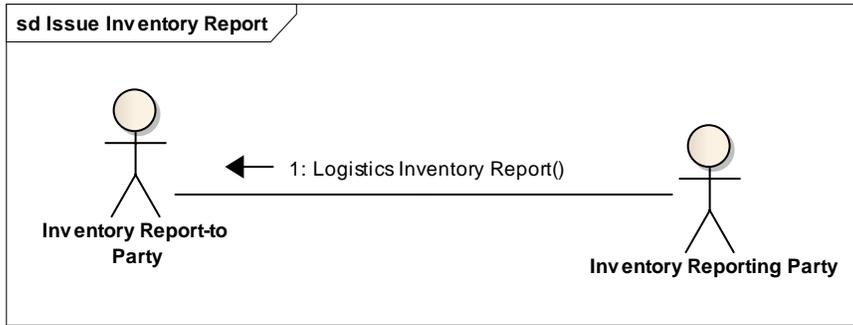
Use case description

Use Case Description	
Use Case Name	Issue Inventory Report
Use Case Description	The Inventory Reporting Party provides the Inventory Report-to Party with an inventory report.
Actors (Goal)	Inventory Report-to Party Inventory Reporting Party
Performance Goals	Not applicable
Preconditions	(Optional) The Inventory Reporting Party has received an Inventory Report Request
Post conditions	The Inventory Report-to Party has received the report.
Main Scenario	<u>Based on a report request by the Inventory Report-to Party:</u> <ul style="list-style-type: none"> ■ Inventory Reporting Party generates the report. ■ Inventory Reporting Party sends the report to the Inventory Report-to Party. ■ Inventory Report-to Party receives the report and processes it in his system.
Alternative Scenario(s)	<u>Periodical report:</u> Same steps as in main scenario <u>Ad-hoc report initiated by Inventory Reporting Party:</u> Same steps as in main scenario
Related Requirements	
Related Rules	

Activity diagram

Not applicable

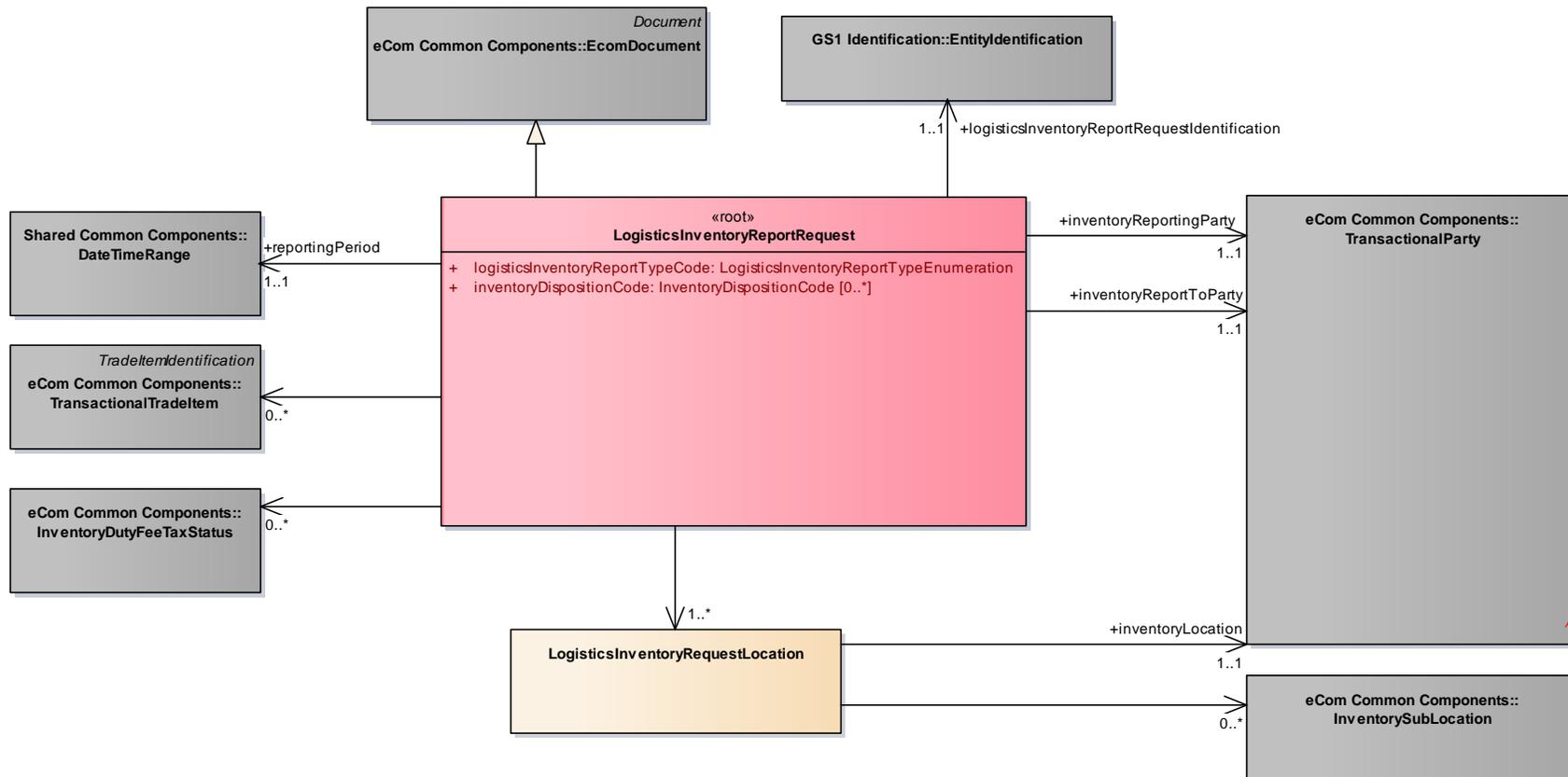
Communication diagram



4. Business Information View

4.1. Logistics Inventory Report Request (message)

Class Diagram



GDD Report

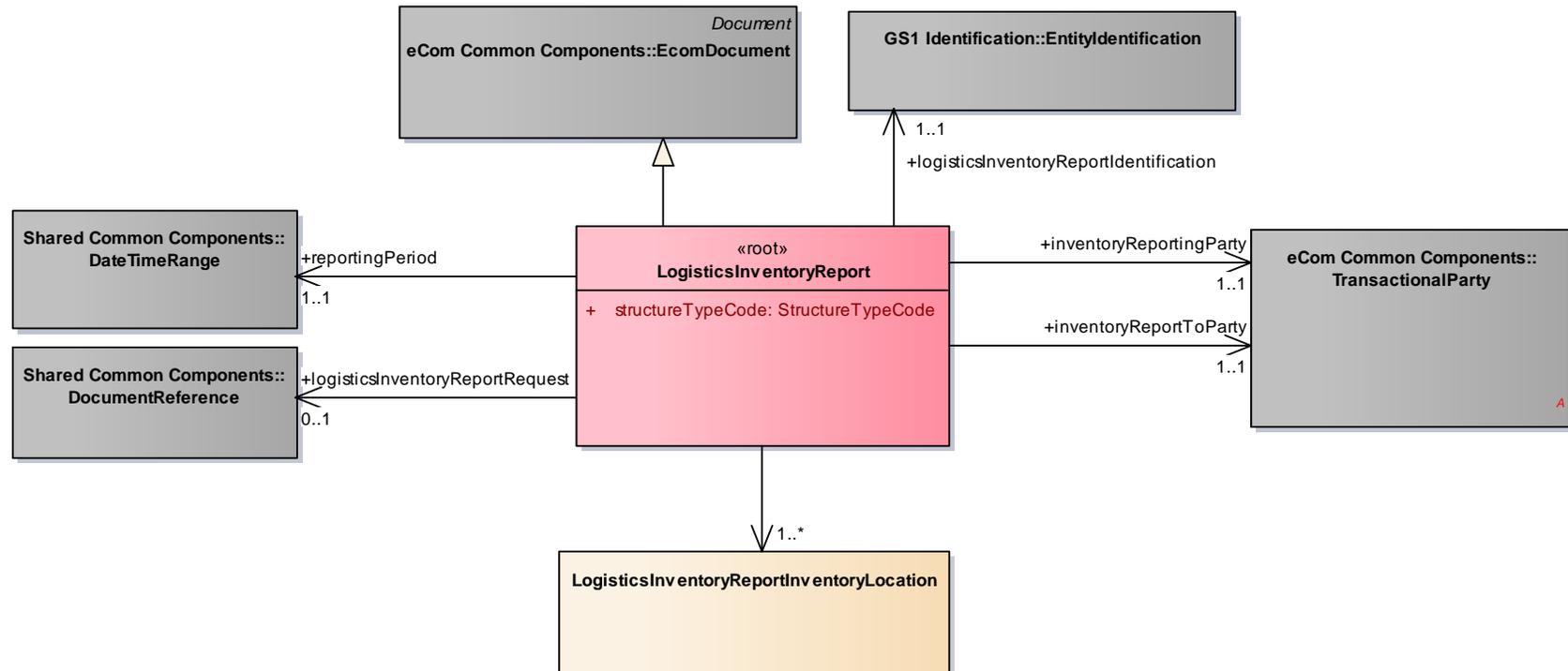
The content of the LogisticsInventoryReportRequest class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3_2/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:LogisticsInventoryReportRequest

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
LogisticsInventoryReportRequest				The Logistics Inventory Report Request enables a party (the inventory report to party) to request information on inventory levels and inventory changes to another party (the inventory reporting party).	
Association		InventoryDutyFeeTaxStatus	0..*	The inventory duty, fee or tax status on which inventory information is being requested.	[brad-wim:invrpr-10,11]
Association	reportingPeriod	DateTimeRange	1..1	The time period for which the inventory information is being requested.	[brad-wim:invrpr-5]
Association		TransactionalTradeItem	0..*	The trade items on which inventory information is being requested.	[brad-wim:invrpr-6]
Association		LogisticsInventoryRequestLocation	1..*	Contains the inventory location and related sub-locations for which inventory information is being requested.	
Association	inventoryReportingParty	TransactionalParty	1..1	The identification of the party reporting about the inventory.	[brad-wim:invrpr-2]
Generalization		EcomDocument		Basic information about the content of the message including version number, creation date and time.	WR 14-000110
Association	logisticsInventoryReportRequestIdentification	EntityIdentification	1..1	Unique identification of the logistics inventory report request, assigned by the inventory report to party.	[brad-wim:invrpr-1]
Association	inventoryReportToParty	TransactionalParty	1..1	The identification of the party to which the inventory is being reported.	[brad-wim:invrpr-2]
Attribute	logisticsInventoryReportTypeCode	LogisticsInventoryReportTypeEnumeration	1..1	Code specifying the type of report that is requested.	
Attribute	inventoryDispositionCode	InventoryDispositionCode	0..*	Denotes the business states of trade items for which information is being requested.	

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
LogisticsInventoryRequestLocation				Contains the inventory location and related sub-locations for which inventory information is being requested.	
Association	inventoryLocation	TransactionalParty	1..1	The inventory location for which inventory information is being requested	[brad-wim:invrpr-7]
Association		InventorySubLocation	0..*	The inventory sub-locations for which inventory information is being requested.	[brad-wim:invrpr-8]

4.2. Logistics Inventory Report (message)

Class Diagram



GDD Report

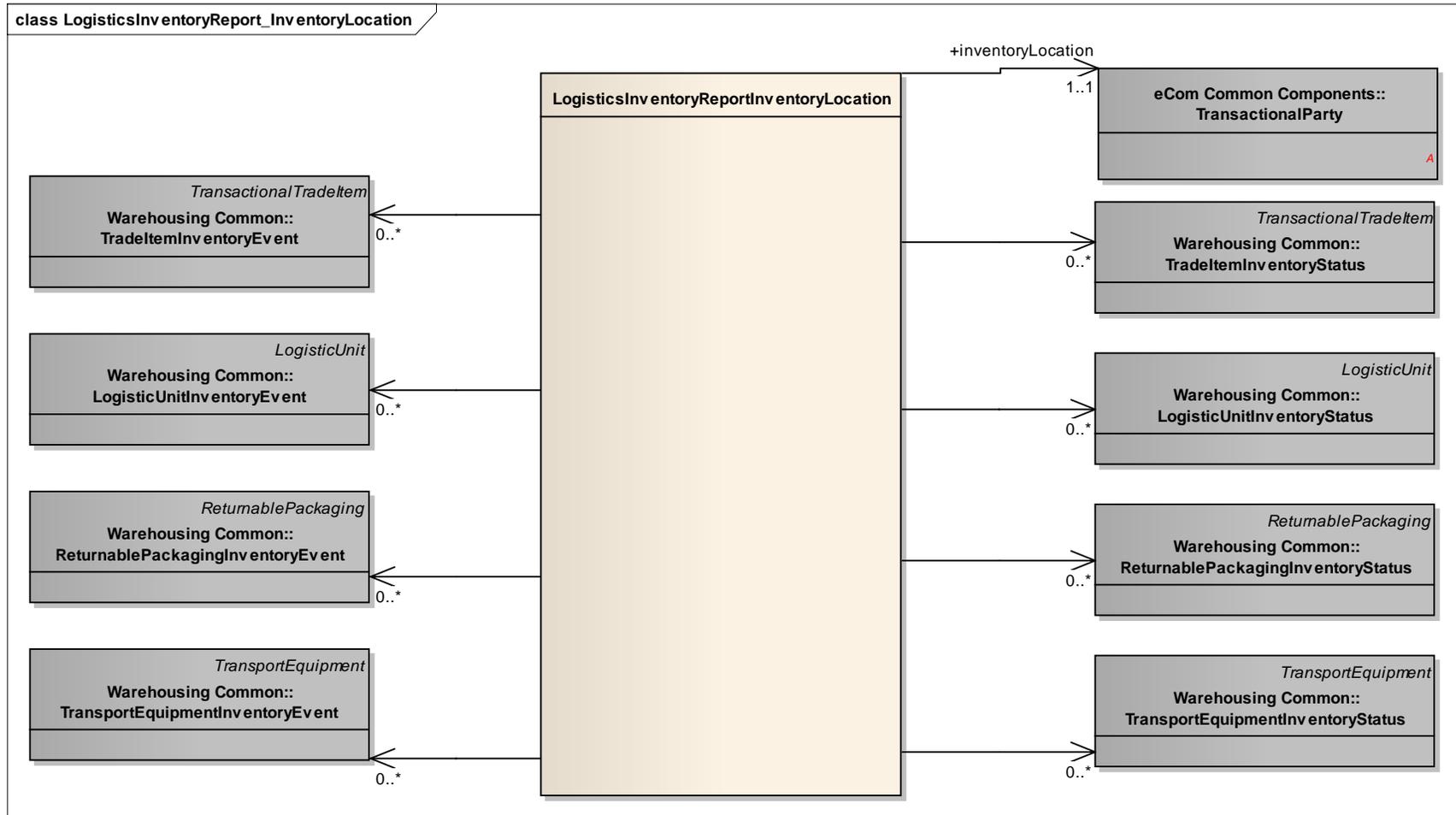
The content of the LogisticsInventoryReport class, its structure and component definitions can be accessed in the Global Data Dictionary: http://apps.gs1.org/GDD/bms/Version3_2/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:LogisticsInventoryReport

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
LogisticsInventoryReport				The Logistics 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).	

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
Association	logisticsInventoryReportIdentification	EntityIdentification	1..1	Unique identification of the inventory report, assigned by the inventory reporting party.	
Association	logisticsInventoryReportRequest	DocumentReference	0..1	Reference to the logistics inventory report request, if applicable.	
Association	reportingPeriod	DateTimeRange	1..1	The time period for which the inventory report provides information.	
Association	inventoryReportingParty	TransactionalParty	1..1	The identification of the party reporting about the inventory.	
Association		LogisticsInventoryReportInventoryLocation	1..*	Contains the inventory information per inventory location.	
Generalization		EcomDocument		Basic information about the content of the message including version number, creation date and time.	WR 14-000110
Association	inventoryReportToParty	TransactionalParty	1..1	The identification of the party to which the inventory is being reported.	
Attribute	structureTypeCode	StructureTypeCode	1..1	Contains the type of sequencing of the inventory report	

4.3. Logistics Inventory Report Inventory Location

Class Diagram



GDD Report

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

http://apps.gs1.org/GDD/bms/Version3_2/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:LogisticsInventoryReportInventoryLocation

Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
LogisticsInventoryReportInventoryLocation				Contains the inventory information for an inventory location.	
Association		ReturnablePackagingInventoryStatus	0..*	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.	[brad-wim:eCom-1]
Association		LogisticUnitInventoryEvent	0..*	Information specifying an inventory activity of a specific logistic unit at a specific sub-location at a specific point in time.	
Association		TransportEquipmentInventoryEvent	0..*	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.	[brad-wim:eCom-1]
Association		ReturnablePackagingInventoryEvent	0..*	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.	[brad-wim:eCom-1]
Association		TradeItemInventoryEvent	0..*	Information specifying an inventory activity of one or more trade items (of the same type) at a specific sub-location at a specific point in time.	[brad-wim:IR-301,302,3003,304]
Association		TransportEquipmentInventoryStatus	0..*	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.	[brad-wim:eCom-1]
Association		LogisticUnitInventoryStatus	0..*	Information specifying the inventory status of a logistic unit at a specific sub-location at a specific point in time.	



Content	Attribute / Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
Association		TradeItemInventoryStatus	0..*	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.	[brad-wim:IR-100,200]
Association	inventoryLocation	TransactionalParty	1..1	Identification of the site where the items are located.	

4.4. Code Lists

Class	Codelist	GDD Link
LogisticsInventoryReport	StructureTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:StructureTypeCode
LogisticsInventoryReportRequest	InventoryDispositionCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:InventoryDispositionCode
LogisticsInventoryReportRequest	LogisticsInventoryReportTypeEnumeration	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:LogisticsInventoryReportTypeEnumeration



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

5. Business Message Examples

5.1. Example 1

This is an example of the Logistic Inventory Report message used to communicate the periodical status.

Party Information

GS1 Global Location Number	Party Type
3333333000001	Inventory Reporting Party
2222222000004	Report To Party
3333333000018	Inventory Location

Message Example 1

Attribute	Value
LogisticsInventoryReport	
creationDateTime	2012-07-11 00:00
documentStatusCode	ORIGINAL
documentActionCode	ADD
structureTypeCode	LOCATION_BY_ITEM
EntityIdentification (+logisticsInventoryReportIdentification)	
entityIdentification	INVRPT-0123
DateTimeRange (+reportingPeriod)	
beginDate	2012-07-11
beginTime	00:00
TransactionalParty (+inventoryReportingParty)	
gln	3333333000001

Attribute	Value
TransactionalParty (+inventoryReportToParty)	
gln	2222222000004
LogisticsInventoryReportInventoryLocation	
TransactionalParty (+inventoryLocation)	
gln	3333333000018
TradeltemInventoryStatus	
gtin	01111111001110
tradeltemQuantity	400
inventoryDispositionCode	sellable_accessible
InventorySubLocation (+)	
glnExtension	AB-1
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120032
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120033
TradeltemInventoryStatus	
gtin	01111111001110
tradeltemQuantity	400
inventoryDispositionCode	NON-SELLABLE_QUARANTINED
InventorySubLocation (+)	
glnExtension	AB-2
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120034
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120035

Message Example 1 Including Cycle Count Data:

Attribute	Value
TradeltemInventoryEvent	
gtin	01111111001110

Attribute	Value
tradeItemQuantity	400
eventDateTime	2012-07-11 12:20
inventoryBusinessStepCode	COUNTING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
InventorySubLocation	
glnExtension	AB-1
TradeItemInventoryEvent	
gtin	01111111001110
tradeItemQuantity	399
eventDateTime	2012-07-11 12:20
inventoryBusinessStepCode	COUNTING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
InventorySubLocation	
glnExtension	AB-2
TradeItemInventoryEvent	
gtin	01111111001110
tradeItemQuantity	1
eventDateTime	2012-07-11 12:20
inventoryBusinessStepCode	COUNTING
inventoryDispositionCode	NON-SELLABLE_DAMAGED
InventorySubLocation	
glnExtension	AB-2

5.2. Example 2

This is an example of the Logistic Inventory Request message used for adhoc query

Party Information

GS1 Global Location Number	Party Type
3333333000001	Inventory Reporting Party
2222222000004	Report To Party
3333333000018	Inventory Location

Message Example 1

Attribute	Value
LogisticsInventoryRequest	
creationDateTime	2012-07-11 00:00

Attribute	Value
documentStatusCode	ORIGINAL
documentActionCode	ADD
logisticsInventoryReportTypeCode	TRADE_ITEM_REPORT
EntityIdentification (+logisticsInventoryReportRequestIdentification)	
entityIdentification	INVRPRQ-21
TransactionalParty (+inventoryReportingParty)	
gln	3333333000001
TransactionalParty (+inventoryReportToParty)	
gln	2222222000004
TransactionalTradeItem (+)	
gtin	01111111001110
DateTimeRange (+reportingPeriod)	
beginDate	2012-07-01
beginTime	00:00
endDate	2012-08-01
endTime	00:00
LogisticsInventoryRequestLocation	
TransactionalParty (+inventoryLocation)	
gln	3333333000018
InventorySubLocation (+)	
glnExtension	AB-1

Response to the request:

Attribute	Value
LogisticsInventoryReport	
creationDateTime	2012-07-11 00:00
documentStatusCode	ORIGINAL
documentActionCode	ADD
structureTypeCode	LOCATION_BY_ITEM
EntityIdentification (+logisticsInventoryReportIdentification)	
entityIdentification	INVRPT-01256
TransactionalParty (+inventoryReportingParty)	
gln	3333333000001
TransactionalParty (+inventoryReportToParty)	
gln	2222222000004
DateTimeRange (+reportingPeriod)	

Attribute	Value
beginDate	2012-07-01
beginTime	00:00
endDate	2012-08-01
endTime	00:00
DocumentReference (+logisticsInventoryReportRequest)	
entityIdentification	INVRPRQ-21
LogisticsInventoryReportInventoryLocation	
TransactionalParty (+inventoryLocation)	
gln	3333333000018
TradeltemInventoryStatus	
gtin	01111111001110
tradeltemQuantity	300
inventoryDispositionCode	SELLABLE_ACCESSIBLE
inventoryDateTime	2012-08-01 00:00
InventorySubLocation (+)	
glnExtension	AB-1
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120032
TransactionalItemData (+)	
tradeltemQuantity	200
batchNumber	bno120033
InventoryDutyFeeTaxStatus (+)	
dutyFeeTaxTypeCode	IMP
customsWarehouseStatusCode	FREE_CIRCULATION
TradeltemInventoryEvent	
gtin	01111111001110
tradeltemQuantity	200
eventDateTime	2012-07-11 12:15
inventoryBusinessStepCode	STATUS_CHANGING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
inventoryMovementTypeCode	DECREASE
InventorySubLocation (+)	
glnExtension	AB-1
InventoryDutyFeeTaxStatus (+)	
dutyFeeTaxTypeCode	IMP

Attribute	Value
customsWarehouseStatusCode	BONDED
TradeltemInventoryEvent	
gtin	01111111001110
tradeltemQuantity	200
eventDateTime	2012-07-11 12:15
inventoryBusinessStepCode	STATUS_CHANGING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
inventoryMovementTypeCode	INCREASE
InventorySubLocation (+)	
glnExtension	AB-1
InventoryDutyFeeTaxStatus (+)	
dutyFeeTaxTypeCode	IMP
customsWarehouseStatusCode	BONDED
InventorySubLocation (+)	
glnExtension	AB-1
InventoryDutyFeeTaxStatus (+)	
dutyFeeTaxTypeCode	IMP
customsWarehouseStatusCode	FREE_CIRCULATION
TradeltemInventoryEvent	
gtin	01111111001110
tradeltemQuantity	100
eventDateTime	2012-0-21 14:15
inventoryBusinessStepCode	TRANSFERRING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
inventoryMovementTypeCode	INCREASE
InventorySubLocation (+)	
glnExtension	AB-1
InventoryDutyFeeTaxStatus (+)	
dutyFeeTaxTypeCode	IMP
customsWarehouseStatusCode	FREE_CIRCULATION
TradeltemInventoryEvent	
gtin	01111111001110
tradeltemQuantity	100
eventDateTime	2012-07-21 13:15
inventoryBusinessStepCode	TRANSFERRING
inventoryDispositionCode	SELLABLE_ACCESSIBLE
inventoryMovementTypeCode	DECREASE

Attribute	Value
<i>InventorySubLocation (+)</i>	
glnExtension	AB-2
<i>InventoryDutyFeeTaxStatus (+)</i>	
dutyFeeTaxTypeCode	IMP
customsWarehouseStatusCode	FREE_CIRCULATION

6. Implementation Considerations

6.1. User Guide

The Functional User Guide contains more information about the structure and content of the Logistics Inventory Report Request and Report message: http://www.gs1.org/docs/ecom/xml/3/3.2/eCom-Trade_messages.html#LogisticsInventoryReportRequestandReport

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.

7.1. BMS Release 3.1

First release of this message standard.

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> <div style="border: 1px solid black; padding: 5px;"> <p>class LogisticsInventoryReportRequest - maintenance view</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;">«root» LogisticsInventoryReportRequest</p> <p>+ logisticsInventoryReportTypeCode :LogisticsInventoryReportTypeEnumeration + inventoryDispositionCode :InventoryDispositionCode [0..*]</p> <p style="text-align: right;"><i>maintenance</i></p> <p>Change: (Verified) 3.2 changed generalisation from Document to eComDocument class to include AVP (WR 14-110)</p> </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>class LogisticsInventoryReport - maintenance view</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p style="text-align: center;">«root» LogisticsInventoryReport</p> <p>+ structureTypeCode :StructureTypeCode</p> <p style="text-align: right;"><i>maintenance</i></p> <p>Change: (Verified) 3.2 changed generalisation from Document to eComDocument class to include AVP (WR 14-110)</p> </div> </div> </div>	14-000110

8. Appendices

Not applicable.

9. Acknowledgements

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

9.1.1. Work Group

Function	Name	Company / organisation
Co-Chair	Jaco Voorspuij	DHL
Co-Chair	Fred Kempkes	Unilever
Member	Andrew Jones	General Mills, Inc.
Member	Bonnie Ryan	GS1 Australia
Member	Kurt Herregodts	GS1 Belgium & Luxembourg
Member	Roman Strand	GS1 Germany
Member	Mia Lenman	GS1 Sweden
Member	Shan Welch	GS1 UK
Member	Geert Simmer	GSPro
Member	Dr. Karlheinz Mevissen	HAVI Logistics

Function	Name	Company / organisation
Member	Robin Kidd	Nestle
Member	Mandeep Sodhi	Nestle
Member	Marc Cox	Philips Electronics N.V.
Member	Nitin Vidwans	Walmart Stores, Inc.

9.1.2. Development Team Members

Function	Name	Organisation
GSMP Process Lead	Jean-Luc Champion	GS1 GO
Standards Content Lead	Coen Janssen, Ewa Iwicka	GS1 GO
Technical Development Lead	Ewa Iwicka	GS1 GO
Peer Review	Eric Kauz	GS1 GO