



UN/CEFACT

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United Nations Centre for Trade Facilitation and Electronic Business

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UN/CEFACT – UML TO UN/EDIFACT TRANSFORMATION RULES

Technical Specification

Working Draft

Version 0.6

2005-10-11

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41 **1. Status of this Document**

- 42 This Technical Specification is being developed in accordance with the
43 UN/CEFACT/TRADE/22 Open Development Process (ODP) for Technical
44 Specifications. The specification has been approved through public review (ODP step 5).
45 Distribution of this document is open without restrictions for implementation verification.
46 This version: *UML to UN/EDIFACT Transformation Rules* Technical Specification,
47 Version 0.6 of 2005-10-11.
48 Previous version: 0.5

49 **2. UN/CEFACT - UML TO EDIFACT Technical**
50 **Specification Project Team Participants**

51 We would like to recognise the following for their significant participation to the
52 development of this document.

53 Project Team Leader: Per Kiilsholm, GS1 Denmark

54 Lead Editor: Tim Cochran, DISA

55 Editing Team Members: Anders Grangard, GS1 France

56 Alain Dechamps, CEN/ISSS

57 Bernd Boesler, DIN

58 Tauno Kangur, UNECE

59 Gait Boxman, TIE

60 Margaret Pemberton, Diskray Pty Ltd

61 Michiharu Nose, JASTPRO

62 **2.1. Disclaimer**

63 The views and specification expressed in this document are those of the authors and are
64 not necessarily those of their employers. The authors and their employers specifically
65 disclaim responsibility for any problems arising from correct or incorrect implementation
66 or use of this technical specification.

67 **2.2. Contact Information**

68 ATG Chair: Anders Grangard, GS1 France, anders.grangard@gs1fr.org

99 **3. Objectives**

100 **3.1. Goals of the UML TO UN/EDIFACT** 101 **TRANSFORMATION Technical Specification**

102 The purpose of this document is to provide rules and guidelines for transformation of
103 UML diagrams and artefacts into UN/EDIFACT constructs.

104 **3.2. Requirements**

105 The audience is expected to have a solid understanding of UML and UN/EDIFACT
106 principles, as well as the ebXML Core Components and the UN/CEFACT Modelling
107 Methodology.

108 **3.3. Caveats and Assumptions**

109 The received models are assumed to be normalised and harmonised.

110 **4. Rules and Guidelines**

111 **4.1. Introduction**

112 All development within UN/CEFACT are carried out using UN/CEFACT Modelling
113 Methodology, UMM, to ensure interoperable solutions regardless of which syntax is
114 being applied. This requires consistent production rules for the syntax implementations of
115 the modelled business processes. This document provides rules and guidelines to ensure
116 consistent and reusable set of standards.

117 **4.2. UML UN/EDIFACT Profile**

118 The UMM defines how UML should be applied for the development of e-Business
119 solutions within UN/CEFACT. A selection of UML views and UML diagrams is used by
120 the UN/CEFACT Groups to represent business domains, business requirements, business
121 transactions, business documents and business information elements. UML handled in
122 this context should be as highly detailed as possible.

123 UMM is representing business requirements and does not incorporate syntax related to
124 any particular technology that may be used to implement an e-Business solution. A
125 UN/EDIFACT UML profile (EUML), on the other hand, represents the business
126 requirements in the context of design considerations and limitations of the UN/EDIFACT
127 syntax. The main functions of this profile are;

- 128 ➤ To define a root class
- 129 ➤ To define the hierarchical structure between classes
- 130 ➤ To define the target syntactical construct, e.g. a code or a data element

131 **EUML is *not* currently expressed as an UML diagram for UML-to-EDI conversion.**
132 **Instead, UML is mapped (see below) directly to UN/EDIFACT messages, although**
133 **using the above mentioned principles.**

134 **4.3. UML to UN/EDIFACT**

135 **4.3.1. Introduction**

136 UML artefacts cannot be mapped to a single EDI construct as this may vary by message.
137 An example could be that an attribute 'reference' could sometimes be mapped to a RFF
138 segment and in other messages to a DOC segment. The methodology hence requires a
139 manual identification of the corresponding entities in the UML model and in the EDI
140 structures.

141 To reduce the resources needed to do these identifications and mappings, the
142 methodology is based on a two step process.

- 143 • **Component Transformation**

144 These are general transformation rules which specify the relations between the
145 UML artefacts and the EDI entities, which contain the mapping and the structure.
146 In principle each time an UML artefact is defined, the relation between this entity
147 and its EDI counterpart should be identified, and the mapping should be defined.

- 148 • **Message Structure Transformation**

149 When an UN/EDIFACT message is created, all of the Component
150 Transformations are imported and the relations between these are defined. These
151 rules are used as basis for the total message mapping. It is necessary to look at all
152 the mapping pieces as we cannot be sure that the mapping rule defined for an
153 UML entity is valid in all scenarios.

- 154 ○ Verify component transformation mapping

- 155 ○ Define position

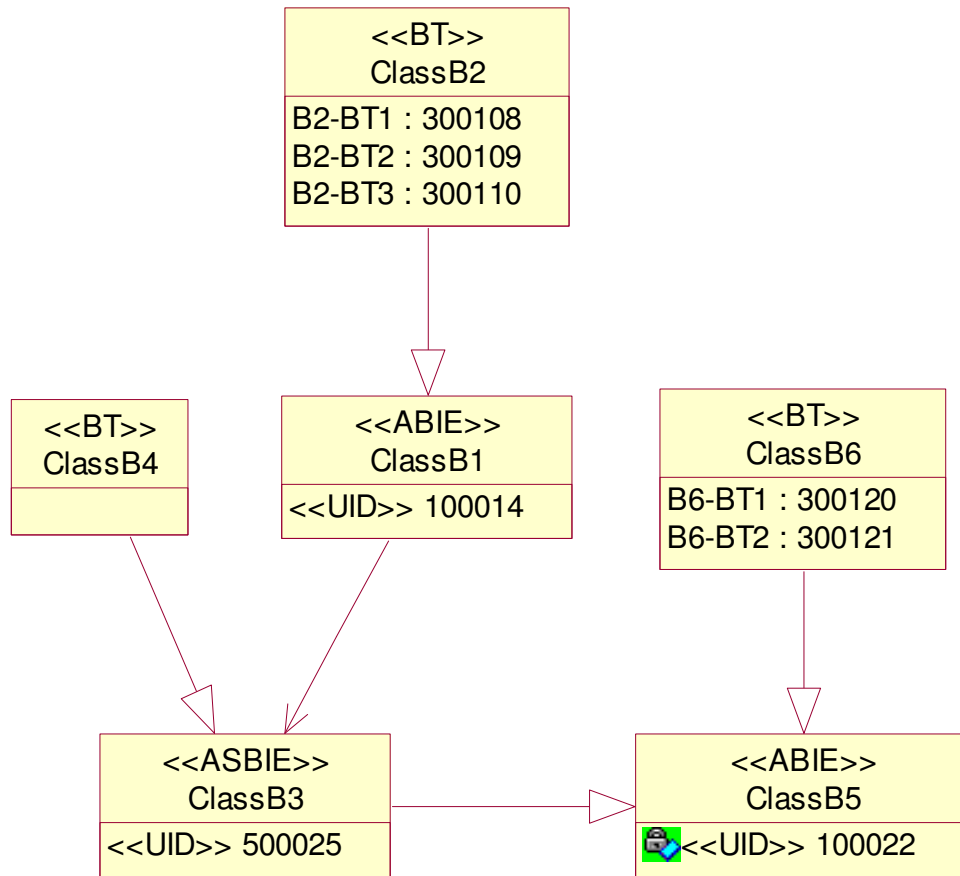
- 156 ○ Verify structure

157 **4.3.2. Component Transformation Rules**

158 When a new UML diagram is issued for a business process, the contained classes are
159 checked to see if a *Component Transformation* mapping exists for the relevant
160 context/directory. If not, the class is added to the *Component Transformation* library.
161 This library, managed and maintained by UN/CEFACT, contains the result of the
162 component transformation, as described below. This will ensure consistent reuse. Note:
163 this standard transformation can be overridden as described in chapter 4.3.3.

164 The models used for the mapping exercise are the Detailed Core Component Diagram.

165 The following subparagraphs (4.3.2.1 to 4.3.2.5) will explain how to produce the
166 Component Transformation.



167
168
169
170

4.3.2.1. Register basic classes

For each of the stereotype Classes: <<ABIE>> and <<ASBIE>> the Class name stereotype and Class UID is recorded.

ClassName	Stereotype	ClassUID
ClassB1	<<ABIE>>	100014
ClassB3	<<ASBIE>	500025
ClassB5	<<ABIE>>	100022

171

Basic Classes Table

4.3.2.2. ABIE and ASBIE relations to BTs (Standard BT Diagram)

172
173
174
175

The business term <<BT>> is added for each of the recorded <<ABIE>> and <<ASBIE>>. The table is populated with all BBIEs related to these ABIEs and ASBIEs and the business terms are added.

ClassName (from ABIE or ASBIE)	BusinessTer m (from BT)	Stereotype	ClassUID	"attribute ID" (<<BBIE>>)	Attribute Business Term
ClassB5	ClassB6	<<ABIE>>	100022	300120	B6-BT1
				300121	B6-BT2

ClassB1	ClassB2	<<ABIE>>	100014	300108	B2-BT1
				300109	B2-BT2
				300110	B2-BT3
ClassB3	ClassB4	<<ASBIE>>	500025		

176

Figure: Standard BT Table

177 When doing this exercise one should check that context has been correctly applied for the
178 ABIEs and the BBIEs contained in the Core Component model, and that only the BBIEs
179 relevant in the defined context for this mapping are used in the transformation.

180 **4.3.2.3. Register the Data Types**

181 By using the BBIE UID the Core Component name of the BBIE can be found. The last
182 part of the BBIE name identifies the DataType for the BBIE.

183 This can only be done by obtaining a table of the BBIEs and their related DataTypes.

184 This table is obtained from the Core Component model (Logical model - Core
185 Components - CCT):

DataType	AttributeName	FixedValue
Price_ Amount	Amount Content. Fractional Digits. Value	4
Price_ Amount	Amount Content. Total Digits. Value	15
Price_ Amount	Amount Currency. Code List. Identifier	6345
Price_ Amount	Amount Currency. Code List Agency. Identifier	9
Price_ Amount	Amount Currency. Code List Agency Name. Text	EAN
Amount	Amount Content. Fractional Digits. Value	6
Amount	Amount Content. Total Digits. Value	18
Amount	Amount Currency. Code List. Identifier	6345
Amount	Amount Currency. Code List Agency. Identifier	9
Amount	Amount Currency. Code List Agency Name. Text	EAN

186

Figure: DataTypes table

187 **4.3.2.4. Relate the Class-BBIE diagram with the Data Types (Standard Class-BBIE-DataType diagram)**
 188 Assuming that the BBIE attributes 300120 and 300121 are of the data type Price_ Amount, the attributes of the DataType Price_
 189 Amount is combined with the BBIE. For the mapping purpose a dummy DataType attribute is introduced called "Content" which is
 190 added to all DataTypes. This is used to assign to the UN/EDIFACT element carrying the class information itself.

191

ClassName (from ABIE or ASBIE)	BusinessTerm (from BT)	Stereotype	Class UID	"attribute UID" (<<BBIE>>)	Attribute Business Term	DataType	DataType attribute	FixedValue
ClassB5	ClassB6	<<ABIE>>	100022	300120	B6-BT1	Price_ Amount	Content	
						Price_ Amount	Amount Content. Fractional Digits. Value	4
						Price_ Amount	Amount Content. Total Digits. Value	15
						Price_ Amount	Amount Currency. Code List. Identifier	6345
						Price_ Amount	Amount Currency. Code List Agency. Identifier	9
						Price_ Amount	Amount Currency. Code List Agency Name. Text	EAN
				300121	B6-BT2	Price_ Amount	Content	
						Price_ Amount	Amount Content. Fractional Digits. Value	4
						Price_ Amount	Amount Content. Total Digits. Value	15
						Price_ Amount	Amount Currency. Code List. Identifier	6345
						Price_ Amount	Amount Currency. Code List Agency. Identifier	9
						Price_ Amount	Amount Currency. Code List Agency Name. Text	EAN

Figure: Standard Class-BBIE-DataType diagram

192 **4.3.2.5. Make the mapping: (Component Transformation diagram)**
 193 For each Class, map the DataType attribute to an EDI element. Some attributes specify a property of the DataType, and cannot be
 194 mapped, but can usually be used for format checking, code list identification, etc.
 195

196 In the EDIFACT part, a column Link is used. This field is used, if information from different BBIEs is to be kept together in the same
 197 EDI segment instance. The Link number is issued by the developer and shall be kept unique in the specific mapping.

- 198 In certain cases it is required to add additional UN/EDIFACT data elements that are not explicitly expressed in UML, e.g. qualifiers.
- 199 Example: an UML attribute “Buyer identification number” will require two fields in UN/EDIFACT - one qualifier and one
- 200 identification data element in the NAD segment.

UML							UN/EDIFACT									
ClassName (from ABIE or ASBIE)	BusinessTerm (from BT)	Stereotype	ClassUID	"attribute UID" (<<BBIE>>)	Attribute Business Term	DataType	DataType attribute	Fixed Value	Segment	Composite element	Data Element	Format	M/C	Link	Value	
ClassB5	ClassB6	<<ABIE>>	100022	300120	B6-BT1	Price_Amount	Content		PRI	C509	5118	n..15	C			
							Amount Content. Fractional Digits. Value	4								
							Amount Content. Total Digits. Value	15								
							Amount Currency. Code List. Identifier	6345								
							Amount Currency. Code List Agency. Identifier	9								
							Amount Currency. Code List Agency Name. Text	EAN								
									PRI	C509	5125	an..3	M	INF		
									PRI	C509	5387	an..3	O	MRP		
									PRI	C509	5118	n..15	C			
									PRI	C509	5125	an..3	M	AAE		
									PRI	C509	5387	an..3	O	LIU		
				300121	B6-BT2	Price_Amount	Content		PRI	C509	5118	n..15	C			
							Amount Content. Fractional Digits. Value	4								
							Amount Content. Total Digits. Value	15								
							Amount Currency. Code List. Identifier	6345								
							Amount Currency. Code List Agency. Identifier	9								
							Amount Currency. Code List Agency Name. Text	EAN								
									PRI	C509	5125	an..3	M	AAE		
									PRI	C509	5387	an..3	O	LIU		
									PRI	C509	5118	n..15	C			
									PRI	C509	5125	an..3	M	AAE		
									PRI	C509	5387	an..3	O	LIU		

201 Figure: Standard Mapping Table

- 202 When making these mappings, each property of the BBIE is checked with the EDI part. This may result in conflicts between the UML
- 203 artefacts and the UN/EDIFACT constructs. Examples of this could be an UML attribute with a data length longer than the existing

204 UN/EDIFACT data element or a mandatory segment that does not exist in the UML model. These anomalies will be recorded in the
 205 Deficiency report.

206 4.3.3. Message Structure Transformation Rules

207 The following paragraphs show how the Message mapping is produced

208 4.3.3.1. Register the relations

209 The relations between <<ABIE>> and <<ASBIE>> are captured in the Message mapping relation table

ClassName	BusinessTerm	Relation	TargetClassUID	TargetClassName	TargetClassBusinessTerm
ClassB1	ClassB2	<<Association>>	500025	ClassB3	ClassB4
ClassB3	ClassB4	<<Generalisation>>	100022	ClassB5	ClassB6

210 *Figure: Message mapping relation table*

211 4.3.3.2. The message mapping table

212 When doing the message mapping, the mapping information for the used classes (ABIE and ASBIE) are imported from the
 213 *Component Transformation* mapping table.

214 The items that are imported are checked for correctness against the target UN/EDIFACT message. If the mapping is different for this
 215 message than in the Component Transformation, the changed UN/EDIFACT information is updated in the below table.

216 The segment position number is added to the segment name.

217 The mapping is checked for any deficiencies, and any changes according to the standard deficiency report are added or amended.

218

ClassName (from ABIE or ASBIE)	BusinessTerm (from BT)	Stereotype	ClassUID	"attribute UID" (<<BBIE>>)	Attribute Business Term	Data Type	Data Type attribute	Fixed Value	Segment	Composite element	Data Element	Format	M/C	Link	Value
ClassB5	ClassB6	<<ABIE>>	100022	300120	B6-BT1	Price_Amount	Content		PRI(20)	C509	5118	n..15	C		
							Amount Content. Fractional Digits. Value	4							
							Amount Content. Total Digits. Value	15							
							Amount Currency. Code	6345							

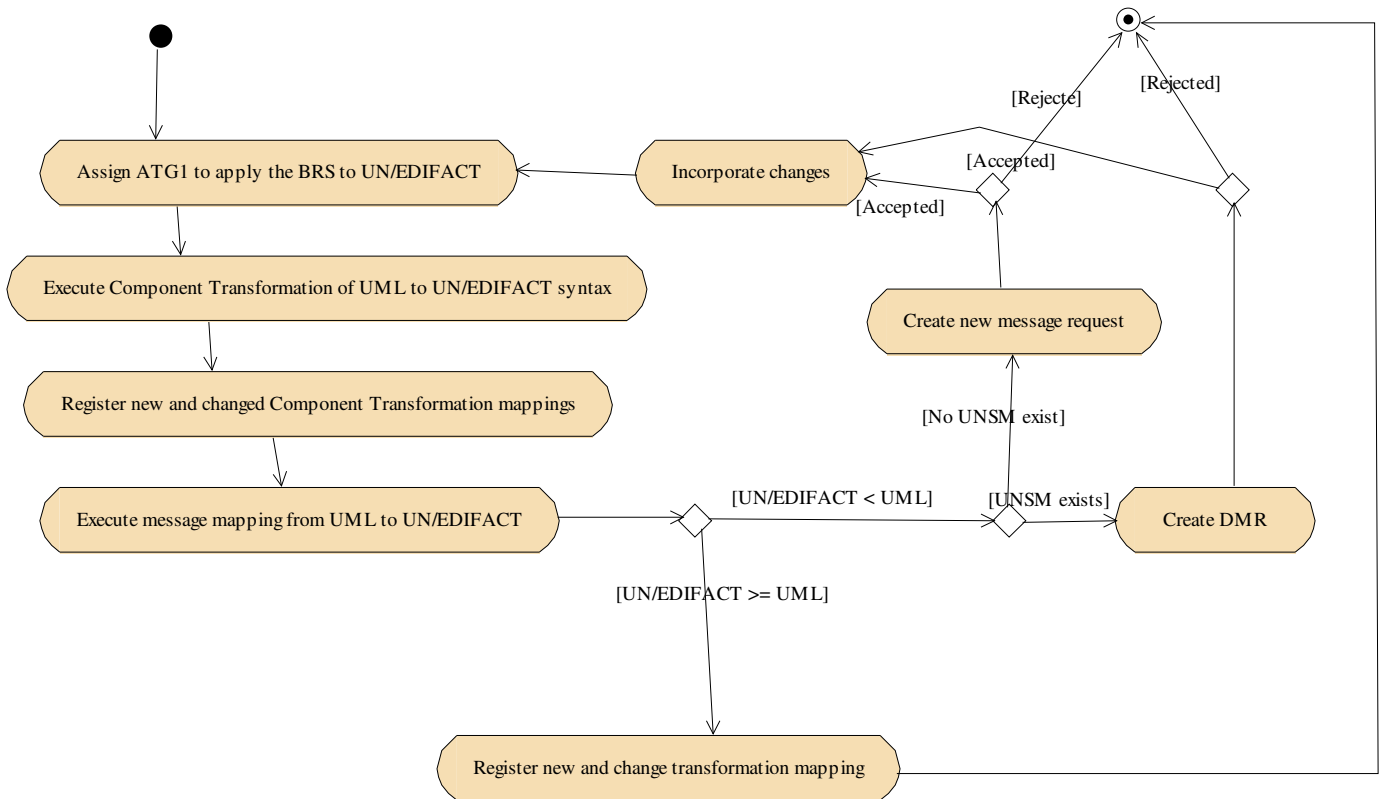
	List. Identifier						
	Amount Currency. Code	9					
	List Agency. Identifier						
	Amount Currency. Code	EAN					
	List Agency Name. Text						
			PRI	C509	5125	an..3	M
		PRI	C509	5387	an..3	O	MRP

219 Figure: Message mapping table

220 **4.4. Procedures**

221 **4.4.1. Workflow**

222 For the workflow between TBG, ICG and ATG, see *UN/CEFACT forum operating*
 223 *procedures between the TBG, ATG & ICG.*



224 4.4.1.1. The Path from UML to UN/EDIFACT

225 The path from UML to UN/EDIFACT depends on whether an existing UN/EDIFACT
226 message either fulfils or exceeds the requirements expressed in the UML, or is in this
227 respect deficient.

228 At high level, there are 3 possible outcomes of a deficiency analysis of the UML-to-
229 UN/EDIFACT relationship:

- 230 1. If the **UML is subset of an UN/EDIFACT message** ($UML \leq UN/EDIFACT$ -- i.e.,
231 UML functionality is already catered for in an existing UN/EDIFACT message), then
232 no action must be taken; the existing UN/EDIFACT message is used.
- 233 2. If the existing **UN/EDIFACT message is a subset of UML** ($UML > UN/EDIFACT$
234 -- i.e., *some* of the UML functionality is not catered for in an existing UN/EDIFACT
235 message) a DMR must be submitted to add this functionality to an UN/EDIFACT
236 message.
- 237 3. If **no UN/EDIFACT message exists for the UML transaction** ($UML \neq$
238 $UN/EDIFACT$ -- i.e., *none* of the UML functionality is catered for in an existing
239 UN/EDIFACT message) a DMR must be submitted to create a new EDIFACT
240 message.

241 4.4.2. Analysis

242 4.4.2.1. Deficiencies

243 A *deficiency* is an instance where mapping between the UML and UN/EDIFACT is not
244 possible, due to a missing element.

- 245 • **Missing functionality** (i.e., existing in either UML or UN/EDIFACT, but not
246 both):
 - 247 ○ Segments/data elements
 - 248 ○ Codes
 - 249 ○ Entire message(s)
 - 250 ○ Mandatory UN/EDIFACT elements not found in UML
 - 251 ○ Format/data type (e.g., string vs. integer, numeric vs. alphanumeric, etc.)

252 4.4.2.2. Discrepancies

253 A *discrepancy* is an instance where anomalies exist, but do not prevent the mapping.

254 **Discrepancies** may occur at structural level, for example a single UN/EDIFACT segment
255 covering multiple classes.

- 256 • **Hierarchical differences**

257 **The information exists both in UML and UN/EDIFACT but in different**
258 **hierarchical levels, e.g. related to item in one and to the root element in the**
259 **other.**

260 **4.4.2.3. Documentation of findings: Deficiency Report**

261 All deficiencies and discrepancies should be documented; see the **Deficiency Report**
262 worksheet in Appendix 2.

263 Corrective action (i.e., to enable a full mapping) should be suggested, where possible, and
264 a note made if corrective action appears to be impractical, and why.

265 The responsible TBG will receive the deficiency report in writing (by eMail).

266 **4.4.3. Roles and responsibilities**

267 • **ATG**

268 ✓ Component Transformation

269 ✓ Message Structure Transformation

270 ✓ Deficiency analysis

271 • **TBG**

272 ✓ Approve BRS, including UML artefacts

273 ✓ Approve harmonised Core Components

274 • **ICG**

275 ✓ Register component mapping in a registry

276 ✓ Register message mapping a registry

277 See UN/CEFACT forum operating procedures between the TBG, ATG & ICG for more
278 details.

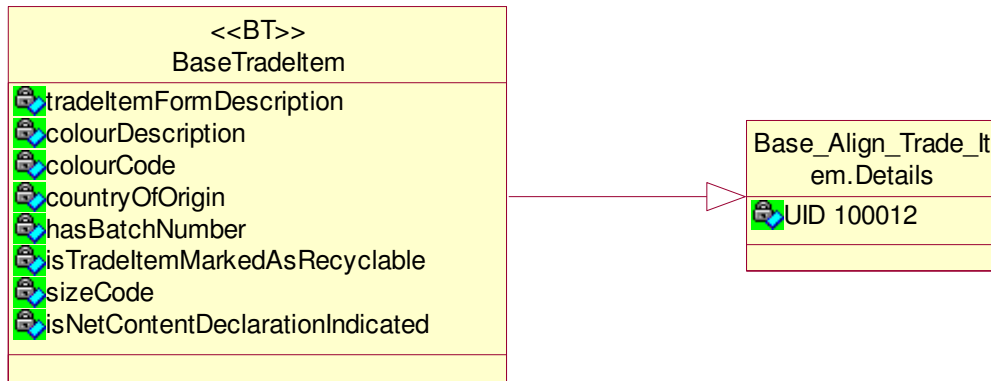
279 Annex 1, Examples

280 UML to UN/EDIFACT Example

281 4.4.4. Component Transformation

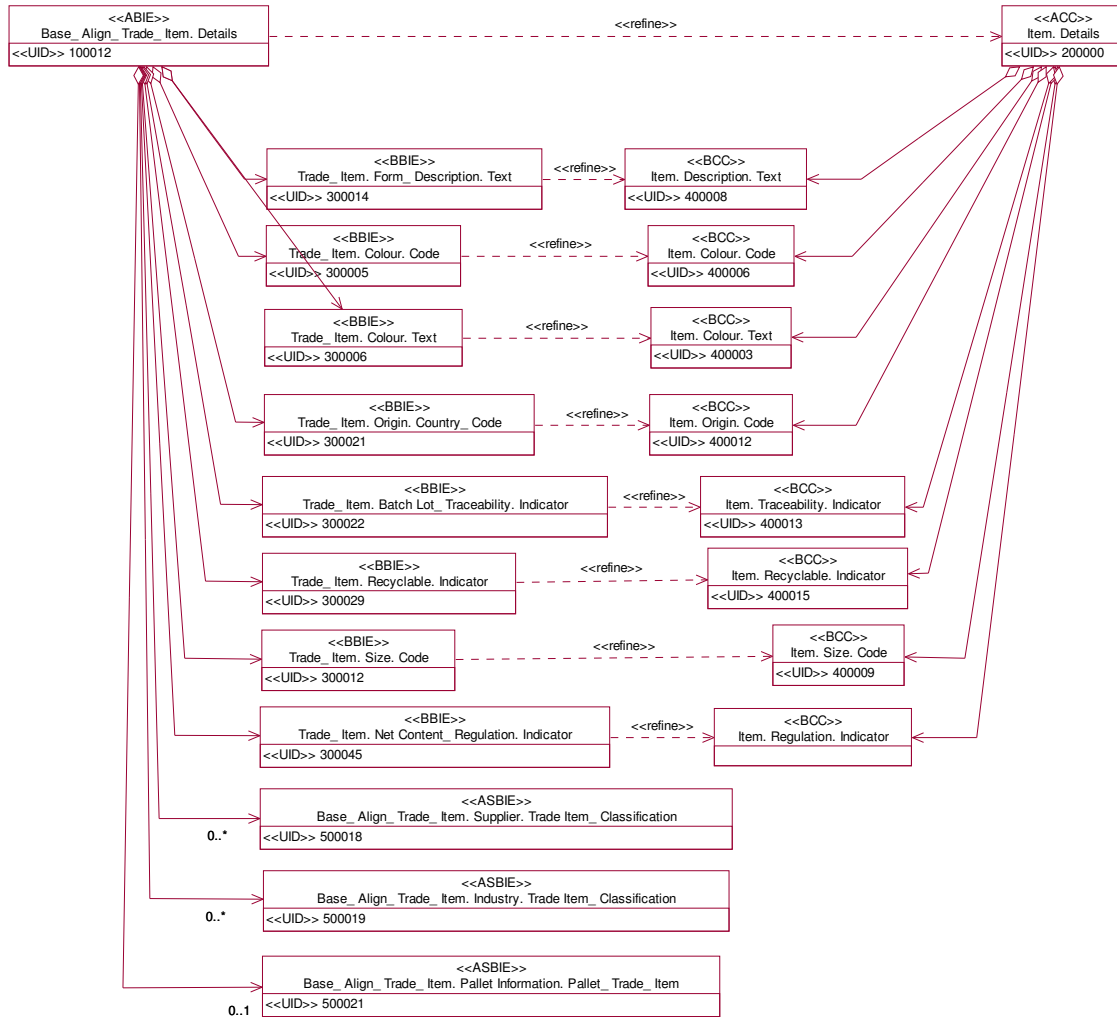
282 From the BRS Item V7.1 (BP1. AlignTradeItem - BT1. AlignTradeItemData - DCDI05),
283 we have extracted one class.

284 Class Diagram: Base Trade Item



285

286 To find the data type related to the attribute described in the class above, we have used
 287 the class diagram extracted:



288

289 **The description of the data type is described in the CCTS document.**
 290 **See hereafter the description of the data type "Code", "Text" extracted from this**
 291 **document:**

292 **Code. Type:**

293 Components:

- 294 ❖ Code. Content :
- 295 ❖ Code List. Identifier :
- 296 ❖ Code List. Agency. Identifier :
- 297 ❖ Code List. Name. Text :
- 298 ❖ Code List. Version. Identifier :
- 299 ❖ Code List. Agency. Name :

300 **Text. Type**

301 Components:

302 ❖ Text. Content :

303 ❖ Language. Identifier :

304 ❖ Language. Locale. Identifier :

305 Standard mapping the above UML class diagram to UN/EDIFACT

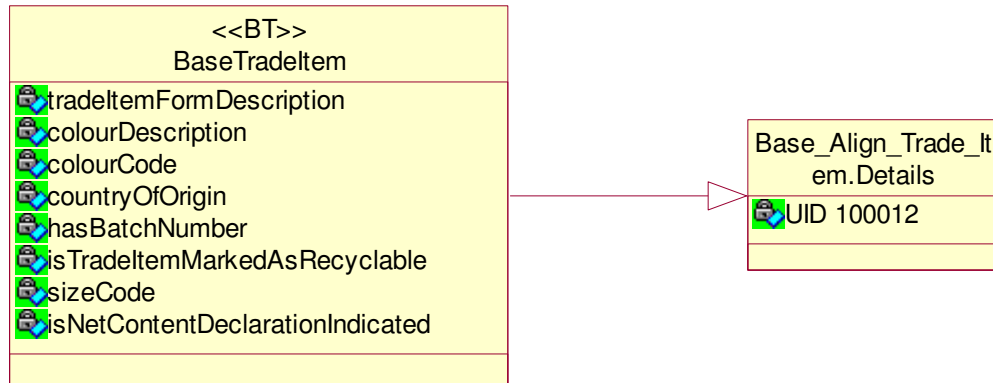
UML						UN/EDIFACT						
UML						Syntax	Directory					
1.3						3	D96A					
Class	Business Term	Stereotype	UID	UID								
Base_Align_Trade_Item.Details	BaseTradeItem	<<ABIE>>	100012	100012								
Attribute	Business Term	UID	Data Type	Data Type	Datatype Attribute	Value	Segment	Composite Element	Data Element	Length	Status	Contents
Trade_Item.Form_Description.Text	tradeItemFormDescription	300006	Text	Text		70	IMD		7077	an..3	R	A
					Text Content. Maximum length.value			C273	7008	an..256	O	Value
								C273	7008	an.. 256	O	Value
					Language.Identifier				3453	an..3	O	value
					Language.Local.Identifier				No data element			
Trade_Item.Colour.Text	colourDescription	300014	Text	Text		70	IMD		7077	an..3	R	A
									7081	an..3	O	35
					Text Content. Maximum length.value			C273	7008	an.. 256	O	Value
					Language.Identifier				3453	an..3	O	value

					Language.Local.Identifier				No data element			
Trade_Item.Colour.Code	colourCode	300005	Code	Code	Code.content		IMD		7077	an..3	M	E
									7081	an..3	O	35
								C273	7009	an..35	O	Value
					Code List Identifier			C273	1131	an..3	O	Code list
					CodeList.Agency.Identifier			C273	3055	an..3	O	Agency responsible
					CodeList.Name.text			C273	7008	an.. 256	O	Value
					CodeList;version.identifier				No data element			
Trade_Item.Origin.Country.Code	countryOfOrigin	300021	Code	Code	Code.content		ALI		3239	an..3	O	Use ISO 3166
					Code List Identifier				No data element			
					CodeList.Name.text				No data element			
					CodeList;version.identifier				No data element			
Trade_Item.Batch Lot Traceability. Indicator	hasBatchNumber	300022	Indicator	Indicator	Indicator Content.Primitive Text = (true, false)		ALI		4183	an..3	O	Change request required.
					IndicatorCo			C212	7140	an..35	R	Value

					Content.MaxLength Text = String								
								C273	7143	an..35	R	NB	
Trade_ Item. Recyclable. Indicator	isTradeItemMarkedAsRecyclable	300029	Indicator	Indicator	IndicatorContent.Primitive Text = (true, false)		PAC	C273	7233	an..3	O	RCM	
								C202	7065	an..3	A	PK	
					IndicatorContent.MaxLength Text = String			C202	7064	an..35	O	value	
Trade_ Item. Size. Code	sizeCode	300012	Code	Code	Code.content		IMD		7077	an..3	R	E	
					Code List Identifier			C273	1131	an..3	O	Code list	
					CodeList.Agency.Identifier			C273	3055	an..3	O	Agency responsible	
					CodeList.Name.text			C273	7008	an.. 256	O	Value	
					CodeList;version.identifier				No data element				
									7081	an..3	O	98	
								C273	7009	an..35	O	Value	
Trade_ Item. Net Content_ Regulation. Indicator	isNetContentDeclarationIndicated	300045	Indicator	Indicator	IndicatorContent.Primitive Text = (true, false)		ALI		4183	an..3	O	2 changes request must be created to add a code to express Trade Item with Net	

306 **4.4.5. Message Structure Transformation**

307 **From the BRD Item V7.1 (BP1. AlignTradeItem - BT1. AlignTradeItemData - DCDI05), we have extracted one class.**



308

309 **Mapping the above UML class diagram to UN/EDIFACT**

UML							UN/EDIFACT					
BRS	Version UML	Content		t			Syntax	Directory	UN/EDIFACT Message			
Item V7.1	1.3	Align					3	D96A	PRODAT			
Class	Business Term	Stereotype	UID	Relation								
Base_Align_Trade_Item.Details	BaseTradeItem	<<ABIE>>	100012	<<generalisation>>								
Attribute	Business Term	UID	Multiplicity	Data Type	Datatype Attribute	Value	Segment	Composite Element	Data Element	Length	Status	Contents
Trade_Item_Form_Description.Text	tradelItemFormDescription	300006	1	Text		70	IMD (25)		7077	an..3	R	A
					Text Content. Maximum			C273	7008	an..256	O	Value

					length.value							
								C273	7008	an..256	O	Value
					Language.Identifier				3453	an..3	O	value
					Language.Local.Identifier				No data element			
Trade_Item.Colour.Text	colourDescription	300014	1	Text		70	IMD (25)		7077	an..3	R	A
									7081	an..3	O	35
					Text Content. Maximum length.value			C273	7008	an..256	O	Value
					Language.Identifier				3453	an..3	O	value
					Language.Local.Identifier				No data element			
Trade_Item.Colour.Code	colourCode	300005	1	Code	Code content		IMD (25)		7077	an..3	M	E
									7081	an..3	O	35
								C273	7009	an..35	O	Value
					Code List Identifier			C273	1131	an..3	O	Code list
					CodeList.Agency.Identifier			C273	3055	an..3	O	Agency responsible

					CodeList. Name.text			C273	7008	an.. 256	O	Value
					CodeList; version.id entifier				No data element			
Trade_ Item. Origin. Country_ Code	countryOfOrigin	300021	1	Code	Code.cont ent		ALI (33)		3239	an..3	O	Use ISO 3166
					Code List Identifier				No data element			
					CodeList. Name.text				No data element			
					CodeList; version.id entifier				No data element			
Trade_ Item. Batch Lot_ Traceability. Indicator	hasBatchNumber	300022	1	Indicator	Indicator Content.Pr imitive Text = (true, false)		PIA (18)		4347 No data element	an..3	M	1
					IndicatorC ontent.Ma ximumLen gth Text = String			C212	7140	an..35	R	Value
								C273	7143	an..35	R	NB
Trade_ Item. Recyclable. Indicator	isTradeItemMarke dAsRecyclable	300029	1	Indicator	Indicator Content.Pr imitive Text = (true, false)		PAC (40)	C273	7233	an..3	O	RCM
								C202	7065	an..3	A	PK
					IndicatorC ontent.Ma			C202	7064	an..35	O	value

					Maximum Length Text = String							
Trade_Item. Size. Code	sizeCode	300012	1	Code	Code.content		IMD (25)		7077	an..3	R	E
					Code List Identifier			C273	1131	an..3	O	Code list
					CodeList. Agency.Identifier			C273	3055	an..3	O	Agency responsible
					CodeList. Name.text			C273	7008	an..256	O	Value
					CodeList; version.identifier				No data element			
									7081	an..3	O	98
								C273	7009	an..35	O	Value
Trade_Item. Net Content_Regulation. Indicator	isNetContentDeclarationIndicated	300045	1	Indicator	IndicatorContent.Primitive Text = (true, false)		ALI (33)		3239	an..3	O	???
					IndicatorContent.MaximumLength Text = String		ALI(33)		No data element			2 changes request must be created to add a code to express Trade Item with Net content regulation and Trade Item without net content regulation

311 **Annex 3, Glossary of Terms**

Term	Definition
ABIE	Aggregate Business Information Entity (ref. ebXML Core Component Technical Specification)
ASBIE	Association Business Information Entity (ref. ebXML Core Component Technical Specification)
BBIE	Basic Business Information Entity (ref. ebXML Core Component Technical Specification)
BRS	Business Requirements Specification
EDI	Electronic Data Interchange
MDR	Message Design Rules
UML	Unified Modelling Language
UMM	UN/CEFACT Modelling Methodology
UN/EDIFACT	United Nations Electronic Data Interchange For Administration, Commerce and Transport.
XML	eXtensible Markup Language

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