

Business Requirements Document (BRD)

for

**Extension Specifics Technical
Characteristics**

BRG: Align

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Change Request Reference

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Document Summary

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Document Change History

Date of Change	Version	Reason for Change	Summary of Change	Model Build #	CR #
10/11/2004	0.4	Resolution of comments from BRG ALIGN	Update of section 6, 7. Correction of class diagram.		03-000027
23/11/2004	0.5	Resolution of additional comments from BRG ALIGN	Update of section 1, 6, and 10. Additional corrections of class diagram.		03-000027
08/12/2004	0.6	Incorporated comments from Anders Grangard and Jean-Christophe Gilbert for Section 8.1.2 so as to match requirements listed in section 6.	Modified class diagram to match section 6.		03-000027 and 04-113 per Aurelie Virgili
09/12/2004	0.7	Incorporated comments from Jean-Christophe for class diagram	Made the ExtensionSpecificsTechnical Characteristics class 0..* and moved the		03-000027 and 04-113

			measurementValue attributes from the ProductCharacteristics class to the CharacteristicsMeasurement class		
2005.01.25	0.7	Modified class diagram. Revised text to coordinate with class modifications.	Added note to class diagram. Re-arranged attributes in ProductCharacteristics class to be alphabetical. Changed Characteristicsmeasurement class to MeasurementValue to conform with the conventions in the global business model. Added role called CharacteristicsMeasurement.		03-000027 and 04-113
2005.01.27	0.7	Changed fill color of MeasurementValue class to gray to indicate reused class			03-000027 and 04-113
2005.06.06	0.8	Updated Context			03-000027 and 04-113
2005.27.07	0.9	Updated referenced CR Number Corrected Typos Updated Model to Best Practices			03-000027 and 04-113
2005.11.08	0.10	Updated class diagram for ITRG Review Comments	Made relationship to ExtensionSpecificsTechnical Characteristics Class Mandatory. Replaced characteristicsDescription class with attribute. Added test data. Updated context of document.		03-000027 and 04-113
2007.20.04	0.11	Editorial Changes	Minor editorial changes to the document		

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1 Executive Overview

1.1 Business Opportunity and Business Needs

Technical Data alignment between partners of the supply chain (salesmen, buyers and logistic actors) is an essential condition in the automation of the administrative treatments.

This alignment crosses the sending and receiving of fact sheets containing, besides basic data and those relative to the hierarchy of products, specific technical characteristics in finished or semi finished products, allowing the specific item information needs of buyers and salesmen to be met.

This basic information and the hierarchy is already organized and structured. The objective of these works is to allow the standardization and the structuring of the specific technical characteristics of items.

These fact sheets allow the sending of the technical characteristics on behalf of the manufacturer without being seized again by the distributor.

It allows to look for products with regard to a range, or a feature, to use this information for an internal custom (i.e. commercial, after sale services, etc.), or an external usage: (i.e. spread the information with the partners and the end users).

The information is thus right, precise and up to date; the risk of error is reduced and the adaptation of the data allows an automation of the updates and the data processing.

Today, these technical characteristics are sent in EDI by using the group of segments CCI-CAV-MEA of the message PRODAT. The users want to exchange this information in XML.

1.2 Business Intention

The purpose of this message is to exchange specific technical characteristics which are not listed in the GDD. Those specific technical characteristics are coded by an agency, e.g. code 65 identifies EAN FRANCE (but any other MO can codify technical characteristics to respond to their members' needs).

This allows exchanging specific information on products, information which does not exist in the GDD, and which are not intended to be added into the GDD. The intention is not to add information already existing in GDD.

1.3 Business Justification

If this extension for specific technical characteristics does not exist, it means that a retailer will have to key in the information, and a manufacturer will have to send different format of specific technical characteristics to their clients with a large possibility to have different ways to express the same information, as it has not been agreed previously. (e.g. : maximum speed in mph or in km/h, etc...)

1.4 Audience

Every manufacturer, retailer or trader involved in the manufacture, the sale or the referencing of products with the need to spread or to receive specific technical information. Today, the concerned sectors are the do-it-yourself, construction, household equipment (large domestic appliance and consumer electronics, furniture), the textile (textile industry) and the wines and the spirit, disc and soon automotive with the MRO and others.

Example of sector concerned: Building and construction sector wants to use it as a Dictionary for the whole sector.

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2 Acknowledgements

2.1.1 BRG Members

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

2.1.2 Task/Project Group Participants (where applicable)

Function	Name	Company / organisation
Participant	JC GILBERT	GENCOD EAN FRANCE
Participant	L. CAZIER	LEROY MERLIN
Participant	B. FIX	SAINT GOBAIN
Participant	J VAN DEN DREISCH	CASTORAMA
Participant		

2.1.3 Project Support

Function	Name	Organisation
Modeler	Rob Toole	GS1 Head Office
...		

2.1.4 Project Advisors

Function	Name	Organisation
...		

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3 References

(as applicable)

Reference Name	Description
BRW for XML Extension Specifics Technical Characteristics	
CR 03-0027	Description of the business needs
Dicalis list of natures.doc	List of products for which EAN FRANCE and its members have already defined and coded the specific technical characteristics
Member list.xls	Non exhaustive list of users

4 Scope

4.1 Overall Business Context

Context Category	Value(s)
Industry	[all]
Geopolitical	[all]
Product	[all]
Process	Align_Item_Technical Characteristics
System Capabilities	EAN.UCC
Official Constraints	None

4.1.1 In Scope

EAN.UCC standards allows to exchange information while using the EAN.UCC standards, but it is mainly generic information about products, like their weight, length, identification, and so on.

The purpose of this Change Request is to exchange more specific and more technical information about products using EAN.UCC standards, and without re-keying in the information because it is not possible to send the information using EAN.UCC standards.

4.1.1.1 Immediate Phase

There is only one phase: to create the possible “fields” or extensions that will allow the transmission of specific technical characteristics using EAN.UCC standards.

4.1.1.2 Subsequent Phases

No subsequent phase

4.2 Out of Scope

It is not in the scope to transmit any other information in this extension, which would already have been defined in EAN.UCC standards.

5 General Definition

5.1 Initial Challenges

The specifics technical characteristics are extensions to be used with the core EAN.UCC XML standards, these extensions are conditional.

5.2 Assumptions

First the trading partners have to agree on aligning their data.
To be successful, users have to support and respect the EAN.UCC rules and recommendations (E.g. When do I need to create a new GTIN?). The users also have to agree to use the extensions for specific technical Characteristics and to use EAN.UCC XML recommendations.

5.3 Dependencies

Users are willing to use and respect the EAN.UCC recommendations. They are also willing to align their data. Technical characteristics have to be coded by a Member organisation before being sent in XML.

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6 Business Rules and Requirements Analysis

6.1.1 Business Requirements

Number	Business Requirement	Rationale
1	ProductCharacteristics class with the following attributes and their respective requirements is mandatory within the extension.	
1.1	<p>Class Name: ProductCharacteristics</p> <p>Attribute Name: characteristicsCode</p> <p>Cardinality: M</p> <p>Multiple Occurrences: N</p> <p>Type: String</p> <p>Size: 1..17</p> <p>Definition: Code assigned to a technical characteristic.</p> <p>Example: "000006" for the characteristic "Main Feature"</p> <p>Business Rules: A code can be used several times for different item, as long as the meaning of the characteristic stays the same. Example: revolution per minute can be used for washing machine and drill.</p> <p>Validation Rules: Each characteristic code has to be related to a CharacteristicsValue, CharacteristicsMeasurement or CharacteristicsDescription.</p> <p>External Code List Name GS1 recognised maintenance agency, as defined by "categoryAgencyCode"</p> <p>External Code List Source: GS1 recognised maintenance agency, as identified in "categoryAgencyCode"</p>	
1.2	<p>Class Name: ProductCharacteristics</p> <p>Attribute Name: characteristicsCategoryCode</p> <p>Cardinality: M</p> <p>Multiple Occurrences: N</p> <p>Type: string</p> <p>Size: 1..17</p> <p>Definition: Code assigned to a category of product.</p> <p>Example: "13G" for DIY</p> <p>Business Rules: Each code would be applied with the same value across all sectors and verticals.</p> <p>Validation Rules: The technical characteristics are supposed to be reused in the same sector or verticals. The characteristic code has to be taken as a whole to get its meaning.</p> <p>External Code List Name GS1 recognised maintenance</p>	

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Num ber	Business Requirement	Rationale
	<p>agency, as defined by "categoryAgencyCode"</p> <p>External Code List Source: GS1 recognised maintenance agency, as identified in "categoryAgencyCode"</p>	
1.3	<p>Class Name: ProductCharacteristics</p> <p>Attribute Name: categoryAgencyCode</p> <p>Cardinality: M</p> <p>Multiple Occurrences: N</p> <p>Type: String</p> <p>Size: 1..3</p> <p>Definition: Code assigned to a categoryAgencyCode. This is a string.</p> <p>Example: "65" for GENCOD EAN FRANCE</p> <p>Business Rules: None</p> <p>Validation Rules: None</p> <p>External Code List Name 3055</p> <p>External Code List Source: UN/CEFACT</p>	
2	<p>Characteristic Value class with and their respective requirements is a choice within the extension</p>	
2.1	<p>Class Name: CharacteristicsValue</p> <p>Attribute Name: characteristicsValueCode</p> <p>Cardinality: M</p> <p>Multiple Occurrences: Y</p> <p>Type: String</p> <p>Size: 1..17</p> <p>Definition: Value code of a technical characteristics selected in the pre defined value list. Only the characteristicsValueCode appears</p> <p>Examples: "001" for Yes or "002" for No</p> <p>Business Rules: A closed list of possible values can have multiple occurrences. For example, to describe a product it is possible to have to make reference one or more times to a closed list of possible values : "Sound type" for a TV set can be 01 mono and 02 Stereo, and 03 Dolby Surround, etc... Only experts can provide this kind of information in a working group.</p> <p>Validation Rules: Each characteristicValue has to be picked up from a predefined closed list of values.</p> <p>External Code List Name GS1 recognised maintenance agency, as defined by "categoryAgencyCode"</p>	

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Number	Business Requirement	Rationale
	External Code List Source: GS1 recognised maintenance agency, as identified in "categoryAgencyCode"	

Example of application of the extension for a drill and its technical characteristics (1 + 2) :

65 (identifying the Maintenance Agency here GENCOD EAN FRANCE)

13G (identifying the characteristicsCategoryCode here : DIY)

00000109 (identifying the characteristic : here « Type of chunk »)

*003 (identifying the value of the characteristic : here « SDS ») **

*004 (identifying the value of the characteristic : here « SDS+ »)**

*005 (identifying the value of the characteristic : here « SDS max »)**

** For a drill we may have those three possible values for the type of chunk.*

3	CharacteristicsMeasurement class with the following attributes and their respective requirements is a choice within the extension	
3.1	<p>Class Name: MeasurementValue</p> <p>Attribute Name: unitOfMeasure</p> <p>Cardinality: M</p> <p>Role: characteristicsMeasurement</p> <p>Multiple Occurrences: N</p> <p>Type: String</p> <p>Size: 1..3</p> <p>Definition: Measuring unit abbreviation used in UN/ECE recommendation 20</p> <p>Example: "RPM" for the measuring unit : Revolution Per Minute</p> <p>Business Rules: Each time a measuring unit is needed to enable the product description, the measuring unit has to be taken from the list of code UN/ECE recommendation 20</p> <p>Validation Rules: Each characteristic code using a measuring unit has to have one.</p> <p>External Code List Name: recommendation 20</p> <p>External Code List Source: UN/ECE</p>	
3.2	<p>Class Name: MeasurementValue</p> <p>Attribute Name: measurementValue</p> <p>Cardinality: M</p> <p>Role: characteristicsMeasurement</p> <p>Multiple Occurrences: N</p> <p>Type: Float</p> <p>Size: 1..15</p> <p>Definition: Value affected to the characteristic. (e.g. : "10")</p>	

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	<p>Example: "10 000" for 10 000 Watt</p> <p>Business Rules: As a measurement is supposed to be fixed, it cannot have several occurrences for the same code, or it would mean that there should be multiple possible values, which implicitly means that there can be a minimum and a maximum for example.</p> <p>Validation Rules: None</p> <p>External Code List Name : N/A</p> <p>External Code List Source: N/A</p>	
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Example of application of the extension for a drill and its technical characteristics (1 + 3) :
65 (identifying the Maintenance Agency here GENCOD EAN FRANCE)
13G (identifying the characteristicsCategoryCode here : DIY)
00011627 (identifying the characteristic : here «Maximum Number of round per minute »)
2000 (value float)

4	CharacteristicsDescription class with and their respective requirements is a choice within the extension	
4.1	<p>Class Name: CharacteristicsDescription</p> <p>Attribute Name: characteristicsDescriptionText</p> <p>Cardinality: M</p> <p>Multiple Occurrences: Y</p> <p>Type: String</p> <p>Size: 1..70</p> <p>Definition: Free text of at least 70 characters</p> <p>Example: For the characteristics 00006 "Main Feature" : "Best drill in the world with this new laser technology... etc..."</p> <p>Business Rules: A code can be used several times for different product descriptions, as long as the meaning of the characteristic stay the same</p> <p>Validation Rules: None</p> <p>External Code List Name : N/A</p> <p>External Code List Source: N/A</p>	

Example of application of the extension for a drill and its technical characteristics (1 + 4) :
65 (identifying the Maintenance Agency here GENCOD EAN FRANCE)
13G (identifying the characteristicsCategoryCode here : DIY)
0000006 (identifying the characteristic : here «Main feature »)
"Best drill in the world with this new laser technology... etc..." (value text)

6.1.2 Technical Requirements (optional)

6.1.3 Business Rules

N/A

7 Business Process Analysis

7.1.1 Business Process Participants Descriptions

For business process description see core item BMS.

7.1.2 Business Scenario Overview

7.1.2.1 Current Business Scenario

For business process description see core item BMS.

7.1.2.2 Proposed Business Scenario

For business process description see core item BMS.

7.1.3 Structured Business Scenarios

7.1.3.1 Structured Business Scenario for Specifics Technical Characteristics

For business process description see core item BMS.

7.1.3.1.1 Use Case Diagram for Extension Specifics Technical Characteristics

For business process description see core item BMS.

7.1.3.1.2 Use Case Definition for Extension Specifics Technical Characteristics

For business process description see core item BMS.

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7.1.3.1.3 Collaboration Activity Diagram

For business process description see core item BMS.

7.1.3.1.4 Collaboration Sequence Diagrams

For business process description see core item BMS.

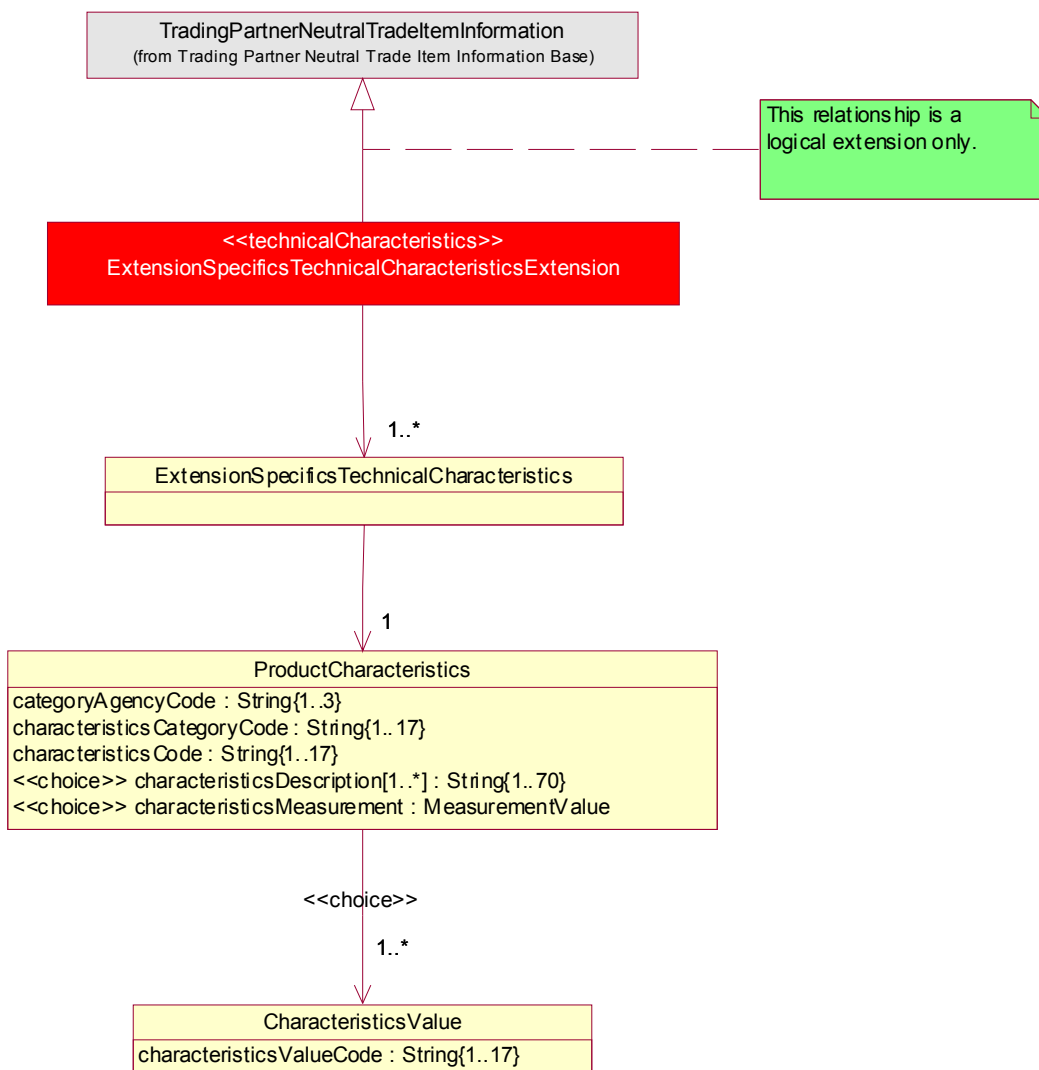
8 Business Object Analysis

8.1.1 Business Object Life-Cycle Discussion

N/A

8.1.1.1 State Diagram(s) (optional)

8.1.2 Business Object relationship discussion



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9 Test Scenario Summary

Test Scenario ID	Description	Rule ID	Requirement ID	Use Case ID

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10 Test Data

Attribute	Value
categoryAgencyCode	65
characteristicsCategory	13G
characteristicsCode	000006
characteristicsDescription	Best drill in the world with this new laser technology

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11 Summary of Changes

Change	BSD Version	Associated CR Number
•	V 0.1	03-000027