AUDIT REPORT

OF THE

D08A ACC and BIE CCL Directories and All associated RSMs and schemas

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1 Introduction

UN/CEFACT ICG are pleased to announce that the D08A Core Component Library (CCL) directory has been produced in compliance with existing procedures and consider it satisfactory for implementation.

2 Erratum

A publication error has appeared in the D.08A draft library for the CII (Cross Industry Invoice). The following errors were identified after publication:

1. The tags “ReferencedDocument” and “ReferencedDocumentType” were inadvertently changed to “ReferenceDocument” and “ReferenceDocumentType”. Since these two elements exist, the schema validates correctly. However, users should be aware that the contents of the two elements are different.
2. Because of this inadvertent change the schema version number has incorrectly incremented to version 4.

3 Summary

The D.08A audit began 2008-03-31 on receipt from TBG17 of the draft D.08A CCL. This CCL release underwent some eight audit passes, each pass necessitating revision. The final submission was approved by the ICG on 2008-08-13 and published on the UN/CEFACT website on 2008-08-15.

The D.08A CCL audit covered both the audit of the CCL itself as well as the verification for conformity to the RSM (Requirements Specification Mapping) template of two documents, eCert (Export Certification) and eDAPLOS (Data Crop Sheet). The MSDS (Material Safety Data Sheet) had been held over from the D.07B release.

Schema generation is dependent on finalisation of the CCL, however with this release the delay in the publication of the D.07B schema library, completed on 2008-09-16, also impacted the commencement of the D.08A schema generation phase.

The ICG audit of the D.08A schema library began 2008-11-12 on receipt of the initial D.08A schema library from ATG. Four audit passes were necessary to finalise the schemas for publication. The schema library was approved by the ICG 2009-01-29 and published on the UN/CEFACT website on 2009-02-04.

3.1 General

The audit of the D.08A CCL and schema library have brought to light the pressing need for UN/CEFACT to move to the recommended use of UMM and its supporting UPCC (UML Profile for Core Components) specification. The size of the libraries and the use of Excel spreadsheets has blurred the coherent vision that one has of the library and its contents. Inter alia, it does not easily enable one to see infinite loops nor detect errors that can occur with the inadvertent addition of ASBIE entries.

The typical user has no vision of what the ACC library and ABIE library content looks like in a schematic fashion. UPCC provides all the necessary mechanisms to enable the libraries to be clearly represented in standard UML modelling tools.

 # Recommendation 1-D.08A: The ICG recommends that UN/CEFACT migrate all of its librarie from the spreadsheet format to the more coherent and visual UML format in compliance with the approved UPCC specification. This migration should be carried out within the next year to eighteen months so as to take advantage of the more purpose suited tools.

3.2 D.08A Core Component Library Audit

3.2.1 eCert

The single major issue which occurred with the D.08A audit was due to the introduction in the D.08A library of part of the UNeDocs Buy Ship Pay ABIEs which were necessary for the eCert schemas. This introduced a philosophy which was not compliant with the approved UN/CEFACT process, in short the introduction of ABIEs which would have to be further refined during schema generation in order for a schema to be usable. In particular, this approach contravened CCTS V2.01 Rule:

[B31] *Syntax Binding* shall not change the semantics of a *Business Information Entity*.

The ICG reported this inconsistency and requested that the eCert RSM and the resulting Core Components be adjusted to reflect all the eCert business requirements in order to produce a UN/CEFACT schema which satisfied the requirements in question and respected the existing UN/CEFACT process and specifications.

This issue took some time to resolve for D.08A and was one of the principle causes for the long delay in the D.08A production cycle. The resolution of this issue can be found in Annex 1 of this audit report.

Recommendation 2-D.08A: The ICG recommends that any deviation to the approved UN/CEFACT production process be first formalised and approved, in particular where potential enhancements are required to the process that could necessitate change to the foundation UMM, CCTS and/or NDR specifications. Changes of such a significant nature should be accompanied by an impact analysis on existing deliverables and potentially a migration path to the new approach.

3.2.2 General Inconsistencies

The ICG identified a number of inconsistencies with CCTS V2.01 Rules which can be put into the following categories:

- Editorial (spelling, grammar, punctuation, consistent use of terms, references, etc.). Rules:

  [B11 & C10 & D3] The dictionary content, with the exception of *Business Terms*, shall be in the *English Language* following the primary *Oxford English Dictionary* English spellings to assure unambiguous spelling.

  [B13 & C12 & D5] The definition shall take into account the fact that the users of the *Dictionary* are not necessarily native English speakers. It shall therefore contain short sentences, using normal words. Wherever synonym terms are possible, the definition shall use the preferred term as identified in the *Controlled Vocabulary*.

- Same definitions for different objects. Rules:

  [B12 & C11 & D4] The definition shall be consistent with the requirements of ISO 11179-4 Section 4 and will provide an understandable meaning, which should also be translatable to other languages.

- Upwards compatibility of the ABIEs, D.07B to D.08A.

These were all corrected.

Recommendation 3-D.08A: The ICG recommends that the UN/CEFACT Controlled Vocabulary be published on the UN/CEFACT website and that formal procedures be put into place to cover its ongoing maintenance.

3.2.3 Change Indicator Issue

The D.08A CCL introduced changes to the content found in the D.07B CCL, which in some cases were not identified and in other cases, though identified, the change that had been made was unclear or designated with duplicate change indicators. Corrections were applied.

Recommendation 4-D.08A: The ICG recommends that as a matter of urgency the CCL ongoing maintenance process be formalised, in particular to define the CCL change request workflow to ensure the transparent evolution of the directory and assignment of appropriate change indicators (not dissimilar to that implemented for UN/EDIFACT) .

3.2.4 Code Lists Issue

There are two code lists (Country and Payment Terms) that are classified as 'identifierlists', different to all the other code lists which are classified as 'codelists'. The ICG has previously indicated that this distinction is unproductive and confusing, recommending that the two code lists in question be classified as 'codelists' and consequently not be typed as 'identifier' but rather 'code'. The arguments provided by TBG17 ('too old to change', and 'we disagree') do not appear sufficient to justify retaining them as 'identifierlists'.

Recommendation 4-D.08A: The ICG recommends that the code list and identifier list be merged into one to better facilitate access and for consistency.

3.2.5 Use of acronyms, abbreviations or other word truncations

A number of DENs (Directory Entry Names) make use of specific acronyms (e.g. SPDS, MSDS, PSCPM). The ICG questions this use since such terms do not further qualify the object class by providing additional semantics relative to it. Instead they define where the ABIE is to be used. This use limits the use of such ABIEs to exclusively the message dictated by the acronym. ISO 11179 specifically defines a qualifier term as "A word or words which help define and differentiate a name within the database".

Recommendation 5-D.08A: The ICG recommends that TBG17 refrain from assigning acronyms as qualifier terms to indicate where an ABIE is to be used, as opposed to further define the meaning of the object class.

3.2.6 Changing of the CCL Spreadsheet layout

As noted in previous Audits the stability of the CCL spreadsheet layout is important. Changes in the layout require automated software to be updated and no advance warning is provided to enable developers to carry out the necessary changes.

Recommendation 6-D.08A: The ICG recommends that a formal procedure be put into place to manage the evolutions of the CCL spreadsheet layout to ensure that all interested parties are aware of layout changes before the publication of a CCL release.

3.3 D.08A RSM Audit

3.3.1 The use of multiplicity 'unbounded'

A general approach seems to have been taken to use the multiplicity 'zero to unbounded' or ''one to unbounded' whenever there is a supplementary component which can differentiate one instance of an attribute from another. For example, where an attribute is 'text' the supplementary component 'language' will allow one instance of the attribute to be differentiated from another. The basis for a multiplicity of 'unbounded' is rarely documented in the supporting RSM, consequently the intent of the use of the 'unbounded' (i.e. multiple occurrences of same semantic meaning in for example different languages) remains unclear.

Recommendation 7-D.08A: The ICG recommends that the RSM clearly expresses the intent of the use of the multiplicity 'unbounded' so that implementers may know what should be provided. This is especially important when multiple occurrences of data with the same semantic meaning need to be differentiated through different supplementary component values.

3.3.2 Consistency between the RSM canonical model and the CCL

The ICG identified differences between the canonical model and the CCL rendering of the corresponding ABIE(s). Differences included:

- The exclusion of BBIEs at the canonical level;
- Differences in the multiplicity;
- Order of the BBIEs;
- Incorrect naming in the RSM.

The ICG wishes to stress that without resolution, such differences may not produce the schema that is expected as defined by the business requirements.

Recommendation 8-D.08A: The ICG recommends that TBG17 ensure that the RSM canonical model and the resulting ABIE(s) are in alignment.

3.3.3 Consistency between the RSM and the BRS

A practice is beginning to appear where enhancements to the RSM (and as a consequence the ABIEs) are applied without ensuring that the corresponding BRS (Business Requirements Specification) remains consistent with their implementation. The ICG wishes to stress that a key UN/CEFACT process deliverable is a BRS that governs the specific business requirements for schema implementation.

The ICG is concerned that inconsistencies may be introduced if the BRS and the delivered Schemas are not aligned, for example if only the RSM is modified without reference to the BRS.

Recommendation 9-D.08A: The ICG recommends that the TBG groups make sure that the BRS clearly reflects the resulting implementation of the syntax solution. Any evolutions that have occurred should be reflected in the BRS.

3.3.4 Inclusion of redundant ABIEs

The eCert RSM includes an ABIE (SPS_ Event), not because there is a business requirement for it to be used, but rather because it was required in order to be 'compatible' with the BSP model. The ICG questions this practice. Business requirements should dictate the information requirements of a message, not a notion of compatibility. The UN/CEFACT eCert schema itself should be the only model that can be used for international exchange. The BSP model as an important reference should only serve as a guideline. Where business requirements necessitate new or different associations then these should not be compromised in order to achieve alignment with the BSP model. ICG contends that this is a departure from conventional message design and best practices.

Recommendation 10-D.08A: The ICG recommends that the TBG groups treat the BSP model as a guideline for the development of UN/CEFACT compliant schema and recognise that it is not mandated as criteria to impose design constraints which are not business driven.

3.4 D.08A Schema Library Audit

No issues of significance were encountered

3.4.1 Schema Component Inconsistencies

A number of schema components used within the UN/CEFACT message schemas were identified with incorrect namespace and location names. These were corrected.

However, this review also brought to light the use of different schema components with that same namespace prefix. The intent was to enable the use of different versions of a given schema

component in the same release. After discussion with ATG it was agreed to make use of only one version.

Recommendation 11-D.08A: The ICG recommends that the schema components for code lists should only make use of a single version of a given code list within a particular UN/CEFACT release.

Recommendation 12-D.08A: The ICG recommends that as part of its audit checks, it confirms that that for each code list, that the version identification is correct and that this version is used as the schema component. This implies that schema components for code lists should only make use of a single version of a given code list within a particular UN/CEFACT release.

3.4.2 Code List Enumeration Errors

A number of errors were picked up with the code list enumerations (missing, duplicate or incorrect enumerations). These were corrected.

3.4.3 ISO Code Lists

The Country and Currency codes are sourced and reproduced from ISO. Besides what is made publicly available on the ISO web site, UN/CEFACT does not have access to the ongoing amendment notes and as consequence is missing important version information.

Recommendation 13-D.08A: CEFACT needs to establish a more direct liaison with respective ISO Maintenance Agencies for code lists used within CEFACT to ensure that latest versions are correctly identified and published as part of the CEFACT deliverables.

3.4.4 BIE Annotation

The ICG identified a number of errors relating to the BIE annotation. Of note was the approach taken to present multiple qualifier terms as annotation by repeating the annotation line for each qualifier term. While the ICG understands that this respects the NDR, it would still contend that the NDR should first and foremost respect the CCTS.

Recommendation 14-D.08A: The ICG recommends that for annotation, that multiple qualifier terms are presented as a single annotation element. This would ensure documentation compatibility with the CCL and comply with the CCTS 2.01 specification.

3.4.5 Supplementary Component Expressions

The ICG identified a number of cases where the definition of the core component type did not correspond to the CCL Data Type Catalogue version 2.1 in particular to the expression of the supplementary components.

ATG indicated that the supplementary components identified in the Catalogue were not required by the XML expression for these types for one of the following reasons:

- A standard XML base type is used which makes any use of a supplementary component irrelevant (e.g. binary object character set code, date);
- The supplementary component is implicitly defined in the namespace through the version identifier of the namespace expression; (e.g. code list version identifier)
- The supplementary components are a part of the namespace expression (e.g. codelist agency, codelist identifier, and codelist agency name).
- The use of a standard XML attribute replaces the requirement (e.g. xsd:Language).

While the ICG has no particular issue with this, it suggests that indication of where the supplementary components in question are to be found should be documented within each type.

Recommendation 15-D.08A: The ICG recommends that ATG provide the documentation relevant to the use of supplementary components in the documentation of the XML datatype rendering.

3.4.6 Schema Generation Tool

The ICG identified a significant number of inconsistencies between the D.07B schema release and the D.08A schema release which were related to the tool used by ATG for schema generation. These can be categorised as follows:

1. Differences between the documented text in the CCL and the resulting schemas;
2. Duplicate definitions;
3. UID differences;
4. Incorrect documentation.

Some of these problems came from the generation tool used, while others resulted from the transcription from one support tool to another. One of the most important criteria for the use of a generation tool is the manner in which it can consistently reproduce a schema as time evolves.

Recommendation 15 D.08A: The ICG recommends that ATG identify two independent tools which can be used for schema generation and which produce the same generation results. It should also be borne in mind the intended evolution to UPCC compliant specifications.

4 List of Open Issues

The following is a list of the issues still open that have been carried forward from previous audits and that the ICG considers need urgent resolution. Other issues of a minor nature have not been brought forward in this list:

Issue 1: The ICG considers that the allocation of a minor/major change indication to a codelist is inconsistently addressed in the NDR. A change to a codelist is considered a minor change whereas a change to an enumeration is considered a major change. Since an enumeration is merely a codelist embedded in a schema, both types of change should be treated in the same manner. The ICG considers this to be an issue that should be resolved with the evolution of the NDR.

Issue 2: The ICG considers that the rules as defined in appendix H (Naming and Design Rules list) of the NDR should be standalone and respected. Any such rules that require interpretation (e.g. because of the context that they are defined in) should be enhanced to eliminate the requirement for interpretation.

Issue 3: The ICG believes that the release of a schema which is semantically no different from the previous release should have the same version information.

Issue 4: The ICG believes that the convention for the use of Supplementary Component information in a restricted codelist through its namespace should be clearly documented. This appears to be a restriction of the implementation possibilities.

Annex A. eCert Resolution

A.1 D.08A

The completion of the audit and publication of the D.08A Core Component Library is stalled in order that the following audit issue is addressed:

> *ICG: Applying further restrictions to CCL BIEs as part of message assembly is not in line with the UN/CEFACT message design methodology. All schemas are structured based on the normative form ABIEs as contained in the CCL, without further change or adjustment during message assembly.*

Using one example CC from the e-Cert RSM, the issue can be illustrated as follows:

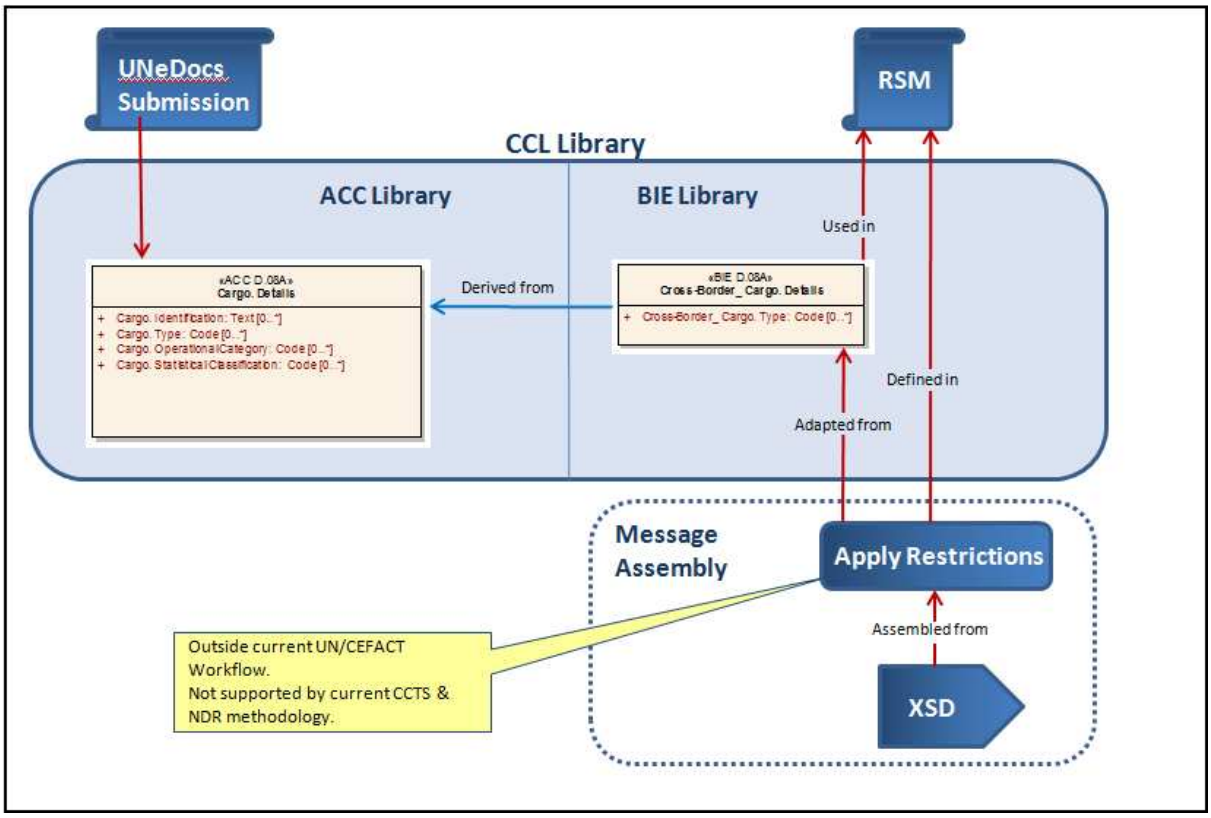


Figure 1 – Requested e-Cert Message Assembly

The basis for the audit conclusions is elaborated in the sections that follow, using extracts from the respective UN/CEFACT specifications.

Core Components Technical Specification V2.01

[Definition] *Business Context*

The formal description of a specific business circumstance as identified by the values of a set of *Context Categories*, allowing different business circumstances to be uniquely distinguished.

When a *Core Component* is used in a real business circumstance it serves as the basis of a *Business Information Entity*. The *Business Information Entity* is the result of using a *Core Component* within a specific *Business Context*.

[Definition] *Business Information Entity* (BIE)

A piece of business data or a group of pieces of business data with a unique *Business Semantic* definition. A *Business Information Entity* can be a *Basic Business Information Entity* (BBIE), an *Association Business Information Entity* (ASBIE), or an *Aggregate Business Information Entity* (ABIE).

[Definition] *Aggregate Business Information Entity*

A collection of related pieces of business information that together convey a distinct business meaning in a specific *Business Context*. Expressed in modelling terms, it is the representation of an *Object Class*, in a specific *Business Context*.

Electronic Certification (e-Cert) is considered to be a 'business context'. Therefore, based on the above CCTS definitions, all supporting e-Cert ABIEs should convey a 'distinct business meaning' in the e-Cert 'business context'. From the example in figure 1, the need to apply downstream message assembly restrictions implies that the ABIE *CrossBorder_ Cargo* is lacking the requisite business semantics to realize a 'distinct business meaning' within the e-Cert 'Business context'. The *CrossBorder_ Cargo* ABIE represents a more generic, 'abstract', business context that most likely will never be used in a real business circumstance without further restriction. The same can be said for a number of other draft D.08A e-Cert ABIEs.

The following CCTS BIE Rule excludes altering the semantics of BIEs, which would cover applying cardinality restrictions and code list restrictions during message assembly (syntax binding).

6.2.1.3 Syntax Binding

The *Business Information Entity* in its standard form is a model that has no specific relationship to any given syntax. A given *Business Information Entity* can subsequently be expressed in any of a number of syntaxes through a binding process. This process is called *Syntax Binding*, and is independent of (has no relationship to) a specific syntax. The *Syntax Binding* process does not alter the semantics of the *Business Information Entity*, but simply instantiates the *Business Information Entity* for use in syntax specific documents. It may be possible to express *Syntax Binding* in an algorithm.

[B31] *Syntax Binding* shall not change the semantics of a *Business Information Entity*.

XML Naming and Design Rules Version 2.0

The following NDR rules support the position that all schemas be structured based on the normative form ABIEs as contained in the CCL.

> **5.2.2 Business Information Entities**
>
> In the CCTS model, context neutral core components are instantiated as context specific components for business information payload and model harmonization. The context specific components are defined as Business Information Entities.

> **5.2.3 The XML Constructs**
>
> UN/CEFACT XML design rules are closely coupled with CCTS. UN/CEFACT XSD Schema will be developed from fully conformant Business Information Entities that are based on fully conformant Core Components.

Moving Forward

It is imperative that the UN/CEFACT finalizes the D.08A release as rapidly as possible, including delivery of a conformant e-Cert schema standard for global use. The proposal below recommends a way forward that leverages the existing process for D.08A, while allowing for potential adjustments to the process to be more thoroughly considered and where appropriate, introduced as a matter of priority for D.08B.

Also, in recognizing that an alternate interpretation of the CCTS is apparently being applied to support the e-Docs based submissions, this factor also needs to be validated and as a consequence, allowance may need to be made for agreed enhancements to be integrated into the process for D.08B, along with potential updates to the base technical specification(s).

Proposed D.08A Action Plan

- It is noted that E-Cert is willing to make every effort necessary to harmonise their ABIEs but must have their business requirements met.
- In order to expedite the D.08A production, it is recommended that TBG17 revert to the original e-Cert submission, which respected the current UN/CEFACT methodology, with any adjustments necessary that do not bring its business requirements into cause. The harmonized BIEs representing the corresponding semantics in the UN eDocs data model already in D.08A will remain in the library.
- The e-Cert ABIEs are introduced imperatively in the D.08A CCL.
- ICG audit the revised CCL for conformity and any other problems are rapidly resolved to enable a speedy release of the D.08A CCL.
- ATG produce ASAP the D.08A schemas including that of e-Cert, based on the original, fully contextualized e-Cert BIEs.

Using the same example CC from the e-Cert RSM, and respecting the current UN/CEFACT Workflow, CCTs and NDRs, the proposed solution can be illustrated as follows:

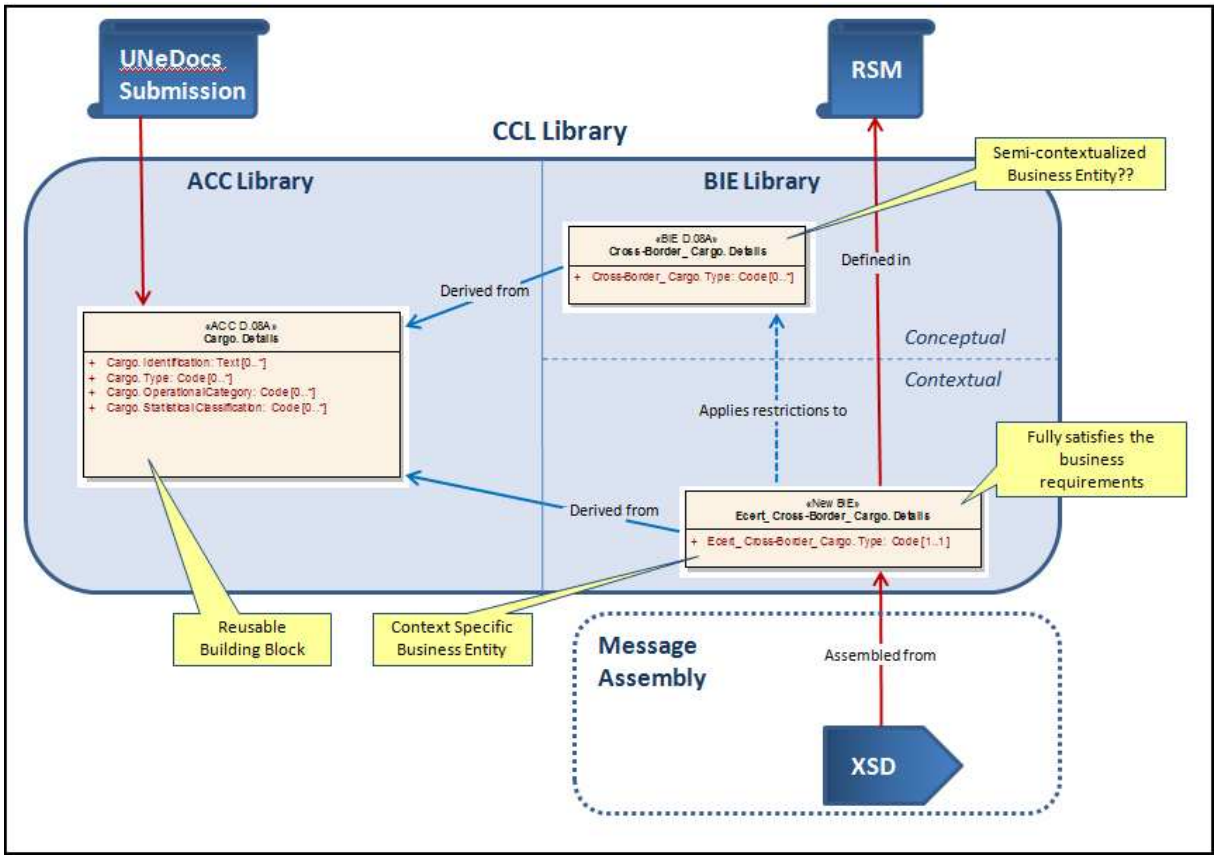


Figure 2 – D.08A Message Assembly

A.2 D.08B

The FMG recommends that for the D.08B production, the solution principles as detailed above and applied for D.08A, should be carried forward and also applied to D.08B. It is understood that some issues may not be fully resolved regarding the inclusion and identification in the CCL of high-level, semi-contextualized BIEs, in addition to the standard BIEs. The ongoing discussion may lead to some refinement to the principles for D.08B. However, as a priority, agreement needs to be reached on the notion of different types of BIE, including the distinction and relationship between them.

The status and ongoing plans for the CCMA (Core Components Message Assembly Guide Version 1.0, 2007-12-17) need to be further clarified by the FMG, particularly in light of the outcomes of the Extended Bureau face-to-face meeting in Basel, January 2008, and the CCMA document abstract which reads 'Currently, the CCMA specification is still under development. Care has been taken to ensure that it is safe to implement the methods and features described in this Guide without a significant risk that the final Technical Specification will obsolete such implementation. However, some risk remains that future design choices may invalidate the implementation based on this Guide'. As simply a guideline, the CCMA should not be considered an authoritative technical reference.

Where enhancements are required to the process that would necessitate changes to existing UMM, CCTS and NDR specifications, such changes should be processed through the normal ODP maintenance procedures. Changes to the UN/CEFACT work flow procedures should be processed by the FPT (Forum Procedures Team).

The following notes reflect some of the internal discussion and should serve as input into any further examination of this issue moving forward with D.08B and subsequent releases.

The proposed action plan and solution are consistent with the existing UN/CEFACT process and respect the current versions of both the CCTS and the NDR.

A potential gap in the proposed solution is the definition of the link between the contextualized BIEs used for schema generation and 'semi-contextualized BIEs' contained in the CCL. The value of the semi-contextualized

BIE needs to be assessed, as it may capture some semantic convergence at the domain level of cross-border trade, and there may be utility in retaining semi-contextualized BIEs in the library. Currently, there appears to be no provision in CCTS or NDR for distinguishing, and recognizing the relationship, between the fully-contextualized and semi-contextualized BIEs that are based on the same ACC.

It should be noted that UNeDocs and some other modeling libraries such as UBL seem to favour a semi-contextualized set of ABIEs, which are then further refined outside the core library to meet specific business requirements. The questions raised by this approach are several:

- Is it appropriate to further apply context to ABIEs during the generation of schema? Is interoperability weakened by so doing? Is it only the end user, at their discretion, who would apply this further contextualization, rather than CEFACT? How is this further contextualization to be harmonized, published and maintained, including when the source library ABIE is changed?
- What is the value of understanding ABIE re-use at the level of the business process or business domain? Because this mechanism seems to have been used in other areas (UNeDocs and UBL as examples) should their approaches be considered to have real business value, and be incorporated as appropriate into the UN/CEFACT methodology?
- The application of context to CCs to produce BIEs is at the heart of these issues. Recognition of an intermediate level of contextualization would need to be formalized with agreement on the appropriate process for applying context at the different levels, and examination of the impact this may have on CCTS and NDR (does this impact the use of qualifiers in naming rules, for example, or should a semi-contextualized BIE ever be rendered into schema, etc.).

Annex B. D.08A CCL Audit Details

B.1 ACC CCL

B.1.1. Changes between D07B & D08A

- Noted were column changes in the D08A spreadsheet as compared with the D07B spreadsheet format. The revised format should be stabilised for future CCL releases. This has been already recommended in previous audits (D.06A, D.06B).

This occurred even between two library generation passes for D.08A where a number of cells in a number of text columns in one spreadsheet (CC & BIE worksheets) changed format, cells with a large amount of text now display as '##########' in the cell, even though the text is present in the formula bar when the cell is opened. See below. Excel format type was 'General' for 16JUL08, 'Text' for 05AUG08. Presume excel has limitation on 'Text' field size? When the worksheet is saved as CSV file, the '#####' is exported, not the text, so could cause problems for automated extraction.

CCL08A BIEs_16JUL08.xls:

UN01001972	BBIE	Project_ Schedule Task. Completion. Date Time	The date, time, date time, or other date time value of the completion of this project schedule task.
UN01001973	BBIE	Project_ Schedule Task. Lag Time. Measure	The measure of the modification of a logical relationship that directs a delay in the successor project schedule task. For example, in a finish-to-start dependency with a ten-day lag, the successor activity cannot start until ten days after the predecessor activity has finished.
UN01001974	ASBIE	Project_ Schedule Task. Schedule. Project Schedule_ Calendar	The project schedule calendar associated with this project schedule task.

CCL08A 05AUG08.xls:

UN01001972	BBIE	Project_ Schedule Task. Completion. Date Time	The date, time, date time, or other date time value of the completion of this project schedule task.
UN01001973	BBIE	Project_ Schedule Task. Lag Time. Measure	##
UN01001974	ASBIE	Project_ Schedule Task. Schedule. Project Schedule_ Ca	The project schedule calendar associated with this project schedule task.

- Noted were a number of editorial changes, e.g. definition, from 'A count of the number of lines…' to 'The count of the number of lines…'. In these instances, no indication of change has been provided nor is such an indication seen as being required.

UID	D.08A Name	Audit Comments
UN00001268	Accounting Account. Identification. Identifier	Cardinality has changed from 1..1 to 0..1. This should be indicated as a CHG. Corrected
UN00000014	Address. Postcode.	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00001249	Address. Description. Text	This BCC should revert to its D.07B position in ACC UN00000010 (Address. Details). Corrected.
UN00000522	Allowance Charge. Identification.	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000525	Allowance Charge. Reason..	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000233	Communication. Channel. Code	CHG indicated. No significant differences detected

		between D07B and D08A. OK, TDED reference added
UN00000103	Communication. Complete Number. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000231	Contact. Person Name. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000962,	Contract Award Notice. Win. Indicator	Cardinality has changed from 1..1 to 0..1. This should be indicated as a CHG. Corrected
UN00000042	Country Sub-Division. Identification. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000039	Country. Identification. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000306	Currency Exchange. Conversion. Rate	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000668	Delivery Terms. Delivery Type. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000669	Delivery Terms. Description. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000311	Document. Type. Code,	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000312	Document. Name. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000313	Document. Purpose. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000847	Document. Copy. Indicator	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000153	Event. Occurrence. Date Time	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000071	Location. Identification. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000241	Location. Type. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000055	Organization. Tax Registration. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000395	Payment Terms. Identification. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000400	Payment Terms. Type. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000543	Service Charge. Identification. Identifier	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000544	Service Charge. Description. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000546	Service Charge. Tariff Class. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000821	Service Charge. Applied. Amount	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00001225	Service Option. Type. Code	Cardinality has changed from 1.. unbounded to 0.. unbounded. This should be indicated as a CHG. Corrected
UN00000132	Status. Condition. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000244	Status. Description. Text	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added
UN00000166	Tax. Type. Code	CHG indicated. No significant differences detected between D07B and D08A. OK, TDED reference added

B.1.2. Duplicate UIDs / DENS / Definitions

No duplicate entries were detected.

B.1.3. Other Inconsistencies

UID	D.08A Name	Audit Comments
UN00000032	Address. Post Office Box. Text	CHG Indicator appears twice. Corrected
UN00002264	Clause. Identification. Identifier	ADD Indicator appears twice. Corrected
UN00002267	Clause. Content. Text Content	ADD Indicator appears twice. Corrected
UN00002724	Document. Item. Quantity	ADD Indicator appears twice. Corrected
UN00001652	Document. Recipient. Party	ADD Indicator appears twice. Corrected
UN00002639	Organization. Abbreviated Name. Text	ADD Indicator appears twice. Corrected
UN00002696	Trade Settlement. Discount. Amount	ADD Indicator appears twice. Corrected
UN00002697	Trade Settlement. Payment. Amount	ADD Indicator appears twice. Corrected
UN00000506	Financial Card. Cardholder Name. Text	Replace double space in definition with single space. Corrected
UN00000849	Person. URI. Communication	In definition, the phrase 'Uniform Resource Indicator (URI)' is referred to as 'Uniform Resource Identifier (URI)' elsewhere. Corrected
UN00000381	Party. Access Rights. Code	Definition has text 'We believe this is really access rights so we changed property term.'. This text should be deleted from definition. Corrected
UN00001661	UTC Offset. Numeric	Noted name change from 'UTC. Date Time ' to 'UTC Offset. Numeric'.
UN00002517	Organization. Members And Managers. Quantity	Noted name change from 'Members and Managers' to 'Members And Managers'
UN00000218	Registration. Country Sub-Division. Identifier	Noted name change from 'Sub-division' to 'Sub-Division'
UN00002021	Transport Equipment. Pick-Up. Event	Noted name change from 'Pick-up' to 'Pick-Up'

B.2 ABIE CCL

B.2.1. Changes between D07B & D08A

- Noted were column changes in the D08A spreadsheet as compared with the D07B spreadsheet format. The revised format should be stabilised for future CCL releases. This has been already recommended in previous audits (D.06A, D.06B).
- Noted were a number of editorial changes, e.g. definition, from 'A count of the number of lines…' to 'The count of the number of lines…'. In these instances, no indication of change has been provided nor is such an indication seen as being required.

UID	D.08A Name	Audit Comments
		In the context categories, the phrase 'In All Contexts' also appears as 'In all contexts', and in some instances has been changed from D07B to D08A. For D08A the phrase should be consistent whenever it is used, either with caps or without, but not both. Considered to be an editorial change, i.e. no change indication required. Corrected

B.2.2. Duplicate UIDs / DENS / Definitions

No duplicate entries were detected.

B.2.3. Other Inconsistencies

UID	D.08A Name	Audit Comments
UN01002187	MSDS_ Document. Additional Information_ Remarks. Text	Redundant full stop in Business Terms. Corrected
UN01001252	Universal_ Communication. Details	Qualified ABIE has the same definition as the underlying ACC. Corrected
UN01001942	Project_ Resource. Cost_ Category. Code	Definition: Change spelling of 'labor' to 'labour' to be consistent with other entries. Corrected
UN01002147	Flashpoint Range_ Measurement. Details	Definition: Change spelling of 'vapor' to 'vapour' to be consistent with other entries. Corrected
UN01002303	Hazardous_ Goods Characteristic. Saturated Vapor Concentration_ Feature. Measure	DEN & Definition: Change spelling of 'vapor' to 'vapour' to be consistent with other entries (e.g. see UN01002309). Corrected
UN01002649	Acknowledgement_ Document. Reason_ Information. Text	A new optional BBIE inserted as the first BBIE in an existing ABIE. To maintain upwards compatibility this BBIE should be inserted as the last BBIE in the ABIE. . Corrected
UN01002092	Unstructured_ Address. Details	Three new optional BBIEs inserted in an existing ABIE, two BBIEs not positioned at the end of the ABIE. To maintain upwards compatibility these new BBIEs should all be inserted as the last BBIEs in the ABIE. . Corrected

B.2.4. Underlying CCs defined

All BIEs were supported by underlying CCs.

B.3 Qualified DataTypes (qDT)

B.3.1. Source File Naming

As agreed at the Mexico Forum, ICG has applied revised naming convention to the D.08A qDT source file names.

B.3.2. Spreadsheet Column Changes

Noted were column changes in the D08A spreadsheet as compared with the D07B spreadsheet format. The revised format should be stabilised for future CCL releases

B.3.3. Other Inconsistencies

UID	D.08A qDT	Audit Comments
UN02000004	Currency_ Code. Type	TDED Tag should be 6345, not 6343 (notified by TBG17). Corrected
UN02000043	Package Type_ Code	Should reference Recommendation 21, 2006 Corrected
UN02000012	Payment Terms_ Identifier	This should be typed as a code, not an identifier. Notified in previous ICG audit reports. TBG17: Too old to change ICG: The ICG views this as an outstanding issue, time is not a question of semantic correctness. TBG17: We disagree.
UN02000007	IBAN_ Identifier. Type	The Identification Scheme. Identifier should be changed from '13616' to 'ISO 13616', in line with other ISO based entries.

B.3.4. eCert Additions

TBG18: Added three missing qualified data types:

- Status Code Type, based on TDED 4405
- Cargo Type Classification Code Type, based on TDED 7085
- Reference Code Type, based on TDED 1153

Audited OK

B.3.5. Currency_ Code. Type

The currency code list version 2007-06-18 is out of date. For example, amendment number 141 introduced a new currency code effective 01 August 2008 for the Zimbabwe dollar, ZWR. Replacing the old Zimbabwe Dollar code, ZWD. Notably, this has not yet been reflected on the ISO web site:

http://www.iso.org/iso/support/faqs/faqs_widely_used_standards/widely_used_standards_other/currency_codes/currency_codes_list-1.htm

Annex C. D.08A RSM Audit Details

C.1 Export Certification (eCert)

a. **Section 3 - Target Technology Solution(s)**
This section should specify the UN/CEFACT solutions required for eCERT, i.e. UN/CEFACT XML standard schema and/or UN/EDIFACT standard message(s). Corrected

b. **Section 4.3 - Canonical Data Model**
The canonical data model should only contain business information represented by ABIEs, BBIEs, and ASBIEs. The specification of the BCC stereotype is contrary to the intended business focus of the canonical data model and should be removed. Please note that from an audit perspective, the contents of the CCL BIE library and the RSM canonical data are verified for consistency to ensure that CCL BIE has applied all business requirements as specified in the canonical model (and BIE reference section). Corrected

c. **Cardinality Inconsistencies**
The cardinality of the following ASBIEs is inconsistent between the Canonical Model and the CCL.

ABIE	ASBIE	Model	CCL
SPS Acknowledgement_ Document. Details	SPS Acknowledgement_ Document. Reference. SPS Referenced_ Document	1..*	0..*

Corrected

d. **BBIE Cardinality - Unbounded**
A number of BBIEs are specified with a maximum occurrence of unbounded. Unclear from the RSM as to the reasoning for these elements to potentially repeat (e.g. for a given export/import country to be specified with multiple names for a particular e-Cert exchange instance). Recommend that clarification with an example be provided in Section 5.1 for those instances where unbounded occurrences are required or in the absence of clarification, that the maximum occurrence be set to 1. Examples are:

ABIE	**BBIE**	**Cardinality**
SPS Exchanged_ Document. Details	SPS Exchanged_ Document. Name. Text	0..*
	SPS Exchanged_ Document. Description. Text	0..*
SPS_ Country. Details	SPS_ Country. Name. Text	1..*

TBG18: SPS certificates feature translations of their textual information into languages of the countries of destination and transit. That's why several textual entities such as SPS Exchanged_ Document. Name. Text allow multiplicity. The representation data type Text carries the language identifier as a supplementary component. Hence our editor advised us quite correctly to remove all language codes from our submission. We have to leave this as is.
In an RSM the reasoning for the repetition of a BBIE should be identified and explained. ICG recommends that this be articulated in the next version of the eCert RSM. Not critical for D.08A publication.

e. **Excluded BBIEs**
Exclusion of optional BBIEs in the canonical model will not preclude these excluded BBIEs from appearing in a requested UN/CEFACT XML standard schema, since the schema is generated from the CCL BIE library, not the model. Account may need to be taken in implementation of these BBIEs. Examples of ABIEs in the canonical model with excluded BBIEs.

Canonical Model ABIE
Acknowledgement_ Document
Reference_ Document. Details

Unstructured Address

f. **BBIE Order**
The order of the BBIEs within each ABIE as specified in the canonical model and n the CCL BIE library should be consistent. All eCert ABIEs should be aligned accordingly. For example, the ABIE for *SPS Exchanged_ Document* should have the same BBIE order in both the canonical model and CCL.
Corrected

g. **ABIE - SPS_ Event**
This ABIE has no supporting BBIEs. An ABIE is intended to provide business information concerning the object class in question. A class without any attributes has no semantic meaning in its own right. Therefore it is expected that there would be at least one attribute specified in an ABIE, with the exception of Message Assembly classes which merely assemble the required ABIEs into a coherent document. Consequently, it brings into question the need for this ABIE as it lacks any business characteristics, especially since the Examination Event and Storage Event association to Referenc*ed_ Location* could be specified directly without any loss of semantics.

TBG18 clarified that eCert cannot use separate, direct associations between the relevant object classes to bypass this class without deviating from the approved, harmonized model. It is suggested that eCert messages contain an empty XML element tags for this entity.

ICG does not view that the absence of the SPS_ Event class would represent a deviation since it simply removes a class that is clearly redundant in this derived model. Given this and the opening comments, ICG strongly recommends that this class be removed.

TBG18: [B6] An Aggregate Business Information Entity shall contain at least one Business Information Entity Property. A Business Information Entity Property shall either be a Basic Business Information Entity Property or an Association Business Information Entity Property.
No change made.

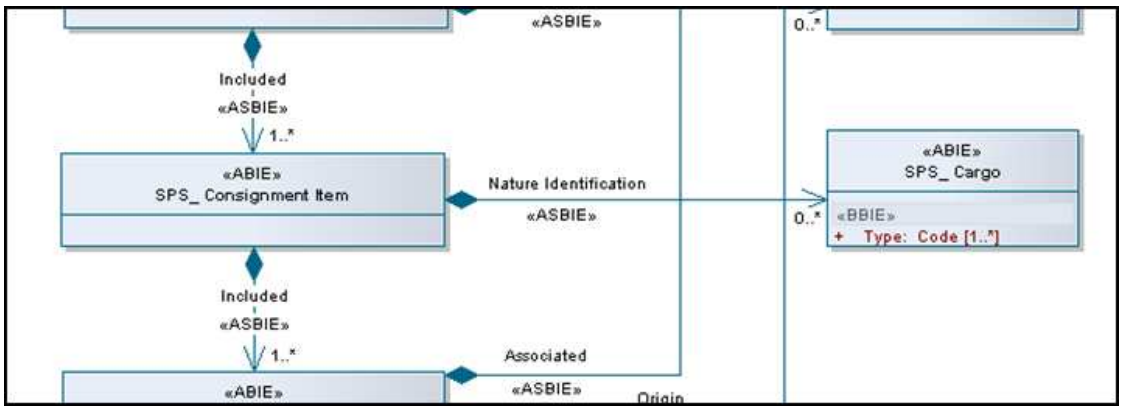
The ICG still views the use of the empty class SPS_Event as a departure from conventional message design and believes it warrants further analysis by the technical groups. Considered as a serious issue, the ICG recommends that it be addressed in the forthcoming Forum meeting. Not critical for D.08A publication.

h. **ABIE - SPS_ Consignment Item**
This ABIE has no supporting BBIEs. As mentioned in item d above, an ABIE is intended to provide business information concerning the object class in question. A class without any attributes has no semantic meaning. Therefore it is expected that there would be at least one attribute specified in an ABIE, with the exception of Message Assembly classes which merely assemble the required ABIEs into a coherent document. Consequently, it brings into question the lack of any business characteristics for this ABIE, in particular a means to distinguish or identify each individual instance of a consignment item within a consignment. One is incapable of answering the question 'to which consignment item does the line item belong?'

In this case, ICG recommends that issue be addressed, for example by adding a BBIE *SPS_ Consignment Item. Sequence. Numeric* to *SPS_ Consignment Item* to enable each occurrence of the consignment item to be distinguished.

TBG18: [B6] An Aggregate Business Information Entity shall contain at least one Business Information Entity Property. A Business Information Entity Property shall either be a Basic Business Information Entity Property or an Association Business Information Entity Property.
No change made.

i. **ABIE - SPS_ Cargo**
This ABIE has an unbounded association with SPS_ Consignment Item and has only one attribute which also has an occurrence of unbounded.



Recommend that that the attribute SPS_ Cargo. Type. Code be changed to have a cardinality of 1..1. Corrected

j. **Message Assembly**
For message assembly (eCert Business Message 1.3.xls), the DEN and UID of the root level ABIEs must be the same as that defined in the CCL. For example, 'SPS_ Certificate. Regulatory Details. SPS Exchanged_ Document' should be 'UN03000001 SPS Exchanged_ Document. Details'. Corrected

k. **Enumerations**
For the enumerations specified in the canonical model, the corresponding qualified data types are missing from the D.08A CCL qDT library. These need to be specified, in order to have them included in the XML schema. Corrected.

l. **Section 5 - Business Information Entity Reference**
Comments for Section 4.3 also apply for this section. Unclear as to how the columns 'Occ Min CCL', 'Occ Max CCL', and 'Occ Min eCert', 'Occ Max eCert' are to be interpreted and applied. Why are they different and how is this difference expected to be reconciled when the requested e-Cert schema implements the CCL BIEs rather than it would appear, the 'Occ Min eCert' and 'Occ Max eCert'?. Corrected.

C.2 Export Certification (eDAPLOS)

RSM Document: RSM_eDAPLOS_V0.3.doc, dated 4 June 2008.

XLS File 'eDAPLOS_TBG17-080604.xls'

XMI File 'RSM_eDAPLOS_V0.3.xmi'

EAP File 'eDAPLOS-080520.eap'

a. **Section 6.2 - Canonical Data Model**
Each BBIE should be specified with its specific data type. Updated.

b. **Canonical data model, connectors should be drawn as a composite aggregation,** i.e. with a solid diamond head rather than an outline diamond head. Updated.

c. **Root Level Message Assembly**
The root level message assembly needs to be shown for the eDAPLOS message(s) for XML schema generation. Suggest that this be added to here to indicate at the root level, the respective root ABIEs, order and cardinality for the eDAPLOS message(s). Updated, see comment 'e' below.

d. **Cardinality**
The cardinality of the message components (ABIEs) appears as mandatory for only certain party and communication information, while the agriculture information is completely optional. Need to confirm that this is the intended requirement. TBG18 confirmed that the cardinality is as required

e. **Message Assembly**
At the root level, two ABIEs are specified, *Crop Data Sheet Message. Agricultural_ Plot* and *Crop Data*

Sheet Message. Crop Data Sheet_ Document. In the model (eDAPLOS-080520.eap), these two ABIES are defined with an occurrence of 1. In the Message Assembly spreadsheet (business_message_assembly_eDAPLOS.xls), these two ABIEs have the occurrence set as 0..unbounded.

TBG18 confirmed that the two root level ABIEs should both have the occurrence set as 0..unbounded. The canonical model needs to be updated to reflect this. Corrected

f. Inconsistencies

#	eDAPLOS Model / Spreadsheet	D.08A BIE
1	Crop Data Sheet_ Document. Receiver. Crop Data Sheet_ Party Corrected	Crop Data Sheet_ Document. Recipient. Crop Data Sheet_ Party
2	Party_ Contact. Details Corrected	Party_ Contact. Details
3	Structured_ Address. Details The BBIE multiplicity between the model and xls are different, and neither are entirely consistent with the CCL entry.	Structured_ Address. Details

	A	B	C	D	E	F	G	H
1				**CCL D.08A**				**eDAPLOS xls**
2	ADD	UN01002827	ABIE	Party_ Contact. Details			ABIE	Party_ Contact. Details
3	ADD	UN01002828	BBIE	Party_ Contact. Identification. Identifier	1	1	BBIE	Party_ Contact. Identification. Identifier
4	ADD	UN01002830	BBIE	Party_ Contact. Department Name. Text	0	1	BBIE	Party_ Contact. Person Name. Text
5	ADD	UN01002829	BBIE	Party_ Contact. Person Name. Text	0	1	BBIE	Party_ Contact. Department Name. Text
6	ADD	UN01002831	ASBIE	Party_ Contact. Direct_ Telephone. Unstructured_ Telecommunication_ Communication	0	1	ASBIE	Party_ Contact. Direct_ Telephone. Unstructured_ Telecommunication_ Communication
7	ADD	UN01002832	ASBIE	Party_ Contact. Mobile_ Telephone. Unstructured_ Telecommunication_ Communication	0	1	ASBIE	Party_ Contact. Mobile_ Telephone. Unstructured_ Telecommunication_ Communication
8	ADD	UN01002833	ASBIE	Party_ Contact. Fax. Unstructured_ Telecommunication_ Communication	0	1	ASBIE	Party_ Contact. Fax. Unstructured_ Telecommunication_ Communication
9	ADD	UN01002834	ASBIE	Party_ Contact. URI. Email_ Communication	0	1	ASBIE	Party_ Contact. Telex. Unstructured_ Telecommunication_ Communication
10	ADD	UN01002835	ASBIE	Party_ Contact. Telex. Unstructured_ Telecommunication_ Communication	0	1	ASBIE	Party_ Contact. URI. Email_ Communication
11								
12								
13								
14				**CCL D.08A**				**eDAPLOS xls**
15		UN01000895	ABIE	Structured_ Address. Details			ABIE	Structured_ Address. Details
16		UN01000896	BBIE	Structured_ Address. Identification. Identifier	0	1	BBIE	Structured_ Address. Street Name. Text
17		UN01000897	BBIE	Structured_ Address. Postcode. Code	0	1	BBIE	Structured_ Address. Postcode. Code
18		UN01000898	BBIE	Structured_ Address. Building Name. Text	0	1	BBIE	Structured_ Address. City Name. Text
19		UN01000899	BBIE	Structured_ Address. Street Name. Text	0	1	BBIE	Structured_ Address. Country Name. Text
20		UN01000900	BBIE	Structured_ Address. City Name. Text	0	1	BBIE	Structured_ Address. Country. Identifier
21		UN01000901	BBIE	Structured_ Address. Country. Identifier	0	1		
22		UN01000902	BBIE	Structured_ Address. City Sub-Division Name. Text	0	1		
23		UN01000903	BBIE	Structured_ Address. Country Name. Text	0	1		
24		UN01000904	BBIE	Structured_ Address. Country Sub-Division Name. Text	0	1		
25		UN01001233	BBIE	Structured_ Address. Block Name. Text	0	1		
26		UN01001234	BBIE	Structured_ Address. Plot Identification. Text	0	1		
27	ADD	UN01002826	BBIE	Structured_ Address. Post Office Box. Text	0	1		

Same inconsistencies also apply in eDAPLOS canonical model and should be corrected accordingly. If eDAPLOS requires a restricted number of BBIEs to those current defined for Structured Address in D.08A, then a specific ABIE would be required

Advised by TBG18 that the draft D.08A CCL entry for Structured Address is as required. The BRS requires updating (see comment 3 above). Not critical for D.08A publication.

Annex D. D.08A Schema Audit Details

D.1 Code list problems

D.1.1. Incorrect schema component names

The following schema component names were incorrect:

1. <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:6:3055:D06B' schemaLocation='../../codelist/standard/UNECE_AgencyIdentificationCode_D06B.xsd'/>
   should read:

   <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:6:3055:D08A' schemaLocation='../../codelist/standard/UNECE_AgencyIdentificationCode_D08A.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema.

   XML schema has been corrected. OK

2. <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:6:Recommendation20:4' schemaLocation='../../codelist/standard/UNECE_MeasurementUnitCommonCode_4.xsd'/>
   should read:

   <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:6:Recommendation20:5' schemaLocation='../../codelist/standard/UNECE_MeasurementUnitCommonCode_5.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema.

   XML schema has been corrected. OK

3. <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:ISO:ISO3AlphaCurrencyCode:20070618' schemaLocation='../../codelist/standard/ISO_ISO3AlphaCurrencyCode_20070618.xsd'/>
   should read:

   <xsd:import namespace='urn:un:unece:uncefact:codelist:standard:ISO:ISO3AlphaCurrencyCode:20081112' schemaLocation='../../codelist/standard/ISO_ISO3AlphaCurrencyCode_20081112.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema. The QDT UN02000004 included in the published CCL still makes reference to version 2007-06-18.

UN02000004	DT	Currency_ Code. Type	
	CC	Code. Content	ISO_4217-3A-CurrencyCode_20070618.TXT
	SC	Code List. Identifier	ISO 4217 3A
	SC	Code List. Agency. Identifier	5
	SC	Code List. Version. Identifier	2007-06-18

No change to XML Schema.

OK For action ICG for D.08B to ensure that this is always up to date.

4. <xsd:import
namespace='urn:un:unece:uncefact:codelist:standard:UNECE:MeasurementUnitCommonCodeDuration:4'
schemaLocation='../../codelist/standard/UNECE_MeasurementUnitCommonCodeDuration_4.xsd'/>
should read:

   <xsd:import
namespace='urn:un:unece:uncefact:codelist:standard:UNECE:MeasurementUnitCommonCodeDuration:5'
schemaLocation='../../codelist/standard/UNECE_MeasurementUnitCommonCodeDuration_5.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema. The QDT UN02000026 included in the published CCL still makes reference to version 4.

UN02000004	DT	Duration_ Measure. Type	
	CC	Measure. Content	
	SC	Measure Unit. Code	UNECE_6411-DurationMeasure_2006.TXT
	SC	Measure Unit. Code List Version. Identifier	4

   No change to XML Schema.

   OK For action ICG for D.08B to ensure that this is always up to date.

5. <xsd:import
namespace='urn:un:unece:uncefact:codelist:standard:UNECE:ReportingThresholdTriggerType:D07A'
schemaLocation='../../codelist/standard/UNECE_ReportingThresholdTriggerType_D07A.xsd'/>
should read:

   <xsd:import
namespace='urn:un:unece:uncefact:codelist:standard:UNECE:ReportingThresholdTriggerType:D08A'
schemaLocation='../../codelist/standard/UNECE_ReportingThresholdTriggerType_D08A.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema. XML schema has been corrected. OK

6. <xsd:import namespace='urn:un:unece:uncefact:data:standard:UnqualifiedDataType:6'
schemaLocation='UnqualifiedDataType_6p0.xsd'/>
should read:

   <xsd:import namespace='urn:un:unece:uncefact:data:standard:UnqualifiedDataType:6'
schemaLocation='../../UnqualifiedDataType_6p0.xsd'/>

   ATG2 Response: The comment applies to the import statements in the QDT Schema. This will be corrected in final publication when everything is changed to absolute path. . OK

D.1.2. Missing Codelist schema components

The following codelist schema components are missing from the qualified datatypes schema:

1. IANA_CharacterSetCode_20070514
2. IANA_MimeMediaType_20081112
3. ISOAlpha3LanguageCode_20080305 (Note: might be better defined as ISO3AlphaLanguageCode_20080305 in line with the currency code name)
4. UNECE_characterSetEncodingCode_40106 (*not sure if the name should not end in* _40007 which was provided in D.07B)

ATG2 Response: These are not imported into the QDT since they are imported into the UDT which is imported into the QDT.

ICG response

1. There are cases when there is the same schema component imported into both the UDT and the QDT (e.g. AgencyIdentificationCode, MeasurementUnitCommonCode).
2. In addition different versions of the 2alphaCountryCode schema component are imported into each DT with the same namespace prefix (UDT,QDT) (ns: clm5ISO316612A) there are also different versions of the 3alpha CurrencyCode schema component imported into each DT with the same namespace prefix (UDT,QDT)(NS: clm5ISO42173A). So which is the valid one?
3. Finally ISO_CurrencyCode_20070308.xsd Schema component is not imported anywhere. This is the same as for ISO_LanguageCode_2006.xsd. These should be deleted or otherwise imported where required.

No change to XML Schema.

D.1.3. IANA_MimeMediaType_20081112

Enumerations missing

1. <xsd:enumeration value='application'>
2. <xsd:enumeration value='application/news-message-id'>
3. <xsd:enumeration value='audio'>
4. <xsd:enumeration value='example'>
5. <xsd:enumeration value='model'>
6. <xsd:enumeration value='multipart'>
7. <xsd:enumeration value='video/3gpp'>
8. <xsd:enumeration value='video/3gpp2'>
9. <xsd:enumeration value='video/3gpp-tt'>

ATG2 Response: Items 1, 3, 4, 5, 6 are not values in the Mime Media Type and have previously been included erroneously. The same is true for image, message, text and video.

Item 2 is not currently listed by IANA.
Item 2, 7, 8 and 9 are corrected.
XML schema has been corrected. OK

Additional whitespace sometimes before, always after as follows:

<ccts:Definition> xxxxxx </ccts:Definition>

ATG2 Response: XML schema has been corrected. OK

Funny characters:

<ccts:Definition>Â Â Â Â Â Â RFC2045,RFC2046</ccts:Definition>

ATG2 Response: XML schema has been corrected. OK

4.1.1.1 Multiple repetitions

1. <xsd:enumeration value='image'>
2. <xsd:enumeration value='video'>

ATG2 Response: ATG2 were not able to find any such occurrences. No change to XML Schema. OK

D.1.4. ISO2AlphaCurrencyCode_20081112

4.1.1.2 Language parameter

The xml:lang parameter is not provided as in previous version (question is this deliberate??)

<xsd:documentation xml:lang='en'>

ATG2 Response: XML schema has been corrected. OK

4.1.1.3 Name Changes

The following names have changed and its not clear whether or not they are correct:

1. <ccts:Name>Unidades de formento</ccts:Name> now reads <ccts:Name>Unidades de fomento</ccts:Name>
2. <ccts:Name>Ghana Cedi</ccts:Name> now reads <ccts:Name>Cedi</ccts:Name>
3. <ccts:Name>Malagascy Ariary</ccts:Name> now reads <ccts:Name>Malagasy Ariary</ccts:Name>
4. <ccts:Name>Mexican Unidad de Inversion (UID)</ccts:Name> now reads <ccts:Name>Mexican Unidad de Inversion (UDI)</ccts:Name>
5. <ccts:Name>Namibian Dollar</ccts:Name> now reads <ccts:Name>Namibia Dollar</ccts:Name>
6. <ccts:Name>Sudanese Dinar</ccts:Name> now reads <ccts:Name>Sudanese Pound</ccts:Name>

ATG2 Response: This is a reflection of the current value of the code list from ISO. No correction to XML schema. OK

4.1.1.4 Code repetitions

The following codes appears more than once

1. <xsd:enumeration value='ZMK'>
2. <xsd:enumeration value='XXX'>
3. <xsd:enumeration value='YER'>
4. <xsd:enumeration value='ZAR'>

ATG2 Response: XML schema has been corrected. OK

D.1.5. UNECE_CostManagementCode_D08A.xsd

4.1.1.5 Missing heading

The XSD is missing all the version and copyright information

ATG2 Response

XML schema has been corrected. OK

D.1.6. UNECE_DutyorTaxorFeeCategoryCode_D08A.xsd

4.1.1.6 Missing code

The following code is missing

1. <xsd:enumeration value='AE'>

ATG2 Response: XML schema has been corrected. OK

D.1.7. UNECE_MeasurementUnitCommonCode_5.xsd

The XSD is completely wrong it is using the name as the enumerations instead of the common code.

ATG2 Response: XML schema has been corrected.

D.2 Checks on the CCTS D.08A BIE Annotation

1) UN01002836 (Unstructured_ Telecommunication_ Communication. Details)

XSD documentation and CCL content differ. CCL is correct

XSD ObjectClassQualifierTerm text</ObjectClassQualifierTerm>

CCL ObjectClassQualifierTerm text: Unstructured_ Telecommunication

2) UN01002837 (Unstructured_ Telecommunication_ Communication. Complete Number. Text)

XSD documentation and CCL content differ. CCL is correct

XSD ObjectClassQualifierTerm text: Unstructured

CCL ObjectClassQualifierTerm text: Unstructured_ Telecommunication

3) UN01002666 (Agricultural_ Analysis. Result. Analysis_ Referenced_ Document)

XSD documentation and CCL content differ. CCL is correct

XSD AssociatedObjectClassQualifierTerm text: Analysis

CCL AssociatedObjectClassQualifierTerm text: Analysis_ Referenced

4) UN01002831 (Party_ Contact. Direct_ Telephone. Unstructured_ Telecommunication_ Communication)

5) UN01002832 (Party_ Contact. Mobile_ Telephone. Unstructured_ Telecommunication_ Communication)

6) UN01002833 (Party_ Contact. Fax. Unstructured_ Telecommunication_ Communication)

7) UN01002835 (Party_ Contact. Telex. Unstructured_ Telecommunication_ Communication)

XSD documentation and CCL content differ. CCL is correct

XSD AssociatedObjectClassQualifierTerm text: Unstructured

CCL AssociatedObjectClassQualifierTerm text: Unstructured_ Telecommunication

ATG2 Response: ICG is correct in that the annotation in the XML schema is incorrect. As per the XML NDR the each QualifuerTerm should be given as a separate line in the xsd:annotation. XML schema has been corrected.

This is still an open question, there should only be one qualifierterm entity. Following on from MCr's e-mail, we would suggest that the XSD and the CCL should be consitant and as a consequence we strongly recommend that all the qualifier terms be expressed in a single CCTS annotation line – There is only a small number of this incoherence and it is merely documentation.

D.3 Checks on the CCTS D.08A qDT Annotation

1) UN02000002 (Billing_ Document_ Code. Type)

XSD documentation and CCL content differ. CCL is correct

XSD DataTypeQualifierTerm: Billing

CCL DataTypeQualifierTerm: Billing_ Document

ATG2 Response: ICG is correct in that the annotation in the XML schema is incorrect. As per the XML NDR the each QualifuerTerm should be given as a separate line in the xsd:annotation. XML schema has been corrected.

This is still an open question, there should only be one qualifierterm entity. Following on from MCr's e-mail, we would suggest that the XSD and the CCL should be consitant and as a consequence we strongly recommend that all the qualifier terms be expressed in a single CCTS annotation line – There is only a small number of this incoherence and it is merely documentation.

2) UN02000008 (Payment Terms Event_ Time Reference_ Code. Type)

XSD DataTypeQualifierTerm: Payment Terms Event

CCL DataTypeQualifierTerm: Payment Terms Event_ Time Reference

ATG2 Response: ICG is correct in that the annotation in the XML schema is incorrect. As per the XML NDR the each QualifuerTerm should be given as a separate line in the xsd:annotation. XML schema has been corrected.

This is still an open question, there should only be one qualifierterm entity. Following on from MCr's e-mail, we would suggest that the XSD and the CCL should be consitant and as a consequence we strongly recommend that all the qualifier terms be expressed in a single CCTS annotation line – There is only a small number of this incoherence and it is merely documentation.

3) UN02000019 (Date Mandatory_ Date Time. Type)

XSD missing supplementary component 'Date Time. Format. Text', specified as an 'ADD' in qDT CCL

ATG2 Response: The SC in question is not marked as an ADD in the published version of the CCL. Furthermore ATG2 has provided another solution for the syntax binding as implemented in previous releases. No change in XML schema. OK

4) UN02000026 (Duration_ Measure. Type)

XSD missing supplementary component 'Measure Unit. Code List Version. Identifier', as specified in qDT CCL.

Use of supplementary component 'Measure Unit. Code', should be 'Optional' with cardinality of '0..1' as per CCL Data Type Catalogue Version 2.1 (2008-03-31)

ATG2 Response: The version identifier is part of the namespace expression of the code list per the NDR. No change in XML schema. OK

D.4 Checks on the CCTS D.08A uDT Annotation

1) UDT000003 (Graphic. Type)

2) UDT000004 (Picture. Type)

3) UDT000005 (Sound. Type)

4) UDT000006 (Video. Type)

XSD missing supplementary component 'Binary Object. Character Set. Code', as specified in CCL Data Type Catalogue Version 2.1 (2008-03-31)

ATG2 Response

As per the NDR the code list is provided through the use of a base type, thus no SC is required in the XML representation. No change in XML schema. OK

5) UDT0000013 (Measure. Type)
XSD missing supplementary component 'Measure Unit. Code List Version. Identifier', as specified in CCL Data Type Catalogue Version 2.1 (2008-03-31)

ATG2 Response: The version identifier is part of the namespace expression of the code list per the NDR. No change in XML schema. OK

6) UDT0000018 (Quantity. Type)
XSD missing the following supplementary components as specified in CCL Data Type Catalogue Version 2.1 (2008-03-31):

Quantity Unit. Code List Agency. Identifier

Quantity Unit. Code List. Identifier

Quantity Unit. Code List Agency Name. Text

ATG2 Response: The content of these SCs are all part of the namespace expression of the code list per the NDR. No change in XML schema. OK

7) UDT0000020 (Name. Type)
XSD missing supplementary component 'Text. Language. Locale. Identifier', as specified in CCL Data Type Catalogue Version 2.1 (2008-03-31)

ATG2 Response: In the XML representation language is provided for through the use of xsd:language. The code list for this type includes values for 'local' as well. Thus no separate SC is required for the XML representation. No change in XML schema. OK

8) UDT000008 (Date Time. Type)

UDT000009 (Date. Type)

UDT0000010 (Time. Type)

UDT0000012 (Indicator. Type)

UDT0000014 (Numeric. Type)

UDT0000015 (Value. Type)

UDT0000016 (Percent. Type)

UDT0000017 (Rate. Type)

XSD missing supplementary component '..... Format. Text', as specified in CCL Data Type Catalogue Version 2.1 (2008-03-31)

ATG2 Response: In the XML representation the consept of 'format' is provided for through the use of a base type, thus no separate SC is required. No change in XML schema. OK

D.5 NDR Checks

There are three NDR questions that need resolution:

1. MaterialSafetyDataSheet_1p0.xsd

NDR R12 : Use of allowed acronyms, abbreviations, or other word truncations

<xsd:element maxOccurs='unbounded' minOccurs='0' name='MSDSRegulatedGoods' type='ram:MSDSRegulatedGoodsType'>

<xsd:element name='MSDSDocument' type='ram:MSDSDocumentType'>

2. SPSAcknowledgement_1p0.xsd
NDR R12 : Use of allowed acronyms, abbreviations, or other word truncations

<xsd:element id='UN03000182' name='SPSAcknowledgementDocument' type='ram:SPSAcknowledgementDocumentType'>

<xsd:complexType name='SPSAcknowledgementType'>

<xsd:element name='SPSAcknowledgement' type='rsm:SPSAcknowledgementType'>

3. SPSCertificate_1p0.xsd
NDR R12 : Use of allowed acronyms, abbreviations, or other word truncations

<xsd:element id='UN03000053' name='SPSConsignment' type='ram:SPSConsignmentType'>

<xsd:element id='UN03000001' name='SPSExchangedDocument' type='ram:SPSExchangedDocumentType'>

<xsd:complexType name='SPSCertificateType'>

<xsd:element name='SPSCertificate' type='rsm:SPSCertificateType'>

ATG2 Response: This is consistent with the published CCL, and these need to be part of the controlled vocabulary. No change to XML schama. Conflict with the controlled vocabulary – ICG action to ensure that they appear in the vocabulary in D.08B.

D.6 Schema Checks

The document 'MessagesDifferencesWhenComparedToTheD07B.doc' (attatched) outlined a number of problems which were discovered during the schema validation phase. These were mainly due to the manual data capture of the e-Tendering and LodgingHouse schemas into the tool used. Some problems were also due to the tool itself.

When reanalysing the schemas it was found that errors persisted as follows:

1. CostData (definitions and RSM document version missing or incorrect)
2. ExaminationResultNotification(definitions and RSM document version missing or incorrect)
3. LodgingHouseInformationRequest (incorrect MA unique identifier. Duplicates in the definitions)
4. LodginghouseInformationResponse (Mixup with the Request (cut and paste) incorrect MA uniqueId)
5. ReceptionOfResponseOfTenderGuarantee (Definition missing)

D.7 Support library checks Checks

UN03000066 (SPS_ Consignment. Transit. SPS_ Country)
Different definitions (missing space character):
XSD: A transit country for thisSPS consignment.
CCL: A transit country for this SPS consignment.

UN03000119 (SPS_ Period. Details)
Different definitions (spelling of activities):
XSD: A period of time from a start date time up to an end date

time in which activites took place that are subject to
Sanitary and Phytosanitary (SPS) measures.
CCL: A period of time from a start date time up to an end date time in which activities took place that are subject to Sanitary and Phytosanitary (SPS) measures.

UN01002836 (Unstructured_ Telecommunication_ Communication. Details)
and
UN01002837 (Unstructured_ Telecommunication_ Communication. Complete Number. Text)
Different Object Class Qualifier Terms
XSD: Unstructured
CCL: Unstructured_ Telecommunication

The last two are in fact because the extraction tool has generated two lines for each qualifier term as follows:
<ccts:ObjectClassQualifierTerm>Unstructured</ccts:ObjectClassQualifierTerm>
<ccts:ObjectClassQualifierTerm>Telecommunication</ccts:ObjectClassQualifierTerm>

This for us is incorrect as

1. It does not follow the CCL rendering and
2. There is no precedence rule which ensures that you know the order of the qualifier terms.

In our opinion the CCL rendering is correct and the XSD should be changed accordingly.

It is also worth noting that this problem existed in the previous pass but only the first occurrence of the Qualifier term appeared. (i.e. the correction in fact duplicated the line with the second qualifier term instead of adding it to the first qualifier term).