

MARKUP LANGUAGE INFORMATION TECHNOLOGY

1.0 CONTEXT IN XML AND CORE COMPONENTS

Overview

The purpose of this document is to further describe and exemplify the function(s) of core context component information exchange in XML. These considerations assist in defining other context requirements for appropriate core components.

DESCRIPTION OF TERMS

Description Basis

These descriptions are considered foundational to the further development of core context component concepts, understanding and evolution.

High-Level Business Categories of Core Information

Normal business information categories that are general to all businesses regardless of industry, process, product or service. These categories conform to what is expected as the ordinary course of business information exchange requirements.

Example: Industry type: Transportation, secondary industry type: Commercial Passenger, security level: public

These high-level core components are quickly identified by non-IT business staff and can be defined across languages and like business information exchange requirements. They should be able to be looked up in any standard language dictionary or business reference for general definition and relevance to any business.

High-Level Information Functional Classes

High-level information functional classes are groupings of information kinds that are general to all business processes.

Example: Invoices, purchase orders, standards,

	<p>procedures, inquiries, concepts, background, overview, justification, parts list, notifications, financial statements, records, bills of lading, contracts, items, equipment, materials.</p>
High Level Rationale	<p>Information content may be reused across information classes and assembled for the participants' business purposes in specific sequences and frequencies.</p> <p>As such, the intended purpose or function class of the content information must accompany it. It serves to better assist the business provider and recipient in using the appropriate DTD, style sheet or database.</p>
Advantages in XML of High-Level Categories	<p>The purpose for high-level business categories of core information is to serve as Core Context Components within a possible Core Context Block. (More on this Later)</p>
Core Content Components	<p>Subject matter content which is persistent as a type of information within the higher level business categories.</p> <p><i>Example:</i> Party, name, physical address, location, contact types, date, time, country, language</p> <p>These content types may be easily managed as parent or child elements and/or datatypes or archetypes. They are not identified as being required or not required. They have neither sequential or hierarchical order nor frequency indicators which are dependent upon the general or specific industry, product, service or process. They are all likely to have attributes.</p>
Core Content Rationale	<p>The identification of Core Content Components in ebXML serve as a way to separate the subject matter from the context, formatting and layout information for both the application developer and as an asset for individual businesses.</p>
Advantages for XML	<p>The advantages of identifying this kind of information is that it may be used, reused and repurposed. It may be used as units (elements and</p>

Core Context Components

element cases) in a modular manner providing search criteria, speeding the authoring, editing and publishing processes.

Core Content Component information may be marketed to generate revenue and can be clearly identified for recovery purposes.

The information associated with the subject matter content that is essential to its meaning and/or will “change” the information content.

Example: Annotations, record of associated information, record of included media (graphics, audio, video), inclusions, attachments, references, glossary of terms and definitions, cross-references, link-back information, list of effected information, list of effective information, source date, version date, version level, author, office of primary responsibility, resources, history of distribution.

Core Context Components are about the content being exchanged (sometimes this is called meta-data). This information type is inherent to the meaning, use, reuse or repurposing of the subject matter.

A Core Context Component may or may not be used in the presentation of information but is important for content management, analysis and publishing data or may add meaning to the understanding of the information.

Rationale

If the King of information is Content, then the Queen is information about the Content. It is the information that may be passed to content management tools. This information is also part of the content context. These kinds of information may include:

- all of the terms used as the element markup tags
- tracking information data about the workflow of the content
- security levels and permissions types

- attributes attached to the core content

This information can prove to be as much of an asset to a business as the content itself. It also helps businesses and application developers to determine better ways to do the business process and shortens searching by proven, specified amounts of time as well as improves the accuracy of the search results. (reference MIT study)

Reuse

When replication, duplication or reproduction of the information takes place within the context of the original purpose of the information. The meaning and understanding of the information does not change.

Example: Reservation information exchanges by copying with no additions, deletions or changes of any kind.

Repropose

Replicating or copying *portions* of information to be assembled for a different business function, maintaining some of the its context and/or attributes, but not including some of the information that may be available or adding information that was not there before. The meaning and understanding of the information does change.

Example: A bill of lading may replicate all of the same information content as an invoice. The information may be associated with the same customer for the same transaction. But because the purpose of the information supplied may --or -- may not be ordered, presented or have the same level of completion in the same way, it can be said that it has been repurposed.

Business Definitions

Characteristic exterior properties and aspects and meanings within the business arena in which something intangible is discerned. Definitions may be demonstrated by argumentation analysis of similar comparison classes of words or activities.

Business Description

Meaningful representations or examples, depic-

tions or portrayals like scenarios or graphics, video and sound illustrations within the business arena.

LOGICAL CASE FOR XML CORE COMPONENT IDENTIFICATION

Assumptions

Business information (for the function of identifying core components) is all of the substantive information about business subject matters. This includes information contexts which change or enhance the meaning, exchange, reuse and re-proposing of the information.

Theory

In order to specify and provide inclusion of content and context in the component evolution of information there are three information operatives that lay the groundwork for effective interchange. These are:

- Core Content Components
- Core Context Components
- Identification of specific areas of dynamic interchange-ability between them as a result of the business processes (not necessarily application development) and as a result of granularity

Example: In one business scenario, information may be exchanged as content (part number identification and step-by-step directions for a procedure) and in another business scenario, it is search criteria (look-up information for purchasing and stores).

POSSIBLE CONCLUSIONS

Core Components' Deliverable

It is the Core Component Teams' deliverable to identify both Core Content Components and Core Context Components contained in the business information. The Core Components Team must discern when and how the business information component(s) switches fundamental business identities.

Business Processes' Deliverable

It is the Business Process Teams' deliverable to identify the scope of processes that ebXML will cover (this might be a phased approach) Then show how each of these core components can be applied to the various business processes.

Synergies Between the Groups

The Core Component Team and Business Process Team will be able to identify when and which information components switch information roles (not only or perhaps including the process role) and at which level of granularity for interchange.

The Business Process Team shows where and how the information can be manipulated within the business processes (with the possible examples of application developments?) to use the information to its best advantage.

Comment About Other Possible ebXML Roles

In the author's opinion, the role of the secular (non-IT geek who may be a part of industry or other standards group) is to choose the primary processes that they would like to see these two groups tackle and in what priority.

Context

Analogy to XML Scenario

The scenario referenced here is the “Scenario for BP/CC ebXML Model Coordination” authored by Arofan Gregory and Brian Hayes on July 9, 2000.

The Core Content Component in this “case” is identified as the “Party” defined and described in the scenario.

The Business Process in the “case” is identified as a “Request For Quote” defined and described in the scenario.

DESCRIPTION OF TERMS

Core Content Block A Core Content “Block” is a group of Core Content Components.

Core Context Block A Core Context “Block” is a group of Core Context Components that may be identified in the business processes.

POSSIBLE CONTENT COMPONENTS IDENTIFIED

How Core Content Components Might Be Identified by the CC Team

These might be derived from the requirements specified by the information authors and audiences that participate in the processes. The samples listed here are from the referenced scenario.

The author has added notes expressing departure opinion(s) from the scenario example. This is done only to add credence to the idea that these are not final, firm or even correct Core Content Components, but only used for scenario examples.

- Party (IdentifyingInfo, ContactInfo)
- IdentifyingInfo (Name, IDNumber, IDScheme)
- ContactInfo (Name, EMailAddress, PhoneNumber, MailingAddress)
- Name (data primitive)

Note: Name may be another opportunity for a set of components which are a separate block or inclusive block as indicated next

- Name (FamiliarName(s), SireName(s), NInitial(s), OtherNIdentifier(s), Title(s))
- FamiliarName(s) (data primitive) (example: Sam)
- SireName(s) (data primitive) (example: Smith)
- NInitial(s) (data primitvie) (example: "S" for Seymour)
- OtherNIdentifier(s) (data primitive) (example: Jr., Sr., II, III)

Note: Another departure to identify core content.

- IDNumber (SS#, Drivers' License, CreditCard, Passport)
- SS# (data primitive)
- Drivers' License (data primitive)
- Credit Card (data primitive)
- Passport (data primitive)

Note: End of scenario departure

- IDScheme (data primitive)

Note: I'm not sure of the definition or description of this IDScheme content.

- EMailAddress(es) (data primitive)
- PhoneNumber(s) (data primitive)
- MailingAddress (data primitve)
- QualifyingInfo (data primitive)
- InsuranceHistory (data primitive)
- OtherInsurer (data primitive-boolean)
- DrivingRecord (data primitive)
- CarDescription (data primitive)
- DrivingHabits (data primitive)
- Color (data primitive)
- Make (data primitive)
- Model (data primitive)
- Year (data primitive)

(33 types of content components)

POSSIBLE CONTEXT COMPONENTS IDENTIFIED

How Core Context Components Might Be Identified by the CC Team

These are derived from the business process subject matter experts and the meaning and knowledge inference of the Content Components.

The author has added notes expressing departure opinion(s) from the scenario example. This is done only to add credence to the idea that these are not final, firm or correct Core Content Components, but only used for scenario examples.

Note: Most of the context information as it pertains to Core Context Components that might be identified by the CC Team have been altered.

- Industry (General, Level2Ind, Level3Ind) (example: Financial Services, Insurance, Commercial Public)
- BusinessPurpose (example: GatherRFQinfo)
- BusinessProcess (InitiateCoverage, ChangeCoverage, etc.)
- InitiateCoverage (RFQ, RFI, etc)
- ChangeCoverage (ChPersonalIDInfo, ChPolicyCov, ChAdd, ChDel)
- RFQ (date, time, region, agent, etc.)
- ProductType (AutoIns, LifeIns, etc)
- AutoIns (Comprehensive, collision, etc.)
- LifeIns (Term, Whole, etc.)
- Restrictions (Legal, Political, etc.)
- ProcessingRequirement(s) (age, affiliation(s), employment, healthinfo)
- OriginationInfo (origdate, origtime, origregion, origagent, etc.)
- InfoLocation (URL, DirectoryPath, etc.)
- Record(s)Update (RecUpDate, RecUpID, etc.)

39 context components

Observations

The sum of the components at the end of the examples is not significant except in that it may indicate that content information components have at least as many context information components associated with them that must be identified.

These components may/may not be necessary to do a business information exchange. Those decisions should be made by the individual business participants. Non-the-less the context components are the much-needed completion for information to truly be smarter, faster, cheaper information availability.