WCO Data Model – how the lingua franca of eCustoms fits with Azerbaijan cross border document requirements

Experiences from a UNECE Project Supporting Customs Azerbaijan by Mapping Cross-border Regulatory Documents to International Standards

Agenda

1. Project tasks

2. Overview of the WCO DM and EUCDM in GEFEG.FX

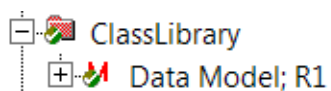3. Report of results - experiences

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2. UNECE Project Tasks

- Collect data from **5 cross-border regulatory documents** (Customs Declarations and Certificates) as used in the Azerbaijan Single Window

- Define alignment with the **EU Customs Data Model** (based on **WCO** Data Model) and the **EU TRACES system** (based on **UN/CEFACT** Buy/Ship/Pay standard)

- Work together with Azerbaijani consultant to share **methods and GEFEG.FX** usage
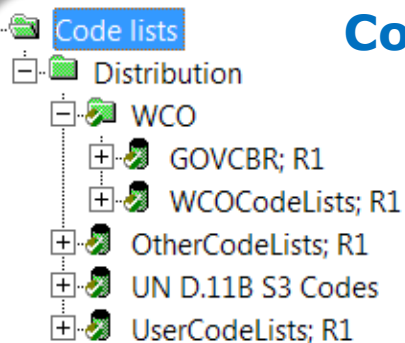
Documents defined by the Azeri Single Window team

- Certificate of conformity

- Certificate of origin

- Customs goods declaration

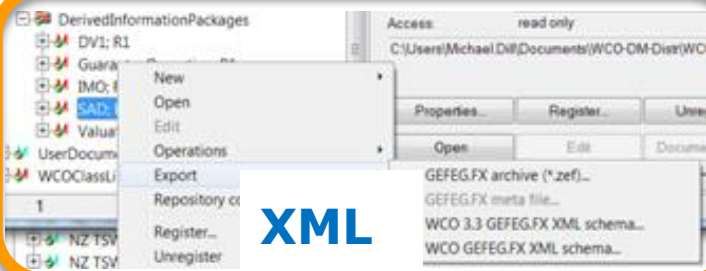- Hygenic certificate

- Phytosanitary certificate

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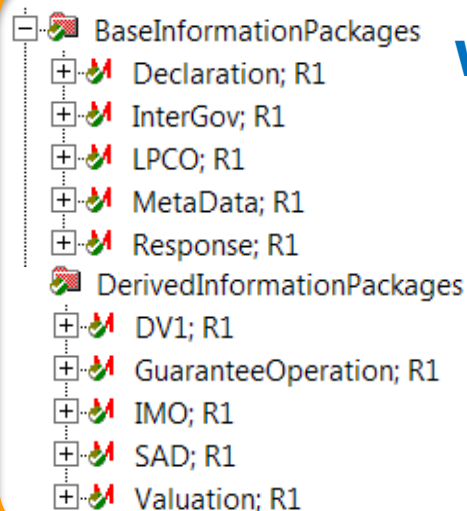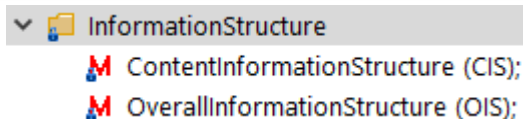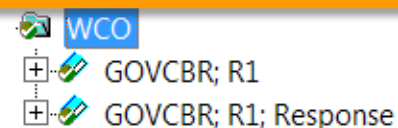# WCO Data Model Components

WCO Class Library

```
ClassLibrary
   Data Model; R1
```

Information Structure

```
InformationStructure
   ContentInformationStructure (CIS);
   OverallInformationStructure (OIS);
```

Code Lists

```
Code lists
   Distribution
      WCO
         GOVCBR; R1
         WCOCodeLists; R1
      OtherCodeLists; R1
      UN D.11B S3 Codes
      UserCodeLists; R1
```

WCO Information Packages

BIP + DIP

```
BaseInformationPackages
   Declaration; R1
   InterGov; R1
   LPCO; R1
   MetaData; R1
   Response; R1
DerivedInformationPackages
   DV1; R1
   GuaranteeOperation; R1
   IMO; R1
   SAD; R1
   Valuation; R1
```

XML

```
DerivedInformationPackages          Access:          read only
   DV1; R1                          C:\Users\Michael.Dill\Documents\WCO-DM-Distr\WC
   Guara...                    New
   IMO; ...                    Open              Properties...    Register...    Unre
   SAD; ...                    Edit
   Valua...                    Operations         Open             Edit           Docume
UserDocum...                   Export
WCOClassLi...                  Repository c...    GEFEG.FX archive (*.zef)...
                                                  GEFEG.FX meta file...
   1                           Register...        WCO 3.3 GEFEG.FX XML schema...
                               Unregister         WCO GEFEG.FX XML schema...
   NZ TSV
   NZ TSV
```

EDIFACT

```
WCO
   GOVCBR; R1
   GOVCBR; R1; Response
```

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Information Structure of WCO DM

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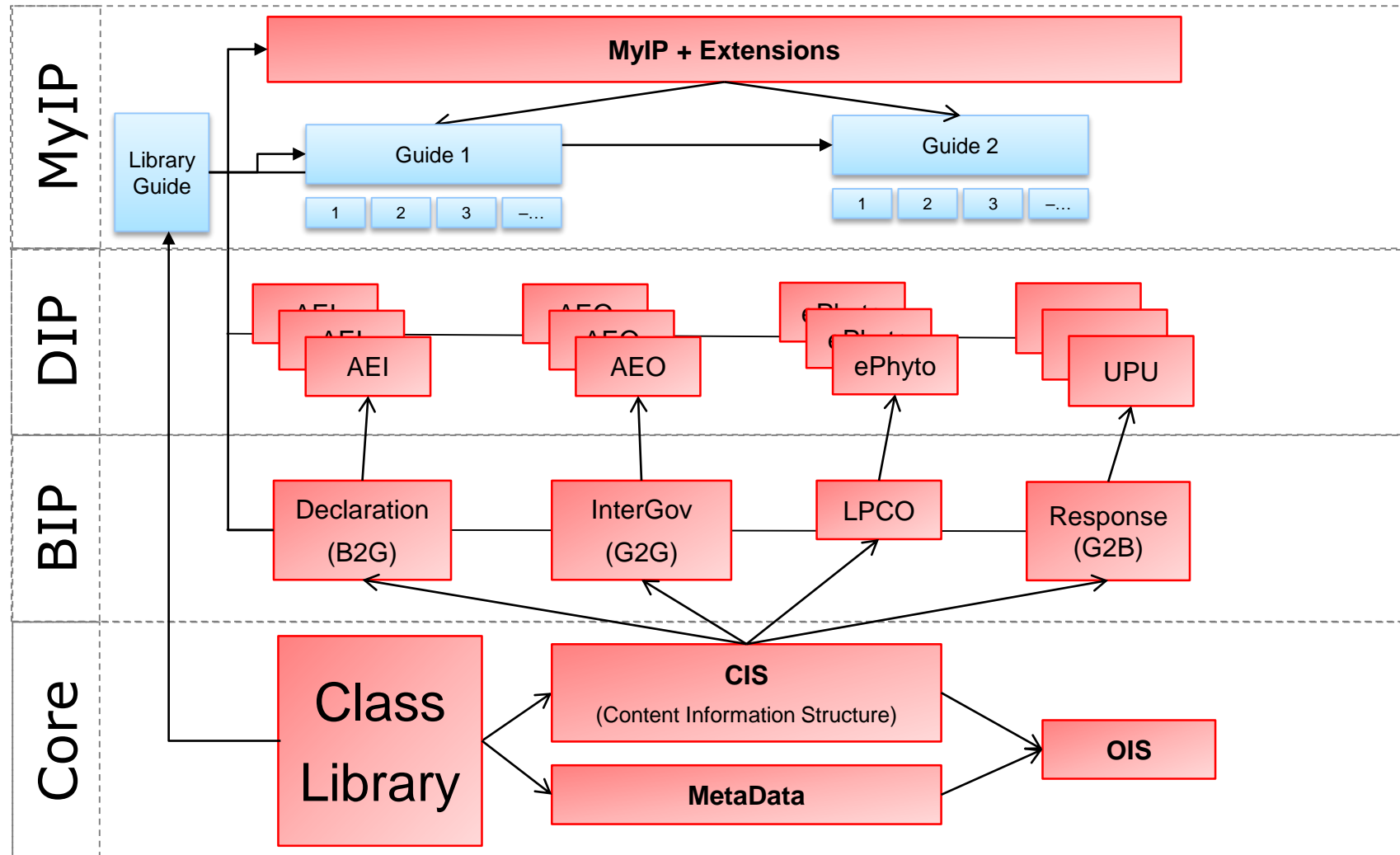
The EU Customs Data Model ...

- is the model for Customs trans-European systems such as NCTS, AES, ICS and for Member States national customs clearance systems. Its overall objective is to provide a technical instrument that models the data requirements laid down in EU Customs legislation and present a single and genuine source of information for the technical developments of the different IT systems that are used for data processing by customs in the EU. In consequence, the data elements, which are used only in the context of paper-based declarations, are included exclusively in the reproduction of the legal text, but not in the mapping and structure reports.

- https://svn.taxud.gefeg.com/svn/Documentation/EUCDM/EN/index.htm

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The EU Customs Data Model ...

EUCDM V3.0

Introduction
▸ Changes

UCC Annex B
▸ Legal text
▸ Guidance
▾ Data element view
   Overview
   Usage
▸ Data set view

UCC Annex A
▸ Legal text
▸ Guidance
▸ Data element view
▸ Data set view

UCC Annex 12-01
▸ Legal text
▸ Data element view

Annex B	STRUCTURE	MAPPING	USAGE	

Annex B > Data set view > Structure > F1b

Data sets	A1	A2	A3	B1	B2	B3	B4	C1	C2	D1	D2	D3	E1	E2
	F2d	F3a	F3b	F4a	F4b	F4c	F4d	F5	G1	G2	G3	G4	G5	H1

Annex   B   F1b

Entry summary declaration — Sea and inland waterways — Partial dataset lodged by the carrier
Articles 5(9) and 127 of the Code

	UCC		Reference EUCDM WCO
			Declaration
	2/5 LRN	an..22	Functional reference number
	1/7 Specific circumstances indicator	an3	Specific circumstances, coded
			Authentication
☒	1/8 Signature/authentication	an..35	Authentication
			Agent
☒	3/20 Representative identification No.	an..17	Agent, coded
☒	3/21 Representative status code	n1	Agent status, coded
			BorderTransportMeans
☒	7/14 Identity of active means of transport crossing the border - id	an..35	Identification of means of transport
	7/14 Identity of active means of transport crossing the border - type of id code	n2	Type of identification of means of tra

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Hierarchy of WCO and EUCDM Relationship
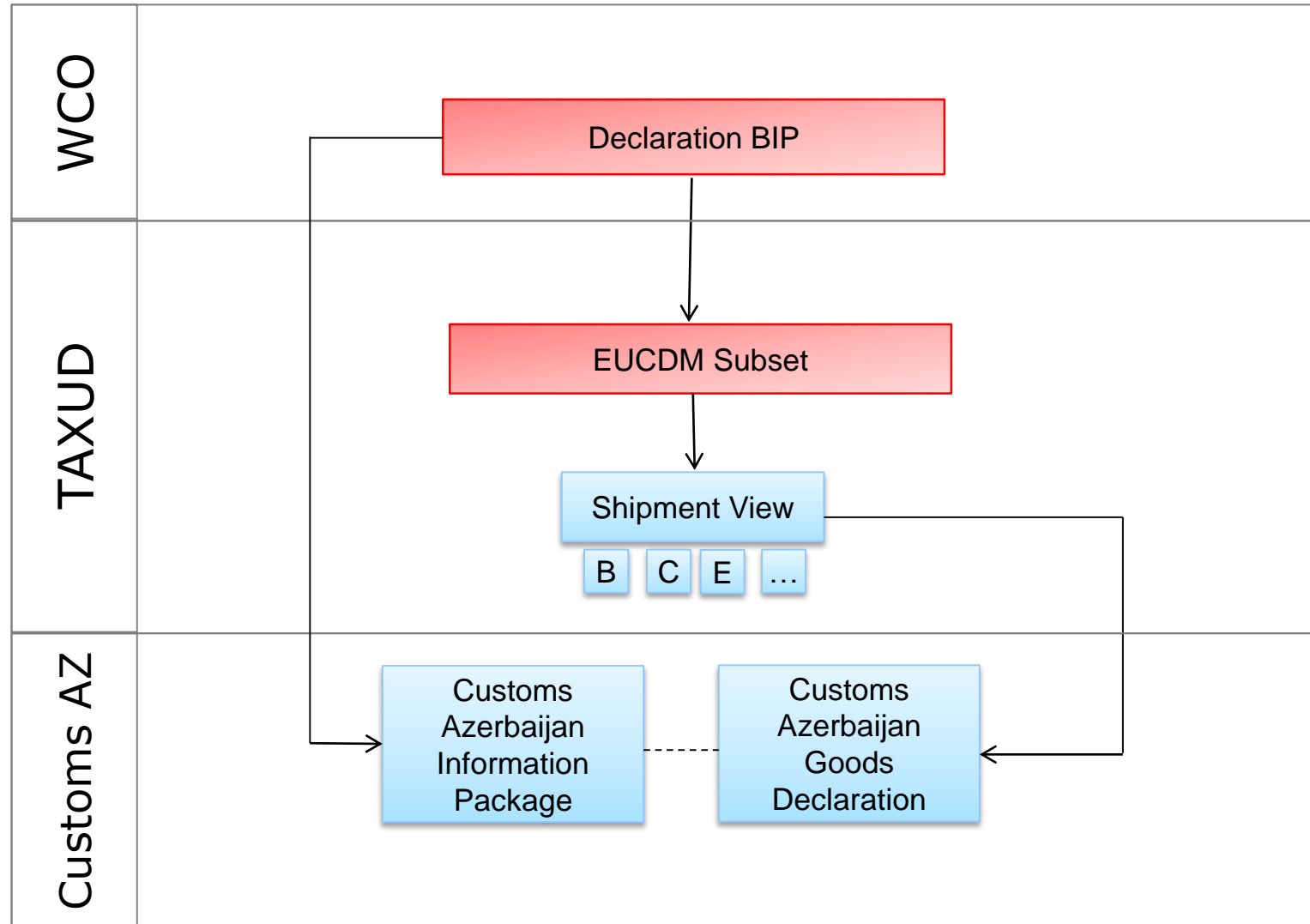
Business Interface Management - Metadata Supply Chain

GEFEG.Portal

Web solution for collaboration, campaigning, publishing and validation via web with 365/24 availability , if wished behind firewall
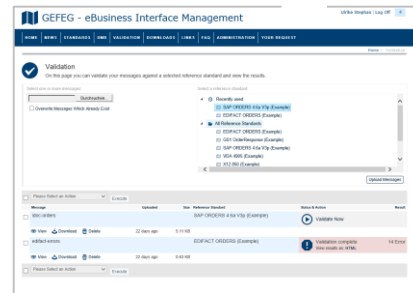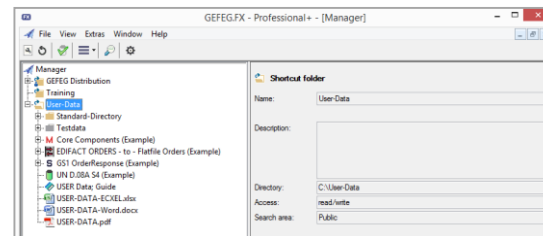

GEFEG.Content

Business standards and interfaces, such as UN/CEFACT XML, EDIFACT, GS1 EANCOM®, X12, ISO20022, WCO Data Model, VDA, and more
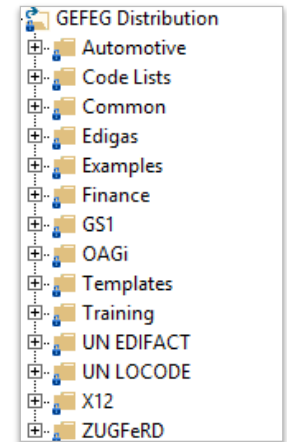
GEFEG.FX

Business Interface Management for the complete lifecycle

GEFEG.Services

Business consulting, concepts, extended user support, training, workshops

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GEFEG.FX User Community in the Customs Sector

The World Customs Organization	General Administration of China Customs	Customs Administration of Brazil	The Federal Directorate of Finance Germany	Canada Border Services Agency	The European Commission, DG TAXUD
Finland Customs	Douanes de Côte d'Ivoire	South Africa Revenue Services	Ghana Revenue Authority	Customs Administration of the Netherlands	New Zealand Customs Service
U.S. Customs and Border Protection	Aduana Nacional Bolivia	Her Majesty's Royal Customs United Kingdom	Swedish Customs	Royal Customs of Oman	Thai Single Window
The Federal Administration of Public Revenue Argentina	SPF Finances of Belgium	The Ministry Of Economy Luxembourg	National Directorate of Customs Urguay	Nigerian Customs Service	The Senegalese Customs
BluJay	Crimson Logic	Intrasoft	SAP + SAP GTS	And more…	

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Harmonized Data set

- Data set
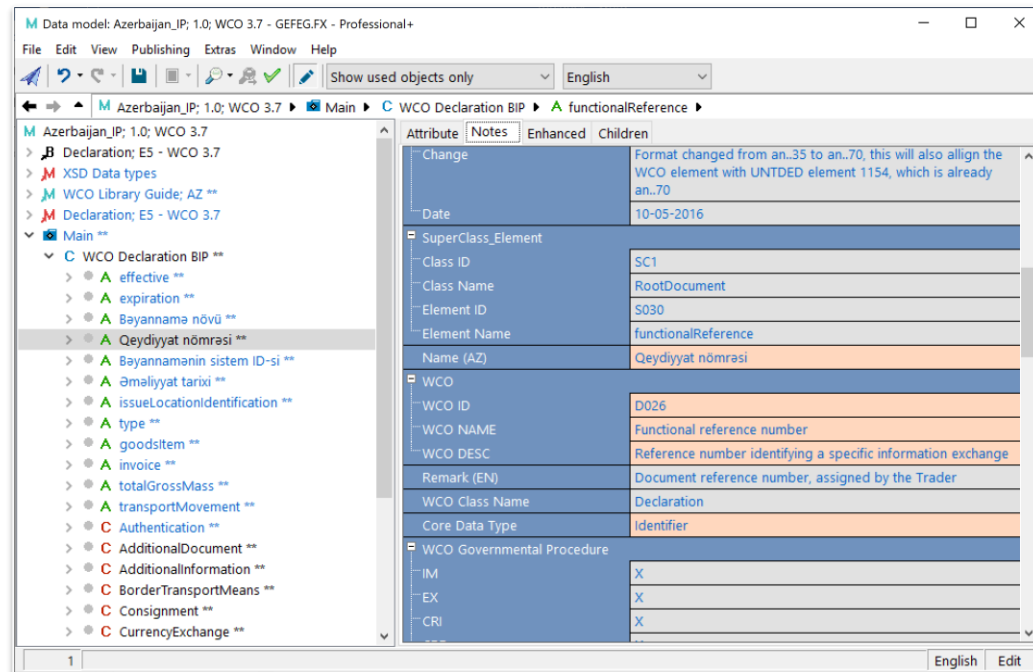
- Mapping to EUCDM subset

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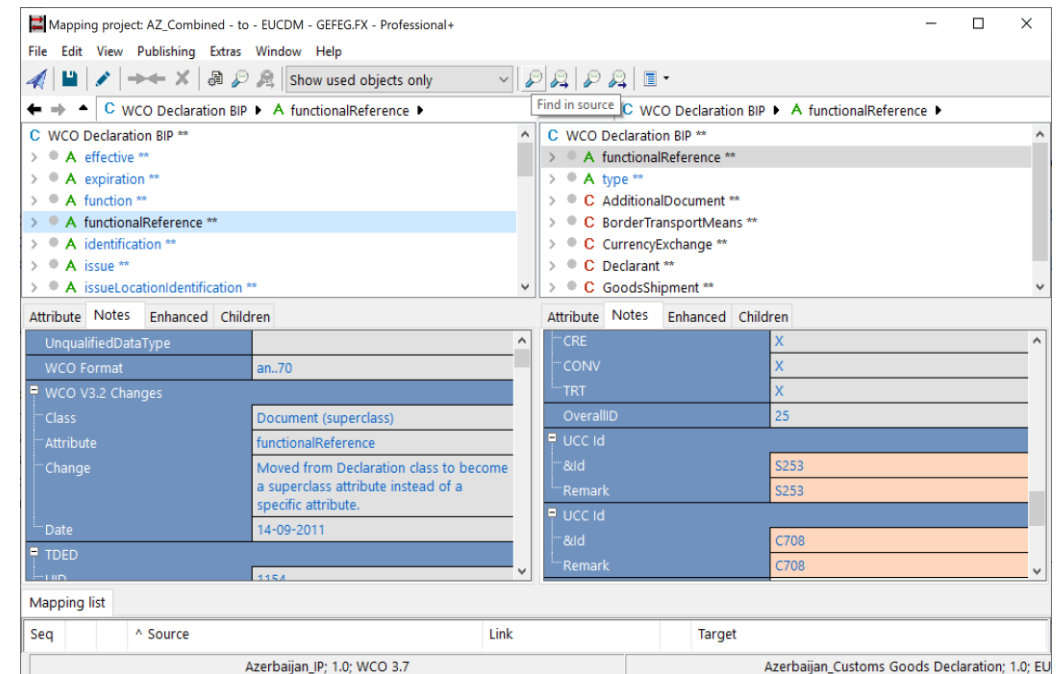
Harmonized Data set

- Data mappings to create profiles of Customs Azerbaijan based on the 5 documents defined by the Single Window team

- Profiles as a result of standardized data set

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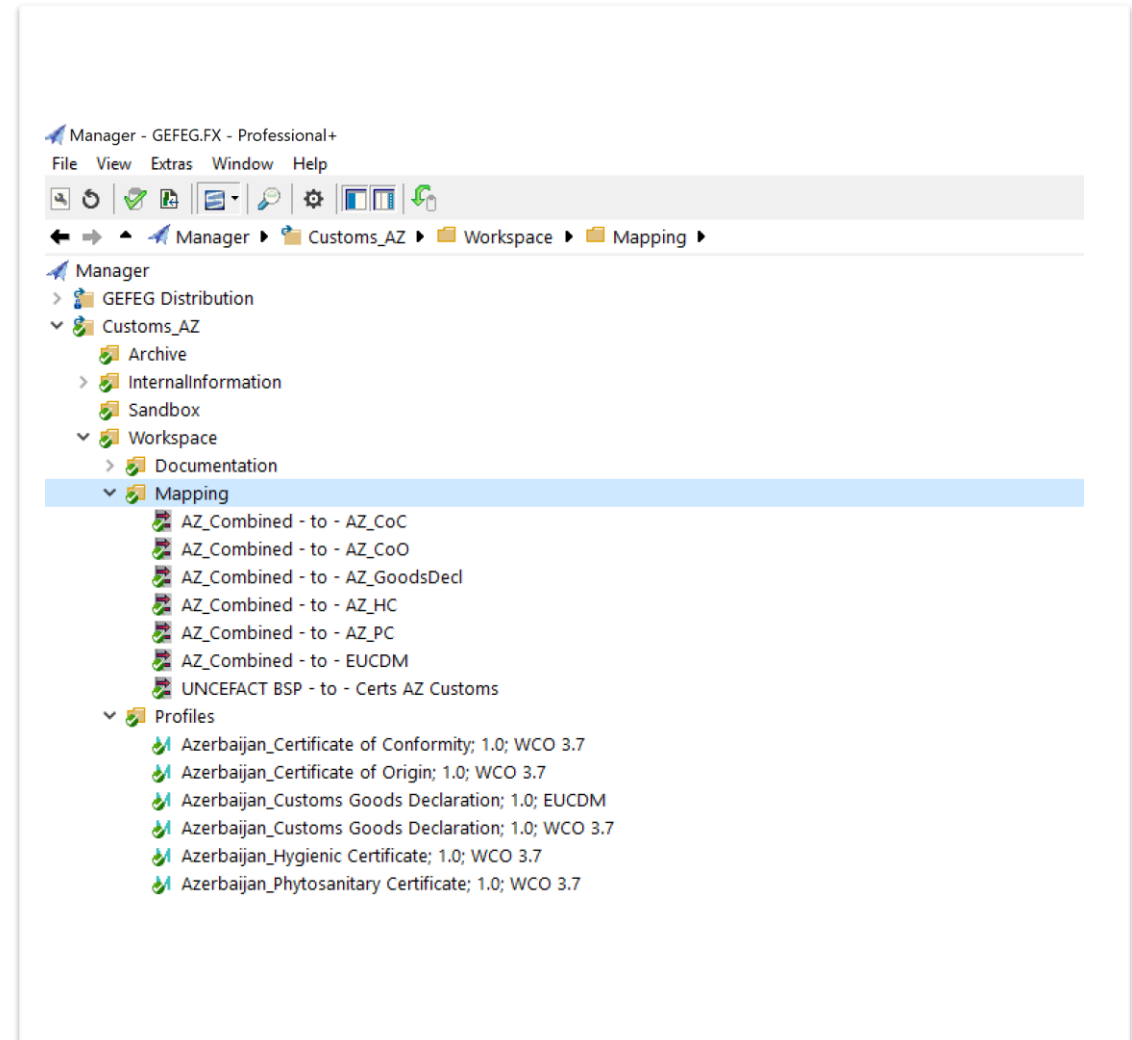
Data Harmonization to support Single Window

- Alignment of the data in a set of documents identified by the Single Window team and the State Customs Committee of Azerbaijan
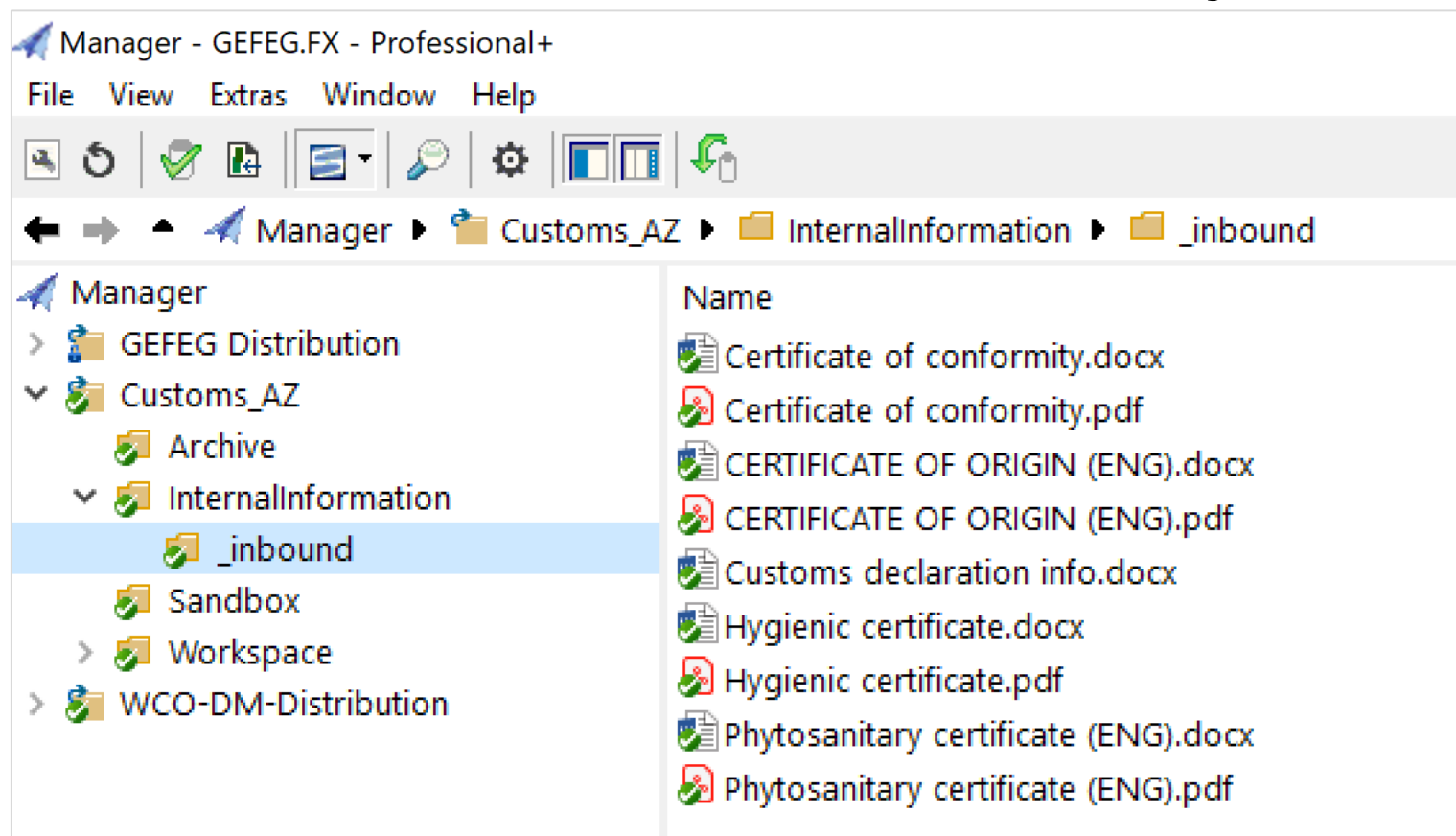
Support for Contextualisation: restriction
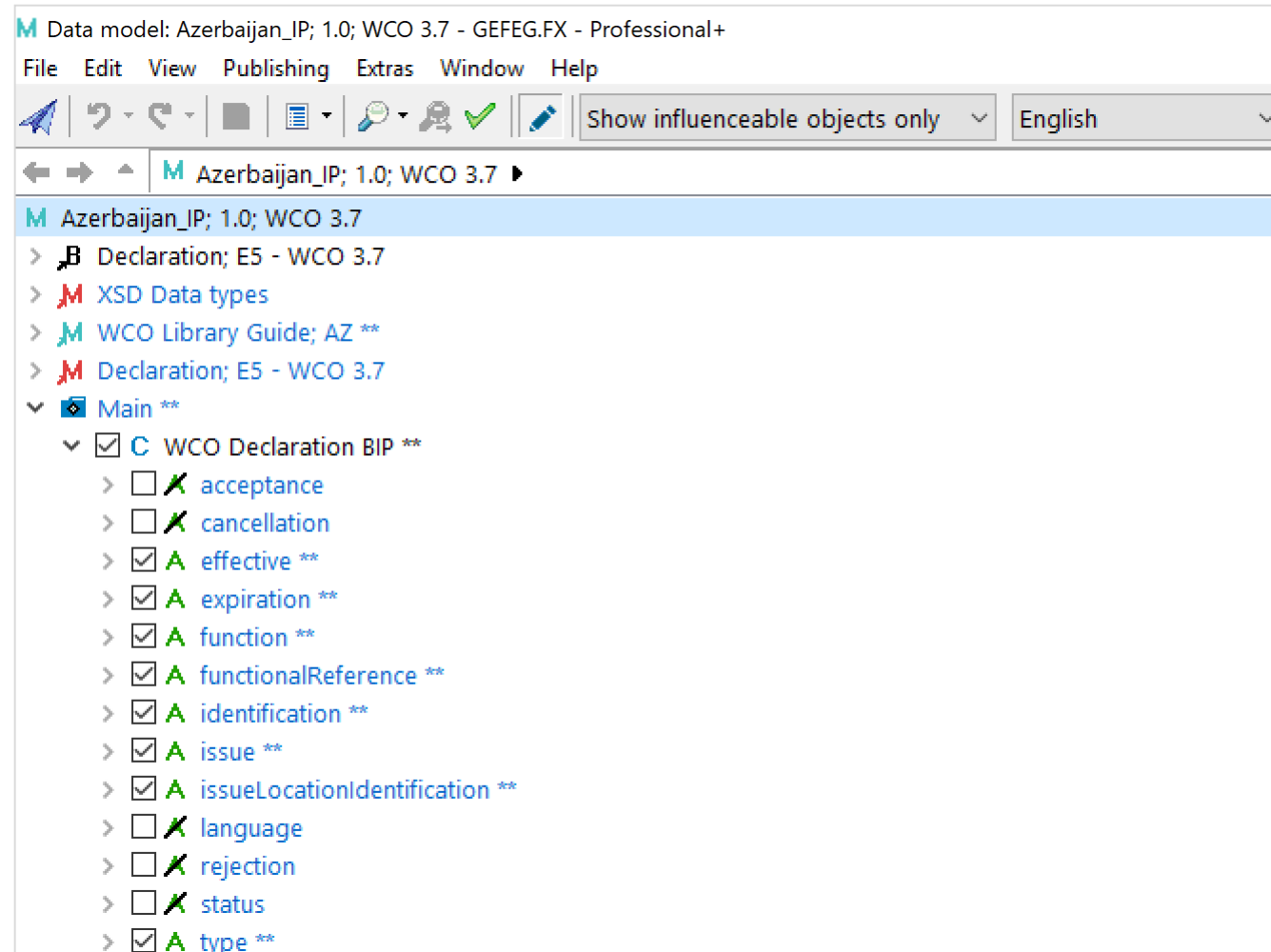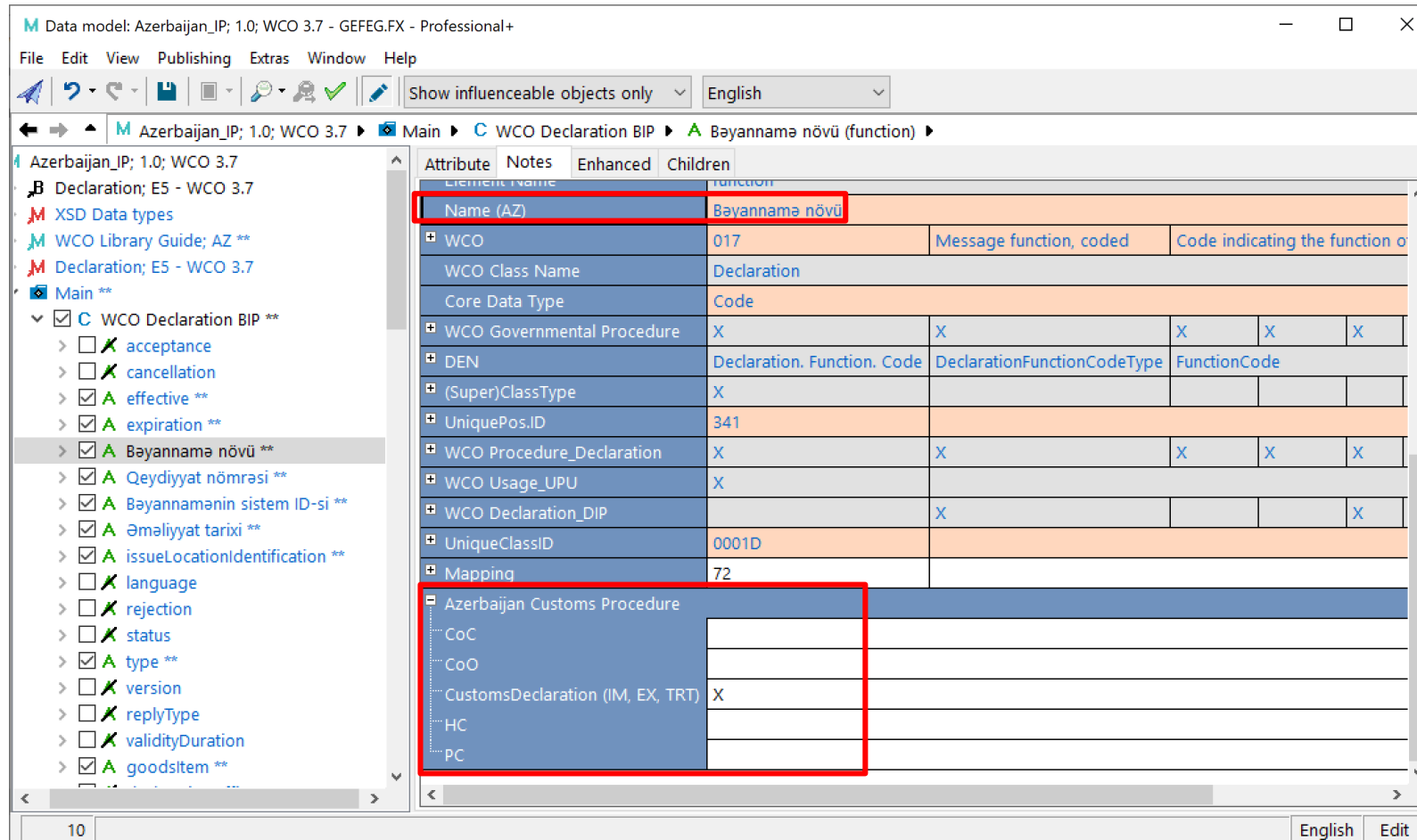
Support for Mapping: restriction

- Restriction of data model structures to remove those not required for use in national implementations
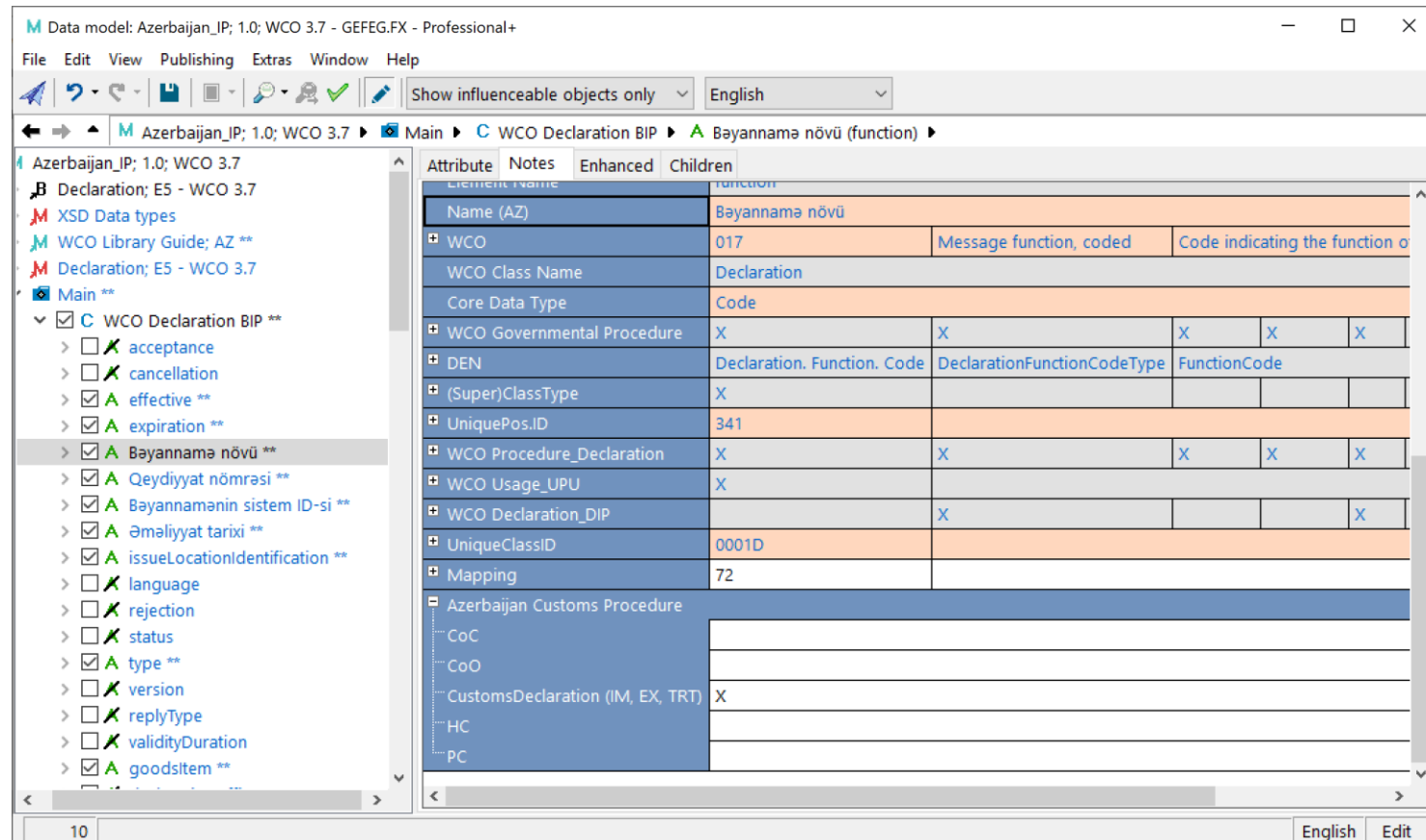
Support for Mapping: usage notes

- Language translations, usage notes for data elements in various procedures

Support for Mapping: code values

- Codes restriction, language translation
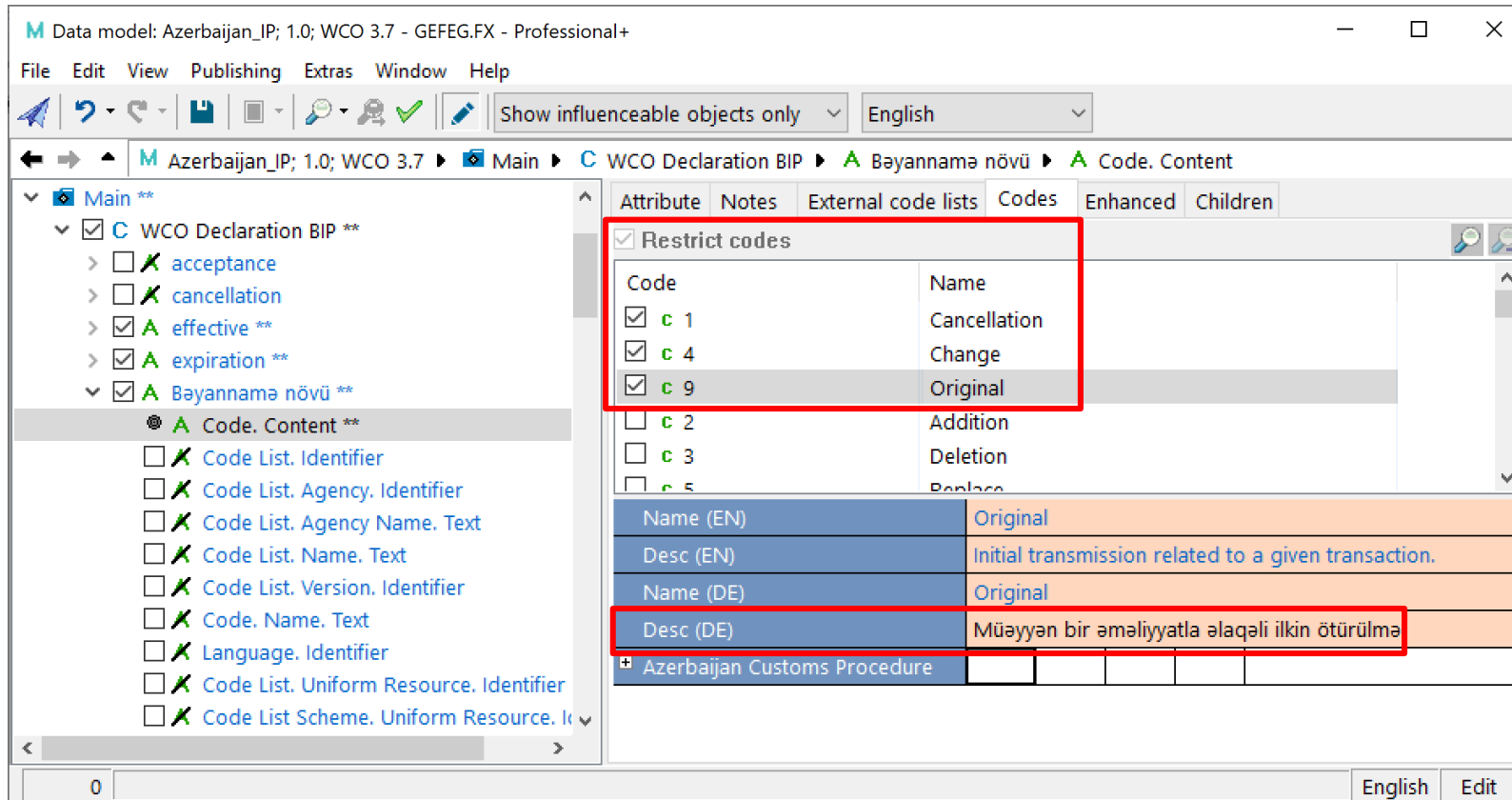
Development and Maintenance of other data

- Alignment to EU TRACES system data based on UNCEFACT Standards

Development and Maintenance of other data

- Further restrictions to have subset profiles based on the standardized data set, documentation and XML schemas to develop syntax based messages

Experiences/Results

- The <u>reuse</u> the WCO Data Model as common reference and UNCEFACT standards led to increased capacity and speed in aligning data and documents to the EU Customs Data Model by

- Good demo for National localization of the WCO Data Model and EUCDM Information Package

- Cover the requirements by extending the EUCDM Information Package but still based on wider WCO Data Model

- The use of GEFEG.FX software for data standardization and harmonization of cross-border regulatory documents allows for keeping the national AZ Level <u>independent</u> from WCO DM and its EU CDM subset through <u>inheritance methods</u> -> thus clear, <u>distinct IPR-levels</u>, <u>easier migration to newer versions</u>

- Use of WCO DM as <u>common reference</u> allows to compare and align all logical subsets and national implementations

- The tools allows for the alignment to documents expressed in <u>other models, modelling methodologies or XML schema such</u> as the UNCEAFCT Buys/Ship/Pay Reference Data Model to cover Agriculture certificates data

- Maybe JSON and JSON LD generation for AI support should be added to WCO DM

- More knowledge regarding the detailled IP data stuctures is needed – training!

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Innovative data model offering process support and the linking of data as the base for data collection and data processing

Inbuilt harmonized data structures to facilitate data collection – Global reference for national data alignment

Globally used and harmonized data model with a clear change request and updating strategy to meet new requirements of the stakeholders

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Data Harmonization

Reduction of data redundancies and duplication

Capture, Define (reuse WCO DM), Analyze, Reconcile

Pre-requisite for the alignment and integration of applications

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