Comments on https://test-docs.peppol.eu/japan/draft/billing-1.0/

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# 0. Target readers

This site is intended not only for programmers, but also for business professionals such as accountants, auditors, regulators and consultants.

# 1. Semantic model

Published for review　https://www.wuwei.space/jp\_pint/billing-japan/semantic/invoice/tree/en/

Drafting https://test-docs.peppol.eu/japan/draft/billing-1.0/invoice-1.0/semantic-model/

## 1.1. JJP-PINT elements not listed (fatal)

IBT-188 Invoice line document identifier

IBT-189 Document type code

## 1.2. Semantic data type spelling is different from BIS (fatal)

Semantic data types shall be spelled according to the BIS definition.

|  |  |  |  |
| --- | --- | --- | --- |
| Semantic datatype defined by BIS | Semantic datatype | BT | Problem |
| 6.2.1. Amount | Amount | IBT-106 |  |
| 6.2.2. Unit Price Amount | Unit | IBT-146 | Partial notation |
| 6.2.3. Percentage | Percent | IBT-119 | Partial notation |
| 6.2.4. Quantity | Q | IBT-129 | Abbreviation |
| 6.2.5. Code | Code | IBT-003 |  |
| 6.2.6. Identifier | ID | IBT-018 | Abbreviation |
| 6.2.7. Date | Date | IBT-002 |  |
| 6.2.8. Document Reference | Optional | IBT-013 | Misspelled |
| 6.2.9. Text | Text | IBT-020 |  |
| 6.2.10. Binary objects | Binary | IBT-125 | Partial notation |
| Not defined in 6.2. Semantic data types on https://test-docs.peppol.eu/ japan/ draft/ billing-1.0/ bis/ | Time | IBT-168 | Not defined in BIS |
| ditto | Scheme | IBT-029-1 | Not defined in BIS |

## 1.3 Syntax binding is not one-to-one (mandatory)

Both IBG-20 DOCUMENT LEVEL ALLOWANCE IBG-21 DOCUMENT LEVEL CHARGES are defined syntax binding to ubl:Invoice/cac:AllowanceCharge.

The IBT-188 invoice line document identifier and IBT-189 document type code require more accurate mapping condition requirements.

Solution 1

jp\_pint / billing-japan / semantic uses XPath with the condition of cbc: ChargeIndicator value cac:AllowanceCharge[cbc:ChargeIndicator=true()].

Solution 2

Needs additional explanation on how to distinguish between ALLOWANCES and CHARGES based on the ChargeIndicator value.

Also need a detailed explanation of how to define the IBT-188 invoice statement identifier and IBT-189 document type code in UBL syntax.

## 1.4 Rule binding definitions are not listed (mandatory)

The syntax binding has a list of rules related to XML elements. Similarly, a semantic business term requires a list of rules related to this business term.

## 1.5 Improving the user experience (optional)

As user convenience improvement functions, the drill-down extension to subordinate items, the scroll button to the top of the page, the Japanese translation, and the display item explanation help function are not supported.

# 2. Syntax bindings

Published for review

https://www.wuwei.space/jp\_pint/billing-japan/syntax/ubl-invoice/tree/en/

Drafting

https://test-docs.peppol.eu/japan/draft/billing-1.0/invoice-1.0/syntax/

## 2.1. JJP-PINT elements not listed (fatal)

UBL elements for IBT-188 Invoice line document identifier and IBT-189 Document type code are not defined.

## 2.2 Cardinality assesments (mandatory)

CEN / TS 16931-3-1 4.4 specifies a cardinality assessment[[1]](#endnote-1).

UBL cardinality information, CAR-1 to CAR-5 compliant processing guidelines, and processing methods when using UBL elements not defined in BIS are required.

## 2.3 Syntax binding is not one-to-one (mandatory)

Same as 1.3.

## 2.4 Improving the user experience (optional)

Same as 1.5.

# 3. Rules

Published for review

https://www.wuwei.space/jp\_pint/billing-japan/rules/ubl-pint/en/

https://www.wuwei.space/jp\_pint/billing-japan/rules/ubl-japan/en/

Drafting

https://test-docs.peppol.eu/japan/draft/billing-1.0/invoice-1.0/rule/

## 3.1 Classification[[2]](#endnote-2) by difference in verification target (fatal)

The japan/draft/billing-1.0 site is not clearly structured based on different levels of validation.

PINT validation distinguishes validation phases based on targets: code lists, PINT models, business rules, alignment rules, and distinct rules. The page shall be structured based on this difference.

The current BIS page only categorizes code list rules and other rules. Other rules shall be split into PINT models, business rules, and alignment rules.

## 3.2 Define binding to the semantic business term (mandatory)

Only syntax bindings are listed on the rule description page. The message description on the page requires binding information for semantic business terms. Business terms are not provided on the following page and business professionals cannot understand the problem. https://test-docs.peppol.eu/japan/draft/billing-1.0/invoice-1.0/rule/BASIC-00001/

1. CEN/TS 16931-3-1 specifies Cardinality assessment.

   To avoid cardinality problem, We need rules based on Cardinality issues.ID

   CAR-n

   SOURCE TARGET

   ISSUE

   RESOLUTION

   CAR-1

   optional (0..x) mandatory (1..x)

   If the value is not present, the UBL schema validation reports an error

   Agree on “default value if missing” (e.g. 0, 1-1-1970, AAA)'

   CAR-2

   mandatory (1..x) optional (0..x)

   None.

   Add a rule in the schematron that the element shall be present.

   CAR-3

   single (x..1) multiple (x..n)

   None.

   Add a rule in the schematron that the element shall not be repeated.

   CAR-4

   multiple (x..n) single (x..1)

   Repeating elements cannot be handled.

   1) If possible, repeat a higher level in the structure.

   2) In the case of text elements, concatenate the repeating elements.

   CAR-5

   element missing element mandatory

   Yes.

   Agree on “default value if missing” (e.g. 0, 1-1-1970, AAA)

   Default value in case CAR-1 and CAR-5 shall be defined. Schematron rule shall be defined in case CAR-2 and CAR-3. In CASE-4 possible resolution shall be chosen.

   Schematron should report warning when optional target element is used while this element is missing from semantic definition. [↑](#endnote-ref-1)
2. PINT validation

   Phase 1 The UBL syntax validation

   Validation of technical structure of the invoice message includes the following

   • Verify XML well-formedness (e.g. all tags are closed)

   • Tag names and attributes shall be correctly written and follow the UBL sequence.

   • All UBL mandatory elements shall be present.

   • The element’s contents shall be according to the element’s type definition in UBL.

   The UBL syntax validation shall use the latest published UBL version to allow for distinct business terms (refer to section on Syntax binding).

   Phase 2 PINT validation

   The PINT validation only applies the specification and rules that are defined for its shared and aligned business terms, this includes but is not limited to the following:

   2.1 Code List

   Valid codes for currencies, countries, tax etc.

   2.2 PINT model

   Cardinality assesment rule for CAR-1 ~ CAR-5 including warning for the elements missing from semantic definition

   Mandatory elements according to PINT.

   2.3 Business rule

   Logical correlations between information element, i.e., that start date is lower than or equal to end date, calculations give the correct result etc.

   Phase 3 Aligned Invoice domain rules.

   Applies rules that have been added as part of the domain specific specialization.

   Phase 4 Further aligned and distinct rules.

   Applies rules that have been defined for industry sectors or by bilateral agreemen [↑](#endnote-ref-2)