

TEAPPSXML

v.3.0

Table of contents

1 INTRODUCTION	1
1.1 TEAPPSXML v.3.0	1
1.2 TREE-STRUCTURE NOTATION	2
1.3 ENTITIES.....	3
1.4 DECIMAL SEPARATOR	3
1.5 THE NUMBER OF DECIMALS	3
1.6 SPACES, PREFIX ZEROS AND PER CENT NUMBERS	4
1.7 ATTRIBUTES SIGN AND VAT – INDICATING SIGN AND TAXABILITY	4
1.8 OCCURRENCE OF ELEMENTS (MANDATORY/OPTIONAL)	5
1.9 SAME ELEMENT IN INVOICE- AND ROW-LEVEL	6
1.10 FORMAT OF DATES	6
1.11 COUNTRY AND LANGUAGE CODES	6
1.12 LINK-ELEMENT.....	6
1.13 REQUIREMENTS FOR DIGITAL SIGNATURE	7
2 PROCESSING CONTROL	7
2.1 CONTROL DATA - INVOICE_CENTER/TRANSPORT_FRAME AND CONTENT_FRAME.....	7
2.2 PRINTING/ARCHIVING SETTINGS	9
2.3 ACKNOWLEDGEMENTS FROM TRANSFER	10
3 ATTACHMENT PROCESSING	12
3.1 HANDLING OF IMAGES AND ATTACHMENT FILES IN TEAPPSXML	12
4 INVOICE INFORMATION CONTENT	17
4.1 INVOICE NUMBER.....	17
4.2 INVOICE TYPES	17
4.2.1 <i>Interest invoices and reminders</i>	17
4.2.2 <i>Credit card invoice</i>	17
4.2.3 <i>Factoring invoice</i>	18
4.3 INVOICE PARTIES	18
4.3.1 <i>Identifiers</i>	20
4.3.2 <i>elInvoiceAddress and intermediary</i>	20
4.4 CONFIDENTIAL INVOICE	21
4.5 ORDER, CONFIRMATION OF ORDER, AGREEMENT-INFORMATION.....	21
4.6 PAYMENT AND POSTING INFORMATION	22
4.6.1 <i>Payment reference and bank accounts</i>	22
4.6.2 <i>Payment term</i>	23
4.6.3 <i>Cash discount</i>	23
4.6.4 <i>Default posting information from PAYEE</i>	26
4.7 OTHER INVOICE LEVEL INFORMATION	27
4.7.1 <i>Supplier number</i>	27
4.7.2 <i>Receiver email-address</i>	27
4.7.3 <i>Payment instruction</i>	27
4.7.4 <i>Order confirmation and contract information</i>	28
4.7.5 <i>Transport information</i>	29
4.7.6 <i>Additional information regarding the invoice - HEADER_INFO</i>	30
4.7.7 <i>EpiDetails</i>	31
4.8 ROW LEVEL INFORMATION	31
4.8.1 <i>Product information</i>	31
4.8.2 <i>Quantities and units in row level</i>	32
4.8.3 <i>Row prices and row totals</i>	35
4.8.4 <i>Discounts in row</i>	35
4.8.5 <i>Row-specific subtraction ROW_CHARGE</i>	36
4.8.6 <i>Grouping of invoice rows using the ROW_TYPE and ROW_ID attributes</i>	36

4.9 SUMMARY LEVEL INFORMATION.....	40
4.9.1 Invoice total, INVOICE_TOTAL	40
4.9.2 Invoice level charges.....	42
4.9.3 Invoice level allowances	42
4.9.4 Reference to previous payment	43
4.9.5 Value added tax information of invoice, SUMMARY/VAT_SUMMARY.....	44
4.9.6 Invoice VAT	47
5 MISCELLANEOUS.....	48
5.1 PEPPOL INFRASTRUCTURE, THINGS TO REMARK IN INVOICE CONTENTS.....	48
6 TEAPPSXML, SIMPLE BASIC EXAMPLE	48

1 Introduction

1.1 TEAPPSXML v.3.0

The EU level standard for e-invoice content EN 16931-1:2017 (also called as EU Norm) have some elements and structures that need to be added into TEAPPSXML specification. TEAPPSXML 3.0 shall include required extension for EU Norm. It does also have better support for eReceipt messages and secure e-invoice processing. TEAPPSXML 3.0 is compliant with earlier versions because new elements and structures are optional.

For the sake of clarity one have to understand that usage of TEAPPSXML 3.0 does not automatically mean that e-invoices are compliant with EU Norm. For real compliance users shall apply EU Norm codes, rules and contents requirements. TEAPPSXML 3.0 enables that e-invoices can be compliant with EU Norm, but it does not guarantee or force to it.

EN 16931-1:2017 standard documents are available for example in Finnish Standardization Organization (SFS) web shop.

EU Norm eInvoice semantic model contains e.g. next codelists, which should be used in eInvoice message content:

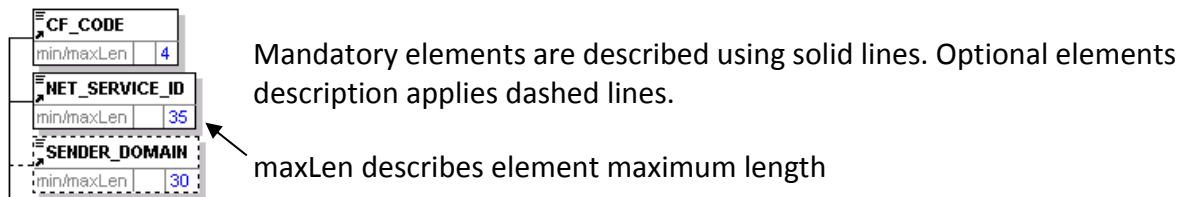
- ISO 3166-1, country codes (Alpha-2)
- ISO 4217, currency codes (Alphabetic representation)
- ISO/IEC 6523, organization qualifier types
- UNTDID 1001, invoice types
- UNTDID 1153, reference codes
- UNTDID 2005, date function codes
- UNTDID 4451, text subject codes
- UNTDID 4461, payment means codes
- UNTDID 5305, tax category codes
- UNTDID 5189, discount types
- UNTDID 7143, item types
- UNTDID 7161, charge/special service codes
- Mime type codes, attachment types
- UN/ECE Recommendation N°20: Codes for Units of Measure Used in International Trade and UN/ECE Recommendation N°21: Codes for Passengers, Types of Cargo, Packages and Packaging Materials (with Complementary Codes for Package Names), invoicing and pricing units

UNTDID –codelists are here:

<http://www.unece.org/fileadmin/DAM/trade/untdid/d16b/tred/tredi2.htm>

Some of the codelist direct links are unfortunately not available and published by EU/INEA/CEF yet.

1.2 Tree-structure notation

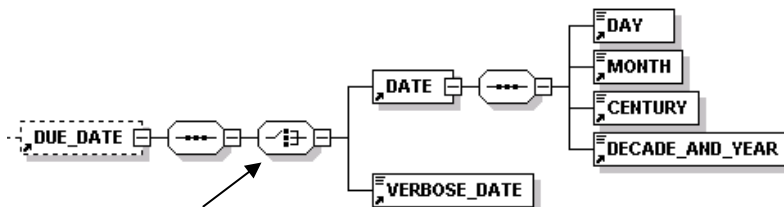


Element occurrence

- element in solid line box; element is mandatory and occurs once
- element in dashed-line box; element occurs 0-1 times and is optional
- notation 0..∞ under the element states that element occurs 0..n times
- notation 1..∞ under the element states that element occurs 1..n times



Examples above describes that element LINKS consists sub-element LINK that can occur 1-n times. CASH_DISCOUNT element can occur 0-n times.



This is notation for choice structure. DUE_DATE-element can have as a sub-element either DATE-element or VERBOSE_DATE element, but not both at the same time.

1.3 Entities

XML-standard predefined standard entities must be used in TEAPPSXML-message instead of special characters. The entities are as follows:

&	&
<	<
>	>
”	"
'	'

For example, in a TEAPPSXML document the company name TILI & LASKENTA OY is expressed as follows:

```
<CUSTOMER_NAME>TILI &amp; LASKENTA OY</CUSTOMER_NAME>
```

The entities are included in the maximum length of the element content, so for example the entity & takes up the space of five characters in the element content.

TEAPPSXML-message must steer the ISO-8859-1-character-set. Character € doesn't contain in this character set. Recommendation is to use common symbol EUR in currency elements.

1.4 Decimal separator

In TEAPPXML –messages the decimal separator is . (full stop). No separators are used between thousands.

Services will use for money amounts common Finnish presentations in default TEAPPSXML layouts.

1.5 The number of decimals

In the invoice presentation type, the service uses the original, unaltered invoice material for decimal presentation. For example, if the total sum of the invoice is expressed in five decimals in the invoice material, the same number of decimals will be repeated on the invoice layout. It is therefore desirable that the invoicing system produces the same number of decimals that should be printed on the eLetter/eInvoice.

The numerical value of the AMOUNT elements may consist of a maximum of 15 integers and 6 decimals. Percentages may consist of a maximum of 4 integers and 6 decimals, and quantities of 12 integers and 5 decimals.

1.6 Spaces, prefix zeros and per cent numbers

In numerical elements, extra spaces prevent receiving of the material in the services. Prefix zeros should not be added to elements, unless the user wants them printed. The only exception is small amounts of money (for example 0.60 EUR); in this case prefix zeros are naturally mandatory.

Examples:

Amounts of money expressed with two decimals without any spaces before or after the figure

```
<INVOICE_TOTAL>  
  <AMOUNT SIGN="+" VAT="INCLUDED">362.30</AMOUNT>  
</INVOICE_TOTAL>
```

A percentage, such as 13.00, is expressed without a prefix zero and without space before/after the figure. Percentages are expressed without the % character.

```
<INTEREST_RATE>13.00</INTEREST_RATE>
```

XML-messages are used in electronic processing and messages cannot contain format commands, for example line feeds.

1.7 Attributes SIGN and VAT – indicating sign and taxability

For elements containing amounts of money, two attributes are used: SIGN and VAT. The SIGN attribute indicates whether the amount is positive or negative. Acceptable values for this attribute are + or -. The VAT attribute indicates whether the amount is inclusive or exclusive of tax. Acceptable values for the VAT attribute are INCLUDED (with tax) or EXCLUDED (without tax). The VAT and SIGN attributes are used with the AMOUNT element. For positive values of AMOUNT element SIGN attribute could also miss, but it is recommended. SIGN-attribute should be minus (-) in credit notes - at least row and invoice sums – it helps and clarifies further processing of invoice.

Examples:

```
<ROW_TOTAL>  
  <AMOUNT SIGN="+" VAT="EXCLUDED">346.70</AMOUNT>  
</ROW_TOTAL>
```

```
<ROW_TOTAL>  
  <AMOUNT SIGN="-" VAT="EXCLUDED">100.00</AMOUNT>  
  <AMOUNT SIGN="-" VAT="INCLUDED">124.00</AMOUNT>  
</ROW_TOTAL>
```

```
<QUANTITY>  
  <CHARGED SIGN="+" Q_UNIT="kpl" Q_UNIT_UNECE_CODE="EA">1000</CHARGED>  
</QUANTITY>
```

```
<SUMMARY>
  <ROWS_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">17217.77</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">21350.03</AMOUNT>
  </ROWS_TOTAL>
  <INVOICE_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">17217.74</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">21350.00</AMOUNT>
  </INVOICE_TOTAL>
  <VAT_SUMMARY>
    <RATE>24</RATE>
    <ACCORDING>
      <AMOUNT SIGN="+" VAT="EXCLUDED">17217.77</AMOUNT>
    </ACCORDING>
    <VAT_RATE_TOTAL>
      <AMOUNT SIGN="+">4132.26</AMOUNT>
    </VAT_RATE_TOTAL>
    <CURRENCY_CODE>EUR</CURRENCY_CODE>
  </VAT_SUMMARY>
  <VAT_TOTAL>
    <AMOUNT SIGN="+">4132.26</AMOUNT>
  </VAT_TOTAL>
  <ROUNDINGS>-0.03</ROUNDINGS>
</SUMMARY>
```

1.8 Occurrence of elements (mandatory/optional)

TEAPPSXML description has a small number of mandatory elements, the rest of the elements are optional. However, some of these optional elements are such that if they occur in the material, they include mandatory sub-elements. In the TEAPPSXML tree structure the type of element has been indicated using borders: a continuous line represents a mandatory element and a dotted line represents an optional element.

Furthermore, some of the elements have a check-up for not to be empty elements, if it exists in TEAPPSXML-material. In other words, if no data is going to be entered for example into the ROW/DISCOUNT/PER_CENT element, the entire element can be omitted from the material.

It is not advisable to add empty elements in the material unless necessary. If a value is not going to be entered in the element and is not mandatory, it is recommendable to leave out the entire element. This helps reduce the physical size of the material. For example if invoice doesn't include archive or attachment information, don't create empty CONTROL -structure below INVOICE -structure.

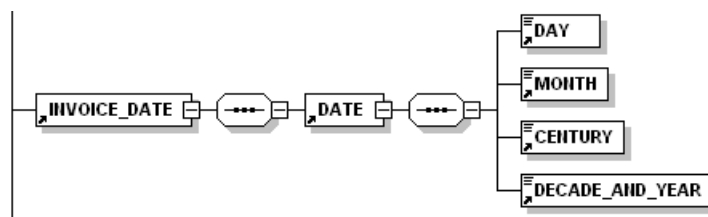
Nevertheless, the material must contain all of the information that will be forwarded to the recipient of the invoice. If any element has a value, it will be displayed on the eInvoice or printed invoice. The service does not filter out any information from the delivered material.

1.9 Same element in Invoice- and Row-level

Some elements or element structures (eg. TERMS_OF_DELIVERY, CREDIT_INVOICE_NUMBER, ORDER_INFORMATION) do exist both in INVOICE-structure and ROW-structure. If data does apply into whole invoice then it should be placed into INVOICE-structure. If data does change according to invoice rows then it should be placed into ROW-structure.

1.10 Format of dates

To maximize flexibility date structure in TEAPPSXML consists of elements DAY, MONTH, CENTURY and DECADE_AND_YEAR. It is recommended to use 2 characters in elements DAY and MONTH i.e. value of the first day of the month should be "01".



```
<INVOICE_DATE>
  <DATE>
    <DAY>03</DAY>
    <MONTH>06</MONTH>
    <CENTURY>20</CENTURY>
    <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
  </DATE>
</INVOICE_DATE>
```

1.11 Country and language codes

One should use ISO 3166 standard codes for TEAPPSXML COUNTRY_CODE and LANGUAGE_CODE elements (FI=Finnish, SE=Swedish, GB = English, DE = German, EE= Estonian etc.). Receiver language code that is used for example in invoice layout headers shall be present in RECEIVER/CUSTOMER_INFORMATION/LANGUAGE_CODE-element. TEAPPSXML default layout support both ISO 639 and ISO 3166 standards, capital letter codes.

1.12 LINK-element

LINK-element consists of two optional attributes TYPE and OBJECT. OBJECT-attribute aims to guarantee compatibility with Finvoice message format's link information. Values for OBJECT-attribute should be Finvoice link element identifiers. Method ensures that link information can be transferred between different formats. TYPE attribute is used to tell link type and suggested values are OPEN, SECURE or BANKCERT.

1.13 Requirements for digital signature

Next elements are mandatory with digital signature:

- country code of receiver RECEIVER/CUSTOMER_INFORMATION/ADDRESS/COUNTRY_CODE or vat number RECEIVER/CUSTOMER_INFORMATION/VAT_NUMBER

and

- country code of payee PAYEE/CUSTOMER_INFORMATION/ADDRESS/COUNTRY_CODE or vat number PAYEE/CUSTOMER_INFORMATION/VAT_NUMBER

2 Processing control

2.1 Control data - INVOICE_CENTER/TRANSPORT_FRAME and CONTENT_FRAME

INVOICE_CENTER/TRANSPORT_FRAME -elementin alla on muutamia pakollisia tietoja, joilla ohjataan aineiston vastaanottoa. Seuraavassa on tärkeimpien elementtien selitteet ja vakioarvot/sallitut arvot.

TF_CODE	Standard information: TF01, mandatory
TIMESTAMP	file creation timestamp in format yyyyymmddhhmmss mandatory
BATCH_ID	sender given unique id e.g file name or some other identifier shall be returned in acknowledgement message, mandatory
CONTENT_RECEIVER/RECEIVER_REF	Receiver's eInvoiceAddress in the batch receiving operator service, mandatory
CONTENT_RECEIVER/INTERMEDIATOR	Receiver operator identifier
CONTENT_RECEIVER/CONTENT_REF	Sender specified unique identifier that identifies the message for example invoice identifier, mandatory shall be returned in acknowledgement message Can be same or different with TRANSPORT_FRAME/BATCH_ID and CONTENT_FRAME/BLOCK_ID
SENDER	Sender's eInvoiceAddress in the operator service, mandatory
INTERMEDIATOR	Sender operator identifier
SENDER_DOMAIN	Sender name

FB_REQUEST Indicates how response shall be processed:
0 = No
1 = Yes
2 = Ack message
mandatory

Below the INVOICE_CENTER/CONTENT_FRAME element there are some pieces of mandatory tags that coordinate the receiving of the material in the service. Here are the explanations for the key elements as the standard values/acceptable values.

CF_CODE Standard information: CF01, mandatory

NET_SERVICE_ID Sender's eInvoiceAddress in the receiving service
mandatory

INTERMEDIATOR Sender operator identifier

SENDER_DOMAIN Sender's domain name

BLOCK_ID An identifier provided by the sender, e.g. file name
mandatory

TIMESTAMP Time stamp (file creation time) in format yyyyymmddhhmmss
mandatory

BLOCK_RULES/TRANSACTION_TYPE
Transaction type, alternatives: 00=invoice, 02=posting. Mandatory

BLOCK_RULES/BLOCK_ACTION
Function, alternatives: 00=addition. Mandatory

BLOCK_RULES/BLOCK_METHOD
Batch-specific delivery method is used only in special cases when the services specified in the recipient's and the payee's agreements need to be skipped. For example, value 01 is entered in the BLOCK_METHOD element if the user wants to exceptionally print out the entire material as eLetters when the recipients would normally receive their invoices in electronic format. The same principle is applied with the INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/HEADER/METHOD_OF_INTERCHANGE element, in other words with the invoice-specific delivery method.

Delivery method, alternatives:
01 = Print sales invoice

Batch-specific delivery method has highest priority when considering how the material will be delivered to the recipient. If the delivery method code is missing from the BLOCK_METHOD element, the value of the HEADER/METHOD_OF_INTERCHANGE element will be taken into account. The coding used for the BLOCK_METHOD element is also used for the METHOD_OF_INTERCHANGE element.

Normally the material is forwarded in accordance with the agreement signed by the recipient or the payee. When the BLOCK_METHOD and METHOD_OF_INTERCHANGE elements are missing from the sent material, the material is forwarded in accordance with the recipient's agreement. If the recipient has not an agreement, the material will be forwarded in accordance with the payee's agreement information.

BLOCK_RULES/BLOCK_FORMAT

Data format, the value is TEAPPSXML when sending the TEAPPSXML description compliant material. Mandatory information

BLOCK_RULES/FORMAT_VERSION

Version number of the TEAPPSXML description

BLOCK_RULES/CHARACTER_SET

The character-set used, standard information: ISO-8859-1

2.2 Printing/archiving settings

The information needed to print out a document is compiled under the INVOICE_CENTER/CONTENT_FRAME/BLOCK_DEFAULTS/BLOCK_PRINTING/E-KIRJE element. Below are instructions for the printing settings.

CONTENT_FRAME/BLOCK_DEFAULTS/BLOCK_PRINTING/E-KIRJE/

APM_ARCHIVE archiving

alternatives: T (printing only), B (printing and archiving), C (archiving only)

SERVICE_ACTIONS Service action

alternatives: 0 or empty (standard production material), T (test material)

→ When testing the interface, value T must be used without exception.

Mandatory, if the material will be printed out

LETTER_CLASS Letter class

alternatives: 1 (1st class), 2 (2nd class)

All invoices from one delivery batch are sent in the same letter class. To send some of the invoices in 1st class and some in 2nd class, a separate invoice batch must be created for each letter class and sent to the service individually.

Mandatory, if the material will be printed out

APM_ARCHIVE_CODE	archive application code
FORM_FIRST_PAGE	form code, 1st page Mandatory, if the material will be printed out

Used form identifiers will be agreed separately during implementation.

In addition, the following information is required in the printing settings rows:

- * RECEIVER/CUSTOMER_INFORMATION/ADDRESS/COUNTRY_CODE
- Recipient's country code
- * RECEIVER/CUSTOMER_INFORMATION/ADDRESS/POSTAL_CODE
- Recipient's postal code

2.3 Acknowledgements from transfer

Acknowledgement will be done if batch is in TEAPPSXML-format and consists TRANSPORT_FRAME or if batch includes TRANSPORT_FRAME data directly or through conversion. Value for INVOICE_CENTER/TRANSPORT_FRAME/FB_REQUEST element has to be 1 and acknowledgement processing is agreed with the customer.

Invoice message example including Acknowledgement request:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<INVOICE_CENTER>
  <TRANSPORT_FRAME>
    <TF_CODE>TF01</TF_CODE>
    <TIMESTAMP>2018070812160500</TIMESTAMP>
    <BATCH_ID>D2408124081</BATCH_ID>
    <CONTENT_RECEIVER>
      <RECEIVER_REF>TE003701011385IC</RECEIVER_REF>
      <CONTENT_REF>123;2-4081</CONTENT_REF>
    </CONTENT_RECEIVER>
    <SENDER>TE003712345678</SENDER>
    <FB_REQUEST>1</FB_REQUEST>
  </TRANSPORT_FRAME>
  <CONTENT_FRAME>
    <CF_CODE>CF01</CF_CODE>
    <NET_SERVICE_ID>TE003712345678</NET_SERVICE_ID>
    <BLOCK_ID>123;2-4081</BLOCK_ID>
    <TIMESTAMP>2018070812160500</TIMESTAMP>
    <BLOCK_RULES>
      <TRANSACTION_TYPE>00</TRANSACTION_TYPE>
      <BLOCK_ACTION>00</BLOCK_ACTION>
      <BLOCK_FORMAT>TEAPPSXML</BLOCK_FORMAT>
      <FORMAT_VERSION>3.0</FORMAT_VERSION>
      <CHARACTER_SET>ISO-8859-1</CHARACTER_SET>
    </BLOCK_RULES>
  </CONTENT_FRAME>
</INVOICES> .....
```

Positive acknowledgement example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<INVOICE_CENTER>
  <TRANSPORT_FRAME>
    <TF_CODE>TF01</TF_CODE>
    <TIMESTAMP>20180708141216898</TIMESTAMP>
    <BATCH_ID>D2408124081</BATCH_ID>
    <CONTENT_RECEIVER>
      <RECEIVER_REF>TE003712345678</RECEIVER_REF>
      <CONTENT_REF>123;2-4081</CONTENT_REF>
    </CONTENT_RECEIVER>
    <SENDER>TE003701011385IC</SENDER>
    <FB_REQUEST>2</FB_REQUEST>
    <REQUEST_MESSAGE>POS</REQUEST_MESSAGE>
    <TF_SUMMARY>
      <COUNT>1</COUNT>
      <TOTAL>
        <AMOUNT_SIGN="+">197.64</AMOUNT>
      </TOTAL>
      <BATCH_SIZE>3664</BATCH_SIZE>
    </TF_SUMMARY>
  </TRANSPORT_FRAME>
</INVOICE_CENTER>
```

Negative acknowledgement example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<INVOICE_CENTER>
  <TRANSPORT_FRAME>
    <TF_CODE>TF01</TF_CODE>
    <TIMESTAMP>20180708141216898</TIMESTAMP>
    <BATCH_ID>D2408124081</BATCH_ID>
    <CONTENT_RECEIVER>
      <RECEIVER_REF>TE003712345678</RECEIVER_REF>
      <CONTENT_REF>123;2-4081</CONTENT_REF>
    </CONTENT_RECEIVER>
    <SENDER>TE003701011385IC</SENDER>
    <FB_REQUEST>2</FB_REQUEST>
    <REQUEST_MESSAGE>NEG</REQUEST_MESSAGE>
    <REQUEST_TEXT>Laskujen validointi epäonnistui. Validoinnin tulokset : [Parser error at
/INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/PAYEE] :2:1874 at invoice 2-4081: The content of
element type "PAYEE" must match "(CUSTOMER_INFORMATION,BANKS+,NET_SERVICE_ID?,DOMICILE?,
PRELIMINARY_TAX_REGISTERED?,ARCHIVE_ID?,NETTING_CODE?,PAYEE_REFERENCE?,METHOD_OF_PAYMENT?,
DETAILS_OF_PAYMENT?,BANK_BARCODE?)".
    </REQUEST_TEXT>
    <TF_SUMMARY>
      <COUNT>0</COUNT>
      <TOTAL>
        <AMOUNT_SIGN="+">0.00</AMOUNT>
      </TOTAL>
      <BATCH_SIZE>3664</BATCH_SIZE>
    </TF_SUMMARY>
  </TRANSPORT_FRAME>
</INVOICE_CENTER>
```

3 Attachment processing

3.1 Handling of images and attachment files in TEAPPSXML

Besides the composed TEAPPSXML-data file, the uploaded or downloaded zip-file can include attachment files, which could be normal attachment file of invoice created by payee or picture files generated by payee, other operator or own service provider.

A single attachment of invoice is identified according the //INVOICE/CONTROL/IMAGE_CONTROL-structure occurred in the TEAPPSXML structural note. The structure will be repeated according the amount of attachment files of invoice.

The content of IMAGE_FILE-element is the full file-name including suffix. Next some examples of different IMAGE_CONTROL-structures are described. By using these structures can the type of attachment file (attachment file or invoice image) and the producer of attachment file (payee, operator or own service provider) be recognized. The identifying is based on attributes TYPE and SOURCE in IMAGE_CONTROL-element in such a way that the mandatory attribute TYPE expresses the type of attachment file and occurrence or value of the voluntary attribute SOURCE relates the producer. IMAGE_CONTROL –structure has now also optional attribute SIGNED, which are used to tell if attachment is signed or not signed. If attachment is signed, you can tell type of signature.

Attributes to be used in IMAGE_CONTROL –structure are the following:

- @TYPE
Values allowed:
 - INVOICE_IMAGE – image of the invoice
 - VOUCHER_MEMO – other attachment
 - SCANNED – scanned image
 - SIGNATURE_VALIDATION – signature validation file
 - SIGNATURE – separate signature file
 - INVOICE_DATA – original invoice
 - INVOICE_IMAGE_SECRECY – confidential invoice image
 - VOUCHER_MEMO_SECRECY – confidential other attachment
- @SOURCE
Values allowed:
 - ORIGINAL – image/attachment created by payee
 - IC_IMAGE – Image of electronic invoice created by service provider
 - IC – attachment created by service provider
- @SIGNED
Values allowed:
 - YES – signed, type unknown
 - XADES – signed, type XADES
 - CADES – signed, type CADES
 - NO – not signed

Referenced attachment file and the reference have to have exactly same name. Characters in both names are case sensitive. Each invoice should have own attachment file with unique name. Attachment names have to be unique in each invoice batch and also between different batches. One way to generate unique attachment names is to use method where name consists of free part, unique batch number and unique invoice number inside the batch. Attachment file name body allows numbers 0-9, capital letters A-Z, normal letters a-z and period (.), hyphen (-) and low line (_). Other characters are not allowed for e.g. space sign in attachment should not be used. Long attachment names are not recommended, for example 50 characters should be enough.

TEAPPSXML-specification supports several attachment format. Receiving system or receiver used message format may have more strict restrictions. Preferred attachment file type is always basic pdf which is best supported format in receiving systems and print services. As an exception to this is portfolio pdf, which is not supported as attachment format. Use of other format in attachments has to be discussed and agreed in deployment projects.

Some examples of delivering attachments:

Normal attachment: attachment file produced by payee

The attachment is recognized to be a normal based on the value "VOUCHER_MEMO" of the attribute TYPE in IMAGE_CONTROL-element. The SOURCE-attribute can be absent from IMAGE_CONTROL-element. If the attribute SOURCE exists, its value is "ORIGINAL".

Example:

```
<IMAGE_CONTROL TYPE="VOUCHER_MEMO">  
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbypayee.pdf</IMAGE_FILE>  
</IMAGE_CONTROL>
```

or

```
<IMAGE_CONTROL TYPE="VOUCHER_MEMO" SOURCE="ORIGINAL">  
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbypayee.pdf</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Secure attachment: Invoice issuer created attachment file

Attachment shall be recognized as secure based on IMAGE_CONTROL-element TYPE-attribute value "VOUCHER_MEMO_SECRECY" and SECURITY_DETAILS/SECRECY_CLASS -structures. In attachment structure one shall define also other attachments security class in SECURITY_DETAILS/SECRECY_CLASS-element when invoice contains secured attachments. IMAGE_CONTROL-element SOURCE-attribute is not mandatory but it is recommended always specify the source of the attachment. In this use case SOURCE-attribute value is "ORIGINAL".

Example:

```
<IMAGE_CONTROL TYPE="VOUCHER_MEMO_SECRECY" SOURCE="ORIGINAL">
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbypayee.pdf</IMAGE_FILE>
  <SECURITY_DETAILS>
    <SECRECY_CLASS>SC01</SECRECY_CLASS>
    <SECRECY_DESCRIPTION>Security code 1</SECRECY_DESCRIPTION>
  </SECURITY_DETAILS>
  <IMAGE_DESCRIPTION>Attachment description</IMAGE_DESCRIPTION>
</IMAGE_CONTROL>
```

Invoice image produced by payee or another operator than own service provider

The attachment is recognized to be an invoice image based on the value "INVOICE_IMAGE" of the attribute TYPE in IMAGE_CONTROL-element. The SOURCE-attribute can be absent from IMAGE_CONTROL-element. If the attribute SOURCE exists, its value is "ORIGINAL".

Example:

```
<IMAGE_CONTROL TYPE="INVOICE_IMAGE">
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedsomewhereelse.pdf</IMAGE_FILE>
</IMAGE_CONTROL>
```

or

```
<IMAGE_CONTROL TYPE="INVOICE_IMAGE" SOURCE="ORIGINAL" SIGNED="YES">
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedsomewhereelsesign.pdf</IMAGE_FILE>
</IMAGE_CONTROL>
```

Secure invoice image: Invoice issuer created invoice image

Attached invoice image shall be recognized secure based on IMAGE_CONTROL-element TYPE-attribute value "INVOICE_IMAGE_SECRECY" and SECURITY_DETAILS/SECRECY_CLASS – structures. In attachment structure one shall define also invoice image security class in SECURITY_DETAILS/SECRECY_CLASS-element when this type of attachments is used. IMAGE_CONTROL - element SOURCE-attribute is not mandatory but it is recommended to specify attachment issuer. In this use case SOURCE-attribute value is "ORIGINAL".

Example:

```
<IMAGE_CONTROL TYPE="INVOICE_IMAGE_SECRECY" SOURCE="ORIGINAL">
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofinvoiceimageproducedbypayee.pdf</IMAGE_FILE>
  <SECURITY_DETAILS>
    <SECRECY_CLASS>SC02</SECRECY_CLASS>
    <SECRECY_DESCRIPTION>Security code 2</SECRECY_DESCRIPTION>
  </SECURITY_DETAILS>
</IMAGE_CONTROL>
```

Invoice image produced by own service provider

The attachment is recognized to be an invoice image based on the value "INVOICE_IMAGE" of the attribute TYPE in IMAGE_CONTROL-element. In the invoice image produced by own service provider always exists SOURCE-attribute by value "IC_IMAGE".

Example:

```
<IMAGE_CONTROL TYPE="INVOICE_IMAGE" SOURCE="IC_IMAGE">  
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbyic.pdf</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Scanned invoice image: invoice image produced by scanning service

The attachment is recognized to be an invoice image produced by scanning service based on the value "SCANNED" of the attribute TYPE in IMAGE_CONTROL-element. The SOURCE-attribute can be absent from IMAGE_CONTROL-element. If the attribute SOURCE exists, its value is "ORIGINAL".

Example:

```
<IMAGE_CONTROL TYPE="SCANNED">  
  <IMAGE_FILE IMAGE_TYPE="TIF">filenameofattachmentproducedbyscanningservice.tif</IMAGE_FILE>  
</IMAGE_CONTROL>
```

or

```
<IMAGE_CONTROL TYPE="SCANNED" SOURCE="ORIGINAL">  
  <IMAGE_FILE IMAGE_TYPE="TIF">filenameofattachmentproducedbyscanningservice.tif</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Attachment file produced by payee and attachment is also digitally signed by payee

The attachment is recognized to be digitally signed based on value "YES" of the attribute SIGNED. Value of SIGNED -attribute could also be "XADES" or "CADES", that describe also type of signature. If attribute SIGNED is missing or has value "NO", attachment is not signed.

Example:

```
<IMAGE_CONTROL TYPE="VOUCHER_MEMO" SOURCE="ORIGINAL" SIGNED="YES">  
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbypayeeandsigned.pdf</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Invoice image created by own service provider with digital signature

The attachment is recognized to be digitally signed based on value "YES" of the attribute SIGNED. Value of SIGNED could also be "XADES" or "CADES", that describe also type of

signature. Attribute SIGNED is optional. If attachment is not signed the value can be absent or have value "NO".

Example:

```
<IMAGE_CONTROL TYPE="INVOICE_IMAGE" SOURCE="IC_IMAGE" SIGNED="YES">  
  <IMAGE_FILE IMAGE_TYPE="pdf">filenameofattachmentproducedbyicandsigned.pdf</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Invoice attachment with digital signature validation file as a separate file

Attachment is recognized to be validation file based on value "SIGNATURE_VALIDATION" of attribute TYPE. Attribute SOURCE describes creator of validation report.

Example:

```
<IMAGE_CONTROL TYPE="SIGNATURE_VALIDATION" SOURCE="IC ">  
  <IMAGE_FILE IMAGE_TYPE="xml">validationinformation.xml</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Invoice attachment: Original invoice in different format as a separate file

Attachment is recognized to be original invoice based on value "INVOICE_DATA" of the attribute TYPE. Attribute SOURCE must have value "ORIGINAL". The attachment could also be digitally signed, if so that is told in attribute SIGNED.

Example:

```
<IMAGE_CONTROL TYPE="INVOICE_DATA" SOURCE="ORIGINAL">  
  <IMAGE_FILE IMAGE_TYPE="xml">OriginalInvoice123.xml</IMAGE_FILE>  
</IMAGE_CONTROL>
```

Invoice attachment: Separate signature file

Attachment is recognized to be signature file based on value "SIGNATURE" of the attribute TYPE. If attribute SOURCE has value "ORIGINAL" signature file is created by payee. If attribute SOURCE has value "IC" signature file is created by invoicing service provider.

Example:

```
<IMAGE_CONTROL TYPE="SIGNATURE" SOURCE="ORIGINAL">  
  <IMAGE_FILE IMAGE_TYPE="xml">SignatureFile.xml</IMAGE_FILE>  
</IMAGE_CONTROL>
```

or

```
<IMAGE_CONTROL TYPE="SIGNATURE" SOURCE="IC">  
  <IMAGE_FILE IMAGE_TYPE="xml">SignatureFile.xml</IMAGE_FILE>  
</IMAGE_CONTROL>
```

4 Invoice information content

4.1 Invoice number

Invoice number is recommended to mainly consist of numbers. Letters can be used if needed. In credit notes original invoice number is located in element CREDIT_INVOICE_NUMBER.

4.2 Invoice types

HEADER/INVOICE_TYPE element identifies invoice type. Empty invoice documentation for TEAPPSXML includes description for used types and their codes. INVOICE_TYPE-element controls invoice header contents in visualization if it is not specifically set in HEADER/SUBJECT element.

EU Norm required code shall be from UNTDID 1001 codelist and it is presented in INVOICE_TYPE UNTDID-attribute.

Example:

```
<INVOICE_TYPE UNTDID_CODE="380">00</INVOICE_TYPE>
```

4.2.1 Interest invoices and reminders

TEAPPSXML INVOICE/ROWS/ROW-structure includes specific INFORMATION_OF_OVERDUE_PAYMENTS-block that is used only for interest invoices (HEADER/INVOICE_TYPE = 06 or 07) and reminders (HEADER/INVOICE_TYPE = 09). For interest invoices basic style sheet visualize for only free text and default posting from invoice rows and this structure. For reminders also row sum-information will be visualized.

There might be restrictions for interest invoices and payment reminders delivery in some invoice message formats or infrastructures abroad. For interest invoices and payment reminders one can add into message both INFORMATION_OF_OVERDUE_PAYMENT-structure and ARTICLE_NAME and ROW_TOTAL-elements in row-level.

4.2.2 Credit card invoice

TEAPPSXML includes in HEADER-structure optional CREDIT_INFORMATION structure that can be applied for credit card invoices. This structure consists following elements:

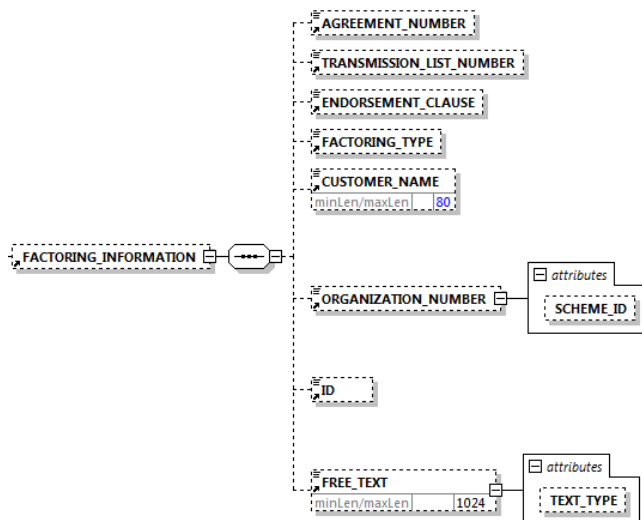
- CREDIT_LIMIT; amount of maximum credit
- INTEREST; used interest for credit
- OPERATION_LIMIT; amount of credit limit available
- INSTALMENT; monthly instalment

Example:

```
<CREDIT_INFORMATION>
  <CREDIT_LIMIT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">3000.00</AMOUNT>
  </CREDIT_LIMIT>
  <INTEREST>
    <PER_CENT>16</PER_CENT>
  </INTEREST>
  <OPERATION_LIMIT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">1200.00</AMOUNT>
  </OPERATION_LIMIT>
  <INSTALMENT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">600.00</AMOUNT>
  </INSTALMENT>
</CREDIT_INFORMATION>
```

4.2.3 Factoring invoice

TEAPPSXML includes in HEADER-structure optional FACTORING_INFORMATION structure that can be applied for factoring invoices. Transmission clause shall be in FACTORING_INFORMATION/FREE_TEXT-element. Receiver can also require agreement number that shall be set in FACTORING_INFORMATION/ AGREEMENT_NUMBER-element.



Finance Finland is published in www.finanssiala.fi/finvoice pages, in technical description of electronic invoice for companies, a guide for factoring invoice.

4.3 Invoice parties

In invoice level the following parties are available:

- INVOICE_SENDER; invoice technical sender eg. account office; optional
- PAYEE; actual originator for invoice, one who get paid; mandatory
- SALES_CONTACT; sales organization; optional
- INVOICE_RECIPIENT; invoice technical receiver eg. account office; optional

- RECEIVER; actual receiver for the invoice; mandatory
- DELIVERER; delivering party; optional
- ORDERER; ordering party; optional
- DELIVERY_PARTY; customer to whom delivery happens; optional
- PAYER; party that pays the invoice; optional
- PAYOR; party to whom invoice will be redirected; optional
- MANUFACTURER; manufacturer of the invoiced goods; optional
- HOLDER; party that holds the delivered goods; optional
- OTHER_PARTNER; any other partner; optional

In row-level there are available following optional structures: DELIVERY_RECEIVER and OTHER_PARTNER.

OTHER_PARTNER element has mandatory attributes PARTNER_TYPE and PARTNER_TEXT. These attributes defines partner. In default style sheet PARTNER_TEXT will be used to create partner title in layout. OTHER_PARTNER structure purpose is to support some industry specific requirements like in Insurance and it should be used only if there are no applicable partner definitions available.

Examples:

```
<OTHER_PARTNER PARTNER_TYPE="1110001" PARTNER_TEXT="Korjaamo">  
  <CUSTOMER_INFORMATION>  
    <CUSTOMER_NAME>Korjaamo Oy</CUSTOMER_NAME>  
  </CUSTOMER_INFORMATION>  
</OTHER_PARTNER>
```

```
<OTHER_PARTNER PARTNER_TYPE="SellerTaxRepr" PARTNER_TEXT="SellerTaxRepr">  
  <CUSTOMER_INFORMATION>  
    <CUSTOMER_NAME>Company Oy</CUSTOMER_NAME>  
    <ADDRESS>  
      <STREET_ADDRESS1>TestStreet 1</STREET_ADDRESS1>  
      <POSTAL_CODE>1234</POSTAL_CODE>  
      <POST_OFFICE>Copenhagen</POST_OFFICE>  
      <COUNTRY>Denmark</COUNTRY>  
      <COUNTRY_CODE>DK</COUNTRY_CODE>  
    </ADDRESS>  
    <VAT_NUMBER>DK12345678</VAT_NUMBER>  
  </CUSTOMER_INFORMATION>  
</OTHER_PARTNER>
```

PARTNER_TYPE and PARTNER_TEXT content will be instructed by industry specific guides. These guides will be published when available in TEAPPSXML documentation in <https://www.tieto.fi/palvelut/liiketoimintaprosessipalvelut/business-information-exchange/verkkolaskutus-palvelun-ohjeita-ja-kuvauksia> pages.

4.3.1 Identifiers

CUSTOMER_INFORMATION – structure contains own elements for

- local official organization id (In Finland business id): ORGANIZATION_NUMBER
- vat number: VAT_NUMBER
- edi identifier (ovt code): PARTY_IDENTIFICATION_ID

In TEAPPSXML usage of PARTY_IDENTIFICATION_ID –element is extended for needs of international eInvoices. PARTY_IDENTIFICATION_ID –element can occurs 0 – n times and it can have voluntary attribute AUTHORITY.

Examples:

```
<PARTY_IDENTIFICATION_ID AUTHORITY="GLN" SCHEME_ID="0088">1234567891231</PARTY_IDENTIFICATION_ID>  
PARTY_IDENTIFICATION_ID –element contain GLN (= Global Location Number)
```

```
<PARTY_IDENTIFICATION_ID AUTHORITY="DUNS" SCHEME_ID="0060">123456789</PARTY_IDENTIFICATION_ID>  
PARTY_IDENTIFICATION_ID –element contain D-U-N-S –number
```

```
<PARTY_IDENTIFICATION_ID AUTHORITY="EDI" SCHEME_ID="0037">003712345678</PARTY_IDENTIFICATION_ID>  
PARTY_IDENTIFICATION_ID –element contain edi identifier (ovt code)
```

If only edi identifier is needed in TEAPPSXML –message, you can use PARTY_IDENTIFICATION_ID without attributes in the same way than in earlier TEAPPSXML-versions.

4.3.2 eInvoiceAddress and intermediary

TEAPPSXML v.3.0 have support for e-invoice address type-code in EADDRESS_SCHEME_ID_CODE, and used codeset in EADDRESS_SCHEME_ID. These e-invoicing address related elements are needed especially in PEPPOL network.

Following are examples when used codeset is ISO-6523:

```
<NET_SERVICE_ID>TE00371234567801</NET_SERVICE_ID>  
<INTERMEDIATOR>003701011385</INTERMEDIATOR>  
<EADDRESS_SCHEME_ID>ISO6523</EADDRESS_SCHEME_ID>  
<EADDRESS_SCHEME_ID_CODE>0037</EADDRESS_SCHEME_ID_CODE>
```

```
<NET_SERVICE_ID>FI5812345678901234</NET_SERVICE_ID>  
<INTERMEDIATOR>OKOYFIHH</INTERMEDIATOR>  
<EADDRESS_SCHEME_ID>ISO6523</EADDRESS_SCHEME_ID>  
<EADDRESS_SCHEME_ID_CODE>0021</EADDRESS_SCHEME_ID_CODE>
```

In ISO6523-codeset IBAN-format scheme id is 0021, but Peppol-infrastructure seems currently to use for IBAN id 9918. Peppol –infrastructure may start to use standard type code during EU Norm implementation.

4.4 Confidential invoice

TEAPPSXML v.3.0 support invoice confidentiality class specification. It is seller and buyer responsibility to agree used confidentiality classes they use. It is invoice and workflow responsibility to implement proper authorities for confidential invoice and attachments viewing and processing.

Invoice confidentiality class is defined in HEADER/SECURITY_DETAILS-structure. Attachment confidentiality class is defined in CONTROL/IMAGE_CONTROL/SECURITY_DETAILS-structure. Confidential invoice image shall have type code INVOICE_IMAGE_SECRECY in IMAGE_CONTROL-structure. For other attachments than invoice image type code shall be VOUCHER_MEMO_SECRECY. Message specification support use cases where either invoice or its' attachments are confidential as well the case that both are confidential.

Example:

```
<SECURITY_DETAILS>  
  <SECURITY_CLASS>SC01</SECURITY_CLASS>  
  <SECURITY_DESCRIPTION>Security code 1</SECURITY_DESCRIPTION>  
</SECURITY_DETAILS>
```

When invoice will be delivered using ordinary mail or email check with your service provider applied confidentiality rules.

4.5 Order, Confirmation of Order, agreement-information

For invoice level order information there is HEADER/ORDER_INFORMATION structure that occurs 0-n times. The ORDER_INFORMATION-element has an attribute ORDER_TYPE, by which can order information be individualized. If order information is given by orderer then attribute value should be CO. If order information is given by supplier then attribute value should be VN. If order information is given by manufacturer then attribute value should be MH. Recommendation is to use ORDER_INFORMATION structure to pass order information in invoice. Previous version HEADER-level order-number structure and INVOICE_ORDER_NUMBER should not be used any longer.

In TEAPPSXML has also ORDER_POSITION element in ORDER_INFORMATION structure. This element will be used to describe order position information. ORDER_TYPE attribute in ORDER_INFORMATION structure describes which party order position is handled.

TEAPPSXML has ORDER_INFORMATION structure also in row-level. Row-level structure should be used when order information varies in row level.

Example 1:

```
<ORDER_INFORMATION ORDER_TYPE="CO">  
  <ORDER_NUMBER>12/2005</ORDER_NUMBER>  
  <ORDER_DATE>  
    <DATE>  
      <DAY>17</DAY>  
      <MONTH>08</MONTH>  
      <CENTURY>20</CENTURY>  
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>  
    </DATE>  
  </ORDER_DATE>  
  <ORDER_REFERENCE>222</ORDER_REFERENCE>  
  <ORDER_POSITION>5</ORDER_POSITION>  
</ORDER_INFORMATION>
```

Example 2:

```
<ORDER_INFORMATION ORDER_TYPE="CO">  
  <ORDER_NUMBER>333</ORDER_NUMBER>  
  <ORDER_DATE>  
    <DATE>  
      <DAY>17</DAY>  
      <MONTH>08</MONTH>  
      <CENTURY>20</CENTURY>  
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>  
    </DATE>  
  </ORDER_DATE>  
  <ORDER_REFERENCE>Maija</ORDER_REFERENCE>  
</ORDER_INFORMATION>  
<ORDER_INFORMATION ORDER_TYPE="VN">  
  <ORDER_NUMBER>123456</ORDER_NUMBER>  
  <ORDER_DATE>  
    <DATE>  
      <DAY>17</DAY>  
      <MONTH>08</MONTH>  
      <CENTURY>20</CENTURY>  
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>  
    </DATE>  
  </ORDER_DATE>  
  <ORDER_REFERENCE>654</ORDER_REFERENCE>  
</ORDER_INFORMATION>
```

4.6 Payment and posting information

4.6.1 Payment reference and bank accounts

In TEAPPSXML-message payment reference should be presented in "machine-readable" format without spaces. National payment reference shall be set in FI_PAYMENT_REFERENCE -element and international payment reference in IPI_REFERENCE-element. TEAPPSXML v.3.0 don't restrict national payment reference length to support different national practices.

Examples:

```
<DETAILS_OF_PAYMENT>  
  <FI_PAYMENT_REFERENCE>2348236</FI_PAYMENT_REFERENCE>  
</DETAILS_OF_PAYMENT>
```

```
<DETAILS_OF_PAYMENT>  
  <IPI_REFERENCE>RF332348236</IPI_REFERENCE>  
</DETAILS_OF_PAYMENT>
```

Also domestic account should be presented in "machine-readable" format without hyphen and with leading zeros according to instructions of the Federation of Finnish Financial Services. IBAN-account number should be presented in machine-readable format without spaces.

Default style sheets format payment reference and IBAN account number according general Finnish practice.

TEAPPSXML have separate element for bank account numbers (BANK_ACCOUNT_NUMBER) and IBAN account numbers (IBAN_ACCOUNT_NUMBER). It is not allowed to set IBAN-account number into BANK_ACCOUNT_NUMBER -element.

4.6.2 Payment term

Payment term should be presented in HEADER/TERMS_OF_PAYMENT -element.

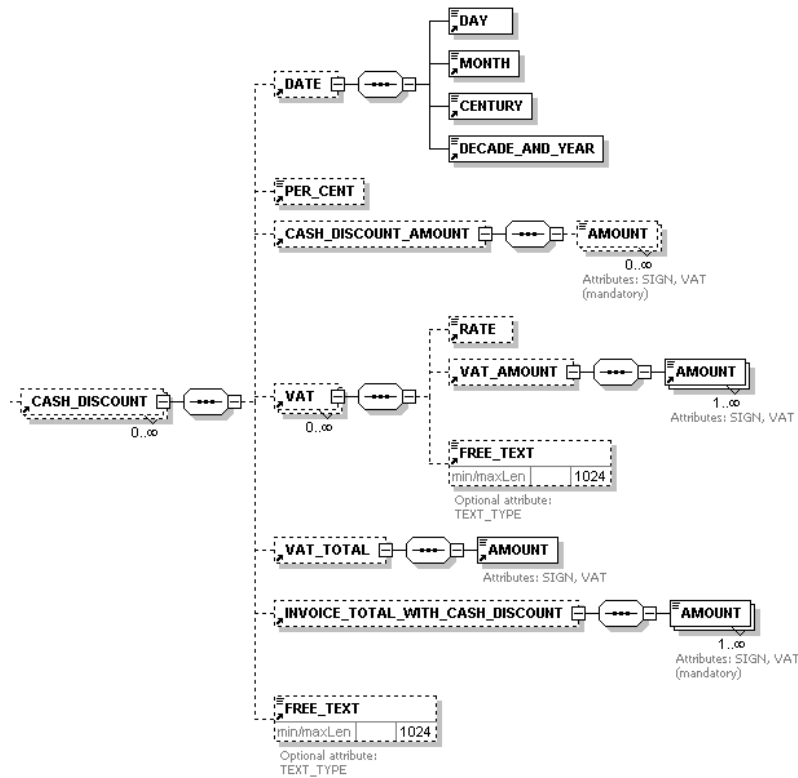
Example:

```
<TERMS_OF_PAYMENT>Net 14 days</TERMS_OF_PAYMENT>
```

4.6.3 Cash discount

Cash discount should be presented in INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/HEADER/CASH_DISCOUNT -structure. This structure can occur 0 – n times.

CASH_DISCOUNT -structure is optional and if invoice does not include cash discounts the structure can be absent.



Cash discount presentation use following sub-structures:

DATE/ cash date
 DAY date in format dd
 MONTH month in format mm
 CENTURY century in format cc
 DECADE_AND_YEAR decade and year in format yy

PER_CENT discount per cent
 no %-character, integer or at least 1 decimal
 eg. <PER_CENT>2.00</PER_CENT>

CASH_DISCOUNT_AMOUNT/AMOUNT discount monetary amount

VAT/ RATE vat-per cent, no % character
 VAT_AMOUNT/AMOUNT vat amount
 FREE_TEXT free text

VAT_TOTAL/AMOUNT vat amount for cash discounted price

INVOICE_TOTAL_WITH_CASH_DISCOUNT/AMOUNT
 invoice total sum including cash discount

FREE_TEXT free text

Example:

```
<TERMS_OF_PAYMENT>7 day -2%, 14 day -1%, 30 day net</TERMS_OF_PAYMENT>
<CASH_DISCOUNT>
  <DATE>
    <DAY>01</DAY>
    <MONTH>06</MONTH>
    <CENTURY>20</CENTURY>
    <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
  </DATE>
  <PER_CENT>2.00</PER_CENT>
  <CASH_DISCOUNT_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">370.05</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">458.86</AMOUNT>
  </CASH_DISCOUNT_AMOUNT>
  <VAT>
    <RATE>24.00</RATE>
    <VAT_AMOUNT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">88.81</AMOUNT>
    </VAT_AMOUNT>
  </VAT>
  <VAT_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">88.81</AMOUNT>
  </VAT_TOTAL>
  <INVOICE_TOTAL_WITH_CASH_DISCOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">18132.31</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">22484.07</AMOUNT>
  </INVOICE_TOTAL_WITH_CASH_DISCOUNT>
</CASH_DISCOUNT>
<CASH_DISCOUNT>
  <DATE>
    <DAY>08</DAY>
    <MONTH>06</MONTH>
    <CENTURY>20</CENTURY>
    <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
  </DATE>
  <PER_CENT>1.00</PER_CENT>
  <CASH_DISCOUNT_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">185.02</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">229.43</AMOUNT>
  </CASH_DISCOUNT_AMOUNT>
  <VAT>
    <RATE>24.00</RATE>
    <VAT_AMOUNT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">44.41</AMOUNT>
    </VAT_AMOUNT>
  </VAT>
  <VAT_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">44.41</AMOUNT>
  </VAT_TOTAL>
  <INVOICE_TOTAL_WITH_CASH_DISCOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">18317.34</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">22713.50</AMOUNT>
  </INVOICE_TOTAL_WITH_CASH_DISCOUNT>
</CASH_DISCOUNT>
```

Invoice layout for above example:

Terms of Payment
7 day -2%, 14 day -1%, 30 day net

Cash Discount 2.00 %	01.06.2018	370,05	88,81	458,86	EUR	22 484,07
			(24.00 % 88,81)			
Cash Discount 1.00 %	08.06.2018	185,02	44,41	229,43	EUR	22 713,50
			(24.00 % 44,41)			

Currency information will be picked-up into layout from INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/HEADER/CURRENCY/CODE –element. In layout also per cent character will be written and amount will be formatted according Finnish practice.

4.6.4 Default posting information from PAYEE

For posting information transfer suggestion is to use invoice level HEADER/PAYER_POSTING_GROUP_DEFAULTS –structure or for row level posting information ROW/DEFAULT_ROW_POSTING -structure. ACCOUNT and ACCOUNT_2 –elements consists accounts. ACCOUNT_AMOUNT/AMOUNT –element includes posted amount. ACCOUNT_AMOUNT/AMOUNT –element has attributes SIGN and VAT.

Default posting information given by receiver can be delivered in ACCOUNT_REFERENCE - element on header or item level:

- HEADER/PAYER_POSTING_GROUP_DEFAULTS/POSTING_DEFAULT/ACCOUNT_REFERENCE
- ROWS/ROW/DEFAULT_ROW_POSTING/ACCOUNT_REFERENCE

Posting information in ACCOUNT_REFERENCE –element consists of posting information defined by receiver without separator characters (i.e. account, site, cost centre, unit etc.). Posting information include also REPORTING_CODE –element for receiver’s reporting needs.

If same accounting reference and/or reporting code cover all invoices, these should enter into the invoice level. If accounting reference and/or reporting code alternate between invoice rows, these should enter into the row level.

The following examples show value 42006440400 as account reference. 4200 is purchase account, 6440 is cost pool and 400 is department. Additionally as reporting code is shown 4000.

Example 1: account reference and reporting code on header level

```
<PAYER_POSTING_GROUP_DEFAULTS>
  <POSTING_DEFAULT>
    <ACCOUNT_REFERENCE>42006440400</ACCOUNT_REFERENCE>
    <REPORTING_CODE>4000</REPORTING_CODE>
  </POSTING_DEFAULT>
</PAYER_POSTING_GROUP_DEFAULTS>
```

Example 2: account reference and reporting code on item level

```
<DEFAULT_ROW_POSTING>  
  <ACCOUNT_REFERENCE>42006440400</ACCOUNT_REFERENCE>  
  <REPORTING_CODE>4000</REPORTING_CODE>  
</DEFAULT_ROW_POSTING>
```

For posting information we recommend to use account reference.

4.7 Other invoice level information

4.7.1 Supplier number

Supplier number is the identifier given by receiver to the deliverer. Passing this identifier use element INVOICE/PAYEE/CUSTOMER_INFORMATION/CUSTOMER_ID.

4.7.2 Receiver email-address

Use either element to transfer receiver email address:

- INVOICE/RECEIVER/CUSTOMER_INFORMATION/CONTACT_INFORMATION/E-MAIL_ADDRESS
or
- INVOICE/RECEIVER/CUSTOMER_INFORMATION/E-MAIL_ADDRESS

If receiver use a workflow system that requires receiver's email address to find correct content inspector use INVOICE/RECEIVER/CUSTOMER_INFORMATION/CONTACT_INFORMATION/E-MAIL_ADDRESS -element to pass this required information.

4.7.3 Payment instruction

In electronic consumer invoicing payment instruction code is mandatory information. This identifier is defined by sender. This identifier is used when payee has agreed on Finvoice intermediation service agreement and payee is sending electronic invoices via net banks to receiving consumer and business customers.

Payment instruction code is delivered to banks using SenderInfo. Payment instruction code has to be on invoice as well. Finvoice message shows payment instruction code in EpiPaymentInstructionID field which is optional field. In TEAPPSXML this is located in HEADER/PAYMENT_INSTRUCTION_IDENTIFIER.

Additional information regarding electronic consumer invoicing and related Notification Service is available at the Finance Finland's web site.

4.7.4 Order confirmation and contract information

HEADER -structure includes optional elements to present invoice level order confirmation and contract information.

For order confirmation there is ORDER_CONFIRMATION –structure that consists elements for order confirmation number and date.

For contract information there is CONTRACT INFORMATION –structure that consists subelements for contract number, date, contract period and price list.

Example:

```
<ORDER_CONFIRMATION>
  <ORDER_CONFIRMATION_NUMBER>123</ORDER_CONFIRMATION_NUMBER>
  <ORDER_CONFIRMATION_DATE>
    <DATE>
      <DAY>17</DAY>
      <MONTH>08</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </ORDER_CONFIRMATION_DATE>
</ORDER_CONFIRMATION>
<CONTRACT_INFORMATION>
  <CONTRACT_NUMBER>654987</CONTRACT_NUMBER>
  <CONTRACT_DATE>
    <DATE>
      <DAY>17</DAY>
      <MONTH>12</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </CONTRACT_DATE>
  <CONTRACT_PERIOD>
    <START_PERIOD>
      <DATE>
        <DAY>01</DAY>
        <MONTH>01</MONTH>
        <CENTURY>20</CENTURY>
        <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
      </DATE>
    </START_PERIOD>
    <END_PERIOD>
      <DATE>
        <DAY>01</DAY>
        <MONTH>12</MONTH>
        <CENTURY>20</CENTURY>
        <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
      </DATE>
    </END_PERIOD>
  </CONTRACT_PERIOD>
  <PRICELIST>Pricelist 1/2018</PRICELIST>
</CONTRACT_INFORMATION>
```

4.7.5 Transport information

Under the HEADER-structure can the invoice-specific transport information entered in voluntary TRANSPORT_INFORMATION-structure. The structure can occur 0 – n times. By using a voluntary attribute TRANSPORT_ID of TRANSPORT_INFORMATION –element can main carrier dissociated from post-carrier. TRANSPORT_INFORMATION-structure consists of the following child-elements:

- MODE_OF_TRANSPORT, transport mode
MODE_OF_TRANSPORT has a voluntary attribute MODE_OF_TRANSPORT_ID, which expresses the code value of the transport mode
- CARRIER/CARRIER_NAME, the name of carrier/transport company
- CARRIER/VESSEL, the identifier of vessel, for example registration number
- LOCATION, loading/unloading/frontier crossing point
By using a voluntary attribute LOCATION_ID of LOCATION-element, can the value of element specified.
- DATE, relates to LOCATION-information
- COUNTRY_OF_ORIGIN/COUNTRY_CODE, code of origin country
- COUNTRY_OF_ORIGIN/COUNTRY, name of the origin country
- COUNTRY_OF_DESTINATION/COUNTRY_CODE, code of destination country
- COUNTRY_OF_DESTINATION/COUNTRY, name of the destination country
- PLACE_OF_DISCHARGE, place of discharging
- FINAL_DESTINATION, final delivery destination
- TRANSPORT_NOTE, information relating to transport, for example the number of bill of carriage

Example:

```
<TRANSPORT_INFORMATION TRANSPORT_ID="1">
  <MODE_OF_TRANSPORT>Auto</MODE_OF_TRANSPORT>
  <CARRIER>
    <CARRIER_NAME>Carrier ABC</CARRIER_NAME>
    <VESSEL>AAA-123</VESSEL>
  </CARRIER>
  <LOCATION>Stock 1</LOCATION>
  <DATE>
    <DAY>13</DAY>
    <MONTH>06</MONTH>
    <CENTURY>20</CENTURY>
    <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
  </DATE>
  <COUNTRY_OF_ORIGIN>
    <COUNTRY_CODE>FI</COUNTRY_CODE>
    <COUNTRY>Finland</COUNTRY>
  </COUNTRY_OF_ORIGIN>
  <COUNTRY_OF_DESTINATION>
    <COUNTRY_CODE>FI</COUNTRY_CODE>
    <COUNTRY>Finland</COUNTRY>
  </COUNTRY_OF_DESTINATION>
  <FINAL_DESTINATION>Helsinki</FINAL_DESTINATION>
  <TRANSPORT_NOTE>96094</TRANSPORT_NOTE>
</TRANSPORT_INFORMATION>
```


4.7.6 Additional information regarding the invoice - HEADER_INFO

INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/HEADER/HEADER_INFO-structure is used for such data that don't have own elements in the invoice level. The values of the INVOICE_CENTER/CONTENT_FRAME/INVOICES/INVOICE/HEADER/HEADER_INFO/SERIAL_ID element are used to indicate the order of the additional information. Consecutive numbering with two digits is used to indicate the value of the element, in other words 01, 02, 03, 04, etc. The TITLE element shows the title of the additional information and the CONTENT element shows its content.

TITLE-element has an attribute INFO_TYPE. Using this attribute and TITLE element it is possible to use industry specific recommendations in invoice additional information. Content of INFO_TYPE attribute depends on those industry specific recommendations and will be published in TEAPPSXML documentation in <https://www.tieto.fi/palvelut/liiketoimintaprosessipalvelut/business-information-exchange/verkkolaskutus-palvelun-ohjeita-ja-kuvauksia> pages when available.

Example 1:

```
<HEADER_INFO>
  <TITLE INFO_TYPE="TA0001">Site key</TITLE>
  <CONTENT>TA-FI-1EARZJ4-V</CONTENT>
</HEADER_INFO>
<HEADER_INFO>
  <TITLE INFO_TYPE="TA0002">Site number</TITLE>
  <CONTENT>1234</CONTENT>
</HEADER_INFO>
<HEADER_INFO>
  <TITLE INFO_TYPE="TA0003">Reported to registry</TITLE>
  <CONTENT>N</CONTENT>
</HEADER_INFO>
```

Example 2:

```
<HEADER_INFO>
  <TITLE INFO_TYPE="1130141">Brand</TITLE>
  <CONTENT>Audi</CONTENT>
</HEADER_INFO>
<HEADER_INFO>
  <TITLE INFO_TYPE="1130142">Model</TITLE>
  <CONTENT>Q3 2.0 TDi quattro</CONTENT>
</HEADER_INFO>
<HEADER_INFO>
  <TITLE INFO_TYPE="1130143">Year model</TITLE>
  <CONTENT>2014</CONTENT>
</HEADER_INFO>
<HEADER_INFO>
  <TITLE INFO_TYPE="1130144">First registered</TITLE>
  <CONTENT>20141001</CONTENT>
</HEADER_INFO>
```

4.7.7 EpiDetails

TEAPPSXML includes also as not mandatory structure EpiDetails specification from Finvoice-specification. Partial EpiDetails-structure is for elements and attributes order and occurrence. EpiDetails-structure is not mandatory while TEAPPSXML-message contains same data in other TEAPPSXML-message elements.

4.8 Row level information

4.8.1 Product information

Besides the article name, product information can consist some additional data of product. In addition of the elements product number (ARTICLE_ID) and article name (ARTICLE_NAME) are available delivery date of product (DELIVERY_DATE), characteristics of product (ARTICLE_DESCRIPTION) and free information text (FREE_TEXT) elements.

In TEAPPSXML it is possible to present following new product information:

- EAN_CODE; product EAN code
- SUPPLIER_ARTICLE_ID; product number given by supplier
- MANUFACTURER_ARTICLE_ID; product number given by manufacturer
- SERIAL_NUMBER; product serial number
- PRODUCT_GROUP; product group information
- LOT/LOT_NUMBER and LOT/LOT_DESCRIPTION; product batch information
- ROW/RECEIVER_PRODUCT_CODE, receiver product code

Example:

```
<ARTICLE>
  <ARTICLE_ID>007</ARTICLE_ID>
  <ARTICLE_NAME>Copying paper</ARTICLE_NAME>
  <EAN_CODE SCHEME_ID="0160">3662168005586</EAN_CODE>
  <PRODUCT_GROUP SCHEME_ID="UNSPSC" SCHEME_VERSION="19">14111500</PRODUCT_GROUP>
  <FREE_TEXT>Ecological filing classified copy paper, white </FREE_TEXT>
  <ARTICLE_DESCRIPTIONS>
    <ARTICLE_DESCRIPTION>
      <DESCRIPTION_TYPE>Size</DESCRIPTION_TYPE>
      <DESCRIPTION_VALUE>210 x 297</DESCRIPTION_VALUE>
      <DESCRIPTION_UNIT Q_UNIT_UNECE_CODE="MMT">mm</DESCRIPTION_UNIT>
    </ARTICLE_DESCRIPTION>
  </ARTICLE_DESCRIPTIONS>
</ARTICLE>
```

If industry specific information has to present on row level (eg. lay day, serial number) instead of invoice level HEADER_INFO then they should be presented on ARTICLE_DESCRIPTION structure. DESCRIPTION_ID attribute content depends on industry instructions. These instructions will be published in TEAPPSXML documentation <https://www.tieto.fi/palvelut/liiketoimintaprosessipalvelut/business-information-exchange/verkkolaskutus-palvelun-ohjeita-ja-kuvauksia> when available.

Example:

```
<ARTICLE>
  <ARTICLE_NAME>Transfer payment</ARTICLE_NAME>
  <ARTICLE_DESCRIPTIONS>
    <ARTICLE_DESCRIPTION>
      <DESCRIPTION_TYPE DESCRIPTION_ID="E0005">Meter number</DESCRIPTION_TYPE>
      <DESCRIPTION_VALUE>675534453</DESCRIPTION_VALUE>
    </ARTICLE_DESCRIPTION>
    <ARTICLE_DESCRIPTION>
      <DESCRIPTION_TYPE DESCRIPTION_ID="E0007">Product</DESCRIPTION_TYPE>
      <DESCRIPTION_VALUE>Electricity</DESCRIPTION_VALUE>
    </ARTICLE_DESCRIPTION>
  </ARTICLE_DESCRIPTIONS>
</ARTICLE>
```

4.8.2 Quantities and units in row level

EU Norm invoice quantity is in TEAPPSXML-message in QUANTITY/CHARGED-element. When needed invoice can contain also delivered quantity in QUANTITY/DELIVERED-element. Unit of measure is described in related Q_UNIT-attribute. EU Norm compliant invoice unit of measures shall be from UN/ECE Recommendation N°20/N°21-codes. EU Norm unit of measure shall be set in Q_UNIT_UNECE_CODE-attribute.

Pricing unit is described in PRICE_PER_UNIT-element attributes PR_QTY and PR_UNIT. EU Norm compliant invoice pricing unit shall be from UN/ECE Recommendation N°20/N°21-codes and presented in PR_UNIT_UNECE_CODE-attribute.

Example 1:

```
<ROW>
  <ROW_NUMBER>1</ROW_NUMBER>
  <ARTICLE>
    <ARTICLE_NAME>Basic fee</ARTICLE_NAME>
  </ARTICLE>
  <START_PERIOD>
    <DATE>
      <DAY>01</DAY>
      <MONTH>11</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </START_PERIOD>
  <END_PERIOD>
    <DATE>
      <DAY>30</DAY>
      <MONTH>11</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </END_PERIOD>
  <QUANTITY>
    <CHARGED Q_UNIT="month" Q_UNIT_UNECE_CODE="MON" SIGN="+">1</CHARGED>
  </QUANTITY>
  <PRICE_PER_UNIT PR_UNIT="EUR/month">
```

TEAPPSXML v.3.0
Implementation Guide

15.10.2018

```

    <AMOUNT SIGN="+" VAT="INCLUDED">5.90</AMOUNT>
  </PRICE_PER_UNIT>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="INCLUDED">5.90</AMOUNT>
  </ROW_TOTAL>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</ROW>
<ROW>
  <ROW_NUMBER>2</ROW_NUMBER>
  <ARTICLE>
    <ARTICLE_NAME>Transfer</ARTICLE_NAME>
    <ARTICLE_DESCRIPTIONS>
      <ARTICLE_DESCRIPTION>
        <DESCRIPTION_TYPE DESCRIPTION_ID="E0005">Meter number </DESCRIPTION_TYPE>
        <DESCRIPTION_VALUE>98765432104602248632</DESCRIPTION_VALUE>
      </ARTICLE_DESCRIPTION>
    </ARTICLE_DESCRIPTIONS>
  </ARTICLE>
  <START_PERIOD>
    <DATE>
      <DAY>01</DAY>
      <MONTH>11</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </START_PERIOD>
  <END_PERIOD>
    <DATE>
      <DAY>30</DAY>
      <MONTH>11</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>17</DECADE_AND_YEAR>
    </DATE>
  </END_PERIOD>
  <QUANTITY>
    <CHARGED Q_UNIT="kWh" Q_UNIT_UNECE_CODE="KWH" SIGN="+">208.76</CHARGED>
  </QUANTITY>
  <PRICE_PER_UNIT PR_UNIT="snt/kWh">
    <AMOUNT SIGN="+" VAT="INCLUDED">3.14</AMOUNT>
  </PRICE_PER_UNIT>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="INCLUDED">6.56</AMOUNT>
  </ROW_TOTAL>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</ROW>

```

Description	Quantity Unit	Price per Unit Incl. VAT	VAT %	Total Incl. VAT
1 Basic fee	1 month	5,90 EUR/month	24 S	5,90
Period: 01.11.2017 - 30.11.2017				
2 Transfer	208.76 kWh	3,14 snt/kWh	24 S	6,56
Meter number 98765432104602248632 Period: 01.11.2017 - 30.11.2017				

Example 2:

```

<ROW>
  <ROW_NUMBER>1</ROW_NUMBER>
  <ARTICLE>
    <ARTICLE_ID>123</ARTICLE_ID>
    <ARTICLE_NAME>Ball</ARTICLE_NAME>
  </ARTICLE>
  <QUANTITY>
    <CHARGED SIGN="-" Q_UNIT="each" Q_UNIT_UNECE_CODE="EA">6</CHARGED>
  </QUANTITY>
  <PRICE_PER_UNIT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">18.33</AMOUNT>
  </PRICE_PER_UNIT>
  <PRICE_PER_UNIT_NET>
    <AMOUNT SIGN="+" VAT="EXCLUDED">18.33</AMOUNT>
  </PRICE_PER_UNIT_NET>
  <ROW_TOTAL>
    <AMOUNT SIGN="-" VAT="EXCLUDED">109.98</AMOUNT>
  </ROW_TOTAL>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</ROW>

```

Description	Quantity Unit	Price per Unit VAT 0	VAT %	Total VAT 0
1 Ball 123	-6 each	18,33	24 S	-109,98
Net Value of Price per Item VAT 0: 18,33				

Example 3:

```

<ROW>
  <ROW_NUMBER>5</ROW_NUMBER>
  <ARTICLE>
    <ARTICLE_NAME>Operating costs</ARTICLE_NAME>
  </ARTICLE>
  <QUANTITY>
    <CHARGED SIGN="+" Q_UNIT="month" Q_UNIT_UNECE_CODE="MO">1</CHARGED>
  </QUANTITY>
  <PRICE_PER_UNIT PR_QTY="12" PR_UNIT="month" PR_UNIT_UNECE_CODE="MO">
    <AMOUNT SIGN="+" VAT="EXCLUDED">441.00</AMOUNT>
  </PRICE_PER_UNIT>
  <PRICE_PER_UNIT_NET>
    <AMOUNT SIGN="+" VAT="EXCLUDED">441.00</AMOUNT>
  </PRICE_PER_UNIT_NET>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">36.75</AMOUNT>
  </ROW_TOTAL>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</ROW>

```

4.8.3 Row prices and row totals

On item level unit price is presented in element PRICE_PER_UNIT. EU Norm required discounted price per unit data shall be presented in PRICE_PER_UNIT_NET-element. Discount from unit price can be presented using DISCOUNT_FROM_PRICE_PER_UNIT-element.

ROW_AMOUNT/AMOUNT element on item level presents row's gross value.
ROW_TOTAL/AMOUNT element presents row's payable sum (net value).

Each row sum has attributes VAT and SIGN in order to tell whether or not tax is included and if sum is positive or negative.

Example:

```
<QUANTITY>
  <CHARGED SIGN="+" Q_UNIT="each" Q_UNIT_UNECE_CODE="EA">25</CHARGED>
</QUANTITY>
<PRICE_PER_UNIT PR_QTY="1" PR_UNIT="each" PR_UNIT_UNECE_CODE="EA">
  <AMOUNT SIGN="+" VAT="EXCLUDED">9.50</AMOUNT>
</PRICE_PER_UNIT>
<DISCOUNT_FROM_PRICE_PER_UNIT>
  <AMOUNT SIGN="+" VAT="EXCLUDED">1.00</AMOUNT>
</DISCOUNT_FROM_PRICE_PER_UNIT>
<PRICE_PER_UNIT_NET>
  <AMOUNT SIGN="+" VAT="EXCLUDED">8.50</AMOUNT>
</PRICE_PER_UNIT_NET>
<DISCOUNT TYPE="95">
  <DISCOUNT_NAME>Discount</DISCOUNT_NAME>
  <DISCOUNT_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">25.00</AMOUNT>
  </DISCOUNT_AMOUNT>
</DISCOUNT>
<ROW_TOTAL>
  <AMOUNT SIGN="+" VAT="EXCLUDED">212.50</AMOUNT>
</ROW_TOTAL>
```

4.8.4 Discounts in row

It is possible to classify discounts in row level using optional TYPE attribute. If TYPE attribute is not used then discount will be regarded as normal discount type. Especially when receiver request discount classification it is recommended to use TYPE attribute.

Example 1:

```
<DISCOUNT>
  <PER_CENT>5.00</PER_CENT>
</DISCOUNT>
<DISCOUNT>
  <PER_CENT>2.00</PER_CENT>
</DISCOUNT>
```

Example 2:

```
<DISCOUNT TYPE="95">  
  <DISCOUNT_NAME>Discount</DISCOUNT_NAME>  
  <PER_CENT>2.00</PER_CENT>  
  <DISCOUNT_AMOUNT>  
    <AMOUNT SIGN="+" VAT="EXCLUDED">225.00</AMOUNT>  
  </DISCOUNT_AMOUNT>  
</DISCOUNT>
```

SUMMARY-structure has same kind of DISCOUNT-structure. However, discounts have to be presented in Invoice or row levels. Possible invoice level cash discount should be presented always only in HEADER/CASH_DISCOUNT -structure.

4.8.5 Row-specific subtraction ROW_CHARGE

For row-specific subtractions a ROW_CHARGE element structure is introduced in the ROW structure. EU Norm data model recognize only row level charges and allowances.

Example 1:

```
<ROW_CHARGE TYPE="TAC">  
  <CHARGE_NAME>Additional testing</CHARGE_NAME>  
  <CHARGE_AMOUNT>  
    <AMOUNT SIGN="+" VAT="EXCLUDED">12.00</AMOUNT>  
  </CHARGE_AMOUNT>  
</ROW_CHARGE>
```

Example 2:

```
<ROW_CHARGE TYPE="SH">  
  <CHARGE_NAME>Special handling</CHARGE_NAME>  
  <CHARGE_AMOUNT>  
    <AMOUNT SIGN="+" VAT="EXCLUDED">150.00</AMOUNT>  
  </CHARGE_AMOUNT>  
</ROW_CHARGE>
```

4.8.6 Grouping of invoice rows using the ROW_TYPE and ROW_ID attributes

The ROW element consists of optional attributes ROW_TYPE and ROW_ID, which are used for example in joint invoices, with combination invoices or situations, when subtotal information is needed. The ROW_TYPE attribute indicates the row type, which may be MAIN (= header row), SPECIFICATION (= specification row) or SUBTOTAL (= subtotal row). Additionally ROW_TYPE -attribute may have value INFO (=informative row). Row which have @ROW_TYPE="INFO"-attribute sums are not calculated into invoice level sums.

ROW_ID is used for grouping the rows, and it is closely connected to the ROW_TYPE attribute. On a normal sales invoice, the ROW_TYPE and ROW_ID attributes need not be used. But if invoice include subtotals, those have to tell with ROW_TYPE SUBTOTAL.

When calculating sums from rows having @ROW_TYPE="SPECIFICATION" (ROW_TOTAL/AMOUNT elements including tax) result should be same as present in SUMMARY/INVOICE_TOTAL/AMOUNT including tax. If SUMMARY structure includes freight, billing charge etc. information then row level calculated sum should be same as presented in SUMMARY/ROWS_TOTAL/AMOUNT according to values in VAT-attribute.

```

<ROW ROW_TYPE="MAIN" ROW_ID="1">                                1st header row of ROW_ID 1
...
</ROW>
<ROW ROW_TYPE="SPECIFICATION" ROW_ID="1">                       1st specification row of ROW_ID 1
...
</ROW>
<ROW ROW_TYPE="SPECIFICATION" ROW_ID="1">                       2nd specification row of ROW_ID 1
...
</ROW>
<ROW ROW_TYPE="SUBTOTAL" ROW_ID="1">                            Subtotal (ROW_ID 1 total), can exist more times
...
</ROW>
<ROW ROW_TYPE="MAIN" ROW_ID="2">                                2nd header row of ROW_ID 2
...
</ROW>
<ROW ROW_TYPE="SPECIFICATION" ROW_ID="2">                       1st specification row of ROW_ID 2
...
</ROW>
<ROW ROW_TYPE="SPECIFICATION" ROW_ID="2">                       2nd specification row of ROW_ID 2
...
</ROW>
<ROW ROW_TYPE="SUBTOTAL" ROW_ID="2">                            Subtotal (ROW_ID 2 total)
...
</ROW>

```

Example 1:

Description	Quantity Unit	Price per Unit VAT 0	Price per Unit Incl. VAT	VAT %	VAT	Total		
						VAT 0	Incl. VAT	
Delivery 123								
Delivery Date: 12.02.2018								
Delivery Note: 123								
1 Machine 0001	1.00 each	100,00	124,00	24,00	24,00	100,00	124,00	
Delivery Date: 12.02.2018								
Delivery Note: 123								
2 Filter 0001A	1.00 each	10,00	12,40	24,00	2,40	10,00	12,40	
Delivery Date: 12.02.2018								
Delivery Note: 123								
Total						28,40	110,00	138,40
Delivery 222								
Delivery Date: 16.02.2018								
Delivery Note: 222								
3 Accessory pack 0002	1.00 each	20,00	24,80	24,00	4,80	20,00	24,80	
Delivery Date: 16.02.2018								
Delivery Note: 222								
Total						4,80	20,00	24,80
Total deliveries					31,20	130,00	161,20	


```

<ROWS>
  <ROW ROW_TYPE="MAIN" ROW_ID="1">
    <ARTICLE>
      <ARTICLE_NAME>Delivery 123</ARTICLE_NAME>
      <DELIVERY_DATE>
        <DATE>
          <DAY>12</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </DELIVERY_DATE>
    </ARTICLE>
    <NOTE_NUMBER>123</NOTE_NUMBER>
  </ROW>
  <ROW ROW_TYPE="SPECIFICATION" ROW_ID="1">
    <ROW_NUMBER>1</ROW_NUMBER>
    <ARTICLE>
      <ARTICLE_ID>0001</ARTICLE_ID>
      <ARTICLE_NAME>Machine</ARTICLE_NAME>
      <DELIVERY_DATE>
        <DATE>
          <DAY>12</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </DELIVERY_DATE>
    </ARTICLE>
    <QUANTITY>
      <CHARGED Q_UNIT="each" Q_UNIT_UNECE_CODE="EA">1.00</CHARGED>
    </QUANTITY>
    <NOTE_NUMBER>123</NOTE_NUMBER>
    <PRICE_PER_UNIT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">100.00</AMOUNT>
      <AMOUNT SIGN="+" VAT="INCLUDED">124.00</AMOUNT>
    </PRICE_PER_UNIT>
    <ROW_TOTAL>
      <AMOUNT SIGN="+" VAT="EXCLUDED">100.00</AMOUNT>
      <AMOUNT SIGN="+" VAT="INCLUDED">124.00</AMOUNT>
    </ROW_TOTAL>
    <VAT>
      <RATE>24.00</RATE>
      <VAT_AMOUNT>
        <AMOUNT SIGN="+">24.00</AMOUNT>
      </VAT_AMOUNT>
    </VAT>
  </ROW>
  <ROW ROW_TYPE="SPECIFICATION" ROW_ID="1">
    <ROW_NUMBER>2</ROW_NUMBER>
    <ARTICLE>
      <ARTICLE_ID>0001A</ARTICLE_ID>
      <ARTICLE_NAME>Filter</ARTICLE_NAME>
      <DELIVERY_DATE>
        <DATE>
          <DAY>12</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </DELIVERY_DATE>
    </ARTICLE>
    <QUANTITY>
      <CHARGED Q_UNIT="each" Q_UNIT_UNECE_CODE="EA">1.00</CHARGED>
  
```

```
</QUANTITY>
<NOTE_NUMBER>123</NOTE_NUMBER>
<PRICE_PER_UNIT>
  <AMOUNT SIGN="+" VAT="EXCLUDED">10.00</AMOUNT>
  <AMOUNT SIGN="+" VAT="INCLUDED">12.40</AMOUNT>
</PRICE_PER_UNIT>
<ROW_TOTAL>
  <AMOUNT SIGN="+" VAT="EXCLUDED">10.00</AMOUNT>
  <AMOUNT SIGN="+" VAT="INCLUDED">12.40</AMOUNT>
</ROW_TOTAL>
<VAT>
  <RATE>24.00</RATE>
  <VAT_AMOUNT>
    <AMOUNT SIGN="+">2.40</AMOUNT>
  </VAT_AMOUNT>
</VAT>
</ROW>
<ROW ROW_TYPE="SUBTOTAL" ROW_ID="1">
  <ARTICLE>
    <ARTICLE_NAME>Total</ARTICLE_NAME>
  </ARTICLE>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">110.00</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">136.40</AMOUNT>
  </ROW_TOTAL>
  <VAT>
    <VAT_AMOUNT>
      <AMOUNT SIGN="+">26.40</AMOUNT>
    </VAT_AMOUNT>
  </VAT>
</ROW>
<ROW ROW_TYPE="MAIN" ROW_ID="2">
  <ARTICLE>
    <ARTICLE_NAME>Delivery 222</ARTICLE_NAME>
    <DELIVERY_DATE>
      <DATE>
        <DAY>16</DAY>
        <MONTH>02</MONTH>
        <CENTURY>20</CENTURY>
        <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
      </DATE>
    </DELIVERY_DATE>
  </ARTICLE>
  <NOTE_NUMBER>222</NOTE_NUMBER>
</ROW>
<ROW ROW_TYPE="SPECIFICATION" ROW_ID="2">
  <ROW_NUMBER>3</ROW_NUMBER>
  <ARTICLE>
    <ARTICLE_ID>0002</ARTICLE_ID>
    <ARTICLE_NAME>Accessory pack</ARTICLE_NAME>
    <DELIVERY_DATE>
      <DATE>
        <DAY>16</DAY>
        <MONTH>02</MONTH>
        <CENTURY>20</CENTURY>
        <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
      </DATE>
    </DELIVERY_DATE>
  </ARTICLE>
  <QUANTITY>
    <CHARGED Q_UNIT="each" Q_UNIT_UNECE_CODE="EA">1.00</CHARGED>
  </QUANTITY>
  <NOTE_NUMBER>222</NOTE_NUMBER>
  <PRICE_PER_UNIT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">20.00</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">24.80</AMOUNT>
```

```

</PRICE_PER_UNIT>
<ROW_TOTAL>
  <AMOUNT SIGN="+" VAT="EXCLUDED">20.00</AMOUNT>
  <AMOUNT SIGN="+" VAT="INCLUDED">24.80</AMOUNT>
</ROW_TOTAL>
<VAT>
  <RATE>24.00</RATE>
  <VAT_AMOUNT>
    <AMOUNT SIGN="+">4.80</AMOUNT>
  </VAT_AMOUNT>
</VAT>
</ROW>
<ROW ROW_TYPE="SUBTOTAL" ROW_ID="2">
  <ARTICLE>
    <ARTICLE_NAME>Total</ARTICLE_NAME>
  </ARTICLE>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">20.00</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">24.80</AMOUNT>
  </ROW_TOTAL>
  <VAT>
    <VAT_AMOUNT>
      <AMOUNT SIGN="+">4.80</AMOUNT>
    </VAT_AMOUNT>
  </VAT>
</ROW>
<ROW ROW_TYPE="INFO" ROW_ID="2">
  <ARTICLE>
    <ARTICLE_NAME>Total deliveries </ARTICLE_NAME>
  </ARTICLE>
  <ROW_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">130.00</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">161.20</AMOUNT>
  </ROW_TOTAL>
  <VAT>
    <VAT_AMOUNT>
      <AMOUNT SIGN="+">31.20</AMOUNT>
    </VAT_AMOUNT>
  </VAT>
</ROW>
</ROWS>

```

4.9 Summary level information

4.9.1 Invoice total, INVOICE_TOTAL

Invoice total excluding taxes is presented in element INVOICE_TOTAL/AMOUNT using value "EXCLUDED" in attribute VAT. Invoice total including taxes is presented in element INVOICE_TOTAL/AMOUNT using value "INCLUDED" in attribute VAT.

In credit note at least INVOICE_TOTAL is negative having value "-" in attribute SIGN. This enables receiving systems to handle invoice correctly.

Example:

```

<INVOICE_TOTAL>
  <AMOUNT SIGN="+" VAT="INCLUDED">50752.00</AMOUNT>
  <AMOUNT SIGN="+" VAT="EXCLUDED">41600.00</AMOUNT>
</INVOICE_TOTAL>

```

When invoice contains invoice level allowances and charges then row level calculated total shall be presented in SUMMARY/ROWS_TOTAL-element. EU Norm requires this data to be presented in the invoice. When invoice contains advance payments then invoice total before advance payments is presented in SUMMARY/INVOICE_TOTAL_WITHOUT_ADVANCE_PAYMENT –structure.

Example:

```
<SUMMARY>
  <ROWS_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">286.63</AMOUNT>
  </ROWS_TOTAL>
  <INVOICE_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">272.97</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">334.88</AMOUNT>
  </INVOICE_TOTAL>
  <VAT_SUMMARY VAT_TYPE="S">
    <RATE>24</RATE>
    <ACCORDING>
      <AMOUNT SIGN="+" VAT="EXCLUDED">257.97</AMOUNT>
    </ACCORDING>
    <VAT_RATE_TOTAL>
      <AMOUNT SIGN="+">61.91</AMOUNT>
    </VAT_RATE_TOTAL>
  </VAT_SUMMARY>
  <VAT_SUMMARY VAT_TYPE="S">
    <RATE>0</RATE>
    <ACCORDING>
      <AMOUNT SIGN="+" VAT="EXCLUDED">15.00</AMOUNT>
    </ACCORDING>
    <VAT_RATE_TOTAL>
      <AMOUNT SIGN="+">0</AMOUNT>
    </VAT_RATE_TOTAL>
  </VAT_SUMMARY>
  <VAT_TOTAL>
    <AMOUNT SIGN="+">61.91</AMOUNT>
  </VAT_TOTAL>
  <DISCOUNT TYPE="95">
    <DISCOUNT_NAME>Discount</DISCOUNT_NAME>
    <PER_CENT>10</PER_CENT>
    <DISCOUNT_FROM_AMOUNT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">286.63</AMOUNT>
    </DISCOUNT_FROM_AMOUNT>
    <DISCOUNT_AMOUNT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">28.66</AMOUNT>
    </DISCOUNT_AMOUNT>
    <VAT VAT_TYPE="S">
      <RATE>24</RATE>
    </VAT>
  </DISCOUNT>
  <DISCOUNTS_TOTAL>
    <AMOUNT SIGN="-" VAT="EXCLUDED">28.66</AMOUNT>
  </DISCOUNTS_TOTAL>
  <CHARGES TYPE="FC">
    <CHARGE_NAME>Freight</CHARGE_NAME>
    <CHARGE_AMOUNT>
      <AMOUNT SIGN="+" VAT="EXCLUDED">15.00</AMOUNT>
    </CHARGE_AMOUNT>
    <VAT VAT_TYPE="S">
      <RATE>0</RATE>
    </VAT>
  </CHARGES>
</SUMMARY>
```

```

    </VAT>
  </CHARGES>
  <CHARGES_TOTAL>
    <AMOUNT SIGN="+" VAT="EXCLUDED">15.00</AMOUNT>
  </CHARGES_TOTAL>
  <INVOICE_TOTAL_WITHOUT_ADVANCE_PAYMENT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">272.97</AMOUNT>
    <AMOUNT SIGN="+" VAT="INCLUDED">334.88</AMOUNT>
  </INVOICE_TOTAL_WITHOUT_ADVANCE_PAYMENT>
  <ADVANCE_PAYMENT>
    <AMOUNT SIGN="+" VAT="INCLUDED">0.00</AMOUNT>
  </ADVANCE_PAYMENT>
</SUMMARY>

```

	VAT 0	Incl. VAT
Rows Total	286,63	EUR
Invoice discounts total	-28,66	EUR
Invoice charges total	15,00	EUR
Invoice amount before advance payments	272,97	334,88 EUR
Advance Payment		0,00 EUR
TOTAL	272,97	334,88 EUR
VAT	61,91	EUR
PAYABLE	334,88	334,88 EUR

4.9.2 Invoice level charges

Invoice level charges are presented in SUMMARY/CHARGES-structure. Invoice charges total shall be presented in SUMMARY/CHARGES_TOTAL-structure.

Example:

```

<CHARGES TYPE="ABL">
  <CHARGE_NAME>Additional packing</CHARGE_NAME>
  <PER_CENT>10</PER_CENT>
  <CHARGE_FROM_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">1500.00</AMOUNT>
  </CHARGE_FROM_AMOUNT>
  <CHARGE_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">150.00</AMOUNT>
  </CHARGE_AMOUNT>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</CHARGES>
<CHARGES_TOTAL>
  <AMOUNT SIGN="+" VAT="EXCLUDED">150.00</AMOUNT>
</CHARGES_TOTAL>

```

4.9.3 Invoice level allowances

Invoice level allowances except cash discount shall be presented in SUMMARY/DISCOUNT-structure. Invoice allowance totals shall be presented in SUMMARY/DISCOUNTS_TOTAL-structure.

Example:

```
<DISCOUNT TYPE="64">
  <DISCOUNT_NAME>Special agreement</DISCOUNT_NAME>
  <PER_CENT>10</PER_CENT>
  <DISCOUNT_FROM_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">1500.00</AMOUNT>
  </DISCOUNT_FROM_AMOUNT>
  <DISCOUNT_AMOUNT>
    <AMOUNT SIGN="+" VAT="EXCLUDED">150.00</AMOUNT>
  </DISCOUNT_AMOUNT>
  <VAT VAT_TYPE="S">
    <RATE>24</RATE>
  </VAT>
</DISCOUNT>
<DISCOUNTS_TOTAL>
  <AMOUNT SIGN="+" VAT="EXCLUDED">150.00</AMOUNT>
</DISCOUNTS_TOTAL>
```

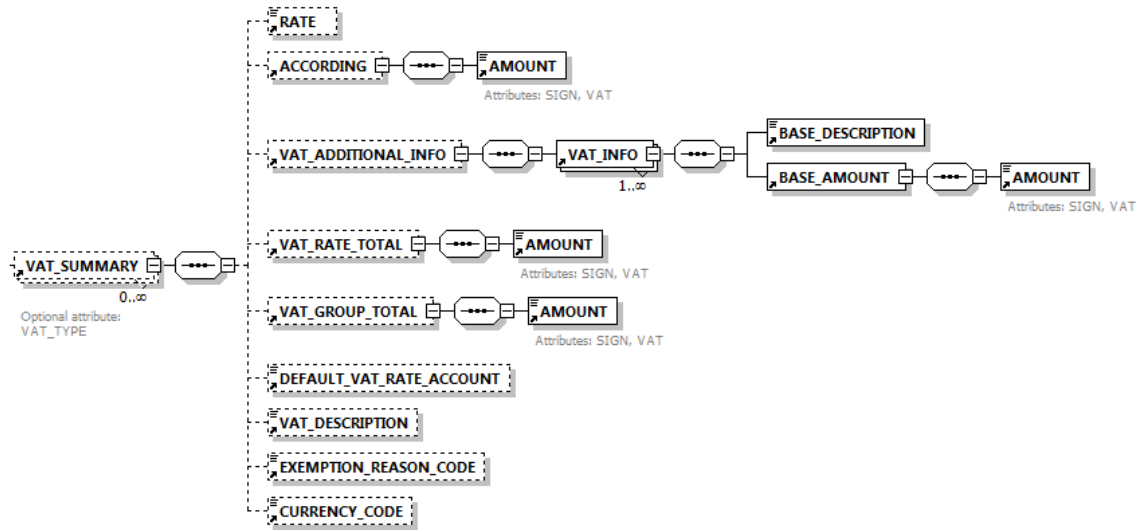
4.9.4 Reference to previous payment

Invoice message may have information concerning previous invoice number, date and amount in SUMMARY/PRECEDING_INVOICE_INFORMATION-structure.

Example:

```
<PRECEDING_INVOICE_INFORMATION>
  <PRECEDING_INVOICE_ID>109</PRECEDING_INVOICE_ID>
  <PRECEDING_INVOICE_DATE>
    <DATE>
      <DAY>10</DAY>
      <MONTH>03</MONTH>
      <CENTURY>20</CENTURY>
      <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
    </DATE>
  </PRECEDING_INVOICE_DATE>
  <PRECEDING_INVOICE_TOTAL>
    <AMOUNT SIGN="+" VAT="INCLUDED">4000.00</AMOUNT>
  </PRECEDING_INVOICE_TOTAL>
</PRECEDING_INVOICE_INFORMATION>
```

4.9.5 Value added tax information of invoice, SUMMARY/VAT_SUMMARY



VAT specification in VAT_SUMMARY –structure shall contain at least VAT percent, VAT basis amount and VAT amount. VAT_SUMMARY structure shall have occurrence for each VAT rate.

VAT percent shall be presented in VAT_SUMMARY/RATE-element. Even RATE-element is optional in the message specification we recommend to use it because in many other message formats or practices that element is mandatory. In case of reverse VAT Finnish tax authority instructs to leave out VAT percent from the structure.

VAT basis amount shall be presented in VAT_SUMMARY/ACCORDING/AMOUNT[@VAT='EXCLUDED']-element and VAT amount in VAT_RATE_TOTAL/AMOUNT-element.

In VAT_SUMMARY-structure VAT_TYPE attribute defines the VAT code.

In EU Norm VAT codes shall be from UN/EDIFACT:in codelist 5303, D16B, for example

Vat code	Description
S	Standard rate
Z	Zero rated goods
E	Exempt from tax
AE	VAT Reverse charge
K	VAT exempt for EEA intra-community supply of goods and services
G	Free export item, tax not charged
O	Service outside scope of tax
L	Canary Islands general indirect tax
M	Tax for production, services and importation in Ceuta and Melilla

Finnish tax authority instruct additionally to use few other VAT codes. Final instructions for these codes may come later.

AB	Exempt for resale
ZEG	Tax charged from goods bought from other EU countries
ZES	Tax charged from services bought from other EU countries

VAT_SUMMARY-structure element VAT_DESCRIPTION can be used to contain additional information concerning the VAT, for example reference to VAT legislation.

References to VAT legislation can be presented in following text elements

- Invoice level: HEADER/VAT_TEXT-element
- Row level: ROW/VAT/FREE_TEXT-element
- VAT specification: SUMMARY/VAT_SUMMARY/VAT_DESCRIPTION-element

CURRENCY_CODE-element contains VAT currency if it is different from invoice currency. VAT_SUMMARY/VAT_ADDITIONAL_INFO-structure can be used to define more precisely VAT code description.

When invoice or part of it belongs for reverse VAT then in TEAPPSXML-message this is specified using VAT code and/or VAT description text.

Example:

```
<VAT_SUMMARY VAT_TYPE="S">
  <RATE>10.00</RATE>
  <ACCORDING>
    <AMOUNT SIGN="+" VAT="EXCLUDED">35.86</AMOUNT>
  </ACCORDING>
  <VAT_ADDITIONAL_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Goods</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">35.04</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Delivery fees</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">0.82</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Damage handling fee</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">0.00</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
  </VAT_ADDITIONAL_INFO>
  <VAT_RATE_TOTAL>
    <AMOUNT SIGN="+">3.59</AMOUNT>
  </VAT_RATE_TOTAL>
</VAT_GROUP_TOTAL>
```



```

    <AMOUNT SIGN="+" VAT="INCLUDED">39.45</AMOUNT>
  </VAT_GROUP_TOTAL>
  <VAT_DESCRIPTION>Goods+Fees</VAT_DESCRIPTION>
  <CURRENCY_CODE>EUR</CURRENCY_CODE>
</VAT_SUMMARY>
<VAT_SUMMARY VAT_TYPE="S">
  <RATE>24.00</RATE>
  <ACCORDING>
    <AMOUNT SIGN="+" VAT="EXCLUDED">7.81</AMOUNT>
  </ACCORDING>
  <VAT_ADDITIONAL_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Goods</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">0.00</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Delivery fees</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">7.73</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
    <VAT_INFO>
      <BASE_DESCRIPTION>Damage handling fee</BASE_DESCRIPTION>
      <BASE_AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">0.08</AMOUNT>
      </BASE_AMOUNT>
    </VAT_INFO>
  </VAT_ADDITIONAL_INFO>
  <VAT_RATE_TOTAL>
    <AMOUNT SIGN="+">1.87</AMOUNT>
  </VAT_RATE_TOTAL>
  <VAT_GROUP_TOTAL>
    <AMOUNT SIGN="+" VAT="INCLUDED">9.68</AMOUNT>
  </VAT_GROUP_TOTAL>
  <VAT_DESCRIPTION>Goods+Fees</VAT_DESCRIPTION>
  <CURRENCY_CODE>EUR</CURRENCY_CODE>
</VAT_SUMMARY>

```

In invoice layout previous structure will be presented as follows:

Vat specification	According		VAT		Total
S Goods+Fees	35,86	10.00 %	3,59	EUR	39,45
Goods	35,04				
Delivery fees	0,82				
Damage handling fee	0,00				
S Goods+Fees	7,81	24.00 %	1,87	EUR	9,68
Goods	0,00				
Delivery fees	7,73				
Damage handling fee	0,08				
			VAT Total		61,91

Next possible example contains vat codes with VAT reverse charge.

ROWS					
ROW	ARTICLE	QUANTITY	PRICE_PER_UNIT	ROW_TOTAL	VAT
1					VAT_TYPE S RATE 24.0 VAT_AMOUNT AMOUNT SIGN + Rbc Text 24.00
2					VAT_TYPE Z RATE 0.0 VAT_AMOUNT AMOUNT SIGN + Rbc Text 0.00
3					VAT_TYPE AE FREE_TEXT AVL 8 c 5
SUMMARY					
INVOICE_TOTAL					
VAT_SUMMARY (3)					
VAT_TYPE	RATE	ACCORDING	VAT_RATE_TOTAL	VAT_GROUP_TOTAL	VAT_DESCRIPTION
1 S	24.0	ACCORDING	VAT_RATE_TOTAL AMOUNT SIGN + VAT EXCLUDED Rbc Text 100.00	VAT_GROUP_TOTAL AMOUNT SIGN + VAT INCLUDED Rbc Text 124.00	Mynnin alv 24%
2 Z	0.0	ACCORDING	VAT_RATE_TOTAL AMOUNT SIGN + VAT EXCLUDED Rbc Text 10.00	VAT_GROUP_TOTAL AMOUNT SIGN + VAT INCLUDED Rbc Text 10.00	Veroton myynti
3 AE		ACCORDING	VAT_RATE_TOTAL AMOUNT SIGN + VAT EXCLUDED Rbc Text 40.00	VAT_GROUP_TOTAL AMOUNT SIGN + VAT INCLUDED Rbc Text 40.00	AVL 8 c
VAT_TOTAL					
AMOUNT			SIGN +	Rbc Text 24.00	

4.9.6 Invoice VAT

Whole vat for total invoice should be presented in SUMMARY/VAT_TOTAL/AMOUNT element. EU Norm data model requires both vat specification details per each vat rate and vat total in invoice.

5 Miscellaneous

5.1 Peppol infrastructure, things to remark in invoice contents

PEPPOL infrastructure shall take in use new version PEPPOL BIS v3, which is compliant with EU Norm. In PEPPOL infrastructure invoices shall be validated for EU Norm compliance before sending. When receiving customers use PEPPOL infrastructure to receive their invoices seller shall validate their sales invoices to be compliant with EU Norm.

In PEPPOL infrastructure one shall notice at following:

- seller's and buyer's official organization identifier should be in correct format
- invoice image is not allowed to be sent as an attachment
- credit invoice shall always have reference to credited earlier invoice; if credit invoice don't reference to any previous invoice then invoice shall be sent as normal debit invoice and use minus signs to present crediting
- in invoice level it is allowed to have only one occurrence of free text element
- invoice shall use EU Norm code sets
- VAT specification shall be aligned with EU Norm
- collection invoice is not supported

For the sake of clarity this is not a comprehensive list of all possible things to consider. Our aim is that invoice sender shall carefully check the invoice contents before sending so that delivery in PEPPOL infrastructure goes smoothly.

6 TEAPPSXML, simple basic example

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<INVOICE_CENTER>
  <TRANSPORT_FRAME>
    <TF_CODE>TF01</TF_CODE>
    <TIMESTAMP>20180201121750000</TIMESTAMP>
    <BATCH_ID>123</BATCH_ID>
    <CONTENT_RECEIVER>
      <RECEIVER_REF>TE003701011385IC</RECEIVER_REF>
      <INTERMEDIATOR>003701011385</INTERMEDIATOR>
      <CONTENT_REF>201801;123</CONTENT_REF>
    </CONTENT_RECEIVER>
    <SENDER>TE003798765430</SENDER>
    <INTERMEDIATOR>003701011385</INTERMEDIATOR>
    <SENDER_DOMAIN>Testi & Testi Oy</SENDER_DOMAIN>
    <FB_REQUEST>1</FB_REQUEST>
  </TRANSPORT_FRAME>
  <CONTENT_FRAME>
    <CF_CODE>CF01</CF_CODE>
    <NET_SERVICE_ID>TE003798765430</NET_SERVICE_ID>
    <INTERMEDIATOR>003701011385</INTERMEDIATOR>
    <SENDER_DOMAIN>Testi & Testi Oy</SENDER_DOMAIN>
    <BLOCK_ID>123</BLOCK_ID>
    <TIMESTAMP>20180201121750000</TIMESTAMP>
    <BLOCK_RULES>
      <TRANSACTION_TYPE>00</TRANSACTION_TYPE>
      <BLOCK_ACTION>00</BLOCK_ACTION>
      <BLOCK_FORMAT>TEAPPSXML</BLOCK_FORMAT>
    </BLOCK_RULES>
  </CONTENT_FRAME>
</INVOICE_CENTER>
```

```
<FORMAT_VERSION>3.0</FORMAT_VERSION>
<CHARACTER_SET>ISO-8859-1</CHARACTER_SET>
</BLOCK_RULES>
<INVOICES>
  <INVOICE>
    <HEADER>
      <INVOICE_ID>201801</INVOICE_ID>
      <PROCESS_CODE>00</PROCESS_CODE>
      <INVOICE_TYPE UNTDID_CODE="380">00</INVOICE_TYPE>
      <SPECIFICATION_ID>EN16931</SPECIFICATION_ID>
      <SUBJECT>LASKU</SUBJECT>
      <INVOICE_DATE>
        <DATE>
          <DAY>01</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </INVOICE_DATE>
      <DUE_DATE>
        <DATE>
          <DAY>21</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </DUE_DATE>
      <REMARK_TIME>7 pv</REMARK_TIME>
      <DELIVERY_DATE>
        <DATE>
          <DAY>01</DAY>
          <MONTH>02</MONTH>
          <CENTURY>20</CENTURY>
          <DECADE_AND_YEAR>18</DECADE_AND_YEAR>
        </DATE>
      </DELIVERY_DATE>
      <NOTE_NUMBER>986</NOTE_NUMBER>
      <TERMS_OF_PAYMENT>21 päivää netto</TERMS_OF_PAYMENT>
      <PAYMENT_OVERDUE_FINE>
        <FREE_TEXT>Viivästyskorko korkolain mukaan</FREE_TEXT>
      </PAYMENT_OVERDUE_FINE>
      <CURRENCY>
        <CODE>EUR</CODE>
      </CURRENCY>
      <ORDER_INFORMATION ORDER_TYPE="CO">
        <ORDER_NUMBER>PO_tilausnumero</ORDER_NUMBER>
        <ORDER_REFERENCE>ostotilauksen viite</ORDER_REFERENCE>
      </ORDER_INFORMATION>
      <CONTRACT_INFORMATION>
        <CONTRACT_NUMBER>Sopimusnumero</CONTRACT_NUMBER>
      </CONTRACT_INFORMATION>
      <PAYER_POSTING_GROUP_DEFAULTS>
        <POSTING_DEFAULT>
          <ACCOUNT_REFERENCE>Tiliöinti viite</ACCOUNT_REFERENCE>
        </POSTING_DEFAULT>
      </PAYER_POSTING_GROUP_DEFAULTS>
      <SECURITY_DETAILS>
        <SECRECY_CLASS>SC02</SECRECY_CLASS>
        <SECRECY_DESCRIPTION>Security code 02</SECRECY_DESCRIPTION>
      </SECURITY_DETAILS>
      <FREE_TEXT>Laskutason vapaamuotoiset..</FREE_TEXT>
      <FREE_TEXT>lisätiedot</FREE_TEXT>
```

```
</HEADER>
<PAYEE>
  <CUSTOMER_INFORMATION>
    <CUSTOMER_NAME>Testi &amp; Testi Oy</CUSTOMER_NAME>
    <ADDRESS>
      <STREET_ADDRESS1>Testikatu 99</STREET_ADDRESS1>
      <POSTAL_CODE>00100</POSTAL_CODE>
      <POST_OFFICE>Helsinki</POST_OFFICE>
      <COUNTRY>Finland</COUNTRY>
      <COUNTRY_CODE>FI</COUNTRY_CODE>
    </ADDRESS>
    <VAT_NUMBER>FI98765430</VAT_NUMBER>
    <ORGANIZATION_NUMBER>9876543-0</ORGANIZATION_NUMBER>
  </CUSTOMER_INFORMATION>
  <BANKS>
    <BANK_NAME>BANK1</BANK_NAME>
    <SWIFT_CODE>BANKFIHH</SWIFT_CODE>
    <IBAN_ACCOUNT_NUMBER>FI2757800750155448</IBAN_ACCOUNT_NUMBER>
  </BANKS>
  <BANKS>
    <BANK_NAME>BANK2</BANK_NAME>
    <SWIFT_CODE>BANKFIHH</SWIFT_CODE>
    <IBAN_ACCOUNT_NUMBER>FI2721221222212227</IBAN_ACCOUNT_NUMBER>
  </BANKS>
  <BANKS>
    <BANK_NAME>BANK3</BANK_NAME>
    <SWIFT_CODE>BANKFIHH</SWIFT_CODE>
    <IBAN_ACCOUNT_NUMBER>FI2781232323312334</IBAN_ACCOUNT_NUMBER>
  </BANKS>
  <NET_SERVICE_ID>TE003798765430</NET_SERVICE_ID>
  <INTERMEDIATOR>003701011385</INTERMEDIATOR>
  <EADDRESS_SCHEME_ID>ISO6523</EADDRESS_SCHEME_ID>
  <EADDRESS_SCHEME_ID_CODE>0037</EADDRESS_SCHEME_ID_CODE>
  <METHOD_OF_PAYMENT>SHA</METHOD_OF_PAYMENT>
  <PAYMENT_MEANS PAYMENT_MEANS_CODE="58">SEPA credit transfer</PAYMENT_MEANS>
  <DETAILS_OF_PAYMENT>
    <IPI_REFERENCE>RF471234567890</IPI_REFERENCE>
  </DETAILS_OF_PAYMENT>
</PAYEE>
<RECEIVER>
  <CUSTOMER_INFORMATION>
    <CUSTOMER_NAME>Vastaanottaja</CUSTOMER_NAME>
    <CUSTOMER_ID>427</CUSTOMER_ID>
    <ADDRESS>
      <STREET_ADDRESS1>Testikatu 4</STREET_ADDRESS1>
      <SUBDIVISION>Keskushallinto</SUBDIVISION>
      <POSTAL_CODE>00530</POSTAL_CODE>
      <POST_OFFICE>Helsinki</POST_OFFICE>
      <COUNTRY>Suomi</COUNTRY>
      <COUNTRY_CODE>FI</COUNTRY_CODE>
    </ADDRESS>
    <VAT_NUMBER>FI76543212</VAT_NUMBER>
    <ORGANIZATION_NUMBER>7654321-2</ORGANIZATION_NUMBER>
  </CUSTOMER_INFORMATION>
  <NET_SERVICE_ID>FI1212345612345678</NET_SERVICE_ID>
  <INTERMEDIATOR>BANKFIHH</INTERMEDIATOR>
  <EADDRESS_SCHEME_ID>ISO6523</EADDRESS_SCHEME_ID>
  <EADDRESS_SCHEME_ID_CODE>0021</EADDRESS_SCHEME_ID_CODE>
</RECEIVER>
<DELIVERY_PARTY>
  <CUSTOMER_INFORMATION>
    <CUSTOMER_NAME>Vastaanottaja</CUSTOMER_NAME>
```

TEAPPSXML v.3.0
Implementation Guide

15.10.2018

```
<ADDRESS>
  <STREET_ADDRESS1>Testikatu 4</STREET_ADDRESS1>
  <POSTAL_CODE>00530</POSTAL_CODE>
  <POST_OFFICE>Helsinki</POST_OFFICE>
  <COUNTRY>Suomi</COUNTRY>
  <COUNTRY_CODE>FI</COUNTRY_CODE>
</ADDRESS>
</CUSTOMER_INFORMATION>
</DELIVERY_PARTY>
<ROWS>
  <ROW>
    <ROW_NUMBER>1</ROW_NUMBER>
    <ARTICLE>
      <ARTICLE_ID>1234</ARTICLE_ID>
      <ARTICLE_NAME>Mallituote</ARTICLE_NAME>
    </ARTICLE>
    <QUANTITY>
      <CHARGED SIGN="+ " Q_UNIT="kpl" Q_UNIT_UNECE_CODE="EA">1</CHARGED>
    </QUANTITY>
    <ORDER_INFORMATION ORDER_TYPE="CO">
      <ORDER_POSITION>1</ORDER_POSITION>
    </ORDER_INFORMATION>
    <PRICE_PER_UNIT>
      <AMOUNT SIGN="+ " VAT="EXCLUDED">100.00</AMOUNT>
      <AMOUNT SIGN="+ " VAT="INCLUDED">124.00</AMOUNT>
    </PRICE_PER_UNIT>
    <PRICE_PER_UNIT_NET>
      <AMOUNT SIGN="+ " VAT="EXCLUDED">100.00</AMOUNT>
      <AMOUNT SIGN="+ " VAT="INCLUDED">124.00</AMOUNT>
    </PRICE_PER_UNIT_NET>
    <ROW_TOTAL>
      <AMOUNT SIGN="+ " VAT="EXCLUDED">100.00</AMOUNT>
      <AMOUNT SIGN="+ " VAT="INCLUDED">124.00</AMOUNT>
    </ROW_TOTAL>
    <VAT VAT_TYPE="S">
      <RATE>24</RATE>
      <VAT_AMOUNT>
        <AMOUNT SIGN="+ ">24.00</AMOUNT>
      </VAT_AMOUNT>
    </VAT>
    <DEFAULT_ROW_POSTING>
      <ACCOUNT_REFERENCE>123</ACCOUNT_REFERENCE>
    </DEFAULT_ROW_POSTING>
  </ROW>
  <ROW>
    <ROW_NUMBER>2</ROW_NUMBER>
    <ARTICLE>
      <ARTICLE_ID>1235</ARTICLE_ID>
      <ARTICLE_NAME>Paketti</ARTICLE_NAME>
    </ARTICLE>
    <QUANTITY>
      <CHARGED SIGN="+ " Q_UNIT="kpl" Q_UNIT_UNECE_CODE="EA">2</CHARGED>
    </QUANTITY>
    <ORDER_INFORMATION ORDER_TYPE="CO">
      <ORDER_POSITION>2</ORDER_POSITION>
    </ORDER_INFORMATION>
    <PRICE_PER_UNIT>
      <AMOUNT SIGN="+ " VAT="EXCLUDED">50.00</AMOUNT>
      <AMOUNT SIGN="+ " VAT="INCLUDED">55.00</AMOUNT>
    </PRICE_PER_UNIT>
    <PRICE_PER_UNIT_NET>
      <AMOUNT SIGN="+ " VAT="EXCLUDED">50.00</AMOUNT>
```

TEAPPSXML v.3.0
Implementation Guide

15.10.2018

```
        <AMOUNT SIGN="+" VAT="INCLUDED">55.00</AMOUNT>
    </PRICE_PER_UNIT_NET>
    <ROW_TOTAL>
        <AMOUNT SIGN="+" VAT="EXCLUDED">100.00</AMOUNT>
        <AMOUNT SIGN="+" VAT="INCLUDED">110.00</AMOUNT>
    </ROW_TOTAL>
    <VAT VAT_TYPE="S">
        <RATE>10</RATE>
        <VAT_AMOUNT>
            <AMOUNT SIGN="+">10.00</AMOUNT>
        </VAT_AMOUNT>
    </VAT>
    <DEFAULT_ROW_POSTING>
        <ACCOUNT_REFERENCE>123</ACCOUNT_REFERENCE>
    </DEFAULT_ROW_POSTING>
    <FREE_TEXT>+Paketointi sovitusti</FREE_TEXT>
</ROW>
</ROWS>
<SUMMARY>
    <ROWS_TOTAL>
        <AMOUNT SIGN="+" VAT="EXCLUDED">200.00</AMOUNT>
        <AMOUNT SIGN="+" VAT="INCLUDED">234.00</AMOUNT>
    </ROWS_TOTAL>
    <INVOICE_TOTAL>
        <AMOUNT SIGN="+" VAT="INCLUDED">234.00</AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">200.00</AMOUNT>
    </INVOICE_TOTAL>
    <VAT_SUMMARY VAT_TYPE="S">
        <RATE>24</RATE>
        <ACCORDING>
            <AMOUNT SIGN="+" VAT="EXCLUDED">100.00</AMOUNT>
        </ACCORDING>
        <VAT_RATE_TOTAL>
            <AMOUNT SIGN="+" VAT="EXCLUDED">24.00</AMOUNT>
        </VAT_RATE_TOTAL>
        <CURRENCY_CODE>EUR</CURRENCY_CODE>
    </VAT_SUMMARY>
    <VAT_SUMMARY VAT_TYPE="S">
        <RATE>10</RATE>
        <ACCORDING>
            <AMOUNT SIGN="+" VAT="EXCLUDED">100.00</AMOUNT>
        </ACCORDING>
        <VAT_RATE_TOTAL>
            <AMOUNT SIGN="+" VAT="EXCLUDED">10.00</AMOUNT>
        </VAT_RATE_TOTAL>
        <CURRENCY_CODE>EUR</CURRENCY_CODE>
    </VAT_SUMMARY>
    <VAT_TOTAL>
        <AMOUNT SIGN="+">34.00</AMOUNT>
    </VAT_TOTAL>
    <INVOICE_TOTAL_WITHOUT_ADVANCE_PAYMENT>
        <AMOUNT SIGN="+" VAT="INCLUDED">234.00</AMOUNT>
        <AMOUNT SIGN="+" VAT="EXCLUDED">200.00</AMOUNT>
    </INVOICE_TOTAL_WITHOUT_ADVANCE_PAYMENT>
    <FREE_TEXT>Käytähän maksaessasi viitenumeroa, kiitos</FREE_TEXT>
</SUMMARY>
</INVOICE>
</INVOICES>
</CONTENT_FRAME>
</INVOICE_CENTER>
```