

Business Message Standard (BMS)

for

Item Data Notification

(Process/Sub-process/Industry and/or Product/Geopolitical)

**IRT: Upstream Standards
BRG: Align**

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Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
23.06.2005	0.0.1	Eric Kauz	Initial Draft		
20.07.2005	0.0.2	Eric Kauz	Walk-through with UIM Task Group.	<ul style="list-style-type: none"> Combined Relationship Dependent and Independent data into single Item Data Alignment Message. Added Pallet Information. 	7236
15.08.2005	0.0.3	Eric Kauz	Walk-through with UIM Task	<ul style="list-style-type: none"> Updated use cases to include 	

			Group.	<p>general and specific trade item information.</p> <ul style="list-style-type: none"> • Updated sample data to include units of measure elements for all measurement values. • Updated problem statement and business needs for clarity. • Updated model to allow for only one substitute item and to make required-StockLevelValidityDateTime Optional. • Removed Child Item Information as determination was made that this is a base unit. • Updated definitions in GDD for tradeItemProductionLeadTime and tradeItemShipmentLeadTime. 	
14.10.2005	0.0.4	John Ryu	Performed Build	<ul style="list-style-type: none"> • Depicted in section 1.10 	MDL P4CL: 7570 BSD P4CL: 7602
10.11.2005	0.0.5	Eric Kauz	Development Review	<ul style="list-style-type: none"> • Corrected spelling of cancelledDateTime in the model. 	
	0.0.6	Eric Kauz	ITRG Review	<ul style="list-style-type: none"> • Align list of IRT Members with list in BRAD • Specified ITRG Members • Specified name of XML Technical Designer 	

				<ul style="list-style-type: none"> • Added Actors of Sender and Receiver to Use cases. • Added references to BR's of section 7.1.1. in BRAD • Added reference to BR 1 of section 7.2.1. in BRAD • Added Official Dictionary Entry Names • Added definitions for Sender and Receiver and Item Data Notification Identification. 	
07.03.2007	0.0.7	Andrew Hearn	Errata	Update BMS Version Number	
25.03.2007	0.0.8	Giovanni Biffi	Editorial Changes	Minor Editorial Changes to the Document	

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1 Business Solution

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

The current situation in the upstream supply chain of the CPG industry is that all manufacturers and suppliers are faced with different business processes and data interchanges when they move into more integrated relationships. Different business processes and approaches create a barrier to the scalability of integration efforts whilst also imposing many costs: the time and money spent making transactions; the delays caused by the need for corrections; plus inevitable information gaps and misunderstandings.

Both parties should obtain benefits from integration, among them reduced inventory and a reduction in re-work and waste. One example is that suppliers should have better visibility of forecasted production and can improve their reaction to changes.

A key part of this integration is the alignment of master data between buyer and seller.

Item Master Data is a set of data, which describes the specifications and structures of each item involved in Supply Chain Processes. Each set of data can uniquely be identified by a Global Trade Item Number (GTIN).

The transaction can be established by either the manufacturer or the supplier. Only one party will initiate the transaction. Which of both parties initiates the transaction needs to be agreed upon in the Integration Agreement; changes in item master data need to be commonly agreed & realised by the party initially initiating the transaction, i.e. the message flow will only be in one direction in order to ensure data alignment.

Master data will be aligned each time information changes or new information is added. There is no need for a response message during the alignment of master data between buyer and seller.

The "Master Data Alignment" building block has three elements

1. Identifying and clarifying, between the two parties, the coding for items.
2. Agreeing on the attributes to be shared about each item for example specifications, logistical handling information, packaging format.
3. Ongoing alignment of the item and attribute data so that suppliers and manufacturers are working off a common and current understanding of this important base information. One challenge facing all trading relationships is maintaining accuracy and the distribution of base item data given the rapid changes to specifications and logistics information that can arise.

Item information will be composed of "**General Item information**" which is relationship independent and "**Specific Item information**" which is relationship dependent item data.

General Item Information

General item information allows the identification and clarification of general, i.e. relationship independent item coding between trading partners, the agreement on the attributes to be shared about each item as well as the alignment of item information between trading partners.

Specific Item Information

Specific item information (relationship dependent) allows the identification and clarification of relationship specific item coding between trading partners, the agreement on the attributes to be shared about each item as well as the alignment of item information between trading partners.

It contains those relationship specific item related parts of the overall (and mostly paper based) Integration Agreement, which might change often and therefore make sense to be exchanged electronically to ensure alignment between both parties while limiting manual effort.

1.1.2 Objective

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

1.1.3 Audience

- CPG Manufacturers
- Material Suppliers

1.1.4 Artefacts

Not Applicable

1.1.5 References

	Reference Name	Description
[Ref1]	BRAD for Upstream Master Data Alignment – Version 0.0.6	The documented design of components that are used in multiple messages.

1.1.6 Acknowledgements

1.1.6.1 IRT Members

Function	Name	Company / organisation
IRT Chair	Fred Kempkes	Unilever
IRT Participant	Kevin Zeng	Procter & Gamble
IRT Participant	Stephen Bell	CPG Market
IRT Participant	Roland Dachs, Olivier Grienenberger, Don Reed	Crown Cork
IRT Participant	Arthur Doldersum	SCA
IRT Participant	James Kimber	General Mills, Inc.
IRT Participant	Kristen Halwachs	UCCnet

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IRT Participant	Nicola Comiotto, Menno Smit	Nestlé
IRT Participant	Pawel Solowinski	Kappa Packaging
IRT Participant	Peter Broend, Johannes Lundgren	Novozymes
IRT Participant	Paul Moodey	Johnson & Johnson
IRT Participant	Wouter Crul	Nspyre
IRT Participant	Thierry Baillif, Gabriel Galeazzi	Firmenich
IRT Participant	Jan Peter Klijn	Royal Sens
IRT Participant	Yasushi Kiyama	Ajinomoto Co.
IRT Participant	Georges Socquet	Givaudan
IRT Participant	Bala Vishwanath	Connect Global One AG

1.1.6.2 ITRG Members

Function	Name	Company / organisation
ITRG Chair	Carol Edison	GENERAL MILLS, INC.
ITRG Co-Chair	Don Flint	CHEP
ITRG Member	Alice Aguemon	GS1 FRANCE
ITRG Member	Mickey L. Atkins	AHOLD INFORMATION SERVICES
ITRG Member	Justin Childs	GS1
ITRG Member	Marilyn Dodd	3M COMPANY
ITRG Member	John Hervey	NACS/PCATS
ITRG Member	James Jennings	PROCTER & GAMBLE COMPANY
ITRG Member	Rita Laur	GS1 CANADA
ITRG Member	Chris Maxwell	PEPSICO BUSINESS SOLUTIONS GROUP
ITRG Member	Steven Pereira	GS1 AUSTRALIA LTD.
ITRG Member	Craig Alan Repec	GS1 GERMANY
ITRG Member	Stef Spaan	GS1 NEDERLAND
ITRG Member	Jon Sharratt	TARGET CORPORATION
ITRG Member	K.K. Suen	GS1 HONG KONG

1.1.6.3 Task/Project Group Participants (*where applicable*)

Function	Name	Company / organisation
BRG Chair	Jim Funk	S.C. JOHNSON & SON, INC.
BRG Chair	Vic Hansen	UNLIVER – LEVER FABERGE LTD.
BRG Chair	Eduardo Tovar	PROCTER & GAMBLE COMPANY
BRG Member	Javier Arias	GS1 SPAIN
BRG Member	Neale Austen	EAN AUSTRALIA
BRG Member	Michael Bammer	CVS PHARMACY, INC.
BRG Member	Giovanni Biffi	IAC – EAN COLOMBIA
BRG Member	Loek Boortman	GS1 NEDERLAND

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BRG Member	Benjamin Couty	GS1 FRANCE
BRG Member	MaryAnn Goodrich	UNILVER HOME & PERSONAL CARE NA
BRG Member	Hideki Ichihara	EAN JAPAN
BRG Member	Nancy Laskero	SEARS, ROEBUCK AND CO
BRG Member	Hanjoerg Lerch	METRO GROUP BUYING GMBH
BRG Member	Markus Mathar	SINFOS GMBH
BRG Member	Roberto Matsubayashi	EAN BRASIL
BRG Member	Alistair McArthur	ALLIED DOMECC SPIRITS & WINE LTD
BRG Member	Michael Moise	NESTLE AG
BRG Member	Olivier Mouton	CARREFOUR
BRG Member	Barbara Munro	KRAFT FOODS, INC
BRG Member	Anakaryna Palacios	EAN VENEZUELA
BRG Member	Hector German Piñeros	IBC SOLUTIONS COLOMBIA
BRG Member	Paul Povey	PROCTER & GAMBLE COMPANY
BRG Member	Rebecca Quigley	COCA-COLA BOTTLERS SALES AND SERVICES
BRG Member	Julie Rodriguez	LEVI STRAUSS & CO
BRG Member	Joy Schneck	GENERAL MILLS, INC.
BRG Member	Peggy Spofford	3M COMPANY
BRG Member	Steve Vazzano	TRANSORA
BRG Member	Lionel Tussau	GEORGIA-PACIFIC CORPORATION
BRG Member	Patricia Vessey	BEST BUY COMPANY, INC.
BRG Member	Marcel Yska	AHOLD NV
BRG Member	Greg Zwanziger	SUPERVALU, INC.

1.1.6.4 Design Team Members

Function	Name	Organisation
Modeller	Eric Kauz	GS1
XML Technical Designer	Dipan Anarkat	GS1
EANCOM Technical Designer		
Peer Reviewer	Coen Janssen	GS1 Netherlands

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1.2 Business Context

Context Category	Value(s)
Industry	CPG
Geopolitical	All
Product	CPG Direct Materials
Process	Align_Item
System Capabilities	EAN.UCC
Official Constraints	None

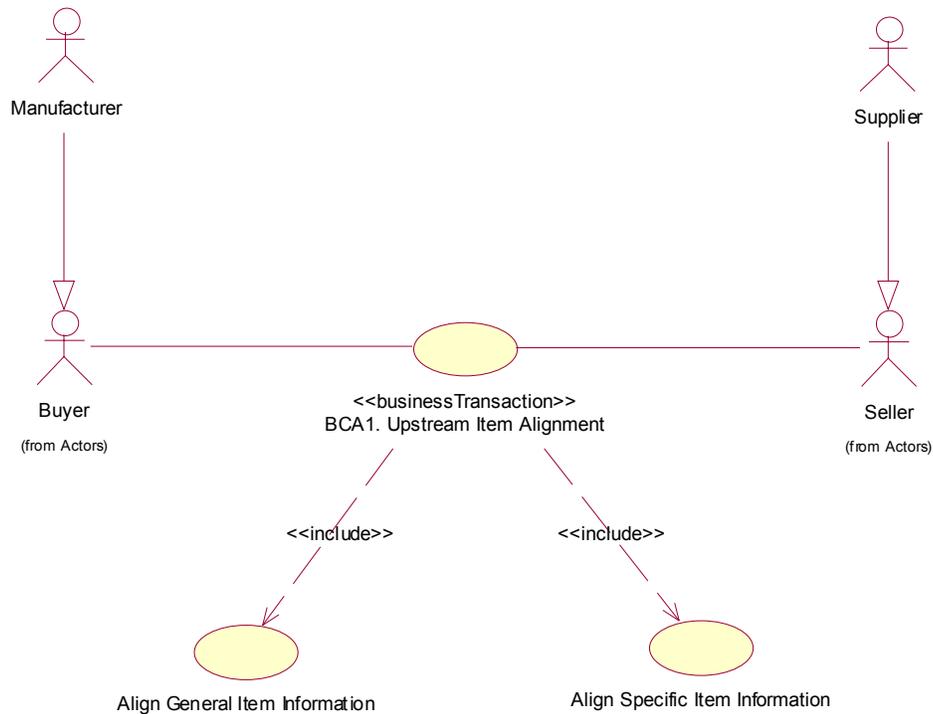
1.3 Additional Technical Requirements Analysis

1.3.1 Technical Requirements (optional)

Not Applicable

1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram



1.4.2 Use Case Description

Use Case ID	BCA1
Use Case Name	Upstream Item Alignment
Use Case Description	<p>The data interchange for Item Alignment includes the item information messages. Item information can be composed of “General Item information” which is relationship independent and “Specific Item information” which is relationship dependent item data.</p> <p>Manufacturer and supplier will commonly agree on item information to be shared and drive the process of exchanging these data. While both parties need to agree on item master data, it is understood that only one party, i.e. manufacturer or supplier, will send the item information messages and that the information flow will be in one direction only in order to ensure alignment.</p>
Actors (Goal)	<p>Buyer: to align item information with the seller.</p> <p>Seller: to align item information with the buyer.</p> <p>Sender: to send the item information to the receiver. Sender could be buyer or</p>

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	seller. Receiver: to receive the item information. The receiver could be the buyer or seller.												
Preconditions	INTEGRATION AGREEMENT IS IN PLACE ITEM DATA ARE ASSEMBLED AND AGREED												
Post conditions	ITEM DATA IS ALIGNED.												
Scenario	<p>Begins when the sender generates the item information.</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>Sender</td> <td>Sends the Item Data Notification.</td> </tr> <tr> <td>2</td> <td>Receiver</td> <td>Receives the Item Data Notification.</td> </tr> <tr> <td>3</td> <td>Receiver</td> <td>Integrates item information into own systems.</td> </tr> </tbody> </table> <p>Ends when the receiver has integrated the item information in own systems.</p>	Step #	Actor	Activity Step	1	Sender	Sends the Item Data Notification.	2	Receiver	Receives the Item Data Notification.	3	Receiver	Integrates item information into own systems.
Step #	Actor	Activity Step											
1	Sender	Sends the Item Data Notification.											
2	Receiver	Receives the Item Data Notification.											
3	Receiver	Integrates item information into own systems.											
Alternative Scenario	None												
Related Requirements	1												
Related Rules	1												

1.4.3 Business Transaction Activity Diagram(s)

Not Applicable

1.4.4 Business Transaction Sequence Diagram(s)

1.5 Not Applicable

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1.6 Information Model (including GDD Report)

1.6.1 Data Description:

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
ItemDataNotification				
		<<is a>>	Document	[ref1] {7.1.1-2,5} [ref1] {7.2.1-2,5}
		relationshipDependentItemDataNotificationIdentification	EntityIdentification	[ref1] {7.1.1-1} [ref1] {7.2.1-1}
		sender	PartyIdentification	[ref1] {7.1.1-4} [ref1] {7.2.1-4}
		receiver	PartyIdentification	[ref1] {7.1.1-3} [ref1] {7.2.1-3}
			ItemDataNotificationLineItem	
ItemDataNotificationLineItem				
		<<is a>>	LineItem	[ref1] {7.1.1-23}
			RelationshipIndependentItemData	
			RelationshipDependentItemData	
		tradeItemDescription	MultiLongDescription	[ref1] {7.1.1-9}, [ref1] {7.2.1-8}
			TradeItemIdentification	[ref1] {7.1.1-6,7}, [ref1] {7.2.1-6,7}
RelationshipDependentItemData				
	tradeItemSpecificUnitOfMeasure			[ref1] {7.2.1-9}
	tradeItemProductionLeadTime			ref1 {7.2.1-12}
	tradeItemShipmentLead-			[ref1] {7.2.1-13}

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
	Time			
			TradeItemLogisticsUnitInformation	
			TradeItemOrderQuantity	
			TradeItemStockRequirements	
			TradeItemSubstitutionInformation	
TradeItemLogisticUnitInformation				
	tradeItemQuantityPerLogisticUnit			[ref1] {7.2.1-10}
	logisticUnitType			[ref1] {7.2.1-11}
	quantityOfLayersPerPallet			New Requirement
	quantityOfTradeItemsPerPalletLayer			New Requirement
TradeItemOrderQuantity				
	orderQuantityMaximum			New Requirement
	orderQuantityMinimum			[ref1] {7.2.1-14}
	orderQuantityMultiple			[ref1] {7.2.1-15}
RelationshipIndependentItemData				
	tradeItemBaseUnitOfMeasure			[ref1] {7.1.1-10}
			ClassificationCategory	[ref1] {7.1.1-11}
			TradeItemLifeCycleInformation	
			TradeItemWeightAndDimension	
TradeItemStockRequirements				
	requiredStockLevel			[ref1] {7.2.1-16,17,19}
	stockRequirementType			[ref1] {7.2.1-16,17,19}
	requiredStockLevelValidityDateTime			[ref1] {7.2.1-18}
TradeItemSubstitutueInformation				
	substitutionDateTime			[ref1] {7.2.1-21}
		substituteItem	TradeItemIdentification	[ref1] {7.2.1-20}

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Related Requirement
TradeItemLifeCycleInformation				
	effectiveDateTime			[ref1] {7.1.1-12}
	startAvailabilityDateTime			[ref1] {7.1.1-13}
	cancelledDateTime			[ref1] {7.1.1-16}
	discontinuedDateTime			[ref1] {7.1.1-15}
	endAvailabilityDateTime			[ref1] {7.1.1-14}
TradeItemWeightAndDimension				
	depth			[ref1] {7.1.1-17}
	diameter			[ref1] {7.1.1-22}
	height			[ref1] {7.1.1-18}
	grossWeight			[ref1] {7.1.1-21}
	netWeight			[ref1] {7.1.1-20}
	width			[ref1] {7.1.1-19}

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1.6.2 GDD Report :

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multi- plicity
ItemDataNotifica- tion				Item Data Notification. Details		
			Document	Item Data Notification. Inheritance_ Association. Document	A message used to align master data including rela- tionship dependent and relationship independent in a peer to peer environment.	1..1
		itemDataNotifi- cationIdentifi- cation	EntityIdentifica- tion	Item Data Notification. Item Data Notification_ Identification. Entity Iden- tification	The unique identifier for the Item Data Notification mes- sage.	1..1
		sender	PartyIdentifica- tion	Item Data Notification. Sender. Party Identification	The party who sends the item information.	1..1
		receiver	PartyIdentifica- tion	Item Data Notification. Receiver. Party Identifica- tion	The party who receives the item information.	1..1
			ItemDataNotifica- tionLineItem	Item Data Notification. Association. Item Data Notification Line Item	Not Available	1..*
ItemDataNotifica- tionLineItem				Item Data Notification Line Item. Details	Not Available	
			LineItem	Item Data Notification Line Item. Inheritance_ Asso- ciation. Line Item	Not Available	1..1
			RelationshipInde- pendentItemData	Item Data Notification Line Item. Association. Rela- tionship Independent Item Data	Not Available	0..1
			RelationshipDe- pendentItemData	Item Data Notification Line Item. Association. Rela- tionship Dependent Item Data	Not Available	0..1
		tradeItemDe- scription	MultiLongDescrip- tion	Item Data Notification Line Item. Trade Item_ Descrip- tion. Multi-language De- scription	Additional variants neces- sary to communicate to the industry to help define the product.	0..1
			TradeItemIden-	Item Data Notification Line	Not Available	1..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multi- plicity
			tification	Item. Association. Trade Item Identification		
RelationshipDependentItemData				Relationship Dependent Item Data. Details	Not Available	
	tradeItem-SpecificUnitOfMeasure			Relationship Dependent Item Data. Trade Item Specific Unit Of Measure	The Unit of Measure (EDIFACT code list 6411) associated with a specific instance of the trade item. This unit of measure will over ride the relationship independent Unit of Measure.	1..1
	tradeItem-ProductionLeadTime			Relationship Dependent Item Data. Trade Item_ Production Lead Time. Measure	The normal delivery time measured from receipt of order by the seller until trade item is shipped by the seller in the case where the product is not in stock.	0..1
	tradeItem-Ship-mentLeadTime			Relationship Dependent Item Data. Trade Item_ Shipment Lead Time. Measure	The normal delivery time measured from receipt of order by the seller until trade item is shipped by the seller in the case where the product is in stock.	0..1
			TradeItemLogisticsUnitInformation	Relationship Dependent Item Data. Association. Trade Item Logistic Unit	Not Available	0..1
			TradeItemOrder-Quantity	Relationship Dependent Item Data. Association. Trade Item_ Order Quantity	Not Available	0..1
			TradeItemStock-Requirements	Relationship Dependent Item Data. Association. Trade Item_ Stock Requirements	Not Available	0..*
			TradeItemSubstitutionInformation	Relationship Dependent Item Data. Association. Trade Item Substitute	Not Available	0..1
TradeItemLogisticUnitInformation				Trade Item Logistic Unit. Details	Not Available	

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
	tradeItem-QuantityPer-LogisticUnit			Trade Item Logistic Unit. Trade Item_ Quantity Per Logistic Unit. Quantity	The quantity of items in a single despatch unit.	1..1
	logisticUnit-Type			Trade Item Logistic Unit. Logistic Unit Type. Code	The package Type (for example case, display) associated with the item contents of a single despatch unit.	1..1
	quantity-OfLayersPerPallet			Trade Item Logistic Unit. Quantity Of Layers Per Pallet. Quantity	The number of layers that a pallet contains. Only used if the pallet has no GTIN. It indicates the number of layers that a pallet contains, according to supplier or retailer preferences.	0..1
	quantityOf-Trade-ItemsPerPalletLayer			Trade Item Logistic Unit. Quantity Of Trade Items Per Pallet Layer. Quantity	The number of trade items contained on a single layer of a pallet. Only used if the pallet has no GTIN. It indicates the number of trade items placed on a pallet layer according to supplier or retailer preferences.	0..1
TradeItemOrder-Quantity				Trade Item_ Order Quantity. Details	Not Available	
	orderQuantityMaximum			Trade Item_ Order Quantity. Order_ Maximum Quantity. Measure	The maximum quantity of the trade item that can be ordered. A number or a count. This value can represent the total number of units ordered over a set period of time with multiple orders.	0..1
	orderQuantityMinimum			Trade Item_ Order Quantity. Order_ Minimum Quantity. Measure	Represent an agreed to minimum quantity of the trade item that can be ordered. A number or a count. This applies to each individual order. Can be a fixed amount for all customers in a target market.	0..1
	orderQuantityMultiple			Trade Item_ Order Quantity. Order_ Quantity Mul-	The order quantity multiples in which the trade item may	0..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multi- plicity
				ple. Measure	be ordered. If the Order Quantity Minimum is 100, and the Order Quantity Multiple is 20, then the trade item can only be ordered in quantities which are divisible by the Order Quantity Multiple of 20.	
RelationshipIndependentItemData				Relationship Independent Item Data. Details	Not Available	
	tradeItem-BaseUnitOf-Measure			Relationship Independent Item Data. Trade Item Base Unit Of Measure.Code	The default Unit of Measure used for the full order to pay process.	1..1
			Classification-Category	Relationship Independent Item Data. Association. Non-GPC_ Product Classification	Not Available	0..*
			TradeItemLifeCycleInformation	Relationship Independent Item Data. Association. Trade Item Life Cycle	Not Available	1..1
			TradeItem-WeightAndDimension	Relationship Independent Item Data. Association. Trade Item_ Weight And Dimension	Not Available	0..1
TradeItemStock-Requirements				Trade Item_ Stock Requirements. Details	Not Available	
	required-StockLevel			Trade Item_ Stock Requirements. Required Stock Level. Quantity	The stock level of an item which must be adhered to.	1..1
	stockRequirement-Type			Trade Item_ Stock Requirements. Stock Requirement Type. Stock Requirement Type_ Code	The type of stock requirement that must be adhered to. For example, safety stock, maximum stock.	1..1
	required-StockLevel-Validity-DateTime			Trade Item_ Stock Requirements. Required Stock Level Validity Date Time. Date Time	The point in time (date) on which a required stock level (for example safety or maximum) is valid.	0..1
TradeItemSubstitueInformation				Trade Item Substitute. Details	Not Available	
	substitution-DateTime			Trade Item Substitute. Substitution Date Time.	The date on which an item will be replaced by a substi-	1..1

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Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Date Time	tute item.	
		substituteItem	TradeItemIdentification	Trade Item Substitute. Substitute Item_ Association. Trade Item Identification	An item which can replace a given item for a specified period of time.	1..1
TradeItemLifeCycleInformation				Trade Item Life Cycle. Details	Not Available	
	effective-DateTime			Trade Item Life Cycle. Effective Date Time. Date Time	Date on which the information of the master data is valid for order to pay.	1..1
	startAvailabilityDateTime			Trade Item Life Cycle. Start_ Availability Date Time. Date Time	Date on which the trade item is available.	1..1
	cancelled-DateTime			Trade Item Life Cycle. Cancelled Date Time. Date Time	Date on which the cancellation of the launch of a trade item what was never and will never be manufactured is made.	0..1
	discontinuedDateTime			Trade Item Life Cycle. Discontinued Date Time. Date Time	Date on which the trade item is no longer to be manufactured.	0..1
	endAvailabilityDateTime			Trade Item Life Cycle. End_ Availability Date Time. Date Time	Date on which the trade item is no longer available.	0..1
TradeItem-WeightAndDimension				Trade Item_ Weight And Dimension. Details	Not Available	
	depth			Trade Item_ Weight And Dimension. Depth. Measure	The measurement from front to back of the trade item. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid	0..1
	diameter			Trade Item_ Weight And Dimension. Diameter. Measure	The measurement of the diameter of the trade item at its largest point. For example, 165 "mmt", value - mmt, diameter. Has to be associated with valid UOM.	0..1
	height			Trade Item_ Weight And	The measurement of the	0..1

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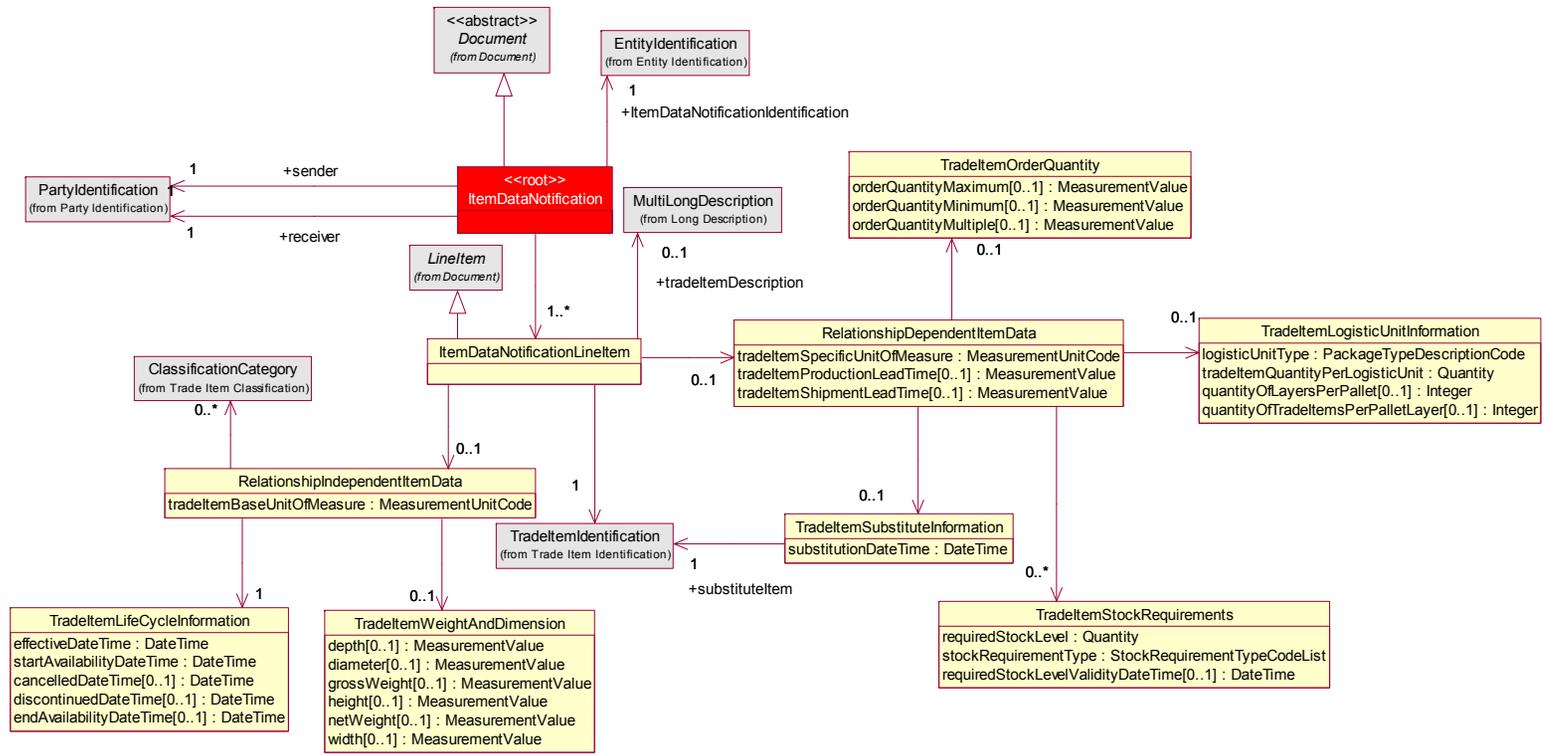
Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
				Dimension. Height. Measure	height of the trade item. The vertical dimension from the lowest extremity to the highest extremity, including packaging. At a pallet level the trade item Height will include the height of the pallet itself. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid UOM.	
	grossWeight			Trade Item_ Weight And Dimension. Gross Weight. Measure	Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. At pallet level the trade item Gross Weight includes the weight of the pallet itself. For example, "200 grm", value - total pounds, total grams, etc. Has to be associated with a valid UOM.	0..1
	netWeight			Trade Item_ Weight And Dimension. Net Weight. Measure	Used to identify the net weight of the trade item. Net weight excludes any packaging materials and applies to all levels but consumer unit level. For consumer unit, Net Content replaces Net Weight (can then be weight, size, volume). Has to be associated with a valid UoM.	0..1
	width			Trade Item_ Weight And Dimension. Width. Measure	The measurement from left to right of the trade item. Measurements are relative to how the customer normally views the trade item. Needs to be associated with	0..1

Business Solution Design

Class (ABIE)	Attribute (BBIE)	Association (ASBIE)	Secondary Class	Official Dictionary Entry Name	Definition	Multiplicity
					a valid UoM.	

Business Solution Design

1.6.3 Class Diagrams



Business Solution Design

1.6.4 Code Lists

Code List Name	Code List Description
Stock Requirement Type Code List	
Code Name	Code Description
MAXIMUM_STOCK	The amount able to store at a maximum at the storage location.
SAFETY_STOCK	The amount necessary to meet immediate customer demand (short term).

Business Solution Design

1.7 Business Document Example

1.8 Implementation Considerations

1.9 Testing

1.9.1 Pass / Fail Criteria

Not Applicable

1.9.2 Test Data

Attribute	Value
Header	
Document creation date & time	24.05.2004, 18:12
Buyer	5412345000013
Supplier	4322311000004
Status / Change Indicator	ORIGINAL
General Item information Nr	44337788
Detail	
Item Identification	4000015671092
Itemdescription	Ingredient ABC
tradeltemSpecificUnitOfMeasure	kg
tradeltemProductionLeadTime	<measurementValue unitOfMeasure="d"> <value>15</value>
tradeltemShipmentLeadTime	<measurementValue unitOfMeasure="d"> <value>20</value>
tradeltemQuantityPerLogisticUnit	5
logisticUnitType	CS
quantityOfLayersPerPallet	4
quantityOfTradeltemsPerPalletLayer	4
orderQuantityMaximum	<measurementValue unitOfMeasure="CS"> <value>100</value>
orderQuantityMinimum	<measurementValue unitOfMeasure="CS"> <value>5</value>
orderQuantityMultiple	<measurementValue unitOfMeasure="CS"> <value>5</value>
requiredStockLevel	<measurementValue unitOfMeasure="CS"> <value>5</value>
stockRequirementType	SAFETY_STOCK
requiredStockLevelValidityDateTime	24.05.2005, 18:12
substitutionDateTime	24.05.2005, 18:12
substituteltem	4000015671099
effectiveDateTime	01.01.2004
startAvailabilityDate	01.02.2004
cancelledDateTime	24.05.2004, 18:12
depth	<measurementValue unitOfMeasure="cm"> <value>20</value>
diameter	<measurementValue unitOfMeasure="cm"> <value>12</value>

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height	<measurementValue unitOfMeasure="cm"> <value>10</value>
width	<measurementValue unitOfMeasure="cm"> <value>10</value>
grossWeight	<measurementValue unitOfMeasure="kg"> <value>1.5</value>
netWeight	<measurementValue unitOfMeasure="kg"> <value>1.5</value>
Item classification	12345678
depth	<measurementValue unitOfMeasure="cm"> <value>20</value>

1.10 Appendices

Glossary of Terms

TERM	DESCRIPTION
Direct Materials	Raw materials and packaging materials directly used by the manufacturer in production and packaging.
Logistic Unit	Unit of any composition made up for the purposes of transport and/or storage and which must be managed throughout the entire supply chain.
Maximum Stock	The amount able to store at a maximum at the storage location.
Minimum Stock	See safety stock
Safety Stock	The amount necessary to meet immediate customer demand (short term).
Substitution Item	The item that replaces the original item because of not being available or successions.

1.11 Summary of Changes

Change	BMS Version	Associated CR Number
Updated model to be compliant to Modelling Best Practice. External Lineltem class depicted in grey Code list in section 1.5.4 placed in alphabetical order Updated Footer to GS1 Updated Table of Content	0.0.4	Not Applicable

2 Technical Solution Design

This section provides the specifications for the standards content ITRG approves. It is called the Technical Solution Design (TSD).

The Technical Solution Design contains:

- TSD Zip file Table of Contents
- Business Message Standard Section Technical Level GDD Report
- XSD (XML Schema Documents)
- XML Instance File and HTML Form View (XML and HTML files containing sample data specified in Section 1.6)

In the process of approving the Technical Solution Design, the ITRG will be provided the following artifacts:

- Any relevant Business Requirements Analysis Document (BRAD)
- Any relevant Business Requirements Document (BRD)
- Section 1 of Business Message Standard (Business Solution Design)
- Comment Resolution Template from Technical Public Review
- XML Test Report
- Change Request
- Other informative or reference documents