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Naming Conventions for Core Components

JCC has undertaken work to move forward the ebXML CC Technical Reports to UN/CEFACT Technical Specification status
pending UN/CEFACT concurrence.

This document reflects enhancements identified by JCC.

ebXML Core Components

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Version 1.04 JCC1

1 Status of this Document

This Technical Report document has been approved by the Core Component Project Team and has been accepted by the ebXML Plenary.

This document contains information to guide in the interpretation or implementation of ebXML concepts.

Distribution of this document is unlimited.

The document formatting is based on the Internet Society's Standard RFC format.

This version:

ebXML TR – Naming Conventions for Core Components Ver 1.04 JCC1

2 ebXML participants

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4 Introduction

4.1 Summary of Contents of Document

This specification contains rules and guidelines for naming Core Components.

In addition to the naming convention rules that lead to a Dictionary Entry Name, the document also provides rules and guidelines for developing definitions. It also establishes the principle of business terms (synonyms) to cover the instances where a commonly used business term equates to a well-formed Dictionary Entry Name.

The keywords MUST, MUST NOT, REQUIRED, SHALL, SHALL NOT, SHOULD, SHOULD NOT, RECOMMENDED, MAY, and OPTIONAL, when they appear in this document, are to be interpreted as described in RFC 2119.

4.2 Audience

The target audiences for this document include business domain experts, technical experts and everybody who is involved in the harmonisation, approval and maintenance processes of Core Components. This also includes business process modellers, who shall take these naming rules into account when defining business information entities.

4.3 Related Documents

These include ebXML Technical Reports on the following topics:

- ebXML TR - Guide to the Core Component Dictionary
- ebXML TR - Core Component Discovery and Analysis
- Core Component Dictionary

5 Naming rules for Core Components

5.1 Introduction

The naming rules are derived from the guidelines and principles described in document ISO 11179 (Guidelines for Structured Naming Conventions). In certain instances, these guidelines have been adapted to the Core Component environment. In particular, the guidelines have been extended to cover not only the naming of basic information entities or data elements but also to cover the naming of Aggregate Information Entities and Core Component Types.

5.2 Definitions

The naming rules apply to all the three following categories of Core Components~~, namely~~:

- **Core Component**. This is the basic information entity that represents a singular business concept with a unique business semantic definition. It may be constructed by using a Core Component Type. It may be used to create Aggregated Information Entities
- **Core Component Type**. This is an information entity ~~Core Component~~ that has no business meaning on its own. For example, date on its own has no business meaning, whereas the date of birth, the contact date, the delivery date express business meaning.
  ~~When it is reused in a business context, it becomes a Basic Information Entity.~~Core Component Types consist of one component that carries the actual content (Content Component) plus others that give extra definition to the content (supplementary component(s)). For example, ~~date on its own has no business meaning, whereas the date of birth, the contact date, the delivery date express business meaning~~if the content component carries "12" this has no meaning on its own. But "12 Kilometres" or "12 Euro" do have meaning.
- ~~**Basic Information Entity**. This is a Core Component that represents a singular business concept with a unique business semantic definition.~~
- **Aggregate ~~Information Entity~~Component**. This is an information entity ~~a Core Component~~ that contains two or more ~~Basic Information Entities~~Core Components or Aggregate ~~Information Entities~~Components that together form a single business concept (e.g. postal address). Each Aggregate ~~Information Entity~~Component has its own unique business semantic definition.

Each Core Component contains following dictionary information that is impacted by the naming rules:

- **Dictionary Entry Name** (Mandatory). This is the unique official name of the Core Component in the dictionary.
- **Definition** (Mandatory). This is the unique semantic business meaning of that Core Component.

- **Business term** (Optional). This is a synonym term under which the Core Component is commonly known and used in the business. A Core Component may have several business terms or synonyms.
  Example:
  - *Dictionary Entry Name* *e.g. Account. Identifier; Purchase Order. Identifier*
  - *Business Term* *e.g. Account Number; Order Number, PO Number*

The naming rules are also based on following concepts:

- **Object Class**. This represents the logical data grouping (in a logical data model) to which a data element belongs (ISO11179). The Object Class thus is the part of a Core Component's Dictionary Entry Name that represents an activity or object in a specific context.
- **Property Term**. This identifies one of the characteristics belonging to the Object (Class)

~~**Property Term**is the distinguishing characteristic of the data element in a logical data grouping.~~

- **Representation Type**. This defines the ~~set~~ type of valid values for an ~~data element~~information entity.

5.3 General naming rules

Rule A1: The dictionary content shall be in English Language following the primary Oxford Dictionary English spellings. This assures unambiguous spelling.

Remark: There may be restrictions in specific languages, which need to be applied when transforming the Core Component dictionary into other languages. These restrictions shall be formulated as additional rules and added as separate~~d~~ language specific annexes to this document.

5.4 Naming rules for Core Components Definitions

Rule B1: To avoid the definition simply being a ~~regurgitated version~~repetition of the Dictionary Entry Name, the definition shall ~~be such that it can be used to create a sentence starting~~ start with the Dictionary Entry Name followed by "is" and followed by the real definition.

Rule B2: The definition shall provide an understandable definition, which should also be translatable to other languages.

Rule B3: The definition shall take into account the fact that the users of the Core Component dictionary are not necessarily native English speakers. It shall therefore contain short sentences, using normal words. Wherever synonym terms are possible, the definition shall use the preferred term as identified in the Core Components glossary of terms.

Rule B4: The definition of a ~~Basic Information Entity~~Core Component shall use a structure that is based on the existence of the *Object Class*, the *Property Term*, and its *Representation Type*.

Rule B5: Whenever both the definite (i.e. "the") and indefinite article (i.e. "a") are possible in a definition, preference shall be given to the indefinite article (i.e. "a").

5.5 Naming rules for Core Component Dictionary Entry Names

Rule C1: The Dictionary Entry Name shall be unique.

Rule C2: The Dictionary Entry Name shall be extracted from the Core Component definition.

Rule C3: The Dictionary Entry Name of a Core Component Type shall consist of a meaningful type name followed by a dot and the term "Type".
Example: Amount. Type, Date Time. Type

Rule C4: The Dictionary Entry Name of an ~~Aggregate Information Entity~~Aggregate Component shall consist of a meaningful aggregate name followed by a dot and the term "Details". The aggregate name may consist of more than one word.
Example: Postal Address. Details, Party. Details

Rule C5: The Dictionary Entry Name of a ~~Basic Information Entity~~Core Component shall consist of the name of an *Object Class*, the name of a *Property Term* and the name of a *Representation Type.*
Example: Tax. Description. Text

Rule C6: A Dictionary Entry Name shall be concise and shall not contain consecutive redundant words.

Rule ~~C6~~C7: The name of an *Object Class* refers to an activity or object within a business context. It shall be unique throughout the dictionary ~~shall represent an activity or object in one or more contexts. It may consist of more than one word but shall be unique~~and may consist of more than one word.

Rule ~~C7~~C8: The name of a *Property Term* ~~shall represent the distinguishing characteristic of the property in the Object Class. It~~ shall occur naturally in the definition and may consist of more than one word. A name of a Property Term shall be unique within the context of an Object Class but may be reused across different Object Classes.
Example: "Car. Colour. Code" and "Shirt. Colour. Code" may both exist

Rule ~~C8~~C9: If the name of the *Property Term* ~~contains~~ uses the ~~name of the~~same word as the *Representation Type* (or an equivalent ~~name~~word), this ~~name~~ Property Term shall be removed from ~~the *Property Term* part of the~~ Dictionary Entry Name. The Representation Type word in this case only will remain.
Examples: if the Object Class is "Goods", the Property Term is "Delivery Date", and Representation Type is "Date", the Dictionary Entry Name is "Goods. Delivery. Date"; the Dictionary Entry Name for an identifier of a party ("Party. Identification. Identifier") will be truncated to "Party. Identifier".

Rule ~~C9~~C10: The name of the *Representation Type* shall be one of the terms specified in the "list of *Representation Types*" as included in this document (and in the dictionary).

~~**Rule C10:** A Dictionary Entry Name shall be concise and shall not contain redundant words.~~

Rule C11: The name of the *Representation Type* shall not be truncated in the Dictionary Entry Name.

Rule C12: A Dictionary Entry Name and all its components shall be in singular form unless the concept itself is plural.
Example: "Goods"

Rule C13: The components of a Dictionary Entry Name shall be separated by dots. The space character shall separate words in multi-word *Object Classes* and/or multi-word *Property Terms*. Every word shall start with a capital letter.[1] To allow spell checking of the Directory Entry Names' words, the dots after Object Class and property terms shall be followed by a space character.

Rule C14: Non-letter characters shall only be used if required by language rules.

Rule C15: Dictionary Entry Names shall only contain verbs, nouns and adjectives (i.e. no words like "and", "of", "the", etc.). This rule may not be valid for other languages but English language.

Rule C16: Abbreviations and acronyms that are part of the Dictionary Entry Name shall be expanded or explained in the definition.

[1] The use of CamelCase for Dictionary Entry Names has been considered, but has been rejected for following reasons:

- It must be clear that Dictionary Entry Names are not supposed to be used as XML names
- Use of CamelCase will not allow the use of spell checkers
- Strict use of CamelCase makes it impossible to use separators (".") and therefore doesn't allow an unambiguous identification of the composing parts of the Dictionary Entry Name

5.6 Naming rules for Core Component Business Terms

No specific naming rules apply to Business Terms.

6 List of Representation Types

The following list contains the permissible *Representation Types* (as defined with ISO 11179).

Representation Type	Definition	Links to Core Component Type
Amount	A number of monetary units specified in a currency where the unit of currency is explicit or implied.	Amount. Type
Code	A character string (letters, figures or symbols) that for brevity and / or language independence may be used to represent or replace a definitive value or text of an attribute. Codes usually are maintained in code lists per attribute type (e.g. colour).	Code. Type
Content	The actual content of an information entity. Content is the first information entity in a Core Component Type	Used with the content components of Core Component Types
Date	A day within a particular calendar year (ISO 8601).	Date Time. Type
Date Time	A particular point in the progression of time (ISO 8601).	Date Time. Type
Details	The expression of the aggregation of Core Components to indicate higher levelled information entities	
Identifier	A character string used to identify and distinguish uniquely, one instance of an object within an identification scheme from all other objects within the same scheme. Remark that this Representation Type shall not be used when a person or an object is identified by its name. In this case the Representation Type “Name” shall be used.	
Indicator	A list of two, and only two, values which indicate a condition such as on/off; true/false etc. (synonym: “Boolean”).	
Measure	A numeric value determined by measuring an object. Measures are specified with a unit of measure. The applicable unit of measure is taken from UN/ECE Rec. 20.	Measure. Type

Name	A word or phrase that constitutes the distinctive designation of a person, place, thing or concept.	Text. Type
Percent	A rate expressed in hundredths between two values that have the same unit of measure.	
Quantity	A number of non-monetary units. It is associated with the indication of objects. Quantities need to be specified with a unit of quantity.	Quantity. Type
Rate	A quantity or amount measured with respect to another measured quantity or amount, or a fixed or appropriate charge, cost or value e.g. US Dollars per hour, US Dollars per EURO, kilometre per litre, etc.	
Text	A character string generally in the form of words of a language.	Text. Type
Time	The time within a (not specified) day (ISO 8601).	Date Time. Type
Type	The expression of the aggregation of Core Components to indicate the aggregation of lower levelled information entities to become Core Component Types	All Core Component Types shall use this Representation Type
Value	A numeric information that is assigned or is determined by calculation, counting or sequencing. It does not require a unit of quantity or a unit of measure	

7 Disclaimer

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