



Business Message Standard (BMS) Multi Shipment Order

BMS Release: 2.3.0, BRG Name: eCom

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Document Summary

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20070323	Andy Kim, GS1 Australia	07-000128
20061114	Andy Kim, GS1 Australia	06-000282
20061115	Andy Kim, GS1 Australia	06-000283
20061116	Andy Kim, GS1 Australia	06-000285
20061118	Andy Kim, GS1 Australia	06-000297
20040713	GS1 on behalf of Upstream	04-000137 04-000138 04-000212
20031113	Vicky Caro, GS1 on behalf of NAMM	03-000167
20011010	GS1	01-000094

Business Requirements Document (BRAD) Reference

BRAD Title:	BRAD Date:	BRAD Version
Multi Shipment Order Enhancements	20070109	Version 0.0.1
Common Library		BMS Release Version 2.3
Multi Ship to Order	20040920	Version 0.3.8A
Multi Ship to Order	20040510	Version 0.3.9
Enhancements Multi Ship to Order Music Industry	20041010	Version 0.0.2
Upstream Standards – Demand & Supply Signals	20041101	Version 1.0

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20041208	0.0.1	MVC, RT	Creation of the document	Migration of the BRD Multi Ship to Order approved by Order BRG and ITRG for publication December 2004 Update based on new requirements: Cross Docking Ordering process Enhancements for the music Industry	
20041209	0.0.2	RT	Incorporated changes agreed upon during conference call of 08/12/2004	Modified Order Common (locally) to show NameAndAddress class as option coming off ShipToLogistics class. Its association is called shipToNonCommercial to reflect a "DirectToConsumer" scenario. Also named the shipTo association from ShipToLogistics to PartyIdentification as shipToCommercial, to differentiate a pure commercial relationship. Both associations are choice relationships. Also, in the Multi Ship To Order class diagram, changed role name from buyerName to buyerIdentification.	
20041213	0.0.3	RT		Removed note in the changes to common class. Changed shipToCommercial back to shipTo in Order common class. Removed role name from MultiShipToOrder to OrderLogisticalInformation.	
20041220	0.0.4	RT		Incorporated common class diagrams, GDD information and code lists.	
20041227	0.0.5	RT		Inserted Party Common class diagram	
20050102	0.0.6	MVC	Finishing the document for public review	Adjustments of GDD definitions according BRADs approved	
20050126	0.0.7	MVC, RT	Modifications on the texts and classes according to the final resolutions on the public review	Use of the terms business message and ultimate consignee in the problem statement. Inclusion of the ITRG member (liaison), Format Table of content Wording use case description. Modifications to class diagram	
20050203	0.0.8	MVC, RT	Modifications on the texts and classes according to the final resolutions on the public review	Replace promotional code header and line role by promotional deal role Change the relation class Contact to Order Party Information with the role Order Contact Add the mode attribute to Simple Order Line Item Add Ship to Detail definition Remove data source relation Formatting in the GDD grid Change the Ship to non-Commercial definition Include examples for the different scenarios Include BRG Participants	

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20050215	0.0.9	RT	Modifications on texts and classes according to BRG comments	<p>Added carrier role to PartyIdentification from SimpleOrderLineItem which puts carrier at the Line level. Mode and requestedQuantity are already at the Line level as attributes of SimpleOrderLineItem.</p> <p>Added mode and carrier roles at the header level from ShipToLogistics and ShipFromLogistics to PartyIdentification.</p> <p>Made corresponding text changes in GDD report</p>	
20050218	0.10.0	JR	<p>Updates</p> <p>Advanced to XML for development</p> <p>Definitions needed for GDD section 1.5.2.</p> <p>GDD platform needs to be updated.</p>	Review Change History Section 1.9	<p>Model P4CL: 5774</p> <p>BSD P4CL: 5777</p>
20050314	0.10.1	JR	Pasted GDD generated report	Included in section 1.5.2 GDD Report	
20050314	0.10.2	JR and MVC	Updated GDD	Updated the missing or "Not Available" definition in section 1.5.2	BSD P4CL: 6034
20050422	0.10.3	JR and MVC	Update section 1.7 Implementation Considerations	Update Section according comments received from TRG	BSD P4CL: 6483
20050308	0.11.1	RK	Incorporating Gap-analysis between Upstream standards Purchase Order and Multi Ship To Order	Updated the class diagrams according to the gap analysis v 0.1.3 08/03/2005	<p>Model P4CL:</p> <p>BSD P4CL:</p>
14/03/2005	0.11.2	RK	Incorporating feedback from Order BRG Teleconference 09/03/2005	<p>Changed +purchaseConditions from mandatory to optional</p> <p>Changed BSD name to "Multi Shipment Order"</p> <p>Changed "MultiShipToOrderLineItem" to "MultiShipmentOrderLineItem"</p> <p>Changed "ShipToDetail" to "ShipmentDetail"</p>	<p>Model P4CL: 6027</p> <p>BSD P4CL: 6027</p>
20050324	0.11.3	RK	Incorporating feedback from Peer Review (by JR)	See for details 1.9 Summary of Changes under 0.1.3	<p>Model P4CL: 6094</p> <p>BSD P4CL: 6094</p>

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20050404	0.11.4	CJ	Peer review comments.	<p>Changed document version numbering. 0.10.0 is the version voted on by ITRG for BMS 2.0, 0.10.x will include comments still to be included in BMS 2.0.</p> <p>Version 0.11.0 is the start for post 2.0 development, such as Upstream Standards.</p> <p>Changed report layouts in paragraphs 1.5.1 and 1.5.2.</p>	
20050502	0.12.0	CJ	Public review comments	<p>Several functional changes, see paragraph 1.9.</p> <p>Changed the format of the examples in paragraph 1.8.2.</p> <p>Changed the text of paragraph 1.2</p>	
20050509	0.12.1	CJ	CR 05-000084	Functional changes, see paragraph 1.9.	
20050523	0.12.2	CJ	Peer review comments	Added BMS Publication to title page.	
20050530	0.12.3	CJ	Peer review comments	Common library changes	
20050803	0.12.4	JR	Incorporate ITRG Comments	<p>In ODEN replaced Multi Ship To→ Multi Shipment</p> <p>In GDD redefined ShipmentDetails</p> <p>Added Common Library Reference</p>	MDL P4CL 7239
20050808	0.12.5	MVC	Incorporate ITRG Comments on Examples and Test Data	<p>Modification in Examples and Test Data A and D</p> <p>Use correct class names on section 1.7</p>	BSD P4CL: 7290
20050826	0.12.6	JR	Final ITRG comment resolution concerning currencyExchnageRate	<p>Updated class diagram on section 1.7 and GDD.</p> <p>Detail changes depicted in section 1.8</p>	MDL P4CL 7363 BSD P4CL: 7366
20070312	0.13.0	John Ryu	<p>Incorporate BRAD Multi Shipment Order Enhancements Version 0.0.1</p> <p>Migrated BMS Version 12.6 to updated BMS Template Version 1.3</p>	<p>Discussion on 20070306 eCom BRG Teleconference to receive Motion for TSD development.</p> <p>CR 06-282/3/5 and CR 06-000297</p>	MDL P4CL 9016 BSD P4CL: 9062
20070315	0.13.1	John Ryu	<p>Incorporated Peer Review</p> <p>eCom BRG motion for TSD Development</p>	Noted in Summary of Changes	BSD P4CL: 9080

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
20070323	0.13.2	John Ryu	Incorporate CR # 07-000128 Incorporated Peer Review	Noted in Summary of Changes	MDL P4CL: 9102 BSD P4CL: 9129
20070403	0.13.3	John Ryu	eCom BRG motioned for TSD Development	Noted in Summary of Changes	BSD P4CL: 9159
20070412	0.13.4	John Ryu	Posting for Public Review	Updated to BMS Template Version 1.8	MDL P4CL: 9206 BSD P4CL: 9219
20070503	0.13.5	John Ryu	Update based on public review	Noted in summary of changes	MDL P4CL: 9289 BSD P4CL: 9290
20070525	0.13.6	John Ryu	eCom BRG eBallot Approved	Updated BMS to approved	BSD P4cl: 9460

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1. Business Domain View

1.1. Problem Statement / Business Need

The Multi Shipment Order provides the ability to order different quantities of trade items/services originating from multiple locations of the seller, shipped to multiple locations of the buyer, using one business message.

The multi-shipment order process initiated by the buyer includes the capability to:

- Request shipment from multiple locations
- Request shipment to multiple locations which can include ultimate consignees or inventory locations
- Vary the quantity of the trade item/service by each ship to location
- Vary the quantities to the ship to locations per the order line item
- Specify dates per each ship to location
- Specify dates per the order line item

1.2. Objective

To supply the detail design of the (specific) business transaction needed to meet the requirements of the referenced BRAD(s).

1.3. Audience

The audience for this document is the global business community and the senders/receivers of purchase orders, changes to purchase orders, and responses.

1.4. References

Reference Number	Reference Name	Description
Ref 1	BRD For Multi Ship to Order	Version 0.3.8 A
Ref 2	BRD For Multi Ship to Order	Version 0.3.9
Ref 3	BRAD for Enhancements Multi-Ship to Order Music Industry	
Ref 4	BRAD Upstream Standards – Demand & Supply Signals	Version 0.1.0
Ref 5	ITRG Comment Resolution Sheet	
Ref 6	BRAD Multi Shipment Order Enhancements	Version 0.0.1
Ref 7	BMS Common Library	BMS Release Version 2.3

1.5. Acknowledgements

1.5.1. BRG Work Group

Function	Name	Company / Organisation
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BRG Work Group Member	Kazuya SATO	GS1 Japan
BRG Work Group Member	Jon SHARRATT	Target
BRG Work Group Member	Andy SIOW	GS1 Singapore
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1.5.2. Design Team Members

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XML Technical Designer	Dipan ANARKAT	GS1
EANCOM Technical Designer	Not Applicable	Not Applicable
Peer Reviewer	Brian BENNETT	GS1

2. Business Context

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

3. Additional Technical Requirements Analysis

This section documents the analysis of additional technical requirements.

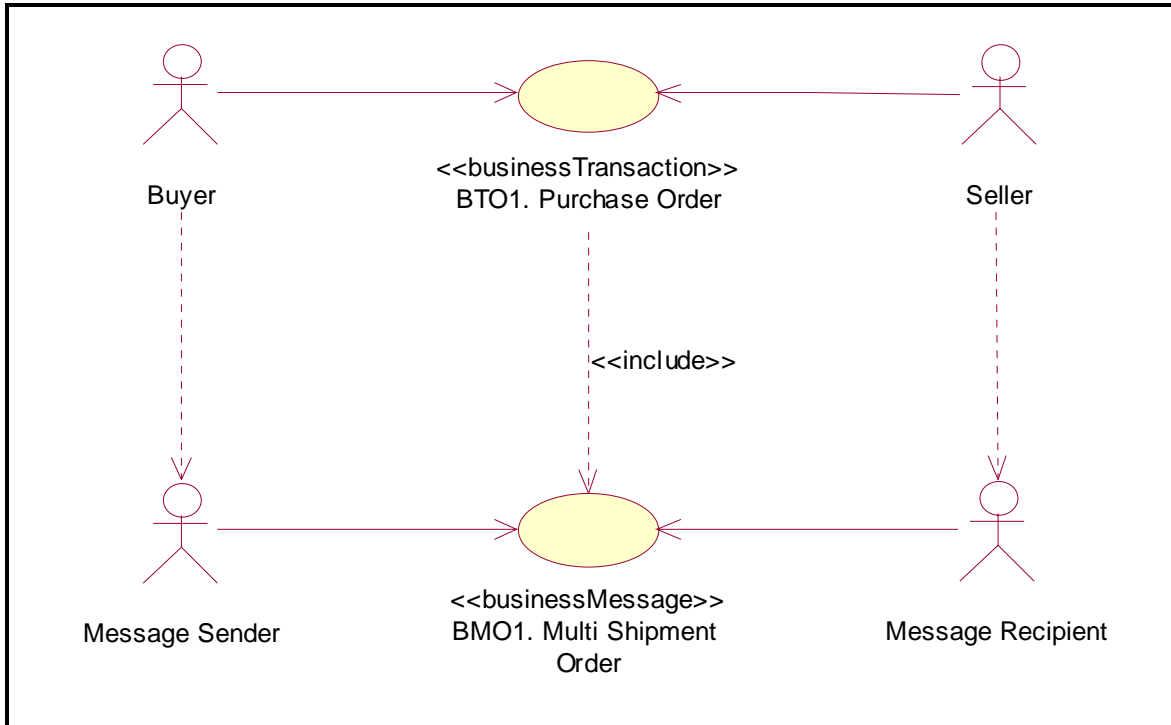
3.1. Technical Requirements (optional)

Number	Statement	Rationale
	No Technical Requirements	

4. Business Transaction View

4.1. Business Transaction Use Case Diagram

Figure 4-1 Multi Shipment Order Use Case Diagram



4.2. Use Case Description

Use Case ID	BT01
Use Case Name	Multi Shipment Purchase Order
Use Case Description	This use case provides the ability to order different quantities of trade items/ services originating from multiple locations of the seller shipped to multiple locations of the buyer using one business message.
Actors (Goal)	Buyer: To send the Multi Shipment Purchase Order Seller: To receive the Multi Shipment Purchase Order
Performance Goals	None

Preconditions	<p>(Multi Shipment) Purchase Order: PREPARED</p> <p>The Buyer and Seller have aligned Party and Item information.</p> <p>The Buyer and Seller have established their trading partner agreements</p> <p>The trading partners (Buyer and Seller) must exchange and have aligned their basic business data such as trading partner names, addresses, locations (Party Information), Item information and Price information.</p> <p>The Buyer and Seller have agreed that each can produce and process a purchase order with multiple ship-to locations with varied quantities and dates of trade items/services per ship-to location.</p> <p>The Buyer and Seller have agreed on whether a Receipt Acknowledgement or Order Confirmation messages are required, as an option based on the pre-determined trading partner agreements.</p> <p>Purchase conditions have been agreed upon.</p>						
Post conditions	<p>Multi Shipment Purchase Order: COMMUNICATED</p> <p>The Seller has received the Multi Shipment Order sent by the Buyer.</p>						
Scenario	<p>Begins when... (Insert content here).</p> <p>Continues with...</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #003366; color: white;"> <th style="width: 10%;">Step #</th> <th style="width: 30%;">Actor</th> <th style="width: 60%;">Activity Step</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> <td></td> </tr> </tbody> </table> <p>Ends when... (Insert content here)</p>	Step #	Actor	Activity Step	1		
Step #	Actor	Activity Step					
1							
Alternative Scenario	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #003366; color: white;"> <th style="width: 10%;">Step #</th> <th style="width: 30%;">Actor</th> <th style="width: 60%;">Activity Step</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> <td></td> </tr> </tbody> </table>	Step #	Actor	Activity Step	1		
Step #	Actor	Activity Step					
1							
Related Requirements	<p>1. No Related Requirement</p>						
Related Rules	<p>1. No Business Rule</p>						

4.3. Business Transaction Activity Diagram(s)

No Activity Diagram

4.4. Business Transaction Sequence Diagram(s)

No Sequence Diagram.

5. Information Model (Including GDD Report)

5.1. GDD Report

Table 5-1 Extracted From GDD Version 2.3

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
MultiShipmentOrder				The Multi Shipment Order provides the ability for a buyer to order variable quantities of trade items/services shipped from and to multiple locations using one business message			
	AdditionalOrderInstruction			<p>Additional order instruction captures information that has not been previously synchronised and is ad-hoc in nature.</p> <p>This field should only be used in exception circumstances if the information cannot be codified.</p> <p>Examples Purchase Order Header: Please mark to 'Attention of Special Orders'</p> <p>Please shrink wrap</p> <p>Please mark 'Customer Special Order' and 'Paid'</p>	0..1	LongDescription	BR2: BRAD Multi Shipment Order Enhancements Version 0.0.1
	totalMonetaryAmountOfOrder			<p>The total monetary amount of the Purchase Order excluding all Taxes. This field is needed to allow effective purchase order and invoice total value reconciliation. It is a business process in Australian Hardware industry for the receiver of the invoice to initially check the total value of the invoice vs. the purchase order originally placed. In a retail store environment, manual calculation of purchase order total value is not feasible for store conducting this reconciliation.</p> <p>The presence of this field will also enable matching of the value of this purchase order with subsequent messages including the invoice by both the sender and the receiver.</p>	0..1	Amount	BR4: BRAD Multi Shipment Order Enhancements Version 0.0.1

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
		None	AllowanceCharge	Contains the information related with the allowance charge in the Multi Shipment Order.	0..*		
		None	CurrencyExchangeRateInformation	Rate at which one currency may be converted into another. Generally, one unit of the home currency is expressed in terms of another currency. For example, a North American bank may quote the exchange rate between the dollar and the Euro as the number of dollars needed to buy one Euro.	0..1		
		None	Document	Contains the information related with the document in the Multi Shipment Order.	1..1		
		orderIdentification	EntityIdentification	The unique identification of the Order	1..1		
		None	MultiShipmentOrderLineItem	Specify the information related to each line item. Multi Shipment Order will contain one or more line items.	1..*		
		None	OrderLogisticalInformation	Contains the information related with the dates and destinations of the goods or services.	1..1		
		None	OrderPartyInformation	Contains the information related with the parties involved in the order process.	1..1		
		None	PaymentTerms	Contains the information related with the parties involved in the order process.	0..*		
		promotionalDeal	TradeAgreement	Number assigned by a vendor to a special promotion activity.	0..1		
		quoteNumber	TradeAgreement	Quote Number is defined as the reference number assigned by the seller to a quote. This price quote number applies to the entire order and not at the individual line item level. A quote number identifies a one off negotiation on a particular order between buyer and supplier; however, it is not essentially a promotional deal, but rather a one off quotation being provided for the goods either based on price or manufactured to certain specifications.	0..1		BR1: BRAD Multi Shipment Order Enhancements Version 0.0.1

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
MultiShipmentOrderLineItem				Specify the information related to each line item. Each Multi Ship to Order will contain one or more line items.			
		None	AllowanceCharge	Contains the information related with the allowance charge in the detail order level.	0..*		
		purchaseConditions	DocumentOrDocumentLineReference	A reference to the purchase conditions. The reference is associated with specific items in the order.	0..1		
		materialSpecification	Reference	A reference to a material specification. The reference is associated with specific items in the order.	0..1		
		None	ShipmentDetail	Allows the identification of various shipping details by line item.	0..*		
		None	SimpleOrderLineItem	Specify the information related to each line item within the order.	1..1		
		promotionalDeal	TradeAgreement	A reference to a trade agreement related to a promotional deal. The reference is associated with specific items in the order.	0..1		
ShipmentDetail				Allows the identification of various shipping details by MultiShipmentOrderLineItem.			
	requestedQuantity			The quantity which has been requested.	1..1	Quantity. Content Quantity Unit. Code Quantity Unit. Code List Agency. Identifier	
		purchaseConditions	DocumentOrDocumentLineReference	A reference to the purchase conditions. The reference is associated with specific items in the order.	0..1		
		None	OrderLogisticalDateGroup	The date/time on which the goods are requested, to be delivered, pickup or shipped.	0..1		
		inventoryLocation	PartyIdentification	The location where the goods are stored.	0..1		

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
		shipFrom	PartyIdentification	The location from which goods will be shipped.	0..1		
		shipTo	PartyIdentification	The location destination to which goods will be shipped.	0..1		
		ultimateConsignee	PartyIdentification	The final destination to which goods will be shipped.	0..1		
		None	ShipmentTransportationInformation	Contains the identification of the carrier and mode associated with the transportation of the goods or services.	0..1		

Table 5-2 Extracted From GDD Version 2.3

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
SimpleOrderLineItem				Specify the information related to each line item within the order.			
	requestedQuantity			The quantity which has been requested.	1..1	Text. Content	
	additionalOrderLineInstruction			Additional Order Line Instruction captures information that has not been previously synchronised and is ad-hoc in nature. This field should only be used in exception circumstances if the information cannot be codified. Examples of Purchase Order Line: Use chrome hinges (not standard brass hinges) Please use <specified> timber Please prime (paint) door and jamb and pre-hang door	0..1	LongDescription	BR2: BRAD Multi Shipment Order Enhancements Version 0.0.1
	lineItemActionCode			Provides the activity required by the recipient on the line item of this order line item.	0..1	OrderLineItemActionCodeList	BR1: BRAD Multi Shipment Order Line Item Version 0.0.1
		None	LineItem	Provides the line number associated to the Simple Order Line Item.	1..1		
		NetAmount	MultiAmount	Identifies the net amount of the item.	0..1		

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
		netPrice	MultiAmount	Identifies the net price of the item.	0..1		
		None	TradeItemIdentification	Identifies the Trade Item with the Global Trade Item Number associated to the Simple Order Line Item.	1..1		
		None	ShipmentTransportationInformation	Contains the identification of the carrier and mode associated with the transportation of the goods or services	0..1		

Table 5-3 Extracted From GDD Version 2.3

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
LogisticalDate				Contains the information regarding the specific date and an optional time associated to the logistical information in the order.			
	date			The time at which an event occurs, expressed as a day	1..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	
	time			An appointed, fixed, or customary moment or hour for something to happen, begin, or end in a specific role	0..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	
LogisticalDateRange				Contains the information regarding the specific date ranges and an optional time ranges associated to the logistical information in the order.			
	earliestDate			Beginning day for a period	1..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
	earliestTime			Beginning time for a period	0..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	
	latestDate			End of a period expressed as a day	1..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	
	latestTime			End of a period expressed as time	0..1	Code. Content Code List. Agenc. Identifier Code List. Agency Name. Text	
OrderLogisticalDateGroup				Contains the choices to select various types of dates or date ranges associated to the order.			
		requestedDeliveryDate	LogisticalDate	Provides the date and optional time on which the goods are requested to be delivered.	1..1		
		requestedDeliveryDateAtUltimateConsignee	LogisticalDate	Provides the date and optional time on which the goods are requested to be delivered to the Ultimate Consignee.	1..1		
		requestedPickUpDate	LogisticalDate	Provides the date and optional time on which the goods are requested to be available for pickup at the seller's location.	1..1		
		requestedShipDate	LogisticalDate	Provides the date and optional time on which the goods are requested to be shipped or dispatched by the supplier.	1..1		
		requestedDeliveryDateRange	LogisticalDate Range	Provides the earliest and latest date ranges and the optional times on which the goods are requested to be delivered.	1..1		



Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
		requestedDeliveryDateRangeAtUltimateConsignee	LogisticalDateRange	Provides the earliest and latest date ranges and the optional times on which the goods are requested to be delivered to the Ultimate Consignee.	1..1		
		requestedShipDateRange	LogisticalDateRange	Provides the earliest and latest date ranges and the optional times on which the goods are requested to be shipped or dispatch.	1..1		
OrderLogisticalInformation				Provides the earliest and latest date ranges and the optional times for the range of ship date associated to the order.			
		None	OrderLogisticalDateGroup	Contains the choices to select various types of dates or date ranges associated to the order.	1..1		
		None	ShipFromLogistics	Allows the identification of shipping details where the goods or services must be shipped from.	1..1		
		None	ShipToLogistics	Allows the identification of shipping details where the goods or services must be shipped to.	1..1		
ShipFromLogistics				Allows the identification of shipping details where the goods or services must be shipped from.			
		shipFrom	PartyIdentification	Identifies the origin location where the goods will be shipped.	1..1		
		shipTo	PartyIdentification	Identifies the destination location where the goods will be shipped.	0..1		
ShipToLogistics				Allows the identification of shipping details where the goods or services must be shipped to.			
		inventoryLocation	PartyIdentification	Identifies the location of merchandise or stock on hand.	0..1		
		None	ShipToNonCommercial	Contains the identification of the non commercial address and contact information.	1..1		BR3: BRAD Multi Shipment Order Enhancements Version 0.0.1
		None	ShipmentTransportationInformation	Contains the trade agreement reference number and the trade agreement reference date.	0..1		

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Definition	Multiplicity	Data Type Components	Related Requirements
		shipFrom	PartyIdentification	Identifies the origin location from which goods will be shipped.	0..1		
		shipTo	PartyIdentification	Identifies the destination location to which goods will be shipped.	1..1		
		ultimateConsignee	PartyIdentification	Identifies the final destination location to which goods will be shipped.	0..1		
ShipToNonCommercial				Allows the identification of the ship to non commercial's address and contact information. The destination location to which goods will be shipped when the ship-to party cannot be prealigned due to the business relationship. The Receiver of the items ordered is a non-Retail party that does not have a GLN, for example, ship directly to a consumer.			BR3: BRAD Multi Shipment Order Enhancements Version 0.0.1
		None	NameAndAddress	The destination location to which goods will be shipped when the ship-to party cannot be prealigned due to the business relationship. The Receiver of the items ordered is a non-Retail party that does not have a GLN, for example, ship directly to a consumer.	1..1		BR3: BRAD Multi Shipment Order Enhancements Version 0.0.1
		None	Contact	The destination contact information to which goods will be shipped when the ship to party cannot be prealigned due to the business relationship. The receiver of the items ordered is a non-Retail party that does not have a GLN, for example, ship directly to a consumer.	0..1		BR3: BRAD Multi Shipment Order Enhancements Version 0.0.1

5.2. Class Diagrams

5.2.1. Multi Shipment Order

Figure 5-1 Multi Shipment Order

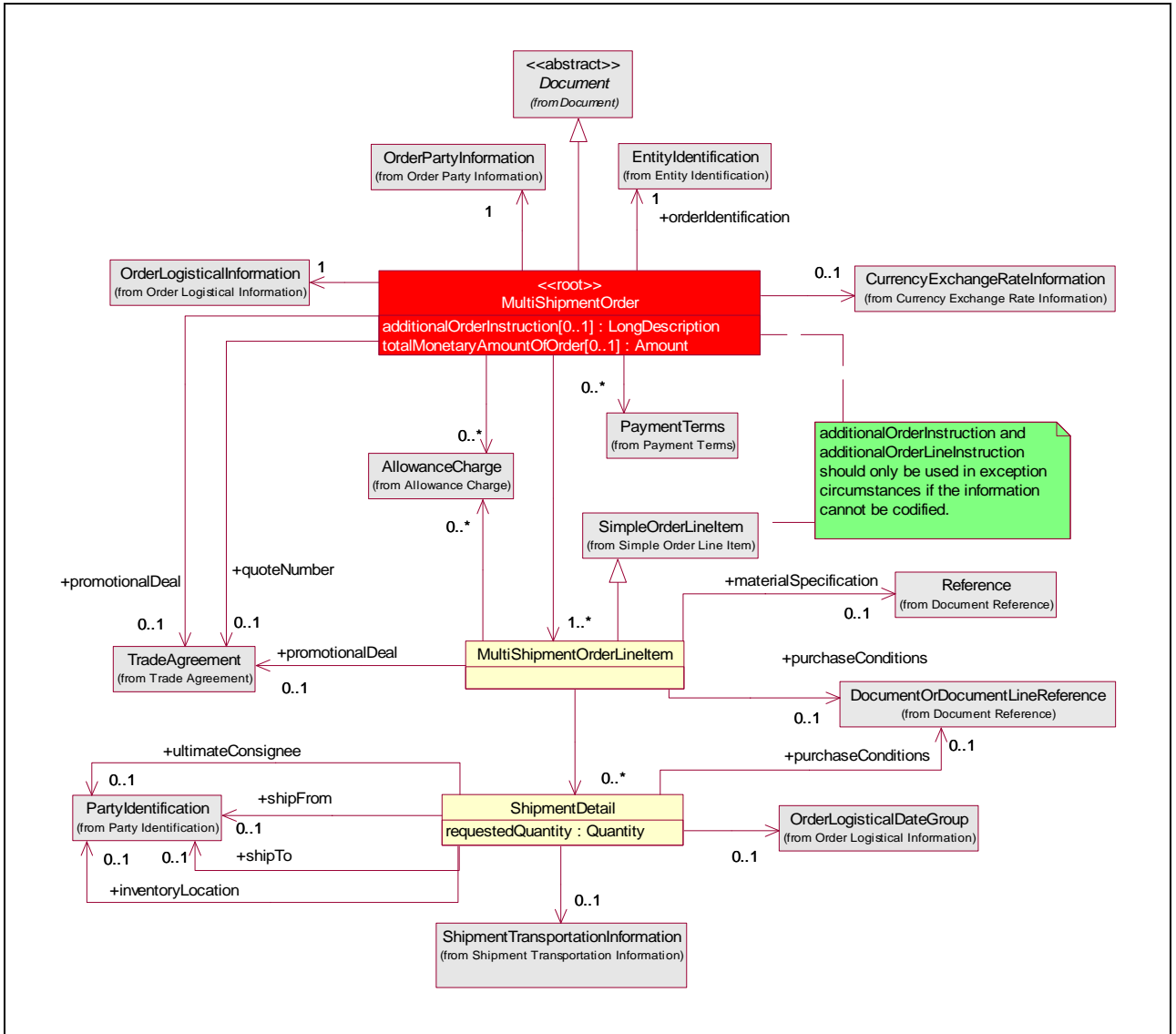
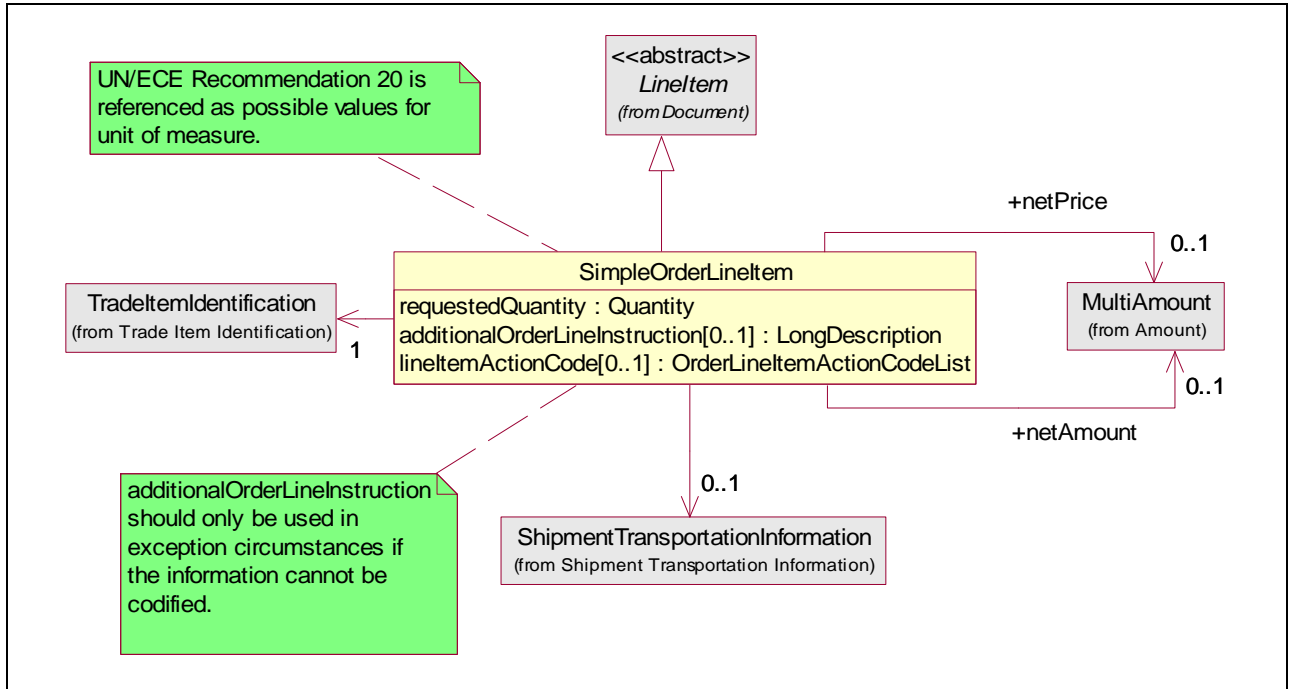
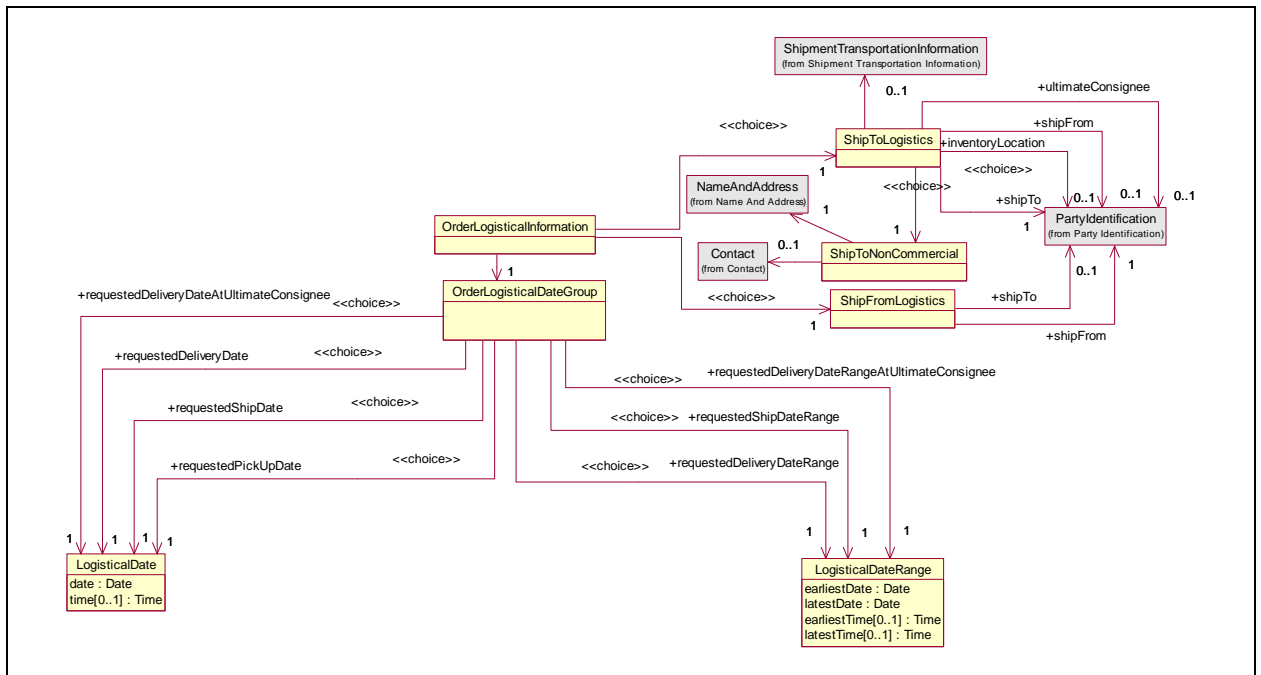


Figure 5-2 Simple Order Line Item BMS Version 2.3 Update in Common Library



5.2.2. Common Library Order Logistical Information (For Reference Purpose Only)

Figure 5-3 Order Logistical Information BMS Version 2.3 Update in Common Library



5.3. Code Lists

Order Line Item Action Code List: Provides the action required on the line item.

CodeValue	CodeDefinition
ADDITION	This line item is to be added to the original purchase order as a new or additional item. All required data must be transmitted.
CHANGED	This line item is to be changed. The data transmitted replaces the previously held information for the order line item.
DELETED	This line item is to be deleted from the referenced purchase order. No other data for the line item needs to be transmitted.
NOT_AMENDED	This line item has not been changed and is being sent for information.

6. Business Document Example

6.1. Example A

The following is an example of the use of the Multi Shipment Order Message.

- The buyer identified by the GS1 Global Location Number **7594567000014** places an order to the supplier identified by the GS1 Global Location Number **8431472300015**.
- The order identification is **PO0222** and is placed on **21st of July 2004 at 10:00 AM**.
- The buyer and supplier had prior discussions regarding the requirements for the order and a quote reference number to be used as references. In this case it relates to specific pricing and manufacturing requirements as it is not a standard stock item, the quote number is Q3391.
- The buyer is also requesting for line item **08431472300053** that they need to be pre-assembled and a note to this effect is included in the free text at line item level.
- The buyer is also requesting that the everything ordered needs to be shrink wrapped to protect it from the elements and a note to this effect is included in the free text field at header level.
- The total monetary amount of the order as calculated by the Buyer is thought to be **\$5500.50** (excluding all taxes).
- The main distribution centre is identified by the GS1 Global Location Number **7594567000090** where the goods should be shipped to and delivered on **23rd July 2004** (if no other specification is given).

The buyer orders the following:

GS1Global Trade Item Number	Quantity	Location
08431472300053	25	7594567000090
08431472300053	14	7594567000083

6.2. Example B

The following is an example of the use of the Multi Shipment Order Message for Cross Docking Order with multiple cross docking destinations and multiple final destinations.

- The buyer identified by the GS1 Global Location Number **7704567000017** places an order to the supplier identified by the GS1 Global Location Number **8881472300018**.
- The order identification is PO0341 and is placed on **4th of March 2004** at **10:00 AM**.
- The main distribution centre is identified by the GS1 Global Location Number **7704567000024** where the goods should be shipped to and delivered on **15th March 2004** (if no other specification is given).

The buyer orders the following:

GS1 Global Trade Item Number	Quantity	Warehouse	Store	Delivery Date
08881472300049	8	-	-	-
08881472300025	15	7704567000031	7704567000063	2004-03-12 (Store)
08881472300032	10	7704567000031	7704567000079	2004-03-13 (Store)

6.3. Example C

The following is an example of the use of the Multi Shipment Order Message with additional information used within the music industry.

- The buyer identified by the GS1 Global Location Number **0079452000319** places an order to the supplier identified by the GS1 Global Location Number **0074562000457**. The person responsible for issuing the order is Joe Smith.
- The order identification is PO00759, is placed on **3rd February 2005** at **10:00 AM** makes reference to the promotional deal number **AHK00765**.
- The goods have to be shipped directly to the consumer by a carrier identified by the GS1 Global Location Number **0078245000635** by air (**4th February 2005**).

The buyer orders the following:

GS1 Global Trade Item Number	Quantity	Consumer information	Delivery Date
00074562000525	2	Carol Johnson 1900 NW 150 Ave Pembroke Pines FL 33028 US Telephone Number: 123.456.7890	2005-02-04

6.4. Example D

The following is an example of the use of the Multi Shipment Order Message between a manufacturer (Buyer) and his material supplier (Seller) (so the Upstream Supply Chain) with one ship to location and multiple inventory locations at this ship to location.

- The buyer, identified by the GS1 Global Location Number **8713145000034** places an order to the supplier is identified by the GS1 Global Location Number **8612423005669**.
- The order identification is **PO-FK23491** and is placed on **9th March 2005** at **10:30 AM**.

- The reference to the purchase conditions is done by the number **CT2005-Q1**. The order contact is Mr. Order the goods requirements planner involved is Mr. Planner.
- The ship-to address which is the plant of the manufacturer is identified by the GS1 Global Location Number **8712423005778** where the 2 items should be delivered the **15th March 2004** at 2 specific inventory locations for storage. One of the items is specifically shipped from the materials supplier site **8612423005612** (ship-from).

The buyer orders the following:

Item GTIN	Ship From GLN	Quantity	Plant GLN	Inventory Location GLN
05411100203461	8612423005612	350 KGM	8712423005778	8712423000339
01234550123456		210 KGM	8712423005778	8712423000322

7. Implementation Considerations

In the business case scenario where there is the ship to location that is present at the order line item level (use of Shipment Detail class), it overrides the ship to location specified for the entire Multi Shipment Order. Once it is used, it is recommended, but not mandatory, to identify ship to locations per the total quantity ordered per line item. In that scenario, the quantities in the shipment detail level should equal the total order quantity at the line item level (See section [6.1, Example A](#)).

Depending on the business case scenario (Upstream or Downstream), the identification of Inventory location or Ultimate Consignee are mutually exclusive.

In the business scenario where the ship to location and the inventory location roles are used, it means that the goods are going to be delivered to the ship to location and the goods will be stored at the inventory location.

8. Testing

This section describes the testing criteria for business solutions.

8.1. Pass / Fail Criteria

None

8.2. Test Data

8.2.1. Example A

MultiShipmentOrder	
additionalOrderInstruction	Please Shrink Wrap Order, ENG
totalMonetaryAmountOfOrder	5500.50, USD
Document	
<i>creationDateTime</i>	2004-07-21T10:00:00
<i>documentStatus</i>	ORIGINAL
EntityIdentification (+orderIdentification)	
<i>uniqueCreatorIdentification</i>	PO0222
PartyIdentification (+contentOwner)	

	gLN	7594567000014
OrderPartyInformation		
PartyIdentification (+seller)		
	gLN	8431472300015
PartyIdentification (+buyer)		
	gLN	7594567000014
TradeAgreement (+quoteNumber)		
tradeAgreementReferenceNumber		Q3391
OrderLogisticalInformation		
ShipToLogistics		
PartyIdentification (+shipTo)		
	gLN	7594567000090
OrderLogisticalDateGroup		
LogisticalDate (+requestedDeliveryDate)		
	date	2004-07-23
MultiShipmentOrderLineItem		
SimpleOrderLineItem		
LineItem		
	lineItemNumber	1
	requestedQuantity	39, EA
additionalOrderLineInstruction		Pre-Assembly Required, ENG
TradeItemIdentification		
	gTIN	08431472300053
ShipmentDetail		
	requestedQuantity	25, EA
PartyIdentification (+shipTo)		
	gLN	7594567000090
ShipmentDetail		
	requestedQuantity	14, EA
PartyIdentification (+shipTo)		
	gLN	7594567000083

8.2.2. Example B

MultiShipmentOrder	
Document	
	creationDateTime 2004-03-04 10:00
	documentStatus ORIGINAL
Entity Identification (+orderIdentification)	
	uniqueCreatorIdentification PO0341
PartyIdentification (+contentOwner)	
	gLN 7704567000017
OrderPartyInformation	
PartyIdentification (+seller)	
	gLN 8881472300018
PartyIdentification (+buyer)	
	gLN 7704567000017
OrderLogisticalInformation	

ShipToLogistics		
PartyIdentification (+shipTo)		
	gLN	7704567000024
OrderLogisticalDateGroup		
LogisticalDate (+requestedDeliveryDate)		
	date	2004-03-15
MultiShipmentOrderLineItem		
SimpleOrderLineItem		
LineItem		
	lineItemNumber	1
	requestedQuantity	8, EA
TradeItemIdentification		
	gTIN	08881472300049
MultiShipmentOrderLineItem		
SimpleOrderLineItem		
LineItem		
	lineItemNumber	2
	requestedQuantity	15, EA
TradeItemIdentification		
	gTIN	08881472300025
ShipmentDetail		
	requestedQuantity	15
PartyIdentification (+shipTo)		
	gLN	7704567000031
PartyIdentification (+ultimateConsignee)		
	gLN	7704567000063
OrderLogisticalDateGroup		
LogisticalDate (+requestedDeliveryDateAtUltimateConsignee)		
	Date	2004-03-12
MultiShipmentOrderLineItem		
SimpleOrderLineItem		
LineItem		
	lineItemNumber	3
	requestedQuantity	10, EA
TradeItemIdentification		
	gTIN	08881472300032
ShipmentDetail		
	requestedQuantity	10, EA
PartyIdentification (+shipTo)		
	gLN	7704567000031
PartyIdentification (+ultimateConsignee)		
	gLN	7704567000079
OrderLogisticalDateGroup		
LogisticalDate (+requestedDeliveryDateAtUltimateConsignee)		
	Date	2004-03-13

8.2.3. Example C

MultiShipmentOrder	
Document	
<i>creationDateTime</i>	2005-02-03 10:00
<i>documentStatus</i>	ORIGINAL
EntityIdentification (+orderIdentification)	
<i>uniqueCreatorIdentification</i>	PO00759
PartyIdentification (+contentOwner)	
<i>gLN</i>	0079452000319
TradeAgreement (+promotionalDeal)	
<i>tradeAgreementReferenceNumber</i>	AHK00765
OrderPartyInformation	
PartyIdentification (+seller)	
<i>gLN</i>	0074562000457
PartyIdentification (+buyer)	
<i>gLN</i>	0079452000319
Contact (+orderContact)	
MultiDescription (+personOrDepartmentName)	
<i>description (language, text)</i>	Joe Smith, ENG
OrderLogisticalInformation	
ShipToLogistics	
ShipToNonCommercial	
NameAndAddress (+ShipToNonCommercial)	
<i>name</i>	Carol Johnson
<i>streetAddressOne</i>	1900 NW 150 Ave
<i>city</i>	Pembroke Pines
<i>state</i>	FL
<i>postalCode</i>	33028
<i>countryISOCode</i>	US
Contact	
MultiDescription (+personOrDepartmentName)	Carol Johnson, ENG
CommunicationChannel	
<i>communicationNumber</i>	123.456.7890
<i>communicationChannelCode</i>	TELEPHONE
ShipmentTransportationInformation	
<i>transportationMethodType</i>	AIR
PartyIdentification (+carrier)	
<i>gLN</i>	0078245000635
OrderLogisticalDateGroup	
LogisticalDate (+requestedDeliveryDate)	
<i>date</i>	2005-02-04
MultiShipmentOrderLineItem	
SimpleOrderLineItem	
LineItem	
<i>lineItemNumber</i>	1
<i>requestedQuantity</i>	2, EA
TradeItemIdentification	
<i>gTIN</i>	00074562000525

8.2.4. Example D

MultiShipmentOrder	
additionalOrderInstruction	Please Shrink Wrap Order, ENG
totalMonetaryAmountOfOrder	10000.50, USD
<i>Document</i>	
<i>creationDateTime</i>	2004-07-21T10:00:00
<i>documentStatus</i>	REPLACE
EntityIdentification (+orderIdentification)	
<i>uniqueCreatorIdentification</i>	PO0222
PartyIdentification (+contentOwner)	
<i>gLN</i>	7594567000014
OrderPartyInformation	
PartyIdentification (+seller)	
<i>gLN</i>	8431472300015
PartyIdentification (+buyer)	
<i>gLN</i>	7594567000014
TradeAgreement (+quoteNumber)	
tradeAgreementReferenceNumber	Q3391
OrderLogisticalInformation	
ShipToLogistics	
PartyIdentification (+shipTo)	
<i>gLN</i>	7594567000090
OrderLogisticalDateGroup	
LogisticalDate (+requestedDeliveryDate)	
<i>date</i>	2004-07-23
MultiShipmentOrderLineItem	
SimpleOrderLineItem	
<i>LineItem</i>	
<i>lineItemNumber</i>	1
<i>requestedQuantity</i>	39, EA
<i>lineItemActionCode</i>	Not Amended
<i>additionalOrderLineInstruction</i>	Pre-Assembly Required, ENG
TradeItemIdentification	
<i>gTIN</i>	08431472300053
ShipmentDetail	
<i>requestedQuantity</i>	25, EA
PartyIdentification (+shipTo)	
<i>gLN</i>	7594567000090
ShipmentDetail	
<i>requestedQuantity</i>	14, EA
PartyIdentification (+shipTo)	
<i>gLN</i>	7594567000083

9. Appendices

None

10. Summary of Changes

Change	BSD Version	Associated CR Number
Removed external class diagrams. External class diagrams should be referenced in the Common Library BSD. Updated MultiShipToOrder class diagram Added an optional association from ShipToDetail to TransportationMode. Added an optional association from ShipToLogistics to TransportationMode. Added an optional association from SimpleOrderLineItem to TransportationMode. Added optional association from TransportationMode to PartyIdentification with role of +carrier Still need definitions in GDD and updates needed to GDD Platform to generated the Official Dictionary Entry Name. Updated footer	0.10.0	
GDD platform has been updated, and the output copied in section 1.5.2 GDD Report. Vicky and Order BRG need to validate the definitions and provide definitions for "Not Available".	0.10.1	
MVC and JR updated the missing definition in 1.5.2 GDD report	0.10.2	
MVC and JR updated section 1.7 according to comments received on ITRG review	0.10.3	
Updated GTIN data in examples and test data to 14 digits (leading zero's) Various errata in examples and test data Added example D in examples and test data Changed "Multi Ship To Order" to "Multi Shipment Order" Incorporated Upstream solution in section 1.1 "Business Domain View" and section 1.4 "Business Transaction View" Added Upstream requirements to table in section 1.5.1 Added Upstream elements to GDD report in section 1.5.2 and class diagram in section 1.5.3: +materialSpecification [0..1] +purchaseConditions [0..1] +shipFrom [0..1] +inventoryLocation [0..1] Quantity (Datatype)	0.11.0	04-000212

Change	BSD Version	Associated CR Number
BSD Template version 1.1 Target BMS Publication Version: Post Version 2.0.1 Table of Contents updated GUSI is spelled out System Capabilities: All Added text “No Technical Requirements” Removed “for” in Use Case Description (typo) (M) is removed from Class Diagram (in TransportationMode) +inventoryLocation association is re-drawn Removed “List” from Document Status (in examples) Added MoU (KGM) in example D	0.11.1	04-000212
Changed some associations from MultiShipmentOrderLineItem → TradeAgreement: +purchaseConditions now associates to the DocumentOrDocumentLineReference class. +materialSpecification now relates to the Reference class. <pre> classDiagram class MultiShipmentOrderLineItem class Reference["Reference (from Document)"] class DocumentOrDocumentLineReference class ShipmentDetail["ShipmentDetail\nrequestedQuantity : Quantity"] class DocumentOrDocumentLineReference2["DocumentOrDocumentLineReference"] MultiShipmentOrderLineItem --> Reference : +materialSpecification 0..1 MultiShipmentOrderLineItem --> DocumentOrDocumentLineReference : +purchaseConditions 0..1 ShipmentDetail --> DocumentOrDocumentLineReference2 : +purchaseConditions 0..1 </pre> Added association	0.12.0	04-000212
Changed name of TransportationMode class into TransportationInformation. The structure of the class also has changed (see the class diagram in the common library): Added attributes serviceLevelCode and shipmentSpecialHandlingCode Changed cardinality of association to PartyIdentification (+carrier) from 1..1 into 0..1.	0.12.1	05-000084
Changed name of TransportationInformation class into ShipmentTransportationInformation.	0.12.3	05-000084
In ODEN replaced Multi Ship To→ Multi Shipment In GDD redefined ShipmentDetails Added currencyExchangeRate[0..1]:ISO4217_Code in MultiShipmentOrder class and the GDD. Changed file location to match common library ShipmentTransportationInformation (from ShipmentTransportationInformation).	0.12.4	
Modification in Examples and Test Data A and D Use correct class names on section 1.7	0.12.5	05-00084

Change	BSD Version	Associated CR Number
Removed currencyExchangeRate[0..1] : ISO4217_Code in MultiShipmentOrder class. and replaced with association From: MultiShipmentOrder TO: [0..1] CurrencyExchangeRateInformation Added into common library BSD P4CL: 7365 Doc Version: 0.2.9 CurrencyExchangeRateInformation currencyConversionFrom : ISO4217_Code currencyConversionTo : ISO4217_Code exchangeRate : Float	0.12.6	Based on ITRG Comment Resolution Feedback.
Updated 1.6 Business Document Example A and C Updated 1.8.2 Test Data Example A and C Changed to class diagram MultiShipmentOrder Update Changes from Mutli Shipment Order Version 2.1.1 MultiShipmentOrder Add Optional(0..1) QuoteNumber association to TradeAgreement Add attribute additionalOrderInstruction[0..1] : Description Add attribute totalMonetaryAmountOfOrder[0..1] : MonetaryAmount Common Library Update SimpleOrderLineItem Add attribute additionalOrderLineInstruction[0..1] : Description Order Logistical Information ShipToNonCommercial Create ShipToNonCommercial class with mandatory(1..1) association to NameAndAdres and Optional (0..1)association to Contact.	0.13.0	06-000282 06-000283 06-000285 06-000297
Inserted Order Logistical Information Updated GDD inventoryLocation defined as Identifies the location of merchandise or stock on hand.	0.13.1	Based on Peer Review
Common Library Update SimpleOrderLineItem Added attribute lineItemActionCode[0..1] : OrderLineItemActionCodeList Code List Added OrderLineItemActionCodeList	0.13.2	CR 07-000128
Updated Example D documentStatus has been changed to REPLACE	0.13.3	
Updated DataType totalMonetaryAmountOfOrder[0..1] : MonetaryAmount→Amount Based on QA checks. Updated Document to BMS template Version 1.8	0.13.4	

Change	BSD Version	Associated CR Number
Based on Public Review Updated Data type from Description--→LongDescription MultiShipmentOrder additionalOrderInstruction[0..1] : LongDescription SimpleOrderLineItem additionalOrderLineInstruction[0..1] : LongDescription	0.13.5	Based on Public Review 200704