

Business Message Standard (BMS)

for

Plan/Replenishment

BRG: Plan

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BRAD Date:	30/03/2004
BRAD Version:	1.0.0

BRAD Title:	
BRAD Date:	
BRAD Version:	

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1 1 Business Solution Design

1.1 Business Domain View

1.1.1 Problem Statement / Business Need

The replenishment process in broader sense addresses the business practice to exchange data between a buying party (e.g. buyer) and a supplying party (e.g. seller/supplier) related to the future demand of finished or semi-finished products, ingredients, packaging and raw materials. In fact a replenishment request and a replenishment proposal.

Between retailer and manufacturer (the downstream supply chain) the data is basically based on future demand based on finished products and time series but it can also be restricted to actual sales date for a certain period of time. Feed-back from the manufacturer on his availability to deliver is required, where available inventories (of both sides) are taken in account.

Between manufacturer and material supplier (the upstream supply chain) the data is basically based on material requirements for production and the timing for it. And also the feedback from the material supplier on his availability to deliver and the schedule for delivery. Inventories (on both sides) are taken in account for the actual delivery schedule. Based on the delivery schedule (replenishment proposal), a transport and shipping planning can be derived.

1.1.2 Objective

In the current EAN.UCC XML standard no XML documents are available to address the replenishment process in a wider scope than the replenishment part of CPFR, which is also only defined for the downstream supply chain. Specific XML documents for data interchange with material suppliers don't exist as well as specific documents for the combined data interchange of sales or sales forecasts and inventories as well as material requirements and inventories.

The fact that inventories and even the status of these (like unrestricted, restricted, in transit, blocked, reserved etc.) are of importance also implicates the opportunity of an integrated data interchange including inventory data for a replenishment request and replenishment proposal.

Besides the external supply chain also the internal supply chain of manufactures based on sales units and factories should be able to use the replenishment XML documents

1.1.3 Audience

Anyone involved in the replenishment process with another party in the (extended) supply chain process. These parties basically are retailers, manufactures and suppliers of ingredients, packaging and raw materials. But can also be parties in between like wholesalers or logistic service providers managing warehoused.

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1.1.4 Artefacts

Artefact name	State	Artefact / State description

1.1.5 References

Reference Name	Description
Change Request 02-000136	
EAN International report on Continuous Replenishment, How to use EAN-UCC standards, EAN International January 2000	
ECR Europe report on 'Integrated Suppliers-ECR is also for suppliers of ingredients, raw materials and packaging', ECR Europe March 2000	

1.1.6 Acknowledgements

1.1.6.1 BRG Members

Function	Name	Company / Organisation
BRG Manager	Andrew Hearn	GS1
BRG Co-chair	Fred Kempkes	Unilever Bestfoods Europe
BRG Co-chair	Mike Baxter	Lancome Inc.
BRG Member	Cheryl Huckabee	May Merchandising Co.
BRG Member	Hector Miguel Paez	GS1 Colombia (IAC)
BRG Member	Matt Johnson	Syncra Systems
BRG Member	Renee Pfeifer-Luckett	
BRG Member	Robert Rzepka	World Wide Retail Exchange
BRG Member	Victoria Kendzierski	Thomson Consumer Electronics

1.1.6.2 ITRG Members

Function	Name	Company / organisation
ITRG Chair		
ITRG Member		
ITRG Member		
ITRG Member		
...		

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

Function	Name	Company / organisation
DTG Co-Chair		
DTG Co-Chair		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		
Participant		

1.1.6.4 Design Team Members

Function	Name	Organisation
Modeller	Regenald Kramer	GS1
XML Technical Designer		
EANCOM Technical Designer		
Peer Reviewer		

1.2 Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Plan
System Capabilities	EAN.UCC
Official Constraints	None

1.3 Additional Technical Requirements Analysis

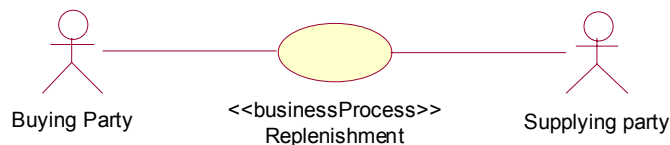
1.3.1 Technical Requirements (optional)

(User Interface, Security, Performance, Quality, etc.)

Number	Statement	Rationale
1.0	A bulk data message format of the replenishment request and the replenishment proposal is necessary.	

1.4 Business Transaction View

1.4.1 Business Transaction Use Case Diagram



1.4.2 Use Case Description

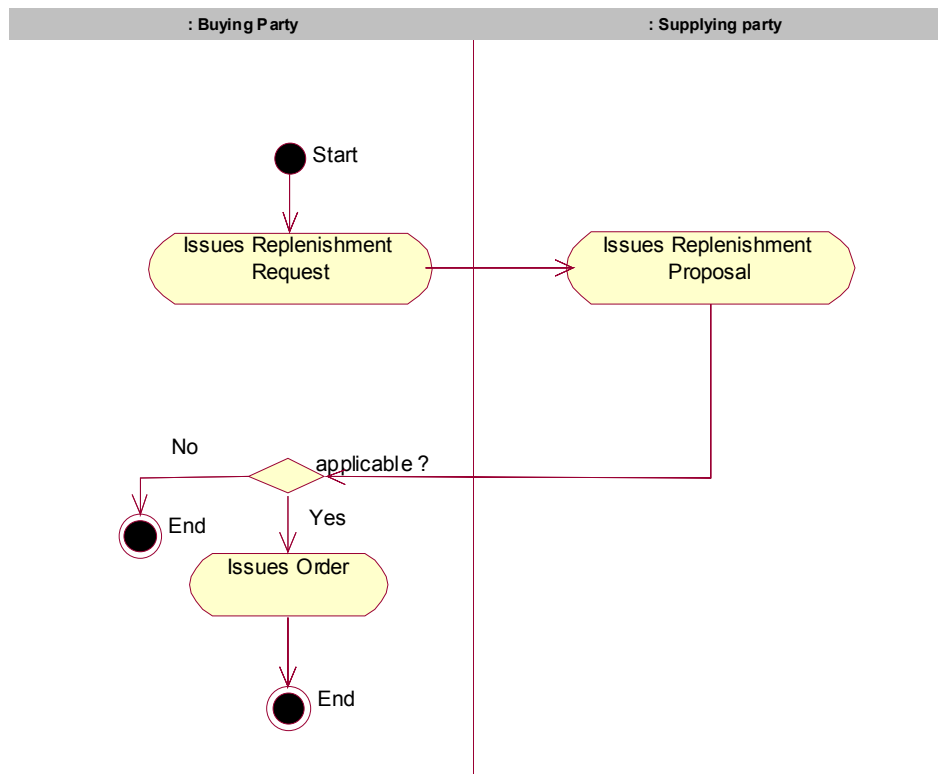
Use Case ID	UC-1
Use Case Name	Replenishment
Use Case Description	<p>The data interchange originates from the 'buying' party in all scenarios. The interchange, the replenishment request, includes always the data for finished goods, semi-finished goods, ingredients, packaging materials or raw materials. In more collaborative scenarios also inventory data of the 'buying' party can be included. The interchange is not defined for only inventory data.</p> <p>The response of the 'supplying' party, the replenishment proposal, includes data on the delivery of the demanded goods or materials. Delivery is based on time buckets, e.g. day, week, and month. It can cover periods of time with different buckets. Inventory data of the 'supplying' party can be included. Also for the response to the demand the interchange is not defined for only inventory data.</p> <p>For interchange of only inventory data other scenarios need to be used.</p> <p>It's more common to use the inventory data in the demand interchange than in the supply interchange. However in specific collaborative processes and in internal supply chain processes they supply interchange can include inventory data as well.</p> <p>The replenishment request and the replenishment proposal data interchange are the two basic interchanges for the replenishment process. For specific needs a confirmation of the replenishment proposal is included as well. This is often the case in the downstream supply chain.</p> <p>Both interchanges can be based on location and then item (location based approach) or first item and then location (product or item based approach).</p> <p>The data interchange does not support the specific replenishment part of the CPFR process that currently only is defined for downstream. This CPFR process is supported by a dedicated set of ANSI EDI messages and EAN-UCC CPFR XML documents.</p>
Actors (Goal)	<p><u>Buying party</u>: Any party who issues a replenishment request (including inventory data if appropriate)</p> <p><u>Supplying party</u>: Any party who issues a replenishment proposal as a response to a replenishment request</p>
Performance Goals	<i>Goals related to technical requirements</i>
Preconditions	<p>The 'buying' and 'supplying' party need to have agreed to the exchange of this data and to the business process that this supports. The partners need to have agreed that this message is the vehicle of data interchange as well as the definition of the data. The replenishment process starts with a replenishment agreement, describing the business rules.</p>

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Post conditions	No specific post conditions are relevant
Scenario	<p>Begins when: The data interchange originates from the 'buying' party in all scenarios. The interchange includes always the data for finished goods, semi-finished goods, ingredients, packaging materials or raw materials. In more collaborative scenarios also inventory data of the 'buying' party can be included.</p> <p>1 <u>Buying party</u> Issues a replenishment request; <i>Possible types: actual sales and inventory forecast and inventory</i></p> <p>2 <u>Supplying party</u> Responds to the replenishment request by issuing a replenishment proposal; <i>Possible type(s): delivery plan (per site or per item)</i></p> <p>3 <u>Buying party</u> Issues an Order if applicable.</p> <p>Ends when: The process ends with the response of the 'supplying' party including data on the delivery of the demanded goods or materials. Or with an order in case acknowledgement with an order.</p>
Alternative Scenario	<p><i>(any alternatives to the above scenario)</i></p> <p>None</p>
Related Requirements	None
Related Rules	<p><i>Business rules associated with use case.</i></p> <p>None</p>

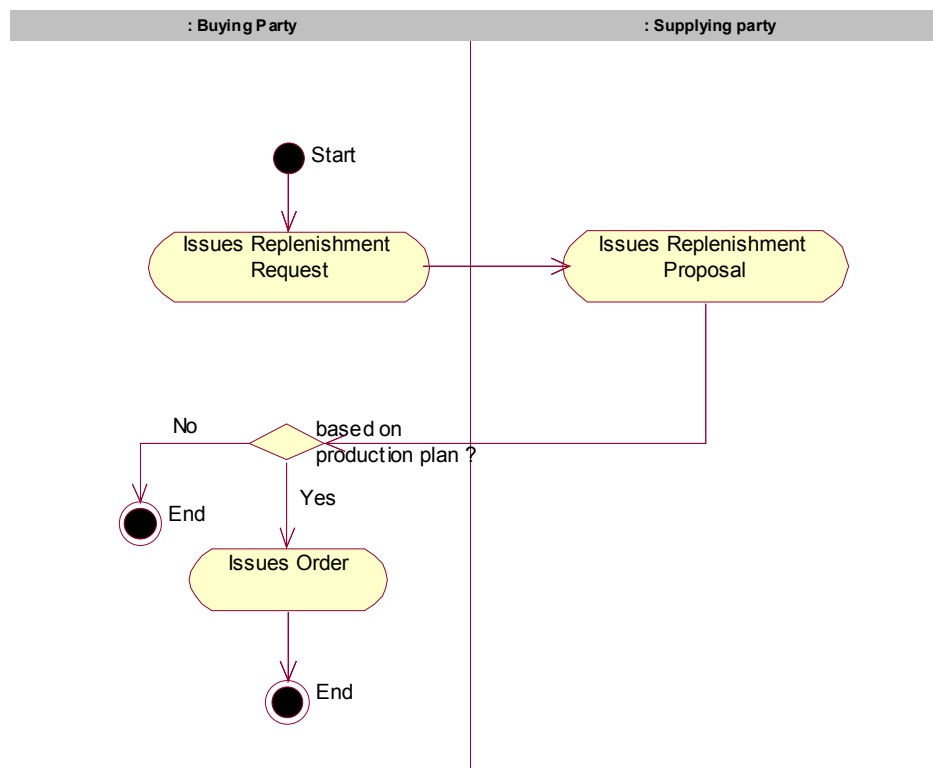
1.4.3 Business Transaction Activity Diagram(s)

Step #	Actor	Activity Step
1	Buying party	Issues a replenishment request; <i>possible types: actual sales and inventory forecast and inventory</i>
2	Supplying party	Responds to the replenishment request by issuing a replenish- ment proposal; <i>possible type(s): delivery plan (per site or per item)</i>
3	Buying party	Issues an Order if applicable



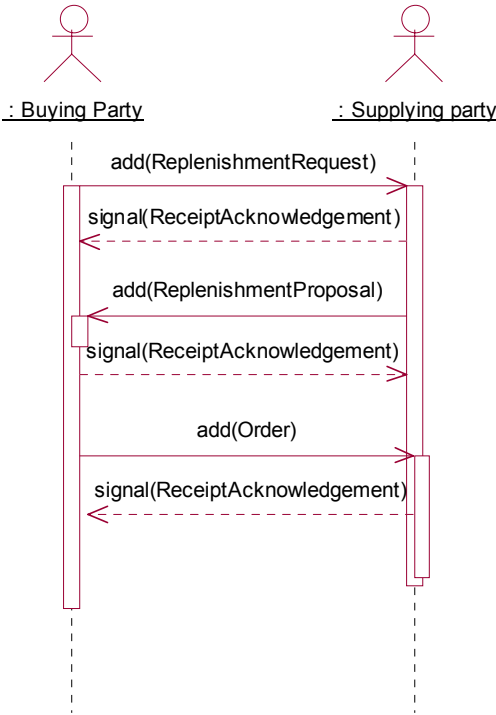
1.4.3.1 Replenishment downstream

Step #	Actor	Activity Step
1	Buying party	Issues a replenishment request; <i>possible types: material requirements material requirements and inventory</i>
2	Supplying party	Responds to the replenishment request by issuing a replenishment proposal; <i>possible types: production plan in case of a request based on material requirements (per item) delivery plan (per site and per item) in case of a request based on material requirements and inventory</i>
3	Buying party	Issues an Order in case of a replenishment proposal based on a production plan



1.4.3.2 Replenishment upstream

1.4.4 Business Transaction Sequence Diagram(s)



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1.5 Information Model (including GDD Report)

1.5.1 Data Description

1.5.1.1 Replenishment Proposal

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
BuyingPartyIdentification				BRD Replenishment, Version 1.0, 30-03-2004
	buyingPartyIdentificationType			
			PartyIdentification	
DateTimePeriod				BMS Common Library, Version 2.0.0, 31-12- 2004
	beginDateTime			
	endDateTime			
Document				BMS Common Library, Version 2.0.0, 31-12- 2004
	contentVersion			
	creationDate			

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	documentStatus			
	documentStructureVersion			
	lastUpdateDate			
EntityIdentification				BMS Common Library, Version 2.0.0, 31-12-2004
	uniqueCreatorIdentification			
		contentOwner	PartyIdentification	
PartyIdentification				BMS Common Library, Version 2.0.0, 31-12-2004
	globalLocationNumber			
			AdditionalPartyIdentification	
Reference				BMS Common Library, Version 2.0.0, 31-12-2004
	referenceDate			

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	referenceIdentification			
ReplenishmentProposal				BRD Replenishment, Version 1.0, 30-03-2004
	bestBeforeDate			
	itemExpirationDate			
	lotNumber			
	packagingType			
	productionCode			
	productionDate			
	quantityIdentification			
	replenishmentProposalDateTime			
	replenishmentProposalQuantity			

Business Solution Design

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	replenishmentProposalDocumentType			
		buyingParty	BuyingPartyIdentification	
		periodOfDelivery <choice>	DateTimePeriod	
		periodOfProduction <choice>	DateTimePeriod	
			Document	
		replenishmentProposalIdentification	EntityIdentification	
			PackagingDetails	
		locationToSupply	PartyIdentification	
		additionalReferenceNumber	Reference	
		supplyingParty	SupplyingPartyIdentification	
			TradeItemIdentification	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
		replenishmentRequestIdentification	EntityIdentification	
SupplyingPartyIdentification				BRD Replenishment, Version 1.0, 30-03-2004
	supplyingPartyIdentificationType			
			PartyIdentification	
TradeItemIdentification				BMS Common Library, Version 2.0.0, 31-12-2004
	globalTradeItemNumber			
		additionalTradeItemIdentification	AdditionalTradeItemIdentification	

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1.5.1.2 Replenishment Request

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
BuyingPartyIdentification				BRD Replenishment, Version 1.0, 30-03-2004
	buyingPartyIdentificationType			
			PartyIdentification	
DateTimePeriod				BMS Common Library, Version 2.0.0, 31-12- 2004
	beginDateTime			
	endDateTime			
Document				BMS Common Library, Version 2.0.0, 31-12- 2004
	contentVersion			
	creationDate			

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	documentStatus			
	documentStructureVersion			
	lastUpdateDate			
EntityIdentification				BMS Common Library, Version 2.0.0, 31-12- 2004
	uniqueCreatorIdentification			
		contentOwner	PartyIdentification	
PartyIdentification				BMS Common Library, Version 2.0.0, 31-12- 2004
	globalLocationNumber			
			AdditionalPartyIdentification	
Reference				BMS Common Library, Version 2.0.0, 31-12- 2004
	referenceDate			

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	referenceIdentification			
ReplenishmentProposal				BRD Replenishment, Version 1.0, 30-03-2004
	bestBeforeDate			
	itemExpirationDate			
	lotNumber			
	packagingType			
	productionCode			
	productionDate			
	quantityIdentification			
	replenishmentProposalDateTime			
	replenishmentProposalQuantity			

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
	replenishmentProposalDocu- mentType			
		buyingParty	BuyingPartyIdentification	
	<choice>	periodOfDelivery	DateTimePeriod	
	<choice>	periodOfProduction	DateTimePeriod	
			Document	
		replenishmentProposalIdentifi- cation	EntityIdentification	
			PackagingDetails	
		locationToSupply	PartyIdentification	
		additionalReferenceNumber	Reference	
		supplyingParty	SupplyingPartyIdentification	
			TradeItemIdentification	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	RELATED REQUIREMENT
		replenishmentRequestIdentification	EntityIdentification	
SupplyingPartyIdentification				BRD Replenishment, Version 1.0, 30-03-2004
	supplyingPartyIdentificationType			
			PartyIdentification	
TradeItemIdentification				BMS Common Library, Version 2.0.0, 31-12-2004
	globalTradeItemNumber			
	globalTradeItemNumber			
		additionalTradeItemIdentification	AdditionalTradeItemIdentification	

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1.5.2 GDD Report :

(Output from GDD should be pasted in this section.)

1.5.2.1 Replenishment Proposal

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
BuyingPartyIdentification				Buying_ Party Identification. Details	GLN	
	buyingPartyIdentificationType			Buying_ Party Identification. Identification Type. Buying_ Party Type_ Code	Roles: - Manufacturer - Retailer - Warehouse - Wholesaler	0..1
			PartyIdentification	Buying_ Party Identification. Inheritance_ Association. Party Identification	Not defined in BRD	1..1
DateTimePeriod				Date Time_ Time Period. Details	Not defined in BRD	
	beginDateTime			Date Time_ Time Period. Begin Date Time_ Date Time. Date Time	Not defined in BRD	1..1
	endDateTime			Date Time_ Time Period. End Date Time_ Date Time. Date Time	Not defined in BRD	1..1
Document				Electronic_ Document. Details	Used to specify basic information about the content of the message including version number; creation date and time.	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	contentVersion			Electronic_ Document. Content_ Version. Identifier	Not defined in BRD	0..1
	creationDate			Electronic_ Document. Creation_ Date. Date Time	Not defined in BRD	1..1
	documentStatus			Electronic_ Document. Status. Identifier	Indicates if the document is a copy or an original.	1..1
	documentStructureVersion			Electronic_ Document. Document Structure_ Version. Identifier	Not defined in BRD	0..1
	lastUpdateDate			Electronic_ Document. Last Update_ Date. Date Time	Not defined in BRD	0..1
EntityIdentification				Entity Identification. Details	The unique identification of a document.	
	uniqueCreatorIdentification			Entity Identification. Identification. Identifier	Not defined in BRD	1..1
		contentOwner	PartyIdentification	Entity Identification. Content Owner. Party Identification	Not defined in BRD	1..1
PartyIdentification				Party Identification. Details	Unique location number identifying the Party for which the rest of the message defines.	
	globalLocation-Number			Party Identification. Primary_ Identification. GLN_ Identifier	GLN	1..1
			AdditionalParty-Identification	Party Identification. Additional. Non GLN_ Party Identification	Not defined in BRD	0..*
Reference				Entity Reference. Details	Not defined in BRD	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	referenceDate			Entity Reference. Date. Date Time	Not defined in BRD	1..1
	referenceIdentification			Entity Reference. Identification. Text	Not defined in BRD	1..1
ReplenishmentProposal				Replenishment Proposal. Details	Not defined in BRD	
	bestBeforeDate			Replenishment Proposal. Best Before Date. Date Time	Date/time on which the replenishment proposal is issued.	0..1
	itemExpirationDate			Replenishment Proposal. Item Expiration_ Date. Date Time	Not defined in BRD	0..1
	lotNumber			Replenishment Proposal. Batch Lot Code. Text	Not defined in BRD	0..1
	packagingType			Replenishment Proposal. Packaging_ Type. Packaging Type_ Code	Not defined in BRD	0..1
	productionCode			Replenishment Proposal. Production Code. Text	Not defined in BRD	0..1
	productionDate			Replenishment Proposal. Production Date. Date Time	Date of Item manufacture	0..1
	quantityIdentification			Replenishment Proposal. Quantity Type. Quantity Identification_ Code	Types: <ul style="list-style-type: none"> - on hand (total available stock excluding in transit and on hold) - in transit (transferred or transported) - on hold (blocked) - to be delivered - to be produced - to be despatched 	1..1

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	replenishmentProposalDateTime			Replenishment Proposal. Date. Date Time	Date/time on which the replenishment proposal is issued.	1..1
	replenishmentProposalQuantity			Replenishment Proposal. Quantity. Quantity	Not defined in BRD	1..1
	replenishmentProposalDocumentType			Replenishment Proposal. Type. Replenishment Proposal Document Type_ Code	Not defined in BRD	1..1
		buyingParty	BuyingPartyIdentification	Replenishment Proposal. Buying Party. Buying_ Party Identification	Not defined in BRD	1..1
	<choice>	periodOfDelivery	DateTimePeriod	Replenishment Proposal. Choice_ Delivery_ Period. Date Time_ Time Period	Period in buckets, including start date/time and end date/time	1..1
	<choice>	periodOfProduction	DateTimePeriod	Replenishment Proposal. Choice_ Production_ Period. Date Time_ Time Period	Period in buckets, including start date/time and end date/time	1..1
			Document	Replenishment Proposal. Inheritance_ Association. Electronic_ Document	Not defined in BRD	1..1
		replenishmentProposalIdentification	EntityIdentification	Replenishment Proposal. Document Identification. Entity Identification	Provides a unique identification to the Replenishment Proposal message.	1..1
			PackagingDetails	Replenishment Proposal. Packaging Details. Trade Item Packaging	Not defined in BRD	0..1
		locationToSupply	PartyIdentification	Replenishment Proposal. Location To Supply. Party Identification	Not defined in BRD	0..1

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
		additionalReferenceNumber	Reference	Replenishment Proposal. Association. Entity Reference	Assigned by supplying party (e.g. production line (upstream)). Includes date and reference number.	0..1
		supplyingParty	SupplyingParty-Identification	Replenishment Proposal. Supplying Party. Supplying_Party Identification	Not defined in BRD	1..1
			TradeItemIdentification	Replenishment Proposal. Trade Item Identification. Trade Item Identification	Not defined in BRD	1..1
		replenishmentRequestIdentification	EntityIdentification	Replenishment Proposal. Replenishment Request Identification. Entity Reference	Not defined in BRD	1..1
SupplyingPartyIdentification				Supplying_Party Identification. Details	GLN	
	supplyingParty-IdentificationType			Supplying_Party Identification. Identification Type. Supplying_Party Type Code	Roles: - Manufacturer - Material Supplier - Warehouse - Wholesaler	0..1
			PartyIdentification	Supplying_Party Identification. Inheritance Association. Party Identification	Not defined in BRD	1..1
TradeItemIdentification				Trade Item Identification. Details	Not defined in BRD	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	globalTradeItem-Number			Trade Item Identification. GTIN. GTIN_ Identifier	A particular Global trade item Number; a numerical value used to uniquely identify a trade item. A trade item is any trade item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be planned; priced; ordered; delivered and or invoiced at any point in any supply chain.	1..1
		additionalTrade-ItemIdentification	AdditionalTrade-ItemIdentification	Trade Item Identification. Additional. Non GTIN_ Trade Item Identification	Not defined in BRD	0..*

1.5.2.2 Replenishment Request

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
BuyingPartyIdentification				Buying_ Party Identification. Details	GLN	
	buyingPartyIdentificationType			Buying_ Party Identification. Identification Type. Buying_ Party Type_ Code	Roles: - Manufacturer - Retailer - Warehouse - Wholesaler	0..1

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
			PartyIdentification	Buying_ Party Identification. Inheritance_ Association. Party Identification	Not defined in BRD	1..1
DateTimePeriod				Date Time_ Time Period. Details	Not defined in BRD	
	beginDateTime			Date Time_ Time Period. Begin Date Time_ Date Time. Date Time	Not defined in BRD	1..1
	endDateTime			Date Time_ Time Period. End Date Time_ Date Time. Date Time	Not defined in BRD	1..1
Document				Electronic_ Document. Details	Used to specify basic information about the content of the message including version number; creation date and time.	
	contentVersion			Electronic_ Document. Content_ Version. Identifier	Not defined in BRD	0..1
	creationDate			Electronic_ Document. Creation_ Date. Date Time	Not defined in BRD	1..1
	documentStatus			Electronic_ Document. Status. Identifier	Indicates if the document is a copy or an original.	1..1
	documentStructureVersion			Electronic_ Document. Document Structure_ Version. Identifier	Not defined in BRD	0..1
	lastUpdateDate			Electronic_ Document. Last Update_ Date. Date Time	Not defined in BRD	0..1
EntityIdentification				Entity Identification. Details	The unique identification of a document.	

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CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	uniqueCreatorIdentification			Entity Identification. Identification. Identifier	Not defined in BRD	1..1
		contentOwner	PartyIdentification	Entity Identification. Content Owner. Party Identification	Not defined in BRD	1..1
PartyIdentification				Party Identification. Details	Unique location number identifying the Party for which the rest of the message defines.	
	globalLocationNumber			Party Identification. Primary_ Identification. GLN_ Identifier	Not defined in BRD	1..1
			AdditionalPartyIdentification	Party Identification. Additional. Non GLN_ Party Identification	Not defined in BRD	0..*
Reference				Entity Reference. Details	Not defined in BRD	
	referenceDate			Entity Reference. Date. Date Time	Not defined in BRD	1..1
	referenceIdentification			Entity Reference. Identification. Text	Not defined in BRD	1..1
ReplenishmentCondition				Replenishment Condition. Details	Specification of type of request per period; firm committed (committed) by the buyer or just a proposal (planned). Condition: committed or planned.	
	replenishmentRequestType			Replenishment Condition. Type. Replenishment Request Type_ Code	Not defined in BRD	1..1

Business Solution Design

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
	replenishmentRequestStatus			Replenishment Condition. Status. Replenishment Request Status_ Code	Not defined in BRD	1..1
ReplenishmentRequest				Replenishment Request. Details	Not defined in BRD.	
	replenishmentRequestQuantity			Replenishment Request. Quantity. Quantity	Not defined in BRD	1..1
	quantityIdentification			Replenishment Request. Quantity Identification. Quantity Identification_ Code	Types: <ul style="list-style-type: none"> - on hand (total available stock excluding in transit and on hold) - in transit (transferred or transported) - on hold (blocked) - to be delivered - to be produced - to be despatched 	1..1
	replenishmentRequestDateTime			Replenishment Request. Date. Date Time	Not defined in BRD	1..1
	replenishmentRequestDocumentType			Replenishment Request. Type. Replenishment Request Document Type_ Code	Not defined in BRD	0..1
		buyingParty	BuyingPartyIdentification	Replenishment Request. Buying_ Party. Buying_ Party Identification	Not defined in BRD	1..1
		periodOfReplenishment	DateTimePeriod	Replenishment Request. Period Of Replenishment Association. Date Time_ Time Period	Not defined in BRD	1..1

Business Solution Design

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
			Document	Replenishment Request. Inheritance_ Association. Electronic_ Document	Not defined in BRD	1..1
			EntityIdentification	Replenishment Request. Document Identification. Entity Identification	Provides a unique identification to the Replenishment Request message.	1..1
		locationOfReplenishment	PartyIdentification	Replenishment Request. Location. Party Identification	Not defined in BRD	0..1
		additionalReferenceNumber	Reference	Replenishment Request. Association. Entity Reference	Not defined in BRD	0..1
			Replenishment-Condition	Replenishment Request. Association. Replenishment Condition	Not defined in BRD	0..1
		supplyingParty	SupplyingParty-Identification	Replenishment Request. Supplying_ Party. Supplying_ Party Identification	Not defined in BRD	1..1
			TradeItemIdentification	Replenishment Request. Association. Trade Item Identification	Not defined in BRD	1..1
		replenishmentRequestIdentification	EntityIdentification	Replenishment Request. Association. Entity Reference	Not defined in BRD	1..1
SupplyingPartyIdentification				Supplying_ Party Identification. Details	GLN	
	supplyingParty-IdentificationType			Supplying_ Party Identification. Identification Type. Supplying_ Party Type_ Code	Not defined in BRD	0..1

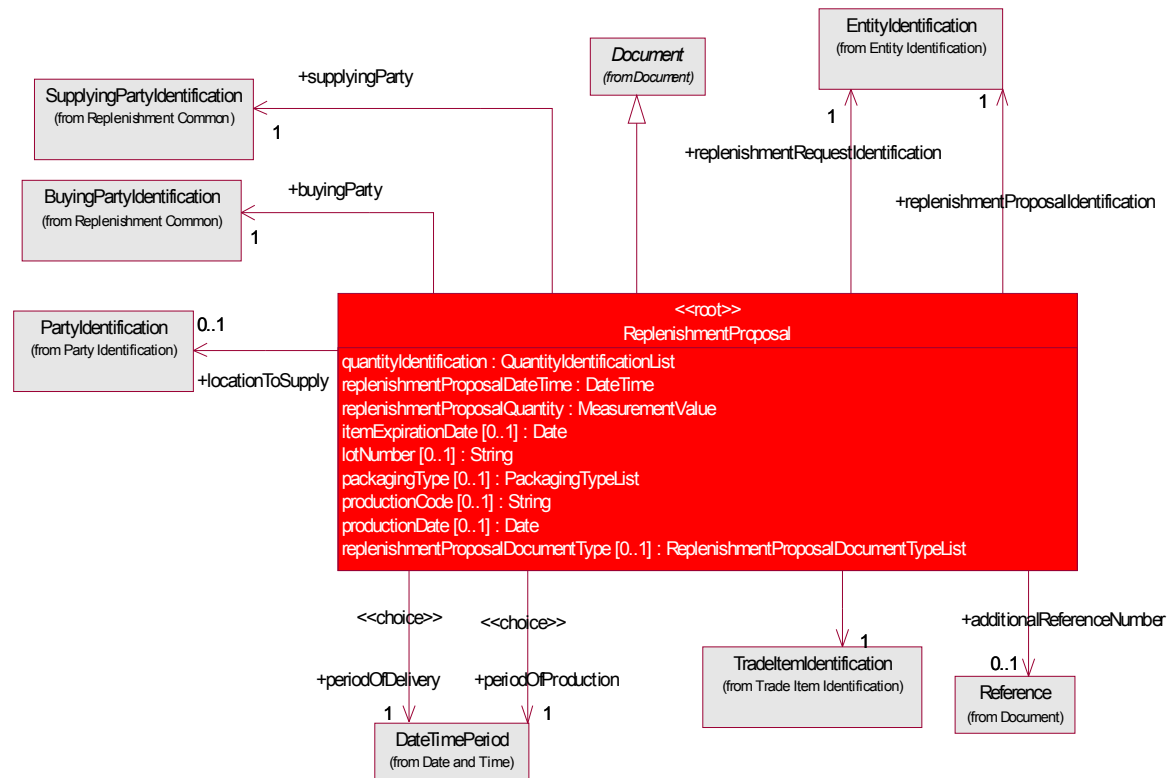
Business Solution Design

CLASS (ABIE)	ATTRIBUTE (BBIE)	ASSOCIATION (ASBIE)	SECONDARY CLASS	Official Dictionary Entry Name	Definition	Multiplicity
			PartyIdentification	Supplying_ Party Identification. Inheritance_ Association. Party Identification	Not defined in BRD	1..1
TradeItemIdentification				Trade Item Identification. Details	Not defined in BRD	
	globalTradeItem-Number			Trade Item Identification. GTIN. GTIN_ Identifier	A particular Global trade item Number; a numerical value used to uniquely identify a trade item. A trade item is any trade item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be planned; priced; ordered; delivered and or invoiced at any point in any supply chain.	1..1
		additionalTrade-ItemIdentification	AdditionalTrade-ItemIdentification	Trade Item Identification. Additional. Non GTIN_ Trade Item Identification	Not defined in BRD.	0..*

Business Solution Design

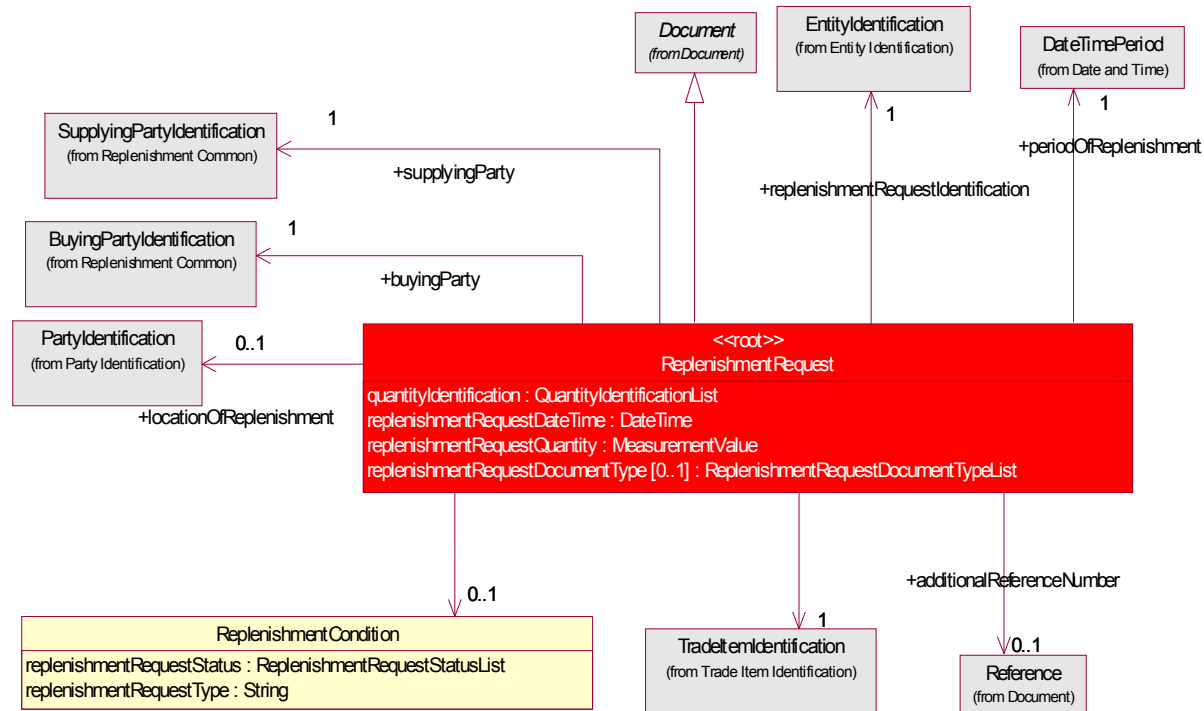
1.5.3 Class Diagrams

1.5.3.1 Replenishment Proposal



Business Solution Design

1.5.3.2 Replenishment Request



1.5.4 Code Lists

(Note: Code Lists are taken from the GDD through a GDD report.

1.5.4.1 Replenishment Proposal

Code List Name	Code List Description
ReplenishmentProposalDocumentType-List	not available
Code Name	Code Description
DELIVERY_PLAN	not available
PRODUCTION_PLAN	not available

Code List Name	Code List Description
PackagingTypeList	not available
Code Name	Code Description
BAG	not available
CASE	not available
ONE_WAY_PALLET	not available
PACKAGE	not available
RETURNABLE_PALLET	not available
ROLL_CAGE	not available

1.5.4.2 Replenishment Request

Code List Name	Code List Description
ReplenishmentRequestDocumentTypeList	not available
Code Name	Code Description
ACTUAL_SALES_AND_INVENTORY	not available
FORECAST_AND_INVENTORY	not available
MATERIAL_REQUIREMENTS	not available
MATERIAL_REQUIREMENTS_AND_INVENTORY	not available

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Code List Name	Code List Description
ReplenishmentRequestStatusList	not available
Code Name	Code Description
COMMITTED	not available
PLANNED	not available

Business Solution Design

1.6 Business Document Example

Not available

1.7 Implementation considerations

Not applicable

1.8 Testing

1.8.1 Pass / Fail Criteria

Unit testing criteria for business solution.

Number	Test Criteria	Related Requirement	Design Element	Pass Criteria	Fail Criteria
1					
2					
3					

1.8.2 Test Data

Not available

Business Solution Design

1.9 Appendices

1.10 Summary of Changes

(Details changes to BMS for each version by BMS Section)

Change	BMS Version	Associated CR Number
•		

2 XML Technical Solution ITRG Packet

The Technical Representation of the Business process is documented in a Technical Solution ITRG Packet containing all supplemental XML artefacts and is used by the Information Requirements Group (ITRG) to evaluate the solution. Upon approval from the Information Technical Requirements Group (ITRG), the Technical Solution ITRG Packet is updated to the Technical Solution Implementers Packet and published with the Business

Message Standard at:

http://www.ean-ucc.org/global_smp/ean.ucc_standards.htm.

Technical Solution ITRG Packet Content:

- Business Message Standard (BMS)
- ITRG Review Packet
 - Style Sheet: This HTML has been created using a Style Sheet that is a visual representation of the data. It is not an actual Style Sheet, but an ex-ample of what a Style Sheet may look like.
 - Instance File: The Instance File is an example of what the schema may look like when it includes live data. This can be used as comparison to a completed schema and can serve as a point of reference for development.
 - Technical Level GDD Report

Technical Solution Implementers Packet Content:

Contains all the message specific.XSD files required to implement

Example:

- AS2Envelope
- Command.xsd
- DocumentCommand.xsd
- Proxy.xsd
- ComponentLibrary.xsd

Both the Business Message Standard and the Implementers Packet are available during the ITRG Review Period in the working documents section of the ITRG eRoom:

http://eroom.uncouncil.org/eRoom/facility/InformationTechnicalAssessmentGroupITAG/0_14f7

All documents for review will be in this folder listed by name of the Change Request and Change Request Number. The Business Message Standard is not open for review, but offered as the basis for determining the suitability of the technical solutions.

This eRoom may be accessed by using the following User Name and Password:

User Name: guest

Password: guest