

UN/CEFACT Technical Update

AFACT TMC

20 April 2017

Tamsui, Chinese Taipei

Methodology & Technology PDA

- Library Publication Format Project
 - ➔ XML4CTS and HTML
 - ➔ Tool vendors will be invited to F2F in July
- GEO Spatial Data project
 - ➔ New Data Type for GML (Geography Markup Language)
 - ➔ Withdraw
- Code Management Project
 - ➔ Domain coordinators are invited
- Business Document Header
 - ➔ Project started
 - ➔ Compare the functions between SBDH and BDE (OASIS)

Code Management Project (Purpose)

Codes are an essential component of any Machine-To-Machine information flow. Codes have been developed over time to facilitate the flow of compressed, standardized values that can be easily validated for correctness to ensure consistent semantics .

Many international, national and sectoral agencies create and maintain code lists relevant to their area. If required to be used within an information flow, these code lists will be stored in their own environment and referred to as external code lists.

The project' s purpose is define the procedures and methodologies for code list creation, management and maintenance. The resulting rules and guidelines will primarily be mandated for all UN/CEFACT deliverables but also applicable to external organisations.

Code Management Project (Scope)

The project will define the procedures, rules and methodologies for the following identified issues. Existing rules, such as those defined in the Core Components Technical Specification, CCTS, should be taken into account and if applicable be respected.

The project should take into account any UN/CEFACT deliverable that apply codes.

The primary target audience is UN/CEFACT Experts developing deliverables using coded representations but guidance to end users should be added when appropriate.

1. Version compatibility

The ability to use the latest possible version of a code list in association with any version of a message, i.e. decoupling the versioning of code lists from the business message versions

2. Extending code lists

Evaluate if permanent extensions are possible and desirable

3. Restricting code lists

Provide rules and methodology for restricting code lists for use within specific context. Users of the UN/CEFACT libraries may identify any subset they wish from a specific code list for their own community requirements.

4. Code list validation rules

Provide rules and methodology for how to validate instance documents against an XML Schema or UN/EDIFACT message type in respect to code lists

5. Temporary codes

Provide rules and methodology for the inclusion of temporary codes that will be replaced by a permanent code at the next UN/CEFACT standardised release.

6. Externally maintained code lists

Define rules and procedures for referencing code lists maintained by organisations external to UN/CEFACT, e.g. ISO, ICC, W3C.

Header/ Emverope Document Exchange project (Purpose)

The Standard Business Document Header, SBDH, was developed by UN/CEFACT in 2004 to facilitate internal routing and management of EDI and other business document files, primarily in applications where documents are being exchanged directly between two systems.

The Business Document Envelope, BDE, was developed by OASIS in 2015 to facilitate routing of business document files across networks with multiple gateways/routers (also known as 4-cornered architectures).

The two specifications, although using different technical approaches, address to a large extent the same application area. This risks increasing the cost in global document exchange by forcing users to apply different software for different business partners.

Header/ Envelope Document Exchange project (Scope)

The project will explore if a joint technical specification can be developed that will outline:

- a single Header/Envelope Technical Specification
- where a header technology and envelope technology would be applied
- the relationship with CCL and CCTS
- how it could be used with, and how it would be agnostic to transport protocols, including AS2, ebMS and web services (including AS4)
- how it would be agnostic to payload content
- the implications on the current user base including migration guidance, if applicable

A proof of concept based on a draft of the deliverables outlined in chapter 3 should be carried out by a minimum of three independent implementations, demonstrating interoperability.

Out of Scope: The project will not include the use of newer exchange technologies and environments, such as cloud computing, APIs and mobile devices, except to prove being agnostic to transport technologies in general. If required, this will be set up as a separate project.

* **AS4** is a Conformance Profile of the [OASIS ebMS 3.0](#) specification

Supply Chain Management PDA

- Supply Chain Reference Data Model
 - Supply Chain Reference Data Model
 - ➔ Publication in process
 - Extension of Cross Industry Invoice technical artefacts
 - ➔ Publication done
 - Procedures for RDM & Assoc. Artefacts Publication Project
 - ➔ Public review done
 - Extension of CI Cataloguing, Quotation, Ordering, Delivering and Remittance Advice technical artefacts Project
 - ➔ Draft development
- CI-SC Scheduling Project
 - ➔ All the requirements agreed
 - ➔ Draft development (BRS and RSM)

SCRDM

Project Purpose & Deliverables

Purpose:

- Development of a semantic model for the Supply Chain
- Easy to use and maintainable semantic framework
- Semantic links and guidelines

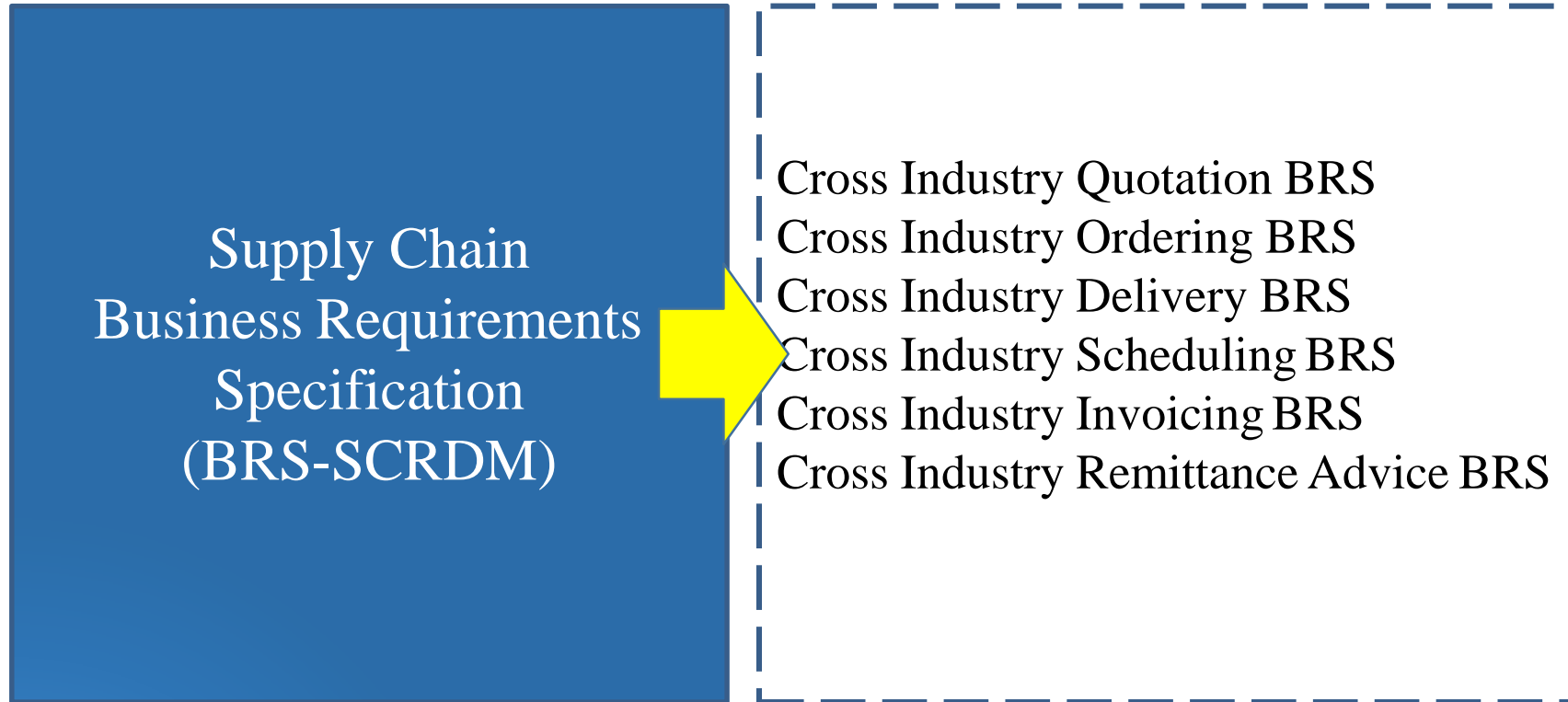
Deliverables:

- SCRDM Subset of CCL
- Semantics links
- Guidelines

UN/CEFACT Reference Data Models

- Reference Data Model (e.g. SCRDM)
 - a subset of the UN/CEFACT Core Component Library
 - a rich collection of business artefacts from which standard business documents can be created
- The evolution:
 - creation of standard business document subsets from 'Master Structure'
 - contextual message restrictions are applied to the subset artefacts, the Master Structure and/or the business document

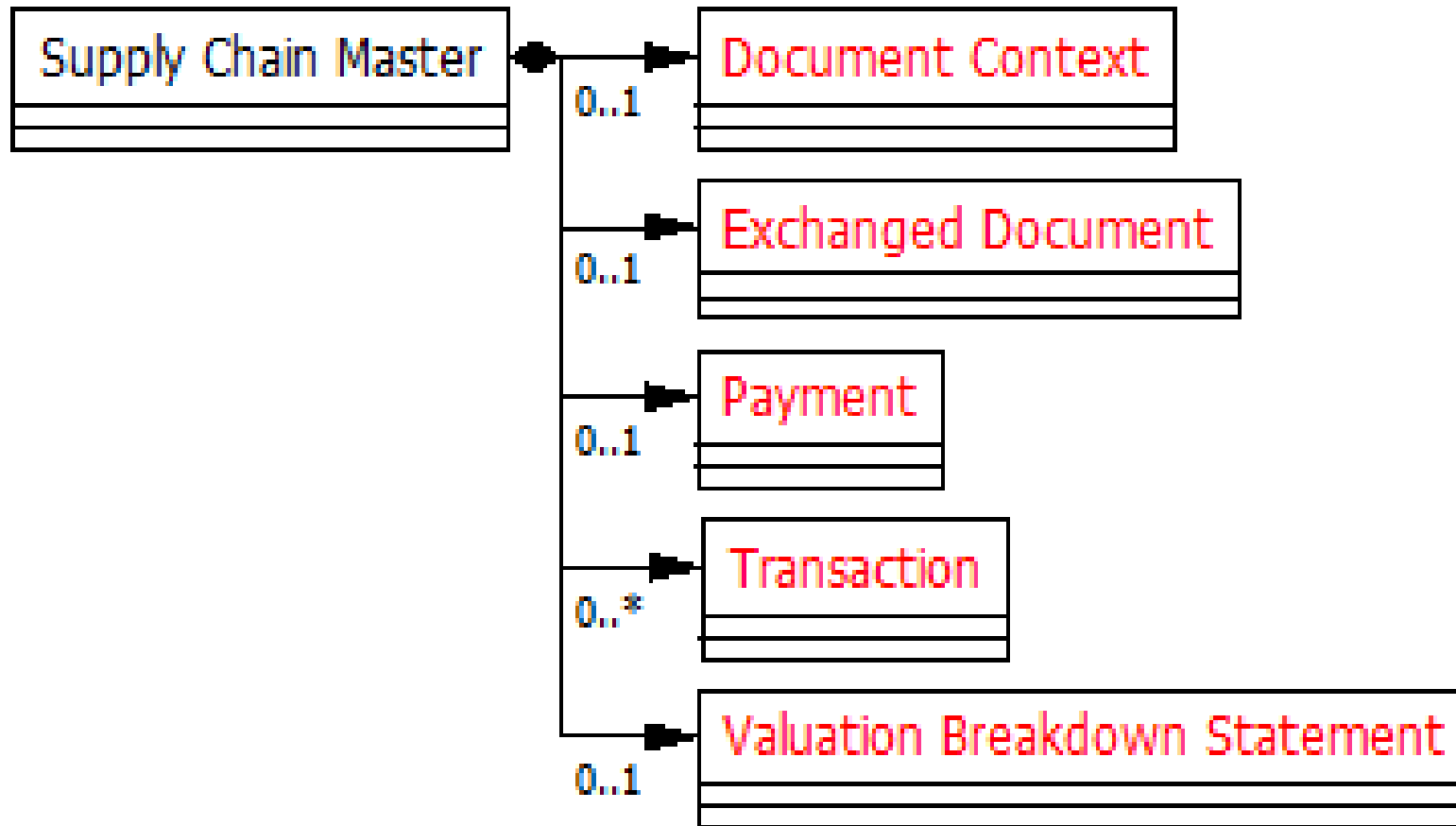
The high level: on top of BRSs



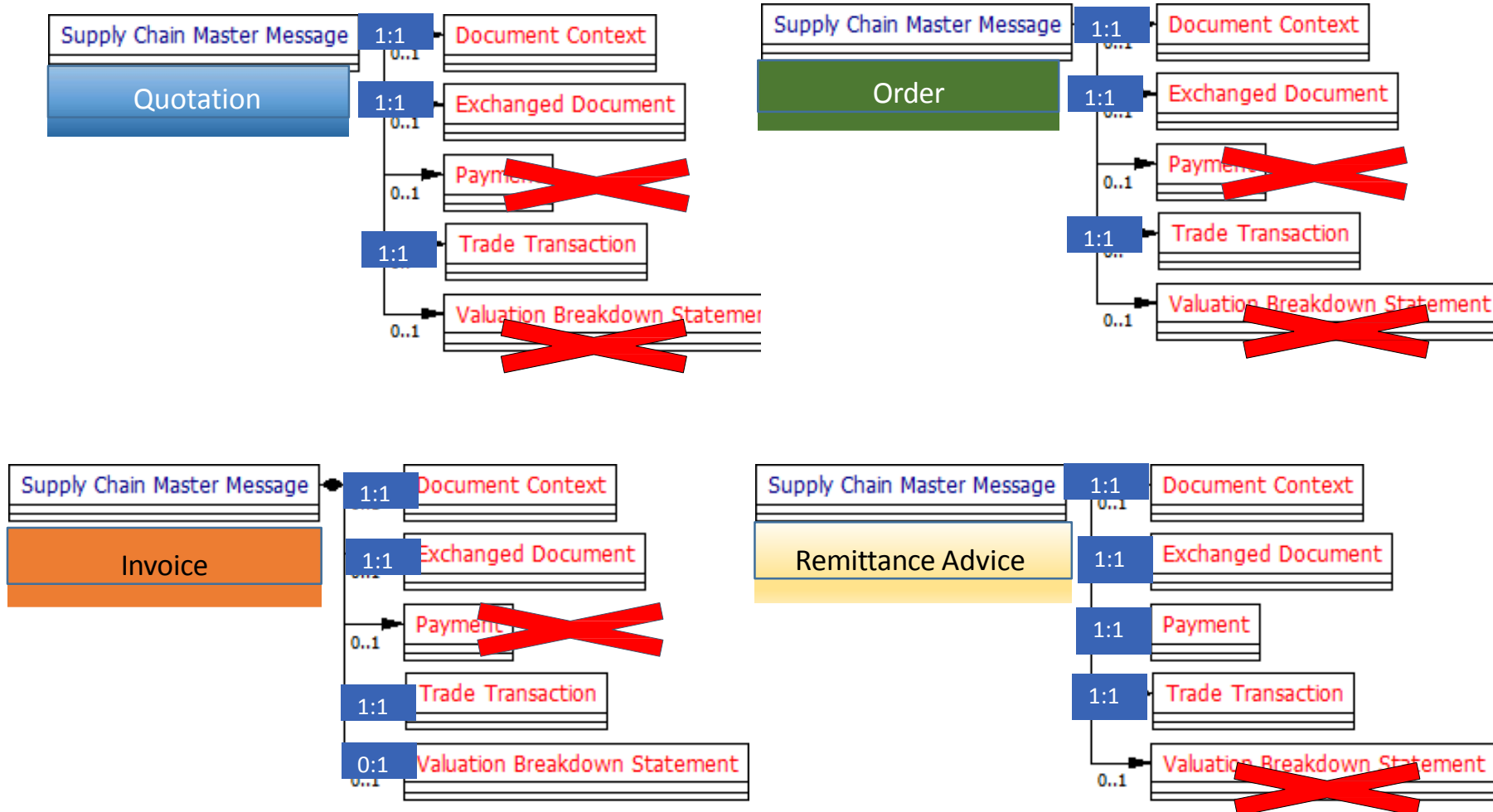
Rationalization results...

- 40% less business information artefacts needed
- Realized by just adding 17 new artefacts (ABIEs) to the Library (1%)
- Just 1400 artefacts needed for Supply Chain (out of 11,500)
- Just 1000 for the invoice
- Easily maintainable
- Easier to implement (less is more!)

Check the master structure



Sample SCRDM CCBDA Subset Message structures



Supply Chain Management Domain

CI-SC Scheduling project

1. Objective:

To expand the current SCM BIEs for Manufacturing Process Supporting Scheduling Supply Chain

1. Enhance Cross Industry Scheduling Demand Forecast (CIDF)
2. Enhance "Kanban" information in Cross Industry Scheduling Supply Instruction (CISSI)
3. Support the Consigned Vendor Managed Inventory (VMI)
4. Support Supply Chain hierarchy
5. Support buyer supplied product handling
6. Expand "CI_ Exchanged Document_ Context"

2. Supporting countries:

Japan, German, Netherland, Italy, France

Agenda

1. Progress since the previous Forum
2. Pending requirements
3. BRS/RSM for Consumption report
4. Logistics Identification Tag

Progress since the previous Forum

The last Forum (27-29/09/2016):

Agreed: 9

Withdraw: 6

Pending: 2

Not discussed yet: 2 (Identification Tag, Consumption Report)

Conference Call

2/NOV, 29/NOV, 3/DEC, 13/JAN, 2/FEB

Pending: Still 2

Revisit: 2

The 29th Forum result

All the pending issues are solved.

Requirement status summary

Requirements	Status	29 th Forum
2.1 Enhance the function of Cross Industry Scheduling Forecast (CISF).		
2.1.1 Specify whether the message is Notification or Confirmation	Withdrawn	
2.1.2 Specify the date of Notification and Confirmation	Agree	
2.1.3 Specify the per package unit quantity for delivery	Agree Revisit	Agreed
2.1.4 Specify the planned total quantity, the planned total quantity for the next month and the planned total quantity for the month after the next	Withdrawn	
2.1.5 Specify the transport service for the delivery	Agree	
2.1.6 Specify the physical logistics package	Agree	
2.2 Specify the information of Identification Tag for Cross Industry Scheduling Supply Instruction (CISDI)		
2.2.1 Specify the name, the purpose and the confirmed date for the exchanged document	Agree	
2.2.2 Specify the order price and the tax	Agree	
2.2.3 Specify the details for the delivery	Pending	Agreed
2.2.4 Specify the delivery time exactly	Withdrawn	
2.2.5 Specify the page number of the reference document and the note for the reference document	Pending	Agreed
2.2.6 Specify the transport service for the delivery	Agree	
2.2.7 Specify the information of Identification tag for logistics	Go to BRS	
2.2.8 Specify the physical logistics package	Agreed Revisit	Agreed
2.3 Consumption Report	Go to BRS	
2.4 Support Supply Chain hierarchy	Withdrawn	
2.5 Support buyer supplied product handling	Withdrawn	
2.6 Expand the functionality of the document context		
2.6.1 Specify the domain identified parameter	Withdrawn	
2.6.2 Specify the user specified parameter	Agree	

BRS for Consumption report

VMI Scenario and Consigned VMI Scenario as follows;

It requires the Supplier to maintain the inventories within predefined and mutually agreed min / max-ranges of inventory levels. The supplier is responsible to manage the inventory with the help of the inventory forecast. The Supplier is free (according to the agreement) to deliver any quantity at any time within these indicated ranges. These ranges may be updated within the VMI process, within limits defined in the contract between Customer and Supplier.

RSM for Consumption report (1/2)

CISCR_ Supply Chain_ Trade Transaction

Applicable	CIS_ Supply Chain_ Trade Agreement
Applicable	CISH_ Supply Chain_ Trade Delivery
Applicable	CISH_ Supply Chain_ Trade Settlement
Included	CISCRL_ Supply Chain_ Trade Line Item
Associated	CI_ Document Line_ Document
Specified	CIS_ Supply Chain_ Trade Agreement
Specified	CISCRL_ Supply Chain_ Trade Delivery*
Specified	CI_ Trade_ Product
Referenced	CI_ Logistics_ Package

RSM for Consumption report (2/2)

CISCRL_ Supply Chain_ Trade Delivery

Information

CI_ Note

Available/ Consignment/ Customer

CI_ Supply Chain_ Inventory

Final Destination

CI_ Trade_ Country

Receiving Advice_ Referenced/ Delivery Note_ Referenced

Additional_ Reference/ Dispatch Advice_ Referenced

CI_ Referenced_ Document

Ship To/ Ship From/ Ultimate_ Ship To/

Logistics Service Provider/ Inventory Manager

CI_ Trade_ Party

Included

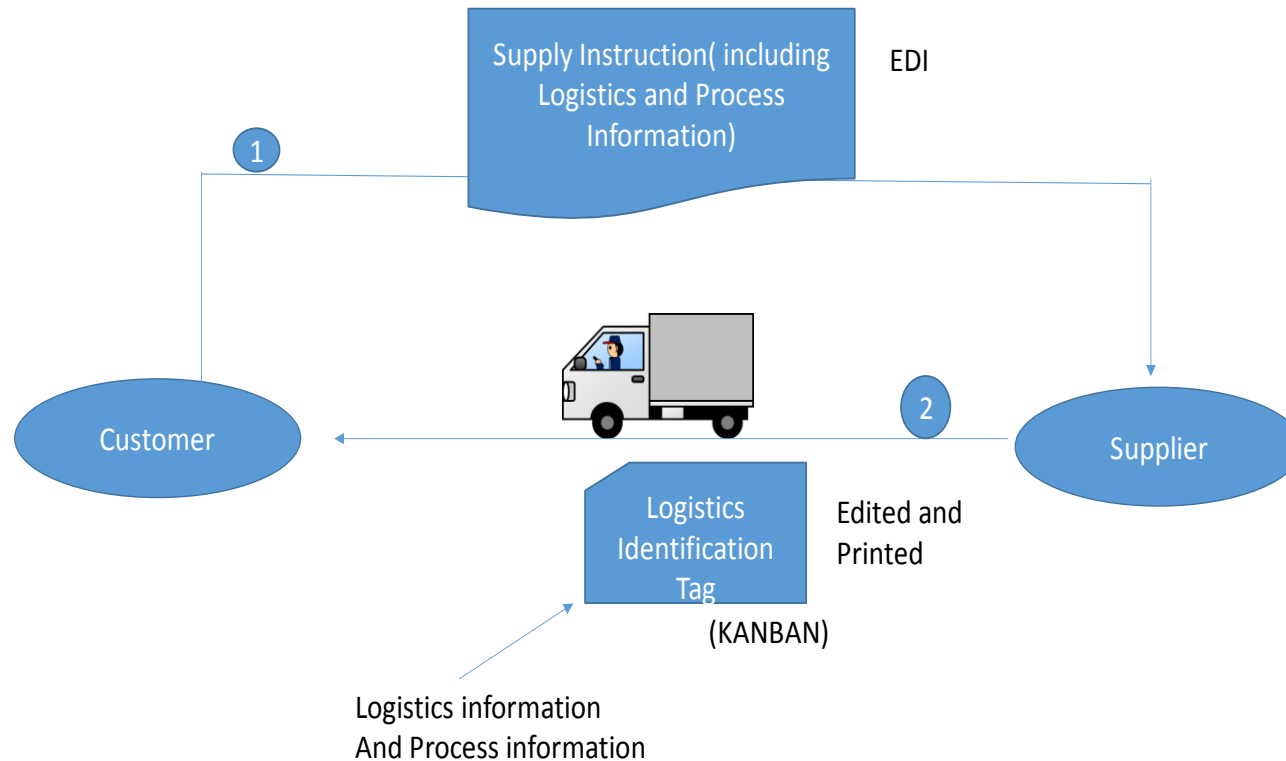
CI_ Supply Chain_ Packaging

Consumption/ Delivery/ Dispatching/ Logistic/ Ordering/

Receiving/ Specified/ Supplying

CI_ Supply Chain_ Schedule

KANBAN Process using Logistics Identification Tag

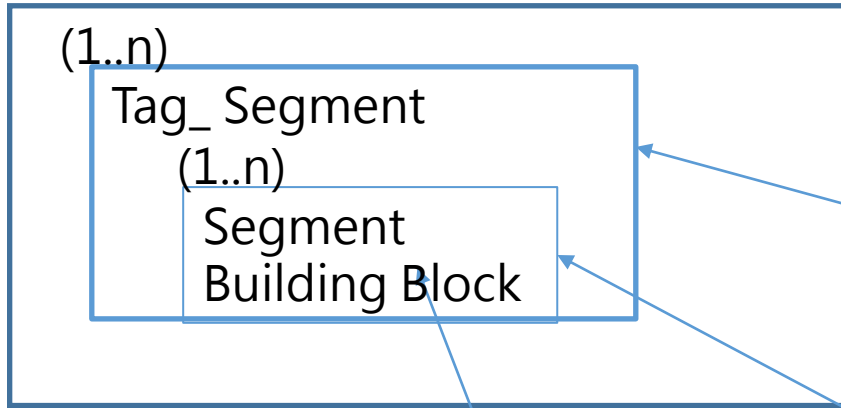


1. Customer sends logistics and process information included in Supply Instruction message.
2. Supplier manipulates and prints the logistics and process information on the logistics identification tag.

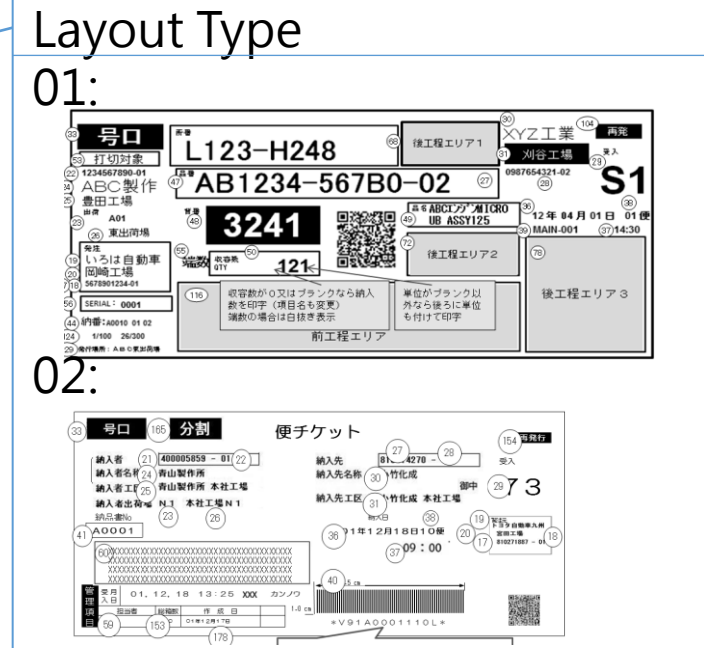
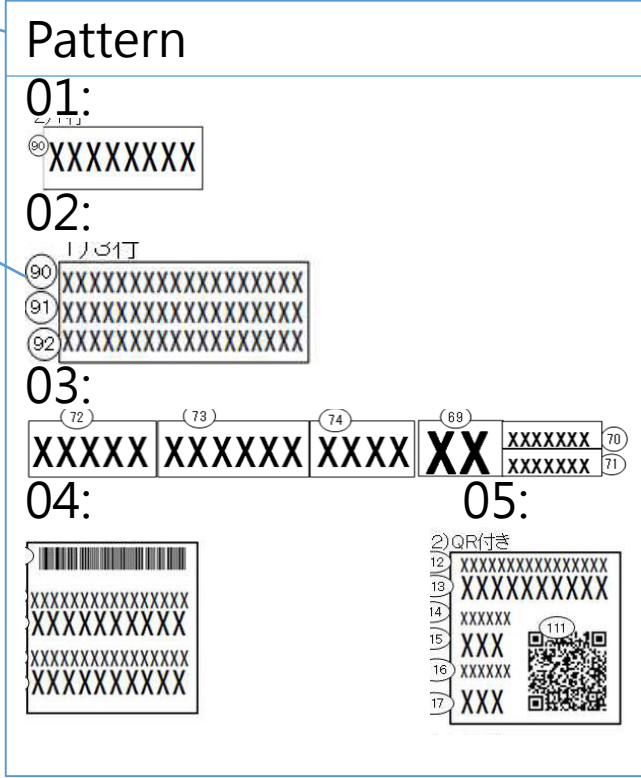
Identification Tag Image

Size
 01: 210mm x 297mm (A4)
 02: 210mm x 99mm
 03: 200mm x 85mm
 04: 100mm x 200mm

Logistics_Identification Tag



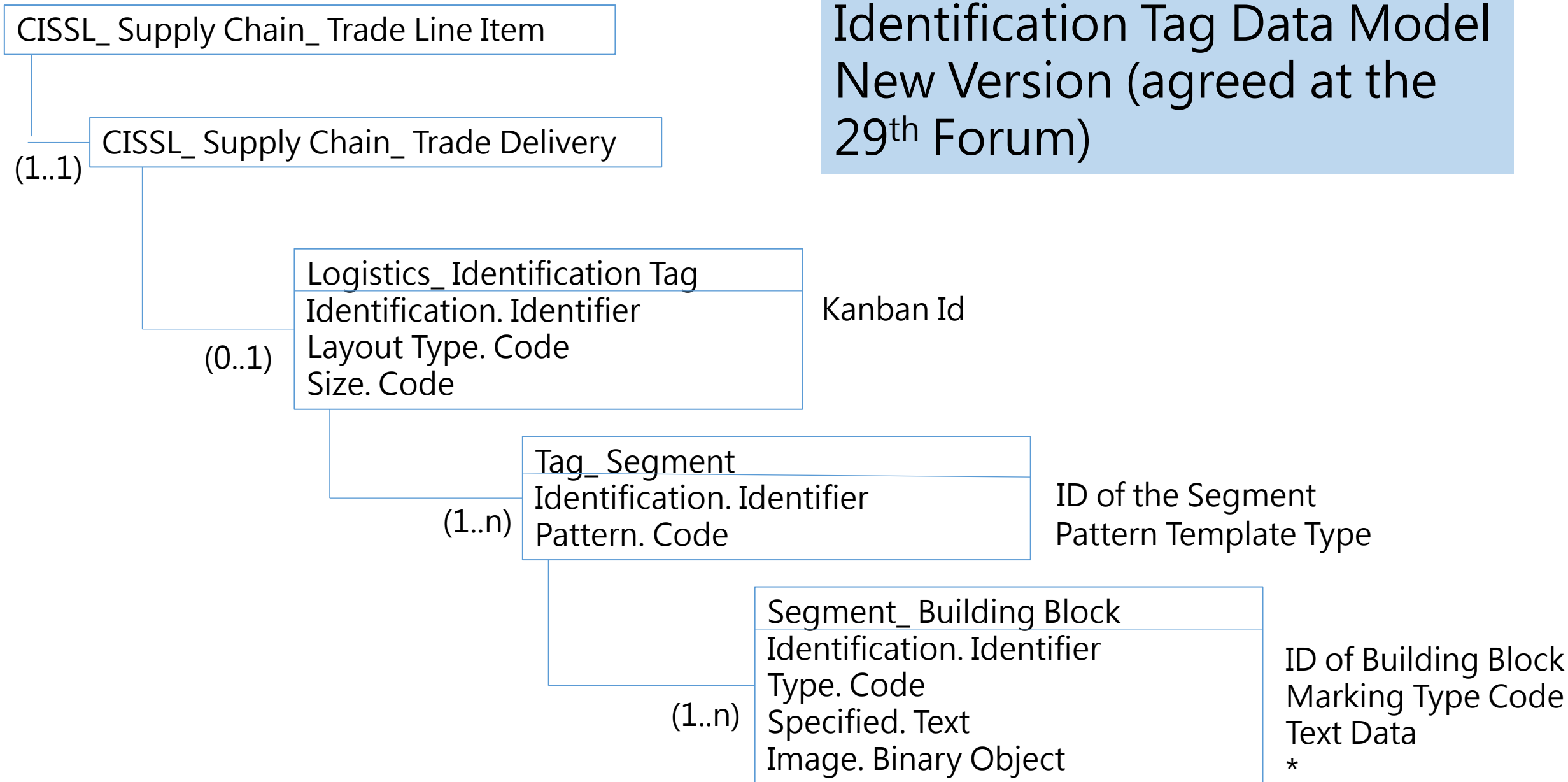
Content Type
 01: Text
 02: Bar Code
 03: QR Code
 04: RFID



Identification Tag Image

- Logistics Identification Tag has the specific size which is coded.
- Logistics Identification Tag has Tag Segments which are laid out in accordance with the Layout type that is coded.
- Tag Segment has Segment Building Block which are laid out in accordance with the Pattern that is coded.

Identification Tag Data Model New Version (agreed at the 29th Forum)



* If Type=AIDC (Bar Code, QR code, RFID), you can specify the text included AIDC or the image of AIDC.

Library Maintenance

- EDIFACT DMRs
 - Approved: 117
 - Approved with modification: 52
 - Rejected: 7
 - Withdraw: 8
 - Postponed: 39
- CCL 17A submission
 - Total messages: 119
- CCL 17B submission plan
 - Cut-off date: 4 August 2017