

Application Integration Tutorial for Outbound Invoices

Version 5.3.1



Application Integration Tutorial for Outbound Invoices

Version 5.3.1

oteore using the	nis information a	nd the product	it supports,	read the info	rmation in "N	Notices" on pa	ge 133.	

© Copyright IBM Corporation 1996, 2012. US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Chapter 1. Getting Started 1	Defining the Partner Key 4
About this Tutorial	Defining the EDI Standard Field 4
Mapping Overview	Defining the Version 4
Application File Format	Defining the Transaction Set 4
EDI File Format 4	Defining the Test/Production Status Field 4
Default Delimiter Values 5	Defining the Application ID Field -
The Application Integration Subsystem 5	TRADACOMS 4
Customizing Global Display Options 7	Defining the Application Alias Value Field -
Customizing Global Display of Links 7	TRADACOMS 4
Customizing Global Confirmation Options 8	Compiling the System Import Map 4
The Application Integration Map-building Process 8	Printing the System Import Map Report 4
How to Use the Tutorial 9	Testing the System Import Translation Object 4
Tips and Recommendations	
	Chapter 4. Import Map 45
Chapter 2. Outbound Invoice 15	Creating the Import Map
About the Outbound Invoice Tutorial	Activating the EDI Map Components 4
Getting Started with your Outbound Invoice 15	Defining Literal Constants - ANSI X12, EDIFACT 4
Analysis of the Application File Format for your	Mapping the UNS01 Element - EDIFACT 4
Outbound Invoice	Promote Groups and Repeating Segments -
Application File Definitions for an Invoice	EDIFACT 4
Application File Header Layout for an Invoice	Promoting the DTM Segment 4
Application File Beginning Record Layout for an	Promoting the RFF Group and Adding
Invoice	Specialized Definitions 4
Application File Comment Group Layout for an	Promoting the DTM:23 Segment 5
Invoice	Promoting the DTM:24 Segment 5
Application File Summary Layout for an Invoice 23	Promoting the NAD Group and Adding
Analysis of the Customer EDI File for an Invoice 24	Specialized Definitions
Outbound Invoice Map Components for ANSI	Promoting the LOC:11 Segment 5
X12	Promoting the CTA:3 Group 5
Outbound Invoice Map Components for	Promoting the PIA Segment
EDIFACT	Promoting the IMD:2 Segment
Outbound Invoice Map Components for	Promoting the QTY:2 Segment
TRADACOMS	Promoting the MOA Group
Constants	Promoting the CNT Segment 5
Reconcile your Outbound Invoice Application File	Promoting the MOA Group 5
and the Customer EDI File 28	Verifying EDI Delimiters for Outbound Invoices 5
Header Mapping Operations for Outbound	Application File Format 5
Invoices	About the Application File Format in Outbound
Beginning Record Mapping Operations for	Invoices
Outbound Invoices	Copying the HEADER Record 5
Comment Group Mapping Operations for	Removing Standard Rules from the Header
Outbound Invoices	Record
Summary Mapping Operations for Outbound	Creating the INVBEGIN Record 5
Invoices	Creating the INVCommentGroup 5
Cross-reference Tables	INVCommentGroup Subordinate Records - ANSI
Additional Information for TRADACOMS 34	X12 and EDIFACT 5
How to Map your Data	Creating the INVCOMMENT Record -
About Mapping	TRADACOMS 5
HEADER Record	Creating the INVDETAIL Record 5
HEADER Record	Creating the TEMPVATSTL Record -
Chapter 2 Cyclem Impact Man 27	TRADACOMS 5
Chapter 3. System Import Map 37	Creating the INVSUMMARY Record 6
Creating the System Import Map	Current Map Structure 6
Creating the HEADER Record	Application Fields 6
Defining the HEADER Fields	About Application Fields in Outbound Invoices 6
How to Define the Key 40	1.10000 1.15 pricuron 1 icido ni Odibodila nivolces 0

Creating the INVBEGIN Record Application	Changing the Max Use of the ITD Segment 87
Fields	Mapping the TERMS Fields 88
Creating the INVCOMMENT1 Record	Shipping and Billing Information for EDIFACT 88
Application Fields - ANSI X12, EDIFACT 63	About Shipping and Billing Information for
Creating the INVCOMMENT2 Record	EDIFACT
Application Fields - ANSI X12, EDIFACT 64	VENDNAME Field
Creating the INVCOMMENT Record -	SHIPTOLOC Field
TRADACOMS	BOLNUM Field
Creating the INVDETAIL Record Application	SHIPDATE Field
Fields	Shipping Information for TRADACOMS
Creating the TEMPVATSTL Record Application	Mapping the ShipTo Fields
Fields - TRADACOMS 66	
Creating the INVSUMMARY Record Application	Chapter 7. INVComment Group 95
Fields	INVComment Group: INVCOMMENT1 and
	INVCOMMENT2 for ANSI X12 and EDIFACT 95
Chapter 5. INVBEGIN Record 69	INVCOMMENT1 Record 95
About the INVBEGIN Record 69	REFNUM Field
INVNUMBEG Field 69	INVCOMMENT2 Record 96
Mapping the Invoice Number 69	Mapping the MESSAGETEXT Field - ANSI X12 96
Setting up the Document Name for the	INVCOMMENTGroup: INVDETAIL Record for
Outbound Invoice 69	ANSI X12 and EDIFACT
Mapping the INVDATE Field - ANSI X12 and	About the INVDETAIL Record for ANSI X12 and
TRADACOMS	EDIFACT
About the INVDATE Field - EDIFACT	Mapping the ITEMNUM Field
Changing the Properties of the DTM:2202	QTYSHIP Field
Element	QTYORD Field
Setting the Date/Time/Period Qualifier 71	UNITPRICE Field
Mapping the Invoice Date	Mapping the UOM Field
Mapping the PONUM Field	Customer Product Code and Your UPC Code 106
Setting the Reference Qualifier - EDIFACT	Item Description
	INVCommentGroup: INVCOMMENT Record for
Setting up the Document Reference - ANSI X12 and EDIFACT	TRADACOMS
Changing the Maximum Usage of the ODD	INVCOMMENT Record
Group - TRADACOMS	Mapping the MESSAGETEXT Fields 111
Creating an Extended Rule to Specify the PYT	INVCommentGroup: INVDETAIL Record for
SEQA - TRADACOMS	TRADACOMS
Creating an Extended Rule to Specify the DNA	About the INVDETAIL Record for
SEQA:2 - TRADACOMS	TRADACOMS
Creating an Extended Rule to Specify the ODD:2	Mapping the ITEMNUM Field
SEQA - TRADACOMS	QTYSHIP Field
Creating an Extended Rule to Specify the ILD:2	Mapping the UNITPRICE Field
SEQA - TRADACOMS	Mapping the UOM Field
Mapping the Order Number - TRADACOMS 75	Mapping the CUSTPROCODE Field
PODATE Field	Mapping the UPCCODE Field
Mapping the PODATE Field	Mapping the ITEMDESC Field
Changing the Properties of the DTM:2502	VATCODE Field
Element	Mapping the TEMPVATRATE Field 115
Setting the Date/Time/Period Qualifier 76	TEMPLEXC Field
Mapping the Purchase Order Date	INVCommentGroup: TEMPVATSTL Record for
	TRADACOMS
Chapter 6. Shipping and Billing 79	The TEMPVATSTL Record
Shipping and Billing Information for ANSI X12 79	Mapping the SEQA Field
About Shipping and Billing Information for ANSI	Mapping the VATRATE Field
X12	Mapping the VATRATECODE Field 118
The N1 Group	Mapping the NUMLINES Field 118
Mapping the Vendor Application Fields 82	Mapping the LVLA Field
Shipping Application Fields	Mapping the VATA Field
Mapping the Shipping Reference Information 84	INVCommentGroup: INVSUMMARY Record 120
Bill of Lading Number	Mapping Totals
Ship Date	TOTALAMOUNT Field 120
	TDANICTOTAL E:-14

VAT Summary - TRADACOMS	Testing the Translation Object
Chapter 8. Finalize the Map 129	
Compiling the Final Map	Notices
Printing the Final Report	

Chapter 1. Getting Started

About this Tutorial

This tutorial for the Sterling Gentran:Server® Application Integration subsystem references the ANSI X12, EDIFACT, and TRADACOMS standards.

Any sections in this tutorial that do not apply to all three standards are marked with the applicable standard name. If a section heading does not include a standard name, then the section applies to all three standards. In some tasks, the steps and information apply to all three standards but a specific detail may be different, such as a field name.

For example: In the "What is the name of the form" box, enter one of the following:

- **PET 850** (for ANSI X12)
- **PET_EORD** (for EDIFACT)
- **PET_TORD** (for TRADACOMS)

This tutorial includes an inbound mapping example (purchase order) and an outbound mapping example (invoice). It covers EDI to flat file translation only. The purpose of this tutorial is to break the mapping process into concise and understandable steps, using examples that allow you to understand and master the tasks and processes required to create your own maps.

This guide assumes that you are familiar with using a PC and with Microsoft Windows functions, including:

- The terminology used to describe mouse and cursor actions.
- The terminology used to describe Windows-specific attributes, including dialog boxes, icons, windows, and buttons.
- Using the Windows Program Manager.

This guide also assumes that you are familiar with EDI concepts, EDI standard structure, your internal application format, data mapping concepts, and with the Sterling Gentran:Server product.

Additional Information

To access reference information, see the *IBM*® *Sterling Gentran:Server for Microsoft Windows Application Integration User Guide*.

For additional information on the various tasks described in this guide, refer to the *IBM Sterling Gentran:Server for Microsoft Windows User Guide*.

For XML mapping information, see the tutorial in the *IBM Sterling Gentran:Server* for Microsoft Windows XML User Guide.

Mapping Overview

A map is a set of instructions you define in the Sterling Gentran:Server Application Integration subsystem that defines the relationship between your application file and the EDI standards, and defines how the system should translate data.

For inbound mapping, the system translates your trading partner's EDI standard formatted business document to your file format. To translate inbound data, you need to create an export map in Sterling Gentran:Server Application Integration (because the system is exporting to your application file).

For outbound mapping, the system translates your file format to EDI standard formats, so you can send documents to your partners. To translate outbound data, you need to create an import map and a system import map in the Sterling Gentran:Server Application Integration subsystem. You need to create an import map because the system is importing from your application file.

The import map defines how to move data from your application file (flat file definition), which may contain multiple documents, to the EDI standard-formatted documents that your partners expect to receive from you. You need to create a system import map to determine which trading relationship (established in Partner Editor) corresponds to each document in the application file, so the system knows which import map to use to process the document.

Translation Objects

The map you create is the source from which you compile a translation object. A translation object is a set of instructions the translator uses to convert a file from one format to another. Every function performed during translation requires a translation object. Translation objects control all the functions of Sterling Gentran:Server EDI translation. Translation objects can belong to one of the following categories:

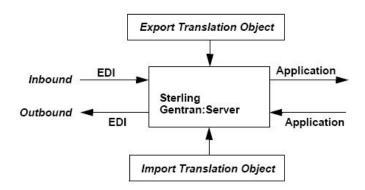
- system translation objects
- · user translation objects

System translation objects control the creation and separation of interchanges, functional groups, and transaction sets. They are also used to generate and reconcile functional acknowledgements. User translation objects control data entry, importing, exporting, document turnaround, and creating printed reports. All required system translation objects are automatically installed with the Sterling Gentran:Server system.

The Application Integration subsystem enables you to generate import, export, and turnaround translation objects. Once you generate a translation object using the Application Integration subsystem, you must register the translation object with Sterling Gentran:Server. In addition, you must set up relationships for all trading partners from which you receive or to which you send data. During the process of establishing a trading relationship, you need to specify the name of the appropriate translation object that the translator uses to translate the data. See the *IBM Sterling Gentran:Server for Microsoft Windows User Guide* for more information about trading partners.

Inbound and Outbound Translation Process

The following diagram shows a high-level view of the inbound EDI to application and outbound application to EDI translation processes.



When you create an export map, you need to define to Sterling Gentran:Server the EDI standard format in which your partners sends documents and your application file format (how the data needs to be formatted for your application to process it). When you create an import map, you must define to Sterling Gentran:Server your application file format (your data that you will send to your partners) and the EDI standard format in which your partners expect to receive the documents.

Application File Format

If you are creating an import or export map, you must define your application to the Application Integration subsystem. In Sterling Gentran:Server terminology, your application file is also referred to as a fixed-format file or a positional file. Your application file must contain all the information that you need to either extract from your partner's document (if the map is inbound) or send to your partner (if the map is outbound).

This table describes the map components that you use to define your application file.

Component	Icon	Description
Group	a	This is a looping structure that contains related records and/or groups that repeat in sequence until either the group data ends or the maximum number of times that the loop is allowed to repeat is exhausted. If you create a group that is subordinate to another group (a subgroup), this corresponds to a nested looping structure (a loop within a loop). The application (positional) file is a group and therefore, it is visually represented the same way as other groups and subgroups in the Application Integration subsystem.
Record	•	Contains a group of related fields. A record can occur once or can repeat multiple times.
Field	•	This is the smallest piece of information defined in the application file. A field is the application map component that is mapped (linked) to a corresponding EDI element. When an element contains a standard rule a black asterisk appears to the right of the element icon.

Notes:

- When a field has a mapping operation performed against it, a red checkmark is displayed over the field icon.
- When a field contains a standard or extended rule a black asterisk appears to the right of the element icon.
- When a group contains an extended rule, a yellow asterisk appears to the right of the group icon.

Before you define your application file format, you should obtain a layout of the necessary records, fields, and groups. Each map component is arranged sequentially in the order that it is most logical for the system to process. Therefore, each level of your application file must be created sequentially. For example, your application file contains records and groups. The records contain fields and the groups contain records and/or subgroups. This means that you must create records and groups before you create the subordinate fields.

EDI File Format

The EDI file must contain all the information that you expect to receive from your partner (if the map is inbound) or need to send to your partner (if the map is outbound).

The Application Integration subsystem generates an EDI file for you, based on the standard (agency), version, transaction set, and release (for TRADACOMS only) that you selected. The system includes all the groups, segments, composites, and elements that are defined by the standards agency for the version of the document you selected. If you are creating an import or export map, you typically need to customize the system-generated EDI file by modifying the properties of the map components and using specialized Sterling Gentran:Server functions to manipulate the EDI file structure.

The specific EDI map components that you use depends on the type of map you are creating. This includes the standard, version, and transaction set (document) selected, and which groups, segments, composites, and elements your company requires. We recommend that you determine which map components you are using before generating or defining an EDI file.

The system activates all of the groups, segments, composites, and elements that are defined as mandatory by the standard. The system does not enable you to deactivate the mandatory groups, segments, composites, and elements. By default, Sterling Gentran:Server displays active map components with a black font, and inactive map components with a grey (dimmed) font.

When translating data, the system does not process groups, segments, composites, and elements (or records and fields) that are not activated. Therefore, you must activate the groups, segments, composites, and elements that are not defined as mandatory by the standard, but that you have determined that you need to use in mapping.

If you want to use a specialized version of an EDI standard that is not available in the Sterling Gentran:Server standards database, it may be appropriate for you to define the EDI file yourself.

This table describes the map components Sterling Gentran:Server uses to define the EDI file.

Component	Icon	Description
Group	6	This is a looping structure that contains related segments and/or groups that repeat in sequence until either the group data ends or the maximum number of times that the loop is allowed to repeat is exhausted. Groups are defined by the EDI standards. A group that is subordinate to another group is a subgroup (this corresponds to a nested looping structure – a loop within a loop). The EDI file is a group and is visually represented the same way as other groups and subgroups in the Application Integration subsystemt.
Segment	·	Contains a group of related elements or composite data elements that combine to communicate useful data. Segments are defined by the EDI standards. A segment can occur once or can repeat multiple times.
Composite	-60	This is a data element that contains two or more component data elements or subelements. Composites are defined by the EDI standards that use them (EDIFACT, TRADACOMS, and certain ANSI X12 standards).
Element	•	This is the smallest piece of information defined by the EDI standards. An element is the EDI map component that is mapped (linked) to a corresponding application field to move data to and from the EDI file.

Notes:

- When an element has a mapping operation performed against it, a red checkmark is displayed over the element icon.
- When a field contains a standard or extended rule a black asterisk appears to the right of the element icon.
- When a group contains an extended rule, a yellow asterisk appears to the right of the group icon.

Default Delimiter Values

The default delimiter values for all three standards are shown in the following table:

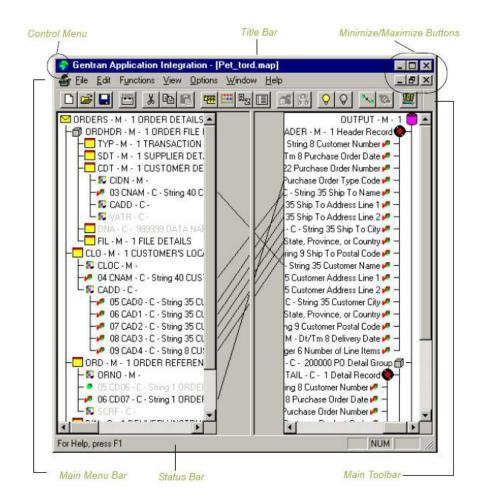
Box	ANSI X12 Default Char.	ANSI X12 Default Hex	EDIFACT Default Char.	EDIFACT Default Hex	Tradacoms Default Char.	Tradacoms Default Hex
Tag Delimiter					= (equal sign)	0x3D
Element Delimiter	* (asterisk)	0x2A	+ (plus)	0x2B	+ (plus sign)	0x2B
Segment Delimiter	~ (tilde)	0x7E	' (single quote)	0x27	' (single quote)	0x27
Sub Element	: (colon)	0x3A	: (colon)	0x3A	: (colon)	0x3A
Release Character			? (question mark)	0x3F	? (question mark)	0x3F
Decimal Separator			. (period)	0x2E	. (full stop)	0x2E

The Application Integration Subsystem

The Application Integration subsystem enables you to translate your application files to EDI standard formats for documents you send to your partners (outbound mapping) and to translate EDI standard formats to your application format for documents that you receive from your partners (inbound mapping).

Application Integration Window

The following diagram illustrates the Sterling Gentran:Server - Application Integration Window. (This is a TRADACOMS example.)



This table describes the Application Integration window components.

Part	Function	
Control Menu	Allows you to control the Application Integration window by moving, maximizing, or closing it.	
Title Bar	Contains the name of the application. You can use this to move the position of the EDI Director window on your desktop.	
Minimize	Reduces the window to an icon.	
Maximize	Enlarges the window to its maximum size.	
Main Menu Bar	Contains drop-down menus. Unavailable items are dimmed.	
Main Toolbar	Enables you access to some of the most common operations in Application Integration subsystem. Unavailable items are dimmed. The Main Toolbar is a dockable toolbar, so you can aff it to any edge of the client window.	
Status Bar	Displays status information about a selection, command, or process; defines menu items as you highlight each item in the menu; and indicates any current keyboard-initiated mode for typing (for example, CAP for the Caps Lock key).	

Customizing Global Display Options

The Sterling Gentran:Server Application Integration subsystem allows you to customize the display of maps in several different ways. The global display options that are established apply to all maps.

About this task

Note: You can set or change global map display options at any time.

Use this procedure to customize global display options for all maps.

Procedure

- 1. Select **Options** > **Preferences**. The Preferences dialog box enables you to set global defaults for Sterling Gentran:Server.
 - The Preferences dialog box is displayed.
- 2. To turn on the default display of group, record (segment), and field (element) descriptions, select the appropriate options.

Notes:

- You typically want all descriptions displayed for reference. But depending on the size of your monitor, it may be easier to see the entire map if the descriptions are not displayed.
- You may want to experiment with shrinking the size of the font for the map before you turn off the display of descriptions.
- 3. Click **OK** to save changes and exit the Preferences dialog box.

Customizing Global Display of Links

Mapping Links are the visual lines that connect a field/element on the Input side of the map to a field/element on the Output side of the map.

About this task

Use this procedure to customize the global display of mapping links.

Procedure

- 1. Select **Options** > **Preferences**.
 - The Preferences dialog box is displayed. The Tree tab is displayed by default.
- 2. Click the Links tab. The Links tab enables you to set the default display of mapping links.
- 3. Select one of the following settings:
 - Show no links Do not display mapping links.
 - Show links to or from the currently selected element Display only the mapping links for the currently selected field.
 - Show links to or from all visible elements Display all the mapping links. We recommend that you select this option.

The option you select is the default for all maps.

4. Click **OK** to save changes and exit the Preferences dialog box.

Customizing Global Confirmation Options

The Confirmations tab on the Preferences dialog allows you specify when you want confirmation messages displayed. Depending on how you set these options, you may receive either more or fewer confirmation messages than described in this tutorial.

About this task

Use this procedure to set the confirmation options.

Procedure

- Select Options > Preferences.
 The system displays the Preferences dialog box (Tree tab displayed by default).
- 2. Select the **Confirmation** tab.
 - The system displays the confirmation options.
- 3. Set the global confirmation options by either selecting the Confirm everything check box (displays all confirmation messages) or by selecting individual confirmation messages by action performed.
- Click **OK** to save the confirmation options.
 The system sets the confirmation options you selected.

The Application Integration Map-building Process

The following table provides an overview of the map-building process.

Stage	Description
1	Prepare and analyze.
	Obtain a layout of your application file and determine how it corresponds with the EDI standard you are using. Determine how you move data to or from each application field.
2	Set global defaults (first time only).
	The first time you use the Application Integration subsystem, you should establish the default date format that the system uses. Please see the <i>IBM Sterling Gentran:Server for Microsoft Windows User Guide</i> for more information on setting the global date default.
3	Create, save, and name a new map.
	See the topics on creating maps for more information.
	• For outbound invoices, create both a system import map and an import map.
	• For inbound purchase orders, create an export map.
4	Activate the appropriate EDI groups, segments, and elements.
	See the topic on activating EDI map components for more information.
5	Define your application file format.
	See the topic on analyzing the application file format for more information.
6	Map the appropriate data for each application field.
	Specific mapping tasks begin with mapping or defining the header of the translation object.

Stage	Description
7	Print the mapping report.
	Validate and review the map, and make modifications as needed. See the topic on printing the report for more information.
8	Compile the translation object.
	See the topic on compiling the map for more information.
9	Register the translation object with Sterling Gentran:Server.
	See the <i>IBM Sterling Gentran:Server for Microsoft Windows User Guide</i> for more information on registering translation objects.
10	Create the appropriate trading relationship.
	Establish the appropriate trading relationship in Sterling Gentran:Server for your trading partners. The trading relationship that you will use in this tutorial is provided in the tutorial folders. You need to import the partner profile into Sterling Gentran:Server, before you begin this tutorial.
	See the <i>IBM Sterling Gentran:Server for Microsoft Windows User Guide</i> for more information on trading partners.
11	Testing the translation object.
	Obtain test data from your partners and process the data. Verify acknowledgement processing (if applicable). Verify communications with your network.

How to Use the Tutorial

Tutorial basics for ANSI X12

For these tutorials, we have provided test data for the translation objects you create. The following table describes how to locate that test data:

Translation Object Type	Test Data Name	Default Path Location
Inbound (export)	PETTEST.INT	C:\GENSRVNT\TUTORIAL\PETTEST.INT
Outbound (system import and import)	PET_810.TXT	C:\GENSRVNT\TUTORIAL\PET_810.TXT

Tutorial basics for EDIFACT

For these tutorials, we have provided test data for the translation objects you create. The following table describes how to locate that test data:

Translation Object Type	Test Data Name	Default Path Location
Inbound (export)	PETTSTE1.INT	C:\GENSRVNT\TUTORIAL\PETTESTE1.INT
Outbound (system import and import)	PET_EINV.TXT	C:\GENSRVNT\TUTORIAL\PET_EINV.TXT

Tutorial basics for TRADACOMS

For these tutorials, we have provided test data for the translation objects you create. The following table describes how to locate that test data:

Translation Object Type	Test Data Name	Default Path Location
Inbound (export)	PETTSTT1.INT	C:\GENSRVNT\TUTORIAL\PETTSTT1.INT
Outbound (system import and import)	PET_TINV.TXT	C:\GENSRVNT\TUTORIAL\PET_TINV.TXT

Tips and Recommendations

The following information includes tips and recommendations that you can use while you are going through the tutorials and building your maps. You might want to print these pages to keep available through the process.

Map names

You allocate a file name to a map when you save the map for the first time or use Save As to save a copy of the map under a different name. The name should define the map in a meaningful way. The default filename extension is .MAP (it must have a MAP extension to open in the Map Editor). Using this extension distinguishes map files from other types of files, such as translation objects. The naming conventions in Sterling Gentran:Server include:

The source map (map created in Sterling Gentran:Server) should be named using the file extension .MAP (for example, PET_810.MAP, PET_EINV.MAP, or PET_TINV.MAP).

The compiled translation object (translation object that is the result of compiling the source map) should be named using the same filename that was allocated to the source map, but with the file extension .TPL (for example, PET_810.TPL, PET_EINV.TPL, or PET_TINV.TPL).

We recommend that you use these naming conventions to distinguish source maps and compiled translation objects from other types of files. We also recommend that you use the same file name (different file extension) for a source map and the translation object that was compiled from it.

Be careful not to overlay the source map with the compiled translation object. Use the .TPL file extension to distinguish the translation object.

Document names and references

We recommend that you set up a Document Name for each map to make the identification of a document created by this map easier in Sterling Gentran:Server. This allows you to differentiate between documents in the document browsers in Sterling Gentran:Server. Document names can be up to 255 characters in length.

To set up a Document Name, you must select an element or field in the map that contains data that distinguishes the documents translated by this map. (If you choose a non-string element or field, you need to convert it to a string first.) Then, the Name field of the document browsers that contain this document contain the data from the selected element or field. You can choose any element or field as the Document Name, but we strongly recommend that you select an element or field that occurs only once in the document and has a data type of String. In this tutorial, the document name for the map is the purchase order number.

You can also establish a Document Reference for each map, which also assists you in differentiating between documents. When you set up the Reference in the Application Integration subsystem, the RefData field of the document browsers that contain this document in Sterling Gentran: Server contains the data from that mapped field. In this tutorial, the document reference for the import map in this tutorial is the purchase order number.

Link function

The Link function allows you to map a field or element from the Input side of the map to a field or element on the Output side of the map. When you click the element, the cursor changes to a Link Arrow. The link between the two fields is visually represented with a line connecting the two fields.

You can only map fields and elements that are at the same level. This means that you cannot map to a group from a segment that does not repeat.

Important: If you select Confirm when I link options at different levels, you will get a warning when an element should not be linked. Do not ignore this warning. If you link elements when you see this warning, your output may be incorrect.

When compiling

Each rule in the map is compiled when you compile the translation object after you complete the map. However, the system allows you to compile each rule individually so that you can verify its accuracy after you create it.

The Compile function will compile the rule interactively and allows you to correct any generated errors. Errors or warnings that occur during the compilation process are displayed in the Compile Errors box (or in the Errors list).

Entries in dialog boxes

Names

Do not use spaces or dashes (-) in the Name box. You can use the underscore (_) to separate words.

Each application field must have a unique name. It is useful to tag the end of the fields that occur in multiple records with a suffix that identifies the record that contains it. For example, HDR for the Header record, DET for the detail record, DESC for the description record, AC for the allowance/charge record, SUM for the summary record.

Dates:

- For ANSI X12 and EDIFACT, dates are in the MMDDYY format. For example, 120511 would be December 5, 2011.
- For Tradacoms, dates are in the DD/MM/YY format. For example, 05/12/11 would be 5 December 2011.

Descriptions:

This box is used to provide a brief explanation and allows you to differentiate it from similar fields.

Tags:

A record is recognized by the system as: <TAG>[Field 1][Field 2]

The record TAG for each record enables the system to recognize that record and then determine the mapping requirements.

For temporary storage, use a value of \$\$\$. The system does not read a segment with a value of \$\$\$ in the Tag box. Therefore, it does not flag this temporary storage segment as an error during compliance checking.

We recommend that you define the record tag on the Positional Record Properties dialog box, instead of defining fields with the purpose of explicitly containing the record tag.

Looping Tab:

The Looping section allows you to specify the minimum and maximum number of times an element can repeat, and whether it is mandatory or conditional. Alter this section only if the element is a repeating element. Otherwise, accept the defaults.

Minimum Usage (Looping):

This is the minimum number of times the loop must be repeated. For a conditional loop, the minimum usage should always be 0. For a mandatory loop, the minimum usage should be 1 or greater.

Position tab:

To indicate the exact position of the field in the record, type the starting position of the field in the Start Pos box. For example, you should specify field start positions if you are only using a few fields but you want them positioned exactly in the record.

In this tutorial, add the fields sequentially in the record and then use the Auto Position function.

Auto Position:

This automatically calculates the start position in the record of each field based on the criteria that each field is positioned directly after the previous field and is of the length specified in the Max Length box.

It is only valid to use the Auto Position function if you define a record tag on the Positional Record Properties dialog box, and if you define every field in the record in the sequence that each field occurs, as you are doing in this tutorial.

Positional Field Editor:

If you press Enter after typing the information for the last field in the record, a blank field is created. Click **Delete** and then **Yes** to delete the blank field.

Accumulators

There is only one set of accumulators for each map. This means that accumulator 0, whether it is used in the Primary Accumulator or Alternate Accum field is the same accumulator with the same contents. If you assign calculations to accumulator 0 at the beginning of the map and then use accumulator 0 again later in the map, the content of that accumulator will be the result of the earlier calculation. Any additional calculations you assign to that accumulator will be performed on the contents resulting from an earlier calculation.

Chapter 2. Outbound Invoice

About the Outbound Invoice Tutorial

This part of the tutorial defines the step-by-step tasks that are necessary to create a map that will be used to translate your application file to invoices that you send to your trading partner.

These tasks include the following:

- Mapping analysis
- Creating the new map
- Defining constants
- · Activating groups, segments, and elements
- Activating EDI map components
- Verifying EDI delimiters
- Defining the application side of the map
- Mapping your data
- · Finalizing the map

There are tasks and information for ANSI X12, EDIFACT, and TRADACOMS in this tutorial. Some tasks and information may not apply to all three standards, and the heading will indicate this. If the heading does not specify which standard it applies to, then it applies to all three.

Getting Started with your Outbound Invoice

This tutorial is meant to be completed in its entirety. We recommend that you complete each task sequentially without referring to the completed map that is provided with the installation program. You can then verify your completed map with the model we have provided.

Completing each task in this tutorial in sequential order as if it were your own scenario not only teaches individual mapping tasks, but also provides a logical approach to methods that you use when you create your own map.

Outbound Mapping Scenario

This tutorial sets up the following scenario:

- Your company is MWT Manufacturing Co., which manufactures a wide variety of supplies for pet stores.
- MWT Manufacturing Co. sells pet supplies directly to large pet supply retail chains.
- Pet Zone, a large pet supply retailer, is the trading partner. After shipping an order to Pet Zone, generate the invoice.

You need to create a map that enables your company to translate your application file to the invoices that you send to Pet Zone.

You have an existing application file layout from your accounts payable department that defines the information your system generates for the invoice.

And from discussions with Pet Zone, you know the requirements for the EDI invoices that you are sending them.

About Mapping Analysis

The first step in creating a map is to analyze your mapping requirements. This is the most important step in creating a successful map. If your analysis is complete, you have all the information you need to create the map in an efficient and logical manner. If you omit this critical step and proceed directly to creating the map, it is likely that creating the map will be a much longer and arduous task, and the map may be invalid due to oversights and omissions.

This table describes the steps used in mapping analysis for translating both inbound and outbound data.

Step	Action
1	Analyze your application file format.
2	Analyze your partner's EDI file format.
3	Correlate your application file format and the EDI file.
4	Create the map.

Analysis of the Application File Format for your Outbound Invoice

The first step of mapping analysis is analyzing your application file format, because this is probably the component that is the most familiar to you. In this tutorial, your application file contains the data that you need to convert to an EDI file so your system can generate the document correctly. In this tutorial, your application file contains all the information that you need to generate the invoice that you send to your partner. This enables your company to bill your partner correctly for the goods you shipped to them.

You must define your application file to Sterling Gentran:Server. If your company has an existing application file, as in this tutorial, you should obtain the record layout from the appropriate person. If you did not have an existing application file layout, you would need to create one by determining which fields are necessary to process the data correctly, and then grouping the fields logically under records.

Invoices are divided into four parts:

- Header (HEADER)
- Beginning (INVBEGIN)
- Comments (INVCommentGroup)
- Summary (INVSUMMARY)

Header record:

The HEADER record contains the five-field key (partner identifier, standard, version, transaction set (message), and test/production flag), which is used for selecting the appropriate trading relationship. This header record is mandatory and occurs once for each invoice translated.

Beginning record:

The INVBEGIN record contains the purchase order number and date; the vendor, ship to, and remit to address information; and the bill of lading number, ship date, and (for ANSI X12) the term of the invoice. The beginning record is mandatory and occurs once for each invoice.

Comment group:

The INVCommentGroup includes all comment information for the invoice, including the reference number and the message text. The INVCommentGroup occurs once (for ANSI X12) or up to 10 times (for EDIFACT and TRADACOMS) per invoice translated. The information within the INVCommentGroup is further segregated by record.

- First comment record (INVCOMMENT1)—for ANSI X12 and EDIFACT∆Contains the reference number. The first comment record is mandatory and occurs once per INVCommentGroup (once for each comment line).
- Second comment record (INVCOMMENT2)—for ANSI and EDIFACT\(\triangle\) Contains message text. The second comment record is mandatory and occurs up to ten times per INVCommentGroup (once for EDIFACT).
- Comment record (INVCOMMENT)—for TRADACOMS only∆Contains the message text. The first comment record is mandatory and occurs once per INVCommentGroup (once for each comment line).

Detail record (INVDETAIL):

Contains line item number and description, quantity shipped, quantity ordered, unit of measure, price, product code, invoice terms (ANSI X12) and VAT calculation information (TRADACOMS). The detail record is mandatory and occurs up to 200,000 times per invoice translated (once for each line item invoiced).

Temporary storage for VAT subtotals record (TEMPVATSTL) - for TRADACOMS only:

Contains temporary storage fields to enable VAT subtotal calculations. The temporary storage record is conditional and occurs up to 20 times per invoice translated (once for each possible VAT code subtotal).

Summary record:

The INVSUMMARY record contains the total invoice amount and the total transaction amount. The summary record is mandatory and occurs once per invoice translated.

Application File Definitions for an Invoice

The tables in the following topics contain the minimum information necessary to define your application file to Sterling Gentran:Server (name, mandatory status, description, data type, and field length). Each record contains a group of logically-related application fields. These fields contain the information that your system needs to generate the invoice.

Each record (except the HEADER record, which is used for selecting the appropriate trading relationship) contains a three-field record key that ensures that the same identifying information is located at the beginning of each record. Your application file format contains a record key so that each record can be identified individually. The record key for this invoice consists of:

- your partner's bill to account number
- the document type
- the invoice number

Application File Header Layout for an Invoice

The application file header layout for this tutorial is shown in the table below. This information applies to both system maps and system import maps. This occurs once per document.

			Length
Field Name	Description	Data Type	(min - max)
PARTNER_ID	Partner Identifier	String	1 - 9
	(mandatory)		
STANDARD	Standard	String	1
ANSI X12, EDIFACT	(mandatory)		
VERSION	Version	String	6
ANSI X12, EDIFACT	(mandatory)		
TRANSACTION_SET	Transaction Set	String	1 - 6
ANSI X12, EDIFACT	(mandatory)		
TEST_PROD	Test/Production Flag	String	1
ANSI X12, EDIFACT	(mandatory)		
APPL_ID	Application ID	String	0 - 6
TRADACOMS			
APPL_ALIAS_VALUE	Application Alias Value	String	0 - 6
TRADACOMS			

Application File Beginning Record Layout for an Invoice

The application file beginning record layout for this tutorial is shown in the table below. This occurs once per document.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTBEG	Bill to Acct Number	String	1 - 9
	(mandatory)		
DOCTYPBEG	Document Type	String	1 - 6
	(mandatory)		
INVNUMBEG	Invoice Number	String	1 - 10
	(mandatory)		
INVDATE	Invoice Date	Dt/Tm	6
	(mandatory)	(YYMMDD)	
PONUM	Purchase Order Number	String	0 - 20

			Length
Field Name	Description	Data Type	(min - max)
PODATE	Purchase Order Date	Dt/Tm (YYMMDD)	6
VENDNAME	Vendor Name	String	0 - 35
ANSI X12, EDIFACT			
VENDADD1	Vendor Address Line 1	String	0 - 35
ANSI X12, EDIFACT			
VENDADD2	Vendor Address Line2	String	0 - 35
ANSI X12, EDIFACT			
VENDCITY	Vendor City	String	0 - 30 (for ANSI)
ANSI X12, EDIFACT			0 - 35 (for EDIFACT)
VENDSTATE	Vendor State	String	0 - 2
ANSI X12, EDIFACT			
VENDPOSTAL CODE	Vendor Postal Code	String	0 - 9
ANSI X12, EDIFACT			
SHIPTONAME	Ship To Name	String	0 - 35
SHIPTOADD1	Ship To Address Line 1	String	0 - 35
SHIPTOADD2	Ship To Address Line2	String	0 - 35
SHIPTOCITY	Ship To City	String	0 - 35
			0 - 30 (for ANSI)
SHIPTOSTATE	Ship To State	String	0 - 2
			0 - 35 (for TRADACOMS)
SHIPTOPOSTAL CODE	Ship To Postal Code	String	0 - 9
			0 - 8 (for TRADACOMS)
SHIPTOLOC	Ship To Store Location	String	0 - 9
			0 - 8 (for TRADACOMS)
SHIPTODEPTNUM	Ship To Dept Number	String	0 - 4
REMITTONAME	Remit To Name	String	0 - 35
ANSI X12, EDIFACT			
REMITTOADD1	Remit To Address Line 1	String	0 - 35
ANSI X12, EDIFACT			
REMITTOADD2	Remit To Address Line 2	String	0 - 35
ANSI X12, EDIFACT			

			Length
Field Name	Description	Data Type	(min - max)
REMITTOCITY	Remit To City	String	0 - 30 (for ANSI)
ANSI X12, EDIFACT			0 - 35 (for EDIFACT)
REMITTOSTATE	Remit To State	String	0 - 2
ANSI X12, EDIFACT			
REMITTOPOSTAL CODE	Remit To Postal Code	String	0 - 9
ANSI X12, EDIFACT			
BOLNUM	Bill of Lading Number	String	0 - 12
SHIPDATE	Ship Date	Dt/Tm (YYMMDD)	6
TERMS_WHOLE	Terms Percent Whole	Number (N2)	0 - 3
ANSI X12			
TERMSNETDUE	Terms Net Due Days	Number	0 - 3
ANSI 12, TRADACOMS		N0 (for ANSI)	
		R0 (for TRADACOMS)	
TERMSDISDUE	Terms Discount Due Days	Number (N0)	0 - 3
ANSI 12			
TERMSTEXT	Payment Terms Text	String	0 - 40
TRADACOMS			

Application File Comment Group Layout for an Invoice

Each INVCommentGroup can occur up to:

• ANSI X12: once per document

• EDIFACT: 10 times per message

• TRADACOMS: 10 times per message

The ANSI X12 and EDIFACT application file first comment record layout for this tutorial is shown in the table below. This occurs once per document.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTCM1	Bill To Acct Number	String	1 - 9
	(mandatory)		
DOCTYPCM1	Document Type	String	1 - 6
	(mandatory)		
INVNUMCM1	Invoice Number	String	1 - 10
	(mandatory)		

			Length
Field Name	Description	Data Type	(min - max)
REFNUM	Reference Number	String	1 - 30
	(mandatory)		

The ANSI X12 and EDIFACT application file second comment record layout for this tutorial is shown in the table below. This occurs up to ten times for ANSI X12 document or once per EDIFACT message.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTCM2	Bill To Acct Number	String	1 - 9
	(mandatory)		
DOCTYPCM2	Document Type	String	1 - 6
	(mandatory)		
INVNUMCM2	Invoice Number	String	1 - 10
	(mandatory)		
MESSAGETEXT	Message Text	String	1 - 232
	(mandatory)		

The TRADACOMS application file comment record layout for this tutorial is shown in the table below. This occurs once per message.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTCMT	Bill To Acct Number	String	1 - 9
	(mandatory)		
DOCTYPCMT	Document Type	String	1 - 6
	(mandatory)		
INVNUMCMT	Invoice Number	String	1 - 10
	(mandatory)		
MESSAGETEXT1	Message Text Line 1	String	1 - 40
MESSAGETEXT2	Message Text Line 2	String	1 - 40
MESSAGETEXT3	Message Text Line 3	String	1 - 40
MESSAGETEXT4	Message Text Line 4	String	1 - 40

The application file **detail record** layout for this tutorial is shown in the table below. This occurs up to 200,000 times per document.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTDET	Bill To Acct Number	String	1 - 9
	(mandatory)		
DOCTYPDET	Document Type	String	1 - 6
	(mandatory)		
INVNUMDET	Invoice Number	String	1 - 10
	(mandatory)		
ITEMNUM	Item Number	String	1 - 6
	(mandatory)		
QTYSHIP	Quantity Shipped	Number	1 - 5
	(mandatory)	N0	
		R0 (for	
		TRADACOMS)	
QTYORD	Quantity Ordered	Number (N0)	1 - 5
ANSI X12, EDIFACT	(mandatory)		
UNITPRICE	Unit Price	Number	1 - 7
	(mandatory)	N2	
		R2 (for TRADACOMS)	
UOM	Unit of Measure	String	1 - 4
	(mandatory)		
CUSTPROCODE	Customer Product Code	String	1 - 10
	(mandatory)		
UPCCODE	UPC Code	String	1 - 12
	(mandatory)		
ITEMDESC	Item Description	String	0 - 30
TERMSTYPE	Terms Type Code	String	0 - 2
ANSI X12			
TERMSDISP	Terms Discount Percent	Number (N2)	0 - 6
ANSI X12			
VATCODE	VAT Rate Code	String	1 - 2
TRADACOMS	(mandatory)		
TEMPVATRATE	Temporary Storage VAT	String	0 - 10
TRADACOMS	Percentage Rate		
TEMPLEXC	Temporary Line Extended	Number (R4)	0 - 14
TRADACOMS	Cost		

The TRADACOMS application file temporary storage VAT record layout for this tutorial is shown in the table below. This occurs up to 10 times per message.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTTS	Bill To Acct Number	String	1 - 9
	(mandatory)		
DOCTYPTS	Document Type	String	1 - 6
	(mandatory)		
INVNUMTS	Invoice Number	String	1 - 10
	(mandatory)		
SEQA	Sequence Number of STL	Number (R0)	0 - 10
VATRATE	VAT Rate	Number (R3)	0 - 6
VATRATECODE	VAT Code	String	0 - 1
NUMLINES	Number of Lines for VAT Code	Number (R0)	0 - 10
LVLA	Line Subtotal Amount (before VAT)	Number (R2)	0 - 12
VATA	VAT Amount Payable	Number (R2)	0 - 12

Application File Summary Layout for an Invoice

The application file summary layout for this tutorial is shown in the table below. This occurs once per document.

			Length
Field Name	Description	Data Type	(min - max)
BILLTOACCTSUM	Bill To Acct Number (mandatory)	String	1 - 9
DOCTYPSUM	Document Type (mandatory)	String	1 - 6
INVNUMSUM	Invoice Number (mandatory)	String	1 - 10
TOTALAMOUNT	Total Monetary Value Summary (mandatory)	Number N2 R2 (for TRADACOMS)	1 - 10
TRANSTOTAL	Transaction Totals	Number (N0)	1 - 6
ANSI X12, EDIFACT	(mandatory)		

Analysis of the Customer EDI File for an Invoice

To analyze the EDI file, you must first determine what you need to send your trading partner and what your partner expects to receive. It is important to know the information that your partners expects you to send within the invoice, and what data is contained in each element used. You and your partners must agree on which standard, version, and message or transaction set you are using.

In this tutorial, we are using the following standards:

- ANSI X12 version 003030 810 invoice
- EDIFACT version 92.1 INVOIC
- TRADACOMS version ANA001, message INVOIC (invoice), release 9

Before you analyze the EDI file, it is helpful to review the EDI standard(s) that you will use. Obtain an EDI standards manual for each standard and version that you are using. Standards manuals are available from EDI standard agencies.

After discussing with your partner what you will send, determining which segments and elements your partner requires, and reviewing the EDI standard, make a list of the map components that you must make available for use (activate).

When translating data, the system does not process groups, segments, composites, and elements (or records and fields) that are not activated. Therefore, you must activate the groups, segments, composites, and elements that you have determined that you need to use in mapping if they are not defined as mandatory by the standard.

Note: When you activate a conditional group or segment, the mandatory subordinate segments, composites, and elements are automatically activated.

Outbound Invoice Map Components for ANSI X12

This table lists the ANSI X12 map components required for this tutorial.

Groups	Segment	Element
	BIG	• BIG03
	(already active)	• BIG04
	REF	REF02
N1	• N1	• N102
	• N3	• N302
	• N4	• N401
	• REF:2	• N402
		• N403
		• REF02
	ITD	• ITD03
		• ITD05
		• ITD07
	DTM	DTM02
N9	N9	N902
	MSG	

Groups		Segment	Element
IT1		IT1	• IT101
			• IT106
			• IT107
			• IT108
			• IT109
		QTY	
	PID	PID:2	PID05
		ITD:2	• ITD01
			• ITD03
		CTT	CTT02
		(already active)	

Outbound Invoice Map Components for EDIFACT

This table lists the EDIFACT map components that are required, but are not currently active.

Groups		Segment	Comp.	Element
		BGM segment		BGM05 element
		(already active)		
		DTM segment	C507	DTM02 element
		(already active)		
		FTX segment	C108	FTX06 element
				• FTX07 element
RFF group		RFF segment	C506	RFF02 element
		DTM:2 segment	C507	DTM:202 element
NAD group		NAD segment	• C080	NAD10 element
			• C059	NAD16 element
			• C059	NAD17 element
				NAD19 element
				NAD20 element
				• NAD21 element
		LOC segment	C517	LOC05 element
	CTA group	CTA segment	C056	CTA03 element
LIN group		LIN segment	• C212	LIN01 element
			• C212	LIN03 element
				LIN04 element
		PIA segment	• C212	PIA02 element
			• C212	• PIA03 element
		IMD:2 segment	C273	IMD:206 element
		QTY:2 segment	C186	QTY:303 element
	MOA group	MOA:5 segment	C516	MOA:502 element

Groups	Segment	Comp.	Element
	CNT segment	C270	
MOA group	MOA:10 segment	C516	MOA:1002 element
(already active)			

Outbound Invoice Map Components for TRADACOMS

You will be invoicing only one order per INVOIC message. Therefore, you will need to change the maximum usage for the IRF segment (Invoice References), PYT segment (Settlement Terms), and ODD group (Order and Delivery Terms and Invoice Line Details) to reflect the one order that you are invoicing.

This table lists the TRADACOMS map components that are required, but are not currently active.

Group	Segment	Group	Segment	Comp.	Element
	CLO			CLOC	CLO1
	(already				CNAM
	active)			CADD	• CAD0
					• CAD1
					• CAD2
					• CAD3
					• CAD4
	PYT				PAYT
				PAYY	PAY2
	DNA			GNAR	• GNA0
					• GNA1
					• GNA2
					• GNA3
ODD	ODD:2			ORNO	• ORN0
(already active)					• ORN2
(DELN	• DEL0
					• DEL1
		ILD	ILD:2	SPRO	SPR1
		(already		CPRO	CPR1
		active)		QTYI	• QTY0
					• CD04:2
				AUCT	CD04:3
				TDES	TDE0

Constants

Because you are creating an import map to translate outbound data, you must use constants to define the qualifying relationships on the EDI (output) side of the map. Part of the mapping analysis for an import map is determining in which elements you must define and use qualifiers, and determining which elements they qualify. You must use constant values that are compliant with the EDI standard.

Literal constants are used by the system to store information that is used later in the map. For an outbound map, constants are typically used to define qualifying relationships. A qualifying relationship establishes a relationship between an element and its qualifier. A qualifier contains a code that further defines the element or the elements with which it is associated. Qualifying relationships are typically defined in outbound maps. Qualifying relationships are defined using an standard rule, as explained later in this tutorial.

Constants for ANSI X12

For this tutorial, you must define the following constants to create the required qualifier elements:

Element Using		Constant Value	
Constant	Constant ID	(and type)	Element it\(^Qualifies\)
REF01	BILL_OF_LADING	BM (string)	REF02
N101 (N1_Vendor)	VENDOR	VN (string)	N102
			(N1_Vendor)
N101 (N1_ShipTo)	SHIP_TO	ST (string)	N102
			(N1_ShipTo)
REF01	DEPT_NUMBER	DP (string)	REF02
(N1_ShipTo)			(N1_ShipTo)
REF01	STORE_NUMBER	SN (string)	REF02
(N1_ShipTo)			(N1_ShipTo)
N101	REMIT_TO	RI (string)	N102
(N1_RemitTo)			(N1_RemitTo)
DTM01	DATE	DTM (string)	DTM02
N901	VENDOR_NUMBER	1V (string)	N902
IT106	UPC_CODE	UI (string)	IT107
IT108	BUYER_CODE	BP (string)	IT109
QTY01	ORIGINAL_QUANTITY	OR (string)	QTY02
PID01	FREE_FORM	F (string)	PID05

Constants for EDIFACT

This table lists the constants you must define to create the required qualifier elements.

Element Using Constant	Constant ID	Constant Value (and type)	Element it Qualifies
DTM:2201	Invoice date/time	3 (string)	DTM:2202
RFF:1101	Order number (purchase)	ON (string)	RFF:1102
(PONUM_RFF)			(PONUM_RFF)

		Constant Value	
Element Using Constant	Constant ID	(and type)	Element it Qualifies
DTM:2501	Order date/time	4 (string)	DTM:2502
(PONUM_RFF)			(PONUM_RFF)
NAD:301	Vendor	VN (string)	NAD:310
(Vend_NAD)			(Vend_NAD)
NAD:501	RemitTo	RE (string)	NAD:510
(RemitTo_NAD)			(RemitTo_NAD)
NAD:401	ShipTo	ST (string)	NAD:410
(ShipTo_NAD)			(ShipTo_NAD)
LOC:1301	Goods receipt place	4 (string)	LOC:1305
(ShipTo_NAD)			(ShipTo_NAD)
RFF:1201	Bill of lading number	BM (string)	RFF:1202
(BOL_RFF)			(BOL_RFF)
DTM:2601	Despatch date/time	11 (string)	DTM:2602
(BOL_RFF)			(BOL_RFF)
FTX01	Invoice instruction	INV (string)	FTX06/FTX07
QTY:501	Despatch quantity	12 (string)	QTY:502
QTY:601	Ordered quantity	21 (string)	QTY:602
MOA:1301	Unit price	146 (string)	MOA:1302
LIN04	Buyer's part number	BP (string)	LIN03
PIA:203	UPC Code	UP (string)	PIA:202
PIA:201	Additional Identification	1 (string)	PIA:202
UNS01	Summary	S (string)	
CNT:201	Number of line items in message	2 (string)	CNT:202
CNT:301	Total quantity	1 (string)	CNT:302
MOA:1401	Total amount	128 (string)	MOA:1402

Reconcile your Outbound Invoice Application File and the Customer **EDI File**

When you translate data outbound, you need to build an import map and a system import map. The system import map is used by Sterling Gentran:Server to find the partner relationship for a document, to determine which import map is used to translate the data. The system import map builds the key that the translator uses to find the partner relationship. The sole function of the system import map is to identify the appropriate partner relationship; the system import map does not map any data.

There are two ways to build the key in a system import map:

- the five-field key (six-field for TRADACOMS standard)
- the three-field key

You will have to decide whether which method to use for the header record for a system import map. The six-field key method requires six EDI-specific fields in the header record:

- partner key
- standard
- version
- transaction set (ANSI X12) or message (EDIFACT and TRADACOMS)
- release (for TRADACOMS only)
- test/production status

The combination of these fields defines a unique key that identifies the appropriate partner relationship. We recommend using this method because it is flexible. Typically, you use this method when you are defining your application from scratch and can easily add the EDI-specific fields that are not already present in the header record.

The second method is easier to build because it only requires three fields in the header record (partner key, application ID, and application alias value). Please note that an empty string is a valid value in the application ID and application alias value fields. The combination of these three fields defines a unique key that identifies the appropriate partner relationship. However, because only three fields are combined to build the key, this method is not as flexible as the preferred method. Typically, you use this method when you are using a legacy (existing) application definition, and you do not want to add EDI-specific information.

To reconcile your application file with the EDI file, for each application field you must determine which EDI element you need to populate with that information, and how you can map that information to the EDI file. To map information to an element, you can use linking, standard rules, extended rules, or a combination of the three.

Header Mapping Operations for Outbound Invoices

This table describes the header mapping operations (by application field) that are required for the system import map in this tutorial. For the import map, the fields are the same but do not require mapping. This occurs once per document.

Field Name	Mapping Operations∆for ANSI X12	Mapping Operations∆for EDIFACT	Mapping Operations∆for TRADACOMS
PARTNER_ID	Select standard rule to match the EDI Code in the Partner record (Partner by EDI Code)	Select standard rule to match the EDI Code in the Partner record (Partner by EDI Code)	Select standard rule to match the EDI Code in the Partner record (Partner by EDI Code)
STANDARD	Update standard rule to update the Agency field on the Document record	Update standard rule to update the Agency field on the Document record	Does not apply.
VERSION	Update standard rule to update the Version field on the Document record	Update standard rule to update the Version field on the Document record	Does not apply.
TRANSACTION_SET	Update standard rule to update the Transaction Set ID field on the Document record	Update standard rule to update the Transaction Set ID field on the Document record	Does not apply.

Field Name	Mapping Operations∆for ANSI X12	Mapping Operations∆for EDIFACT	Mapping Operations∆for TRADACOMS
TEST_PROD	Update standard rule to update the Test Mode field on the Document record	Update standard rule to update the Test Mode field on the Document record	Does not apply.
APPL_ID	Does not apply.	Does not apply.	Update standard rule to update the Application Field 1 on the document record.
APPL_ALIAS_VALUE	Does not apply.	Does not apply.	Update standard rule to update the Application Field 2 on the document record.

Beginning Record Mapping Operations for Outbound Invoices

This table lists and describes the beginning record mapping operations (by application field) that are required for the import map in this tutorial. This occurs once per document.

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT	Mapping Operations for TRADACOMS
BILLTOACCTBEG	No mapping required	No mapping required	No mapping required
DOCTYPBEG	No mapping required	No mapping required	No mapping required
INVNUMBEG	Link to BIG02	Link to BGM05 and UNS01	Link to IRF INVN
INVDATE	Link to BIG01	Link to DTM:2202 using 3 (invoice date/time) code	Link to IRF IVDT and IRF TXDT
PONUM	Link to BIG04	Link to RFF:1102 using ON (order number) code	Link to ODD:2 ORNO ORN0
PODATE	Link to BIG03	Link to DTM:2502 using 4 (order date/time) code	Link to ODD:2 ORNO ORN2
VENDNAME	Link to (N1_Vendor) N102	Link to (Vend_NAD) NAD:310	Does not apply.
VENDADD1	Link to (N1_Vendor) N301	Link to (Vend_NAD) NAD:316	Does not apply.
VENDADD2	Link to (N1_Vendor) N302	Link to (Vend_NAD) NAD:317	Does not apply.
VENDCITY	Link to (N1_Vendor) N401	Link to (Vend_NAD) NAD:319	Does not apply.
VENDSTATE	Link to (N1_Vendor) N402	Link to (Vend_NAD) NAD:320	Does not apply.
VENDPOSTALCODE	Link to (N1_Vendor) N403	Link to (Vend_NAD) NAD:321	Does not apply.
SHIPTONAME	Link to (N1_ShipTo) N102	Link to (ShipTo_NAD) NAD:410	Link to CLO CNAM
SHIPTOADD1	Link to (N1_ShipTo) N301	Link to (ShipTo_NAD) NAD:416	Link to CLO CADD CAD0
SHIPTOADD2	Link to (N1_ShipTo) N302	Link to (ShipTo_NAD) NAD:417	Link to CLO CADD CAD1
SHIPTOCITY	Link to (N1_ShipTo) N401	Link to (ShipTo_NAD) NAD:419	Link to CLO CADD CAD2

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT	Mapping Operations for TRADACOMS
SHIPTOSTATE	Link to (N1_ShipTo) N402	Link to (ShipTo_NAD) NAD:420	Link to CLO CADD CAD3
SHIPTOPOSTALCODE	Link to (N1_ShipTo) N403	Link to (ShipTo_NAD) NAD:421	Link to CLO CADD CAD4
SHIPTOLOC	Link to (N1_ShipTo) REF02	Link to (ShipTo_NAD) LOC:1305 using 4 (goods receipt place) code	Link to CLO CLOC CLO1
SHIPTODEPTNUM	Link to (N1_ShipTo) REF02	Link to (ShipTo_NAD) CTA:603	Does not apply.
REMITTONAME	Link to (N1_RemitTo) N102	Link to (RemitTo_NAD) NAD:510	Does not apply.
REMITTOADD1	Link to (N1_RemitTo) N301	Link to (RemitTo_NAD) NAD:516	Does not apply.
REMITTOADD2	Link to (N1_RemitTo) N302	Link to (RemitTo_NAD) NAD:517	Does not apply.
REMITTOCITY	Link to (N1_RemitTo) N401	Link to (RemitTo_NAD) NAD:519	Does not apply.
REMITTOSTATE	Link to (N1_RemitTo) N402	Link to (RemitTo_NAD) NAD:520	Does not apply.
REMITTO POSTALCODE	Link to (N1_RemitTo) N403	Link to (RemitTo_NAD) NAD:521	Does not apply.
BOLNUM	Link to REF02	Link to RFF:1202 using BM (bill of lading number) code	Link to ODD:2 DELN DEL0
SHIPDATE	Link to DTM02	Link to DTM:2602 using 11 (despatch date/time) code	Link to ODD:2 DELN DEL1
TERMS_WHOLE	Link to ITD03	Does not apply.	Does not apply.
TERMSNETDUE	Link to ITD07	Does not apply.	Link to PYT PAYY PAY2
TERMSDISDUE	Link to ITD05	Does not apply.	Link to PYT PAYT

Comment Group Mapping Operations for Outbound Invoices

Each INVCommentGroup can occur up to:

• ANSI X12: once per document

• EDIFACT: 10 times per message

• TRADACOMS: 10 times per message

The ANSI X12 and EDIFACT application file first comment record layout for this tutorial is as follows. This occurs once per document.

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT
BILLTOACCTCM1	No mapping required	No mapping required
DOCTYPCM1	No mapping required	No mapping required
INVNUMCM1	No mapping required	No mapping required
REFNUM	Link to N902	Link to FTX06 using INV (invoice instruction) code

The ANSI X12 and EDIFACT application file second comment record layout for this tutorial is as follows. This occurs up to 10 times per ANSI X12 document or once per EDIFACT message.

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT
BILLTOACCTCM2	No mapping required	No mapping required
DOCTYPCM2	No mapping required	No mapping required
INVNUMCM2	No mapping required	No mapping required
MESSAGETEST	Link to MSG01	Link to FTX07

The TRADACOMS application file comment record layout for this tutorial is as follows. This occurs once per message.

Field Name	Mapping Operations for TRADACOMS	
BILLTOACCTCM2	No mapping required	
DOCTYPCM2	No mapping required	
INVNUMCM2	No mapping required	
MESSAGETEST1	Link to DNA GNAR GNA0	
MESSAGETEST2	Link to DNA GNAR GNA1	
MESSAGETEST3	Link to DNA GNAR GNA2	
MESSAGETEST4	Link to DNA GNAR GNA3	

The application file detail record layout for this tutorial is as follows. This occurs up to 200,000 times per document.

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT	Mapping Operations for TRADACOMS
BILLTOACCT	No mapping required	No mapping required	No mapping required
DOCTYPDET	No mapping required	No mapping required	No mapping required
INVNUMDET	No mapping required	No mapping required	No mapping required
ITEMNUM	Link to IT101	Link to LIN01	Link to ILD:2 SEQB
QTYSHIP	Link to IT102	Link to QTY:502 using 12 (despatch quantity) code	Link to ILD:2 QTYI QTY0 and use accum standard rule to calculate extended price
QTYORD	Link to QTY02	Link to QTY:602 using 21 (ordered quantity) code	Does not apply.
UNITPRICE	Link to IT104	Link to MOA:1302 using 146 (unit price) code	Link to ILD:2 AUCT AUC0 and use accum standard rule to calculate extended price
UOM	Link to IT103	Link to QTY:503 and QTY:603	Link to ILD:2 QTYI CD04:2 and ILD:2 AUCT CD04:3
CUSTPROCODE	Link to IT107	Link to LIN03 using BP (buyer's part number) code	Link to ILD:2 CPRO CPR1
UPCCODE	Link to IT109	Link to PIA:202 using UP (UPC code) and 1 (additional information) codes	Link to ILD:2 SPRO SPR1

Field Name	Mapping Operations for ANSI X12	Mapping Operations for EDIFACT	Mapping Operations for TRADACOMS
ITEMDESC	Link to PID05	Link to IMD:306	Link to ILD:2 TDES TDE0
TERMSTYPE	Link to ITD01	Does not apply.	Does not apply.
TERMSDISP	Link to ITD03	Does not apply.	Does not apply.
VATCODE	Does not apply.	Does not apply.	Extract Division lookup from subtable VATCODES and Link to ILD:2 CD12
TEMPVATRATE	Does not apply.	Does not apply.	Standard rule to map Division lookup from subtable VATCODES
TEMPLEXC	Does not apply.	Does not apply.	Use accum to extract extended price and Link to ILD:2 LEXC

The TRADACOMS application file temporary VAT storage record layout for this tutorial is as follows. This occurs up to 10 times per message.

Field Name	Mapping Operations for TRADACOMS	
BILLTOACCTTS	No mapping required	
DOCTYPTS	No mapping required	
INVNUMTS	No mapping required	
SEQA	Link to STL SEQA:7	
VATRATE	Link to STL VATP:2	
VATRATECODE	Link to STL CD12:2	
NUMLINES	Link to STL NRIL	
LVLA	Link to STL LVLA, STL EVLA, and STL ASDA	
VATA	Link to STL VATA	

Summary Mapping Operations for Outbound Invoices

This table lists and describes the beginning record mapping operations (by application field) that are required for the import map in this tutorial. This occurs once per document.

Field Name	Mapping Operations∆for ANSI X12	Mapping Operations∆for EDIFACT	Mapping Operations∆for TRADACOMS
BILLTOACCTSUM	No mapping required	No mapping required	No mapping required
DOCTYPSUM	No mapping required	No mapping required	No mapping required
INVNUMSUM	No mapping required	No mapping required	No mapping required
TOTALAMOUNT	Link to TDS01	Link to MOA:1402 using 128 (total amount) code	Link to TLR TPSI
TRANSTOTAL	Link to CTT01	Does not apply.	Does not apply.

Cross-reference Tables

You must determine if you need code tables to convert map data. If you need code tables, you must decide whether to create a code table in Sterling Gentran:Server

that can only be used with this map or to add the table to either the partner relationship or the internal system partner in Partner Editor.

In the Inbound Purchase Order tutorial, you need to map information from a cross-reference table to translate your partner's code for a purchased item to your code for the same item. A cross-reference table is used when you and your partner each reference an item by a different name (or number).

In the Outbound Invoices tutorial, you need to extract information from a lookup table to be inserted into the outbound data. A lookup table is used when you want to supplement data before it is sent to your partner.

The cross-reference table below is included in the tutorial data with the PETZONE partner (INVATCO.LKP).

My Value	Partner Value	Description	Reference Data
12345678901234	555666411	Large Dog Collar	Red
23456789012345	555666817	Spring Breeze Cat Litter	10 lb or 5 kg Bag
34567890123456	555666908	Small Beef Basted Rawhide Bones	Bag of 12
45678901234567	555666321	X-Large Food Bowl	Black
56789012345678	555666287	FatKat Kitty Bed	Blue with White Trim
67890123456789	555666413	Catnip Mouse Toy	

Additional Information for TRADACOMS **Extended rules**

To calculate the required VAT subtotals, summary, and invoice amount you will need to use extended rules on the INPUT group (application file) and on certain elements on the EDI side of the map. These extended rules will be explained in detail later in this tutorial. You will also use a combination of standard rules (accumulators) and direct mapping to complete the required calculations.

How to Map your Data

About Mapping

Each record in the import map contains a group of logically-related application fields. These fields contain the information that your system needs to generate the invoice. The group contains logically-related application records.

Each record (except the HEADER record that you defined for the system import map using an explicit six-field key) contains a three-field record key that ensures that the same identifying information is located at the beginning of each record. Your application file format contains a record key so that each record can be identified individually. The record key for this invoice consists of your partner's bill to account number, the document type, and the invoice number.

HEADER Record

For the import map, you will not map from any of the fields in the HEADER record. This record contains the five fields that comprise the key in the system import map. However, because this header record is a part of your application file, it must be defined in the import map, as well. You did this when you copied the HEADER record from the system import map to this import map. This header record is mandatory and occurs only once.

Chapter 3. System Import Map

Creating the System Import Map

For outbound translation, you must set up a system import map and an import map. Generally, you create one system import map for each document type, and set up an import map for each partner you are sending documents to.

About this task

A system import map is used by the system to find the partner relationship for a document (flat file definition), to determine which import map is used to translate the data. The system import map builds the key that the translator uses to find the partner relationship. The sole function of the system import map is to identify the appropriate partner relationship; the system import map does *not* map any data.

Use this procedure to create the system import map.

Procedure

- 1. Select File > New.
 - The system displays the New Map Wizard.
- 2. From the "What of map" list, select **System Import Header**.
- 3. In the "What is the name of the form" box, enter one of the following:
 - **HEADER** (for ANSI X12)
 - **HEADER** (for EDIFACT)
 - HEADER_T (for TRADACOMS

The system adds the .MAP extension.

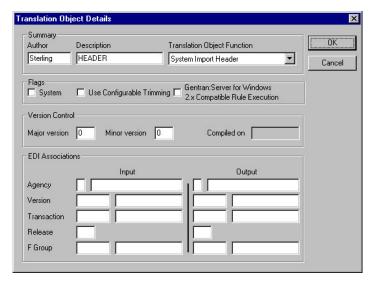
4. Verify that your name appears correctly in the "What is your name" box. and click **Next**.

The system displays the New Map Wizard - Input Format dialog box.

Note: You need to complete the format of the Input side of the map. This is the format of the data that is translated by the Sterling Gentran:Server system.

- 5. To create a new data format (for the input side) using this syntax list, select **Positional** and click **Next**.
 - The system displays the New Map Wizard Output Format dialog box.
- 6. To create a new data format (for the output side) using this syntax list, select **Positional** and click **Next**.
- 7. Click **Finish** to create the new map (this may take a few seconds). The system displays the new map in the Application Integration Window.
- 8. Select Edit > Details.

The system displays the Translation Object Details dialog box.



- 9. In the Description field, type System Import HDR. We recommend that you use the format System Import*, where * is the identifier for this system import map. The Imports tab of the System Configuration program describes which system import translation object will be used to begin translation during the import process.
- 10. Complete the Major and Minor fields to designate a version number for this translation object. Type 1 as the version number in the Major field and accept the 0 as the release number in the Minor field.

Note: Whenever any major changes are made to your map, increase the version to the next real number (for example, 2.0, 3.0). If you make a minor change to the map, increase the version by a decimal (for example, 2.1, 2.2).

- 11. Click **OK** to save the translation object details.
- 12. Select File > Save.
- 13. Verify that the File name box contains **Header.map** (for ANSI X12 and EDIFACT) or **Header_t.map** (for TRADACOMS).
- 14. Click **Save** to save the map.

Note: After you complete each section of this tutorial or when you make any changes to the map, you should save the map.

Creating the HEADER Record

The only record that you define for the system import map is the header record. The header record is subordinate to the icon on the input side of the map.

About this task

The HEADER record contains the five fields that comprise the system import map key. This header record is mandatory and occurs only once.

Use this procedure to create the HEADER record.

Procedure

1. Right-click the Positional File icon (Output for an inbound map) and select Create Sub > Record.

- 2. In the Name box, type **HEADER** as the record identification code.
- 3. In the Desc box, type Header Record.
- 4. On the **Tag** tab, do the following:
 - In the Tag box, type **HDR** as the record identification code <TAG>.
 - In the Position box, accept the default of **1** as the starting column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the header record mandatory.
- 6. Click **OK** to create the HEADER record.

Defining the HEADER Fields

To use the preferred method of building the system import key, you need to define at least five fields for the header record (partner key, standard, version, transaction, and test/production status). These fields do not have to be in any order or sequence, but they must be part of the header record.

About this task

After you define the header record and fields, you must set up the mapping operations that define the key that the translator uses to find the partner relationship.

Use this procedure to create the fields for the HEADER record.

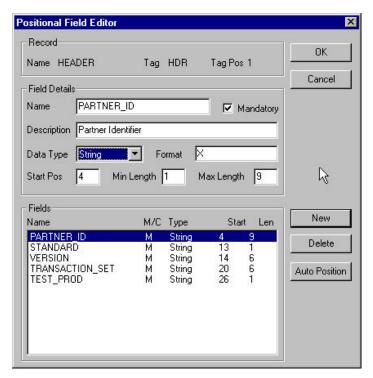
Procedure

- 1. Right-click the HEADER record select **Edit Fields**.
- 2. The field you are creating is the first field record. Click New.
- 3. In the Name box, type **PARTNER_ID**, which is the name of the first field in the HEADER record. Each field must have a unique name.
- 4. Select the **Mandatory** check box to identify it as a required field. For the system import map, each field in the key is mandatory.
- 5. In the Description box, type Partner identifier.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is Number or Dt/Tm, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1 as the minimum field length.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press **Enter**.
- 10. Create the rest of the fields according to the Application File Header Layout for Outbound Invoices.
- 11. After adding the last field, click **Auto Position** to automatically position the field in the record. Click **Yes** to acknowledge the warning message that fields are sequenced in order.

The Positional Field Editor dialog box should look like this:



12. When you are finished with the HEADER record, click Close.

Note: If you press **Enter** after typing the information for the last field in the record, a blank field is created. Click **Delete** and then **Yes** to delete the blank field.

How to Define the Key

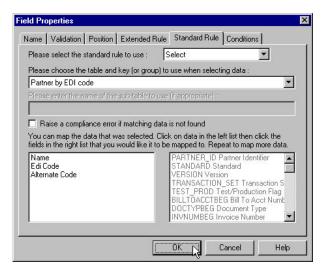
Defining the Partner Key About this task

Use this procedure to define the partner key.

Procedure

- 1. Double-click the PARTNER_ID field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the Standard Rule list, choose Select.
- 4. From the Table and Key list, select **Partner by EDI Code**. This indicates that the system looks up the indicated partner key in the partner database and updates this field.

The Standard Rule tab of the Field Properties dialog box should look like this:



5. Click **OK** to add the standard rule to the partner key field.

Defining the EDI Standard Field

About this task

Use this procedure to define the EDI standard field.

Procedure

- 1. Double-click the **STANDARD** field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Update**.
- 4. From the table list, choose **Document record**. This indicates that you wish to store an item of data in the Sterling Gentran:Server tracking database for the document.
- 5. From the column list, choose **Agency**.
- 6. Click **OK** to add the standard rule to the STANDARD field.

Defining the Version About this task

Use this procedure to define the version.

Procedure

- 1. Double-click the **VERSION** field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Update**.
- 4. From the table list, choose **Document record**.
- 5. From the column list, choose **Version**.
- 6. Click **OK** to add the standard rule to the VERSION field.

Defining the Transaction Set

About this task

Use this procedure to define the transaction set (document).

- 1. Double-click the **TRANSACTION_SET** field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Update.
- 4. From the table list, choose **Document record**.
- 5. From the column list, choose Transaction Set ID.
- 6. Click **OK** to add the standard rule to the TRANSACTION_SET field.

Defining the Test/Production Status Field About this task

Use this procedure to define the test/production status field.

Procedure

- 1. Double-click the **TEST_PROD** field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Update**.
- 4. From the table list, choose **Document record**.
- 5. From the column list, select **Test Mode** to update the release field.
- 6. Click **OK** to add the standard rule to the TEST_PROD field.

Defining the Application ID Field - TRADACOMS About this task

Use this procedure to define the application ID field.

Procedure

- 1. Double-click the application ID field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Update**.
- 4. From the table to update list, choose **Document record**.
- 5. From the column list, choose **Application Field 1**.
- 6. Click **OK** to add the standard rule to the application ID field.

Defining the Application Alias Value Field - TRADACOMS About this task

Use this procedure to define the application alias value field.

Procedure

- 1. Double-click the application alias value field to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Update.
- 4. From the table to update list, choose **Document record**.
- 5. From the Field list, select **Application Field 2**.
- 6. Click **OK** to add the standard rule to the application alias value field.

Compiling the System Import Map

The Compile function compiles the map and generates a translation object. The map that you created using the Application Integration subsystem is a source map. When that source map is compiled, the result is a compiled translation object.

About this task

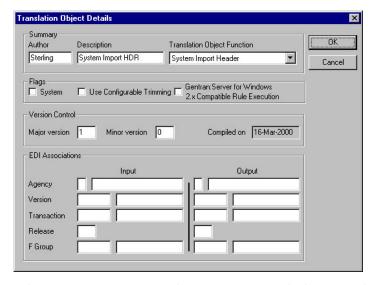
After you save the translation object, you must register it with Sterling Gentran:Server before you can use it.

Use this procedure to compile a map and generate a translation object.

Procedure

- 1. Select **File > Save** to save the source map before compiling.
- 2. Select File > Compile.
- 3. Verify that the File name box contains either header.tpl or Header_t.tpl.
- 4. Navigate to where the compiled translation object is stored, if necessary.
- 5. Click **Save**. The system compiles the map and generates a translation object. The Compile Error dialog box is displayed.
- 6. Verify that no errors occurred and click **OK** to exit the dialog box. The date on which the translation object was compiled is automatically loaded into the Compiled on box.

The Translation Object Details dialog box should look similar to the following. (This is an ANSI X12 example; some details may be different for EDIFACT and TRADACOMS.)



7. Select File > Save to save the source map with the Compiled on date.

Note: You must register this translation object with the Sterling Gentran:Server system before you can use it.

Printing the System Import Map Report

The Sterling Gentran: Server report enables you to validate, review the map, and make modifications as needed. If you review the report and determine that the map is incorrect, you should refine the mapping process as many times as necessary (make the modifications, save the map, recompile the translation object, and print the report again).

About this task

Use this procedure to print the report for the system import map.

Step

Action

Procedure

- 1. Select File > Print.
- 2. Accept the defaults on this dialog box so the report will include all sections and only the activated map components.
- Click **OK**.The Print dialog box is displayed.
- 4. Click **OK** on the Print dialog box and the mapping report is printed.

Testing the System Import Translation Object

After you compile the map, print and verify the report, and register the translation object with Sterling Gentran:Server, you should test the translation object to verify that the data is translated correctly.

Procedure

You test the system import translation object (HEADER.TPL or HEADER_T.TPL) when you test the import translation object.

Chapter 4. Import Map

Creating the Import Map

The first task in creating a new map is to define the format for the input and output sides of the map.

About this task

In this example, you are creating an import map so Sterling Gentran:Server can translate your application file to an invoice that you are sending to your partner. Therefore, the input side of the map needs to reflect your application file. The output side of the map needs to reflect the invoice that you send to your partner. Instead of defining the document in the system yourself, you want Sterling Gentran:Server to use the standards database on your system to build the invoice according to the standard.

Use this procedure to create the import map for the outbound invoice.

Procedure

- 1. Select File > New.
 - The system displays the New Map Wizard.
- 2. From the "What kind of map" list, select **Import**.
- 3. In the "What is the name of map" box, enter one of the following:
 - **PET_801** (for ANSI X12)
 - **PET_EINV** (for EDIFACT)
 - **PET_TINV** (for TRADACOMS)

Note: The system adds the .MAP extension.

4. Verify that your name appears correctly in the "What is your name" box and click **Next.**

The system displays the New Map Wizard - Input Format dialog box.

Note: You need to complete the format of the Input side of the map. This is the format of the data that is translated by the Sterling Gentran:Server system.

5. To create a new data format (for the input side) using this syntax list, select **Positional** and click **Next**.

The system displays the New Map Wizard - Output Format dialog box.

6. To create a new data format (for the output side) using this syntax list, select **Delimited EDI** and click **Customize**.

The system displays the New Delimited EDI Wizard.

- 7. Click Next.
- 8. From the ODBC data source list, select **Gentran Standards** (if you defined your EDI standards data source with another name, select that name) and click **Next**.
- 9. For ANSI X12, select one of the following and click **Next**:
 - [X] X12 standards agency
 - [003030] ANSI X12 VERSION 3 Release 3 version

- **[810] INVOICE** transaction set
- 10. For EDIFACT, select one of the following and click **Next**:
 - Select the [E] Edifact standards agency
 - [092001] EDIFACT Release 1 (92.1) version
 - [INVOIC] INVOICE MESSAGE transaction set
- 11. For TRADACOMS, select one of the following and click **Next**:
 - [A] TRADACOMS standards agency
 - [ANA001 TRADACOMS UNITED KINGDOM version
 - [INVOIC] INVOICE DETAILS transaction set
 - 9 release
- 12. Click Finish.

The system loads the selected transaction set and returns to the New Map Wizard - Output Format dialog box.

13. Click Next.

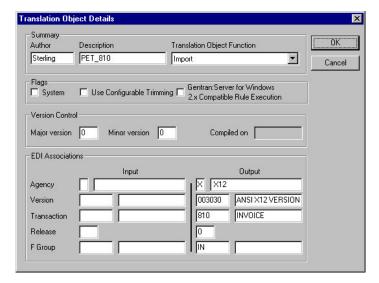
The system displays the New Map Wizard.

14. Click **Finish** to create the new map (this may take a few seconds). The system displays the new map in the Application Integration Window.

Note: After you finish creating and saving a new map, you need to define the Input and Output sides of the map. The steps you take are different, depending on whether the map is an Import, System Import, Export, or Turnaround map.

15. Select Edit > Details.

The Translation Object Details dialog box should look similar to the following. (This is an ANSI X12 example; some details will be different for TRADACOMS.)



- 16. In the Description field, enter one of the following:
 - PET X 3030 810 Import (for ANSI X12)
 - **PET E 92.1 INVOIC Import** (for EDIFACT)
 - PET T ANA001 9 INVOICE Import (for TRADACOMS)
- 17. Complete the Major and Minor fields to designate a version number for this translation object. Type 1 as the version number in the Major field and accept the 0 as the release number in the Minor field.

Note: Whenever any major changes are made to your map, increase the version to the next real number (for example, 2.0, 3.0). If you make a minor change to the map, increase the version by a percentage point (for example, 2.1, 2.2).

- 18. Click **OK** to save the translation object details.
- 19. Select File > Save.

The system displays the Save As dialog box.

- 20. Verify that the File name box contains one of the following:
 - **pet_810.map** (for ANSI X12)
 - pet_einv.map (for EDIFACT)
 - pet_tinv.map (for TRADACOMS)
- 21. Click Save.

Note: After you complete each section of this tutorial or when you make any changes to the map, you should save the map by selecting Save from the File menu.

Activating the EDI Map Components

About this task

Use this procedure to activate the required conditional groups, segments, and elements.

Procedure

1. Double-click the segments and groups listed in the tables in Analysis of the Customer EDI File for Outbound Invoices to open them. These are the groups, subgroups, segments and elements that you must activate. Opening all necessary segments and groups before you start to activate allows you to scroll down the map and activate the segments and elements sequentially.

Note: When you activate a group or segment, the mandatory subordinate segments and elements are automatically activated.

- 2. Click **Activate** on the Main Toolbar.
- 3. Click each inactive group that you need to use. This activates the groups.

Note: If you click a group, segment, or element that you did not mean to activate, right-click it and select **Deactivate**.

- 4. Click each inactive segment that you need to use. This activates the segments.
- 5. Click each inactive element that you need to use. This activates the elements.
- 6. Once you have activated all the necessary groups, segments, and elements, click **Activate** on the Main Toolbar to turn activation mode off.
- 7. Select View > Show Active Only.

Defining Literal Constants - ANSI X12, EDIFACT

About this task

Use this procedure to create the literal constants that are used in the import map for this tutorial.

- 1. Select Edit > Constants.
- 2. Click New to display the Edit Constant dialog box.
- 3. In the ID box, type the name of the first literal constant identifier in the table.
 - **BILL_OF_LADING** (for ANSI X12)
 - Invoice Date/Time (for EDIFACT)
- 4. From the Type list, select **String** as the category of this literal constant.
- 5. In the Value box, type the actual constant expression. This is the value of the literal constant.
 - BM (for ANSI X12)
 - 3 (for EDIFACT)
- 6. Click **OK** to add the constant to the system.
- 7. Repeat steps 2 6 to create the rest of the constants, according to the tables in Constants .
- 8. Click Close to exit the Map Constants dialog box.

Mapping the UNS01 Element - EDIFACT

The UNS segment contains the section control information. Both the UNS segment and the UNS01 element are mandatory. Since you are creating an outbound (import) map, you must map data to the UNS01 element. Because this data is not part of your application file, you must use a constant to map the appropriate data to this element. You have already defined all the constants that you will use for this map.

About this task

Use this procedure to map the mandatory data to the UNS01 element.

Procedure

- 1. Double-click the **UNS01** element (Section Identification) in the UNS segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the **S** constant (summary), to identify the UNS01 element as the summary section control.
- 5. Click **OK**. The S code is loaded in the Section Identification element.

Promote Groups and Repeating Segments - EDIFACT

The Promote function extracts one iteration (instance) of a group or repeating segment. This enables you to map unique data from your application file and enter a specialized definition. Only one-to-one (no loops) or many-to-many (loops) mapping relationships are valid.

Promote is a specialized function that guarantees the integrity of your EDI structure. You must promote several groups and repeating segments. You must also enter a specialized definition for each group you promote so that you can easily differentiate between the multiple instances of a group. You decide that the naming convention that Sterling Gentran:Server uses for multiple instances of the same segment is sufficient and you do not need to enter specialized definitions for the segments you promote.

Note: If a segment/record or element/field occurs more than once in a map, it is identified by its name <ID>. Subsequent occurrences are identified by <ID>:n, where n is the number of the occurrence in the map.

Promoting the DTM Segment

The DTM segment contains the date and time information for the map header and repeats up to 35 times. You must extract one iteration of the DTM segment so you can map the INVDATE field, which is in the INVBEGIN record that repeats once, to the DTM segment.

About this task

Use this procedure to promote one iteration of the DTM segment.

Procedure

- 1. Right-click the **DTM** segment and select **Promote** to extract one iteration of the DTM segment.
 - The new iteration is named DTM:22 and is located directly above the DTM segment.
- 2. Right-click the original **DTM** segment and select **Deactivate** to deactivate the DTM segment (which now repeats 34 times) so the system will not process it.

Promoting the RFF Group and Adding Specialized Definitions

The RFF group contains reference information and repeats up to 10 times. You must extract two, singly occurring instances of the RFF group so you can map the purchase order number and date and the bill of lading number and ship date from the INVBEGIN record (which repeats once). You must add a specialized definition to each group you promote so you can easily differentiate between the two instances of the RFF group.

About this task

Use this procedure to promote two iterations of the RFF group and add specialized definitions.

Procedure

- 1. Right-click the **0100_RFF** group and select **Promote** to extract one iteration of the RFF group.
 - The new iteration is named 0100_RFF:2 and is located directly above the 0100_RFF group.
- 2. Right-click the 0100_RFF group (which now repeats nine times) and select **Promote** to extract one iteration of the RFF group.
 - The new iteration is named 0100_RFF:3 and is located directly above the 0100_RFF group.
- 3. Right-click the original **0100_RFF** group and select **Deactivate** to deactivate the 0100_RFF group, which now repeats eight times.
- 4. Right-click the 0100_REF:2 group and select Properties.
- 5. In the Name box, type **PONUM_RFF**, which is a specialized definition that identifies this group as containing purchase order number information.
- 6. Click **OK** to save the change and exit the Group Properties dialog box.
- 7. Right-click the 0100_REF:3 group and select Properties.

- 8. In the Name box, type **BOL_REF**, which is a specialized definition that identifies this group as containing bill of lading information.
- 9. Click **OK** to save the change and exit the Group Properties dialog box.

Promoting the DTM:23 Segment

The DTM:23 segment (in the PONUM_RFF group) contains the date and time information for the purchase order number reference and repeats up to five times. You must extract one iteration of the DTM:23 segment so you can map the PODATE field (which is in the INVBEGIN record that repeats once) to the DTM:23 segment.

About this task

Use this procedure to promote one iteration of the DTM:23 segment.

Procedure

- 1. Right-click the **DTM:23** segment in the PONUM_RFF group and select **Promote** to extract one iteration of the DTM:23 segment.
 - The new iteration is named DTM:25 and is located directly above the DTM:23 segment.
- 2. Right-click the original **DTM:23** segment and select **Deactivate** to deactivate the DTM:23 segment, which now repeats four times.

Promoting the DTM:24 Segment

The DTM:24 segment in the BOL_RFF group contains the date and time information for the bill of lading reference and repeats up to five times. You must extract one iteration of the DTM:24 segment so you can map the SHIPDATE field (which is in the INVBEGIN record that repeats once) to the DTM:24 segment.

About this task

Use this procedure to promote one iteration of the DTM:24 segment.

Procedure

- 1. Right-click the **DTM:24** segment (in the BOL_RFF group) and select **Promote** to extract one iteration of the DTM:24 segment.
 - The new iteration is named DTM:26 and is located directly above the DTM:24 segment.
- 2. Right-click the original **DTM:24** segment and select **Deactivate** to deactivate the DTM:24 segment, which now repeats four times.

Promoting the NAD Group and Adding Specialized Definitions

The NAD group contains name and address information and repeats up to 20 times. You cannot map from a non-repeating record (INVBEGIN) to a repeating group (NAD). To map vendor, shipping, and remittance information from your application file format, you must extract three single iterations of the NAD group so the links between the application fields in the INVBEGIN record and the NAD groups are valid. You must also add a specialized definition to each group you promote so you can easily differentiate between the three instances of the NAD group.

About this task

Use this procedure to promote three iterations of the NAD group and add specialized definitions.

Procedure

- 1. Right-click the **0200_NAD** group and select **Promote** to extract one iteration of the NAD group.
 - The new iteration is named 0200_NAD:2 and is located directly above the 0200_NAD group.
- 2. Right-click the **0200_NAD** group, which now repeats 19 times, and select **Promote** to extract one iteration of the NAD group.
 - The new iteration is named 0200_NAD:3 and is located directly above the 0200_NAD group.
- 3. Right-click the **0200_NAD** group, which now repeats 18 times, and select **Promote** to extract one iteration of the NAD group.

V

- 4. Right-click the 0200_NAD:2 group and select Properties.
- 5. In the Name box, type **Vend_NAD**, which is a specialized definition that identifies this group as containing vendor information.
- 6. Click **OK** to save the change and exit the Group Properties dialog box.
- 7. Right-click the 0200_NAD:3 group and select Properties.
- 8. In the Name box, type **ShipTo_NAD**, which is a specialized definition that identifies this group as containing shipping information.
- 9. Click **OK** to save the change and exit the Group Properties dialog box.
- 10. Right-click the 0200_NAD:4 group and select Properties.
- 11. In the Name box, type **RemitTo_NAD**, which is a specialized definition that identifies this group as containing shipping information.
- 12. Click **OK** to save the change and exit the Group Properties dialog box.
- 13. Double-click the **Vend_NAD** group and the **RemitTo_NAD** group to open them.
- 14. Click **Deactivate** on the Main Toolbar. Click the original **0200_NAD** group, which now repeats 17 times.
- 15. In the Vend_NAD group, click the LOC:10 segment and the 0500_CTA:2 group.
- 16. In the RemitTo_NAD group, click the **LOC:12** segment and the **0500_CTA:4** group.
- 17. Click **Deactivate** on the Main Toolbar to turn off Deactivation mode.

Promoting the LOC:11 Segment

The LOC:11 segment (in the ShipTo_NAD group) contains the shipping location information and repeats up to 25 times. You must extract one iteration of the LOC:11 segment so you can map the SHIPTOLOC field (which is in the INVBEGIN record that repeats once) to the LOC:11 segment.

About this task

Use this procedure to promote one iteration of the LOC:11 segment.

- 1. Right-click the LOC:11 segment (in the ShipTo_NAD group) and select Promote to extract one iteration of the LOC:11 segment.
 - The new iteration is named LOC:13 and is located directly above the LOC:11 segment.
- 2. Right-click the original LOC:11 segment and select Deactivate to deactivate the LOC:11 segment, which now repeats 24 times.

Promoting the CTA:3 Group

The CTA:3 group (in the ShipTo_NAD group) contains the contact information and repeats up to five times. You must extract one iteration of the CTA:3 group so you can map the SHIPTODEPTNUM field (which is in the INVBEGIN record that repeats once) to the CTA:3 group.

About this task

Use this procedure to promote one iteration of the CTA:3 group.

Procedure

- 1. Right-click the CTA:3 group (in the ShipTo_NAD group) and select Promote to extract one iteration of the CTA:3 group.
 - The new iteration is named CTA:5 and is located directly above the CTA:3 group.
- 2. Right-click the original CTA:3 group and select Deactivate to deactivate the CTA:3 group, which now repeats four times.

Promoting the PIA Segment

The PIA segment (in the LIN group) contains additional product information and repeats up to 25 times. You must extract one iteration of the PIA segment so you can map your UPC code for the line item.

About this task

Use this procedure to promote one iteration of the PIA segment.

Procedure

- 1. Right-click the PIA segment and select Promote to extract one iteration of the PIA segment.
 - The new iteration is named PIA:2 and is located directly above the PIA segment.
- 2. Right-click the original PIA segment (that now repeats 24 times) and select **Deactivate** to deactivate the PIA segment.

Promoting the IMD:2 Segment

The IMD:2 segment (in the LIN group) contains the Item description information and repeats up to ten times. You must extract one iteration of the IMD:2 segment so you can map the item description for the line item.

About this task

Use this procedure to promote one iteration of the IMD:2 segment.

- 1. Right-click the **IMD:2** segment and select **Promote** to extract one iteration of the IMD:2 segment.
 - The new iteration is named IMD:3 and is located directly above the IMD:2 segment.
- 2. Right-click the original IMD:2 segment (which now repeats nine times) and select **Deactivate** to deactivate the IMD:2 segment.

Promoting the QTY:2 Segment

The QTY segment contains the quantity information and repeats up to five times. You must extract two iterations of the QTY:2 segment so you can store the quantity shipped and the quantity ordered.

About this task

Use this procedure to promote two iterations of the QTY:2 segment.

Procedure

- 1. Right-click the QTY:2 segment and select **Promote** to extract one iteration of the QTY:2 segment.
 - The new iteration is named QTY:5 and is located directly above the QTY:2 segment.
- 2. Right-click the original **QTY:2** segment, which now repeats four times, and select **Promote** to extract one iteration of the QTY:2 segment.
 - The new iteration is named QTY:6 and is located directly above the QTY:2 segment.
- 3. Right-click the original QTY:2 segment and select **Deactivate** to deactivate the QTY:2 segment, which now repeats three times.

Promoting the MOA Group

The MOA group in the detail section of the map (LIN group) contains the line item unit price information and repeats up to five times. You must extract one iteration of the MOA group so you can map the unit price to the MOA group. Since you are only extracting one instance of the MOA group and then deactivating the original group, you do not need to add a specialized definition to the new iteration of the group.

About this task

Use this procedure to promote one iteration of the MOA group.

Procedure

- 1. Right-click the 2300_MOA group (in the LIN group) and select Promote to extract one iteration of the MOA group.
 - The new iteration is named 2300_MOA:2 and is located directly above the 2300_MOA group.
- 2. Right-click the original **2300_MOA** group and select **Deactivate** to deactivate the 2300_MOA group, which now repeats four times.

Promoting the CNT Segment

The CNT segment contains the control total information and repeats up to 10 times. You must extract two iterations of the CNT segment so you can store the total number of line items and the total quantity invoiced.

About this task

Use this procedure to promote two iterations of the CNT segment.

Procedure

- Right-click the CNT segment and select Promote to extract one iteration of the CNT segment.
 - The new iteration is named CNT:2 and is located directly above the CNT segment.
- 2. Right-click the original CNT segment (that now repeats nine times) and select **Promote** to extract one iteration of the CNT segment.
 - The new iteration is named CNT:3 and is located directly above the CNT segment.
- 3. Right-click the original **CNT** segment and select **Deactivate** to deactivate the CNT segment, which now repeats eight times.

Promoting the MOA Group

The MOA group in the summary section of the map contains the total monetary amount information for the and repeats up to 100 times. You must extract one iteration of the MOA group so you will be able to map the TOTALAMOUNT field (which is in the INVSUMMARY record that repeats once), to the MOA group. Since you are only extracting one instance of the MOA group (and will then deactivate the original group), you do not need to add a specialized definition to the new iteration of the group.

About this task

Use this procedure to promote one iteration of the MOA group.

Procedure

- Right-click the 4500_MOA group and select Promote to extract one iteration of the MOA group.
 - The new iteration is named 4500_MOA:2 and is located directly above the 4500_MOA group.
- 2. Right-click the original **4500_MOA** group and select **Deactivate** to deactivate the 4500_MOA group, which now repeats 99 times.

Verifying EDI Delimiters for Outbound Invoices

If you are using an EDI standard that contains composite elements or subelements, you must verify that Sterling Gentran:Server is specifying the correct EDI delimiters. Delimiters are flags that you define to the system as separating specific EDI components. Delimiters are necessary for all variable field-length standards, because the data is compressed (and the leading zeroes and trailing blanks are removed). Since the fields vary in length, the system needs a flag to determine where one element ends and another begins. For example, an element delimiter marks the beginning of a new element.

About this task

Although verifying EDI delimiters in Sterling Gentran:Server is mandatory only if you are using a standard with composite elements or subelements, we recommend that perform this task regardless of which standard you use.

Use this procedure to verify EDI delimiters.

Procedure

- 1. Right-click one of the following and select **Properties**:
 - 810 INVOICE (for ANSI X12)
 - INVOIC INVOICE MESSAGE (for EDIFACT)
 - INVOIC INVOICE DETAILS EDI (for TRADACOMS)
- 2. Select the **Delimiters** tab.
 - The system displays the delimiter settings.
- 3. Verify the required delimiters for your standard (see Default Delimiter Values). If the delimiters differ, type either the character or the hexadecimal value in the correct box.
- 4. Click **OK** to exit the File Properties dialog box.

Application File Format

About the Application File Format in Outbound Invoices

At this point, you have already defined the header record (in the system import map) that you can copy and use in your import map. Now you must define the rest of your application file to Sterling Gentran:Server. In the import map, the input side of the map is positional. Your application file must contain all the information that you need to generate the EDI document that you are sending to your partner.

Before you define your application file format, you should obtain a layout of the necessary records, fields, and groups. The records contain related fields and the groups contain related records. Each level of your application file format must be created sequentially.

For example, your application file format contains records and groups. The records contain fields and the group contains records. This means that you must create records and the group before you create the subordinate fields and records.

Copying the HEADER Record

Because you have already defined the header record for your application file format in the system import map, you can copy that header record to the import map. The copied record contains subordinate fields, which is also be copied. Copied map components retain all the information of the original map component, so you must remove the standard rules you created for the fields in the header record for the system import map.

About this task

Use this procedure to copy the HEADER record from the system import map to the import map.

- 1. Open the system import map, if it is not already open.
- 2. Click the **HEADER** record and click **Copy** on the Main Toolbar.
- 3. Open the import map, if it is not already open.
- Click the INPUT positional file icon that you want the copied record pasted after.
- From the Main Toolbar, click Paste.
 The HEADER record is pasted as a subordinate map component to the INPUT positional file icon.

Removing Standard Rules from the Header Record

In the HEADER record that you just copied from the system import map, the first field (PARTNER_ID) has a Select standard rule applied to it in the system import map. The remaining fields in the copied HEADER record in the import map have Update standard rules applied to them in the system import map. These standard rules are not applicable to the import map, so you must remove them.

About this task

Use this procedure to remove the standard rules from the HEADER record in the import map.

Procedure

- 1. Double-click the **PARTNER_ID** field in the HEADER record to display the Field Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select <none> to remove the standard rule.
- 4. Depending on how you set the confirmation options on the Preferences dialog box (Confirmations tab), the system may prompt you to confirm removal of the standard rule from the field. If so, click **Yes** to remove the standard rule.
- 5. Click **OK** to save the change to the field.
- 6. Do one of the following:
 - For ANSI X12 and EDIFACT: Repeat steps 1 5 for the STANDARD, VERSION, TRANSACTION_SET, and TEST_PROD fields.
 - For TRADACOMS: Repeat steps 1 5 for the APPL_ID and APPL_ALIAS_VALUE fields.

Creating the INVBEGIN Record

The second record in your application file format you need to create INVBEGIN is at the same level as the HEADER record.

About this task

The INVBEGIN record contains the purchase order number and date; the vendor, shipping and remit to address information; and the bill of lading number, ship date, and terms of the invoice. The beginning record is mandatory and occurs once for each invoice.

Use this procedure to create the INVBEGIN record.

1. Click the **HEADER** record and select **Edit > Insert > Record**.

Note: Select **Edit** > **Insert** to create equal records/groups and select **Edit** > Create Sub to create subordinate groups/records/fields.

- 2. In the Name box, type **INVBEGIN** as the record identification code.
- 3. In the Desc box, type **Beginning Record**.
- 4. On the **Tag** tab, do the following:
 - In the Tag box, type **BEG** as the record identification code <TAG>.
 - In the Position box, accept the default of 1 for the staring column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the record mandatory.
- 6. Click **OK** to create the INVBEGIN record.

Creating the INVCommentGroup

The INVCommentGroup (comment information) groups all the comment information for the invoice, including the reference number and the message text. The INVCommentGroup occurs once per invoice (for ANSI X12) or up to ten times (for TRADACOMS). The information within the INVCommentGroup is further segregated by related records.

About this task

Use this procedure to create the INVCommentGroup.

Procedure

- 1. To create a group that is at the same level as the INVBEGIN record, click the **INVBEGIN** record and select **Edit** > **Insert** > **Group**.
 - The Group Properties dialog box is displayed.
- 2. In the Name box, type INVCommentGroup to indicate that this group contains all of the comment records. This is the segment loop identification code.
- 3. In the Description box, type **Comment Group**.
- 4. On the **Looping** tab, type 1 in the Minimum Usage box to make the loop mandatory.
- 5. Do one of the following:
 - For ANSI X12: Accept the default of 1 in the Maximum Usage box. This indicates that this group of records occurs only once.
 - For EDIFACT and TRADACOMS: In the Maximum Usage box, type 10. This indicates that this group of records will occur up to ten times.
- 6. Click **OK** to create the INVCommentGroup.

INVCommentGroup Subordinate Records - ANSI X12 and **EDIFACT**

Creating the INVCOMMENT1 Record

The INVCOMMENT1 (first comment) record contains the reference number. The first comment record is mandatory and occurs once per invoice translated (once for each comment line).

About this task

Use this procedure to create the INVCOMMENT1 record.

Procedure

- 1. Click the INVCommentGroup and select Edit > Create Sub > Record.
- 2. In the Name box, type INVCOMMENT1 as the record identification code.
- 3. In the Desc box, type Header Comment Record 1.
- 4. On the Tag tab, do the following:
 - In the Tag box, type **CM1** as the record identification code <TAG>.
 - In the Position box, accept the default of 1 for the starting column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the record mandatory.
- 6. Click **OK** to create the INVCOMMENT1 record.

Creating the INVCOMMENT2 Record

The INVCOMMENT2 (second comment) record contains message text. The second comment record is mandatory. For ANSI X12, it occurs up to ten times per invoice translated (once for each comment line). For EDIFACT, it occurs once per invoice translated (once for each comment line).

About this task

Use this procedure to create the INVCOMMENT2 record.

Procedure

- 1. Click the INVCOMMENT1 record and select Edit> Insert > Record.
- 2. In the Name box, type INVCOMMENT2 as the record identification code.
- 3. In the Desc box, type **Header Comment 2**.
- 4. On the **Tag** tab, do the following:
 - In the Tag box, type CM2 as the record identification code <TAG>.
 - In the Position box, accept the default of 1 as the starting column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the record mandatory.
- 6. Do one of the following:
 - For ANSI X12: In the Max Usage box, type **10** as the maximum number of times the record can repeat.
 - For EDIFACT: Accept the default of 1 in the Max Usage box so this record only occurs once (not a looping structure).
- 7. Click **OK** to create the INVCOMMENT2 record.

Creating the INVCOMMENT Record - TRADACOMS

The INVCOMMENT (comment record) record contains the message text. The first comment record is mandatory and occurs once per invoice translated (once for each comment line).

About this task

Use this procedure to create the INVCOMMENT record.

- 1. Click the INVCommentGroup and select Edit > Create Sub > Record.
- 2. In the Name box, type **INVCOMMENT** as the record identification code.
- 3. In the Desc box, type Invoice Comment Record 1.
- 4. On the **Tag** tab, do the following:
 - In the Tag box, type CMT as the record identification code <TAG>.
 - In the Position box, accept the default of 1 for the starting column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the record mandatory.
- 6. Click **OK** to create the INVCOMMENT record.

Creating the INVDETAIL Record

The INVDETAIL (detail) record is at the same level as the HEADER and INVBEGIN records and the INVCommentGroup.

About this task

The INVDETAIL record contains line item number and description, quantity shipped, quantity ordered, unit of measure, price, product code, and invoice terms. The detail record is mandatory and occurs up to 200,000 times per invoice translated (once for each line item invoiced).

Use this procedure to create the INVDETAIL record.

Procedure

- 1. Click the INVCommentGroup and select Edit > Insert > Record.
- 2. In the Name box, type INVDETAIL as the record identification code.
- 3. In the Desc box, type **Detail Record**.
- 4. On the **Tag** tab, do the following:
 - In the Tag box, type **DET** as the record identification code <TAG>.
 - In the Position box, accept the default of **1** as the starting column position of the tag in the data record.
- 5. On the **Looping** tab, do the following:
 - In the Min Usage box, type 1 to make the record mandatory.
 - In the Max Usage box, type **200000** as the maximum number of times the record can repeat.
- 6. Click **OK** to create the INVDETAIL record.

Creating the TEMPVATSTL Record - TRADACOMS

The TEMPVATSTL (Temporary Storage VAT Subtotals) record is at the same level as the HEADER, INVBEGIN, and INVDETAIL records and the INVCommentGroup.

About this task

The TEMPVATSTL (temporary storage for VAT subtotals) record contains temporary storage fields to enable VAT subtotal calculations. The temporary storage record is conditional and occurs up to 20 times per invoice translated (once for each possible VAT code subtotal).

Use this procedure to create the TEMPVATSTL record.

Procedure

- 1. Click the INVDETAIL record and select Edit > Insert > Record.
- 2. In the Name box, type **TEMPVATSTL** as the record identification code.
- 3. In the Desc box, type Temporary Storage VAT Subtotals.
- 4. On the Tag tab, do the following:
 - In the Tag box, type \$\$\$ as the record identification code <TAG>.
 - In the Position box, accept the default of 1 as the starting column position of the tag in the data record.
- 5. On the **Looping** tab, do the following:
 - In the Min Usage box, accept the default of 0 to make the record conditional.
 - In the Max Usage box, type **20** as the maximum number of times the record can repeat.
- 6. Click **OK** to create the TEMPVATSTL record.

Creating the INVSUMMARY Record

The INVSUMMARY (summary) record contains the total invoice amount and the total transaction amount. The summary record is mandatory and occurs once per invoice translated.

About this task

Use this procedure to create the INVSUMMARY record.

Procedure

- 1. Click one of the following records and select **Edit** > **Insert** > **Record**.
 - INVDETAIL (for ANSI X12 and EDIFACT)
 - TEMPVATSTL (for TRADACOMS)
- 2. In the Name box, type **INVSUMMARY** as the record identification code.
- 3. In the Desc box, type **Summary Record**.
- 4. On the Tag tab, do the following:
 - In the Tag box, type **SUM** as the record identification code <TAG>.
 - In the Position box, accept the default of 1 as the starting column position of the tag in the data record.
- 5. On the **Looping** tab, do the following:
 - In the Min Usage box, type 1 to make the record mandatory.
 - Accept the default of 1 in the Max Usage box.
- 6. Click **OK** to create the INVSUMMARY record.

Current Map Structure ANSI X12 Map

The following example shows the ANSI X12 application (input) side of the map.



EDIFACT Map

The following example shows the EDIFACT application (input) side of the map.



TRADACOMS Map

The following example shows the TRADACOMS application (input) side of the map.



Application Fields

About Application Fields in Outbound Invoices

Each record you create contains a group of logically-related application fields. These fields define the structure and content of the data that your system needs to process the invoice.

The easiest way to add application fields to a record is to use the Positional Field Editor. Generally, you create the fields for each sequential record, starting with the INVBEGIN record.

Creating the INVBEGIN Record Application Fields

You created the fields for the HEADER record in the system import map, copied the fields to the import map, and removed the standard rules from those fields. Therefore, the first record for which you need to define fields is the INVBEGIN record.

About this task

Use this procedure to create the application fields for the INVBEGIN record.

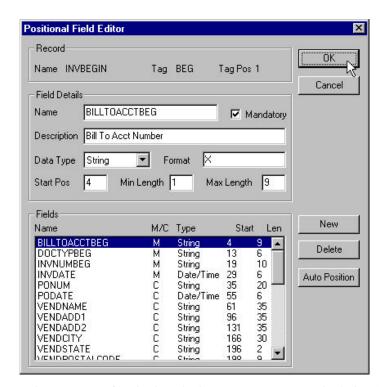
Procedure

- 1. Right-click the INVBEGIN application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click **New**.
- 3. In the Name box, type **BILLTOACCTBEG**, which is the name of the first field in the INVBEGIN record.
- 4. Select the **Mandatory** check box to identify it as a required field.
- 5. In the Description box, type Bill To Account Number.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is **Number** or **Dt/Tm**, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1 as the minimum field length. If the minimum length of the field is 0, then accept that default in the Min length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and create the next field positioned after it, press Enter.
- 10. Create the rest of the fields according to the Application File Beginning Record Layout for Outbound Invoices .
- 11. After adding the last field, click **Auto Position** to automatically position the fields in the record. Click **Yes** to acknowledge the warning message that fields are sequenced in order.

The Positional Field Editor dialog box should look similar to the following. (This is an ANSI X12 example; some details may be different for EDIFACT and TRADACOMS.)



12. When you are finished with the INVBEGIN record, click Close.

Creating the INVCOMMENT1 Record Application Fields - ANSI X12, EDIFACT

About this task

Use this procedure to create the application fields for the INVCOMMENT1 record.

Procedure

- 1. Right-click the INVCOMMENT1 application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click New.
- 3. In the Name box, type **BILLTOACCTCM1**, which is the name of the first field in the INVCOMMENT1 record.
- 4. Select the **Mandatory** check box to identify it as a required field.
- 5. In the Description box, type **Bill To Account Number**.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is Number or Dt/Tm, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1 as the minimum field length. If the minimum length of the field is 0, then accept that default in the Min Length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press Enter.
- 10. Create the rest of the fields according to the Application File Comment Group Layout for Outbound Invoices .

- 11. After adding the last field, click **Auto Position** to automatically position the fields in the record. Click **Yes** to acknowledge the warning message that fields are sequenced in order.
- 12. When you are finished with the INVCOMMENT1 record, click **Close**.

Creating the INVCOMMENT2 Record Application Fields - ANSI X12, EDIFACT

About this task

Use this procedure to create the application fields for the INVCOMMENT2 record.

Procedure

- 1. Right-click the INVCOMMENT2 application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click **New**.
- 3. In the Name box, type **BILLTOACCTCM2**, which is the name of the first field in the INVCOMMENT2 record.
- 4. Select the Mandatory check box to identify it as a required field.
- 5. In the Description box, type **Bill To Account Number**.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is Number or Dt/Tm, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1 as the minimum field length. If the minimum length of the field is 0, then accept that default in the Min Length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press **Enter**.
- 10. Create the rest of the fields according to the Application File Comment Group Layout for Outbound Invoices .
- 11. After adding the last field, click **Auto Position** to automatically position the fields in the record. Click Yes to acknowledge the warning message that fields are sequenced in order.
- 12. When you are finished with the INVCOMMENT2 record, click Close.

Creating the INVCOMMENT Record - TRADACOMS

The INVCOMMENT (comment record) record contains the message text. The first comment record is mandatory and occurs once per invoice translated (once for each comment line).

About this task

Use this procedure to create the INVCOMMENT record.

Procedure

- 1. Click the INVCommentGroup and select Edit > Create Sub > Record.
- 2. In the Name box, type **INVCOMMENT** as the record identification code.
- 3. In the Desc box, type **Invoice Comment Record 1**.
- 4. On the **Tag** tab, do the following:

- In the Tag box, type CMT as the record identification code <TAG>.
- In the Position box, accept the default of 1 for the starting column position of the tag in the data record.
- 5. On the **Looping** tab, type 1 in the Min Usage box to make the record mandatory.
- 6. Click **OK** to create the INVCOMMENT record.

Creating the INVDETAIL Record Application Fields About this task

Use this procedure to create the application fields for the INVDETAIL record.

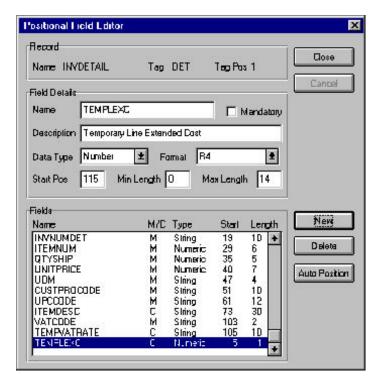
Procedure

- 1. Right-click the INVDETAIL application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click New.
- 3. In the Name box, type **BILLTOACCTDET**, which is the name of the first field in the INVDETAIL record.
- 4. Select the **Mandatory** check box to identify it as a required field.
- 5. In the Description box, type **Bill To Account Number**.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is **Number** or **Dt/Tm**, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1 as the minimum field length. If the minimum length of the field is 0, then accept that default in the Min Length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press **Enter**.
- 10. Create the rest of the fields according to the Application File Comment Group Layout for Outbound Invoices .
- 11. After adding the last field, click **Auto Position** to automatically position the fields in the record. Click **Yes** to acknowledge the warning message that fields are sequenced in order.

The Positional Field Editor dialog box should look similar to the following. (This is a TRADACOMS example; some details may be different for ANSI X12 and EDIFACT.)



12. When you are finished with the INVDETAIL record, click Close.

Creating the TEMPVATSTL Record Application Fields - TRADACOMS

About this task

Use this procedure to create the application fields for the TEMPVATSTL record.

Procedure

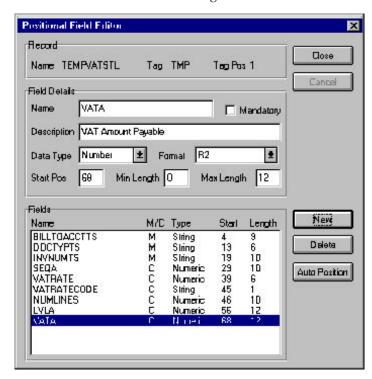
- 1. Right-click the TEMPVATSTL application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click **New**.
- 3. In the Name box, type **BILLTOACCTTS**, which is the name of the first field in the TEMPVATSTL record.
- 4. Click the Mandatory check box to identify it is a required field.
- 5. In the Description box, type **Bill To Account Number**.
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is **Number** or **Dt/Tm**, select the appropriate format from the Format list.
- 7. In the Min Length box, type 1. This is the minimum number of characters for this field. If the minimum length of the field is 0, then accept that default in the Min Length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press **Enter**.

- 10. Create the rest of the fields according to Application File Summary Layout for Outbound Invoices .
- 11. After adding the last field, click **Auto Position** to automatically position the fields in the record. Click **Yes** to acknowledge the warning message that fields will be sequenced in order.

The Positional Field Editor dialog box should now look like this:



12. When you are finished with the TEMPVATSTL record, click Close.

Creating the INVSUMMARY Record Application Fields About this task

Use this procedure to create the application fields for the INVSUMMARY record.

Procedure

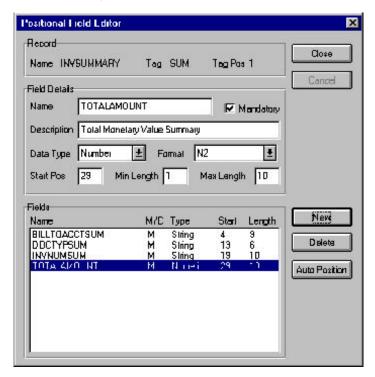
- 1. Right-click the INVSUMMARY application record and select Edit Fields.
- 2. If the field you are creating is the first field in the record, click New.
- **3**. In the Name box, type **BILLTOACCTSUM**, which is the name of the first field in the INVSUMMARY record.
- 4. Select the **Mandatory** check box to identify it as a required field.
- 5. In the Description box, type **Bill To Account Number**
- 6. From the Data Type list, select the appropriate type.

Notes:

- Select **String** if you want to specify that this field must contain alphanumeric data.
- If the Data Type is **Number** or **Dt/Tm**, select the appropriate format from the Format list.

- 7. In the Min Length box, type 1 as the minimum number of characters for this field. If the minimum length of the field is 0, then accept that default in the Min Length box.
- 8. In the Max Length box, type 9 as the maximum length of the field.
- 9. To add the field and to create the next field positioned after it, press **Enter**.
- Create the rest of the fields according to the Application File Summary Layout for Outbound Invoices .

The Positional Field Editor dialog box should look similar to the following. (This is a TRADACOMS example; some details may be different for ANSI X12 and EDIFACT.)



11. When you are finished with the INVSUMMARY record, click Close.

Chapter 5. INVBEGIN Record

About the INVBEGIN Record

The INVBEGIN record contains the purchase order number and date, shipping and billing address information, bill of lading number, ship date, and terms informatin. The beginning record is mandatory and occurs once for each invoice.

The following fields are part of the application file format key. However, they do not contain data that the system needs to use to generate the invoice and do not need to be mapped:

- BILLTOACCTBEG field
- DOCTYPBEG field

INVNUMBEG Field

Mapping the Invoice Number About this task

Do one of the following to map the invoice number.

Procedure

- For ANSI X12: Link the application field **INVNUMBEG** in the INVBEGIN record to the **BIG02** element in the BIG segment.
- For EDIFACT: Link the application field **INVNUMBEG** in the INVBEGIN record to the **BGM05** element in the BGM record.
- For TRADACOMS: Link the application field **INVNUMBEG** in the INVBEGIN record to the **IRF INVN** element (Invoice Number) in the IRF segment.

Setting up the Document Name for the Outbound Invoice

You should set up a document name for this map.

About this task

Use this procedure to set up the Document Name for this Invoice.

Note: See Document names for more information.

- 1. Double-click one of the following elements:
 - **BIG02 (0076)** (for ANSI X12)
 - BGM05 (for EDIFACT)
 - **IRF INVN** (for TRADACOMS)
- 2. In the Element Properties dialog box, select the **Standard Rule** tab.
- 3. From the standard rule list, select **Update**.
- 4. From the table list, choose **Document record**.
- 5. From the column list, select **Document Name**.
- 6. Click **OK** to set up the document name.

Mapping the INVDATE Field - ANSI X12 and TRADACOMS

About this task

For ANSI X12, you can map the INVDATE field directly to the BIG01 element.

For TRADACOMS, you can map the INVDATE field directly to both the IRF IVDT (Date of Invoice) and IRF TXDT (Tax-Point Date) elements by using the Link function, because both of these dates are the same.

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. For ANSI X12: Link the application field **INVDATE** in the INVBEGIN record to the **BIG01** element in the BIG segment.
 - Steps 3 through 6 apply only to TRADACOMS.
- 3. Click the application field **INVDATE** in the INVBEGIN record.
- 4. Click the IRF IVDT element (Date of Invoice).
- 5. Click the application field INVDATE in the INVBEGIN record again.
- 6. Click the IRF TXDT element (Tax-Point Date).

About the INVDATE Field - EDIFACT

On the EDI side of the map, the date information is contained in the DTM:22 segment. You must change the properties of the DTM:2202 element (Date/Time/Period) to reflect the minimum and maximum length, the type, and the format that your partner will send you.

Use the Link function to map the INVDATE field directly to the DTM:2202 (Date/Time/Period) element. If the DTM:2201 (Date/Time/Period Qualifier) is 3, the DTM:22 segment contains the invoice date/time. You must map a constant to the Date/Time/Period Qualifier and establish a qualifying relationship with the Date/Time/Period. This enables you to specify that the Date/Time/Period element contains the invoice date/time.

Complete the following tasks:

- Changing the Properties of the DTM:2202 Element
- Setting the Date/Time/Period Qualifier
- Mapping the Invoice Date

Changing the Properties of the DTM:2202 Element

You informed your partner that you will send six digits for the DTM:2202 element (Date/Time/Period) and these six digits will be a Dt/Tm data type in the YYMMDD format (two-digit year, two-digit month, and two-digit day). You must change the minimum and maximum length, the type, and the format of the DTM:2202 element.

About this task

Use this procedure to change the length of the DTM2202 element.

Procedure

1. Double-click the **DTM:2202** element to display the Element Properties dialog box.

- 2. Select the Validation tab.
- 3. In the Minimum box, type 6 as the minimum length.
- 4. In the Maximum box, type 6 as the maximum length.
- 5. From the Type list, select **Date/Time** The system may prompt you with a message that changing the field's data type will invalidate its format. If so, click **Yes** to acknowledge the message and proceed.
- 6. From the Format list, select YYMMDD.
- 7. Click **OK** to exit the Element Properties dialog box.

Setting the Date/Time/Period Qualifier

You must map a constant to the Date/Time/Period Qualifier (DTM:2201 element) and define a qualifying relationship with the Date/Time/Period (DTM:2202 element).

About this task

You have already defined all the constants that you will use for this map. Now map the appropriate constant to the Date/Time/Period Qualifier element.

Use this procedure to set the Date/Time/Period Qualifier for the DTM:22 segment.

Procedure

- 1. Double-click the **DTM:2201** element (Date/Time/Period Qualifier) in the DTM:22 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select 3 (invoice date/time) to identify the DTM:2202 element as containing the invoice date and time.
- 5. From the Qualifies list, select **2380:2 DATE/TIME/PERIOD**, to set up a qualifying relationship with the DTM:2202 element.

Note: The Qualifies list contains only active elements in the same segment as the qualifying element.

6. Click **OK**. The **3** code is loaded in the Date/TIme/Qualifier element. The qualifying relationship between the DTM:2201 and the DTM:2202 elements is established.

Mapping the Invoice Date About this task

Use this procedure to map the invoice date.

Procedure

Link the application field **INVDATE** in the INVBEGIN record to the **DTM:2202** element in the DTM:22 segment.

Mapping the PONUM Field

About this task

Use this procedure to map the PONUM field.

Procedure

• For ANSI X12: Link the application field **PONUM** in the INVBEGIN record to the **BIG04** element in the BIG segment.

Note: We recommend that you set up a Document Reference for each map to make message identification easier. Continue with "Setting up the Document Reference - ANSI X12 and EDIFACT" on page 73.

• For EDIFACT: Link the **PONUM** field directly to the **RFF:1102** (Reference Number) field.

If the RFF:1101 (Reference Qualifier) is **ON**, the RFF:11 segment contains the order number (purchase). You must map a constant to the Reference Qualifier and establish a qualifying relationship with the Reference Number. This allows you to specify that the Reference Number element contains the order number (purchase).

Note: We recommend that you set up a Document Reference for each map to make message identification easier. Continue with the following:

- 1. "Setting the Reference Qualifier EDIFACT"
- 2. "Setting up the Document Reference ANSI X12 and EDIFACT" on page 73
- For TRADACOMS:

The ODD group contains order and delivery terms and invoice line details. This group repeats up to 999,999 times. You only need to send one ODD group to your partner because you are invoicing only one order for this message. Therefore, you need to change the maximum usage of the ODD group to make it a non-repeating group.

Because you will only be invoicing one order per INVOIC message, you can use extended rules to hard code the first level sequence numbers to one. The first level sequence numbers (PYT SEQA, DNA SEQA:2, ODD:2 SEQA, and ILD:2 SEQA) each indicate the number of orders that this message is invoicing.

Continue with the following:

- 1. "Changing the Maximum Usage of the ODD Group TRADACOMS" on page 73
- 2. "Creating an Extended Rule to Specify the PYT SEQA TRADACOMS" on page 74
- 3. "Creating an Extended Rule to Specify the DNA SEQA:2 TRADACOMS" on page 74
- 4. "Creating an Extended Rule to Specify the ODD:2 SEQA TRADACOMS" on page 74
- 5. "Creating an Extended Rule to Specify the ILD:2 SEQA TRADACOMS" on page 75
- 6. "Mapping the Order Number TRADACOMS" on page 75

Setting the Reference Qualifier - EDIFACT About this task

Use this procedure to set the Reference Qualifier for the RFF:11 segment.

- 1. Double-click the **RFF:1101** element (Reference Qualifier) in the PONUM_RFF group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.

- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the ON constant to identify the RFF:1102 element as containing the order number (purchase).
- 5. From the Qualifies list, select the 1154:2 REFERENCE NUMBER to set up a qualifying relationship with the RFF:1102 element.
- 6. Click **OK** and the ON code is loaded in the Reference Qualifier element. The qualifying relationship between the RFF:1101 and RFF:1102 elements is also established.

Setting up the Document Reference - ANSI X12 and EDIFACT

To set up a Document Reference, you must select an element or field in the map that contains data that distinguishes the documents translated by this map. If you set up the Reference in the Application Integration subsystem, the RefData field of the document browsers that contain this document in Sterling Gentran:Server contains the data from that mapped field.

About this task

Use this procedure to set up the Document Reference for this invoice.

Procedure

- 1. Double-click one of the following elements:
 - **BIG04 (0324)** (for ANSI X12)
 - **RFF:1102** (for EDIFACT)

The system displays the Element Properties dialog box.

- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Update.
- 4. From the table list, choose **Document record**. This indicates that you are updating the document record in Sterling Gentran:Server.
- 5. From the column list, select Reference Data. This indicates that you are updating the RefData field in the document browsers with the contents of this element.
- 6. Click **OK** to set up the document reference.

Changing the Maximum Usage of the ODD Group -TRADACOMS

About this task

Use this procedure to make the ODD a non-repeating group.

- 1. Right-click the **ODD** group and select **Properties**.
- 2. In the Maximum Usage box, type 1 to make the ODD group a non-repeating group. This box currently contains 999999.
- 3. Click the **Promote records to parent** check box to specify that when the group is compiled, the subordinate segments and group are extracted from the loop and located in the parent group.
- 4. Click **OK** to accept the change to the ODD group.

Creating an Extended Rule to Specify the PYT SEQA -TRADACOMS

About this task

Use this procedure to create an extended rule to hard code the first level sequence numbers for the PYT segment (Settlement Terms) to one, indicating the number of orders that this message is invoicing.

Procedure

- 1. Double-click the PYT SEQA element (First Level Sequence Number) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule list, type the following:

```
\#SEQA = 1;
```

The #SEQA = 1 sets the first level sequence number for the PYT segment to one. The system executes this rule when it processes the PYT SEQA element.

- 4. Click **Compile** to validate the syntax of the extended rule.
- 5. Click **OK** to add the extended rule to the PYT SEQA element.

Creating an Extended Rule to Specify the DNA SEQA:2 -TRADACOMS

About this task

Use this procedure to create an extended rule to hard code the first level sequence number for the DNA segment (Data Narrative) to one, indicating the number of orders that this message is invoicing.

Procedure

- 1. Double-click the DNA SEQA:2 element (First Level Sequence Number) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule list, type the following:

```
\#SEQA:2 = 1;
```

The #SEQA:2 = 1 sets the first level sequence number for the DNA segment to one. The system executes this rule when it processes the DNA SEQA:2 element.

- 4. Click **Compile** to validate the syntax of the extended rule.
- 5. Click **OK** to add the extended rule to the DNA SEQA:2 element.

Creating an Extended Rule to Specify the ODD:2 SEQA -TRADACOMS

About this task

Use this procedure to create an extended rule to hard code the first level sequence numbers for the ODD:2 segment (Order and Delivery Terms) to one, indicating the number of orders that this message is invoicing.

- 1. Double-click the ODD:2 SEQA element (First Level Sequence Number) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.

3. In the Rule list, type the following:

```
\#SEQA = 1;
```

The #SEQA = 1 sets the first level sequence number for the ODD:2 segment to one. The system executes this rule when it processes the ODD:2 SEQA element.

- 4. Click **Compile** to validate the syntax of the extended rule.
- 5. Click **OK** to add the extended rule to the ODD:2 SEQA element.

Creating an Extended Rule to Specify the ILD:2 SEQA -TRADACOMS

About this task

Use this procedure to create an extended rule to hard code the first level sequence numbers for the ILD:2 segment (Invoice Line Details) to one, including the number of orders that this message is invoicing.

Procedure

- 1. Double-click the ILD:2 SEQA element (First Level Sequence Number) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule list, type the following:

```
\#SEQA = 1;
```

The #SEQA = 1 sets the first level sequence number for the ILD:2 segment to one. The system executes this rule when it processes the ILD:2 SEQA element.

- 4. Click **Compile** to validate the syntax of the extended rule.
- 5. Click **OK** to add the extended rule to the ILD:2 SEQA element.

Mapping the Order Number - TRADACOMS About this task

Use this procedure to map the customer's order number.

Procedure

- 1. If the Linking function is not currently active, click **Link**.
- 2. Click the application field **PONUM** in the INVBEGIN record.
- 3. Click the ODD:2 ORNO ORNO element (Customer's Order Number).

PODATE Field

Mapping the PODATE Field

About this task

Use this procedure to map the PODATE field.

- For ANSI X12: Link the application field PODATE in the INVBEGIN record to the BIG03 element in the BIG segment.
- For EDIFACT: Complete the following tasks:
 - 1. Changing the Properties of the DTM:2502 Element
 - 2. Setting the Date/Time/Period Qualifier

3. Mapping the Purchase Order Date

The purchase order date information is contained in the DTM:25 segment (in the PONUM_RFF group). You must change the properties of the DTM:2502 element (Date/Time/Period) to reflect the minimum and maximum length, type, and format that your partner will send you.

Use the Link function you to map the PODATE field directly to the DTM:2502 (Date/Time/Period) element. If the DTM:2501 (Date/Time/Period Qualifier) is 4, the DTM:25 segment contains the order date/time. You must map a constant to the Date/Time/Period Qualifier and establish a qualifying relationship with the Date/Time/Period. This enables you to specify that the Date/Time/Period element contains the order date/time.

For TRADACOMS: Link the application field PODATE in the INVBEGIN record to the ODD:2 ORNO ORN2 element (Date Order Placed by Customer).

Changing the Properties of the DTM:2502 Element

You have informed your partner that you will send six digits for the DTM:2502 element (Date/Time/Period) and that these six digits will be a Dt/Tm data type in the YYMMDD format (two-digit year, two-digit month, and two-digit day). You must change the minimum and maximum length, type, and format of the DTM:2502 element.

About this task

Use this procedure to change the length of the DTM:2502 element.

Procedure

- 1. Double-click the DTM:2502 element to display the Element Properties dialog
- 2. Select the Validation tab.
- 3. In the Minimum box, type 6 as the minimum length.
- 4. In the Maximum box, type 6 as the maximum length.
- 5. From the Type list, select Date/Time. Click Yes to acknowledge the message and proceed.
- 6. From the Format list, select **YYMMDD**.
- 7. Click **OK** to exit the Element Properties dialog box.

Setting the Date/Time/Period Qualifier About this task

Use this procedure to set the Date/Time/Period Qualifier for the DTM:25 segment.

- 1. Double-click the DTM:2501 element (Date/Time/Period Qualifier) in the DTM:25 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select 4 (order date/time) to identify the DTM:2502 element as containing the order date and time.
- 5. From the Qualifies list, select 2380:5 DATE/TIME/PERIOD to set up a qualifying relationship with the DTM:2502 element.

6. Click OK. The 4 code is loaded in the Date/Time/Period Qualifier element and the qualifying relationship between the DTM:2501 and DTM:2502 elements is established.

Mapping the Purchase Order Date About this task

Use this procedure to map the purchase order date.

Procedure

Link the application field PODATE in the INVBEGIN record to the DTM:2502 element in the DTM:25 segment (in the PONUM_RFF group).

Chapter 6. Shipping and Billing

Shipping and Billing Information for ANSI X12

About Shipping and Billing Information for ANSI X12

The N1 group contains vendor, shipping, and billing name and address information, and repeats multiple times. Your application file contains Vendor, Ship To, and Remit To information that you need to map to the N1 group. However, you can only map fields and elements that are at the same level. This means that you cannot map from a non-repeating record to a group. Specifically, you cannot map the vendor, shipping, and remittance information in the INVBEGIN record directly to the N1 group, because the INVBEGIN record does not repeat. Also, you cannot map to the N3 (address information) repeating segment from your application file Ship To fields (which are in the INVBEGIN record that does not repeat).

Therefore, to map vendor, shipping, and remittance information from your application file format, you must create three single iterations of the N1 group, so that the links between the application fields in the INVBEGIN record and the N1 groups are valid. The Split function extracts the specified number of iterations (instances) of a group (or repeating segment). This enables you to map unique data from your application file and enter a specialized definition for each N1 group (N1_Vendor, N1_ShipTo, and N1_RemitTo).

You can then map a constant to the Entity Identifier Code (in the N1 segment) for each iteration of the N1 group. If the Entity Identifier Code is VN, that iteration of the N1 group contains shipping information. You need to map the Vendor name and address fields in your application file format to the N1_Vendor group. If the Entity Identifier Code is ST, that iteration of the N1 group contains shipping information. You need to map the Ship To name and address fields in your application file format to the N1_ShipTo group. If the Entity Identifier Code is RI, that iteration of the N1 group contains remittance information. You need to map the remittance name and address fields in your application file format to the N1_RemitTo group.

The N1 Group

Changing the Max Use of the N3 Segment

You cannot map from your application file format Vendor, Ship To, and Remit To fields (which are in the INVBEGIN record that does not repeat) to the N3 (address information) repeating segment. Therefore, before you split the N1 group, you need to change the maximum usage of the N3 segment from 2 to 1 (to make the N3 a non-repeating segment for each iteration of the group).

About this task

Use this procedure to make the N3 a non-repeating segment.

- 1. Right-click the N3 segment (in the N1 group) and select Properties.
- 2. Select the **Looping** tab.

- 3. In the Max Usage box, type 1 to make the N3 a non-repeating segment. This box is currently set to 2.
- 4. Click **OK** to accept the change to the N3 segment.

Splitting the N1 Group

You cannot map from a non-repeating record (INVBEGIN) to a group (N1). Therefore, to map vendor, shipping, and remittance information from your application file format, you must split three single iterations of the N1 group, so that the links between the application fields in the INVBEGIN record and the N1 groups are valid.

About this task

Use this procedure to map to split three iterations of the N1 group and add specialized definitions.

- 1. Click the N1 group and click Split on the Main Toolbar.
- 2. In the First Loop Entries box, type 1 to indicate the sequential number of iterations where you want the group or repeating segment split.
- 3. Click **OK** to exit the Split dialog box.
- 4. Select **Edit** > **Properties**.
- 5. In the Name box, type **N1_Vendor**, which is a specialized definition to identify this group as containing vendor information.
- 6. Click **OK** to save the change and exit the Group Properties dialog box.
- 7. Click the original **N1** group (that now repeats 199 times) and click **Split** on the Main Toolbar to extract another single instance of the N1.
- 8. In the First Loop Entries box, type 1 to indicate the sequential number of iterations where you want the group or repeating segment split.
- 9. Click **OK** to exit the Split dialog box.
- 10. Select **Edit** > **Properties**.
- 11. In the name box, type **N1_ShipTo**, which is a specialized definition to identify this group as containing shipping information.
- 12. Click **OK** to save the change and exit the Group Properties dialog box.
- 13. Click the original N1 group (that now repeats 198 times) and click **Split** on the Main Toolbar to extract another single instance of the N1.
- 14. In the First Loop Entries box, type 1 to indicate the sequential number of iterations where you want the group or repeating segment split.
- 15. Click **OK** to exit the Split dialog box.
- 16. Select **Edit** > **Properties**.
- 17. In the Name box, type **N1_RemitTo**, which is the specialized definition to identify this group as containing remittance information.
- 18. Click **OK** to save the change and exit the Group Properties dialog box.
- 19. Click **Deactivate** on the Main Toolbar and then click the original **N1** group (that now repeats 197 times) so the system does not process it.
- 20. Click the **REF:6** segment (in the N1_Vendor group) so the system does not process it.
- 21. Click Deactivate on the Main Toolbar to turn off Deactivation mode.
- 22. Double-click the N1_RemitTo group to open it.
- 23. Click **Deactivate**.

- 24. Click the **REF:8** segment (in the N1_RemitTo group) so the system does not process it.
- 25. Click **Deactivate** on the Main Toolbar to turn off Deactivation mode.

Setting the Entity Identifier Code for N1_Vendor Group

You need to set the Entity Identifier Code for the N1_Vendor, N1_ShipTo, and N1_RemitTo groups, so the system is able to distinguish the type of name and address information each N1 group should contain.

About this task

You already defined all the constants that you are using in this map, so now you can map the appropriate constant to each Entity Identifier Code element.

Use this procedure to set the Entity Identifier Code for the N1_Vendor group.

Procedure

- 1. Double-click the **N1:301** element (Entity Identifier Code) in the N1:3 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the **VN** constant, to identify this iteration of the N1 group as containing vendor name and address information.
- 5. From the Qualifies list, select **0093:5 NAME**, to set up a qualifying relationship with the Name element.
 - **Note:** The Qualifies list contains only the other *active* elements in the same segment as the qualifying element.
- 6. Click **OK** and the VN code is loaded to the Entity Identifier Code element and the qualifying relationship between the N1:301 and N1:302 elements is established.

Setting the Entity Identifier Code for N1_ShipTo Group About this task

Use this procedure to set the Entity Identifier Code for the N1_ShipTo group.

- 1. Double-click the **N1:401** element (Entity Identifier Code) in the N1:4 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the **ST** constant, to identify this iteration of the N1 group as containing shipping name and address information.
- 5. From the Qualifies list, select **0093:21 NAME**, to set up a qualifying relationship with the Name element.
- 6. Click **OK** and the ST code is loaded in the Entity Identifier Code element and the qualifying relationship between the N1:401 and N1:402 elements is established.

Setting the Entity Identifier Code for N1_RemitTo group About this task

Use this procedure to set the Entity Identifier Code for the N1_RemitTo group.

Procedure

- 1. Double-click the N1:501 element (Entity Identifier Code) in the N1:5 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select the RI constant, to identify this iteration of the N1 group as containing vendor name and address information.
- 5. From the Qualifies list, select 0093:85 NAME, to set up a qualifying relationship with the Name element.
- 6. Click OK and the RI code is loaded in the Entity Identifier Code element and the qualifying relationship between the N1:501 and the N1:502 elements is established.

Mapping the Vendor Application Fields

Now you can link the elements in your Vendor application fields in the single occurrence of the INVBEGIN record to the appropriate single occurrence of the N1 that contains vending information (N1_Vendor).

About this task

Use this procedure to map the application fields and elements.

- 1. Link the application field VENDNAME in the INVBEGIN record to the N1:302 element in the N1:3 segment (N1_Vendor group).
- 2. Link the application field VENDADD1 in the INVBEGIN record to the N3:301 element in the N3:3 segment (N1_Vendor group).
- 3. Link the application field VENDADD2 in the INVBEGIN record to the N3:302 element in the N3:3 segment (N1_Vendor group).
- 4. Link the application field VENDCITY in the INVBEGIN record to the N4:301 element in the N4:3 segment (N1_Vendor group).
- 5. Link the application field **VENDSTATE** in the INVBEGIN record to the N4:302 element in the N4:3 segment (N1_Vendor group).
- 6. Link the application field **VENDPOSTALCODE** in the INVBEGIN record to the **N4:303** element in the N4:3 segment (N1_Vendor group).
- 7. Link the application field **SHIPTONAME** in the INVBEGIN record to the N1:402 element in the N1:4 segment (N1_ShipTo group).
- 8. Link the application field SHIPTOADD1 in the INVBEGIN record to the N3:401 element in the N3:4 segment (N1_ShipTo group).
- 9. Link the application field SHIPTOADD2 in the INVBEGIN record to the N3:402 element in the N3:4 segment (N1_ShipTo group).
- 10. Link the application field **SHIPTOCITY** in the INVBEGIN record to the N4:401 element in the N4:4 segment (N1_ShipTo group).
- 11. Link the application field SHIPTOSTATE in the INVBEGIN record to the N4:40 element in the N4:4 segment (N1_ShipTo group).

12. Link the application field **SHIPTOPOSTALCODE** in the INVBEGIN record to the **N4:403** element in the N4:4 segment (N1_ShipTo group).

Shipping Application Fields

The SHIPTOLOC (ship to location) and the SHIPTODEPTNUM (ship to department number) fields both contain additional reference information about the Ship To address. Both fields are in the INVBEGIN record that occurs once. To map both these fields to the REF:7 (reference) segment in the N1_ShipTo group, which repeats twelve times, you must promote a single instance of the REF segment, so that two target fields exists to which you can map the SHIPTOLOC and SHIPTODEPTNUM. And, because the original REF segment (REF:7) still repeats eleven times, you must change the maximum usage to one. Therefore, a link between the INVHEADER and the original REF segment (REF:7) is valid.

You must also map a constant to the Reference Number Qualifier (REF01 element) and define a qualifying relationship with the Reference Number (REF02 element), for both instances of the REF segment (REF:9 and REF:7). If the Reference Number Qualifier is DP (department number), that iteration of the REF segment contains the ship to department number. If the Reference Number Qualifier is ST (store number), that iteration of the REF segment contains the ship to location.

Promoting the REF Segment

To map both the SHIPTOLOC and SHIPTODEPTNUM fields to the REF (reference) segment in the N1_ShipTo group, which repeats twelve times, you must promote a single instance of the REF segment, so that two target fields exists to which you can map the SHIPTOLOC and SHIPTODEPTNUM.

About this task

Use this procedure to map to promote a single instance of the REF segment.

Procedure

- 1. Click the **REF:7** segment in the N1_ShipTo group.
- 2. Click **Promote** on the Main Toolbar to extract a single instance of the REF segment.

The REF:9 segment that only occurs once is extracted.

Changing the Max Use of the REF:7 Segment

The original REF segment (REF:7) still repeats eleven times, so you need to change the maximum usage to one. Therefore, a link between the INVHEADER and the original REF segment (REF:7) is valid.

About this task

Use this procedure to make the REF:7 a non-repeating segment.

- 1. Right-click the REF:7 segment (in the N1_ShipTo group) and select Properties.
- 2. Select the **Looping** tab.
- 3. In the Max Usage box, type 1 to make the REF:7 a non-repeating segment. This box is currently set to 11.
- 4. Click **OK** to accept the change to the REF:7 segment.

Reference Number Qualifier

You must map a constant to the Reference Number Qualifier (REF01 element) and define a qualifying relationship with the Reference Number (REF02 element), for both instances of the REF segment (REF:9 and REF:7).

You already defined all the constants that you are using in this map, so now you can map the appropriate constant to each Reference Number Qualifier element.

Setting the Reference Number Qualifier for REF:9 About this task

Use this procedure to set the Reference Number Qualifier for the REF:9 segment.

Procedure

- 1. Double-click the REF:901 element in the REF:9 segment in the N1_ShipTo group to display the Element Properties dialog box.
- 2. Select the **Standard Rule** tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select the DP constant, to identify this iteration of the REF segment as containing the ship to department number.
- 5. From the Qualifies list, select 0127:12 REFERENCE NUMBER, to set up a qualifying relationship with the Reference number element.
- 6. Click OK and the DP code is loaded in the Reference Number Qualifier element and the qualifying relationship between REF:901 and REF:902 elements is established.

Setting the Reference Number Qualifier for REF:7 About this task

Use this procedure to set the Reference Number Qualifier for the REF:7 segment.

Procedure

- 1. Double-click the REF:701 element in the REF:7 segment in the N1_ShipTo group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select the SN constant, to identify this iteration of the REF segment as containing the store number.
- 5. From the Qualifies list, select the 0127:10 REFERENCE NUMBER, to set up a qualifying relationship with the Reference Number element.
- 6. Click OK and the SN code is loaded in the Reference Number Qualifier element and the qualifying relationship between the REF:701 and REF:702 elements is established.

Mapping the Shipping Reference Information

After promoting the REF segment, changing the maximum usage, mapping constants to the Reference Number Qualifier elements, and establishing the appropriate qualifying relationship, you can map the shipping reference information.

About this task

Use this procedure to map the shipping reference fields.

Procedure

- 1. Link the application field **SHIPTOLOC** in the INVBEGIN record to the **REF7:02** element in the REF:7 segment (N1_ShipTo group).
- 2. Link the application field **SHIPTODEPTNUM** in the INVBEGIN record to the **REF9:02** element in the REF:9 segment (N1_ShipTo group).
- 3. Link the application field **REMITTONAME** in the INVBEGIN record to the **N1:502** element in the N1:5 segment (N1_RemitTo group).
- 4. Link the application field **REMITTOADD1** in the INVBEGIN record to the **N3:501** element in the N3:5 segment (N1_RemitTo group).
- 5. Link the application field **REMITTOADD2** in the INVBEGIN record to the **N3:502** element in the N3:5 segment (N1_RemitTo group).
- 6. Link the application field **REMOTTOCITY** in the INVBEGIN record to the **N4:501** element in the N4:5 segment (N1_RemitTo group).
- 7. Link the application field **REMITTOSTATE** in the INVBEGIN record to the **N4:502** element in the N4:5 segment (N1_RemitTo group).
- 8. Link the application field **REMITTOPOSTALCODE** in the INVBEGIN record to the **N4:503** element in the N4:5 segment (N1_RemitTo group).

Bill of Lading Number

You need to send only one header REF segment to your trading partner. (Typically, the REF segment repeats up to 12 times.) After you change the max usage of the REF segment to 1, the BOLNUM (bill of lading number) field can be directly mapped to the REF02 element. However, you must also map a constant to the Reference Number Qualifier (REF01 element) and define a qualifying relationship with the Reference Number (REF02 element) to indicate that the REF02 contains the bill of lading number.

Changing the Max Use of the REF Segment

You have determined that you only send your partner one header REF segment (reference information), so you must change the maximum usage allowed for that segment from 12 to 1.

About this task

Use this procedure to make the REF a non-repeating segment.

Procedure

- 1. Right-click the REF segment (in the header) and select Properties.
- 2. Select the **Looping** tab.
- 3. In the Max Usage box, type 1 to make the REF a non-repeating segment. This box is currently set to 12.
- 4. Click **OK** to accept the change to the REF segment.

Setting the Reference Number Qualifier

You already defined all the constants that you are using in this map, so now you can map the appropriate constant to the Reference Number Qualifier element.

About this task

Use this procedure to set the Reference Number Qualifier for the REF segment.

Procedure

- 1. Double-click the **REF:01** element (Reference Number Qualifier) in the REF segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the **BM** constant, to identify this iteration of the REF segment as containing the bill of lading number.
- 5. From the Qualifies list, select the **0127 REFERENCE NUMBER**, to set up a qualifying relationship with the Reference Number element.
- 6. Click **OK** and the BM code is loaded in the Reference Number Qualifier element and the qualifying relationship between the REF01 and REF02 elements is established.

Mapping the BOLNUM Field

After mapping the constant to the Reference Number Qualifier element and establishing the appropriate qualifying relationship, you need to map the BOLNUM field.

About this task

Use this procedure to map the BOLNUM field.

Procedure

Link the application field **BOLNUM** in the INVBEGIN record to the **REF02** element in the REF segment.

Ship Date

You need to send only one header DTM segment to your trading partner. (Typically, the DTM segment repeats up to 10 times.) After you change the max usage of the DTM segment to 1, the SHIPDATE field can be directly mapped to the DTM02 element (in the DTM header segment). However, you must also map a constant to the Date/Time Qualifier (DTM01 element) and define a qualifying relationship with the Date (DTM02 element) to indicate that the DTM02 contains the ship date.

Changing the Max Use of the DTM Segment

You have determined that you only send your partner one header DTM segment (date/time information), so you must change the maximum usage allowed for that segment from 10 to 1.

About this task

Use this procedure to make the DTM a non-repeating segment.

- 1. Right-click the **DTM** segment (in the header) and select **Properties**.
- 2. Select the **Looping** tab.

- 3. In the Max Usage box, type 1 to make the DTM a non-repeating segment. This box is currently set to 10.
- 4. Click **OK** to accept the change to the DTM segment.

Setting the Ship Date Qualifier

You already defined all the constants that you are using in this map, so now you can map the appropriate constant to the Date/Time Qualifier element.

About this task

Use this procedure to set the Date/Time Qualifier for the DTM segment.

Procedure

- 1. Double-click the DTM:01 element (Date/Time Qualifier) in the DTM segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select the DTM constant, to identify this iteration of the DTM segment as containing the bill of lading number.
- 5. From the Qualifies list, select the 0373:6 DATE, to set up a qualifying relationship with the Date element.
- 6. Click **OK** and the DTM code is loaded in the Date/Time Qualifier element and the qualifying relationship between the DTM01 and DTM02 elements is established.

Mapping the SHIPDATE Field

After mapping the constant to the Date/Time Qualifier element and establishing the appropriate qualifying relationship, you can map the SHIPDATE field.

About this task

Use this procedure to map the SHIPDATE field.

Procedure

Link the application field SHIPDATE in the INVBEGIN record to the DTM02 element in the DTM segment.

Changing the Max Use of the ITD Segment

You have determined that you only send your partner one header ITD segment (terms of sale/deferred terms of sale), so you must change the maximum usage allowed for that segment from 5 to 1.

About this task

Use this procedure to make the ITD segment non-repeating.

- 1. Right-click the ITD segment (in the header) and select **Properties**.
- 2. Select the **Looping** tab.
- 3. In the Max Usage field, type 1 to make the ITD a non-repeating segment. This field is currently set to 5.
- 4. Click **OK** to accept the change to the ITD segment.

Mapping the TERMS Fields About this task

Use this procedure to map the TERMS fields.

Procedure

- 1. Link the application field **TERMS_WHOLE** in the INVBEGIN record to the **ITD03** element in the ITD segment (in the header).
- 2. Link the application field **TERMSNETDUE** in the INVBEGIN record to the **ITD07** element in the ITD segment.
- 3. Link the application field **TERMSDISDUE** in the INVBEGIN record to the **ITD05** element in the ITD segment.

Shipping and Billing Information for EDIFACT

About Shipping and Billing Information for EDIFACT

The NAD group contains vendor, shipping, and billing name and address information. It repeats multiple times. Your application file contains Vendor, Ship To, and Remit To information that you must map to the NAD group. However, you can only map fields and elements that are at the same level. This means that you cannot map from a non-repeating record to a group. Specifically, you cannot map the vendor, shipping, and remittance information in the INVBEGIN record directly to the NAD group, because the INVBEGIN record does not repeat.

To map vendor, shipping, and remittance information from your application file format, you created three single iterations of the NAD group using the promote function, so that the links between the application fields in the INVBEGIN record and the NAD groups are valid. The Promote function extracts the one iteration (instance) of a group (or repeating segment). This enables you to map unique data from your application file to each NAD group (Vend_NAD, ShipTo_NAD, and RemitTo_NAD).

VENDNAME Field

You can map a constant to the NAD segment Party Qualifier for each iteration of the NAD group. If the Party Qualifier is VN, that iteration of the NAD group contains shipping information. You must map the Vendor name and address fields in your application file format to the Vend_NAD group. If the Party Qualifier is ST, that iteration of the NAD group contains shipping information. You must map the Ship To name and address fields in your application file format to the ShipTo_NAD group. If the Party Qualifier is RE, that iteration of the NAD group contains remittance information. You must map the remittance name and address fields in your application file format to the RemitTo_NAD group.

Setting the Party Qualifier

You must set the Party Qualifier for the Vend_NAD, ShipTo_NAD, and RemitTo_NAD groups, so the system can distinguish the type of name and address information each NAD group should contain.

About this task

You have already defined all the constants that you will use for this map. Now you can map the appropriate constant to each Party Qualifier element.

Procedure

- 1. Double-click the **NAD:310** element (Party Qualifier) in the NAD:3 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select **VN** to identify this iteration of the NAD group as containing vendor name and address information.
- 5. Click **OK**. The VN code is loaded in the Party Qualifier element.

Setting the Party Qualifier for the ShipTo_NAD Segment About this task

Use this procedure to set the Party Qualifier for the ShipTo_NAD group.

Procedure

- 1. Double-click the **NAD:401** element (Party Qualifier) in the NAD:4 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select **ST** to identify this iteration of the NAD group as containing shipping name and address information.
- 5. Click **OK**. The ST code is loaded in the Party Qualifier element.

Setting the Party Qualifier for the RemitTo_NAD Group About this task

Use this procedure to set the Party Qualifier for the RemitTo_NAD group.

Procedure

- 1. Double-click the **NAD:501** element (Party Qualifier) in the NAD:5 segment to display the Element Properties dialog box
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select **RE** to identify this iteration of the NAD group as containing vendor name and address information.
- 5. Click **OK**. The RE code is loaded in the Party Qualifier element.

Linking the NAD Group About this task

Use this procedure to map the terms fields.

- 1. Link the application field **VENDNAME** in the INVBEGIN record to the **NAD:310** element in the NAD:3 segment (Vend_NAD group).
- 2. Link the application field **VENADD1** in the INVBEGIN record to the **NAD:316** element in the NAD:3 segment (Vend_NAD group).
- 3. Link the application field **VENADD2** in the INVBEGIN record to the **NAD:317** element in the NAD:3 segment (Vend_NAD group).
- 4. Link the application field **VENDCITY** in the INVBEGIN record to the **NAD:319** element in the NAD:3 segment (Vend_NAD group).

- 5. Link the application field **VENDSTATE** in the INVBEGIN record to the **NAD:320** element in the NAD:3 segment (Vend_NAD group).
- 6. Link the application field **VENDPOSTALCODE** in the INVBEGIN record to the **NAD:321** element in the NAD:3 segment (Vend_NAD group).
- 7. Link the application field **SHIPTONAME** in the INVBEGIN record to the **NAD:410** element in the NAD:4 segment (ShipTo_NAD group).
- 8. Link the application field **SHIPTOADD1** in the INVBEGIN record to the **NAD:416** element in the NAD:4 segment (ShipTo_NAD group).
- 9. Link the application field **SHIPTOADD2** in the INVBEGIN record to the **NAD:417** element in the NAD:4 segment (ShipTo_NAD group).
- 10. Link the application field **SHIPTOCITY** in the INVBEGIN record to the **NAD:419** element in the NAD:4 segment (ShipTo_NAD group).
- 11. Link the application field **SHIPTOSTATE** in the INVBEGIN record to the **NAD:420** element in the NAD:4 segment (ShipTo_NAD group).
- 12. Link the application field **SHIPTOPOSTALCODE** in the INVBEGIN record to the **NAD:421** element in the NAD:4 segment (ShipTo_NAD group).

SHIPTOLOC Field

The SHIPTOLOC (ship to location) contains additional reference information about the Ship To address. This field is in the INVBEGIN record that occurs once. Map this field to the LOC:1305 element (place/location) in the LOC:13 segment in the ShipTo_NAD group.

You must also map a constant to the Place Location Qualifier (LOC:1301 element) and define a qualifying relationship with the Place/Location (LOC:1305 element). If the Place/Location Qualifier is 4 (goods receipt place), that iteration of the LOC:13 segment contains the ship to location.

Setting the Place/Location Qualifier

You have already defined all constants that you will use for this map. Now map the appropriate constant to each Place/Location Qualifier element.

About this task

Use this procedure to set the Place/Location Qualifier for the LOC:13 segment.

Procedure

- 1. Double-click the **LOC:1301** element (Place/Location Qualifier) in the LOC:13 segment in the ShipTo_NAD group to display the Element Properties dialog box.
- 2. Select the **Standard Rule** tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the second 4 constant in the list to identify this iteration of the LOC:13 segment as containing the ship to department number.
- 5. From the Qualifies list, select **3224:5 PLACE/LOCATION** to set up a qualifying relationship with the Place/Location element.
- 6. Click OK.

The 4 code is loaded in the Place/Location Qualifier element and the qualifying relationship between the LOC:1301 and LOC:1305 elements is established.

Mapping the Shipping Fields

After mapping the constant to the Place/Location Qualifier element and establishing the appropriate qualifying relationship, map the SHIPTOLOC field.

About this task

The SHIPTODEPTNUM (ship to department number) contains additional reference information about the Ship To address. This field is in the INVBEGIN record that occurs once. Map this field to the CTA:603 element (department or employee) in the CTA:6 segment in the CTA:5 group in the ShipTo_NAD group.

Use this procedure to map the shipping fields.

Procedure

- 1. Link the application field **SHIPTOLOC** in the INVBEGIN record to the **LOC:1305** element in the LOC:13 segment (ShipTo_NAD group).
- 2. Link the application field **SHIPTODEPTNUM** in the INVBEGIN record to the **CTA:603** element in the CTA:6 segment in the CTA:5 group (ShipTo_NAD group).
- 3. Link the application field **REMITTONAME** in the INVBEGIN record to the **NAD:510** element in the NAD:5 segment (RemitTo_NAD group).
- 4. Link the application field **REMITTOADD1** in the INVBEGIN record to the **NAD:516** element in the NAD:5 segment (RemitTo_NAD group).
- 5. Link the application field **REMITTOADD2** in the INVBEGIN record to the **NAD:517** element in the NAD:5 segment (RemitTo_NAD group).
- 6. Link the application field **REMITTOCITY** in the INVBEGIN record to the **NAD:519** element NAD:5 segment (RemitTo_NAD group).
- 7. Link the application field **REMITTOSTATE** in the INVBEGIN record to the **NAD:520** element element in the NAD:5 segment (RemitTo_NAD group).
- 8. Link the application field **REMITTOPOSTALCODE** in the INVBEGIN record to the **NAD:521** element in the NAD:5 segment (RemitTo_NAD group).

BOLNUM Field

Use the Link function to map the BOLNUM field directly to the RFF:1202 (Reference Number) field.

If the RFF:1201 (Reference Qualifier) is BM, the RFF:12 segment contains the bill of lading number. You must map a constant to the Reference Qualifier and establish a qualifying relationship with the Reference Number. This enables you to specify that the Reference Number element contains the bill of lading number.

Setting the Reference Qualifier - EDIFACT About this task

Use this procedure to set the Reference Qualifier for the RFF:11 segment.

- 1. Double-click the **RFF:1101** element (Reference Qualifier) in the PONUM_RFF group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.

- 4. From the Constants list, select the **ON** constant to identify the RFF:1102 element as containing the order number (purchase).
- 5. From the Qualifies list, select the **1154:2 REFERENCE NUMBER** to set up a qualifying relationship with the RFF:1102 element.
- 6. Click **OK** and the ON code is loaded in the Reference Qualifier element. The qualifying relationship between the RFF:1101 and RFF:1102 elements is also established.

Mapping the Bill of Lading Number About this task

Use this procedure to map the bill of lading number.

Procedure

Link the application field **BOLNUM** in the INVBEGIN record to the **RFF:1202** element in the RFF:12 segment (BOL_RFF group).

SHIPDATE Field

On the EDI side of the map, the purchase order date information is contained in the DTM:26 segment (in the BOL_RFF group). You must change the properties of the DTM:2602 element (Date/Time/Period) to reflect the minimum and maximum length, type, and format that your partner will send you.

Use the Link function to map the SHIPDATE field directly to the DTM:2602 (Date/Time/Period) element. If the DTM:2601 (Date/Time/Period Qualifier) is 11, the DTM:26 segment contains the despatch date/time. You must map a constant to the Date/Time/Period Qualifier and establish a qualifying relationship with the Date/Time/Period. This enables you to specify that the Date/Time/Period element contains the despatch date/time.

Changing the Properties of the DTM:2602 Element

You have informed your partner that you will send six digits for the DTM:2602 element (Date/Time/Period), and these six digits will be a Dt/Tm data type in the YYMMDD format (two-digit year, two-digit month, and two-digit day). You must change the minimum and maximum length, type, and format of the DTM:2602 element.

About this task

Use this procedure to change the length of the DTM:2602 element.

- 1. Double-click the **DTM:2602** element to display the Element Properties dialog box.
- 2. Select the Validation tab.
- 3. In the Minimum box, type 6 as the minimum length.
- 4. In the Maximum box, type 6 as the maximum length.
- 5. From the Type list, select **Date/Time**.
- 6. From the Format list, select YYMMDD.
- 7. Click **OK** to exit the Element Properties dialog box.

Setting the Date/Time/Period Qualifier

You must map a constant to the Date/Time/Period Qualifier (DTM:2601 element) and define a qualifying relationship with the Date/Time/Period (DTM:2602 element).

About this task

You have already defined all the constants that you will use for this map. Now you map the appropriate constant to the Date/Time/Period Qualifier element.

Use this procedure to set the Date/Time/Period Qualifier for the DTM:26 segment.

Procedure

- 1. Double-click the **DTM:2601** element (Date/Time/Period Qualifier) in the DTM:26 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select 11 (dispatch date/time) to identify the DTM:2602 element as containing the ship date and time.
- 5. From the Qualifies list, select **2380:6 DATE/TIME/PERIOD** to set up a qualifying relationship with the DTM:2602 element.
- 6. Click OK.

The 11 code is loaded in the Date/Time/Period Qualifier element and the qualifying relationship between the DTM:2601 and DTM:2602 elements is established.

Mapping the Purchase Order Date About this task

Use this procedure to map the purchase order date.

Procedure

Link the application field **SHIPDATE** in the INVBEGIN record to the **DTM:2602** element in the DTM:26 segment (in the BOL_RFF group).

Shipping Information for TRADACOMS

Mapping the ShipTo Fields

Use this procedure to map the shipping information.

About this task

Procedure

1. If the Linking function is not currently active, click **Link**.

Note: All of the application fields you are linking from are in the INVBEGIN record.

- 2. Click the application field **SHIPTONAME** and click the **CLO CNAM** element (Customer's Name).
- 3. Click the application field **SHIPTOADD1** and click the **CLO CADD CAD0** element (Customer's Address Line 1).

- 4. Click the application field **SHIPTOADD2** and click the **CLO CADD CAD1** element (Customer's Address Line 2).
- 5. Click the application field **SHIPTOCITY** and click the **CLO CADD CAD2** element (Customer's Address Line 3).
- 6. Click the application field **SHIPTOSTATE** and click the **CLO CADD CAD3** element (Customer's Address Line 4).
- 7. Click the application field **SHIPTOPOSTALCODE** and click the **CLO CADD CAD4** element (Customer's Postal Code).
- 8. Click the application field **SHIPTOLOC** and click the **CLO CLOC CLO1** element (Customer's Own Location Code).
- 9. Click the application field **BOLNUM** and cick the **ODD:2 DELN DEL0** element (Delivery Note Number).
- 10. Click the application field **SHIPDATE** and click the **ODD:2 DELN DEL1** element (Date of Despatch by Supplier).
- 11. To make the PYT a nonrepeating segment, do the following:
 - Right-click the **PYT** segment and select **Properties**.
 - In the Max Usage box, type 1 to make the PYT a nonrepeating segment. This box currently contains 999999.
 - Click **OK** to accept the change to the PYT segment.

The PYT segment contains settlement terms and it repeats up to 999,999 times. You only need to send one PYT segment to your partner because you are invoicing only one order for this message. Therefore, you need to change the maximum usage of the PYT segment from to make it a nonrepeating segment.

- 12. Click the application field **TERMSNETDUE** and click the **PYT PAYY PAY2** element (Number of Days).
- **13**. Click the application field **TERMSTEXT** and click the **PYT PAYT** element (Terms of Payment).

Chapter 7. INVComment Group

INVComment Group: INVCOMMENT1 and INVCOMMENT2 for ANSI X12 and EDIFACT

INVCOMMENT1 Record

The INVCommentGroup (comment information) groups all the comment information for the invoice, including the reference number and the message text. For ANSI X12, the INVCommentGroup occurs once per invoice translated. For EDIFACT, the INVCommentGroup occurs up to 10 times per invoice translated. The information within the INVCommentGroup is further segregated by record.

The INVCOMMENT1 record contains the reference number. The first comment record is mandatory and occurs once per invoice translated (once for each comment line).

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields:

BILLTOACCTCM1

DOCTYPCM1

INVNUMCM1

REFNUM Field

The REFNUM field can be directly mapped to the N902 element (for ANSI X12) or FTX06 (for EDIFACT).

For ANSI X12, the REFNUM field refers to the related vendor order number. You must map a constant to the Reference Number Qualifier (N901 element) and define a qualifying relationship with the Reference Number (N902 element) to indicate that the segment contains the reference number.

For EDIFACT, the REFNUM field refers to the invoice instruction. You must map a constant to the Text Subject Qualifier (FTX01 element) and define a qualifying relationship with the Free Text (FTX06) element to indicate that the FTX06 contains the reference number.

Setting the Reference Number Qualifier About this task

Use this procedure to set the Reference Number Qualifier.

- 1. Double-click one of the following elements to display the Element Properties dialog box:
 - **N901** Reference Number Qualifier in the N9 group (for ANSI X12)
 - FTX01 Text Subject Qualifier in the FTX segment (for EDIFACT)

- 2. Select the **Standard Rule** tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select one of the following constants to identify this iteration as containing the reference number. This is in addition to the primary order number.
 - 1V (for ANSI X12)
 - **INV** (for EDIFACT)
- 5. From the Qualifies list, select one of the following to set up a qualifying relationship:
 - 0127 REFERENCE NUMBER (for ANSI X12)
 - 4440 FREE TEXT (for EDIFACT)
- 6. Click OK.

The code is loaded in the Reference Number Qualifier element and the qualifying relationship between the elements is established.

Mapping the Reference Number

About this task

Use this procedure to map the reference number.

Procedure

- For ANSI X12: Link the application field **REFNUM** in the INVCOMMENT1 record to the **N902** element in the REF segment.
- For EDIFACT: Link the application field **REFNUM** in the INVCOMMENT1 record to the **FTX06** element in the REF segment.

INVCOMMENT2 Record

The INVCOMMENT2 record contains message text. The second comment record is mandatory and occurs up to ten times per invoice translated (once for each comment line).

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields:

BILLTOACCTCM2

DOCTYPCM2

INVNUMCM2

Mapping the MESSAGETEXT Field - ANSI X12 About this task

Use this procedure to map the MESSAGETEXT field.

Procedure

Link the application field **MESSAGETEXT** in the INVCOMMENT2 record to the **MSG01** element in the MSG segment (N9 group).

INVCOMMENTGroup: INVDETAIL Record for ANSI X12 and EDIFACT

About the INVDETAIL Record for ANSI X12 and EDIFACT

This section describes the actions necessary for you to map from each field in the INVDETAIL (detail) record. For ANSI X12, the INVCOMMENT2 record contains line item number and description, quantity shipped, quantity ordered, unit of measure, price, product code, and invoice terms. For TRADACOMS, the INVDETAIL (detail) record contains line item number and description, quantity shipped, unit of measure, price, product code, and VAT calculation information. The detail record is mandatory and occurs up to 200,000 times per invoice translated (once for each line item invoiced).

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields:

BILLTOACCDET

DOCTYPDET

INVNUMDET

Mapping the ITEMNUM Field

The ITEMNUM field can be mapped directly. However, you also need to calculate an incremental count of the number of line items, and you want to use that total value in the Number of Line Items Total field.

About this task

The ITEMNUM field can be directly mapped to the LIN01 Line Item Number element in the LIN segment (LIN group). However, you must first calculate an incremental count of the number of line items. Use that total value in the Transaction Totals element (CNT:202).

Use this procedure to count line items, generate a control total, and map the ITEMNUM field.

Procedure

- 1. Double-click the **IT101** element (for ANSI X12) or **LIN01** element (for EDIFACT). This is the field that you typically use to count the line items. The Element Properties dialog box is displayed.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Accumulator**.
- 4. Click **New** to display the Edit Accumulator Entry dialog box to create a new calculation for this element.
- 5. From the Primary Accumulator list, select **0**. Before any calculations are performed on an accumulator, its content is **0**. When you use an accumulator, the system adds a new accumulator to the bottom of this list.

Note: There is only one set of accumulators for each map. This means that the accumulator 0, whether it is used in the Primary Accumulator or Alternate Accum box, is the same accumulator with the same contents. If you assign calculations to accumulator 0 at the beginning of the map and then use

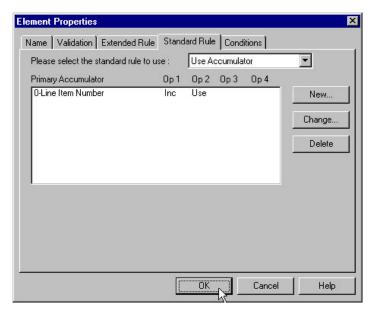
accumulator 0 again later in the map, the content of that accumulator is the result of the earlier calculation. Any additional calculations you assign to that accumulator are performed on the contents resulting from an earlier calculation.

- 6. In the Name box, type **Line Item Number**. This is a descriptive alias that enables you to differentiate what the accumulators you create are used for.
- 7. From the First list, select **Increment primary**. This is the first operation that the system performs. This specifies that the system increments the value in the accumulator by one for each iteration of the IT1 or LIN group.

Note: The First box is active only after you select a Primary Accumulator.

8. Click **OK** to add the accumulator.

The Standard Rule tab of the Element Properties dialog box should now look like this:



- 9. Click **OK** on the Element Properties dialog box to add the standard rule to the IT101 or LIN01 element.
- 10. Double-click one of the following elements:
 - CTT01 in the CTT segment (for ANSI X12)
 - CNT:202 in the CNT:2 segment (for EDIFACT)

This is the field that typically contains the total number of line items. The Element Properties dialog box is displayed.

- 11. Select the **Standard Rule** tab.
- 12. From the standard rule list, select Use Accumulator.
- **13**. Click **New** to display the Edit Accumulator Entry dialog box to create a new calculation for this element.
- **14**. From the Primary Accumulator list, select primary accumulator **0**. This accumulator currently contains the total number of line items.
- 15. From the First list, select **Use primary**. This specifies that the system loads the current value of the accumulator into the element. For ANSI, this is CTT01 (Number of Line Items Total). For EDIFACT, this is CNT:202 (Control Value).
- 16. Click **OK** to add the accumulator.
- 17. Click **OK** on the Element Properties dialog box to add the standard rule to the CTT01 (for ANSI X12) or CNT:202 (for EDIFACT) element.

The element now contains the total number of line items in the invoice.

- 18. After using an accumulator to calculate the incremental count of the number of line items, you can map the ITEMNUM field directly to the IT101 or LIN01 element. Link the application field ITEMNUM in the INVDETAIL record to one of the following:
 - IT101 element in the IT1 segment (for ANSI X12)
 - LIN01 element in the LIN segment in the LIN group (for EDIFACT)

QTYSHIP Field

For ANSI X12, the QTYSHIP field can be directly mapped to the IT102 Quantity Invoiced element in the IT1 segment (IT1 group). However, you also need to count the quantity invoiced for each line item and load the total quantity in the CTT02 (Hash Total) field.

For EDIFACT, you have already promoted two iterations of the QTY segment in the LIN group. You can map the QTYSHIP field directly to the QTY:502 Quantity element in the QTY:5 segment in LIN group. However, you must map a constant to the Quantity Qualifier (QTY:501 element) and define a qualifying relationship with the Quantity (QTY:502 element). If the Quantity Qualifier is 12 (despatch quantity), that iteration of the QTY:5 segment contains the quantity shipped.

You must also count the quantity shipped for each line item and load the total quantity in the CNT:302 (Hash Total) field. Additionally, you must map a constant to the Control Qualifier (CNT:301 element) and define a qualifying relationship with the Monetary Amount (CNT:302) element. If the Control Qualifier is 1 (total quantity), that iteration of the CNT:3 segment contains the total quantity.

Setting the Quantity Qualifier for EDIFACT About this task

Use this procedure to set the Quantity Qualifier for the QTY:5 segment.

Procedure

- 1. Double-click the QTY:501 element (Quantity Qualifier) in the QTY:5 segment in the LIN group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select **12** to identify this iteration of the QTY:5 segment as containing the quantity shipped.
- 5. From the Qualifies list, select **6060:2 QUANTITY** to set up a qualifying relationship with the Quantity element.
- 6. Click **OK**. The 12 code is loaded in the Quantity Qualifier element and the qualifying relationship between the QTY:501 and QTY:502 elements is established.

Counting the Quantity Invoiced About this task

Use this procedure to count the quantity invoiced and generate a hash total.

- 1. Double-click one of the following elements:
 - IT102 in the IT1 segment in the IT1 group (for ANSI X12)

• QTY:502 in the QTY:5 segment in the LIN group (for EDIFACT)

This is the field that you typically use to count the quantity invoiced or line items.

The Element Properties dialog box is displayed.

- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Accumulator**.
- 4. Click New to display the Edit Accumulator Entry dialog box.
- 5. From the Primary Accumulator list, select 1. Before any calculations are performed on an accumulator, its content is 0. When you use an accumulator, the system adds a new accumulator to the bottom of this list.
- 6. In the Name box type **Total Quantity**. This is a descriptive alias that enables you to differentiate what the accumulators you create are used for.
- 7. From the First list, select **Sum in primary**. This is the first operation that the system performs. This specifies that the system adds the numeric value (takes the positive or negative sign of the numbers into account) of the field to the contents of the Primary Accumulator for each iteration of the PO1 group.
- 8. Click **OK** to add the accumulator.
- 9. Click **OK** on the Element Properties dialog box to add the standard rule to the IT102 or QTY:502 element.
- 10. Double-click one of the following elements:
 - CTT02 in the CTT segment (for ANSI X12)
 - CNT:302 in the CNT:3 segment (for EDIFACT)

This is the field that typically contains the total quantity of the purchase order. The Element Properties dialog box is displayed.

- 11. Select the Standard Rule tab.
- 12. From the standard rule list, select **Use Accumulator**.
- 13. Click **New** to display the Edit Accumulator Entry dialog box.
- **14**. From the Primary Accumulator list, select primary accumulator **1**. This accumulator currently contains the total quantity.
- 15. From the First list, select **Use primary**. This specifies that the system loads the current value of the accumulator into the CTT02 (Hash Total—for ANSI X12) or CNT:302 (Control Value—for EDIFACT) element.
- 16. Click **OK** to add the accumulator.
- 17. Click **OK** on the Field Properties dialog box to add the standard rule to the element.

The element now contains the total quantity of the purchase order.

Setting the Control Qualifier for EDIFACT About this task

Use this procedure to set the Control Qualifier for the CNT:3 segment.

- 1. Double-click the **CNT:301** element (Control Qualifier) in the CNT:3 segment to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select 1 to identify this iteration of the CNT:3 segment as containing the total quantity.

- 5. From the Qualifies list, select the 6066:3 CONTROL VALUE to set up a qualifying relationship with the Control Value element.
- 6. Click OK.

The 1 code is loaded in the Control Qualifier element and the qualifying relationship between the CNT:301 and CNT:302 elements is established.

Mapping the QTYSHIP Field

After using an accumulator to calculate the quantity invoiced for each line item and generate a hash total, you can map the QTYSHIP field directly to the IT102 or QTY:502 element.

About this task

Use this procedure to map the QTYSHIP field.

Procedure

- For ANSI X12: Link the application field QTYSHIP in the INVDETAIL record to the IT102 element in the IT1 segment (IT1 group).
- For EDIFACT: Link the application field QTYSHIP in the INVDETAIL record to the QTY:502 element in the QTY:5 segment (LIN group).

QTYORD Field

For ANSI X12: You need to send only one QTY segment (in the IT1 group) to your trading partner (typically the QTY segment repeats up to 5 times). Therefore, after you change the max usage of the QTY segment to 1, the QTYORD (quantity ordered) field can be directly mapped to the QTY02 element. However, you must map a constant to the Quantity Qualifier (QTY01 element) and define a qualifying relationship with the Quantity (QTY02 element) to indicate that the QTY02 contains the quantity ordered.

For EDIFACT: You have already promoted two iterations of the QTY segment (in the LIN group). The QTYORD field can be directly mapped to the QTY:602 Quantity element in the QTY:6 segment (LIN group). However, you must map a constant to the Quantity Qualifier (QTY:601 element) and define a qualifying relationship with the Quantity (QTY:602 element). If the Quantity Qualifier is 21 (ordered quantity), that iteration of the QTY:6 segment contains the quantity ordered.

Changing the Max Use of the QTY Segment for ANSI X12 About this task

Use this procedure to make the QTY a non-repeating segment.

Procedure

- 1. Right-click the QTY segment (in the IT1 group) and select Properties.
- 2. Select the **Looping** tab.
- 3. In the Max Usage box, type 1 to make the QTY a non-repeating segment. This box is currently set to 5.
- 4. Click **OK** to accept the change to the QTY segment.

Setting the Quantity Qualifier

You already defined all the constants that you are using in this map, so now you can map the appropriate constant to the Quantity Qualifier element.

About this task

Use this procedure to set the Quantity Qualifier for the REF segment.

Procedure

- 1. Double-click one of the following elements:
 - QTY01 in the IT1 group (for ANSI X12)
 - QTY:601 in the LIN group (for EDIFACT)

This displays the Element Properties dialog box.

- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, do one of the following:
 - For ANSI X12: Select the **OR** constant to identify the Quantity segment as containing the quantity ordered
 - For EDIFACT: Select 21 to identify this iteration of the QTY:6 segment as containing the quantity ordered
- 5. From the Qualifies list, select one of the following options to set up a qualifying relationship with the Quantity element.
 - 0380 QUANTITY (for ANSI X12)
 - 6060:3 QUANTITY (for EDIFACT)
- 6. Click **OK** and the code is loaded in the Quantity Qualifier element.

Mapping the QTYORD Field About this task

Use this procedure to map the QTYORD field.

Procedure

- For ANSI X12: Link the application field QTYORD in the INVDETAIL record to the QTY02 element in the QTY segment (IT1 group).
- For EDIFACT: Link the application field QTYORD in the INVDETAIL record to the QTY:602 element in the QTY:6 segment (LIN group).

UNITPRICE Field

For ANSI X12: The UNITPRICE field can be directly mapped to the IT104 Unit Price element in the IT1 segment (IT1 group). However, you also need to multiply the quantity invoiced for each line item by the unit price to obtain the extended price. You also need to generate a running total of the extended price and load the final total in the TDS01 (Total Invoice Amount) element.

For EDIFACT: You can map the UNITPRICE field directly to the MOA:1302 Monetary Amount element in the MOA:13 segment (MOA:2 group, LIN group). However, you must map a constant to the Monetary Amount Type Qualifier (MOA:1301 element) and define a qualifying relationship with the Monetary Amount (MOA:1302) element. If the Monetary Amount Type Qualifier is 146 (unit price), that iteration of the MOA:13 segment contains the unit price.

You must multiply the quantity invoiced for each line item by the unit price to obtain the extended price. You must also generate a running total of the extended price and load the final total in the MOA:1402 (Total Invoice Amount) element.

Setting the Monetary Amount Type Qualifier for EDIFACT About this task

Use this procedure to set the Monetary Amount Type Qualifier for the MOA:13 segment.

Procedure

- 1. Double-click the MOA:1301 element in the MOA:2 group to display the Element Properties dialog box
- Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select 146 to identify this iteration of the MOA:13 segment as containing the unit price.
- 5. From the Qualifies list, select the 5004:2 MONETARY AMOUNT to set up a qualifying relationship with the Quantity element.
- 6. Click OK.

The 146 code is loaded in the Monetary Amount Type Qualifier element and the qualifying relationship between the MOA:1301 and MOA:1302 elements is established.

Obtaining the Extended Price About this task

Use this procedure to multiply the quantity invoiced for each line item by the unit price to obtain the extended price.

Procedure

- 1. Double-click one of the following elements:
 - IT102 element in the IT1 group (for ANSI X12)
 - QTY:502 in the LIN group (for EDIFACT)

This is the field that you typically use to count the quantity invoiced. The Element Properties dialog box is displayed.

2. Select the Standard Rule tab.

Note: The Standard Rule list already shows that Use Accumulator is selected.

- 3. Click **New** to display the Edit Accumulator Entry dialog box.
- 4. From the Primary Accumulator list, select 2. This number is a name by which the accumulator is referred. Before any calculations are performed on an accumulator, its content is 0. When you use an accumulator, the system adds a new accumulator to the bottom of this list.
- 5. In the Name box, type Extended Price. This is a descriptive alias that enables you to differentiate what the accumulators you create are used for.
- 6. From the First list, select Load primary. This is the first operation that the system performs. This specifies that the system loads the contents of the element group into the Primary Accumulator for each iteration of the IT1 or QTY:5 group.
- 7. Click **OK** to add the accumulator.
- 8. Click **OK** on the Element Properties dialog box to add the standard rule to the IT102 or QTY:502 element.
- 9. Double-click one of the following elements:
 - IT104 element in the IT1 group (for ANSI X12)

• MOA:1302 in the LIN group (for EDIFACT)

This is the field that contains the unit price for each line item. The Element Properties dialog box is displayed.

- 10. Select the Standard Rule tab.
- 11. From the standard rule list, select Use Accumulator.
- 12. Click New to display the Edit Accumulator Entry dialog box.
- 13. From the list, select primary accumulator 2.
- 14. From the First list, select Multiply with primary. This is the first operation that the system performs. This specifies that the system multiplies the value of the element with the contents of the primary accumulator, and stores the result in the primary accumulator for each iteration of the group.
- 15. Click **OK** to add the accumulator.
- 16. Click **OK** on the Element Properties dialog box to add the standard rule to the element.

Tip: If there is an extended price element in your EDI file, load the total from the extended price calculation into that element. To do this, use an accumulator on that extended price element that specifies "Use primary" for accumulator 2.

Generating a Running Total About this task

Use this procedure to generate a running total of the extended price.

Procedure

- 1. Double-click one of the following elements:
 - IT104 in the IT1 group (for ANSI X12)
 - MOA:1302 in the LIN group (for EDIFACT)

This is the field that contains the unit price for each line item.

The Element Properties dialog box is displayed.

2. Select the Standard Rule tab.

Note: The Standard Rule list already shows that Use Accumulator is selected.

- 3. Click **New** to display the Edit Accumulator Entry dialog box.
- 4. From the Primary Accumulator list, select primary accumulator 3.
- 5. In the Name box, type **Running Total**.
- 6. From the First list, select **Add primary to alternate**. This specifies that the system adds the contents of the primary accumulator to the contents of the alternate accumulator, and stores the result in the primary accumulator for each iteration of the group.
- 7. From the Alternate Accum list, select 2. This operation specifies that the system add the value of accumulator 2 (which contains the extended price for a line item) to the value of accumulator 3. The system stores the sum in accumulator 3, which therefore contains a running total of the extended price with each iteration of the group.
- 8. Click **OK** to add the accumulator.
- 9. Click **OK** to add the standard rule to the element.

Loading the Running Total About this task

Use this procedure to load the running total of the extended price into the TDS01 (Total Invoice Amount) element.

Procedure

- 1. Double-click one of the following elements:
 - TDS01 in the TDS segment (for ANSI X12)
 - MOA:1402 in the summary section of the map (for EDIFACT)

The Element Properties dialog box is displayed.

- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Accumulator**.
- 4. Click **New** to display the Edit Accumulator Entry dialog box.
- 5. From the list, select primary accumulator 3.
- 6. From the First list, select **Use primary**. This specifies that the system loads the contents of the primary accumulator into the element.
- 7. Click **OK** to add the accumulator.
- 8. Click **OK** on the Element Properties dialog box to add the standard rule to the element.

Mapping the UNITPRICE Field

After using accumulators to multiply the quantity invoiced for each line item by the unit price to obtain the extended price and generate a running total of the extended price, map the UNITPRICE field directly to the element.

About this task

Use this procedure to map the UNITPRICE field.

Procedure

- For ANSI X12: Link the application field UNITPRICE in the INVDETAIL record to the IT104 element in the IT1 segment (IT1 group).
- For EDIFACT: Link the application field **UNITPRICE** in the INVDETAIL record to the MOA:1302 element in the MOA:13 segment (in the MOA:2 group in the LIN group).

Mapping the UOM Field

About this task

Use this procedure to map the UOM field.

- For ANSI X12: Link the application field **UOM** in the INVDETAIL record to the IT103 element in the IT1 segment (IT1 group).
- For EDIFACT: You have already mapped the quantity shipped to the QTY:5 segment and the quantity ordered to the QTY:6 segment. Now, you must map the unit of measure to both segments.
 - 1. Link the application field **UOM** in the INVDETAIL record to the **QTY:503** element in the QTY:5 segment (LIN group).

2. Link the application field **UOM** in the INVDETAIL record to the **QTY:603** element in the QTY:6 segment (LIN group).

Customer Product Code and Your UPC Code

For ANSI X12: You can map the CUSTPROCODE (customer product code) and UPCCODE (your UPC code) fields directly to two Product/Service ID elements in the IT1 segment.

For EDIFACT: You can map the CUSTPROCODE (customer product code) field directly to the LIN03 element in the LIN segment in the LIN group. You can also map the UPCCODE (your UPC code) field directly to the PIA:202 element in the PIA:2 segment (in the LIN group).

However, you must map a constant to each element and establish a qualifying relationship. For ANSI, these elements are called the Product/Service ID elements. For EDIFACT, these elements are called the Item Number Type, Coded elements. This enables you to specify which element contains your partner's product code, and which contains your UPC code.

Setting the Elements About this task

Use this procedure to set the elements.

Procedure

- 1. For the CUSTPROCODE, double-click one of the following elements:
 - IT106 in the IT1 group (for ANSI X12)
 - LIN04 in the LIN group (for EDIFACT)

This displays the Element Properties dialog box.

- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select the **BP** constant (buyer's part number), to identify the element as containing the customer product code.
- 5. From the Qualifies list, select one of the following to set up a qualifying relationship with the Product/Service ID element:
 - 0234 PRODUCT/SERVICE ID (for ANSI X12)
 - 7140 ITEM NUMBER (for EDIFACT)
- 6. Click **OK** and the BP code is loaded in the element and the qualifying relationship between the elements is established.
- 7. For your UPCCODE, double-click one of the following:
 - For ANSI X12: **IT108** element (Product/Service ID Qualifier) in the IT1 segment in the IT1 group
 - For EDIFACT: PIA:203 element (Item Number Type, Coded) in the PIA:2 segment in the LIN group

This displays the Element Properties dialog box.

- 8. Select the Standard Rule tab.
- 9. From the standard rule list, select Use Constant.
- 10. From the Constants list, select one of the following:
 - For ANSI X12: **UI** constant (UPC identification), to identify the IT109 element as containing the UPC code

- For EDIFACT: UP constant (UPC Code) to identify the PIA:202 element as containing your UPC Code
- 11. From the Qualifies list, select one of the following to set up a qualifying relationship with the element:
 - 0234:2 PRODUCT/SERVICE ID (for ANSI X12)
 - 7140:7 ITEM NUMBER (for EDIFACT)
- 12. Click OK.

The code is loaded in the element and the qualifying relationship between the elements is established.

Setting the Product ID Function Qualifier for EDIFACT About this task

Use this procedure to set a constant for the Product ID Function Qualifier element.

Procedure

- 1. Double-click the PIA:201 element in the LIN group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the second 1 constant (additional information) to identify the PIA:202 element as containing additional product information.
- 5. From the Qualifies list, select 7140:7 ITEM NUMBER to set up a qualifying relationship with the Item Number element.
- 6. Click OK. The 1 code is loaded in the Product ID Function Qualifier element and the qualifying relationship between the PIA:201 and PIA:202 elements is established.

Mapping the CUSTPROCODE/UPCCODE Fields

You need to map information from a cross-reference table for the Petzone partner profile to translate your partner's code for a purchased item to your code for the same item.

About this task

Your partner uses a customer product code (CUSTPROCODE), and your company uses a UPC code (UPCCODE). After you and your partner determine what the equivalent customer product code is for each UPC code, you can create a cross-reference table in the Partner Editor and use that information in your map. For this tutorial, use the cross-reference table included in the tutorial data. See Cross-reference Tables for more information.

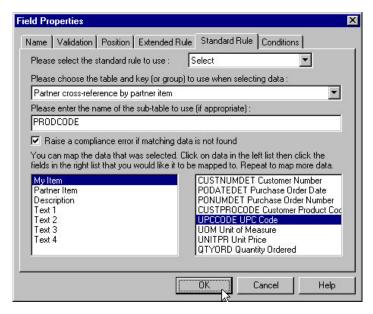
You need to use a standard rule to map the translated value from the CUSTPROCODE field to the UPCCODE field.

Use this procedure to map the customer's item code and then translate your partner's customer product code to your UPC code for each item your partner ordered.

- 1. If the Linking function is not currently active, click **Link**.
- 2. Do one of the following:

- For ANSI X12: Link the **PO107** element in the PO1 segment (in the PO1 group) to the application field **CUSTPROCODE** in the PODETAIL record.
- For EDIFACT: Link the **LIN03** element in the LIN segment (in the LIN group) to the application field **CUSTPROCODE** in the PODETAIL record.
- For TRADACOMS: Link the **OLD:2 CPRO CPR1** element (Customer's Item Code) to the application field **CUSTPROCODE** in the PODETAIL record.
- 3. Double-click the **CUSTRPOCODE** field (in the PODETAIL record). The Field Properties dialog box is displayed.
- 4. Select the Standard Rule tab.
- 5. From the Standard Rule list, choose **Select**.
- 6. From the Table and Key box, select **Partner cross-reference by partner item**. This indicates that you are using a cross-reference table and translating by your item.
- 7. In the Sub Table box, type **PRODCODE**. This is the name of the cross-reference table.
- 8. Select the check box to signal the system that if this translation fails, you want the system to generate an error.
- 9. From the Map From list on the left, select **My Item**. This is the field from which the contents are mapped.
- 10. From the Map To list on the right, select **UPCCODE**.

The Standard Rule tab of the Field Properties dialog box should look similar to the following. (This is an ANSI X12 example; some details may be different for EDIFACT and TRADACOMS.)



11. Click **OK** to map from the cross-reference table.

Item Description

For ANSI X12: You need to send only one PID:2 segment (in the PID subgroup in the IT1 group) to your trading partner (typically the PID subgroup repeats up to 1,000 times). Therefore, after you change the max usage of the PID subgroup to 1, the ITEMDESC (item description) field can be directly mapped to the PID:205 element. However, you must map a constant to the Item Description Type (PID:201 element) and define a qualifying relationship with the Description (PID:205 element) to indicate that the PID2:05 contains a free-form item description.

Complete the following tasks:

- Changing the Max Use of the PID Subgroup
- Setting the Item Description Type
- · Mapping the ITEMDESC Field
- Changing the Max Use of the ITD:2 Segment
- Mapping the TERMS Fields

For EDIFACT: Since you have already promoted one instance of the IMD segment in the LIN group, you can map the ITEMDESC (item description) field directly to the IMD:306 element. To map the item description, see Mapping the ITEMDESC Field.

Changing the Max Use of the PID Subgroup

You have determined that you only send your partner one PID:2 segment (in the PID subgroup in the IT1 group), so you must change the maximum usage allowed for that subgroup from 1,000 to 1.

About this task

Use this procedure to change the maximum usage of the PID subgroup.

Procedure

- 1. Right-click the PID subgroup (in the IT1 group) and select **Properties**.
- 2. Select the **Looping** tab.
- 3. In the Maximum Usage box, type 1 to make the PID subgroup a non-repeating group. This box is currently set to 1,000.
- 4. Click **OK** to accept the change to the PID subgroup.

Setting the Item Description Type About this task

Use this procedure to set the Item Description Type (in the PID:2 segment in the PID subgroup in the IT1 group).

Procedure

- 1. Double-click the PID:201 element in the IT1 group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select Use Constant.
- 4. From the Constants list, select the F constant (free-form), to identify the PID:201 element as containing the free-form item description.
- 5. From the Qualifies list, select 0352 DESCRIPTION, to set up a qualifying relationship with the Description element.
- 6. Click **OK** and the F code is loaded in the Item Description Type element and the qualifying relationship between the PID:201 and PID:205 elements is established.

Mapping the ITEMDESC Field About this task

Use this procedure to map the ITEMDESC field.

Procedure

- For ANSI X12: Link the application field **ITEMDESC** in the INVDETAIL record to the **PID:205** element in the PID:2 segment (PID subgroup, IT1 group).
- For EDIFACT: Link the application field **ITEMDESC** in the INVDETAIL record to the **IMD:306** element in the IMD:3 segment (LIN group).

Changing the Max Use of the ITD:2 Segment About this task

Use this procedure to make the ITD:2 a non-repeating segment.

Procedure

- 1. Right-click the ITD:2 segment (in the IT1 group) and select Properties.
- 2. Select the **Looping** tab.
- 3. In the Max Usage field, type 1 to make the ITD:2 a non-repeating segment. This field is currently set to 2.
- 4. Click **OK** to accept the change to the ITD:2 segment.

Mapping the TERMS Fields About this task

Use this procedure to map both the TERMSTYPE field and the TERMSDISP field.

Procedure

- 1. Link the application field **TERMSTYPE** in the INVDETAIL record to the **ITD:201** element in the ITD:2 segment (IT1 group).
- 2. Link the application field **TERMSDISP** in the INVDETAIL record to the **ITD:203** element in the ITD:2 segment (IT1 group).

INVCommentGroup: INVCOMMENT Record for TRADACOMS

INVCOMMENT Record

The INVCommentGroup (comment information) groups all the comment information for the invoice, including the message text. The INVCommentGroup is mandatory and occurs up to ten times per invoice translated.

The INVCOMMENT (comment record) record contains the message text. The first comment record is mandatory and occurs once per invoice translated (once for each comment line).

The following fields are part of the application file format key, but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields:

BILLTOACCTCMT

DOCTYPCMT

INVNUMCMT

Mapping the MESSAGETEXT Fields

The message text (comment) information is contained in the DNA segment (Data Narrative). The MESSAGETEXT1, MESSAGETEXT2, MESSAGETEXT3, and MESSAGETEXT4 fields can all be directly mapped to elements in the DNA segment.

About this task

Use this procedure to map the Message Text fields.

Procedure

1. If the Linking function is not currently active, click **Link**.

Note: The application fields you are linking from are all in the INVCOMMENT record.

- Click the application field MESSAGETEXT1 and click the DNA GNAR GNA0 element.
- Click the application field MESSAGETEXT2 and click the DNA GNAR GNA1 element.
- 4. Click the application field MESSAGETEXT3 and click the DNA GNAR GNA2 element.
- Click the application field MESSAGETEXT4 and click the DNA GNAR GNA3 element.

INVCommentGroup: INVDETAIL Record for TRADACOMS

About the INVDETAIL Record for TRADACOMS

The following topics describe the actions necessary for you to map from each field in the INVDETAIL (detail) record. The INVDETAIL (detail) record contains line item number and description, quantity shipped, unit of measure, price, product code, and VAT calculation information. The detail record is mandatory and occurs up to 200,000 times per invoice translated (once for each line item invoiced).

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields:

BILLTOACCDET

DOCTYPDET

INVNUMDET

Mapping the ITEMNUM Field

The ITEMNUM field can be directly mapped to the ILD:2 SEQB element (2nd Level Sequence No.), by using the Link function, because the number of the line item is the second level sequence number. The second level of the invoice is the line item details.

About this task

Use this procedure to map the second level sequence number (item number).

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. Click the application field **ITEMNUM** in the INVDETAIL record.
- 3. Click the ILD:2 SEQB element (2nd Level Sequence No.). A line is displayed, visually illustrating the link between the ITEMNUM field and the ILD:2 SEQB element.

QTYSHIP Field

On the EDI side of the map, the quantity shipped information is contained in the ILD:2 QTYI QTY0 element (Number of Order Units Invoiced). The ILD:2 QTYI QTY0 element is defined as a string-type element in the standard. However, you have determined that you will send your partner a number-type element in N0 format (formatted with an implicit decimal point and no decimal places).

Therefore, you will need to change the properties of the ILD:2 QTYI QTY0 element to reflect the type and the format that you have determined that your partner will send you. Then, you can map the quantity shipped directly from the QTYSHIP field to the ILD:2 QTYI QTY0 element.

Changing the Properties of the ILD:2 QTY1 QTY0 Element About this task

Use this procedure to change the type and format of the ILD:2 QTY1 QTY0 element.

Procedure

- 1. Double-click the ILD:2 QTY1 QTY0 element (Number of Order Units Invoiced) to display the Element Properties dialog box.
- 2. Select the Validation tab.
- 3. From the data-type list, select **Number** to indicate that this is a number element. The system prompts you with a message that changing the field's data type invalidates its format. Click Yes to acknowledge this message and proceed.
- 4. From the Format list, select N0 to indicate that this element will be formatted with an implicit decimal point and no decimal place.

Mapping the Number of Order Units Invoiced

After changing the type and format of the ILD:2 QTYI QTY0 element, you can map the QTYSHIP field directly to it.

About this task

Use this procedure to map the quantity shipped.

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. Click the application field **QTYSHIP** in the INVDETAIL record.
- 3. Click the ILD:2 QTY1 QTY0 element (Number of Order Units Invoiced).

Mapping the UNITPRICE Field About this task

Use this procedure to map the cost price (excluding VAT).

Procedure

- 1. If the linking function is not currently active, click **Link**.
- 2. Click the application field **UNITPRICE** in the INVDETAIL record.
- 3. Click the ILD:2 AUCT AUC0 element (Cost Price (Excluding VAT)).

Mapping the UOM Field

You mapped the quantity shipped to the QTYI composite and the unit price to the AUCT composite. Therefore, you want to map the unit of measure to both composites.

About this task

Use this procedure to map the unit of measure.

Procedure

- 1. If the linking function is not currently active, click Link.
- 2. Click the application field **UOM** in the INVDETAIL record.
- 3. Click the ILD:2 QTY1 CD04:2 element (Measure Indicator).
- 4. Click the application field **UOM** in the INVDETAIL record again.
- 5. Click the ILD:2 AUCT CD04:3 element (Measure Indicator).

Mapping the CUSTPROCODE Field

About this task

Use this procedure to map the customer's item code (customer product code).

Procedure

- 1. If the linking function is not currently active, click Link.
- 2. Click the application field **CUSTPROCODE** in the INVDETAIL record.
- 3. Click the ILD:2 CPRO CPR1 element (Customer's Item Code).

Mapping the UPCCODE Field

About this task

Use this procedure to map the supplier's code for the traded unit (UPC code).

Procedure

- 1. If the linking function is not currently active, click **Link**.
- 2. Click the application field **UPCCODE** in the INVDETAIL record.
- 3. Click the ILD:2 SPRO CPR1 element (Supplier's Code for the Traded Unit).

Mapping the ITEMDESC Field

About this task

Use this procedure to map the traded unit description (item description).

- 1. If the linking function is not currently active, click Link.
- 2. Click the application field **ITEMDESC** in the INVDETAIL record.
- 3. Click the ILD:2 TDES TDE0 element (Traded Unit Descr. Line 1).

VATCODE Field

For this map, you need to map the appropriate VAT rate based on the code in the VATCODE field from a lookup table, to look up data that you will map (via standard rule) to the TEMPVATRATE field. If you need to use tables, you must decide whether to create a code table in the Application Integration subsystem that can only be used with this map, or to add the table to either the partner relationship or the internal system partner in Partner Editor. You will set up the table you use in this tutorial under the internal system partner (Internal System User) so it can be used globally.

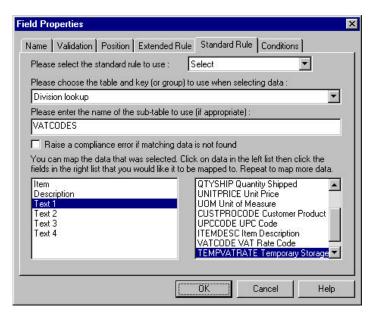
In this tutorial, you need to extract information from a lookup table to be inserted into the outbound data. A lookup table is used when you want to supplement data before it is sent to your partner.

Note: You do not need to create this lookup table (INVATCO.LKP). It is included with the tutorial data that is provided when you install Sterling Gentran:Server.

Mapping the VAT Rate About this task

Use this procedure to look up the appropriate VAT rate for the specified VAT code.

- 1. Double-click the **VATCODE** field (in the INVDETAIL record). The Field Properties dialog box is displayed.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, choose **Select**.
- 4. From the Table list, select **Division lookup**. This indicates that the key is the partner lookup table name for the Internal System User partner and enables you to map from any field on the Lookup Entry dialog box of the Partner Editor.
- 5. In the sub-table box, type **VATCODES**. This is the name of the lookup table you imported.
- 6. From the Map From list on the left, select **Text 1**. This is the box on the Lookup Entry dialog box of the Partner Editor from which the contents will be mapped.
- 7. From the Map To list on the right, select **TEMPVATRATE**. This is the box to which the information from the Partner Editor will be mapped.
 - The Standard Rule tab of the Field Properties dialog box should now look like this:



8. Click **OK** to map from the lookup table to the TEMPVATRATE field.

Mapping the VAT Rate Category Code About this task

Use this procedure to map the VAT rate category code (VAT code).

Procedure

- 1. If the Linking function is not currently active, click **Link**.
- 2. Click the application field **VATCODE** in the INVDETAIL record.
- 3. Click the ILD:2 CD12 element (VAT Rate Category Code).

Mapping the TEMPVATRATE Field

You already used a division lookup table and a standard rule on the VATCODE field to map the appropriate VAT rate (based on the code in the VATCODE field) from the VATCODES division lookup table to the TEMPVATRATE field. To map from the partner database to the TEMPVATRATE field, the target field (TEMPVATRATE) needed to be a string-type field. However, in order to map the TEMPVATRATE field to the ILD:2 VATP element (VAT rate percentage), you need to convert the TEMPVATRATE field to a number-type. You will use an extended rule to perform the conversion and the mapping.

About this task

Use this procedure to create an extended rule to convert the TEMPVATRATE field from a string-type to a number-type field and map the TEMPVATRATE field to the ILD:2 VATP element (VAT rate percentage).

- 1. Double-click the **ILD:2 VATP** element (VAT rate percentage) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule list, type the following:
 #VATP = ATON(\$INVDETAIL.#TEMPVATRATE);

ATON is a numerical function that converts strings into real numbers, which enables you to convert a string type field to a number-type field. The #VATP = maps the resulting real number to the ILD:2 VATP element. The system executes this rule when it processes the ILD:2 VATP element.

4. Click **Compile** to validate the syntax of the extended rule.

Note: The Compile function will compile the rule interactively, and allow you to correct any errors that are generated. Any errors or warnings generated in the compilation process will be displayed in the Compile Errors list.

5. Click **OK** to exit the Element Properties dialog box.

TEMPLEXC Field

Calculating the Extended Price

You need to calculate the extended price (quantity shipped multiplied by unit cost) for each line item and load that extended price into the TEMPLEXC field. Then, the TEMPLEXC field can be directly mapped to the ILD:2 LEXC element (Extended Line Cost (Excluding VAT)).

About this task

Use this procedure to multiply the quantity shipped for each line item by the unit price to obtain the extended price.

Procedure

- 1. Double-click the **QTYSHIP** field (in the INVDETAIL segment). The Field Properties dialog box is displayed.
- 2. Select the Standard Rule tab.
- From the standard rule list, choose Use Accumulator.
- 4. Click New to display the Edit Accumulator Entry dialog box.
- 5. From the Primary Accumulator drop-down list, select **0**. This number is a name by which the accumulator will be referred. Before any calculations are performed on an accumulator, its content is **0**. When you use an accumulator, the system adds a new accumulator to the bottom of this drop-down list.
- 6. In the Name box, type **Extended Price**. This is a descriptive alias that enables you to differentiate what the accumulators you create are used for.
- 7. From the First list, select **Load primary**. This is the first operation that the system performs. This specifies that the system loads the contents of the field into the Primary Accumulator for each iteration of the INVDETAIL segment.

Note: The First box is active only after you select a Primary Accumulator.

- 8. Click **OK** to add the accumulator.
- Click OK on the Field Properties dialog box to add the standard rule to the QTYSHIP field.
- Double-click the UNITPRICE field (in the INVDETAIL segment).
 The Field Properties dialog box is displayed.
- 11. Select the **Standard Rule** tab.
- 12. From the standard rule list, choose Use Accumulator.
- 13. Click New to display the Edit Accumulator Entry dialog box.
- 14. From the list, select primary accumulator 0.

15. From the First list, select **Multiply with primary**. This is the first operation that the system performs. This specifies that the system multiplies the value of the UNITPRICE field with the contents of the primary accumulator, and stores the result in the primary accumulator for each iteration of the INVDETAIL segment.

Note: The First box is active only after you select a Primary Accumulator.

- 16. Click **OK** to add the accumulator.
- 17. Click **OK** on the Field Properties dialog box to add the standard rule to the UNITPRICE field.
- **18**. Double-click the **TEMPLEXC** field (in the INVDETAIL segment). The Field Properties dialog box is displayed.
- 19. Select the Standard Rule tab.
- 20. From the standard rule list, choose **Use Accumulator**.
- 21. Click **New** to display the Edit Accumulator Entry dialog box.
- 22. From the list, select primary accumulator 0.
- 23. From the First list, select **Use primary**. This specifies that the system loads the contents of the primary accumulator into the TEMPLEXC field.
- 24. Click OK to add the accumulator.
- 25. Click **OK** on the Field Properties dialog box to add the standard rule to the TEMPLEXC field.

This loads the extended price for the current line item into the TEMPLEXC field.

Mapping the Extended Line Cost (Excluding VAT) About this task

Use this procedure to map the extended line cost (excluding VAT).

Procedure

- 1. If the Linking function is not currently active, click **Link**.
- 2. Click the application field **TEMPLEXC** in the INVDETAIL record.
- 3. Click the ILD:2LEXC element (Extended Line Cost (Excluding VAT)).

INVCommentGroup: TEMPVATSTL Record for TRADACOMS

The TEMPVATSTL Record

The following topics describe the actions necessary for you to map from each field in the TEMPVATSTL record (temporary storage for VAT subtotals). The TEMPVATSTL record contains temporary storage fields to enable VAT subtotal calculations. The temporary storage record is conditional and occurs up to 20 times per invoice translated (once for each possible VAT code subtotal).

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields.

BILLTOACCTS

DOCTYPS

Mapping the SEQA Field

The SEQA field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to produce a summary of all the VAT rates. The SEQA field can be directly mapped to the STL SEQA:7 element (First Level Sequence Number), by using the Link function.

About this task

Use this procedure to map the first level sequence number (SEQA).

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. Click the application field **SEQA** in the TEMPVATSTL record.
- 3. Click the STL SEQA:7 element (First Level Sequence Number).

Mapping the VATRATE Field

The VATRATE field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to produce a summary of all the VAT rates. The VATRATE field can be directly mapped to the STL VATP:2 element (VAT Rate Percentage), by using the Link function.

About this task

Use this procedure to map the VAT rate percentage (VATRATE).

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. Click the application field **VATRATE** in the TEMPVATSTL record.
- 3. Click the STL VATP:2 element (VAT Rate Percentage).

Mapping the VATRATECODE Field

The VATRATECODE field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to produce a summary of all the VAT rates. The VATRATECODE field can be directly mapped to the STL CD12:2 element (VAT Rate Category Code), by using the Link function.

About this task

Use this procedure to map the VAT rate category code (VATRATECODE).

Procedure

- 1. If the Linking function is not currently active, click **Link**.
- 2. Click the application field **VATRATECODE** in the TEMPVATSTL record.
- 3. Click the STL CD12:2 element (VAT Rate Category Code).

Mapping the NUMLINES Field

The NUMLINES field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to

produce a summary of all the VAT rates. The NUMLINES field can be directly mapped to the STL NRIL element (Number of Line Items), by using the Link function.

About this task

Use this procedure to map the number of line items (NUMLINES).

Procedure

- 1. If the Linking function is not currently active, click Link.
- 2. Click the application field **NUMLINES** in the TEMPVATSTL record.
- 3. Click the STL NRIL element (Number of Line Items).

Mapping the LVLA Field

The LVLA field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to produce a summary of all the VAT rates. You will use the Link function to directly map the LVLA field to three different elements in the EDI file: the STL LVLA element (Lines Sub-Total (Excluding VAT)), the STL EVLA element (Extended Sub-Total Amount (Excluding VAT)), and the STL ASDA element (Extended Sub-Total Amount (After Settlement Discount Has Been Approved)).

About this task

Use this procedure to map the line subtotal amount (LVLA).

Procedure

1. If the Linking function is not currently active, click **Link**.

Note: The application fields you are linking from are all in the TEMPVATSTL record.

- 2. Click the application field LVLA and click the STL LVLA element.
- 3. Click the application field LVLA and click the STL EVLA element.
- 4. Click the application field LVLA and click the STL ASDA element.

Mapping the VATA Field

The VATA field will be used in an extended rule later in this tutorial, to calculate the subtotals for the various VAT tax rates used in this invoice, and to produce a summary of all the VAT rates. The VATA field can be directly mapped to the STL VATA element (VAT Amount Payable), by using the Link function.

About this task

Use this procedure to map the VAT Amount Payable (VATA).

- 1. If the Linking function is not currently active, click **Link**.
- 2. Click the application field **VATA** in the TEMPVATSTL record.
- 3. Click the **STL VATA** element (VAT Amount Payable).

INVCommentGroup: INVSUMMARY Record

Mapping Totals

The following topics describe the actions necessary for you to map from each field in the INVSUMMARY (summary) record. The INVSUMMARY record contains the total invoice amount and the total transaction amount. The summary record is mandatory and occurs once per invoice translated.

About this task

The following fields are part of the application file format key but do not contain data that the system needs to generate the invoice. Therefore, you do not need to map these fields.

- BILLTOACCTSUM
- DOCTYPSUM
- INVNUMSUM

TOTALAMOUNT Field

Mapping the TOTALAMOUNT Field

For the system to create output segments, there must be at least one explicit link to an element in that segment, and data to support that link. Therefore, even though you are mapping the total amount with accumulators or extended rules, you must add an explicit link with an application field that contains data.

About this task

Use this procedure to map the TOTALAMOUNT Field.

Procedure

- For ANSI X12: Link the application field TOTALAMOUNT in the INVSUMMARY record to the TDS01 element in the TDS segment.
- For EDIFACT: You must also map a constant to the Monetary Amount Type Qualifier (MOA:1401 element) and define a qualifying relationship with the Monetary Amount (MOA:1402) element. If the Monetary Amount Type Qualifier is 128 (total amount), that iteration of the MOA:14 segment contains the total invoice amount. Complete the following tasks:
 - 1. Setting the Monetary Amount Type Qualifier
 - 2. Mapping the Total Monetary Value Summary
- For TRADACOMS: Link the application field TOTALAMOUNT in the INVSUMMARY record to the TLR TPSI element (Total Payable Inc. Settlement).

Setting the Monetary Amount Type Qualifier

You must map a constant to the Monetary Amount Type Qualifier (MOA:1401 element) and define a qualifying relationship with the Monetary Amount (MOA:1402) element.

About this task

You have already defined the constants that you will use for this map. Now map the appropriate constant to the Monetary Amount Type Qualifier element.

Use this procedure to set the Monetary Amount Type Qualifier for the MOA:14 segment.

Procedure

- 1. Double-click the MOA:1401 element MOA:2 group to display the Element Properties dialog box.
- 2. Select the Standard Rule tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select 128 to identify this iteration of the MOA:14 segment as containing the total invoice amount.
- 5. From the Qualifies list, select 5004:3 MONETARY AMOUNT to set up a qualifying relationship with the Quantity element.
- 6. Click OK. The 128 code is loaded in the Monetary Amount Type Qualifier element and the qualifying relationship between the MOA:1401 and MOA:1402 elements is established.

Mapping the Total Monetary Value Summary About this task

Use this procedure to map the total monetary value summary.

Procedure

Link the application field TOTALAMOUNT in the INVSUMMARY record to the MOA:1402 element in the MOA:14 segment (in the MOA:2 group).

TRANSTOTAL Field

Mapping the TRANSTOTAL Field - ANSI X12 and EDIFACT

For the system to create output segments, there must be at least one explicit link to an element in that segment, and data to support that link. Therefore, even though you are mapping the transaction total with accumulators, you must add an explicit link with an application field that contains data.

About this task

Use this procedure to map the TRANSTOTAL field.

Procedure

- 1. For ANSI X12; Link the application field TRANSTOTAL in the INVSUMMARY record to the CTT01 element in the CTT segment.
- 2. For EDIFACT: Additionally, you must map a constant to the Control Qualifier (CNT:201 element) and define a qualifying relationship with the Monetary Amount (CNT:202) element. If the Control Qualifier is 2 (number of line items in message), that iteration of the CNT:2 segment contains the total number of line items. Complete the following tasks:
 - a. Setting the Control Qualifier
 - b. Mapping the Total Transaction Amount

Setting the Control Qualifier

You must map a constant to the Control Qualifier (CNT:201 element) and define a qualifying relationship with the Control Value (CNT:202) element.

About this task

You have already defined all the constants that you will use for this map. Now map the appropriate constant to the Control Qualifier element.

Use this procedure to set the Control Qualifier for the CNT:2 segment.

Procedure

- 1. Double-click the CNT:201 element (Control Qualifier) in the CNT:2 segment to display the Element Properties dialog box.
- 2. Select the **Standard Rule** tab.
- 3. From the standard rule list, select **Use Constant**.
- 4. From the Constants list, select 2 to identify this iteration of the CNT:2 segment as containing the total number of line items.
- 5. From the Qualifies list, select 6066:2 CONTROL VALUE to set up a qualifying relationship with the Control Value element.
- 6. Click OK.

The 2 code is loaded in the Control Qualifier element and the qualifying relationship between the CNT:201 and CNG:202 elements is established.

Mapping the Total Transaction Amount About this task

Use this procedure to map the transaction totals.

Procedure

Link the application field TRANSTOTAL in the INVSUMMARY record to the CNT:202 element in the CNT:2 segment.

VAT Summary - TRADACOMS Subtotals for VAT Rates

To calculate the subtotals (STL) for the various VAT rates, you must first determine which VAT code is used for each line item. By grouping the line items that use the same VAT code, you can determine the VAT rate percentage, and then calculate the total VAT amount payable for each VAT code. Then, you can add the extended cost for each line item that uses the same VAT code together. Finally, by adding the total VAT amount payable (VATA) with the total extended cost (ASDA), you have calculated the sub-total amount (APSI) for each group of line items with the same VAT code.

To perform these calculations, you also will need to track the sequence numbers of each subtotal (STL), the VAT code and corresponding VAT percentage rate for each STL, and the total number of line items that use each VAT code.

This table provides an example of an application file that contains six line items that use three different VAT codes.

Line Item Number	Item	VAT Code	Extended Cost (Quantity Shipped * Unit Price)
1	Item 1	S	100
2	Item 2	Е	50

Line Item Number	Item	VAT Code	Extended Cost (Quantity Shipped * Unit Price)	
3	Item 3	S	200	
4	Item 4	Z	70	
5	Item 5	S	150	
6	Item 6	Е	300	

This table provides the corresponding VAT percentage rates for the VAT codes in the sample application file.

VAT Code	Description VAT Percentage Rate	
S	Standard rate	17.5
Е	Export item	0
Z	Zero rate	0

Using this information, you can calculate the required VAT summary information.

STL Sequence Number	VAT Code	Number of Line Items Using this VAT Code	Total Extended Cost (ASDA)	Total VAT Amount (VATA)	Subtotal Amount (APSI)
1	S	3	450	18	468
2	Е	2	350	0	350
3	Z	1	70	0	70

Extended Rule on the Input Group

To perform the required VAT calculations in this tutorial, you will use two extended rules. The first extended rule you will define is an On End rule on the INPUT (application file) group that will be executed when the system concludes its processing of the application file. For each VAT code used, the first rule will calculate the total VAT amount payable and the extended cost for each set of line items. The second extended rule you will define is on the STL APSI element, and will be executed when the system concludes its processing of that element. The second rule will add the total VAT amount payable (VATA) to the total extended cost (ASDA), to calculate the sub-total amount (APSI) for each group of line items with the same VAT code.

The first extended rule (on the INPUT group) will involve many different calculations. So, you determine that it will be easiest if you break the various tasks involved into manageable pieces, and write the rule for that part before building all the parts into the whole rule. This process is outlined in the steps below.

This table illustrates the extended rule.

```
Stage
           Description
1
           You need to define two temporary variables (i and j), a variable defined to count the number of line
           items (invlimit), and a variable to count the number of STL segments (stllimit) that is initialized to zero.
           integer i,j,invlimit,stllimit;
           invlimit = count($INVDETAIL[*]);
           stllimit = 0;
           You need to visit each iteration of the INVDETAIL record.
           i=1:
           while i<=invlimit do
           begin
           i = i + 1
           end
2
           For each iteration of the INVDETAIL record, you need to determine the VAT code used, and ascertain
           whether or not a TEMPVATSTL (STL) record exists for that VAT code.
           while j<=stllimit do
           begin
             if $INVDETAIL[i].#VATCODE = $TEMPVATSTL[j].#VATRATECODE then
           begin
           end
              j=j+1
           end
3
           If a TEMPVATSTL record does exist for that VAT code, you need to add the extended cost for that line
           item into the total extended cost for this STL, and increase the number of line items in this STL by one.
           $TEMPVATSTL[j].#LVLA = $TEMPVATSTL[j].#LVLA + $INVDETAIL[i].#TEMPLEXC;
           $TEMPVATSTL[j].#NUMLINES = $TEMPVASTL[j].#NUMLINES + 1
           break;
4
           If a TEMPVATSTL record does not exist for that VAT code, you need to create an STL for that VAT code,
           set the sequence number to the line item number, set the VAT percentage, set the STL number, and set
           the total extended cost of that line item.
           $TEMPVATSTL[j].#SEQA = j
           $TEMPVATSTL[j].#VATRATE = ATON($INVDETAIL[i].#TEMPVATRATE);
           $TEMPVATSTL[j].#VATRATECODE = $INVDETAIL[i].#VATCODE;
           $TEMPVATSTL[j].#LVLA = $INVDETAIL[i].#TEMPLEXC;
           $TEMPVATSTL[j].#NUMLINES = 1;
5
           Finally, you need to calculate the VAT amount that is payable for each STL.
           j=1
           while j<= stllimit do
           begin
           $TEMPVATSTL[j].#VATA = ($TEMPVATSTL[j].#LVLA * $TEMPVATSTL[j].#VATRATE) / 100.0;
           j = j + 1;
           end
```

Creating an Extended Rule to Perform VAT Calculations

Now you need to combine all the pieces that you wrote into one extended rule, including the necessary keywords to define loops. The extended rule should be executed when the system concludes its processing of the application file (INPUT group).

About this task

Use this procedure to create the extended rule.

Procedure

- 1. Right-click the **INPUT** group and select **Extended Rules** to display the Positional File Properties dialog box.
- 2. Select **On End** to specify that the rule will be executed when the loop terminates. The system executes this rule when it has concluded its processing of the application file.
- 3. In the Editor box, type the following (or copy from the provided map file).

```
integer i,j,invlimit,stllimit;
invlimit = count($INVDETAIL[*]);
stllimit = 0;
i=1;
while i <= invlimit do
begin
   j=1;
   while j <= stllimit do
     if ($INVDETAIL[i].#VATCODE = $TEMPVATSTL[j].#VATRATECODE then
     $TEMPVATSTL[i].#LVLA = $TEMPVATSTL[i].#LVLA + $INVDETAIL[i].#TEMPLEXC;
     $TEMPVATSTL[j].#NUMLINES = $TEMPVATSTL[j].#NUMLINES + 1;
     break;
   end
   j=j+1
   end
   if j > stllimit then
   begin
     $TEMPVATSTL[j].#SEQA = j;
     $TEMPVATSTL[j].#VATRATE = ATON($INVDETAIL[i].#TEMPVATRATE);
     $TEMPVATSTL[j].#VATRATECODE = $INVDETAIL[i].#VATCODE;
     $TEMPVATSTL[j].#LVLA = $INVDETAIL[i].#TEMPLEXC;
     $TEMPVATSTL[j].#NUMLINES = 1;
    stllimit = j;
   end
   i=i+1;
end
j=1;
while j<= stllimit do
$TEMPVATSTL[j].#VATA = ($TEMPVATSTL[j].#LVLA * $TEMPVATSTL[j].#VATRATE) / 100.0;
j = j + 1;
```

- 4. Click **Compile** to validate the syntax of the extended rule.
- 5. Click **OK** to add the extended rule to the INPUT group (application file).

Creating an Extended Rule to Calculate the Amount Payable

The second extended rule will add the total VAT amount payable (VATA) with the total extended cost (ASDA), to calculate the sub-total amount (APSI) for each group of line items with the same VAT code. The extended rule should be executed when the system concludes its processing of the STL APSI element.

About this task

Use this procedure to create the extended rule.

Procedure

- Double-click the STL APSI element to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule box, type the following: #APSI = #ASDA + #VATA;

The system executes this rule when it processes the STL APSI element.

- 4. Click **Compile** to validate the syntax of the extended rue.
- 5. Click **OK** to add the extended rule to the STL APSI element.

Invoice Trailer - TRADACOMS

You already used an explicit link (the TOTALAMOUNT field to the STL TPSI element) so the system will be able to create the TLR segment (Invoice Trailer). Now, you need to calculate the total amount (extended cost) of all the line items in the invoice (LVLT) and the total VAT amount payable for all the line items in the invoice (TVAT). This calculation is the sum of all the STL segments that you calculated in the last section of this tutorial.

Also, because you are not using settlement discounts, you can set the EVLT (Total Extended Amount Excluding Settlement Discount) and the ASDT (Total Amount Excluding VAT Including Settlement) equal to the LVLT (Lines Total Amount (Excluding VAT)). You can also set the TPSI equal to the ASDT (Total Amount Excluding VAT Including Settlement) plus the TVAT (Total VAT Amount Payable).

Extended rule to calculate totals

You will use an extended rule on the TLR NSTL element (Number of Total Segments) to calculate these totals. This rule will involve many different calculations. So, you determine that it will be easiest if you break the various tasks involved into manageable pieces, and write the rule for that part before building all the parts into the whole rule. This process is outlined in the steps below.

This table illustrates the extended rule.

Stage	Description
1	You need to define a variable to count the number of TEMPVATSTL records (limit), define a temporary variable (i) that is set to one, and initialize the TLR LVLT and the TLR TVAT elements to zero.
	<pre>integer i,limit; limit = count(\$TEMPVATSTL[*]); i=1; #LVLT = 0; #TVAT = 0;</pre>
2	You need to visit each iteration of the TEMPVATSTL record. while i <= limit do begin i = i + 1; end
3	You need to calculate the total amount (extended cost) of all the line items in the invoice (LVLT) and the total VAT amount payable for all the line items in the invoice (TVAT). #LVLT = #LVLT + \$TEMPVATSTL[i].#LVLA; #TVAT = #TVAT + \$TEMPVATSTL[i].#VATA;
4	You need to set the NSTL (Number of Total Segments) equal to the number of TEMPVATSTL records. #NSTL = limit;

Stage	Description
5	You need to set both the EVLT (Total Extended Amount Excluding Settlement Discount) and the ASDT (Total Amount Excluding VAT Including Settlement) equal to the LVLT (Lines Total Amount (Excluding VAT)).
	<pre>#EVLT = #LVLT; #ASDT = #LVLT;</pre>
6	Finally, you need to set the TPSI equal to the ASDT (Total Amount Excluding VAT Including Settlement) plus the TVAT (Total VAT Amount Payable). #TPSI = #ASDT + #TVAT;

Creating an Extended Rule to Calculate TLR Totals

Now you need to combine all the pieces that you wrote into one extended rule, including the necessary keywords to define loops.

About this task

Use this procedure to create the extended rule.

Procedure

- 1. Double-click the TLR NSTL element (Number of Total Segments) to display the Element Properties dialog box.
- 2. Select the Extended Rule tab.
- 3. In the Rule box, type the following:

```
integer i,limit;
limit = count($TEMPVATSTL[*]);
i=1;
\#LVLT = 0;
\#TVAT = 0;
while i <= limit do
  #LVLT = #LVLT + $TEMPVATSTL[i].#LVLA;
   #TVAT = #TVAT + $TEMPVATSTL[i].#VATA;
   i=i+1;
end
#NSTL = limit;
#EVLT = #LVLT;
#ASDT = #LVLT;
#TPSI = #ASDT + #TVAT;
```

The system executes this rule when it processes the TLR NSTL element.

- 4. Click **Compile** to validate the syntax of the extended rue.
- 5. Click **OK** to add the extended rule to the TLR NSTL element.

Chapter 8. Finalize the Map

Compiling the Final Map

The Compile function compiles the map and generates a translation object. The map that you created using the Application Integration subsystem is a source map. When that source map is compiled, the result is a compiled translation object.

About this task

After you save the translation object, you must register it with Sterling Gentran:Server before you can use it.

Use this procedure to compile a map and generate a translation object.

Procedure

- 1. Select **File > Save** to save the source map before compiling.
- 2. Select **File > Compile**.
- 3. Verify that the File name box contains one of the following:
 - **PET_810.TPL** (for ANSI X12)
 - PET_EINV.TPL (for EDIFACT)
 - PET_TINV.TPL (for TRADACOMS)
- 4. Navigate to where the compiled translation object is stored, if necessary.

Important: Do not store the compiled translation object in the GENSRVNT\RegTransObj subfolder. This subfolder is reserved for storing a copy of each translation object you register with Sterling Gentran:Server.

- 5. Click **Save** and the system compiles the map and generates a translation object. The Compile Error dialog box is displayed. Verify that no errors occurred and click **OK** to exit the dialog box. The date on which the translation object was compiled is automatically loaded into the Compiled on box on the Transaction Object Details dialog box.
- 6. Select **File > Save** to save the source map with the Compiled on date.

Note: You must register this translation object with the Sterling Gentran:Server system before you can use it.

Printing the Final Report

The Sterling Gentran:Server report enables you to validate and review the map, and make modifications as needed. If you review the report and determine that the map is incorrect, you should reiterate the mapping process as many times as necessary (make the modifications, save the map, recompile the translation object, and print the report again).

About this task

Use this procedure to print the Sterling Gentran:Server report.

Procedure

- 1. Select File > Print.
- 2. Accept the defaults on this dialog box so the report will include all sections and only the activated map components. Click **OK** and the Print dialog box is displayed.
- 3. Click **OK** on the Print dialog box and the report is printed.

Testing the Translation Object

After you compile the map, print and verify the report, and register the translation object with Sterling Gentran:Server, you should test the translation object to verify that the data is translated correctly. To test the compiled translation object, you should obtain test data from your partners and process the data. You should also verify acknowledgement processing (if applicable) and verify communications with your network.

About this task

Use this procedure to test the system import and import translation objects.

Note: The default path is C:\GENSRVNT\TRANSOBJ\.

Procedure

- Register both system import and import translation objects with Sterling Gentran:Server.
- 2. If you have not already done so, import the partner relationship into Sterling Gentran:Server.
- 3. For TRADACOMS: Import the division lookup table (INVATCO.LKP) for the system partner (Internal System User) into Sterling Gentran:Server.
- 4. Verify in Partner Editor that the import translation object is selected for the Outbound Relationship.
- 5. Ask your system administrator to add the system import translation object to the System Configuration program.
- 6. Use the **Import** option in Sterling Gentran:Server to process the data file through the translation object. The data file is located in the default directory.
- After the document is translated, it is located in the Workspace in Sterling Gentran:Server. View the EDI data to ensure that the document was translated correctly.

SDT and CDT Segments - TRADACOMS

The T_INVGRP.MAP group build map that we provide for you to use for outbound TRADACOMS messages contains a standard rule on both the SDT01 and CDT01 elements. These standard rules look up information by the Reference Code from a Partner Location table, and the information that the system finds in this partner table is used to populate the SDT and CDT segments in the Outbound TRADACOMS Group.

If you want to populate the SDT01 and CDT01 elements in your outbound maps with data, you need to create two partner location tables—one for the SDT segment and one for the CDT segment.

SDT elements

This table describes each partner location table field and its corresponding SDT element (from the outbound SDT segment) that is populated with data.

Location Table Field	Outbound Group Build Map SDT Element
Name	SNAM - SUPPLIER'S NAME
Address1	SAD0 - SUPPLIER'S ADDRESS LINE 1
Address2	SAD1 - SUPPLIER'S ADDRESS LINE 2
Address3	SAD2 - SUPPLIER'S ADDRESS LINE 3
City	SAD3 - SUPPLIER'S ADDRESS LINE 4
Zip	SAD4 - SUPPLIER'S POST CODE
Reference Code 2	VATO - SUPPLIER'S VAT REGISTRATION NUMBER

CDT elements

This table describes each partner location table field and its corresponding CDT element (from the outbound CDT segment) that is populated with data.

Location Table Field	Outbound Group Build Map SDT Element	
Name	CNAM - SUPPLIER'S NAME	
Address1	CAD0 - SUPPLIER'S ADDRESS LINE 1	
Address2	CAD1 - SUPPLIER'S ADDRESS LINE 2	
Address3	CAD2 - SUPPLIER'S ADDRESS LINE 3	
City	CAD3 - SUPPLIER'S ADDRESS LINE 4	
Zip	CAD4 - SUPPLIER'S POST CODE	
Reference Code 2	VAT0:2 - SUPPLIER'S VAT REGISTRATION NUMBER	

Populating the SDT and CDT Elements About this task

Use this procedure to set up your partner to populate the SDT and CDT elements in the Outbound TRADACOMS Group.

- 1. Select **Tools** > **Partner Editor**.
- 2. Select the partner profile for which you want to create the location table and click Outbound.
- 3. From the Relationship list, select the appropriate relationship and click **Group**.
- 4. From the Groups list, select the appropriate relationship and click Edit. The system displays the Outbound Group Entry dialog box.
- 5. Click Envelope.
 - The system displays the Outbound BAT Functional Group dialog box. Note the values listed in Field 3 and Field 4 on this dialog box.
- 6. Select the partner profile for which you want to create the location table and click Locations.
- 7. Click **New to** display the Location Entry dialog box.

- 8. In the Name box, type a unique identifier that defines this location within the
- 9. For the Reference Code 1 box for the SDT Partner Location Table, type the value from Field 3 on the Outbound BAT Functional Group dialog box.
- 10. For the Reference Code 1 box for the CDT Partner Location Table, type the value from Field 4 on the Outbound BAT Functional Group dialog box.
- 11. Complete the remaining boxes, as necessary.

Note: If you use Reference Code 2, it must also be unique.

- 12. Click Save.
- 13. To create the second location table, repeat steps 7 12.
- 14. Click Exit to return to the Partner Editor dialog box.

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing

IBM Corporation

North Castle Drive

Armonk, NY 10504-1785

U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing

Legal and Intellectual Property Law

IBM Japan Ltd.

19-21, Nihonbashi-Hakozakicho, Chuo-ku

Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be

incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation

J46A/G4

555 Bailey Avenue

San Jose, CA 95141-1003

U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© IBM 2012. Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. 2012.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, the IBM logo, and ibm.com[®] are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at http://www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java[™] and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Connect Control Center®, Connect:Direct®, Connect:Enterprise®, Gentran®, Gentran®:Basic®, Gentran:Control®, Gentran:Director®, Gentran:Plus®, Gentran:Realtime®, Gentran:Server®, Gentran:Viewpoint®, Sterling Commerce™, Sterling Information Broker®, and Sterling Integrator® are trademarks or registered trademarks of Sterling Commerce®, Inc., an IBM Company.

Other company, product, and service names may be trademarks or service marks of others.

IBW .

Product Number: 5725-D09

Printed in USA