



VCML GETTING STARTED GUIDE

This guide provides an overview of VCML, including its primary goals and a description of the components provided in the VCML industry packages.

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WHAT IS VCML?

VCML, or Value Chain Markup Language, is a comprehensive set of XML-based, industry-specific vocabularies and documents required to conduct business over the Internet. VCML contains a centralized library of reusable components that you can use to build industry-specific vocabularies. Specialized, industry-specific markup language vocabularies are not separate vocabularies, but are instead subsets of the VCML superset.

VCML uses XML (eXtensible Markup Language) to represent a business transaction. XML is similar to HTML in its use of markup codes or “tags” to describe the contents of a page or file. However, while HTML describes the content in terms of its presentation (that is, the format of text and graphics), XML describes the content in terms of what data is being described. By tagging the data within a business transaction, the data can be easily read by humans or integrated for use within any application.

The core principle of VCML is to provide a direct one-to-one representation of the segments and elements associated with an EDI transaction. Below is an abridged sample of an EDI document followed by the corresponding VCML representation.

EDI

```
BIG*990630*CTCR100061990630**UTILITY***PR~  
REF*LI*CTCR100061~
```

VCML

```
<BIG_0020 desc="Beginning Segment for Invoice">  
  <BIG01 desc="Date">20010101</BIG01>  
  <BIG02 desc="Invoice Number">IN923857</BIG02>  
  <BIG03 desc="Date"/>  
  <BIG04 desc="Purchase Order Number">PO573845</BIG04>  
  <BIG05 desc="Release Number">0001</BIG05>  
  <BIG06 desc="Change Order Sequence Number"/>  
  <BIG07 desc="Transaction Type Code"  
    valueDesc="Consolidated Invoice">CI</BIG07>  
  <BIG08 desc="Transaction Set Purpose Code"  
    valueDesc="Original">00</BIG08>  
</BIG_0020>  
<REF_0050 desc="Reference Information">  
  <REF01 desc="Reference Identification Qualifier"  
    valueDesc="Line Item Identifier (Seller's)">LI</REF01>  
  <REF02 desc="Reference  
    Identification">CTCR100061</REF02>  
</REF_0050>
```

Note the following:

- The tag name for segments consists of the X12 or EDIFACT segment code suffixed with the segment's position (or sequence number) within the transaction (for example, BIG_0020, REF_0050).
- The tag name for elements consists of the X12 or EDIFACT element sequence number within the segment (for example, BIG01, BIG02, REF01).
- The description for each segment and element is contained in the desc attribute.
- The description for the value of Qualifier elements is contained in the valuedesc attribute, while the actual value of the qualifier is the value of the element.

WHY SHOULD I USE VCML?

The VCML transaction sets provide an XML representation of industry-specific EDI transactions, allowing industry members to leverage their existing business rules and semantics for Internet-based electronic transaction exchange.

You can use VCML in a variety of ways, including:

- Converting an EDI transaction to XML prior to transmission to a non-EDI partner
- Converting an EDI transaction to XML to present documents on the web for a non-EDI partner to process (and respond to)
- For non-EDI partners, converting a VCML document to or from another XML dialect or format such as those provided by various accounting and back-office systems
- For non-EDI partners, sending VCML documents to EDI-enabled partners who can then convert the documents to EDI for processing by internal systems

WHAT ARE THE COMPONENTS OF VCML?

VCML is packaged as a series of industry collections that contain the XML specifications for the transactions that are popular within each particular industry, as well as supplemental tools and samples.

You can download the standard VCML industry collections from <http://www.vcml.net>. The web site also provides VCML specifications that have been customized and endorsed by various standards bodies and individual companies.

XML SPECIFICATIONS

The XML specifications provided with the standard VCML industry collections are provided in the form of DTDs (document type definitions) and XML schemas. These specifications provide information such as the expected structure of the XML document, valid content values, data types, and data minimum and maximum widths.

You use these specifications:

- Within a transformation tool for mapping purposes to describe the structure and format of the transaction
- With an XML parsing tool such as Xerces to validate the structure and syntax of a VCML document

SPECIFICATION GUIDES

The standard VCML industry specification guides provide detailed information on the expected content of the VCML XML documents.

SAMPLE DOCUMENTS

The standard VCML industry collections also include sample VCML XML documents.

VCML MANAGER

Coming soon! The VCML Manager provides a way for you to easily modify the XML specifications. The VCML Manager lets you make changes to the transaction specifications through an editor that is similar in format to many EDI reference tools. After you modify the transaction specifications, you can generate new XML specifications, sample XML documents, and specification guides and share them with your trading partners.

HOW DO I INTEGRATE VCML INTO MY BUSINESS PROCESS?

It is easy to get started with VCML. The following steps describe how you can incorporate VCML into your company's established e-business process.

STEP 1 - IDENTIFY IMPLEMENTATION METHOD

The first step is to determine how you want to implement the VCML transactions (that is, identify the format of the source and target documents):

- Convert EDI to and from VCML.
- Convert VCML to and from another XML dialect or form (such as a database).

STEP 2 - IDENTIFY TRANSLATION PROCESS

Next, identify the translation process you want to use to convert data to and from the VCML format. Depending on the method you selected in Step 1, there are a number of ways you can translate data.

If you are converting EDI to and from VCML, your options are to:

- Create maps for each different EDI transaction using an any-to-any mapper such as your current EDI translator (for example, Gentran or Paperfree).

- Create a custom translation process to convert data from the EDI format to VCML.
- Use an EDI/XML translator such as Vitria Technology's EDI Module which will, in future releases, include direct translation to and from X12/EDIFACT EDI and VCML 1.1.

If you are converting VCML to and from another XML dialect or form, your options are to:

- Create an XSL transformation for converting another XML dialect to VCML.
- Create a map between the other format and VCML using an any-to-any mapping tool.

STEP 3 - REVIEW SPECIFICATION GUIDES AND SAMPLE DOCUMENTS

The VCML DTDs are designed to be read by an XML parser and publisher to provide the definition of the structure and syntax of the VCML document. To gain a better understanding of the structure and format of VCML, review the sample VCML XML documents.

Each VCML document:

- Represents a single EDI transaction (that is, the contents of a single ST/SE loop)
- Contains the representation of the Interchange (ISA/IEA) and Functional Group (FS/FG) envelopes
- Has a high-level element structure of:
 - <Interchange/>
 - <Division/>
 - <TransactionName/>, which is equal to the name of the EDI transaction being represented (for example, PurchaseOrder or AdvancedShipNotice).

This means that each VCML document has the following format:

```
<?xml version="1.0" encoding="UTF-8"?>
<Interchange
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"
  xmlns = "http://www.vcml.net/1.1/Aerospace"
  xsi:schemaLocation = "http://www.vcml.net/1.1/Aerospace
    PurchaseOrder.xsd">
  <ISA desc="Interchange Control Header">
    <ISA01/> and other elements
  </ISA>
```

```
<Division>
  <GS desc="Functional Group Header">
    <GS01/> and other elements
  </GS>
  <PurchaseOrder>
    <ST desc="Transaction Set Header">
      <ST01/> and other elements
    </ST>
    <BEG desc="Beginning Segment for Purchase Order">
      <BEG01/> and other elements
    </BEG>
    and other elements
  </PurchaseOrder>
</Division>
</Interchange>
```

STEP 4 - CREATE YOUR OWN VERSION OF VCML

Coming soon! After you become more familiar with VCML, you will probably want to optimize the VCML XML specifications for the specific transaction sets implemented within your organization. Use the VCML Manager to:

- Create a custom vocabulary.
- Add, delete, and modify transaction sets.
- Generate new XML specifications in the form of DTDs and schemas.
- Generate test data.
- Generate specification guides.

For more information, see the *VCML Manager Guide*.

WHERE CAN I GET MORE INFORMATION OR SUPPORT?

For additional information on VCML, refer to the VCML web site:

<http://www.vcml.net>

For support, please send email to:

support@vcml.net

Make sure you include your contact information and a detailed description of your request.