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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

Working Party on Customs Questions affecting Transport

Informal Ad hoc Expert Group on the Conceptual and  
Technical Aspects of Computerization of the TIR Procedure

Twelfth session  
Geneva, 12 June 2007  
Item 2 (b) of the provisional agenda

**ACTIVITIES OF THE EXPERT GROUP\***

World Customs Organization transit data model

Proposed data modification requests (DMRs)

Note by the secretariat

**I. BACKGROUND AND MANDATE**

1. The secretariat actively participates in the elaboration of version 3 of the World Customs Organization (WCO) data model with the aim to encompass the TIR requirements into the future version of the transit data model. At its previous session, the Expert Group discussed document ECE/TRANS/WP.30/GE.1/2007/4, highlighting the differences between the TIR and WCO data models. Taking into account the comments made by the Expert Group, the secretariat attended the WCO Data Model Project Team (DMPT) meeting which took place in Brussels from 19 to 23 March 2007.

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\* The UNECE Transport Division has submitted the present document after the official documentation deadline.

2. This document contains proposals for modifications to version 2 of the model, as listed by the DMPT at its last session. The Expert Group may wish to comment on the proposed modifications and advise the secretariat on follow-up actions.

3. When considering this document, the Expert Group may wish to take into account that the scope of version 3 of the transit WCO data model is restricted to the declaration aspects of the business-to-government (B2G) communications, whereas the TIR Carnet allows for the exchange of information between Customs administrations, from Customs administration to the private sector (response messages), as well as B2G exchange of information with regard to guarantees. In addition, the Expert Group should bear in mind that the WCO data model aims at modelling electronic messages. Therefore, modifications related to paper-based procedures, such as TIR for the time being, should focus on concepts rather than on the representation of information. Finally, coded information should be preferred to textual information, whenever possible.

## II. DATA MODIFICATION REQUESTS (DMRs)

4. A number of issues have been identified in the course of the DMPT meeting. Solutions to those issues have to be found in order to ensure that an electronic TIR declaration, based on the current requirement of the TIR Convention, could be developed on the basis of the WCO transit data model. The table below lists the issues and presents the solutions proposed at the transit subgroup meeting, together with comments from the secretariat on some of the proposals (in italics).

#	Issue	Proposed solution
1	The <b><i>Date of Expiry</i></b> present on the TIR Carnet is not available in the current transit data model.	A “Guarantee expiry date” data element could be added to the “ObligationGuarantee” class.
	<i>In view of the fact that the date of expiry is filled-in by the issuing association to inform Customs authorities of the validity of the guarantee, the Expert Group may wish to give its views on the fact that such data element could be considered as part of the declaration made by the holder to the Customs authorities. In case the Guarantee Chain makes this information available to Customs authorities, the only element required in the holder’s declaration is the identification of the guarantee (see also issues 2 and 9).</i>	
2	<b><i>Signatures</i></b> of the issuing association as well as the international organization on the TIR Carnet represent a form of authentication. The actual transit data model does not foresee any form of authentication of the Guarantee Chain.	The transit subgroup considered the possibility of using data element 104 (Authentication) from the declaration class in the transit data model.
	<i>The Expert Group may wish to express its views on the conceptual usefulness to have the authentication of the association and of the international organization as being part of the holder’s declaration, bearing in mind that the authentication of the guarantee chain is highly relevant when it comes to exchange guarantee information between the Guarantee chain and the Customs authorities, but this is not in the scope of the data model version 3 (see also issue number 1 and 9). Moreover data element 104 could not be used to provide the authentication of the association and the international organization and that of the holder (see also issue number 7).</i>	

#	Issue	Proposed solution
3	In the TIR system, there can be <b>multiple destinations</b> for one single transport. On the cover page, the list of countries of destination has to be indicated. Moreover, in the goods manifest, goods have to be listed under their destination. The actual transit data model only allows to specify one destination for the whole consignment.	First, the cardinality from the Consignment class to the TransitDestination has to be changed from “0..1” to “*”. Then, linking the TransitDestination class also to the ConsignmentItem would allow to specify different destinations for each item of the load.
4	The <i>means of transport</i> used to perform a TIR transport have to be identified on the TIR Carnet. Using the current version of the transit data model, the identification of the vehicles could be provided using the BorderTransportMean or the DepartureTransportMean class. None of those two classes can be clearly considered as the Transport means used for the transit.	In order to simplify the model, and allow more flexibility, the transit subgroup was of the view that the transit model could use a more general class such as the TransportMean class. Such class could be used for the identification of any mean of transport at departure, at the border or more generally used for transit. In order to do so, a role or usage type data element could be added to the TransportMeans class.
	<i>The Expert Group may wish to comment on the possibility to leave the TransportMeans class unchanged and to provide the role or usage of the transport means as an attribute of an association-class linking the TransportMeans with the Consignment.</i>	
5	The transit subgroup decided to consider the <b>certificate of approval</b> as an additional document. Nevertheless, the AdditionalDocument class does not allow for the indication of the issuance date of the document.	In order to also be able to provide the date of the certificate of approval, data element 219 (Additional document issuing date) should be added to the AdditionalDocument class.
6	The <b>remarks</b> on the cover page allow the holder to provide comments concerning the whole declaration. There are no data elements in the transit data model that would allow providing such information.	Adding a link from the Consignment class to the AdditionalInformation class would allow the holder to provide remarks concerning the whole declaration.
7	The <b>signature of the holder</b> on the cover page of the TIR Carnet represents a form of authentication. The actual transit data model does not foresee any form of authentication of the holder.	The transit subgroup considered the possibility of using data element 104 (Authentication) from the declaration class in the transit data model.
8	On the goods manifest, the <b>Customs office(s) of departure</b> is (are) mentioned. The transit subgroup could not find any mapping for that information in the current transit model.	Adding a “TransitDeparture” class would allow providing the information (the class would have the following attributes: Country, coded; Customs Office, coded and plain text). The class should be linked with a “*” cardinality to the Consignment class and with a “0..1” cardinality to the ConsignmentItem class.

#	Issue	Proposed solution
	<i>The Expert group may wish to recommend having similar information for Departure and Destination. That would require the inclusion of a single location code in the Transit Departure class or the inclusion of a Country code and a non-coded destination in the TransitDestination class. Moreover, the location of country data element of this class could be used instead for mapping the Country of Destination instead of data element 202 in the GoodsConsignedPlace.</i>	
9	<p>The <b>name of the international organization</b> is printed on the Carnet but there is no data element available for such information in the present Transit data model.</p> <p><i>In view of the fact that the transit model should be restricted to the B2G information concerning the declaration, the Expert Group may wish to consider whether the international organization name on the TIR Carnet is an element of the declaration. This issue should be considered in connection with issues number 1 and 2.</i></p>	<p>The transit subgroup proposed that a data element “Guarantor” could be added to the ObligationGuarantee class to allow the identification of the guaranteeing body issuing the guarantee.</p>
10	<p>The <b>Customs office of departure</b> indicates the <b>date</b> at which it accepts the TIR Carnet by stamping and <b>signing</b> it. There are no such data elements in the transit data model.</p> <p><i>The information concerning the acceptance date and the identification of the Customs office of departure seems more relevant for a response message to the declaration. The response messages regarding transit are outside the scope and will be dealt with by the response messages subgroup. The expert Group may wish to indicate if the information is relevant in the framework of the declaration.</i></p>	<p>The transit subgroup proposed that data element 104 (Authentication) and 023 (Goods declaration acceptance date (Customs), coded) could be added to the transit data model.</p>
11	<p>In the transit data model, the <b>TransportEquipment</b> class is linked to the Consignment, whereas the EquipmentIdentification, containing only the ID of the Transport equipment, is linked to the ConsignmentItem class. It is an accepted practice in modeling that the identifier of a class is an element of the class and not stored in another class.</p>	<p>The transit subgroup proposed to remove the EquipmentIdentification class and have the data element 159 (Equipment identification number) moved to the Transport equipment class. This class would be linked to both Consignment and ConsignmentItem classes.</p>

### III. FINAL CONSIDERATIONS

5. The Expert Group may wish to advise the secretariat on the proposed modifications to the WCO transit data model and react to the comments provided by the secretariat. Annexes 1 and 2 show respectively how the data elements list would be affected by the proposed changes and how the data model would look like.

Annex 1  
WCO data sets used in the transit data model version 2

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
003	Additional document reference number	Identifier of a document providing additional information.	AdditionalDocument	1004	Document.Identifier	an..35	
170	Additional document type, coded	Code specifying the name of an additional document.	AdditionalDocument	1001	Document.Type.Code	an..3	National codes. EDIFACT codes available.
<b>219</b>	<b>Additional document issuing date</b>	<b>Date at which an additional document was issued and when appropriate, signed or otherwise authenticated.</b>	<b>AdditionalDocument</b>	<b>2001</b>	<b>Date.Date.DateTime</b>	<b>n8 (CCYYMMDD)</b>	
105	Free text	Free text field available to the message sender for information.	AdditionalInformation	4440	FreeText.Text	an..512	
225	Additional statement text	Description of an additional statement	AdditionalInformation	4440	FreeText.Text	an..512	
226	Additional statement, coded	Coded form of an additional statement.	AdditionalInformation	4441	FreeText.Code	an..17	User codes
239	Street and number/P.O. Box	Specification of the postal delivery point such as street and number or post office box.	Address	3042	PostalService.DeliveryPoint.Text	an..35	
241	City name	Name of a city.	Address	3164	Address.City.Text	an..35	
242	Country, coded	Identification of the name of the country or other geographical entity as specified in ISO 3166 and UN/ECE Rec 3	Address	3207	Country.Identifier	a2	ISO 3166-1 2-alpha code

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
243	Country sub- entity name	Name of a country subdivision.	Address	3228	Country.Subdivision.Text	an..35	
244	Country sub- entity identification	Code specifying the name of a country subdivision.	Address	3229	Country.Subdivision.Identifier	an..9	ISO 3166-2 2-alpha code or user codes
245	Postcode identification	Code specifying a postal zone or address.	Address	3251	Address.Postcode.Identifier	an..9	National codes
160	Identification of means of transport crossing the border	Name to identify the means of transport used in crossing the border.	BorderTransportMeans	8212	TransportMeans.Identifier.Text	an..35	Sea: Vessel name
175	Nationality of means of transport crossing the border, coded	Nationality of the active means of transport used in crossing the border, coded.	BorderTransportMeans	8453	TransportMeans. RegistrationNationality.Identifier	a2	ISO 3166-1 2-alpha code
183	Mode/type of means of transport crossing the border, coded	Means and mode of transport used for crossing the border, coded.	BorderTransportMeans	8179	TransportMeans.Type.Code	an..4	UN/ECE Recommend ation 28
138	Brief cargo description	Plain language description of the cargo of a means of transport, in general terms only.	Commodity	7004	Consignment.Summary Description.Text	an..256	
145	Tariff code number (Customs)	Code specifying a type of goods for Customs, transport, statistical or other regulatory purposes (generic term).	Commodity	7357	GoodsItem.Type.Code	an..12	First 6 digits must be the HS code
234	Sensitive goods code	Codes for goods presenting increased risks of fraud in the course of a transit procedure in accordance with national law.	Commodity			n..2	User codes
051	Consignee name	Name [and address] of party to which goods are consigned.	Consignee	3036	Party.Name.Text	an..35	

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
052	Consignee, coded	Identifier of party to which goods are consigned.	Consignee	3039	Party.Identifier	an..17	International codes (e.g. DUNS, EAN) or user codes
096	Container transport indicator	An indication whether or not goods are transported in a container.	Consignment	7365	Process.Indicator.Code	n1	0 = no, 1 = yes
094	Customs status of goods, coded	Status of goods as identified by customs for regulation purposes.	ConsignmentItem	4095	GoodsItem.CustomsStatus.Code	an..3	National codes
006	Sequence number	Number indicating the position in a sequence.	ConsignmentItem	1050	Sequence. Position.Identifier	n..5	
233	Associated Customs Procedure Code	Code indicating which Customs procedure is associated with the declaration.	ConsignmentItem	7365	Process.Indicator.Code	an..4	User codes
139	Number of packages per commodity	Number of packages per consignment item packaged in such a way that they cannot be divided without first undoing the package.	ConsignmentItemPackaging	6061	Quantity.Quantity	n..8	
099	Amendment code	Code specifying the reason for a change.	Declaration TransportContractDocument	4295	Change.Reason.Code	an..3	EDIFACT codes
142	Shipping marks	Free form description of the marks and numbers on a transport unit or package.	ConsignmentItemPackaging	7102	GoodsItem.ShippingMarks.Text	an..512	UN/ECE Recommendation 15
141	Type of packages identification	Code specifying the type of package of an item.	ConsignmentItemPackaging	7065	Package.Type.Code	an..2	UN/ECE Recommendation 21 Annex VI

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
146	Total number of packages	Count of total number of packages of the entire declaration/ consignment.	DeclarationPackaging	6061	Quantity.Quantity	n..8	
071	Consignor - name	Name [and address] of the party consigning goods as stipulated in the transport contract by the party ordering transport.	Consignor	3036	Party.Name.Text	an..35	
072	Consignor, coded	To identify the party consigning goods as stipulated in the transport contract by the party ordering transport.	Consignor	3039	Party.Identifier	an..17	International codes (e.g. DUNS, EAN) or user codes
001	Declaration name, coded	Code specifying the name of a document.	Declaration	1001	Document.Type.Code	an..3	EDIFACT codes
002	Declaration reference number	Reference number identifying a specific document.	Declaration	1004	Document.Identifier	an..35	
017	Message function, coded	Code indicating the function of a document.	Declaration	1225	Document.Function.Code	n..2	EDIFACT codes
022	Declaration issuing date	Date at which a declaration was issued and when appropriate, signed or otherwise authenticated.	Declaration	2001	Date.Date.DateTime	n8 (CCYYMMDD)	
065	Customs office of declaration, coded	To identify a location at which a declaration is lodged.	Declaration	3225	Location.Identifier	an..11	UN/LOCODE (an..5) + user code (an..6), or user code (an..11)
082	Declaration issuing place, coded	Place at which a declaration was issued and when appropriate, signed or otherwise authenticated	Declaration	3411	Document.IssueLocation.Identifier	an..11	UN/LOCODE (an..5) + user codes (an..6)
131	Total gross weight	Weight (mass) of goods including packaging but excluding the carrier's equipment for a declaration.	Declaration	6092	DocumentDeclaredGrossWeight.Measure	n..11,3 (Floating delimiter with maximum decimals as defined)	



WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
227	Number of seals	To specify the number of seals affixed.	Declaration	6061	Quantity.Quantity	n..4	
228	Total number of items	Count of the total number of goods items within a declaration	Declaration	6061	Quantity.Quantity	n..5	
<b>104</b>	<b>Authentication</b>	<b>Proof that a document has been authenticated indicating where appropriate the authentication party.</b>	<b>Declaration</b>	<b>4426</b>	<b>Document.Authentication.Text</b>	<b>an..35</b>	<b>User codes</b>
034	Delivery destination	The address to which goods are to be delivered. Address, region and/or country as required by national legislation or according to national requirements.	DeliveryDestination	3042 3164 3228 3229 3251 3207	Various		
?	Identification of means of transport	To identify the means of transport in the context of a goods declaration.	TransportMean	8212	TransportMeans.Identifier.Text	an..35	
?	Mode/type of means of transport, coded	Means and mode of transport used for the carriage of the goods, coded.	TransportMean	8179	TransportMeans.Type.Code	an..4	UN/ECE Recommendation 28
?	Nationality of means of transport, coded	Nationality of the active means of transport.	TransportMean	8453	TransportMeans.RegistrationNationality.Identifier	a2	ISO 3166-1 2-alpha code
?	Means of transport type, coded		TransportMean				
158	Identification of means of transport at departure	To identify the means of transport used at the time of presentation of the consignment to a Customs office in the context of a goods declaration.	DepartureTransportMeans	8212	TransportMeans.Identifier.Text	an..35	

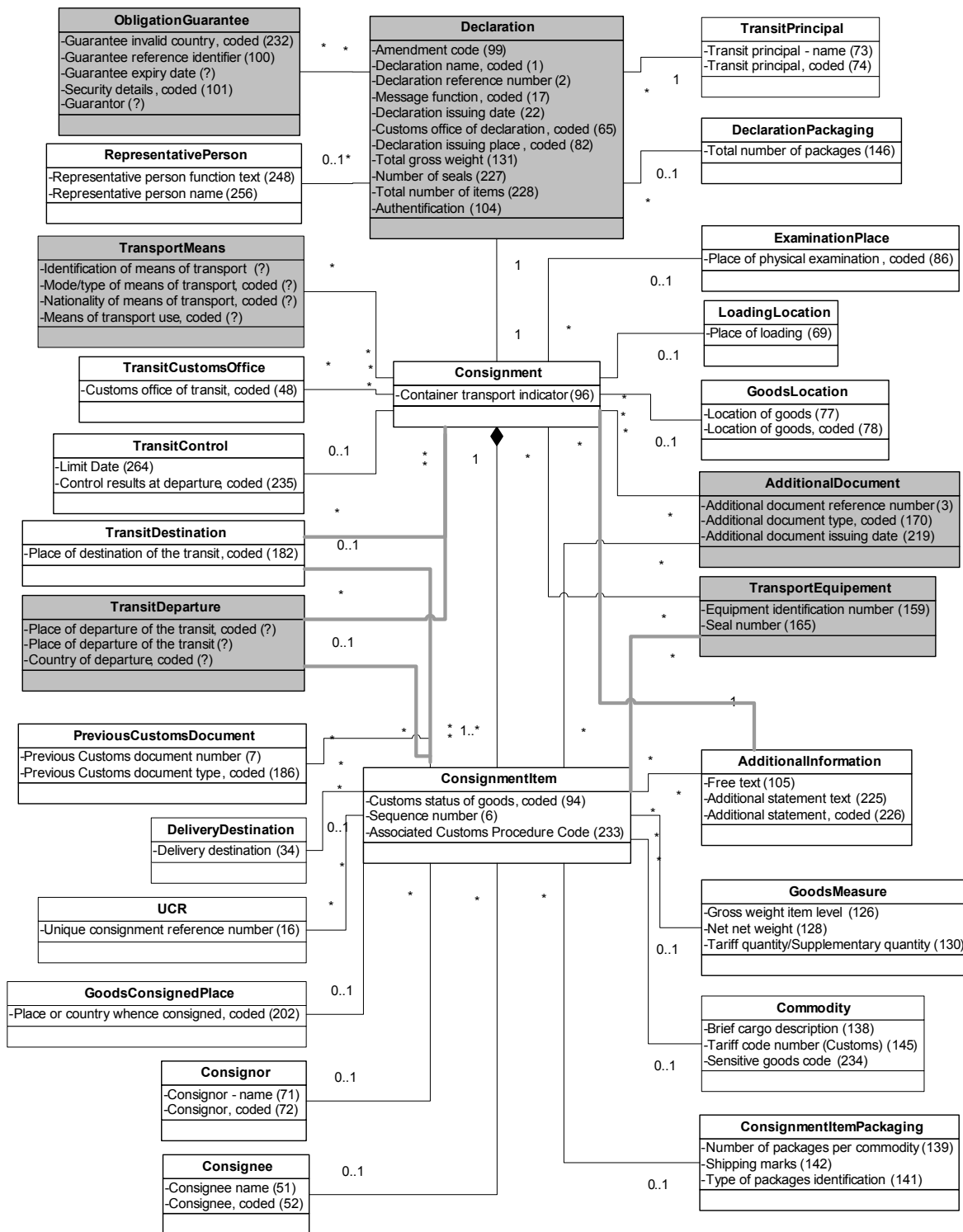
WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
176	Mode/type of means of transport at departure, coded	Means and mode of transport used for the carriage of the goods at departure, coded.	DepartureTransportMeans	8179	TransportMeans.Type.Code	an..4	UN/ECE Recommendation 28
178	Nationality of means of transport at departure, coded	Nationality of the active means of transport used at place of departure.	DepartureTransportMeans	8453	TransportMeans.Registration.Nationality.Identifier	a2	ISO 3166-1 2-alpha code
086	Place of physical examination, coded	Identification of a place where goods are to be examined if this place is different from the place where the goods are located (WCO Ref. 078).	ExaminationPlace	3225	Location.Identifier	an..11	UN/LOCODE (an..5) + user codes (an..6)
202	Place or country whence consigned, coded	Identification of the place in country or country from which the goods were initially dispatched to the importing country.	GoodsConsignedPlace	3225	Location.Identifier	an..11	UN/LOCODE (an..5) and user code (an..6), or ISO 3166-1 2-alpha code
077	Location of goods	Name of the place where goods are located.	GoodsLocation	3224	Location.Name.Text	an..70	
078	Location of goods, coded	To identify the place where goods are located.	GoodsLocation	3225	Location.Identifier	an..11	UN/LOCODE (an..5) + user codes (an..6)
126	Gross weight item level	Weight of line item including packaging but excluding the transport equipment.	GoodsMeasure	6018	LineItem.GrossWeight.Measure	n..11,3 (Floating delimiter with maximum decimals as defined)	
128	Net net weight	Weight (mass) of the goods themselves without any packing.	GoodsMeasure	6048	NetNetWeight.Measure	n..11,3 (Floating delimiter with maximum decimals as defined)	

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
130	Tariff quantity/ Supplementary quantity	Quantity of the goods in the unit as required by Customs for tariff, statistical or fiscal purposes.	GoodsMeasure	6102	GoodsItem.CustomsTariff. Quantity	n..14,3 (Floating delimiter with maximum decimals as defined)	
069	Place of loading	Name of a seaport, airport, freight terminal, rail station or other place at which goods are loaded onto the means of transport being used for their carriage	LoadingLocation	3224	Location.Name.Text	an..70	
232	Guarantee invalid country, coded	Code identifying the country where the guarantee is invalid.	ObligationGuarantee	3207	Country.Identifier	a2	ISO 3166-1 2-alpha code
100	Guarantee reference identifier	Details regarding undertaking given in cash, bond or as a written guarantee to ensure that an obligation will be fulfilled, e.g. under a transit procedure.	ObligationGuarantee	1154	Reference.Identifier	an..35	
?	<b>Guarantee expiry date</b>	...	ObligationGuarantee	?	?		
?	<b>Guarantor</b>	...	ObligationGuarantee	?	?	?	?
101	Security details, coded	Codes specifying details regarding undertaking given in cash, bond or as a written guarantee to ensure that an obligation will be fulfilled, e.g. under a transit procedure	ObligationGuarantee	4377	Obligation.Guarantee.Code	an..3	WCO codes or user codes
007	Previous Customs document number	The number of a previous Customs document.	PreviousCustomsDocument	1004	Document.Identifier	an..35	
186	Previous Customs document type, coded	Type of document used for declaration previously presented on Customs territory, coded.	PreviousCustomsDocument	1001	Document.Type.Code	an..3	EDIFACT codes or user codes

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
248	Representative person function text	To specify the capacity in which the representative person acts on behalf of the party responsible for the declaration.	RepresentativePerson	4440	FreeText.Text	an..35	
256	Representative person name	Name of the representative of the party making the declaration.	RepresentativePerson	3412	Contact.Name.Text	an..35	
264	Limit Date	Date by when the transit movement has to be completed.	TransitControl	2001	Date.Date.DateTime	n8 (CCYYMMDD)	
235	Control results at departure, coded	Code indicating the results of the controls carried out by the authorized consignor prior to departure.	TransitControl	7365	Process.Indicator.Code	an2	User codes
048	Customs office of transit, coded	To identify the customs office which is responsible for transit formalities en route.	TransitCustomsOffice	3225	Location.Identifier	an..11	UN/LOCODE (an..5) + user codes (an..6)
?	<b>Place of departure of the transit, coded</b>	<b>Identification of the place at which the goods start to be under Customs control of transit procedure.</b>	<b>TransitDeparture</b>	<b>3225</b>	<b>Location.Identifier</b>	<b>an..11</b>	<b>UN/LOCODE (an..5) + user codes (an..6)</b>
?	<b>Place of departure of the transit</b>	<b>Identification of the place at which the goods start to be under Customs control of transit procedure.</b>	<b>TransitDeparture</b>	<b>4440</b>	<b>FreeText.Text</b>	<b>an..35</b>	
?	<b>Country of departure, coded</b>		<b>TransitDeparture</b>	<b>3207</b>	<b>Country.Identifier</b>	<b>a2</b>	<b>ISO 3166-1 2-alpha code</b>
182	Place of destination of the transit, coded	Identification of the place at which the goods are destined under Customs control of transit procedure.	TransitDestination	3225	Location.Identifier	an..11	UN/LOCODE (an..5) + user codes (an..6)

WCO ID	Name	Definition	Data model classes	UID	Name	Format	Code remarks
073	Transit principal - name	Name [and address] of party accepting liability for goods held or moving under a Customs authorization and - when applicable - a guarantee.	TransitPrincipal	3036	Party.Name.Text	an..35	
074	Transit principal, coded	Identifier of party accepting liability for goods held or moving under a Customs authorization and - when applicable - a guarantee.	TransitPrincipal	3039	Party.Identifier	an..17	International codes (e.g. DUNS, EAN) or user codes
165	Seal number	The identification number of a seal affixed to a piece of transport equipment.	TransportEquipment	9308	TransportEquipment.Seal.Identifier	an..35	
159	Equipment identification number	Marks (letters and/or numbers) which identify equipment e.g. unit load device.	<b>TransportEquipement</b>	8260	TransportEquipment.Identifier	an..17	ISO 6346, IATA
016	Unique consignment reference number	Unique number assigned to goods, both for import and export.	UCR	1202	Consignment.Identifier	an..35	WCO (ISO15459) or equivalent

Annex 2  
WCO transit data model version 3  
(English only)



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