



Guideline Data Format

Version 1.0



NES Guideline - Data Format

1	introduction.....	2
1.1	purpose.....	2
2	amount.....	3
3	binary objects.....	3
4	code types.....	4
5	time.....	4
6	dates.....	5
7	identifiers.....	5
8	indicators.....	6
9	measures and quantity.....	6
10	percent.....	6
11	numeric values.....	6
12	text type.....	7
13	name type.....	7



NES Guideline - Data Format

1 introduction

The Northern European Subset (NES) group was established to enable interoperability of procurement data between users of the Universal Business Language (UBL). UBL is a royalty-free library of XML documents addressing the requirements of electronic procurement and international trade and transportation. Its second version (UBL 2.0) was released as an OASIS standard in December 2006. NES members contributed extensively to the development of this version of the standard.

The focus of NES is to define the specific use of UBL 2.0 electronic procurement documents domestically and between the member countries. The definition covers semantic interoperability within and between all business sectors, public and private.

This guideline is one of a series of documents describing the purpose and use of the business documents that comprise the NES subset of UBL 2.0.

All cardinalities shown in this document represent elements and associations at NES library level; see 'NES Information Model Architecture' for further information.

1.1 purpose

The purpose of this guideline is to specify the use of classes and elements used to specify data format.

All datatypes are UN/CEFACT Core Component Technical Specification data types, that are defined as W3 datatypes.

(see <http://www.w3.org/TR/xmlschema-0/#SimpleTypeFacets>).

NES Guideline - Data Format

2 amount

Amount has the following attributes:

attribute	use	example	remark
CurrencyID	Mandatory	"DKK"	ISO 4217
Content	XSD:Decimal type	10000.25	decimals are given with a period ".", no separators are used for thousands

3 binary objects

Binary objects are used in NES for definitive description of values

attribute	use	example	remark
format	description of format if no mimeType		not used
mimeType	coded description of content	"application/pdf"	recommended
encodingCode	description of coding algorithm	"Base 64"	optional. If used it should be "Base 64"
characterSetCode	description of character set used in case of text type		optional.
uri	description of the location of a copy or an original of a document		not to be used. Use "external reference" instead
fileName	gives the name of a file that is used	"drawing5.jpg"	the information must be definitive
content	series of bites		

NES Guideline - Data Format

4 code types

Code types are used to specify allowed values in elements (BBIE) as well as for list of options.

Code types are different to IDs in the way that allowed values have standardized meaning that can be known by the recipient.

NES uses three types of codes.

- static codes, built into the standard.
- defined codes, based on standards such as ISO or UN/CEFACT
- bilaterally agreed codes.

Static and bilaterally agreed codes are usually used without attributes but standardised codes list may require metadata that can be given in attributes.

When using Code lists for code values in NES instances, the attribute listID and listAgencyID are mandatory

The following table shows the use of attributes for Code Types that are issued by third parties (other than UBL).

attribute	use	example	remark
listID	identifies a code list.	3055	mandatory
listAgencyID	identifier for the issuer of the code list.	6	mandatory
listSchemeUri	link to where the schema for the link can be found.		optional
content	xsd:normalisedString		use exactly as shown in the code list. Note that codes are case sensitive

5 time

The presentation of time is according to ISO 8601 standard format "hh:mm:ss".

In cases of transactions that traverse time zones, the following format should be used, e.g. "09:30:00+1:00" to give the time half past nine in Copenhagen.

All formats of xsd:time are allowed.

NES Guideline - Data Format

6 dates

Dates are presented according to the ISO 8601 standard format of "YYYY-MM-DD" e.g. "2006-08-18" for the date of August 18th 2006.

Dates are based on the Gregorian calendar.

When specified in Period, Dates are inclusive i.e. a Period with a Start and End Date is inclusive of both.

7 identifiers

Identifiers (ID) are keys that are issued by either the sender, the recipient or a third party.

When using identifiers that belong to either the sender or the recipient, the attribute `schemeID` (bilaterally agreed) is optional and the attribute `schemeAgencyID` is recommended.

When using Code lists for identifiers issued by third parties the attribute `schemeID` is mandatory and the attribute `schemeAgencyID` is recommended.

The following table shows the use of attributes for IDs that are issued by third parties.

attribute	use	example	remark
<code>schemeID</code>	identifies the ID type	GLN	mandatory
<code>schemeAgencyID</code>	identifier for the issuer of the ID	9	recommended. Should be based on UN/CEFACT 3055
<code>schemeDataUri</code>	link to where the ID information can be found		optional
<code>content</code>	<code>xsd:token</code>		an indicator may not contain a white space character such as a space, tab, line return etc.

NES Guideline - Data Format

8 indicators

Indicators are of the xsd:boolean type. Values used are "true" to specify that the indicator is active, valid, or selected and "false" to specify that an indicator is invalid, inactive or not selected. Note that "false" does not have the same meaning as "rejected", which implies a decision. Default value for indicators is "false".

9 measures and quantity

Measures and quantities are defined with an xsd:decimal and have the following attributes.

When UOM for quantities are times e.g. days, hours, minutes, they are given as decimals, for example, 4 hours and 45 minutes is expressed as 4.75 hours.

attribute	use	example	remark
UnitCode	mandatory	"C62"	based on UN/Cefact recommendation 20, revision 4
Content	XSD:Decimal type	10000.25	decimals are given with a period "."; no separators are used for thousands

10 percent

Percentages are based on xsd:decimal. Percentages are given as fractions of a hundred e.g. the value "34.78" in percentage terms equates to a numeric value of "0.3478".

Percentages are specified to no more than 4 decimals, e.g. "34.7812".

11 numeric values

Numeric values are based on xsd:decimal. In NES, elements containing numeric values are named "numeric", "value" or "rate".

Numeric values do not use attributes. The type Numeric is also used for sequential numbers even if those do not allow decimals.

NES Guideline - Data Format

12 text type

Text types are typically descriptions and notes. They have the following attributes.

Text types cannot contain CDATA elements.

attribute	use	example	remark
LanguageID	optional	"en"	only needed when more than one language is used
Content	xsd:string	"Mary had a little lamb..."	may not be empty

13 name type

Name types are of type xsd:string. They have the following attributes.

attribute	use	example	remark
LanguageID	optional	"en"	only needed when names are given in more than one language
Content	xsd:string	"Thomas Edison"	multiple spaces are not allowed. May not be empty and is validated as a string. Only white space character allowed is space