

### **WCO** Recommendation

WCO RECOMMENDS that Members of the Council ....should as far as possible:

Adopt the WCO Data Model for the identification and definition of all crossborder regulatory data requirements related to pre-arrival/pre-departure formalities and procedures for import, export and transit.

Use the WCO data elements, their names and reference numbers (WCO ID's), the data element descriptions, the character representations (including the suggested code lists) in describing and composing electronic messages.

Use the standard electronic messages described in the WCO Data Model in Government to Government and Business to Government /Government to Business electronic messages.



### **WCO Data Model Components**

Earlier shown as a 'house'

### **WCO Data Model**

XML Schemas / messages Other readers, Guidelines etc

**Message Implementation Guidelines** 

**International CodeLists** 

**Harmonised maximum data sets** 

**Information models** 

**Business Process Models** 



### **WCO DM IS A LIBRARY**

From 'House' → to a Library

### **WCO Data Model**

XML Schemas / messages Other readers, Guidelines etc

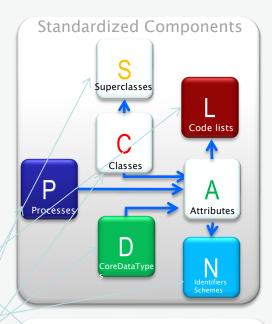
**Message Implementation Guidelines** 

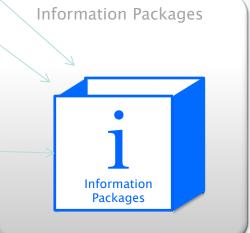
**International CodeLists** 

**Harmonised maximum data sets** 

Information models

**Business Process Models** 



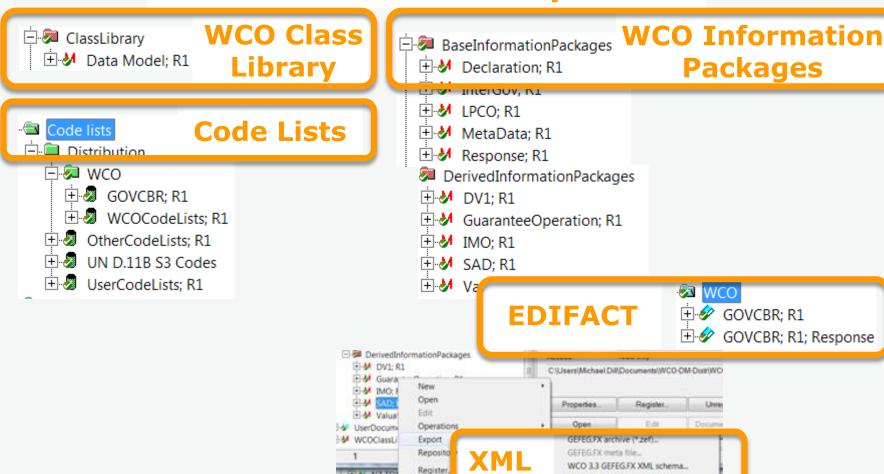




What is in the WCO Data Model

WCO GEFEG.FX XML schema.

## **WCO Data Model Components**



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- Context
- Content
- Structure
- Expression



## Context

- » Trader Facilitation
- » Security & Border Management
- » Geographical
- » Regulatory Procedure
- » Business Process
- » Information Systems

- Content
- Structure
- Expression

- Context
- Content

- » Data Element
  - » Definition
  - » Format
- » Code lists
- » Identifiers

- Structure
- Expression

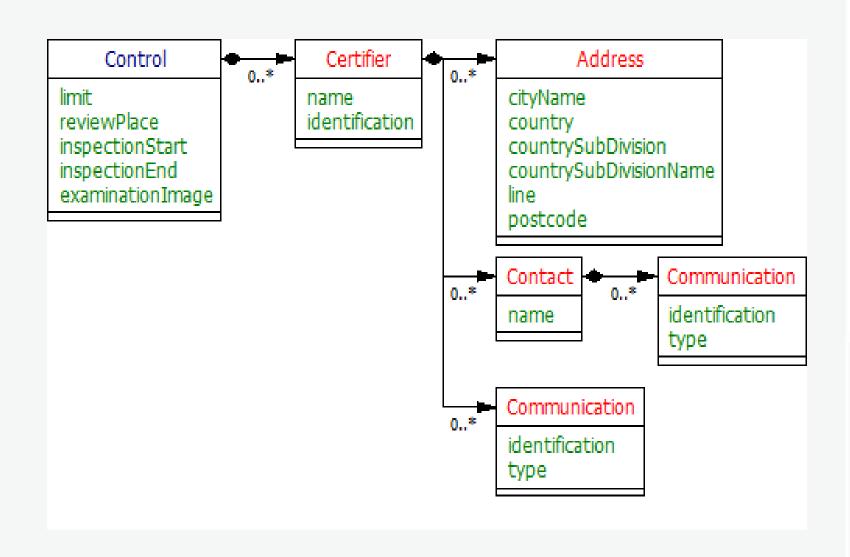
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| В               | С   | D   | E  | F              | G   | Н     | -1             | J     | K   | L M         | N                 |
| WCO ID          | WCO Name  | WCO Definition  | Data Model Classes   | WI ►           | EX  | CRI   | CRE            | CONV  | IRI     IRI | Format      | Code remarks      |
| 004             | Recentation number of chinment  | Reference number assigned by a carrier or its agent to identify a specific consignment.           | Consignment  | -              | X   | -     | -              | Χ     | -   | - an35      |                   |
| 006             | Sequence number   | Number indicating the position in a sequence.   | Commodity; Consignment; ConsignmentItem; GoodsShipment; GovernmentAgencyGoodsItem; Invoice; InvoiceLine; Itinerary; Packaging; Pointer; Seal; ShipToShipActivity; TransportEquipment | X              | x   | X     | X              | x     | X   | X n5        |                   |
| 009             | Trader reference  | Reference assigned by a trader to a declaration.  | UCR  | Х              | Х   | χ     | X              | Χ     | Х   | - an35      |                   |
| 010             | Stay Reference  | An identifier of the stay of a means of transport in a port or airport or other place of service. | BorderTransportMeans   | Х              | Х   | -     | X              | X     | -   | - an35      |                   |
| 011             | Carrier split consignment code  | Code assigned by the carrier for each load of a split consignment.                                | Consignment  | -              | -   | Х     | Χ              | -     | -   | - an3       | Codes 156 and 157 |
| 013             | Number of loading lists   | The number of loading lists, manifests or similar documents.                                      | Declaration  | X              | X   | -     | -              | -     | -   | - n5        |                   |
|                 | Payment reference number  | Reference number specifying a payment of a duty or tax.   | Payment  | X              | Х   | -     | -              | -     | -   | X an35      |                   |
| - Dat           | Data Set Version 3_20 WCO Data Model Version 2 Overview of Changes Data Model Classes DENs Explanatory Notes SuperClass Document |   |  |                |     |       |                |       |   |             |                   |
|                 |   |   |  |                |     |       |                |       |   |             | //o 🕣             |

- Context
- Content
- Structure

- » Class
  - » Attributes
- » Associations
- » UML
- » Hierarchical
- Expression



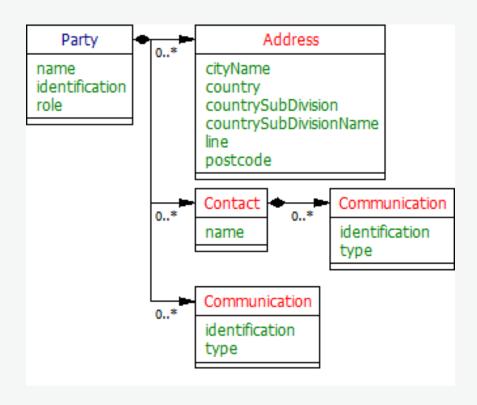
#### **Classes & Associations**





# THE WED DATA MODEL

### Superclasses



#### **Instantiation of Classes**

Communication Communication. Identification. Identifier

identification
type — Communication. Type. Code

| WCO ID | DEN   | Example       |
|--------|---|---------------|
| 253    | Communication. Type. Code                       | TE            |
| 240    | Communication.<br>Identification.<br>Identifier | 0033147590962 |

| WCO ID | DEN   | Example                      |
|--------|---|------------------------------|
| 253    | Communication. Type. Code                       | EM                           |
| 240    | Communication.<br>Identification.<br>Identifier | Lance.thompson<br>@conex.net |

#### **UN EDIFACT Code list 3155**

TE Telephone

Voice/data transmission by telephone.

EM Electronic mail

Exchange of mail by electronic means.

http://www.unece.org/trade/untdid/d11a/tred/tred3155.htm

**Levels in a Cargo Report** 

- Header Level (manifest)
  - Carrier
  - Transport Movement
  - Transport Means
- Item Level (manifest line)
  - Consignment (Transport Contract)
    - Consignment Item (Transporter's View of Goods)
      - » Commodity (Product Information)

Levels in a Goods Declaration

- Header Level (Declaration/ Entry)
  - Goods Shipment (commercial details-header level)
    - Invoice
    - Trade Terms
  - Consignment (Transportation details)

- Item Level (line item)
  - Govt Agency Goods Item (Regulatory View of Goods)
    - » Commodity (Product Information)
      - » Invoice Line (Commercial Details- Line level)



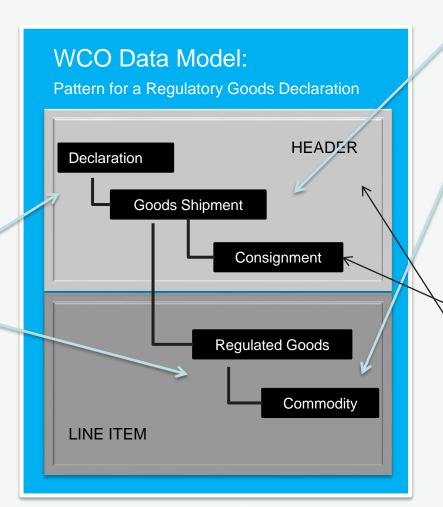
## WCO Data Model –

**Header & Item Levels** 

## REGULATORY DATA

Tariff Schedules
Non-tariff regulations

Licences Permits Certificates



#### TRADER DATA

Purchase Order Invoice

Packing lists

Despatch Advise

Catalogues

**Product Data Sheets** 

#### TRANSPORTER DATA

Bills of Lading

Consignment Notes

Conveyance Reps. Schedules

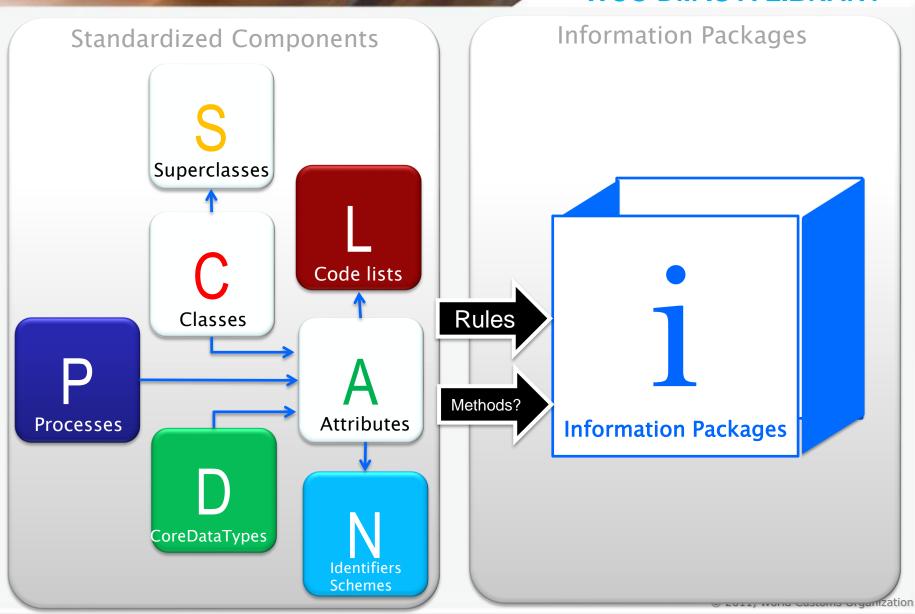


- Context
- Content
- Structure
- Expression
- » Paper
  - » Layout Keys
  - » Levels
- » Electronic
  - » Based on Syntax
  - » EDIFACT
  - » XML
  - » Others
    - » Delimited Flat Files
    - » CSV



# THE WED DATA MODEL

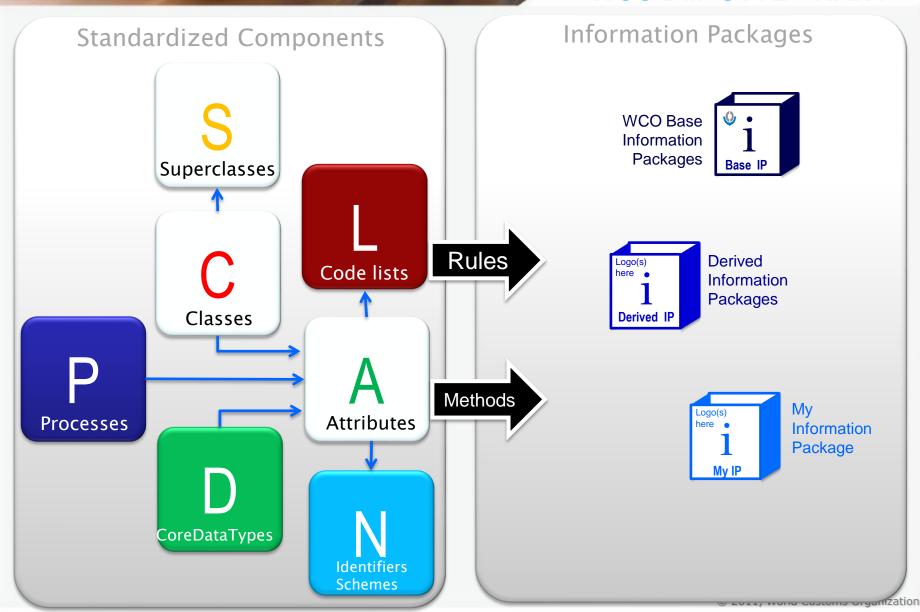
### **WCO DM IS A LIBRARY**





# THE WED DATA MODEL

### **WCO DM IS A LIBRARY**



**WCO Data Model Website** 

# www.wcodatamodel.org

