

# eXtensible Business Documents

## Invoice/credit note

Version 1.1

Last updated, November 21<sup>th</sup> 2012

2010-05-10 - Version 1.0.

2010-09-02 - Version 1.1. Replaced “<country>” with “<countryCode>”.

2012-11-21 - Version 1.1. Added Entity references chapter.

# XBD invoice specification

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This document describes the xml-invoice called XBD invoice (eXtensible Business Documents) specified by Yggdra AS.

## Filename

The filename shall be: **Invoice x.xml** where x is the invoice number (invoiceId).

Only one invoice is allowed per file.

## General guidelines

- *Encoding*: Use **ISO-8859-1** or **UTF-8**
- *Decimal delimiter shall be*: **A period**
- Empty elements can be omitted.
- *Date format shall be*: yyyy-mm-dd

The xml-file shall start with a processing instruction, declaring the xml-version and the encoding.

Ex.: `<?xml version="1.0" encoding="ISO-8859-1"?>`

The root element shall be:

```
<xbd:invoice xmlns:xbd="http://ns.yggdra.no/xbd/" version="1.1">
```

The version number in this element corresponds to the version number of this document. The versions and the xbd namespace are managed by Yggdra AS. You may visit [www.yggdra.no/xbd](http://www.yggdra.no/xbd) to check for updated documentation, example files or other document types.

## Entity references

String elements (text) that contains special characters (& < > " ' ) must be coded by using the pre-declared entities:

&	=>	&amp;
<	=>	&lt;
>	=>	&gt;
"	=>	&quot;
'	=>	&apos;

For example, the name "AT & T" should be coded as `<name>AT &amp; T</name>`.

## Structure

All direct child elements of the root element, except the line elements shall only occur ones.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<xbd:invoice xmlns:xbd="http://ns.yggdra.no/xbd/" version="1.1">
  <!-- Invoice header -->
  <invoiceId>4774455787</invoiceId>
```

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```
...
..
.

<!-- Invoice lines -->
<line>
  <itemId>4554382</itemId>
  ...
  ..
</line>
<line>
  <itemId>4534534</itemId>
  ...
</line>
</xbd:invoice>
```

See the example file for more details.

## Calculated fields

Line amount are calculated by multiplying the quantity with the unit price after discount. The discount can be stated as an amount per unit or as a percent. The following formula shows the relation:

$$\text{Line amount} = \text{quantity} * (\text{unit price} - \text{discount amount} - ((\text{unit price} - \text{discount amount}) * \text{discount percent} / 100)).$$

Markup is used to state miscellaneous charges. Markup can be connected to an invoice line or to the header level of the invoice.

Sum markup amount = the sum of all markup amounts (from lines and heading).

Sum VAT amount = sum of VAT amount (from lines and markup).

Invoice amount = sum line amount + sum markup amount + sum VAT amount + round off

## Simple Data types

Type	Description	Examples
<b>str</b>	Dynamic string of unlimited length.	<code>&lt;note&gt;This is a note...&lt;/note&gt;</code>
<b>str 3</b>	String with a maximum of 3 characters.	<code>&lt;currencyCode&gt;NOK&lt;/currencyCode&gt;</code>
<b>date</b>	Any date. Format: yyyy-mm-dd	<code>&lt;invoiceDate&gt;2010-04-23&lt;/invoiceDate&gt;</code>
<b>number</b>	Any number. Use period as a decimal sign. Use a minus sign directly in front of the number to indicate a negative number. Do not use thousand separators.	<code>&lt;invoiceAmount&gt;9709.94&lt;/invoiceAmount&gt;</code> <code>&lt;invoiceAmount&gt;-9709.94&lt;/invoiceAmount&gt;</code> <code>&lt;quantity&gt;1&lt;/quantity&gt;</code> <code>&lt;quantity&gt;0.5&lt;/quantity&gt;</code>

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## Complex data types

Type	Description	Examples
<b>markup</b>	An XML element which can contain the following elements: <ul style="list-style-type: none"><li>• description</li><li>• markupAmount</li><li>• vatPercent</li><li>• vatAmount</li></ul>	<pre>&lt;freight&gt; &lt;description&gt;Frakt&lt;/description&gt; &lt; markupAmount &gt;10.00&lt;/markupAmount &gt; &lt;vatPercent&gt;25&lt;/vatPercent&gt; &lt;vatAmount&gt;2.50&lt;/vatAmount&gt; &lt;/freight&gt;</pre>
<b>organization</b>	An XML element which can contain the following elements: <ul style="list-style-type: none"><li>• vatNum</li><li>• gln</li><li>• name</li><li>• street</li><li>• zipCode</li><li>• city</li><li>• countryCode</li></ul>	<pre>&lt;issuer&gt; &lt;vatNum&gt;NO538546587MVA&lt;/vatNum&gt; &lt;gln&gt;8003507990021&lt;/gln&gt; &lt;name&gt;Acme Co&lt;/name&gt; &lt;street&gt;Gata 4&lt;/street&gt; &lt;zipCode&gt;0624&lt;/zipCode&gt; &lt;city&gt;OSLO&lt;/city&gt; &lt;countryCode&gt;NO&lt;/countryCode&gt; &lt;/issuer&gt;</pre>
<b>invoiceLine</b>	An XML element which can contain the following elements: <ul style="list-style-type: none"><li>• itemId</li><li>• description</li><li>• unitCode</li><li>• quantity</li><li>• unitPrice</li><li>• discountAmount</li><li>• discountPercent</li><li>• lineAmount</li><li>• vatPercent</li><li>• vatAmount</li><li>• environmentalTax</li><li>• freight</li><li>• note</li></ul>	<pre>&lt;line&gt; &lt;itemId&gt;4554380&lt;/itemId&gt; &lt;description&gt;Oppvaskmaskin&lt;/description&gt; &lt;unitCode&gt;EA&lt;/unitCode&gt; &lt;quantity&gt;1&lt;/quantity&gt; &lt;unitPrice&gt;6000.00&lt;/unitPrice&gt; &lt;discountAmount&gt;100.00&lt;/discountAmount&gt; &lt;discountPercent/&gt; &lt;lineAmount&gt;5900.00 &lt;/lineAmount&gt; &lt;vatPercent&gt;25&lt;/vatPercent&gt; &lt;vatAmount&gt;1475.00&lt;/vatAmount&gt; &lt;environmentalTax/&gt; &lt;freight&gt; &lt;description&gt;Frakt&lt;/description&gt; &lt;markupAmount&gt;1000.00&lt;/markupAmount&gt; &lt;vatPercent&gt;25&lt;/vatPercent&gt; &lt;vatAmount&gt;250.00&lt;/vatAmount&gt; &lt;/freight&gt; &lt;note/&gt; &lt;/line&gt;</pre>

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### Field description

Field	Type	Mandatory	Description
cashDisc	str 30	No	A description of the cash discount.
city	str 60	Yes	The name of the city. F. ex. OSLO
countryCode	str 2	Yes	Country code according to the ISO standard. F. ex. NO for Norway or DK for Denmark.
currencyCode	str 3	Yes	The currency code f. ex. NOK.
delivery	organization	Yes	Identifies the receiver of the goods.
deliveryDate	date	Yes	The date of the delivery.
deliveryRef	str 30	No	A reference to the receiver of the goods.
deliveryTerm	str 30	No	The terms of delivery.
description	str 30	Yes	A description of the invoice line or markup.
discountAmount	number	No	Used to specify discount as an amount per unit.
discountPercent	number	No	Used to specify discount in percent.
dueDate	date	Yes	The due date.
environmentalTax	markup	No	Used to specify environmental tax markup.
freight	markup	No	Used to specify freight as a markup.
gln	str 13	Yes	The organizations Global Location Number
invoiceAmount	number	Yes	The total invoice amount including all markup and taxes.
invoiceDate	date	Yes	The invoice date.
invoiceId	str 20	Yes	The invoice number.
issuer	organization	Yes	The issuer of the invoice.
itemId	str 20	Yes	Identification code of an item.
line	invoiceLine	Yes	An invoice line.
lineAmount	number	Yes	Line amount are calculated by multiplying the quantity with the unit price after discount.
markupAmount	number	Yes	A markup amount.
miscCharges	markup	No	Miscellaneous charges.
name	str 30	Yes	The organizations name.
note	str	No	A note connected to a line or to the header.
packingSlipId	str 30	Yes	Identification of the packing slip(s) connected to the invoice (separated by a comma). F. ex. 1233234, 1233250
paymentId	str 30	No	Payment identification used for the payment of the invoice.
paymentTerm	str 30	No	The terms of payment.
purchaseId	str 20	Yes	The receivers purchase number. This number comes originally from the

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			purchasers order file.
quantity	number	Yes	The invoiced quantity.
receiver	organization	Yes	Identifies the receiver of the goods.
roundOff	number	No	Used to round off the invoice amount.
street	str 250	No	The street address of the organization.
sumLineAmount	number	Yes	A sum of all lineAmount fields.
sumMarkupAmount	number	Yes	A sum of all markupAmount fields.
sumVatAmount	number	Yes	A sum of all vatAmount fields.
unitCode	str 2	Yes	Unit code according to the DoD-standard. Use EA for each. PR for pair. MR for meter.
unitPrice	number	Yes	The price per unit.
vatAmount	number	Yes	The VAT amount.
vatNum	str 20	No	The organizations VAT Number.
vatPercent	number	Yes	The VAT percent of the invoice line or the markup.
zipCode	str 10	Yes	The organizations zip code.

### Credit notes

The only difference between an invoice and a credit note is that some fields are negative. Just add a minus sign in front of the numbers to indicate that the quantity and/or the amount are negative.

The fields to negate are the quantity of the lines and the amount of the markup elements. As a result, the calculated fields (lineAmount, vatAmount, sumLineAmount, sumMarkupAmount, sumVatAmount and invoiceAmount) will also be negated.

### Invoice example

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<xbd:invoice xmlns:xbd="http://ns.yggdra.no/xbd/" version="1.1">
  <invoiceId>4774455787</invoiceId>
  <invoiceDate>2010-04-23</invoiceDate>
  <deliveryDate>2010-04-20</deliveryDate>
  <dueDate>2010-05-23</dueDate>
  <paymentId>47744557874</paymentId>
  <currencyCode>NOK</currencyCode>
  <invoiceAmount>71275.00</invoiceAmount>
  <sumLineAmount>55900.00</sumLineAmount>
  <sumMarkupAmount>1120.00</sumMarkupAmount>
  <sumVatAmount>14255.00</sumVatAmount>
  <roundOff/>
  <paymentTerm/>
  <cashDisc/>
  <deliveryTerm/>
  <purchaseId>220338</purchaseId>
  <packingSlipId/>
  <deliveryRef/>
</xbd:invoice>
```

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```
<note/>
<issuer>
  <vatNum>NO538574587MVA</vatNum>
  <gln>8003437990021</gln>
  <name>Acme Co</name>
  <street>Gata 4</street>
  <zipCode>0624</zipCode>
  <city>OSLO</city>
  <countryCode>NO</countryCode>
</issuer>
<receiver>
  <gln>7080044430024</gln>
  <name>Testesen AS</name>
  <street>Vei 9</street>
  <zipCode>1671</zipCode>
  <city>KRÅKERØY</city>
  <countryCode>NO</countryCode>
</receiver>
<delivery>
  <gln>7080001065380</gln>
  <name>Butikken AS </name>
  <street>Vegen 21</street>
  <zipCode>2900</zipCode>
  <city>FAGERNES</city>
  <countryCode>NO</countryCode>
</delivery>
<environmentalTax/>
<freight>
  <description>Frakt</description>
  <markupAmount>1000.00</markupAmount>
  <vatPercent>25</vatPercent>
  <vatAmount>250.00</vatAmount>
</freight>
<miscCharges>
  <description>Administrasjonsgebyr</description>
  <markupAmount>10.00</markupAmount>
  <vatPercent>25</vatPercent>
  <vatAmount>2.50</vatAmount>
</miscCharges>
<line>
  <itemId>4554380</itemId>
  <description>Oppvaskmaskin, 50 cm</description>
  <unitCode>EA</unitCode>
  <quantity>1</quantity>
  <unitPrice>6000.00</unitPrice>
  <discountAmount>100.00</discountAmount>
  <discountPercent/>
  <lineAmount>5900.00</lineAmount>
  <vatPercent>25</vatPercent>
  <vatAmount>1475.00</vatAmount>
```

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```
<environmentalTax>
  <description>Miljøgebyr</description>
  <markupAmount>10.00</markupAmount>
  <vatPercent>25</vatPercent>
  <vatAmount>2.50</vatAmount>
</environmentalTax>
<freight/>
<note/>
</line>
<line>
  <itemId>4554382</itemId>
  <description>Oppvaskmaskin, 60 cm</description>
  <unitCode>EA</unitCode>
  <quantity>10</quantity>
  <unitPrice>5000.00</unitPrice>
  <discountAmount/>
  <discountPercent/>
  <lineAmount>50000.00</lineAmount>
  <vatPercent>25</vatPercent>
  <vatAmount>12500.00</vatAmount>
  <environmentalTax>
    <description>Miljøgebyr</description>
    <markupAmount>100.00</markupAmount>
    <vatPercent>25</vatPercent>
    <vatAmount>25.00</vatAmount>
  </environmentalTax>
  <freight/>
  <note/>
</line>
</xbd:invoice>
```