

AUDIT
REPORT

OF THE

D07B ACC and BIE CCL Directories
and
All associated schemas

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1. Introduction

We are pleased to announce that the D07B Core Component Library directory has been produced in compliance with existing procedures and we consider it satisfactory for implementation.

2. D.07B CCL audit

2.1 ACC CCL

2.1.1 Changes between D.07A & D.07B

5 inconsistencies were identified and corrected.

2.1.2 Duplicate UIDs / DENS / Definitions

No duplicate entries were detected.

2.2 BIE CCL

2.2.1 Changes between D.07A & D.07B

5 inconsistencies were identified and corrected. A significant inconsistency concerned the changing of an already assigned UID.

2.2.2 Duplicate UIDs

As noted in 3.1 above, the following duplicate UID entries were detected:

UN01002092	Unstructured_ Address. Details	ABIE
UN01002092	Billing_ Payment. Identified. Trade_ Payment Means	ASBIE

2.2.3 Duplicate DENs / Duplicate Definitions

No duplicate DENs or Definitions were detected.

2.2.4 Qualifier Terms in Definitions

In respect of Rule B14.

[B14] The definition of a Basic Business Information Entity shall use a structure that is based on the existence of the Object Class Term, the Property Term, and the Representation Term, and enhanced by business related Qualifier Terms.

UID	D.07B Name	Audit Comments
UN01002104	Unstructured_ Address. Country Sub-Division Name. Text	The definition: "A name, expressed as text, of the sub-division of a country for this address." should include the qualifier term as for the other BBIEs in the ABIE UN01002092 (Unstructured_ Address. Details) 6NOV07: corrected the definition, put CHG in column A.
UN01002092	Billing_ Payment. Identified. Trade_ Payment Means	The definition: "A payment means identified for this payment." should include the qualifier terms as for the other ASBIE in the ABIE UN01001378 (Billing_ Payment. Details) 6NOV07: Corrected definition, put CHG in column A..

2.2.5 Inconsistencies between ACC and ABIE entries

No equivalent BCC exists in ACC UN00001604 (Registry Product. Details) for BBIE UN01002406 (Recorded_ Registry Product. Property. Identifier). Please review and correct.

ACC		
ADD	UN00001604	Registry Product. Details
ADD	UN00001605	Registry Product. Product. Identifier
ADD	UN00001606	Registry Product. Product Classification. Code
ADD	UN00001607	Registry Product. Data Source. Identifier
ADD	UN00001608	Registry Product. Country. Identifier
ADD	UN00001609	Registry Product. Country Sub-Division. Identifier

ABIE		
ADD	UN01002403	Recorded_ Registry Product. Details
ADD	UN01002404	Recorded_ Registry Product. Product Classification. Code
ADD	UN01002405	Recorded_ Registry Product. Data Source. Identifier
ADD	UN01002406	Recorded_ Registry Product. Property. Identifier
ADD	UN01002407	Recorded_ Registry Product. Target Market_ Country. Identifier
ADD	UN01002408	Recorded_ Registry Product. Target Market_ Country Sub-Division. Identifier

2.3 DataTypes

2.3.1 General remarks

D.07B Code List Version Identifiers to be updated by ICG/ATG, as appropriate.

3. RSM

3.1 Material Safety Data Sheet (MSDS) Information

Document: MSDS_RSM_11 Dec2007.doc

3.1.1 D.07B / RSM Differences

UID	D.07B DEN	RSM DEN (Embedded XLS) / Data Model
UN01002211	MSDS_ Regulated Goods. FCS_ Identification. Identifier	MSDS_ Regulated Goods. Federal Supply Class_ Identification. Identifier Corrected
UN01002214	MSDS_ Regulated Goods. LIIN_ Identification. Identifier	MSDS_ Regulated Goods. Local Item Identification Number_ Identification. Identifier Corrected
UN01002213	MSDS_ Regulated Goods. NIIN_ Identification. Identifier	MSDS_ Regulated Goods. National Item Identification Number_ Identification. Identifier Corrected
	TBG17: Added new BBIE. In the RSM conceptual model this attribute is still shown belonging to the class "Product Information_ Contact. Details" rather than the class "Telecommunication_ Communication. Details". Embedded BIE XLS also needs to be corrected to reflect above. TBG1: Corrected the imbedded XLS.	Product Information_ Contact. Details Telecommunication_ Communication. Special Device Type. Text Corrected
	TBG17: RSM changed to match CCL. In the RSM conceptual model these attributes are still incorrectly shown as belonging to the class "Responsible Party_ Contact. Details". Please note, the same elements are correctly shown as belonging to the class "Responsible_ Party. Details". In the embedded BIE XLS the ABIE "Responsible Party_ Contact. Details" does not appear. The ABIE "Responsible_ Party. Details" appears twice (cell 263 & cell 271). CCL appears to be correct, RSM needs to be adjusted. TBG1: Corrected the RSM and updated the Message Assembly spreadsheet.	Responsible Party_ Contact. Details Responsible_ Party. Organization_ Name. Text Responsible_ Party. Subordinate Organization_ Name. Text Responsible_ Party. Person_ Name. Text Corrected

3.1.2 D.07B Incorrect Definitions

UID	D.07B DEN	D.07B / RSM Definition)
UN01002393	Volatile Organic Compound_ Goods Characteristic. Volume. Measure Corrected	D.07B: The measure of the molecular weight of this volatile organic compound goods characteristic. RSM: The measure of the volume of this volatile organic compound goods characteristic.

3.1.3 Conceptual Data Model Specific Inconsistencies

Class	Attribute / Association	Audit Comments
Responsible Party_ Contact. Details	Telephone. Telecommunication_ Communication	Association "Telephone" is repeated in model, one should be labelled "Emergency Telephone" Corrected
Distinct_ Chemical. Details	Distinct. Toxicological_ Hazardous Material	Association specified as "Distinct" in model, implemented as "Applicable" Corrected
Hazardous_ Goods Characteristic. Details	Specified. Vapour Density Range_ Measurement	Cardinality specified as "0..n" in model, implemented as "0..1" Corrected

3.1.4 Canonical Data Model Specific Inconsistencies

Canonical Data Model was missing from the 'MSDS_RSM_10Oct2007.doc' and new in the "MSDS_RSM_30Nov2007.doc" RSM.

The MSDS Canonical Data Model has number of deficiencies, in particular:

- Class names should correspond to D.07B ABIE names. E.g.
Class "Material Safety Data Sheet_ Product Details" should be "MSDS_ Regulated Goods. Details", etc
- Similarly, Class attribute names should correspond to D.07B BBIE names.
- Similarly, Class associations should be labelled and correspond to D.07B ASBIE names
- Cardinality should be shown

The MSDS Conceptual Data Model currently better reflects the above, however it does not show at the root level, the required XML message assembly (as illustrated in the new MSDS Canonical Data Model). MSDS Canonical Data Model needs to be reworked to take account of the above.

[Corrected](#)

4. D.07B Schemas

4.1 Relative URLs

1. There were a number of relative URLs used in the UDT XSD instead of the absolute ones which were corrected.
2. The CII schema also had relative URL addresses which are in conflict with the NDR and were corrected.

4.2 Code lists

4.2.1 Duplicate or missing codes

There are duplicate codes in the MimeMedia codelist which were removed.

4.2.2 Incorrect descriptions

There are incorrect descriptions in the mimemedia codelist. For example the code "application/activemessage" has the definition "Shapiro" which is incorrect as this refers to "Ehud Shapiro" which the name of the person that introduced the subtype code. These descriptions should be removed and replaced with correct definitions since they are not semantically correct.

ATG has indicated that it "does not see it as its task to evaluate the quality of the data, but assumes this to be the responsibility of the maintenance agency of the code list in question. In this particular case the code list in question is maintained outside of UN/CEFACT, i.e. UN/CEFACT has no control or influence on its content. ATG2 does take responsibility for ensuring that the XML representation of the code list carries the required information according to UN/CEFACT rules. It is our understanding that UN/CEFACT policy requires any code entry to have a definition. The XML NDR thus mandates this requirement."

Issue 1: The ICG considers descriptions to codes which have no relevance with the definition should not be allowed. It consequently considers it an issue that in the current mimemedia codelist such a situation exists. This has to be resolved and suggests that perhaps a health warning should be added indicating that the description is incorrect.

4.2.3 Code list changes

1. The addition of codes to a codelist is considered a minor change when this should be considered as a major change due to the fact that the codelist is not the same. The NDR is inconsistent in this respect as it considers a change to an enumeration (which signifies the change of a code, i.e. a new code) as a major change and it considers the addition as a minor change. If a new code is used backwards compatibility cannot be respected.
No change has been applied by ATG who consider this to be outside the scope of the audit.

***Issue 2:** 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.*

2. The UNECE_DutyTaxFeeTypeCode_D07B.xsd does not correspond with UNCL D.07B which has a new code: AE, VAT Reverse change.
The code has been added

4.2.4 Codelist documentation

The recommendations have a 6 just before the word "recommendation" in the documentation title of the schema (i.e. 6Recommendation). This is also true for the documentation of all the other codes (i.e. 63055). In the interests of clarity it would be preferable to distinguish the 6 from the codelist source with a hyphen. i.e. 6-recommendation 20 or 6-3055. This would improve readability and comprehension.

***Issue 3:** The ICG considers the naming convention for codelists as currently defined in the NDR (R34) should be improved through the separation of the number from the element tag by a hyphen.*

4.2.5 Incorrect URNs

Certain URNs in the codelists do not respect NDR rule 43 which states that the namespace should be of the form

"urn:un:unece:unefact:<schematype>:standard:<name>:<major>".

For example in the case of "UNECE_CharacterSetEncodingCode_40007.xsd" there is a URN with "urn:un:unece:unefact:codelist:standard:6:0133:40007" which is not compliant. This is the case for the majority, if not all the codelists. These have been corrected.

4.2.6 Use of empty elements

All the codelists make use of an empty element which is not in compliance of the NDR rule 74.

ATG disagrees with this statement indicating "that the sentence above the rule states that "Elements are declared for the document level business information payload, ABIEs, BBIEs, and ASBIEs."" It also states that "We do however also recognize that there will always be a need to interpret their applicability based on context. Rule 74 is clearly aimed at instance documents and the code list schemas are not designed for this purpose". However, ICG refers to the list of rules defined in "Appendix H. Naming & Design Rules List" of the NDR where no such sentence exists. The appendix in question implies that the rule in question shall be respected.

Issue 4: The ICG considers the rules as defined in appendix H of the NDR should be standalone and respected. Any such rules that require interpretation should be modified to eliminate the requirement for interpretation.

4.3 Schema issues

1. The Schema dates have an incorrect period just after the day number. i.e. "8. April 2008" which should be "8 April 2008". This has been corrected.
2. The CII draft schema has changed its schema version from "1.0" to "2.0 RC" again with no apparent reason.

ATG considers that such a change is necessary since a new ABIE library is used even though there was no change to the ABIEs in the schema in question. ATG also indicates that "An import of a new xsd-file with a new namespace clearly represents a change in that an instance document governed by D07A will not be valid under a D07B schema. The agreement is recorded in the ATG2 minutes from the Mexico Forum" This implies that all schema releases will be systematically considered as major changes with every release of the ABIE library even though nothing has changed in the schema.

Issue 5: The ICG wishes to indicate that changes made to the way published libraries are handled must be approved by all parties and publically documented. Internal group minutes are not a vector for public approval.

Issue 6: The ICG believes that the release of a schema which is semantically no different from the previous release should have the same version information.

3. The CII schema does not respect the documentation and structuring rules.
No change has been made since ATG felt that this was a substantial change and that it had been agreed between "TBG, ICG and ATG no substantial changes will be done to the schema while it is in Release Candidate status".
The ICG believes that the schemas produced in a given release should be consistent throughout. The ATG changed the schema release format with this release and should have done so consistently.

Issue 7: The ICG believes that all schemas within a given release should have the same basic format irrespectively of status of the schema. There is currently a discrepancy between the release candidate and the standard schemas.

4. The change of the schema version from 1.x to 2.0 is inconsistent with the CCTS version which remains at 1.x. There is no apparent justification for the change. ATG maintains that the change in namespace justifies the change in version irrespectively of whether or not the schema has semantically changed. This problem is covered in *Issue 6* above.

4.4 Differences between D.07B CCL and D.07B Schema

A Capitalisation difference appears in the use of the term "In All contexts". In the CCI library the terms appears as "In All contexts" and in the D.07B schema file this appears as "IN All Contexts". Examples of these differences can be found in UN01001252, ABIE in ProductContextValue and IndustryContextValue; UN01000166 ASBIE in

GeopoliticalOrRegionContextValue or UN01000084 BBIE in
SystemCapabilitiesContextValue.

Whilst this is not a serious problem it does indicate an incompatibility in the extraction tools used to take the CCTS information from the CCL. A review should be undertaken to establish the reason for such a difference.

This has noted for change in the D.08A release since it requires a change to the CCL.
There is no change in the D.07B release.

4.5 Issues with the QDTs

4.5.1 Missing second qualifier term in schema

The following were missing qualifier terms and have subsequently been corrected :

1. Billing_ Document_ Code. Type
UN02000002 (Billing_ Document_ Code. Type)
Schema: <ccts:DataTypeQualifierTerm>Billing</ccts:DataTypeQualifierTerm>
CCL: Billing_ Document
2. Payment Terms Event_ Time Reference_ Code. Type
UN02000008 (Payment Terms Event_ Time Reference_ Code. Type)
Schema: <ccts:DataTypeQualifierTerm>Payment Terms
Event</ccts:DataTypeQualifierTerm>
CCL: Payment Terms Event_ Time Reference

4.5.2 Incorrect Version ID

The following was missing a version identification and has subsequently been corrected :

1. Payment Terms_ Identifier. Type
UN02000012 (Payment Terms_ Identifier. Type)
Schema: <xsd:attribute name="schemeVersionID" type="xsd:token" use="optional"
fixed="D07A">
CCL: D07B

4.5.3 Restricted Code Sets

Note that for restricted code sets, the Code List. Identifier has been modified with a "subset" extension to further identify the particular restricted code set. No clear documentation is available to clearly explain this rule.

Issue 8: The ICG believes that clear public documentation should be available to explain the rules for the use of "subset" information in a restricted codelist.

Some examples of such restrictions:

1. Billing_ Document_ Code. Type
UN02000002 (Billing_ Document_ Code. Type)
Schema: <xsd:attribute name="listID" type="xsd:token" use="optional" fixed="1001_Billing Document">
CCL: 1001
2. Payment Terms Event_ Time Reference_ Code. Type
UN02000008 (Payment Terms Event_ Time Reference_ Code. Type)
Schema: <xsd:attribute name="listID" type="xsd:token" use="optional" fixed="2475_Payment Terms Event">
CCL: 2475
3. Acknowledgement_ Code. Type
UN02000020 (Acknowledgement_ Code. Type)
Schema: <xsd:attribute name="listID" type="xsd:token" use="optional" fixed="1225_Acknowledgement">
CCL: 1225

4.5.4 Missing Attributes

The following types are missing the mandatory supplementary component that is required to be compliant with CCTS 2.01. ATG is of the opinion that this requirement does not concern the XML implementation since it can either be deduced through a comment in the data type catalogue such as “default is current version of UN/ECE Rec 20” or that “In this syntax implementation the code list version is enforced through the namespace of the code lists”.

Issue 9: The ICG believes that the CCTS rules should be explicitly respected in a syntax implementation. The use of a note for example does not permit automatic validation of the rule. In addition it is not possible in the case of a note defaulting to a given codelist to introduce an alternative possibility.

Examples of the type at issue:

1. Duration_ Measure. Type
UN02000026 (Duration_ Measure. Type)
SC Attribute “Measure Unit. Code List Version. Identifier” missing in QDT schema.
2. Date Mandatory_ Date Time. Type
UN02000019 (Date Mandatory_ Date Time. Type)
SC Attribute “Date Time. Format. Text” missing in QDT schema

4.5.5 Attribute Differences

The following attribute differences have been identified and subsequently corrected:

1. Country_ Identifier. Type
UN02000003 (Country_ Identifier. Type) - Identification Scheme Agency. Identifier
Schema: <ccts:Definition>The identification of the agency that maintains the identification scheme.</ccts:Definition>

CCL: The agency that maintains the identification scheme.

2. Duration_ Measure. Type

UN02000026 (Duration_ Measure. Type)

Schema: <ccts:Definition>The type of unit of measure.</ccts:Definition>

CCL: The type of unit of measure. Reference UN/ECE Rec.20.

5. Compatibility issue

The UDT has includes 3 attribute name changes (Currency Code, Language code and file name) which makes the current schemas neither backwards nor upwards compatible. The ICG considers this to be a serious modification which is indicated in no current documentation and which breaks a basic rule of compatibility for little or no justification.

1. Currency Code

D.07A: <xsd:attribute name="currencyCode"

type="clm5ISO42173A:ISO3AlphaCurrencyCodeContentType" use="optional">

D.07B: <xsd:attribute name="currencyID"

type="clm5ISO42173A:ISO3AlphaCurrencyCodeContentType" use="optional">

ATG2 response: The UDTB schema is based on the latest approved version of the Data Type Catalogue for CCTS 2.01 in which the Supplementary Component is named "Amount Currency. Identifier".

2. fileName

D.07A: <xsd:attribute name="fileName" type="xsd:string" use="optional">

D.07B: <xsd:attribute name="filename" type="xsd:string" use="optional">

ATG2 response: This change was implemented to correct an error in D07A. The LCC convention of fileName implies separate words. Word in catalogue is Filename as single word.

3. LanguageCode

D.07A: <xsd:attribute name="languageCode" type="xsd:language" use="optional">

D.07B: <xsd:attribute name="languageID" type="xsd:language" use="optional">

ATG2 response: The UDTB schema is based on the latest approved version of the Data Type Catalogue for CCTS 2.01 in which the Supplementary Component is named "Language. Identifier".

Issue 10: *The ICG believes that changing the name of an attribute changes the semantics and consequently creates a serious compatibility issue. It is not possible to simply change a published name without providing initially a health warning and providing existing users with sufficient time to react to the proposed change.*

6. List of outstanding issues

Issue 1: The ICG considers descriptions to codes which have no relevance with the definition should not be allowed. It consequently considers it an issue that in the current mimemedia codelist such a situation exists. This has to be resolved and suggests that perhaps a health warning should be added indicating that the description is incorrect.

Issue 2: 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 3: The ICG considers the naming convention for codelists as currently defined in the NDR (R34) should be improved through the separation of the number from the element tag by a hyphen.

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Issue 9: The ICG believes that the CCTS rules should be explicitly respected in a syntax implementation. The use of a note for example does not permit automatic validation of the rule. In addition it is not possible in the case of a note defaulting to a given codelist to introduce an alternative possibility.

Issue 10: The ICG believes that changing the name of an attribute changes the semantics and consequently creates a serious compatibility issue. It is not possible to simply change a published name without providing initially a health warning and providing existing users with sufficient time to react to the proposed change.