8 Approved Core Component Type, Content, and Supplementary Components; and Permissible Representation Terms

The following subsections contain tables that convey the currently approved *Core Component Types* (Section 8.1), the approved *Core Component Type Content* and *Supplementary Components* (Section 8.2), and permissible *Representation Terms* (Section 8.3).

8.1 Approved Core Component Types

Table 8-1 presents the currently approved set of *Core Component Types*.

Table 8-1 Approved Core Component Types (CCT)

CCT Dictionary Entry Name	Definition	Remarks	Object Class	Property Term	CCT Components
Amount. Type	A number of monetary units specified in a currency where the unit of currency is explicit or implied.		Amount	Type	Amount. Content Amount Currency. Identifier Amount Currency. Code List Version. Identifier
Binary Object. Type	A set of finite-length sequences of binary octets.	Shall also be used for Data Types representing graphics (i.e., diagram, graph, mathematical curves or similar representations), pictures (i.e. visual representation of a person, object, or scene), sound, video, etc.	Binary Object	Type	• Binary Object. Content • Binary Object. Format. Text • Binary Object. Mime. Code • Binary Object. Encoding. Code • Binary Object. Character Set. Code • Binary Object. Uniform Resource. Identifier • Binary Object. Filename. Text

CCT	Definition	Remarks	Object Class	Property	CCT Components
Dictionary Entry Name			2 0,000 0,000	Term	
Code. Type	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 <i>Attribute</i> together with relevant supplementary information.	Should not be used if the character string identifies an instance of an <i>Object Class</i> or an object in the real world, in which case the Identifier. Type should be used.	Code	Туре	• Code. Content • Code List. Identifier • Code List. Agency. Identifier • Code List. Agency Name. Text • Code List. Name. Text • Code List. Version. Identifier • Code. Name. Text • Language. Identifier • Code List. Uniform Resource. Identifier • Code List Scheme. Uniform Resource. Identifier
Date Time. Type	A particular point in the progression of time together with relevant supplementary information.	Can be used for a date and/or time.	Date Time	Type	Date Time. Content Date Time. Format. Text
Identifier. Type	A character string to identify and distinguish uniquely, one instance of an object in an identification scheme from all other objects in the same scheme together with relevant supplementary information.		Identifier	Туре	• Identifier. Content • Identification Scheme. Identifier • Identification Scheme. Name. Text • Identification Scheme Agency. Identifier • Identification Scheme. Agency Name. Text • Identification Scheme. Agency Name. Text • Identification Scheme. Version. Identifier • Identification Scheme Identifier • Identification Scheme Data. Uniform Resource. Identifier • Identification Scheme. Uniform Resource. Identifier

CCT Dictionary Entry Name	Definition	Remarks	Object Class	Property Term	CCT Components
Indicator. Type	A list of two mutually exclusive Boolean values that express the only possible states of a <i>Property</i> .		Indicator	Туре	• Indicator. Content • Indicator. Format. Text
Measure. Type	A numeric value determined by measuring an object along with the specified unit of measure.		Measure	Туре	 Measure. Content Measure Unit. Code Measure Unit. Code List Version. Identifier
Numeric. Type	Numeric information that is assigned or is determined by calculation, counting, or sequencing. It does not require a unit of quantity or unit of measure.	May or may not be decimal	Numeric	Туре	Numeric. Content Numeric. Format. Text
Quantity. Type	A counted number of non-monetary units possibly including fractions.		Quantity	Туре	• Quantity. Content • Quantity. Unit. Code • Quantity Unit. Code List. Identifier • Quantity Unit. Code List Agency. Identifier • Quantity Unit. Code List Agency Unit. Code List Agency Name. Text
Text. Type	A character string (i.e. a finite set of characters) generally in the form of words of a language.	Shall also be used for names (i.e. word or phrase that constitutes the distinctive designation of a person, place, thing or concept).	Text	Туре	 Text. Content Language. Identifier Language. Locale. Identifier

8.2 Approved Core Component Type Content and Supplementary Components

Table 8-2 presents the currently approved set of *Core Component Type Content* and *Supplementary Components*.

Table 8-2. Approved Core Component Type Content and Supplementary Components

Name	Primitive data-type	Definition	Remarks
Amount. Content	decimal	A number of monetary units specified in a currency where the unit of currency is explicit or implied	
Amount Currency. Code List Version. Identifier	string	The <i>Version</i> of the UN/ECE Rec. 9 code list.	
Amount Currency. Identifier	string	The currency of the amount	Reference UN/ECE Rec. 9, using 3-letter alphabetic codes. The UN/ECE Rec. 9 is also published as ISO 4217, but is available in electronic form and free of charge.
Binary Object. Content	binary	A set of finite-length sequences of binary octets.	
Binary Object. Format. Text	string	The format of the binary content.	
Binary Object. Mime.Code	string	The mime type of the binary object.	Reference IETF RFC 2045, 2046, 2047
Binary Object. Character Set. Code	string	The character set of the binary object if the mime type is text.	Reference IETF RFC 2045, 2046, 2047
Binary Object. Encoding. Code	string	Specifies the decoding algorithm of the binary object.	Reference IETF RFC 2045, 2046, 2047
Binary Object. Uniform Resource. Identifier	string	The Uniform Resource Identifier that identifies where the Binary Object is located.	
Binary Object. Filename. Text	String	The filename of the binary object.	Reference IETF RFC 2045, 2046, 2047
Code. Content	string	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 <i>Attribute</i> .	
Code List. Agency. Identifier	string	An agency that maintains one or more code lists.	Defaults to the UN/EDIFACT data element 3055 code list.
Code List. Agency Name. Text	string	The name of the agency that maintains the code list.	
Code List. Name. Text	string	The name of a list of codes.	
Code List. Identifier	string	The identification of a list of codes	Can be used to identify the URL of a source that defines the set of currently approved permitted values
Code List Scheme. Uniform Resource. Identifier	string	The Uniform Resource Identifier that identifies where the code list scheme is located.	
Code List. Uniform Resource. Identifier	string	The Uniform Resource Identifier that identifies where the code list is located.	
Code List. Version. Identifier	string	The <i>Version</i> of the code list.	Identifies the <i>Version</i> of the UN/EDIFACT data element 3055 code list.

Name	Primitive data-type	Definition	Remarks
Code. Name. Text	string	The textual equivalent of the code content	If no code content exists, the code name can be used on its own
Date Time.	string	The particular point in the	For times use an ISO 8601 compliant format
Content		progression of time	that includes the UTC offset
Date Time. Format. Text	string	The format of the date/time content	Reference ISO 8601 and W3C note on date time
Identification	string	The identification of the agency	Defaults to the UN/EDIFACT data element
Scheme Agency. Identifier		that maintains the identification scheme.	3055 code list.
Identification	string	The name of the agency that	
Scheme Agency.	3	maintains the identification	
Name. Text		scheme	
Identification Scheme Data. Uniform	string	The Uniform Resource Identifier that identifies where the identification scheme data is	
Resource. Identifier		located	
Identification	string	The identification of the	
Scheme.	-	identification scheme.	
Identifier	<u> </u>		
Identification Scheme. Name.	string	The name of the identification	
Scheme. Name.		scheme.	
Identification	string	The Uniform Resource Identifier	
Scheme. Uniform	String	that identifies where the	
Resource.		identification scheme is located.	
Identifier			
Identification Scheme.	string	The <i>Version</i> of the identification scheme.	Identifies the <i>Version</i> of the UN/EDIFACT data element 3055 code list.
Version.			
Identifier			
Identifier. Content	string	A character string to identify and distinguish uniquely, one instance of an object in an identification scheme from all other objects within the same scheme	
Indicator. Content	string	The value of the indicator	For example on, off, true, false
Indicator.	String	Whether the indicator is numeric,	
Format. Text	_	textual or binary	
Language. Identifier	string	The identifier of the language used in the corresponding text string	Reference ISO 639: 1998
Language.	string	The identification of the locale of	
Locale. Identifier		the language.	
Measure.	decimal	The numeric value determined by	For example, 24.387 kilograms (24.387 is the
Content	decimal	measuring an object.	Measure. Content)
Measure Unit.	string	The type of unit of measure	Reference UN/ECE Rec. 20 and X12 355.
Code	<u> </u>		
Measure Unit.	string	The <i>Version</i> of the measure unit	
Code List Version.		code list.	
Identifier			
Numeric.	As defined	Numeric information that is	May be decimal
Content	by Numeric. Format. Text	assigned or is determined by calculation, counting or sequencing.	
Numeric.	string	Whether the number is an integer,	
Format. Text	50 mg	decimal, real number or percentage	

Name	Primitive	Definition	Remarks
	data-type		
Quantity. Content	decimal	A counted number of non- monetary units possibly including fractions.	For example 7 bales (7 is the Quantity. Content)
Quantity. Unit. Code	string	The unit of the quantity	May use UN/ECE Rec. 20
Quantity Unit. Code List Agency. Identifier	string	The identification of the agency which maintains the quantity unit code list	
Quantity Unit. Code List. Identifier	string	The quantity unit code list.	Defaults to the UN/EDIFACT data element 3055 code list.
Quantity Unit. Code List Agency Name. Text	string	The name of the agency which maintains the quantity unit code list.	
Text. Content	string	A character string (i.e. a finite set of characters) generally in the form of words of a language.	

8.3 Permissible Representation Terms

Table 8-3 presents the set of *Permissible Representation Terms*.

Table 8-3. Permissible Representation Terms

Primary	Definition	Related	Secondary
Representation		Core Component	Representation
Term		Type	Terms
Amount	A number of monetary units specified in a currency where the unit of currency is explicit or implied.	Amount. Type	
Binary	A set of finite-length sequences of binary octets.	Binary Object.	Graphic, Picture,
Object		Type	Sound, Video
	[Note: This Representation Term shall also be used for Data Types representing graphics (i.e. diagram, graph, mathematical curves, or similar representation), pictures (i.e. visual representation of a person, object, or scene), sound, video, etc.]		

Primary <i>Representation</i> <i>Term</i>	Definition	Related Core Component Type	Secondary Representation Terms
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 a <i>Property</i> .	Code. Type	
	[Note: The term 'Code' should not be used if the character string identifies an instance of an <i>Object Class</i> or an object in the real world, in which case the <i>Representation Term</i> identifier should be used.]		
Date Time	A particular point in the progression of time (ISO 8601).	Date Time. Type	Date, Time
	[Note: This <i>Representation Term</i> shall also be used for <i>Data Types</i> only representing a Date or a Time.]		
Identifier	A character string used to establish the identity of, and distinguish uniquely, one instance of an object within an identification scheme from all other objects within the same scheme.	Identifier. Type	
Indicator	A list of exactly two mutually exclusive Boolean values that express the only possible states of a <i>Property</i> .	Indicator. Type	
	[Note: Values typically indicate a condition such as on/off; true/false etc.]		
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	
	[Note: This <i>Representation Term</i> shall also be used for measured coefficients (e.g. m/s).]		

Primary <i>Representation</i> <i>Term</i>	Definition	Related Core Component Type	Secondary Representation Terms
Numeric	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.		Value, Rate, Percent
	[Note: This Representation Term shall also be used for Data Types representing Ratios (i.e. rates where the two units are not included or where they are the same), Percentages, etc.)		
Quantity	A counted number of non-monetary units. Quantities need to be specified with a unit of quantity. [Note: This <i>Representation Term</i> shall also be used for counted coefficients (e.g. flowers/m²).]	Quantity. Type	
Text	A character string (i.e. a finite set of characters) generally in the form of words of a language.	Text. Type	Name
	[Note: This <i>Representation Term</i> shall also be used for names (i.e. word or phrase that constitutes the distinctive designation of a person, place, thing or concept).]		

9 Definition of Terms

Aggregate Business Information Entity (ABIE)—A collection of related pieces of business information that together convey a distinct business meaning in a specific Business Context. Expressed in modelling terms, it is the representation of an Object Class, in a specific Business Context.

Aggregate Core Component - (ACC) – A collection of related pieces of business information that together convey a distinct business meaning, independent of any specific Business Context. Expressed in modelling terms, it is the representation of an Object Class, independent of any specific Business Context.

Assembly Rules - Assembly Rules group sets of unrefined Business Information Entities into larger structures. Assembly Rules are more fully defined and explained in the Assembly Rules Supplemental Document.

Association Business Information Entity (ASBIE) - A Business Information Entity that represents a complex business characteristic of a specific Object Class in a specific Business Context. It has a unique Business Semantic definition. An Association Business Information Entity represents an Association Business Information Entity Property and is therefore associated to an Aggregate Business Information Entity, which describes its structure. An Association Business Information Entity is derived from an Association Core Component.

Association Business Information Entity Property - A Business Information Entity Property for which the permissible values are expressed as a complex structure, represented by an Aggregate Business Information Entity.

Association Core Component (ASCC) - A Core Component which constitutes a complex business characteristic of a specific Aggregate Core Component that represents an Object Class. It has a unique Business Semantic definition. An Association Core Component represents an Association Core Component Property and is associated to an Aggregate Core Component, which describes its structure.

Association Core Component Property – A Core Component Property for which the permissible values are expressed as a complex structure, represented by an Aggregate Core Component.

Attribute – A named value or relationship that exists for some or all instances of some entity and is directly associated with that instance.

Basic Business Information Entity (BBIE) – A Business Information Entity that represents a singular business characteristic of a specific Object Class in a specific Business Context. It has a unique Business Semantic definition. A Basic Business Information Entity represents a Basic Business Information Entity Property and is therefore linked to a Data Type, which describes it values. A Basic Business Information Entity is derived from a Basic Core Component.

Basic Business Information Entity Property – A Business Information Entity Property for which the permissible values are expressed by simple values, represented by a Data Type.

Basic Core Component (BCC) –A Core Component which constitutes a singular business characteristic of a specific Aggregate Core Component that represents a Object Class. It has a unique Business Semantic definition. A Basic Core Component represents a Basic Core Component Property and is therefore of a Data Type, which defines its set of values. Basic Core Components function as the properties of Aggregate Core Components.

Basic Core Component (CC) Property – A Core Component Property for which the permissible values are expressed by simple values, represented by a Data Type.

Business Context – The formal description of a specific business circumstance as identified by the values of a set of *Context Categories*, allowing different business circumstances to be uniquely distinguished.

Business Information Entity (BIE) – A piece of business data or a group of pieces of business data with a unique Business Semantic definition. A Business Information Entity can be a Basic Business Information Entity (BBIE), an Association Business Information Entity (ASBIE), or an Aggregate Business Information Entity (ABIE).

Business Information Entity (BIE) **Property** – A business characteristic belonging to the *Object Class* in its specific *Business Context* that is represented by an *Aggregate Business Information Entity*.

Business Libraries – A collection of approved process models specific to a line of business (e.g., shipping, insurance).

Business Process – The Business Process as described using the UN/CEFACT Catalogue of Common Business Processes.

Business Process Context – The Business Process name(s) as described using the UN/CEFACT Catalogue of Common Business Processes as extended by the user.

Business Process Role Context – The actors conducting a particular *Business Process*, as identified in the *UN/CEFACT Catalogue of Common Business Processes*.

Business Semantic(s) – A precise meaning of words from a business perspective.

Business Term – This is a synonym under which the *Core Component* or *Business Information Entity* is commonly known and used in the business. A *Core Component* or *Business Information Entity* may have several *Business Terms* or synonyms.

Cardinality – An indication whether a characteristic is optional, mandatory and/or repetitive.

Catalogue of Business Information Entities – This represents the approved set of Business Information Entities from which to choose when applying the Core Component discovery process

Catalogue of Core Components – see Core Component Catalogue.

CCL – see *Core Component Library*.

Child Core Component – A *Core Component* used as part of a larger aggregate construct.

Classification Scheme – This is an officially supported scheme to describe a given *Context Category*.

Constraint Language – A formal expression of actions occurring in specific *Contexts* to assemble, structurally refine, and semantically qualify *Core Components*. The result of applying the *Constraint Language* to a set of *Core Components* in a specific *Context* is a set of *Business Information Entities*.

Content Component – Defines the *Primitive Type* used to express the content of a *Core Component Type*.

Content Component Restrictions – The formal definition of a format restriction that applies to the possible values of a *Content Component*.

Context – Defines the circumstances in which a *Business Process* may be used. This is specified by a set of *Context Categories* known as *Business Context*.

Context Category – A group of one or more related values used to express a characteristic of a business circumstance.

Context Rules Construct – The overall expression of a single set of rules used to apply *Context* to *Core Components*.

Controlled Vocabulary – A supplemental vocabulary used to uniquely define potentially ambiguous words or *Business Terms*. This ensures that every word within any of the *Core Component* names and definitions is used consistently, unambiguously and accurately.

Core Component (CC) – A building block for the creation of a semantically correct and meaningful information exchange package. It contains only the information pieces necessary to describe a specific concept.

Core Component Catalogue – The temporary collection of all metadata about each *Core Component* discovered during the development and initial testing of this *Core Component Technical Specification*, pending the establishment of a permanent Registry/repository.

Core Component Dictionary – An extract from the *Core Component Catalogue* that provides a ready reference of the *Core Component* through its *Dictionary Entry Name*, component parts, and definition.

Core Component Library – The Core Component Library is the part of the registry/repository in which Core Components shall be stored as Registry Classes. The Core Component Library will contain all the Core Component Types, Basic Core

Components, Aggregate Core Components, Basic Business Information Entities and Aggregate Business Information Entities.

Core Component Property – A business characteristic belonging to the *Object Class* represented by an *Aggregate Core Component*.

Core Component Type (CCT) – A Core Component, which consists of one and only one Content Component, that carries the actual content plus one or more Supplementary Components giving an essential extra definition to the Content Component. Core Component Types do not have Business Semantics.

Data Type – Defines the set of valid values that can be used for a particular *Basic Core Component Property* or *Basic Business Information Entity Property*. It is defined by specifying restrictions on the *Core Component Type* that forms the basis of the *Data Type*.

Definition – This is the unique semantic meaning of a *Core Component, Business Information Entity, Business Context* or *Data Type*.

Dictionary Entry Name – This is the unique official name of a *Core Component*, *Business Information Entity*, *Business Context* or *Data Type* in the dictionary.

Geopolitical Context – Geographic factors that influence *Business Semantics* (e.g., the structure of an address).

Industry Classification Context – Semantic influences related to the industry or industries of the trading partners (e.g., product identification schemes used in different industries).

Information Entity – A reusable semantic building block for the exchange of business-related information.

Naming Convention – The set of rules that together comprise how the *Dictionary* entry Name for Core Components (See Section 6.1.4.1.4) and Business Information Entities (See Section 6.1.4.2.4) are constructed.

Object Class – The logical data grouping (in a logical data model) to which a data element belongs (ISO11179). The *Object Class* is the part of a *Core Component*'s *Dictionary Entry Name* that represents an activity or object in a specific *Context*.

Object Class Term – A component of the name of a *Core Component* or *Business Information Entity* which represents the *Object Class* to which it belongs.

Official Constraints Context – Legal and governmental influences on semantics (e.g. hazardous materials information required by law when shipping goods).

Order – In the *Constraint Language*, the *Property* on the *ContextRules Construct* that applies a sequence to the application of a set of rules. Two Rule constructs cannot have the same value for the *Property Order*.

Primitive Type – Used for the representation of a value. Possible values are String, Decimal, Integer, Boolean, Date and Binary.

Product Classification Context – Factors influencing semantics that are the result of the goods or services being exchanged, handled, or paid for, etc. (e.g. the buying of consulting services as opposed to materials)

Property – A peculiarity common to all members of an *Object Class*.

Property Term – A semantically meaningful name for the characteristic of the *Object Class* that is represented by the *Core Component Property*. It shall serve as basis for the *Dictionary Entry Name* of the *Basic* and *Association Core Components* that represents this *Core Component Property*.

Qualifier Term – A word or group of words that help define and differentiate an item (e.g. a *Business Information Entity* or a *Data Type*) from its associated items (e.g. from a *Core Component*, a *Core Compont Type*, another *Business Information Entity* or another *Data Type*).

Registry Class – The formal definition of all the information necessary to be recorded in the Registry about a *Core Component*, a *Business Information Entity*, a *Data Type* or a *Business Context*.

Representation Term – The type of valid values for a *Basic Core Component* or *Business Information Entity*.

Supplementary Component – Gives additional meaning to the *Content Component* in the *Core Component Type*.

Supplementary Component Restrictions – The formal definition of a format restriction that applies to the possible values of a *Supplementary Component*.

Supporting Role Context – Semantic influences related to non-partner roles (e.g., data required by a third-party shipper in an order response going from seller to buyer.)

Syntax Binding – The process of expressing a *Business Information Entity* in a specific syntax.

System Capabilities Context – This Context category exists to capture the limitations of systems (e.g. an existing back office can only support an address in a certain form).

UMM Information Entity – A *UMM Information Entity* realizes structured business information that is exchanged by partner roles performing activities in a business transaction. Information entities include or reference other information entities through associations."

Unique Identifier – The identifier that references a *Registry Class* instance in a universally unique and unambiguous way.

Usage Rules – Usage Rules describe how and/or when to use the Registry Class.

User Community – A *User Community* is a group of practitioners, with a publicised contact address, who may define *Context* profiles relevant to their area of business. Users within the community do not create, define or manage their individual *Context* needs but conform to the community's standard. Such a community should liase

closely with other communities and with general standards-making bodies to avoid overlapping work. A community may be as small as two consenting organisations.

Version – An indication of the evolution over time of an instance of a *Core Component*, *Data Type*, *Business Context*, or *Business Information Entity*.

XML schema – A generic term used to identify the family of grammar based XML document structure validation languages to include the more formal W3C XML Schema Technical Specification, Document Type Definition, Schematron, Regular Language Description for XML (RELAX), and the OASIS RELAX NG.

10 References

- ebXML Technical Architecture Specification v1.04
- ebXML Business Process Specification Schema v1.01
- OASIS/ebXML Registry Information Model v2.0
- OASIS/ebXML Registry Services Specification v2.0
- ebXML Requirements Specification v1.06
- OASIS/ebXML Collaboration-Protocol Profile and Agreement Specification v2.0
- OASIS/ebXML Message Service Specification v2.0ebXML Technical Report, Business Process and Business Information Analysis Overview v1.0ebXML Technical Report, Business Process Analysis Worksheets & Guidelines v1.0
- ebXML Technical Report, E-Commerce Patterns v1.0
- ebXML Technical Report, Catalog of Common Business Processes v1.0
- ebXML Technical Report, Core Component Overview v1.05
- ebXML Technical Report, Core Component Discovery and Analysis v1.04
- ebXML Technical Report, Context and Re-Usability of Core Components v1.04
- ebXML Technical Report, Guide to the Core Components Dictionary v1.04
- ebXML Technical Report, Naming Convention for Core Components v1.04
- ebXML Technical Report, Document Assembly and Context Rules v1.04
- ebXML Technical Report, Catalogue of Context Categories v1.04
- ebXML Technical Report, Core Component Dictionary v1.04
- ebXML Technical Report, Core Component Structure v1.04
- Information Technology Metadata registries: Framework for the Specification and Standardization of Data Elements, International Standardization Organization, ISO 11179-1
- Information Technology Metadata registries: Classification of Concepts for the Identification of Domains, International Standardization Organization, ISO 11179-2
- Information Technology Metadata registries: Registry Metamodel, International Standardization Organization, ISO 11179-3
- Information Technology Metadata registries: Rules and Guidelines for the Formulation of Data Definitions, International Standardization Organization, ISO 11179-4
- Information Technology Metadata registries: Naming and Identification Principles for Data Elements, International Standardization Organization, ISO 11179-5
- Information Technology Metadata registries: Framework for the Specification and Standardization of Data Elements, International Standardization Organization, ISO 11179-6

- Information Technologies Open-edi Reference Model, ISO/IEC 14662
- Information Technologies Business Agreement Semantic Descriptive Techniques – Part 1: Operational Aspects of Open-edi for Implementation, ISO/IEC 15944-1
- UN/CEFACT Modelling Methodology, UN/CEFACT TMWG N090
- Information Technologies IT Enablement for Widely Used Coded Domains, ISO/IEC 18022
- Information Technologies Identification and Mapping of Various Categories of Jurisdictional Domains, ISO/IEC 18038

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