



Business Message Standard (BMS) Candidate Attribute Extension for Bar Code Attributes

BMS Release: 2.3, BRG Name: Align

Issue 0.0.2, 14-Oct-2008



Document Summary

Document Item	Current Value
Document Title	Business Message Standard (BMS)
BMS Name	Candidate Attribute Extension for Bar Code Attributes
BMS Release	2.3
BRG Name	Align
Document Number	Issue 0.0.2
Date Last Modified	14-Oct-2008
Status	Approved
Owner	BRG: Align
BMS Template Version	1.8

Change Request Reference

Date of CR Submission to GSMP:	CR Submitter(s):	Refer to Change Request (CR) Number(s):
06-Mar-2004	Grant Kille	04-000112

Business Requirements Document (BRAD) Reference

BRAD Title:	BRD Date:	BRAD Version

Document Change History

Date of Change	Version	Changed By	Reason for Change	Summary of Change	Model Build #
7-Oct-2006	0.0.1	Brian Bennett	Initial Document Creation	Initial Document Creation	
14-Oct-2008	0.0.2	Eric Kauz	Template Update		

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1. Business Domain View

1.1. Problem Statement / Business Need

Data pool communities currently engaged in data synchronization solutions currently utilize barcode related attributes to identify the bar code information on the product packaging. These attributes do not currently exist in the GS1 standards.

Parties receiving Trade Item Information need to know the actual product identifier that is physically on the trade item and the related barcode symbology. Recipients also need to know if the physical product identifier can be derived from the 14-digit GTIN data structure, particularly in instances where the same physical trade item product identifier may be contained in multiple trade item configurations.

1.2. Objective

The objective of the suggested changes is to make the Trade Item standard fulfil the needs and business requirements for parties currently involved in data synchronisation.

1.3. Audience

The intended audience for this standard includes manufacturers and retailer and any other actors interested in developing software or other IT-based services complying with the GS1 standards.

1.4. References

Reference Name	Description
Business Requirements Document (BRD) for Extension of EAN.UCC standards for Bar Code Attributes	Version 0.0.2

1.5. Acknowledgements

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

1.5.1. BRG Work Group

Function	Name	Company / organisation
BRG Work Group Chair		

1.5.2. Design Team Members

Function	Name	Organisation
Modeler	Eric Kauz	GS1
XML Technical Designer	Dipan Anarkat	GS1
EANCOM Technical Designer		
Peer Reviewer		

2. Business Context

Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Align_Item
System Capabilities	EAN.UCC
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

4. Business Transaction View

4.1. Business Transaction Use Case Diagram

Not Applicable

4.2. Use Case Description

Handled by **Align_Item** Use Case.

4.3. Business Transaction Activity Diagram(s)

Not Applicable

4.4. Business Transaction Sequence Diagram(s) (optional)

Not Applicable

5. Information Model (Including GDD Report)

5.1. Data Description:

CLASS	ATTRIBUTE	ASSOCIATION	SECONDARY CLASS	RELATED REQUIREMENT
BarCodeExtension				Ref 1: Req1
	isBarCodeDerivable			Ref 1: Req4
			EANUCCCode	Ref 1: Req2
EANUCCCode				Ref 1: Req2
	code			Ref 1: Req2
	type			Ref 1: Req3

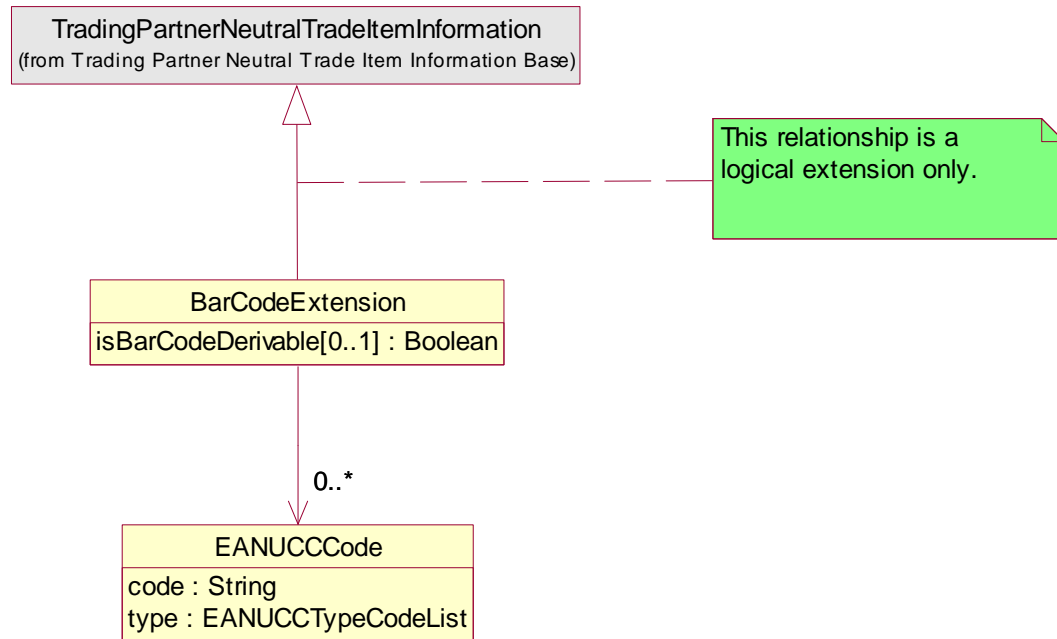
5.2. Data Report:

Class	Attribute	Association	Secondary Class	Definition	Multiplicity
BarCodeExtension				Bar Code Extension is the root class for the extension	
	isBarCodeDerivable			A boolean field determining that the data structure on the trade item can be derived from the GTIN	0..1
		None	EANUCCCode	Information on EANUCCCode in BarCodeExtension	0..*
EANUCCCode				An optional class containing both the EAN_UCC code and its associated EAN UCC Type. The EAN_UCC code identifies trade items and special applications.	
	Code			The EAN_UCC code is a code that identifies trade items and special applications.	1..1

Class	Attribute	Association	Secondary Class	Definition	Multiplicity
	Type			An attribute representing the data structure type used for the barcode. Valid values include but may not be limited to: UN UPC Case Code Number UP UCC-12 UA UPC/EAN Case Code UD UPC/EAN Consumer Package Code UE UPC/EAN Module Code EN EAN.UCC-13 UK EAN.UCC-14 U2 UPC Shipping Container Code UG Drug UPC Consumer Package Code UH Drug UPC Shipping Container Code UI UPC Consumer Package Code EO EAN.UCC-8	1..1

5.3. Class Diagrams

Figure 5-1 Class Diagram: Bar Code Extension



5.4. Code Lists

Code List Name	Code List Description
EANUCCTypeCodeList	Represents the data structure type used for the barcode.
Code Name	Code Description
EN	EAN.UCC-13
EO	EAN.UCC-8
U2	UPC Shipping Container Code
UA	UPC/EAN Case Code
UD	UPC/EAN Consumer Package Code
UE	UPC/EAN Module Code
UG	Drug UPC Consumer Package Code
UH	Drug UPC Shipping Container Code
UI	UPC Consumer Package Code
UK	EAN.UCC-14
UN	UPC Case Code Number
UP	UCC-12

6. Business Document Example

Not Applicable

7. Implementation Considerations

Not Applicable

8. Testing

This section describes the testing criteria for business solutions.

8.1. Pass / Fail Criteria

Not Applicable

8.2. Test Data

Attribute	Value
isBarCodeDerivable	Yes
code	008421042708
type	UP

9. Appendices

Not Applicable

10. Summary of Changes

Change	BSD Version	Associated CR Number
Initial Document created from BRD	V 0.0.1	04-000112