ORACLE

An EDI Cookbook for: Oracle B2B

Page 1 of 53

Contents

Introduction	3
What is EDI	4
EDI Document structure	4
EDI Document structure EDI Support in Oracle B2B	5
Control Numbers Control Number Generated by Back end Application Control Number Generated by B2B	16 16
EDI Batching Batching EDI Transaction Sets De-batching EDI Transaction Sets	17
Additional features, Tips and Tricks Custom Code List – EDI Handling Positional Flat File Performance Best Practices Large Payload Configurations	
Oracle B2B Document Editor CREATION of ECS files USING SPEC BUILDER 6.6.1 CREATION of XML Schema Definition (xsd) for the ECS file DATA GENERATION USING ECS FILE. ANALYSE THE DATA/ VALIDATE THE GUIDE LINE Print and Publish Specifications Write and Test Business Rules Using Java Script Compare customized specification to the standard specification Reverse engineering specifications using existing data files	21 21 24 29 37 43 43 45 47
Typical EDI Errors	
FAQ	
~ Reference Information	

Page 2 of 53

Introduction

EDI – Electronic Data Interchange is a structured Document standard and is one of the most widely used standard in Business-to-Business communication. The various modes of exchanging an EDI data are using the well-known exchange protocols such as AS1, AS2, and VAN.

Purpose

The main purpose of this book is to get basic understanding of the EDI standards, learn Oracle Fusion Middleware B2B EDI support, User experience while configuring EDI protocol using Oracle B2B, Various Error/Exception scenario and also to model the various EDI messages using Oracle B2B Document Editor.

After reading this book, users should be able to independently model Various EDI use cases such as batching, debatching and end-to-end scenario using various EDI message types and revisions.

Audience

EDI Cookbook is intended for B2B users who want to exchange EDI messages such as EDIFACT, X12 using Oracle B2B as an Integration Gateway product and would like to understand various use cases and implementation.

Prerequisite

Basic Knowledge of EDI Standard i.e. both X12 or EDIFACT is a must.

Assumptions

This document is based on Oracle Fusion Middleware B2B 11g R1

Page 3 of 53

What is EDI

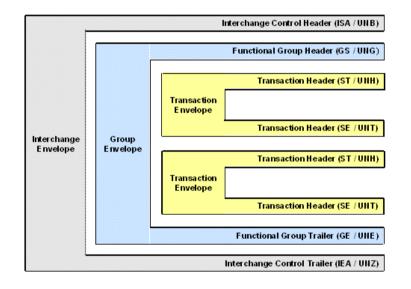
Electronic Data Interchange is a Structured Business to Business Document standard which can be Electronically exchanged between and with in the Enterprise. EDI standard define the structure of the Business document for e.g. Purchase Order, Invoice etc. Even though it is a flat file standard unlike the popular XML standard, it is difficult to replace EDI due to its wider adoption and customer base.

Advantages of EDI

- Well-defined structure for handling various Business processes.
- Matured standard as it addresses every complex use case in various Business domains.
- Wider adoption and increased customer base.
- Matured, well-defined, EDDIINT standard such as AS1, AS2 for data exchange.

EDI Document structure

The below picture explains the EDI document structure by taking X12 and EDIFACT document.



Please refer to any Basic EDI tutorial for Document organization.

EDI documents can be grouped based on some unique criterion and contain Group sender, Group recipient etc. Which is unique to the group. Multiple Group can be enclosed in an envelope called Interchange. Group is not mandatory in EDI world, and is possible to enclose the documents directly under Interchange.

Sample X12 file

```
ISA~00~Authorizat~00~Security I~01~Interchange
Sen~01~Interchange Rec~071105~2249~U~00401~849818414~0~I~¬
GS~PO~Ap~Ap~20071105~2249~83~T~004010
ST~850~2604
BEG~00~AB~P~20071105
PO1~123
SE~4~2604
GE~1~83
IEA~1~849818414
```

EDI Support in Oracle B2B

Oracle B2B supports both the EDIFACT and X12 flavor of EDI. Oracle Integration B2B has teamed up with EDIFECS[™] to provide their robust translation and validation engine as an integral part of Oracle Integration B2B. This solution provides:

- A library of ALL EDIFACT, X12, HL7, HIPAA, EANCOM, NCPDP Script transaction sets
- Data file validation
- Data Migration
- Tests data generation
- De-Identification
- Dictionary generation
- Batching
- Guideline migration

User Experience while configuring EDI protocol in Oracle B2B

The following are the steps to configure an EDI document in Oracle B2B.

Identify the Document to be exchanged with the Trading Partner; it includes EDI Standard, Document Type and Document Revision.
 e.g. Standard X12, Document Type : 850 Document Revision : 4010

→ Go to Administration → Select Document → Select Document Protocols → Select EDI_X12

- Create the ecs file based on the document to be exchanged using Oracle B2B
 Document Editor. Please refer to the Document Editor Section
- Export the ecs file to get an XML schema file. Schema is used by the application, where as ecs file is used in B2B.

Note: While exporting, select the option to export in Oracle B2B 2.0 format

 Define Document Revision, Document Type and Document Definition for configuring a specific EDI Document.

Page 5 of 53

Create a Document Protocol Version

→ Click (+) icon in Document Protocol pane to Add Document Protocol Version

ORACLE B2B			Admini	istration Partners Reports	Metrics Help Logout 🗲
					Logged in as weblogie
Document Deploy Manage D	eployments Types Import/Export	Schedule Batch Manage Batch	Callout Purge Listening Channel Configu	ration	
					Save New Type
🗄 Documents 🛛 🕂 💥	Document Protocol Vers	aon			save New Type
Document Protocols Gustom					
EDI_EDIFACT					
EDI_X12	EDI X12-NewVersion				
s NewVersion		protocol. After the new version is sa	ved, you can create a new document type.		
HL7 CAG	* Version Name	4010			
PositionalFlatFile	Description				
RosettaNet					
UCCNet					
					Reset Parameter
	Interchange Group Delimit	ers			
	Authorization Information Qualifier	00	Interchange Control Standard/Repetition Separator	U	
	Authorization Information		* Interchange Control Version Number	00401	
	Security Information Qualifier	00	Usage Indicator	P	
	Security Information		Interchange ecs File		Browse
	Interchange Date	#SystemDate(YYMMDD)#			
	Interchange Time	#SystemTime(HHMM)#			

→ Provide the Version name (4010)

Field	Value
Version Name	4010

 \rightarrow Save the newly created Document Protocol version \rightarrow Observe the confirmation message after save activity

Create a Document Type

ORACLE B2B	Administration	Partners F	Reports Me	trics Help	Logout	Ö
Document Deploy Manage Deploymen	nts Types Import/Export Schedule Batch Manage Batch Calcut Purge Ustering Channel Configuration			Logged	in as web	logic
🗉 Documents 🛛 🕂 🗙	Document Type			Save M	lew Definit	ion
Document Protocols Goutem Dip EpiPeCT Goutem SeauCocument Type Hord Cocument Type Hord RobetCocument Type RobetCocument	EDI_X12-4010-NewDocumentType Spedy the document type for this version. After the new type is saved, you can create a new document definition. * Document Type Name Besorption Transaction			Res	et Parame	ster
	* Functional Group Identifier Code po					
	Implementation Convention Reference					
	Transaction Purpose Code					

→ Select newly created Document Protocol Version (4010) in Document Protocol pane
 → Click (+) icon to Add Document Type
 → Provide the Document Type Name (850)
 → Provide the Functional Group Identifier Code (PO)

Field	Value
Document Type Name	850
Functional Group Identifier Code	PO

 \rightarrow Save the newly created document Type

Create a Document Definition

- → Select newly created Document Type (850) in Document Protocol pane
- \rightarrow Click (+) icon to Add Document Definition
- → Provide the Document Definition Name

Document Deploy Manage Deployments Type: Import[Export: Schedule Batch: Manage Batch: Calout: Purge: Listening Channel: Configuration Documents Type: Import Definition Definition	s weblogic
Documents Decument Definition Decument Protocols	
Documents Decument Definition Decument Protocols	
Coursert Protocols	
	Save
Custom	
CDI_EDIFACT GE EDI_X12 FDI_X12-4010-850-NewDefinition	
Image D1_X12 Image D1_X12-4010-850-NewDefinition Image dots Enter the document definition name and and select the required definition file.	
E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
NewDefinition	
997 Description	
88 FL/	
Social Social Society	
RosettaNet Root XSD Name	
Reset	Parameter
Transaction Routing XPath Correlation	
* Transaction Set ecs File C\B28 material\110 B1 Samplex\ Browse.	
US25 materials Tig RI Samples L Browse.	

 \rightarrow You have the option of providing an xsd corresponding to the transaction set ecs , which can be used in the back end application such as BPEL for required transformation to edifecs.xml.

→ Provide the **Transaction set ecs file**, under "**Transaction**" tab. This is mandatory. It is best practice to create the ecs file using the document editor 6.6.1 However, both B2B and document is backward compatible. Refer to the section "**Document Editor**"

Enter the following information

Field	Value
Document Definition Name	850def – a name os user choice
Definition	850.xsd The xsd file can be created using the Spec Builder 6.6.1 by exporting the ecs file in Oracle B2B 2.0 format
Transaction set ecs file	850.ecs

→ Click Save

ightarrow Observe the confirmation message after save activity

If it is required to process a functional acknowledge, create another document definition for the document Type (997) with the following information

Field	Value
Document Definition Name	997def – a name of user choice

 \rightarrow Observe the xsd and ecs files are already being uploaded. As this is a common document type, it has been made part of default configuration. However, it is also possible to upload the ecs and xsd files for 997 by clicking Update... button with below mentioned

Field	Value
Definition	997.xsd The xsd file can be created using the Spec Builder 6.6.1 by exporting the ecs file in Oracle B2B 2.0 format
Transaction set ecs file	997.ecs

 \rightarrow Save the newly created Document Definition

ORACLE B2B				Administration	Partners Report	s Metrics Help	Logout 🖸
						Logged i	n as weblogic
Document Deploy Manage Deployments Types Import/Export Schedule B	tch Manage Batch	Callout Purge	Listening Channel	Configuration			
🖻 Documents 🕂 🔆 📜 Document Definition							Save
🖃 🚞 Document Protocols 🛛 😺 Confirmation:							
Gustom 997def has been saved.							
EDI_EDIFACT							
EDI_X12 EDI_X12-4010-997-997def							
Enter the document definition name and an	d select the required de	efinition file.					
Document Definition Name 997	lef						
1 Suder							
997 Description							
1 1997der							
al nu/ Definition 997	xsd Update						
PositionalFlatFile Root XSD Name							
RosettaNet							
UCCNet							
						Rese	st Parameter
Transaction Routing XPath	Correlation						
Transact	in Set ets File 997.ec	s Update					

As part of document definition, use ecs file and xsd files obtained from previous step. •

B2B uses only the ecs file for validation and translation; xsd can be used by BPEL process for payload validation and can be accessed by composite while configuring the communication between BPEL and B2B. Please refer to the EDI Tutorial for the detailed steps.

Define Document Protocol Parameters Document Protocol Parameters are defined while creating the document protocol version, however it is possible to override it for a specific Trading partner

For e.g. the list of delimiters, option to create the UNA segment etc while defining the **Document Protocol Revision**

Page 8 of 53

always 💌	Interchange Time	#SystemTime(HHMM)#	Interchange Agreement
UNOB	Recipient's Reference/Password		Test
1	Recipient's Reference/Password Qualifier		Interchang
	Application Reference		
	Processing Priority Code		
#SystemDate(YYMMDD)#			
	1	Recipient's Reference/Password Qualifier Application Reference Processing Priority Code	1 Recipient's Reference/Password Qualifier Application Reference Processing Priority Code

- Document Type Parameters while defining the Document Type i.e. Transaction set. •
- Standard Interchange and group ecs files are seeded in the product. Unless there is • any change in the ecs file due to customization of any of the envelope segments, B2B will always refer to the seeded ecs files. For any change in the Interchange or group segments, it is required to redesign the respective ecs using the Document Editor, use it in B2B as group/Interchange ecs file.

Note: It is required to validate and redeploy the agreement for any change in Document parameters.

Add these documents to the trading partner with the respective role (initiator / • responder). All the documents that are defined are available for Host by default. Just need to assign the proper role for the host

Add Documents definitions for responder

- → Click "Documents" tab to add the document definition
 → Click (+) icon in Document pane to add Document definition to the trading Partner

Profile	Users Documents Channels	
	balChips documents that are specific to this trading partner. All documents that the host creates are available to ad	d to the trading partner's profile
Docum	Select Document Definition)
Definiti	Custom C	der
Docum		
	Add Cancel	

Page 9 of 53

 \rightarrow Add the document to the trading partner

→ Select appropriate role for 850def (sender / receiver), depending on the business usecase
 → Click Save

Similarly, → Select appropriate role for 997def (sender / receiver), depending on the business usecase → Click Save

Profile Users Documents Channe	ls				
GlobalChips Add the documents that are specific to this t Confirmation: EDI_X12-4010-997-997def has been sav		host creates are available to add	to the trading pa	rtner's profile.	Save
ocuments					+ 🗙
De	efinitions	Sender		Receiver	
DI_X12-4010-850-850def				✓	
EDI_X12-4010-997-997def				~	
ocument Details					Reset Parameter
					Reset Farameter
Version Document Type Definitions Interchange Group Delimiters					
Authorization Information Qualifier	II D	nterchange Control Standard/Repe	tition Separator	U	
Authorization Information		* Interchange Control	Version Number	00401	
Security Information Qualifier	in .		Usage Indicator	P	

Page 10 of 53

Outbound EDI Processing

B2B can receive 2 types of EDI documents from Back end Application.

Native EDI:

B2B acts as a gateway doing the validation of the document and forwards it to the respective trading partner using designated exchange protocol. This approach does not provide typical of the EDI features such as Batching and generation of the Interchange and group as appropriate. Hence it is required to send the complete envelope for B2B processing.

This approach requires disabling the translation flag while creating the agreement, as B2B acts as a gateway, forwarding the document to the TP.

In this mode no correlation will be done with respect to functional acknowledgment.

• XML: It is required by the back end application to get the data from downstream application and transform it to xml as defined by the schema.

Back end application is required to send only one transaction set at a time to B2B as B2B generates the envelope using the pre-seeded envelop details. If the Back end application has an envelope with multiple Transaction Sets, it is required to split the same into multiple transaction and enqueue it to be processed by B2B.

Alternatively, it is also possible to override the Document Protocol Parameter defined in B2B for a specific Document Type and Revision by specifying the Internal Property in the Edifecs XML. For e.g the elements with **<Lookup** tag will be used for validation

<Internal-Properties xmIns="http://www.edifecs.com/xdata/100"> <Data-Structure Name="Interchange"> <Lookup Name="InterchangeControlVersion">00401</Lookup> <Lookup Name="InterchangeReceiverID">Interchange Rec</Lookup> <Lookup Name="InterchangeReceiverQual">01</Lookup> <Lookup Name="InterchangeSenderID">Interchange Sen</Lookup> <Lookup Name="InterchangeSenderQual">01</Lookup> <Lookup Name="Standard">X12</Lookup> <Property Name="ElementDelimiter">0x7e</Property> <Property Name="InterchangeAckRequested">0</Property> <Property Name="InterchangeAuthorizationInfo">Authorizat</Property> <Property Name="InterchangeAuthorizationInfoQual">00</Property> <Property Name="InterchangeChildCount">1</Property> <Property Name="InterchangeComponentElementSep">0x5c</Property> <Property Name="InterchangeControlNumber">691244239</Property> <Property Name="InterchangeControlStandard_RepeatingSeparator">U</Property> <Property Name="InterchangeControlVersion">00401</Property> <Property Name="InterchangeSenderQual">01</Property> <Property Name="InterchangeTime">1525</Property> <Property Name="InterchangeTrailerControlNumber">691244239</Property> <Property Name="InterchangeUsageIndicator">I</Property> <Property Name="SegmentDelimiter">0x0d0x0a</Property> <Property Name="Standard">X12</Property> <Property Name="SubelementDelimiter">0x5c</Property> </Data-Structure> </Internal-Properties> Please refer to EDI Batching section for handling multiple Transaction Set in an

Envelope.

Page 11 of 53

Inbound EDI Processing

Depending on the translation flag, B2B translate the inbound native EDI documents to Edifecs XML to be consumed by the back end application. The Edifecs XML generated also has all the Document Protocol Parameters mapped to Internal Properties.

Agreement Identification

B2B uses 4 parameters for identifying the agreement From Party, To Party, document type and document protocol version

Trading Partner Identification

Trading partner Identification can be done in three different ways and order of identification.

• Exchange: this is the default way of identifying the trading partner by using the Exchange headers

E.g. In AS2 protocol, it is by using AS2-From and AS2-To headers and comparing with the AS2 identifiers of the Trading Partners.

- Interchange: EDI has unique values in the interchange headers that can be used to identify the Trading Partner. (Optional)
- Group: EDI has unique values in the <u>group</u> headers that can be used to identify the Trading Partner. (Optional in EDIFACT)

EDI	Value
Interchange	Interchange Sender ID
Group	Application's Sender Code
Exchange	Exchange identifier

Note: In order to identify the trading partner based on the Interchange, it is important to forcefully fail the exchange identification.

Similarly, In order to identify the trading partner based on the group, it is important to forcefully fail the exchange and interchange identification. This can be achieved by adding

Page 12 of 53

Identity From TP	Identification Criterion	
Interchange	Interchange Sender ID	(X12 ISA / EDIFACT UNB S002)
Group	Application's Sender Code	(X12 GS 02 / EDIFACT UNG S006)
Exchange	Protocol Identification from party's exchange identifier	(default)

To support this configuration,

Create a Trading Identification Type: EDI Interchange ID, EDI Group ID

GlobalChips			Save Expor
he trading partner profile uniquely identifies e	ach partner. S	5et up identifers, contact information, and customized parameters for each partner.	
Confirmation:			
GlobalChips has been saved.			
entifiers			4
dentifier types uniquely identify a trading part	ner and defin	e how to exchange documents.	
Туре		Value	
lame		GlobalChips	
EDI Interchange ID	*	GlobalChips	
EDI Interchange ID Qualifier	*	ZZ	
EDI Group ID	~	GlobalChips	
ntact Information			
ntact Information nportant contact information for each trading	partner shou	d be entered.	

• Create a new Trading Identification for the target-trading partner with the corresponding EDI sender value for Interchange or Group envelope.

Document Identification

Oracle B2B extracts the Document Type and revision from the transaction Set of the incoming EDI Document i.e from UNH Segment. It is required that the document to be well formed for the successful extraction of Document Type and Revision.

- o X12 identification based on Group and Transaction set
- EDIFACT identification based on Transaction set

Validation and Translation

It is required to get the necessary ecs for translation and validation. Document protocol parameters of the Document is compared against the one defined during Document definition to extract the ecs file. Typically for inbound messages, Oracle B2B validates the document and then translates it into xml depending on the settings.

The below mentioned parameters are validated against the configured parameters to make sure that the data is from the right partner.

Document Protocol Parameters (Header):

- Interchange Receiver ID
- Interchange Receiver ID Qualifier
- Interchange Sender ID
- Interchange Sender ID Qualifier

- Application Receiver's Code
- Application Sender's Code Interchange Control Version Number •

Functional Acknowledgement Support in Oracle B2B

Functional Acknowledgment is a confirmation sent by the recipient Application about

- Receipt of the message. ٠
- Status of Validation of the message against the configured ecs file.

Functional Acknowledgement can be configured to be sent by either B2B or by the Back end application.

• Functional acknowledgement required: Functional Ack required or not. This option is available while creating the agreement as shown below

Agreement				_			
å ≓å Acme_GlobalChi	ips_X12_4010_850_File			Save	Validate	Deploy	Export
	Acme	850def	GlobalChips				
Details							
* Agreement Id	Acme_GlobalChips_X12_4010_850_		Start Date			20	
* Name	Acme_GlobalChips_X12_4010_850_		End Date			20	
Description			Callout 💽 Cal	lout Details			
Agreement Parameters	Validate 🔽						
	Translate 🔽						
	Functional Ack						

Functional Ack handled by B2B: Generates FA in B2B or by the Back end • Application. To enable this,

\rightarrow Go to Administration → Click Configuration tab

Functional Ack Handled by B2B	true
Functional Ack internal properties	false
Notify Inbound Receipt Acks	false
Notify Inbound Functional Acks	false

Page 14 of 53

Overriding the Document Protocol Parameter for FA.

Consider a use case, which requires overriding the Interchange Sender ID in the Document Protocol Parameters using the Internal Properties in the Outbound Edifecs Document, or using the value present in inbound Business message such as 850. To enable the internal properties to be used in outbound processing, set the "Functional Ack Internal properties" to "true" in the below picture. This screen is available at

→ Go to Administration
→ Click Configuration tab

Functional Ack Handled by B2B	true	
Functional Ack internal properties	false	
Notify Inbound Receipt Acks	false	
lotify Inbound Functional Acks	false	7

This will override the Document protocol parameter value of Functional Acknowledgement with Internal Property in the generated Functional Acknowledgement.

EDIEL Support

Oracle B2B also supports another variant of EDIFACT, which is EDIEL, used in Electrical industry. In this case, in addition to all the features of EDIFACT, it is also possible to

- Customise the FA Message Version Number and FA Message Release Number. The default value for this is D3.
- Provide the reference to the MAP APPLICATION REF, of the incoming message to be referred as part of FA

Page 15 of 53

Control Numbers

Control Numbers are included in all header and trailer segments as an additional means of tracking and confirming EDI transmissions. Control numbers issued in the header segments must match control numbers assigned in the trailer segments. An ISA control number must match the IEA control number, the GS control number must match the GE control number, and the ST control number must match the SE control number in each EDI transmission, or there could possibly be errors. Control numbers can be assigned in the following two ways.

Control Number along with the sender ID provides a unique identifier to identify incoming EDI data from a sender. Following are various control numbers,

- Interchange Control Number: Originated by the sender and is typically a sequence number. This together with the sender ID uniquely identifies the Interchange.
- Functional Group Control Number : This Uniquely identifies Group.
- Transaction Set Control Number : This Uniquely Identifies Transaction Set.

Control Numbers are used for correlation at various stages; it may be correlation in the Back End application or correlation in the B2B application between the business document such as 850 and Functional Acknowledgement 997.

Control Number Generated by Back end Application

This is the most likely case as back end application uses the Interchange, Group and Transaction Set Control Number for correlation at various levels and also for correlating the control/Ack and business messages. However, if the translation is enabled B2B can correlate the business message and functional acknowledgement.

E.g. To correlate 850 EDI message with 997

Control Number Generated by B2B

In case of Outbound Messages, B2B Generates the control number only in case the Back end application send the EDI message with the macro **#controlNumber#** for e.g.

<Element-329>#ControlNumber#</Element-329>

Oracle B2B fills in the unique number for Interchange and Transaction set Control Number and uses it for correlating the incoming Control messages.

Note :this is not a preferred approach, as most of the correlation has to happen in the back end application.

Page 16 of 53

EDI Batching

Batching of EDI messages allows the users to send all messages of particular criteria at a specified time. This can include, a set of messages with:

1. Same document type, can be sent to one or more trading partners

2. Multiple document type, can be sent to one or more trading partners

Batching concept is widely used in Retail industry, as the number of messages processed is high in number. As the Retail traders widely use EDI as the means of communication, the Batching suits well to EDI domain

Batching EDI Transaction Sets

Individual transactions are sent to the internal delivery channel one transaction at a time. For outbound messages received on the internal delivery channel, transaction sets can be batched based on criteria that you specify.

The following example shows how to batch the document type 850, revision 4010, to the trading partner named GlobalChips. The examples follow the scenario described in the EDI X12 tutorial

\rightarrow	Go to Administration
	→ Select Schedule Batch

Document	Deploy	Manage Deployments	Types Im	port/Export 50	hedule Batch	Manage Batch	Callout Pur	ge 🔪 Listening Channe	Configuration			
General Sched Batching is batch of inv	often used to		cument type. L	ise Oracle B2B to i	atch, schedule	, and send outbound	I EDI X12 and ED	EDIFACT messages. Fo	or example, you may wan	it to send out a batch	Create of purchase orde	
				Batch Name								
			Se	lected Range Init	iate event at F	ebruary 20, 2009 6::	30 AM Launch	Scheduler				
⊟Searc	h								Advar	nced Saved Se	arch Default	~
Match C	All 💿 Any											
Resp	onding Partn	er Contains 💌				Document Pro	otocol Version	quals 💌 💌				
	Agreemer	nt Contains 💌				Di	cument Type	iquals 💌				
Document	Protocol Nam	e Equals 💌	~			Docum	ent Definition	iquals 💌 💌				
										Search	n Reset S	Save
Init	iating Partner	Respondi	ng Partner	Agree	ment	Document Pro	otocol	Document Version	Document Ty	/pe D	ocument Definitio	n

 \rightarrow Provide the batch name

 \rightarrow Click on Launch Scheduler button to schedule the batch time

elected Range (nitiate event at February 20,	2009 6:30 AM	
Range Non-Repeating Event Re	peating Event	
2/20/2009 6:30 AM	 B	
		OK Cancel

→ Provide the time range depending on "Non-Repeating Event" or "Repeating Event"

 \rightarrow Click on "Search" button to get the deployed agreements

Search					Advanced	Saved Search Default
Match O All 💿 Any						
Responding Partner	Contains 💌		Document Protocol Versio	n Equals 💌 💌		
Agreement	Contains 💌		Document Typ	e Equals 💙 💌		
Document Protocol Name	Equals 🔽 🔍		Document Definitio	n Equals 💌 💌		
						Search Reset Save
Initiating Partner	Responding Partner	Agreement	Document Protocol	Document Version	Document Type	Document Definition
Acme	GlobalChips	Acme_GlobalChips_X12_4010_8	EDI_X12	4010	850	850def
<						>

→ Click on Create Batch to create the batch

De-batching EDI Transaction Sets

For inbound message, oracle B2B Splits the interchange into individual Transaction Set and depending on the Translation flag translate it to Edifecs XML , this is a default behaviour and does not require any configuration.

Page 18 of 53

Additional features, Tips and Tricks

This section explains few of the advanced topics as well as few of the tips and tricks to handle the some of the complex EDI scenarios

Custom Code List – EDI

In EDI world, Interchange receiver Id and Interchange sender Id has set of codelist, which is used to validate the EDI Message. However, it is possible to use the qualifier which is not there in the standard code list (e.g : ZZ) as part of the Document Protocol Parameter configuration. This is achieved by following the below steps.

- 1. Modify the interchange ecs file to add the "YZ" in the standard code list_1005.
- This can be done by editing the Interchange ecs file in the spec builder and adding YZ in the ISAI05/ Interchange ID Qualifier/Standard Code List_1005. Use the updated ecs while configuring the X12 document protocol parameter as interchange ECS.
- 3. Re-deploy the agreement after validation.
- 4. Ensure Interchange ecs do not have any group/transaction set information.

This could be tested by exhanging an EDI document whose Interchange Receiver ID as ZZ. This also applicable to all the codelists

Handling Positional Flat File

Apart from the capability of Handling XML file and Traditional EDI file based on various XML and EDI Standard, Oracle AS B2B also provides an option to Handle positional Flat File.

1. Design the ecs file in spec builder depending on the Positional Flat file.

2. Provide the newly created Ecs file as part of the Document definition Parameter along with start position and End position while creating the new document for **PositionalFlatFile**.

Performance Best Practices

Following are the few of the Best practices for Oracle AS B2B Performance and can be tuned based on the system resources

Outbound processing:

b2b.outboundThreadCount= <no of threads to be spawned for outbound flow> b2b.outboundSleepTime= 1000 Sleep time (in msec) for thread when there is no message.

Inbound process:

b2b.inboundThreadCount= <no of threads to be spawned for inbound flow> b2b.inboundSleepTime= 1000

Default threads for process all the events:

b2b.defaultThreadCount= <no of threds to be spawned for all events such as delivery channel creation/updating, system parameter updation etc including the message flow in both the direction >

b2b.defaultSleepTime= 1000

Large Payload Configurations

Following steps need to be configured in case of large payload above 100Mb,

- 1. As a pre-requisite, the following properties need to be set in B2B
 - In Admin -> Configuration,
 - Use JMS Queue as default property as true.
 - Logpayload property to be false
 - Large Payload Size property as <payload size>
 - Large Payload Directory. eg. /tmp
- 2. jvm memory-args
 - Increase max heap size according to machine available RAM E.g. for 2GB $\,$ -Xmx2048m and also change min heap size needy basis.
- 3. Database Configuration changes
 - DBA can tune the db appropriately based on the message flow
 Increase the table space file size maximit
- 4. Transaction Timeout settings
 - In Weblogic console
 - Increase JTA transaction timeout from weblogic console Services -> JTA Timeout Seconds=120 seconds
 - Increase SOADataSource XA timeout setting to 120-180seconds weblogic console Services -> JDBC->DataSources-
 - >SOADataSource
- 5. Fabric settings For fabric based testing use streaming option incase of file-adaptor listener.

Comment [u1]: also, we can point to the performance tuning guide, which will be created for BT

Oracle B2B Document Editor

Oracle B2B - Document Editor (Powered by EdifecsTM) is an integrated guideline creation and implementation application for business-to-business (B2B) electronic commerce (e-commerce). Use the Document Editor to simplify developing, migrating, testing, distributing, and printing your electronic business (e-business) guideline documents. You can create new guideline documents or use the Document Editor's comprehensive library of Standards as templates.

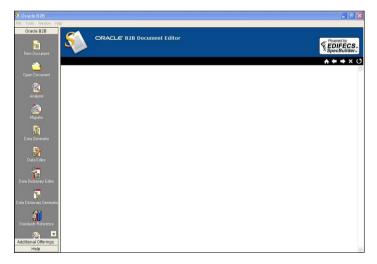
Using an existing standard as a template, you can create new transaction sets by changing the attributes of underlying segments, elements, and codes as well as create implementation guidelines from data files. Oracle B2B - Document Editor is also integrated with Edifecs CommerceDesk, the most complete solution available for data generation and guideline-compliance testing.

In order to use the EDIFACT, X!2 and HL7 protocol in ORACLE integration B2B, it is mandatory to know below mentioned basic steps

- Creation of ECS files using (SPEC BUILDER 6.6.1)
- xsd generation using ecs file.
- Data generation using ecs file.
- Analyse the data

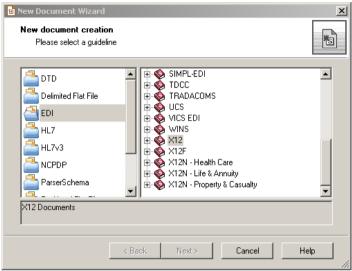
CREATION of ECS files USING SPEC BUILDER 6.6.1

Prerequisite: Install the spec builder 6.6.1 \rightarrow Open the spec Builder 6.6.1



→ Click "New document" to create the new ecs file

→ Select guideline as EDI, X12 Documents



 \rightarrow Click on (+) to select the desired Document Protocol Version (V4010)

New document creation Please select a guideline	
DTD Delimited Flat File Delimited Flat Delimited	
<bapk next=""> Cancel Help</bapk>	

→ Select the Document Type (850 – Purchase Order)

DTD Delimited Flat File EDI HL7 HL7v3 NCPDP ParserSchema		842 - N 843 - R 843 - R 844 - P 845 - P 845 - P 846 - II 847 - M 848 - M 848 - M 849 - R 849 - R 849 - R	pecifications/Te onconformance esponse to Rec roduct Transfer rice Authorizatio wentory Inquiry/ laterial Claim laterial Safety D esponse to Pro urchase Order	uest for Quotat Account Adjus! n Acknowledgr Advice ata Sheet
--	--	--	---	---

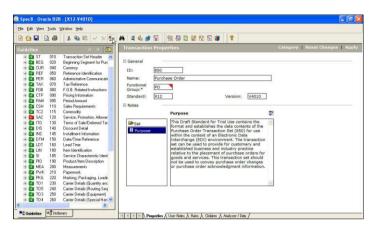
 \rightarrow Unselect the Envelop.

I

Oracle integration B2B is pre-seeded with all versions of the envelope and group ecs files. Hence no need to generate the envelope and group ecs files Unless there is a deviation from the standard

- Agsert Envelope Segments	
From Envelope Database C Fr	om <u>G</u> uideline
K12 · V4010 · 850 · Purchase Order <u>E</u> nvelopes	Preview
□ 00404 □ 00404 - with optional seg □ 00403 - with optional seg □ 00402 - with optional seg	Sol - Purchase Order Sol - Purchase Order Sol - Interchange Control Header Sol - Sol

 \rightarrow Click finish



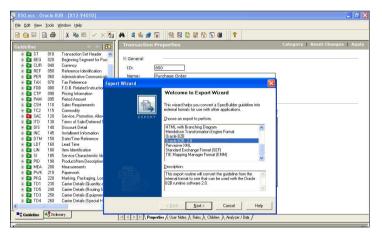
Edit the segment level details as per your requirement.

 \rightarrow Save the generated ecs file.

CREATION of XML Schema Definition (xsd) for the ECS file

This step is used to create the XML Schema definition.

→ Open the newly created ecs file
→ Click on File→Export
→ Select Oracle B2B 2.0 as export format. This export routine will convert the guideline from the internal format to one that can be used with the Oracle B2B runtime software 2.0.



→ Click Next

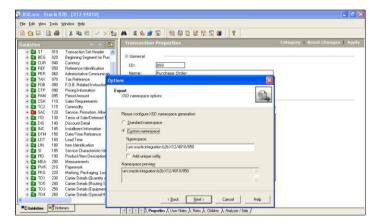
→ Select the option of saving the guideline before exporting.

→ Select the location for saving the exported file

	18	🛛 👗 🛍 🖾 🗸 🗙 🤇	5 🗚 🤹 🔊 5 🕺 🕸 😂 😫 🕄 5 🕼 🧣
uideline		+ + E	Transaction Properties Category Reset Changes Ap
🗄 💼 ST	010	Transaction Set Header	
🖻 🚺 BEG	020	Beginning Segment for Purc	E General
🖲 🔯 CUR	040	Currency	ID: 850
🗉 💼 REF	050	Reference Identification	
🖻 💼 PER	060	Administrative Communicati	Name: Purchase Order
🖻 🚺 TAX	070	Tax Reference	port Wizard
🖲 🔯 FOB	080	F.O.B. Related Instruction	
🗉 🛅 CTP	090	Pricing Information	Export
E DI PAM	095	Period Amount	Export destination
E CSH	110	Sales Requirements	
E Ca TC2	115	Commodity	
🗉 🛄 SAC	120	Service, Promotion, Allow	
🕀 💼 ITD	130	Terms of Sale/Deferred 1	Save exported File as:
🛨 💼 DIS	140	Discount Detail	Save exported Tile at:
E C INC	145	Instalment Information	C\850.ssd
🗉 💼 DTM	150	Date/Time Reference	
🕀 💼 LDT	160	Lead Time	✓ Save guideline before exporting
🗄 💼 LIN	180	Item Identification	
🖻 🚺 SI	185	Service Characteristic Ide	
🗉 💼 PID	190	Product/Item Description	
HEA MEA	200	Measurements	
E D PwK	210	Paperwork	
🖻 🚺 PKG	220	Marking, Packaging, Loa	
🖲 📴 TD1	230	Carrier Details (Quantity a	
🗉 💼 TD5	240	Carrier Details (Routing S	
🖻 💼 TD3	250	Carrier Details (Equipmen	
+ D1 TD4	260	Carrier Details (Special H	

 \rightarrow Select the option for namespace generation as "Custom namespace"

→ Provide the custom namespace as "urn:oracle:integration:b2b:X12/4010/850"



→ Click Next

Templates:		🧔 🥪 🖬 🔤
Node	Element	^
Transaction	- <node id=""></node>	
Loop	- <node id=""></node>	
Segment	- <node id=""></node>	
Composite	- <node id=""></node>	
Element	- <node id=""></node>	~
Preview: Kelem	sment name prefix ent name="Transaction- <node id="">" type= s loaded from the registry</node>	'Transaction- <node id="">'/></node>

\rightarrow Click Next

an an share an		
sion options		1
ion options:		
Underscore '_'	•	
Dash ''	<u>•</u>	
SD		
KML elements		
ttributes in XSD		
		mplates
Back Next>	Cancel	Help
	Dash ¹¹ SD KML elements ttributes in XSD ead of default during >	ion options: Underscore '_' Dash '' SD XML elements tributes in XSD ead of default during XD ata generation. Ter ter file and will be re-used next time

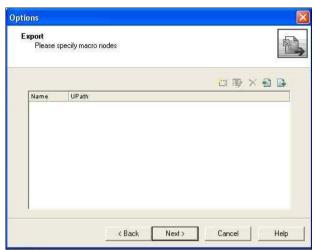
 \rightarrow Click Next

tions	
Export SpecBuilder ECS Document to XML Schema Options Select proper options	5
Please select EDI specific convesion options:	
Allow to use SegmentCount macro Don't use xsd:choice for keyed segments/loops	

\rightarrow Click Next

otions			E
Export Please select server			s
Launch Oracle B2B console after expo	đ		
Server: http://localhost/80/828	45.74		
< Back	<u>N</u> ext>	Cancel	Help

 \rightarrow Click Next



→ Click Next

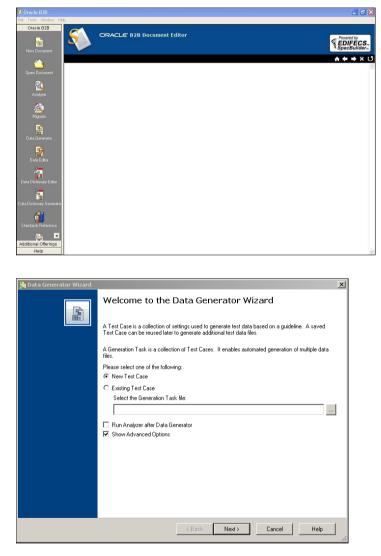
Export		
Exporting the document		S
✓ Converting to Oracle B2B, 2	.0	
Finished		
Finished		
Finished		🗖 Oose on Finish

Page 28 of 53

DATA GENERATION USING ECS FILE.

This step is used to create the test data.

 \rightarrow Click on Data generator in the left pane of the below screen.



→ Click next

	e or update data file		
	Please select a Data Generator Test Case Action		
Da	ata Generator can either generate new data or update an existing data file using specified data dictionaries		
Ple	ease select the action Data Generator should perform:		
œ	Generate		
	Update Please script the data file that should be used as the base file during data generation. This file will be first parsed and analyzed.		
	Specify data file type:		
	EDI		

 \rightarrow Click next \rightarrow Since the data is generated for user defined guideline, select the option as "From a guideline file"

Data Generator Wizard					
Guideline selection Please select a guideline					9
C From the database					
Look in: 🗀 Guidelines			•	1	💣 🎟 •
11g In Rn 11 Order.ecs 11g Spec1.ecs 356.ecs Spec2.ecs AAD.1 Acs Spec3.ecs Ad2_4.ecs TestHL.ecs ADT_A01_xsd.ecs TestHL.ecs ADT_A01_xsd.ecs TestHL.ecs AD2_bcss TestHL.ecs AD2_bcss TestHL.ecs Finel.ecs Finel.ecs Finel.ecs Finel.ecs Generic.ecs Generic.ecs guideline_xsd.ecs guideline_xsd.ecs					
File name: Files of type: SpecBuilder files (*.ecs)					_
	< Back	Next >	Cancel		Help

→ Select the newly created ecs file → Click Next

ata Generator Wizard		
nvelope Segments Please specify Envelope Segments		
The selected guideline does not have Envelop options:	pe Segments. To use Envelope Segments please select from followin	ng
Select Envelope Segments from the Stand	dards Database	
O Use Envelope Segments from the external	guideline file	
C Use Envelope Segments from multiple guid	deline files	
	<back next=""> Cancel</back>	Help
	Carcei	пер

 \rightarrow Click Next

Envelope Segments Please select Envelope Segments from the database	,
(12 · V4010 · 850 · Purchase Order Envelopes	Preview
Image: Segments Image: Segments Image: Segments Image: Segments	850 - Purchase Order ISA Interchange Control Header ISA Interchange Control Header GF Functional Group Header Objects GF Functional Group Trailer IEA Interchange Control Trailer

Invelope Segments	
Please specify how to use the selected Envelope segments	
How do you want to use the selected Envelope Segments?	
C Insert in the guideline.	
 Used directly from the Standards DataBase. 	
C Save as External Envelope Segments guideline that can be reused I	ater:
	-
< <u>B</u> ack <u>N</u> ext>	Cancel <u>H</u> elp
ta Generator Wizard	
ata Generator options	
Please select data generation options	
Please select data generation options	E Contraction de la contractio
Please select data generation options These settings determine how optional data is generated	
These settings determine how optional data is generated	
These settings determine how optional data is generated C Mandatory data only C Mandatory + Optional data in the dictionary	
These settings determine how optional data is generated $\ensuremath{\mathbb{C}}$ Mandatory data only	
These settings determine how optional data is generated Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data	Ail data
These settings determine how optional data is generated C Mandatory data only Mandatory • Optional data in the dictionary Mandatory • Percentage of optional data	Ail data
These settings determine how optional data is generated C Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data , No optional data Select the property to be used to determine if item is mandatory or optional	Ali data
These settings determine how optional data is generated C Mandatory data only C Mandatory • Optional data in the dictionary Mandatory • Percentage of optional data , No optional data	Ali data
These settings determine how optional data is generated C Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data , No optional data Select the property to be used to determine if item is mandatory or optional	Ail data
These settings determine how optional data is generated C Mandatory data only C Mandatory + Optional data in the dictionary C Mandatory + Percentage of optional data C Monophional data Select the property to be used to determine if item is mandatory or optional C User Option	, Al data
These settings determine how optional data is generated C Mandatory data only C Mandatory + Optional data in the dictionary C Mandatory + Percentage of optional data C Monophional data Select the property to be used to determine if item is mandatory or optional C User Option	Ail data
These settings determine how optional data is generated C Mandatory data only C Mandatory + Optional data in the dictionary C Mandatory + Percentage of optional data C Monophional data Select the property to be used to determine if item is mandatory or optional C User Option	Ali data
These settings determine how optional data is generated C Mandatory data only C Mandatory + Optional data in the dictionary C Mandatory + Percentage of optional data C Monophional data Select the property to be used to determine if item is mandatory or optional C User Option	
These settings determine how optional data is generated C Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data No optional data Select the property to be used to determine if item is mandatory or optional G User Option	All date
These settings determine how optional data is generated C Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data No optional data Select the property to be used to determine if item is mandatory or optional G User Option	
These settings determine how optional data is generated Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data No optional data Select the property to be used to determine if item is mandatory or optional G User Option	Al data
These settings determine how optional data is generated Mandatory data only Mandatory + Optional data in the dictionary Mandatory + Percentage of optional data No optional data Select the property to be used to determine if item is mandatory or optional G User Option	

→ Click Next

📓 Data Generator Wizard	×
Element Size Please select Data Generator Element Size option	
Please select Element Size Option to control the size of data elements:	
C Minimum size. Creates data which has the minimum allowable length.	
O Maximum size. Creates data which has the maximum allowable length.	
O Valid size. Creates data which is between minimum and maximum allowable length. Dictionary values are adjusted.	
Any size. Creates data which is between minimum and maximum allowable length. Dictionary values are used as is.	
< Back Next > Cancel He	elp
→ Click Next	_

😫 Data Generator Wizard
Index Reset Please set Data Generator Index Reset option
For items in data dictionary which have multiple values and their selection is marked as sequential, this setting will determine when selection index should be reset to the first entry.
For example, setting the reset point to Transaction, will reset the selection to the first entry every time a transaction is generated, thereby making the entries sequential only within the context of the transaction.
Please select one of the following:
C Transaction
C Functional Group
C Interchange
Do not reset
< Back Next > Cancel Help

→Click Next

Data Generator Wizard		×
Repeat Count Please set Data Generat	x Repeat Count option	
Please set the Repeat Co	unt option to control how many messages to generate:	
Transactions:		
Functional Groups:	1	
Interchanges:	1	
	<back next=""> Cancel</back>	Help

Data Dictionaries Please select Data Dictionaries to use	by Data Generator	
More Dictionaries: Sample_4010_956 Sample_037A_Orders Sample_HIPAA_276	Selected Diction	onaries:
Data from dictionaries listed first will be used	first.	Cancel <u>H</u> elp

→Click Next

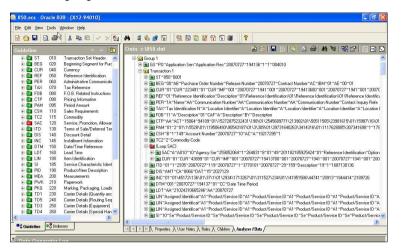
Edit delimiters			D 🖻 🖬 🕽
Name	Ascii Value	Hex Value	
Segment Terminator	1	27	
Element Separator	~	7E	
SubElement Separator	A. C.	5C	
Repetition Separator	×	2A	
Release Character	?	3F	
Decimal Indicator		2E	

→ Click next → Select the output data file name

	est Case Save			
c:\850.dat Save Test Case to the Generation Task file Test Case Options: Name	Please save the Test Case			
Save Test Case to the Generation Task file Test Case Options: Name	🔽 Output Data file name —			
r Test Case Options:	c:\850.dat			
Ngme	🔲 <u>S</u> ave Test Case to the Ge	eneration Task file		
Ngme				
	- Test Case Options			
Descripton	Name			
	Descripton			
		< <u>B</u> ack	<u>N</u> ext> Ca	ncel <u>H</u> elp

Page 35 of 53

→ The data gets generated



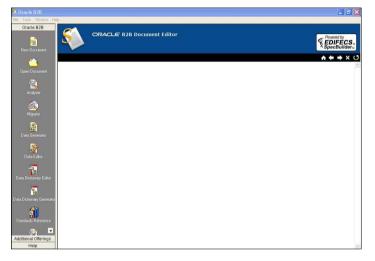
→ Save the data file

Page 36 of 53

ANALYSE THE DATA/ VALIDATE THE GUIDE LINE

This step is to analyze the test data.

 \rightarrow Click on Analyzer in the left pane of the below screen.



\rightarrow Select the file to analyse

V Analyzer Wizard		X
	Welcome to the Analyzer Wizard This wizard helps you to validate a data file Select data file to analyze: C:\650.dst Specify data file type: EDI ✓ Show Advanced Options	4* •
	< Back Next > Cancel	Help

→Click Next

Clean Up Data File Please select how to use Preprocessor		
iome data files may require preprocessing. Pleas	e check this option to prepare the data for par	sing
C Use Preprocesson Specify either the Block Size or the Terminato specify the characters which should be remov	r from which to start the character removal pro red.	cess and then
- Parameters:		
G Block Size: 80	(excluding terminator)	Save <u>A</u> s
C Terminator String:	Hex: 7E	
Bemove Chars. (Non-AlphaN 💌	He <u>x</u> :	
Save processed file as: C:\850.dat.process	ed.dat	

→Click Next

Data Structure Please select node to link/valio	date
EntireDocument ⊡ ⊡ Interchange ⊡ ⊡ Group └ ⊡ Transaction	Data node name: EntireDocument Data node properties: FileName: 'C:\850.dat' TaskID: 'C:\850.dat' Data node links: Node stat position = 0(0x0) Node size = 13540(0x4c54) Node end position = 13540(0x4c54)
1	<u>Eack</u> <u>Next</u> Cancel <u>Help</u>

→Click Next

 \rightarrow Select the guideline (ecs file) to check the correctness of data against the newly generated ecs file.

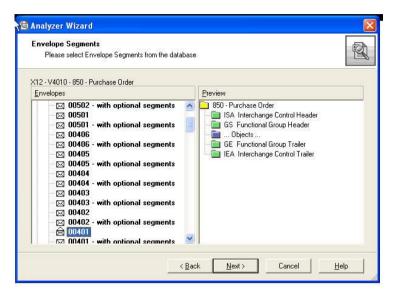
Guideline s Please se	election elect a guideline						Ę
from Standard	hes to the select Is Database or pr e database	ovide a custom	guideline.	abase. At the sa	ame time you c	an choc	ose another o
	_ Guidelines				•	🗢	🗈 💣 💷
File name:							
File name: Files of type:	SpecBuilder fi	les (*.ecs)					2

→Click Next

Since the ecs file does not contains the envelope segments choose the below mentioned options

inalyzer Wizard				
Envelope Segments				Ø
Please specify Envelope Segments				
The selected guideline does not have Envelope Segments options:	. To use Envelo	pe Segments plea	se select from following	
Select Envelope Segments from the Standards Databa	ise			
O Process without Envelope Segments				
C Use Envelope Segments from the external guideline file	•			
O Use Envelope Segments from multiple guideline files				
	< Back	Next >	Cancel	Help

→Click Next



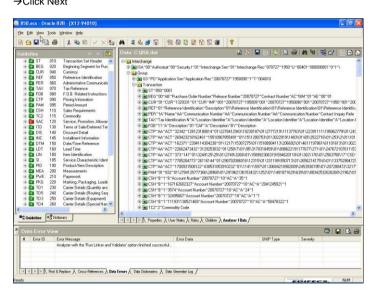
→Click Next

🗟 Analyzer Wizard					×
Envelope Segmen Please specify ho	ts ow to use the selected Envelope seg	ments			
How do you want	t to use the selected Envelope Segm	ients?			
C Insert in the g	uideline.				
Used directly	from the Standards DataBase.				
C Save as Exte	rnal Envelope Segments guideline th	at can be reused later:			
		< Back	Next >	Cancel	Help

→ Click Next

Analyzer Options	lyzer Mode and Outputs Please select analyzer modes and outputs	s to generate
Maximum number of errors to report 100 Limit rejecting errors only Large data file mode Invoke large data file mode Generate short report Outputs Generate Logical Data Report Generate XData (%AL): Always Files will be stored in the temp folder set in Tools>Options. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	-Analyzer Options	
Large data file mode Invoke large data file mode Generate short report Outputs Generate Logical Data Report Files will be stored in the temp folder set in Tools>Options. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	Run Linker and Validator	un Linker only
Invoke large data file mode Generate short report Uutputs Generate Logical Data Report Generate Logical Data Report Generate Logical Data Report Generate Logical Data Report Generate SData (%AL): Always Files will be stored in the temp folder set in Tools>Options. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	Maximum number of errors to report:	100 V Limit rejecting errors only
Outputs Generate Logical Data Report Generate XData (ML): Always Files will be stored in the temp folder set in Tools>Options. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	-Large data file mode	
Generate Logical Data Report Generate XData (KML): Always Resource All Stored in the temp folder set in Tools>Options. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	🔲 Invoke large data file mode	Generate short report
Files will be stored in the temp folder set in Tools>Dptions. They will be deleted when SpecBuilder application is closed. If you wish to save files please do so prior to closing SpecBuilder.	Outputs	
closed. If you wish to save files please do so prior to closing SpecBuilder.	🔲 Generate Logical Data Report	Generate XData (XML): Always 💌
Allow trailing spaces in String/AlphaNumeric fields		
	Files will be stored in the temp folder se closed. If you wish to save files please	t in Tools->Options. They will be deleted when SpecBuilder application is do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	do so prior to closing SpecBuilder.
	closed. If you wish to save files please	dosoprior to closing SpecBuilder.

→ Select the option to "**generate Xdata**" as "**Always or No Errors**" in order to generate XML Data →Click Next



 \rightarrow Analyser will provide the analysis results with error messages (if any), in the bottom pane of the above screen. In case of error edit the data, save and execute analyzer.

 \rightarrow Click on the $\stackrel{\square}{\blacksquare}$ button in the top right corner to view the XML Format of the data

Page 41 of 53

ID4 280 Camer Detais (Special Han Name='InterchangeControlStandard_RepeatingSeparator'>U 00401
Couleding Statumy Control Error View Control Error View

Page 42 of 53

Print and Publish Specifications

The objective of this section is to create, customize and publish an implementation / companion guideline.

- → Click "New document" to create the new ecs file
- →Select guideline as EDI, X12 Documents
- \rightarrow Click on (+) to select the desired Document Protocol Version (V4010)
- →Select the Document Type (850 Purchase Order)
- → Envelope Segments: Select → default, Click Finish

Note: either you can create a new guide line or use the existing one

1. Include/Exclude Node

In the Guideline tree

- Expand segment BEG Beginning segment fro Purchase Order.
- Exclude element BEG06 Contact Number

2. Adding user note for ISA segment, ISA08 element.

- Expand Segment ISA Interchange Control Header
- Select element ISA08
 - Select 'User Notes' tab and then
 - User Note 1: Add Note
 - Value in this element must equal:
 - RealProcess for real-time purchase orders BatchProcess for batch purchase orders
 - User Note 2: Add Note: Ensure that values match either "REALProcess " or BATCHProcess". When value is "RealProcess" only 1 purchase order is in the data file.

3. Modify User Note Labels.

- Select File → Document Options
- Select "Notes" Tab.
- Scroll down on the tree to find the entry for Element Notes.
- Change label for User Note 1 to "TP Note"
- Change label for User Note 2 to "Dev Note"
- Click Apply
- Select "Composite/Element" Tab
- Scroll down to section "Print composite/element user notes"
- Enable printing of TP Note and Dev Note
- Click Ok

Note: Label on the screen has also changed to "TP Note" and "Dev Note"

4. Modify Cover Page

- Select File → Properties.
- Change Title to ABC: 850 Purchase Order"
- Change Author to "ABC"
- Click OK
- Select File→Document Options
- Select check box to "Print Cover Page"
- Click OK

Page 43 of 53

5. Save Guideline

- File-> Save
 - File: Les7_X12_4010_850_Notes.ecs

6. Print Preview

- Select File → Properties •
- Verify •
- Cover Page •
- Exclusion of BEG06 •
- ISA08 notes

7. Publish to HTML, PDF, RTF, Word XML, Excel XML (optional).

- Select File → Publish To.
 Select "HTML"

 File:
 L
- - Les7_X12_4010_850_Notes
- Using Windows Explorer navigate to the location provided for the HTML page. Double click to open the HTML page. And verify edits •
- Exit Specification

Write and Test Business Rules Using Java Script

The objective of this section is to write rule using java script for additional business rule validation

Note: JAVA Code is available in the attached sample. zip file under \B2B Class\Document Editor\java code.txt.

- → Click "New document" to create the new ecs file
- →Select guideline as EDI, X12 Documents
- → Click on (+) to select the desired Document Protocol Version (V4010)
- → Select the Document Type (850 Purchase Order)
- → Envelope Segments: Select → default, Click Finish

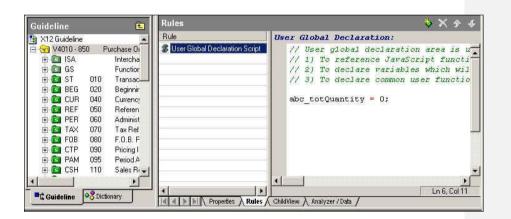
1. Write rule that accumulates the line item quantities

If the total quantity does not match the count in the control segment then report an error.

2. Create and initialize quantity accumulate variable.

- Select the root Transaction node in the guideline tree.
- Click on the "Rules" tab on the detail pane. •
- Click on the icon to add a new Rule
- Select "User Global Declaration Script"
- Add java script variable declaration:

abc totQuantity = 0;



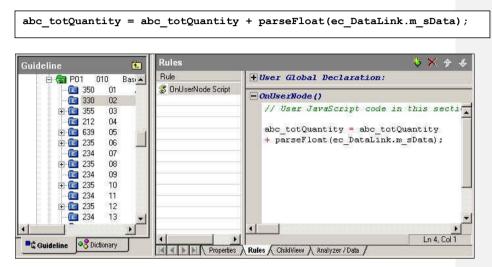
3. Write code to accumulate quantity for each line item loop

In the guideline tree

•

- Expand Loop PO1
- Select segment PO1
- "Baseline Item Data"" "Baseline Item Data"
- Select element PO102
- "Quantity Orders"
- Click on the "Rules" tab on the detail pane.
- Click on the icon to add new script.

- Select "OnUserNode Script"
- Add code:



- 4. Write code to report error: Total quantity <> total quantity calculated. In the guideline tree
 - Select segment CTT "Transaction Total"
 - Select element CTT02 "Hash Total"
 - Click on the "Rules" tab on the detail pane.
 - Click on the icon to add new script.
 - Select "OnUserNode Script"
 - Add following code and save the .ecs file:

```
if (abc_totQuantity != + ec_DataLink.m_sData)
{
    var ErrMsg = "Calculated total Qty: " + abc_totQuantity + " does
    not match the reported Qty: " + ec_DataLink.m_sData;
    ec_ErrorContainer.AddError2("_ec_CaseID", "9999",
    "_ec_DescriptionTemplate", ErrMsg);
}
```

Page 46 of 53

Guideline 💽	Rules	🌣 🗙 🛧 🐗
	Rule S OnUserNode Script	User Global Declaration:
		<pre> OnliserNode() // User JavaScript code in this section is executed if (abc_totQuantity != + ec_DataLink.m_sData) (var ErrMsg = "Calculated total quantity: " + abc_totQuantity + " does not match the reported quanity: " + ec_DataLink.m_sData; ec_ErrorContainer.AddError2("_ec_CaseID" , "9999", "_ec_DescriptionTemplate", ErrMsg);) A Rules (ChildWew & Analyzer/Data / </pre>

Compare customized specification to the standard specification

The objective of this section is to compare and migrate customized specification to a newer version of the transaction.

1. Launch Migrator

Launch B2B Document Editor.



2. Executing the comparison and migration wizard

Migrator wizard is started.

- Source guideline from the database or standard
 - Select Standard
 - EDI, X12, Version 4010, 850 Purchase Order
 - Click Next
- Select Destination Guideline or Standard
 - File: Les7_Migrate_X12_401_850.ecs
 - Click Next
 - Comparison options
 - Allow customization of which guideline attributes should be compared and which should be skipped. By default user notes are skipped since they will most likely always be different. Use the default settings and click Next.
- Migration options
 - Allow customization of which guideline attributes should be migrated from source to target. Use the default settings and click Next.
- Match options
 - Allow customization of how the two guidelines should be linked to each other. By default node ID is used for linking but additional attributes such as Name and Position can also be used for linking. Use the default settings and click Next.
- Click Finish to start the wizard.

3. Viewing and navigating differences

Use the scrollbars and the toolbar icons to navigate to next / previous differences
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4. Printing comparison reports.

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- Using File->Print Preview view the:
 - Change summary report
 - Companion reports

Reverse engineering specifications using existing data files

The objective of this section is to demonstrate how to create specifications from existing data files.

5. Launch SpecGenerator.

- Launch B2B Document Editor.
- Open the main toolbar to the left and click on the icon for SpecGenerator.

6. Executing the SpecGenerator wizard

- SpecGenerator wizard is started.
- Select the data file:
 - File: Les7_850_2.dat
 - File:Click Next
- Clean up data flies: Click next
- Data Structure: Click next
- Guideline Selection: Verify that the proper guideline from the database is automatically selected and click Next.
- Envelope Segment
 - \circ \rightarrow Please select Envelop Segments: Click next
 - $\circ \rightarrow$ Please select Envelop Segments from database Click next
 - → Please select how to use the selected Envelop Segments
 - SpecGenerator Mode→ Click next
- Order specification based on the content.
- Toggle the view to only view included items by clicking on the toolbar icon.
- View the N101 code list to verify the code values are limited to those present in the data file.
- Save the specification document as Lab7-850.ecs and close the guideline.

Typical EDI Errors

1. Unable to identify the Document

Make sure the document EDI document is well formed by using B2B document editor

2. Agreement Identification which involves Document Identification and TP Identification

Agreement not found for trading partners: FromTP GlobalChips,

ToTP Acme with document type 850-4010-INBOUND

Check: Make sure to verify Trading Partner Name, Trading Partner Parameters (Optional), Document Type Name, Document Type Revision, Trading Partner Id, Delivery Channel

3. Document Validation Error

Check: 1. Make sure Document Protocol Parameters and matching values.

Proper ECS file is used for Validation

4. Connection Issues

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Transport error: [IPT_HttpSendConnectionRefused] HTTP connection is refused. Connection refused: connect

Check : Make sure the information about delivery channel is correct and also the end point is active. Pinging the end points can do this.

FAQ

- 1. Is it always mandatory to send the Edifecs XML to B2B for EDI processing? It is possible to process Native EDI, Edifecs XML and any other flat file using Oracle B2B. Following are some of the features with native EDI/Flat File Processing.
 - Translation should be switched off with optional validation.
 - Oracle B2B would not provide features such as Batching, etc. with this configuration.
 - It is required to send the complete envelope, as Oracle B2B will not generate the envelope using Document Protocol Parameters like in case of Edifecs XML processing.
- 2. What if I have a native EDI file in the back end application can I process in B2B? Refer to Q1.
- 3. What if I have a EDI document with multiple transactions, how do I handle in B2B? Oracle B2B Processing is based on Transaction set, hence it is required to split the envelope into multiple transactions and send it to B2B. B2B translates the transaction set into native EDI and generates the envelope using the Document Protocol Parameters.
- 4. Can I receive EDI document with multiple transactions from a trading partner? Yes. Oracle B2B provides a feature of debatching for inbound messages. Refer to section EDI Debatching for more details.
- Can I outbound batch a native EDI documents to be sent to B2B from Back end application? No. Refer Q1.
- 6. Can I customize the group and Interchange ecs files? How? Yes, it is possible to customize Group and Interchange ecs file using Oracle B2B Document editor and upload the same at the trading partner level.
- 7. What is the preferred Exchange protocol for EDI? EDI won't mandate any Exchange protocol as such. However AS1/AS2 are the most popular exchange protocol which go well with EDI.
- 8. Can I disable the validation of incoming data against the document protocol parameter? Is it possible to identify the incoming document only based on ecs file?

Yes, it is possible to disable the validation of incoming document against Document protocol parameters by setting the value for "Ignore Validation on Envelop elements"

🗆 Miscellaneou	IS		
Default Trading Partner		Log Payload	false
Ignore Validation on		Reconnect on Error HTTP Header	false
Envelope elements		Delimiter	#
Ignore Correlation	false	Treat Reply To message as	false
Additional MIME Types		Request	

9. Is it mandatory to have Functional Acknowledgement in EDI. No it is optional

Page 50 of 53

10. What happens when the Document related parameter are modified in the admin page when it is already being used in the trading partner level. Can the updated information propagate to all the trading partners ?

NO

Page 51 of 53

Reference Information

Links

Oracle B2B

http://www.oracle.com/technology/products/integration/b2b/index.html

Oracle B2B Forum

Forum: http://forums.oracle.com/forums/forum.jspa?forumID=242

Fusion Middleware

http://www.oracle.com/technology/products/middleware/index.html

Service-Oriented Architecture http://www.oracle.com/technologies/soa/index.html

Page 52 of 53

This cookbook has been assembled using excerpts from:
Oracle B2B User Manual
Oracle B2B Partner Training Curriculum
Oracle B2B Technical Notes

- Oracle B2B Tutorials
- .

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Page 53 of 53