

Edifecs Commerce



Guideline XML (gXML)

eCommerce Guideline Exchange Format

Table of Contents

Document Notice	iv
Version History	v
Scope of Standard	vi
Intended Readership.....	vi
Support for Standard.....	vi
1. Introduction	1
Business Scenarios	1
The Need for an Schema Exchange Format.....	2
Why XML.....	2
Why not DTDs	3
2. Standard Structure	4
3. Node Description	8
Area.....	8
ApplicationFields.....	8
AuthorName	8
ChildNodes.....	8
Code.....	9
CodeName	9
CodeValue.....	9
Composite	9
Control.....	9
Count.....	10
CreationDate	10
DataType.....	10
DocumentOptions	10
DocumentProperties	10
EDSFileName.....	11
Element	11
ElementCode.....	11
Example	11
Excluded.....	11
FieldLabel.....	12
FieldName	12
Format.....	12
GroupID.....	12
Guideline	12
GuidelineNotes	13
ID	13
IndustryType.....	13
InternalFormat	13
Keywords.....	13
Label	14
Labels.....	14
LastModified	14
List	14
Lists.....	14
ListValue.....	15

Loop	15
MaxSize.....	15
MaxUse	15
Message Status	15
MinSize.....	16
MiscInfo.....	16
Mode	16
Name.....	16
Note.....	16
Notes.....	17
PublishDate	17
Purpose	17
RecordName	17
Segment.....	18
Sequence	18
Standard.....	18
StandardCodes.....	18
StdCodes.....	18
StdRequirement.....	19
StdVersion.....	19
Subject	19
Title	19
TradingPartner.....	20
Transaction.....	20
Usage	20
Usages	20
UserDefinedCodes.....	20
UsrRequirement.....	20
Version	21
VersionNbr.....	21
Appendix A – gXML DTD	22
Appendix B – Example XSL (gXML to HTML)	25
Appendix D – Glossary	27

Document Notice

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<http://www.edifecs.com>

Edifecs Commerce Corporation
2340 - 130th Ave NE Suite 200
Bellevue, WA 98005 USA
Telephone: 425-895-3020

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Version History

Version 0.7 March, 2nd 1999 Initial Draft

Preface

Scope of Standard

The gXML Technical Specification contains the file structure and node definitions required for creating an gXML compliant document. In addition, this document provides detailed instructions and examples to aide in actually creating gXML files, a DTD that can be used to validate any gXML file, and an example XSL that can be used to transform the gXML file into a web-ready format. Background information on Edifecs can be obtained from www.edifecs.com/corporate.

Intended Readership

This Edifecs Technical Specification is designed for review and implementation of tools vendors and independent software providers that deal with electronic commerce, standards bodies, industry associations, and other electronic commerce professionals working with business to business interchange schemas.

Support for Standard

gXML Version 1.0 is targeted for release at the end of March 1999 to correspond with the release of Edifecs SpecBuilder 3.6. From that point forward, Edifecs intends to provide a migration path between Version 1.0 and subsequent versions, as well as full support within the SpecBuilder Suite. In addition, EDIFACT and other guidelines will be available for download from www.commercedesk.com in the new format.

1. Introduction

Guideline XML (gXML) is a file structure developed by Edifecs Commerce to allow the open exchange of electronic commerce guidelines, otherwise known as EDI Transaction Sets and Schemas, in an Extensible Markup Language (XML) data format. By providing an easy to use, extensible format for exchange specifications, gXML paves the way for greater tool integration and interoperability.

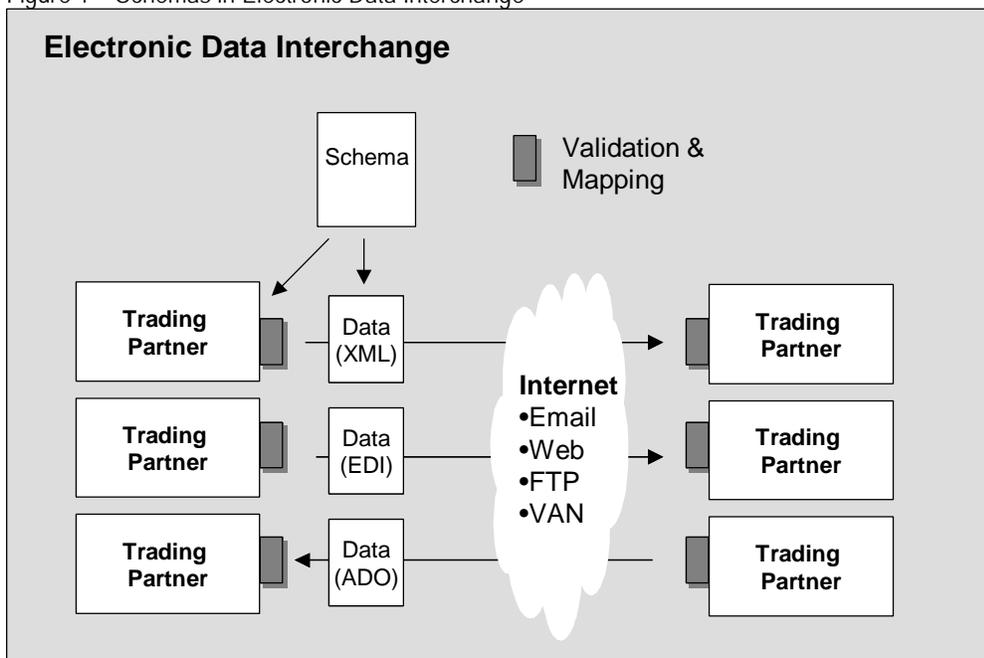
Business Scenarios

Data is exchanged between companies in many formats. Two of the more common standards-based formats are ANSI X12 and UN/EDIFACT. These formats have been well defined both structurally and syntactically. In addition, significant effort has been spent defining hundreds of commonly exchanged business documents, such as purchase orders, invoices, and receipts for both of these standards.

A new format gaining widespread attention is XML. XML by itself simply defines a general syntax and structure. Various organizations, including Rosettanet, XML/EDI and EDIFACT, are looking at ways of taking the existing EDI specifications and changing the syntax to XML while leveraging the already defined business documents.

The definition of the contents and structure of a specific exchange, such as a purchase order, can be called a Schema. In traditional EDI, Schemas are used for mapping between different structures and for validating that the data is standards compliant.

Figure 1 – Schemas in Electronic Data Interchange



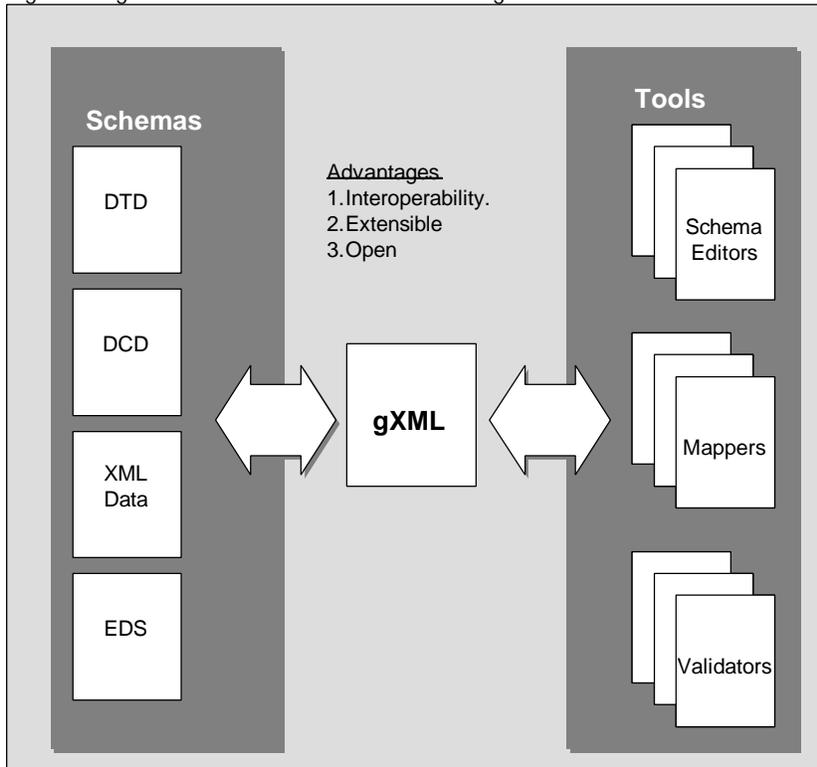
The Need for an Schema Exchange Format

Various software vendors offer tools for both creating Schemas and consuming Schemas. The most popular EDI schema creation tool is SpecBuilder from Edifecs Commerce. The SpecBuilder suite includes a graphical editor, an Analyzer for validating data, a Migrator for moving between versions, a Specification Generator for creating schemas from existing EDI data, and a Data Generator for creating test data from specifications. SpecBuilder is used by ASNI X12 and over 30 industry associations for creating schemas.

Using gXML as the format for exchanging schemas between organizations makes it's easy to bring the schema in to different tools. Already, there are converters which go between gXML and other standard formats.

In addition, Edifecs and others are currently working on converters, to convert gXML into DTDs, DCDs, and other formats. Because gXML is based on XML, many of these conversions can be implemented simply by writing XSL (Extensible Style Sheet Language) style sheets.

Figure 2 – gXML as a common Schema Exchange format



Why XML

Extensible Markup Language (**XML**) is an ideal data format for storing structured information making it the best format for storing EDI guidelines. An XML document contains instructions, called **tags**, which are used to identify parts of the documents. These tags make the XML file a self-describing format, so that the file can be easily viewed by users by using their web browsers and interpreted by other

software products that can parse XML files. So the key advantages for using XML are:

- This data format is not owned or dominated by any single commercial interest as it was developed by **W³C** (the **World Wide Web Consortium**).
- Commercial web browsers such as Microsoft's Internet Explorer 5.0 can display and validate XML files. Therefore the guidelines can now truly be disseminated without the need for special viewer programs.
- XML related technology Extensible Style Language (**XSL**) can be used to apply different style sheets to the same content, much like Cascading Style Sheets in HTML.
- XML also provides a mechanism to validate a XML file by using Document Type Definition (**DTD**).
- More and more companies such as Microsoft, IBM, Sterling Commerce are adopting XML for exchanging documents. There are also many free tools available from various companies which make the parsing and reading of XML files a trivial tasks.
- XML's self-describing format makes it easier to modify the file format for future needs without requiring changes to the existing products.

For further information on the use of XML for EDI, refer to the [Guidelines published by the XML/EDI Group](#).

Why not DTDs

An alternative to persisting the guidelines in XML would be to persist the guidelines in a DTD format. However, there is a broad recognition that DTDs have many shortcomings. Some examples of DTD limitations are:

- Currently there is no method to specify various EDI data types in a DTD.
- DTD does not allow any mechanism to specify minimum and maximum lengths.
- DTDs does not allow a method to specify a repeat count.

W³C members have proposed XML-DATA, DCD, and other schema formats as alternatives to DTD. However, W³C has not made a recommendation on these formats. As previously mentioned Edifecs does recognize that DTDs do play an important role and will provide a conversion from gXML to DTD or any future schema format recommended by W³C.

2. Standard Structure

This section defines the structure of the gXML format by describing the hierarchy of the nodes in the gXML format. The following structure defines all nodes which may possibly appear in the gXML file. The next section describes each node.

Guideline	Top node in XEF file that contains all other nodes
EDSFileName	SpecBuilder file name
InternalFormat	Indicates file format, currently it will be EDS, indicating Edifecs Data Specification
DocumentProperties	Node used to group all the guideline properties
Title	Guideline title specified in document properties
Subject	Guideline subject specified in document properties
AuthorName	Guideline author
TradingPartner	Trading partners specified in document properties
Keywords	Keywords specified in document properties
Version	Indicates whether the guideline is a draft or final
VersionNbr	Indicates the version number specified in the document properties
CreationDate	Creation date is automatically generated by SpecBuilder when the guideline is created
LastModified	Last modified date is automatically generated by SpecBuilder when the Guideline was last saved
PublishDate	Publish date is specified by the user to indicate when the guideline was Published
GuidelineNotes	Notes on guideline properties dialog
IndustryType	Indicates the industry the guideline is intended for as indicated by the user
DocumentOptions	Node used to group document options available in SpecBuilder
Labels	Indicates the labels used for various fields in SpecBuilder
Label	Indicates the new label for the field
Usages	Node used to group the value for various usage options
Usage	Node used to change the default usage in SpecBuilder
Lists	Node use to group the various list values
List	Node used to indicate which list the values are being specified for
ListValue	Values which are displayed in the list box for the control specified by the list ID
Transaction	Node used to group all transactions information
ID	Used in various nodes for identifying the nodes
Name	Node used in various sections for node names
Purpose	Stores the purpose notes for the parent node
MessageStatus	Indicates the message status for EDIFACT guidelines
GroupID	Indicates the functional group id for X12 guidelines
Standard	Indicates the standard from which the guideline was created, X12 or EDIFACT
StdVersion	Indicates the standard version from which the guideline was created
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
ChildNodes	Node to group the child nodes for the parent node
Loop	Indicates a segment group occurrence in EDIFACT and loop occurrence in X12
ID	Used in various nodes for identifying the nodes

Name	Node used in various sections for node names
StdRequirement	Indicates the requirement option as specified by the standard's organization
UsrRequirement	Indicates the requirement option as specified by the user
Area	Indicates the section in which the loop or segment occurs
Sequence	Indicates the position of the segment or loop within transaction
Count	Indicates the maximum number of times a loop can repeat
Excluded	Indicates whether the node has been excluded
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
ChildNodes	Node to group the child nodes for the parent node
Segment (see below)	
Segment	Used to group all the attributes for a segment and segment child nodes
ID	Used in various nodes for identifying the nodes
Name	Node used in various sections for node names
StdRequirement	Indicates the requirement option as specified by the standard's organization
UsrRequirement	Indicates the requirement option as specified by the user
Area	Indicates the section in which the loop or segment occurs
Sequence	Indicates the position of the segment or loop within transaction
MaxUse	Indicates the maximum times a segment, composite or element can occur in the data
Excluded	Indicates whether the node has been excluded
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
ChildNodes	Node to group the child nodes for the parent node
Composite	Used to group all the attributes for a composite and composite child nodes
ID	Used in various nodes for identifying the nodes
Name	Node used in various sections for node names
StdRequirement	Indicates the requirement option as specified by the standard's organization
UsrRequirement	Indicates the requirement option as specified by the user
Sequence	Indicates the position of the composite or element within the segment
MaxUse	Indicates the maximum times a segment, composite, or element can occur in the data
Excluded	Indicates whether the node has been excluded
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
ApplicationFields	Used to group all application fields
FieldName	Indicates the application field Name
RecordName	Indicates the application record in which the field is mapped to
Example	Example application field value
Mode	This node indicates the input mode for data entry
Control	Specifies the UI control for the field on the form
Field	Specifies the label for the field on the form
Label	
Format	Specifies the format for the field on the form
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information

ChildNodes	Node to group the child nodes for the parent node
Element (See Below)	
Element	Used to group all the attributes for an element and element child nodes
ID	Used in various nodes for identifying the nodes
Name	Node used in various sections for node names
StdRequirement	Indicates the requirement option as specified by the standard's organization
UsrRequirement	Indicates the requirement option as specified by the user
Sequence	Indicates the position of the composite or element within the segment
DataType	Indicates the data type for the element
MinSize	Indicates the minimum length for the element
MaxSize	Indicates the maximum length for the element
MaxUse	Indicates the maximum times a segment, composite or element can occur in the data
Excluded	Indicates whether the node has been excluded
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
ApplicationFields	Used to group all application fields
FieldName	Indicates the application field Name
RecordName	Indicates the application record in which the field is mapped to
Example	Example application field value
Mode	This node indicates the input mode for data entry
Control	Specifies the UI control for the field on the form
Field	Specifies the label for the field on the form
Label	
Format	Specifies the format for the field on the form
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
ChildNodes	Node to group the child nodes for the parent node
StdCodes	Indicates how the standard codes for the element are being used
Code	Used to group all the attributes for a code
CodeValue	Indicates the code
CodeName	Indicates the code name
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
UserDefinedCodes	Lists all the user defined codes
Code	Used to group all the attributes for a code
CodeValue	Indicates the code
CodeName	Indicates the code name
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information
StandardCodes	Used to group all the standard codes together so that they can be referenced by multiple elements
ElementCode	Used to group all the codes for an element
Code	Used to group all the attributes for a code
CodeValue	Indicates the code

CodeName	Indicates the code name
Notes	Node to group the various notes together
Note	Note text for the various notes which can be included in the guideline
MiscInfo	Currently this not used, but it is provided to hold additional information

3. Node Description

This section is an alphabetical list of all nodes used in the gXML format.

Data types used in this section are:

- PCDATA Represents normal character data except those used by the XML parser, such as <, >, />

Area

Description: Indicates the section in which the loop or segment occurs. Area values are:
1 – Header
2 – Detail
3 - Summary

Required: Yes

Occurs: 1

Parent Node: Loop, Segment

Child Nodes: None

Attributes: None

Example: 1

Data Type: PCDATA

ApplicationFields

Description: Used to group all application fields to which an EDI composite or an EDI element are mapped. For example DTM02 may be mapped to DATUM field in SAP software.

Required: No

Occurs: 1

Parent Node: Composite, Element

Child Nodes: FieldName, RecordName, Example, Mode, FieldLabel, Control, Format, Notes

Attributes: None

AuthorName

Description: Guideline author.

Required: No

Occurs: 1

Parent Node: Document Properties

Child Nodes: None

Attributes: None

Example: Vik

Data Type: PCDATA

ChildNodes

Description: Node to group the child nodes for the parent node.

Required: No

Occurs: 1

Parent Node: Transaction, Loop, Segment, Composite, Element

Child Nodes: Any

Attributes: None

Code

Description: Used to group all the attributes for a code.
Required: No
Occurs: Several
Parent Node: StdCodes, UserDefinedCodes, ElementCode
Child Nodes: Code
Attributes: ID: Used only as part of the Standard Codes to uniquely identify this code in the guideline. ID consists of a constant value of "CD." + Element Id to which the code belongs + position of the code in the code list. Example: CD.0069.1;

IDRef: Pointer to an existing Code. This is used within the element to point to a standard code. Example: CD.0069.5

CodeName

Description: Indicates the code name.
Required: No
Occurs: 1
Parent Node: Code
Child Nodes: None
Attributes: None
Example: Application error and acknowledgement message
Data Type: PCDATA

CodeValue

Description: Indicates the code.
Required: No
Occurs: 1
Parent Node: Code
Child Nodes: None
Attributes: None
Example: APERAK
Data Type: PCDATA

Composite

Description: Used to group all the attributes for a composite and composite child nodes.
Required: No
Occurs: Several
Parent Node: Segment
Child Nodes: ID, Name, StdRequirement, UsrRequirement, Sequence, MaxUse, Excluded, Notes, MiscInfo, ApplicationFields, ChildNodes
Attributes: None

Control

Description: Specifies the UI control for the field on the form. Value is an index to the list values where the controls are specified.
Required: No
Occurs: 1
Parent Node: ApplicationFields

Child Nodes: None
Attributes: None
Example: 1 (Text)
Data Type: PCDATA

Count

Description: Indicates the maximum number of times a loop can repeat.
Required: Yes
Occurs: 1
Parent Node: Loop
Child Nodes: None
Attributes: None
Example: 9
Data Type: PCDATA

CreationDate

Description: Creation date is automatically generated by SpecBuilder when the guideline is created.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: December 12, 1998 10:57 PM
Data Type: PCDATA

Data Type

Description: Indicates the data type for the element.
Required: Yes
Occurs: 1
Parent Node: Element
Child Nodes: None
Attributes: None
Example: DT
Data Type: PCDATA

DocumentOptions

Description: Node used to group document options available in SpecBuilder.
Required: No
Occurs: 1
Parent Node: Guideline
Child Nodes: Labels, Usages, Lists
Attributes: None

DocumentProperties

Description: Node used to group all the guideline properties.
Required: No
Occurs: 1
Parent Node: Guideline

Child Nodes: Title, Subject, Author, TradingPartner, Keywords, Version, VersionNbr, CreationDate, LastModified, PublishDate, GuidelineNotes, IndustryType
Attributes: None

EDSFileName

Description: SpecBuilder file name.
Required: Yes
Occurs: 1
Parent Node: Guideline
Child Nodes: None
Attributes: None
Example: d:\aperak.eds
Data Type: PCDATA

Element

Description: Used to group all the attributes for an element and element child nodes.
Required: No
Occurs: Several
Parent Node: Segment, Composite
Child Nodes: ID, Name, StdRequirement, UsrRequirement, Sequence, DataType, MinSize, MaxSize, MaxUse, Excluded, Notes, MiscInfo, ApplicationFields, ChildNodes
Attributes: None

ElementCode

Description: Used to group all the codes for an element.
Required: No
Occurs: 1
Parent Node: Guideline
Child Nodes: ElementCode
Attributes: ID: Uniquely identifies the element code list. ID consists of a constant value of "CD." + Element Id. Example: CD.0065

Example

Description: Example application field value.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: 19990301
Data Type: PCDATA

Excluded

Description: Indicates whether the node has been excluded. Value 1 indicates that the use has excluded the node in the guideline.
Required: No
Occurs: 1

Parent Node: Loop, Segment, Composite, Element
Child Nodes: None
Attributes: None
Example: 1
Data Type: PCDATA

FieldLabel

Description: Specifies the label for the field on the form.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: Date:
Data Type: PCDATA

FieldName

Description: Indicates the application field Name.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: DATUM
Data Type: PCDATA

Format

Description: Specifies the format for the field on the form.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: CCYYMMDD
Data Type: PCDATA

GroupID

Description: Indicates the functional group id for X12 guidelines.
Required: No
Occurs: 1
Parent Node: Transaction
Child Nodes: None
Attributes: None
Example: FG
Data Type: PCDATA

Guideline

Description: Top node in gXML file that contains all other nodes.
Required: Yes
Occurs: 1

Parent Node: None
Child Nodes: All
Attributes: Version Indicates the gXML version. Currently a fixed value of 1.0.

GuidelineNotes

Description: Notes on guideline properties dialog.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: Test Guideline Do Not Use
Data Type: PCDATA

ID

Description: Used in various nodes for identifying the nodes.
Required: Yes
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element
Child Nodes: None
Attributes: None
Example: APERAK, Group2, UNH
Data Type: PCDATA

IndustryType

Description: Indicates the industry the guideline is intended for as indicated by the user.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: Retail
Data Type: PCDATA

InternalFormat

Description: Indicates file format, currently it will be EDS, indicating Edifecs Data Specification.
Required: Yes
Occurs: 1
Parent Node: Guideline
Child Nodes: None
Attributes: None
Example: EDS
Data Type: PCDATA

Keywords

Description: Keywords specified in document properties.
Required: No
Occurs: 1

Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: Widget
Data Type: PCDATA

Label

Description: Indicates the new label for the field.
Required: No
Occurs: Several
Parent Node: Labels
Child Nodes: None
Attributes: LabelID Indicates the internal ID for the label. Example:
UserNote2 Example: Internal

Labels

Description: Indicates the labels used for various fields in SpecBuilder.
Required: No
Occurs: Several
Parent Node: Document Options
Child Nodes: Label
Attributes: ApplyTo Indicates which fields to which the labels are applied.
Currently the possible values are: Sets, Segments, Elements,
Codes, Application

LastModified

Description: Last modified date is automatically generated by SpecBuilder when
the guideline was last saved.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: January 08, 1999 03:52 PM
Data Type: PCDATA

List

Description: Node used to indicate which list the values are being specified for.
Required: No
Occurs: Several
Parent Node: Lists
Child Nodes: ListValues
Attributes: ListID Indicates the list control to which the values apply.
Example: Mode

Lists

Description: Node use to group the various list values.
Required: No
Occurs: 1
Parent Node: Document Options

Child Nodes: List
Attributes: None

ListValue

Description: Values which are displayed in the list box for the control specified by the list ID.
Required: No
Occurs: Several
Parent Node: List
Child Nodes: None
Attributes: Index: Value from 1 to n based on the number of list values.
Example: 1 Example: Automatic

Loop

Description: Indicates a segment group occurrence in EDIFACT and loop occurrence in X12.
Required: No
Occurs: Several
Parent Node: Transaction, Loop
Child Nodes: ID, Name, StdRequirement, UsrRequirement, Area, Sequence, MaxUse, Notes, MiscInfo,
Attributes: None

MaxSize

Description: Indicates the maximum length for the element.
Required: Yes
Occurs: 1
Parent Node: Element
Child Nodes: None
Attributes: None
Example: 8
Data Type: PCDATA

MaxUse

Description: Indicates the maximum times a segment, composite or element can occur in the data.
Required: Yes
Occurs: 1
Parent Node: Segment, Composite, Element
Child Nodes: None
Attributes: None
Example: 1
Data Type: PCDATA

Message Status

Description: Indicates the message status for EDIFACT guidelines.
Required: No
Occurs: 1
Parent Node: Transaction
Child Nodes: None
Attributes: None

Example: 1
Data Type: PCDATA

MinSize

Description: Indicates the minimum length for the element.
Required: Yes
Occurs: 1
Parent Node: Element
Child Nodes: None
Attributes: None
Example: 8
Data Type: PCDATA

MiscInfo

Description: Currently this not used, but it is provided to hold additional information which is not supported by SpecBuilder. If this node contains child nodes then additional DTD will be needed in the gXML file.
Required: No
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element, Code
Child Nodes: None
Attributes: None
Example: Anything

Mode

Description: Used to link the EDI field to a form field. This node indicates the input mode for data entry by referencing the index value specified in the list values.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: 1 (Automatic)
Data Type: PCDATA

Name

Description: Node used in various sections for node names.
Required: No
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element
Child Nodes: None
Attributes: None
Example: Message header
Data Type: PCDATA

Note

Description: Note text for the various notes which can be included in the guideline.

Required: No
Occurs: Several
Parent Node: Notes
Child Nodes: None
Attributes: Type Indicates the type of note. Types can be: Purpose, Syntax, Semantics, InternalNotes, UserNote, SetComments
Example: To head, identify and specify a message.
Data Type: PCDATA

Notes

Description: Node to group the various notes together.
Required: No
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element, Code
Child Nodes: Note
Attributes: None

PublishDate

Description: Publish date is specified by the user to indicate when the guideline was published or completed.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: January 08, 1999 03:52 PM
Data Type: PCDATA

Purpose

Description: Stores the purpose notes for the parent node.
Required: No
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element
Child Nodes: None
Attributes: None
Example: The function of this message is to inform a message.
Data Type: PCDATA

RecordName

Description: Indicates the application record in which the field is mapped to.
Required: No
Occurs: 1
Parent Node: ApplicationFields
Child Nodes: None
Attributes: None
Example: E2EDKA1
Data Type: PCDATA

Segment

Description: Used to group all the attributes for a segment and segment child nodes.
Required: No
Occurs: Several
Parent Node: Loop, Transaction
Child Nodes: ID, Name, StdRequirement, UsrRequirement, Sequence, MaxUse, Excluded, Notes, MiscInfo, ChildNodes
Attributes: None

Sequence

Description: Indicates the position of the segment or loop within transaction or the position of composite and element in the segment.
Required: Yes
Occurs: 1
Parent Node: Loop, Segment
Child Nodes: None
Attributes: None
Example: 0010, 010
Data Type: PCDDATA

Standard

Description: Indicates the standard from which the guideline was created, X12 or EDIFACT.
Required: Yes
Occurs: 1
Parent Node: Transaction
Child Nodes: None
Attributes: None
Example: EDIFACT
Data Type: PCDDATA

StandardCodes

Description: Used to group all the standard codes together so that they can be referenced by multiple elements.
Required: No
Occurs: 1
Parent Node: Guideline
Child Nodes: ElementCode
Attributes: None

StdCodes

Description: Indicates how the standard codes for the element are being used.
Required: No
Occurs: 1
Parent Node: Element
Child Nodes: Code
Attributes: IDRef: Pointer to the element code in standard codes section of the file. Standard codes are listed separately so that they don't have to be repeated for each element thereby reducing the file size.

IncludeStd: Indicate the usage of standard codes for this element. Possibly values are: Changed, Std, and None. Changed indicates that there were changes from the standard codes and these changes are listed in the child nodes. Std indicates that the standard codes are used as they appear in the StandardCodes node. None indicates that no standard codes are being used.

StdRequirement

Description: Indicates the requirement option as specified by the standard's organization, unless changed by the user. Standard's organizations are X12, EDIFACT, VICS, etc.

Required: Yes

Occurs: 1

Parent Node: Loop, Segment, Composite, Element

Child Nodes: None

Attributes: None

Example: C

Data Type: PCDATA

StdVersion

Description: Indicates the standard version from which the guideline was created, like 4010 or 3050.

Required: Yes

Occurs: 1

Parent Node: Transaction

Child Nodes: None

Attributes: None

Example: D98B

Data Type: PCDATA

Subject

Description: Guideline subject specified in document properties.

Required: No

Occurs: 1

Parent Node: Document Properties

Child Nodes: None

Attributes: None

Example: Guideline Subject

Data Type: PCDATA

Title

Description: Guideline title specified in document properties.

Required: No

Occurs: 1

Parent Node: Document Properties

Child Nodes: None

Attributes: None

Example: My Guideline Title

Data Type: PCDATA

TradingPartner

Description: Trading partners specified in document properties.
Required: No
Occurs: 1
Partner Node: Document Properties
Child Nodes: None
Attributes: None
Example: WidgetsRus
Data Type: PCDATA

Transaction

Description: Node used to group all transactions information.
Required: No
Occurs: 1
Parent Node: Guideline
Child Nodes: ID, Name, Purpose, MessageStatus, GroupID, Standard, StdVersion, Notes, MiscInfo, ChildNodes
Attributes: None

Usage

Description: Node used to change the default usage in SpecBuilder.
Required: No
Occurs: Several
Parent Node: Usage
Child Nodes: None
Attributes: UsageID: Indicates the internal usage code. Example: Must_Use;
Example: Must Use

Usages

Description: Node used to group the value for various usage options.
Required: No
Occurs: 1
Parent Node: Document Options
Child Nodes: Usage
Attributes: None

UserDefinedCodes

Description: Lists all the user defined codes.
Required: No
Occurs: 1
Parent Node: Element
Child Nodes: Code
Attributes: None

UsrRequirement

Description: Indicates the requirement option as specified by the user.
Required: No
Occurs: 1
Parent Node: Transaction, Loop, Segment, Composite, Element
Child Nodes: None

Attributes: None
Example: U
Data Type: PCDATA

Version

Description: Indicates whether the guideline is a draft or final. “Draft” is indicated by a value of 0 and “Final” is indicated by a value of 1.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: 0
Data Type: PCDATA

VersionNbr

Description: Indicates the version number specified in the document properties as specified by the user.
Required: No
Occurs: 1
Parent Node: Document Properties
Child Nodes: None
Attributes: None
Example: 1.0
Data Type: PCDATA

Appendix A – gXML DTD

```
<?xml version="1.0" encoding="UTF -8" ?>
<!-- eds-v1.dtd version 1.0 -->

<!-- Guideline -->
<!ELEMENT Guideline      (EDSFileName , InternalFormat ,
                          DocumentProperties? , DocumentOptions? ,
                          Transaction , StandardCodes?)>
<!ATTLIST Guideline      Version CDATA #FIXED "1.0">

<!ELEMENT EDSFileName    ( #PCDATA ) >
<!ELEMENT InternalFormat ( #PCDATA ) >

<!-- Document Properties -->
<!ELEMENT DocumentProperties (Title? , Subject? , AuthorName? ,
                              TradingPartner? , Keywords? , Version? ,
                              VersionNbr? , CreationDate? ,
                              LastModified? , PublishDate? ,
                              GuidelineNotes? , IndustryType?)>

<!ELEMENT Title          ( #PCDATA ) >
<!ELEMENT Subject        ( #PCDATA ) >
<!ELEMENT AuthorName     ( #PCDATA ) >
<!ELEMENT TradingPartner ( #PCDATA ) >
<!ELEMENT Keywords       ( #PCDATA ) >
<!ELEMENT Version        ( #PCDATA ) >
<!ELEMENT VersionNbr     ( #PCDATA ) >
<!ELEMENT CreationDate   ( #PCDATA ) >
<!ELEMENT LastModified   ( #PCDATA ) >
<!ELEMENT PublishDate    ( #PCDATA ) >
<!ELEMENT GuidelineNotes ( #PCDATA ) >
<!ELEMENT IndustryType   ( #PCDATA ) >

<!-- Document Options -->
<!ELEMENT DocumentOptions (Labels* , Usages? , Lists?)>

<!ELEMENT Labels (Label*) >
<!ATTLIST Labels ApplyTo CDATA #REQUIRED>

<!ELEMENT Label ( #PCDATA ) >
<!ATTLIST Label LabelID CDATA #REQUIRED>

<!ELEMENT Usages (Usage*)>
<!ELEMENT Usage ( #PCDATA ) >
<!ATTLIST Usage UsageID CDATA #REQUIRED>

<!ELEMENT Lists (List*)>

<!ELEMENT List (ListValue*)>
<!ATTLIST List ListID CDATA #REQUIRED>

<!ELEMENT ListValue (#PCDATA)>
<!ATTLIST ListValue Index CDATA #REQUIRED>
```

```

<!-- Transaction -->
<!ELEMENT Transaction (ID, Name, Purpose?, MessageStatus?,
    GroupID?, Standard?, StdVersion?, Notes?,
    MiscInfo?, ChildNodes*)>

<!-- Loop -->
<!ELEMENT Loop (ID, Name?, StdRequirement, srRequirement?,
    Area, Sequence, Count, Excluded?, Notes?,
    MiscInfo?, ChildNodes*)>

<!-- Segment -->
<!ELEMENT Segment (ID, Name, StdRequirement, UsrRequirement?,
    Area, Sequence, MaxUse, Excluded?, Notes?,
    MiscInfo?, ChildNodes*)>

<!-- Composite -->
<!ELEMENT Composite (ID, Name, StdRequirement, UsrRequirement?,
    Sequence, MaxUse?, Excluded?, Notes?,
    ApplicationFields?, MiscInfo?,
    ChildNodes*)>

<!-- Element -->
<!ELEMENT Element (ID, Name, StdRequirement, UsrRequirement?,
    Sequence, DataType, MinSize, MaxSize,
    MaxUse?, Excluded?, Notes?,
    ApplicationFields?, MiscInfo?,
    ChildNodes*)>

<!-- ApplicationFields -->
<!ELEMENT ApplicationFields (FieldName?, RecordName?, Example?,
    Mode?, Control?, FieldLabel?,
    Format?, Notes*)>
<!ELEMENT FieldName (#PCDATA ) >
<!ELEMENT RecordName (#PCDATA ) >
<!ELEMENT Example (#PCDATA ) >
<!ELEMENT Mode (#PCDATA ) >
<!ELEMENT FieldLabel (#PCDATA ) >
<!ELEMENT Control (#PCDATA ) >
<!ELEMENT Format (#PCDATA ) >

<!-- Standard Codes For Element -->
<!ELEMENT StdCodes (Code*)>
<!ATTLIST StdCodes IDREF IDREF #REQUIRED
    IncludeStd CDATA #REQUIRED >

<!-- User Defined Codes For Element -->
<!ELEMENT UserDefinedCodes (Code*)>

<!-- Standard Code List For Guideline -->
<!ELEMENT StandardCodes (ElementCode*)>

<!-- Code List For Element -->
<!ELEMENT ElementCode (Code*)>
<!ATTLIST ElementCode ID ID #REQUIRED>

<!-- Code -->
<!ELEMENT Code (CodeValue?, CodeName?, Notes?, MiscInfo?)*>

```

```

<!ATTLIST Code ID ID #IMPLIED
           IDREF IDREF #IMPLIED>

<!-- Common Nodes -->
<!ELEMENT Area ( #PCDATA ) >
<!ELEMENT ChildNodes ANY >
<!ELEMENT CodeValue ( #PCDATA ) >
<!ELEMENT CodeName ( #PCDATA ) >
<!ELEMENT Count ( #PCDATA ) >
<!ELEMENT DataType ( #PCDATA ) >
<!ELEMENT Excluded ( #PCDATA ) >
<!ELEMENT Excuded ( #PCDATA ) >
<!ELEMENT GroupID ( #PCDATA ) >
<!ELEMENT ID ( #PCDATA ) >

<!ELEMENT MaxSize ( #PCDATA ) >
<!ELEMENT MaxUse ( #PCDATA ) >
<!ELEMENT MessageStatus ( #PCDATA ) >
<!ELEMENT MinSize ( #PCDATA ) >
<!ELEMENT MiscInfo ANY >
<!ELEMENT Name ( #PCDATA ) >
<!ELEMENT Notes (Note*) >
<!ELEMENT Note ( #PCDATA ) >
<!ATTLIST Note Type CDATA #REQUIRED>

<!ELEMENT Purpose ( #PCDATA ) >
<!ELEMENT Sequence ( #PCDATA ) >
<!ELEMENT Standard ( #PCDATA ) >
<!ELEMENT StdRequirement ( #PCDATA ) >
<!ELEMENT StdVersion ( #PCDATA ) >
<!ELEMENT UsrRequirement ( #PCDATA ) >

```

Appendix B – Example XSL (gXML to HTML)

```
<?xml version="1.0"?>
<?xml:stylesheet type="text/xsl"?>
<xsl:stylesheet xmlns:xsl="uri:xsl">

<!-- Copyright 1999 Edifecs Commerce -->

<xsl:script>
</xsl:script>

<xsl:template match="/">
  <html>
    <style type="text/css">
      p {font-family: arial; font-size:10pt}
      blockquote {font-family: arial; font-size:10pt}
      td {font-family: arial; font-size:10pt;border-left: none; border-right:none}
      li {font-family: arial; font-size:10pt}
      #hdg {font-family: arial; font-size:12pt;}
    </style>
    <body>
      <table border="0" width="100%">
        <tr>
          <td width="33%"><a href="main.htm">Main</a></td>
          <td width="33%">
            <a href="Branch.htm">Branch Diagram</a>
          </td>
          <td width="34%">
            <a href="structure.htm">Structure</a>
          </td>
        </tr>
      </table>
      <hr noshade="true" color="#000000" size="1"/>
      <br/>
      <table width="100%" bgcolor="#C0C0C0">
        <tr>
          <td width="35%" nowrap="true" id="hdg">
            Message Specifications
          </td>
          <td width="16%" nowrap="true" id="hdg">
            <strong>
              <xsl:value-of select="Guideline/Transaction/ID"/>
              (<xsl:value-of
                select="Guideline/Transaction/Name"/>)
            </strong>
          </td>
          <td width="25%" align="right" nowrap="true" id="hdg">
            <xsl:value-of
              select="Guideline/Transaction/Standard"/>
          </td>
          <td width="17%" nowrap="true" id="hdg">
```

```

                <xsl:value-of
                select="Guideline/Transaction/StdVersion"/>
            </td>
        </tr>
    </table>
    <br/>
    <p><u>Title:</u></p>
    <blockquote>
        <xsl:value-of select="Guideline/Attribute/Title"/>
    </blockquote>
    <p><u>Author:</u></p>
    <blockquote>
        <xsl:value-of select="Guideline/Attribute/AuthorName"/>
    </blockquote>
    <p><u>Last Modified:</u></p>
    <blockquote>
        <xsl:value-of select="Guideline/Attribute/LastModified"/>
    </blockquote>
    <p><u>Purpose:</u></p>
    <blockquote>
        <xsl:value-of select="Guideline/Transaction/Purpose"/>
    </blockquote>
    <p><u>User Notes:</u></p>
    <xsl:for-each match="Guideline/Transaction/Notes/*">
        <xsl:if match=".[@Type='UserNote']">
            <blockquote>
                <xsl:value-of select="."/>
            </blockquote>
        </xsl:if>
    </xsl:for-each>
    <ul>
        <li><a href="branch.htm">Branching Diagram</a></li>
        <li><a href="structure.htm">Message Structure</a></li>
    </ul>
    </body>
    </html>
</xsl:template>

</xsl:stylesheet>

```

Appendix D – Glossary

ANSI	The United States government body responsible for approving US standards in many areas, including computers and communications. ANSI is a member of ISO . ANSI sells ANSI and ISO (international) standards.
DCD	Data content Description for specifying rules covering the structure and content of XML documents.
DTD	The definition of a document type in SGML , consisting of a set of mark-up tags and their interpretation.
EDI	The exchange of standardized document forms between computer systems for business use. EDI is part of electronic commerce . EDI is most often used between different companies ("trading partners") and uses some variation of the ANSI X12 standard (USA) or EDIFACT (UN sponsored global standard).
EDIFACT	Electronic data interchange for administration, commerce and transport (EDIFACT) -- Application level syntax rules
EDS	Native file format used by SpecBuilder, a guideline creation and editing tool developed by Edifecs Commerce .
XML	An initiative from the W3C defining an "extremely simple" dialect of SGML suitable for use on the World-Wide Web .