

IBM Sterling Gentran:Server for Windows



# Forms Integration Tutorial for Screen Entry Forms

*Version 5.3.1*



IBM Sterling Gentran:Server for Windows



# Forms Integration Tutorial for Screen Entry Forms

*Version 5.3.1*

**Note**

Before using this information and the product it supports, read the information in "Notices" on page 221.

This edition applies to the 5.3.1 version of IBM Sterling Gentrans:Server for Microsoft Windows and to all subsequent releases and modifications until otherwise indicated in new editions.

© **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

About this Tutorial . . . . .	1
The Forms Integration Subsystem . . . . .	1
Forms Integration Window . . . . .	2
EDI File Format Pane . . . . .	3
Layout Pane . . . . .	5
About Forms . . . . .	5
Building a Form with Forms Integration . . . . .	6
Getting Started . . . . .	6
Analyze the EDI File. . . . .	7
EDI Delimiters. . . . .	8
Verifying the Global EDI Date Formats . . . . .	9
Tips and Recommendations . . . . .	10

## Chapter 2. About Screen Entry Forms 15

Invoice Components for ANSI X12 . . . . .	15
Invoice Components for EDIFACT. . . . .	19
Invoice Components for TRADACOMS . . . . .	27
Creating a Screen Entry Form . . . . .	33
About Activating Invoice Groups, Segments, and Elements . . . . .	36
Activating Invoice Groups, Segments, and Elements	37
Adding Frame Help Text and Verifying EDI Delimiters . . . . .	37
Segment and Group Modifications. . . . .	38
Generating the Screen Entry Form. . . . .	39
After Generating the Form . . . . .	39
About Customization . . . . .	40
Finalize Screen Entry Forms . . . . .	40
Compiling the Invoice Form. . . . .	40
Printing the Invoice Report . . . . .	41
Testing the Invoice Translation Object. . . . .	41

## Chapter 3. Creating Screen Entry Forms for ANSI X12 . . . . . 43

Modifying the Maximum Use of the Invoice REF Segment . . . . .	43
Modifying the Maximum Use of the N3 Segment. . . . .	43
Promoting the N1 Group . . . . .	44
Changing the Maximum Use of the ITD Segment. . . . .	44
Changing the Maximum Use of the DTM Segment	44
Changing the Maximum Use of the PID Group . . . . .	45
Changing the Maximum Use of the DTM:2 Segment	45
Changing the Maximum Use of the CAD Segment	46

## Chapter 4. Modifying Screen Entry Forms for ANSI X12 . . . . . 47

Setting up the Document Name for the Screen Entry Form . . . . .	47
The BIG Segment . . . . .	47
Customizing the BIG01 Element . . . . .	47
Customizing the BIG02 Element . . . . .	48
Customizing the BIG03 Element . . . . .	49
Customizing the BIG04 Element . . . . .	49

The REF Segment . . . . .	50
Customizing the Invoice REF01 Element. . . . .	50
Customizing the Invoice REF02 Element. . . . .	51
N1 Groups . . . . .	52
The N1:3 Segment . . . . .	53
Using a Key Field for the N1:3 Segment. . . . .	53
Customizing the N1:301 Element . . . . .	53
Customizing the N1:302 Element . . . . .	54
The N3:3 Segment . . . . .	54
Customizing the N3:301 Element . . . . .	55
Customizing the N3:302 Element . . . . .	55
The N4:3 Segment . . . . .	55
Customizing the N4:301 Element . . . . .	56
Customizing the N4:302 Element . . . . .	56
Customizing the N4:303 Element . . . . .	56
Customizing the N1:401 Element . . . . .	57
Customizing the N1:402 Element . . . . .	58
The N3:4 Segment . . . . .	58
Customizing the N3:401 Element . . . . .	59
Customizing the N3:402 Element . . . . .	59
The N4:4 Segment . . . . .	59
Customizing the N4:401 Element . . . . .	59
Customizing the N4:402 Element . . . . .	60
Customizing the N4:403 Element . . . . .	60
Customizing the ITD Segment . . . . .	61
The DTM Segment . . . . .	62
Customizing the DTM01 Element . . . . .	62
Customizing the DTM02 Element . . . . .	63
Customizing the IT1 Group . . . . .	64
The IT1 Segment . . . . .	65
Customizing the IT101 Element. . . . .	65
Customizing the IT102 Element. . . . .	67
Customizing the IT103 Element. . . . .	69
Customizing the IT104 Element. . . . .	70
Customizing the IT106 Element. . . . .	71
Customizing the IT107 Element. . . . .	72
The PID:2 Segment . . . . .	72
Customizing the PID:201 Element . . . . .	72
Customizing the PID:205 Element . . . . .	73
The DTM:2 Segment for an Invoice . . . . .	74
Customizing the DTM:201 Element . . . . .	74
Customizing the DTM:202 Element . . . . .	74
The CAD Segment . . . . .	75
Customizing the CAD01 Element . . . . .	75
Customizing the CAD08 Element . . . . .	76
The TDS Segment . . . . .	77
The CTT Segment . . . . .	77

## Chapter 5. Customizing Screen Entry Forms for ANSI X12 . . . . . 79

Resizing the Invoice Frame . . . . .	79
Fields on the Invoice Frame . . . . .	79
Arranging Fields . . . . .	81
Rearranging the Fields. . . . .	81
Resizing the Invoice Frame . . . . .	83

Aligning the Fields and Labels . . . . .	84
Adding Column Headings to the Line Items List	85
Setting the Tab Sequence on the Invoice Frame	87
Fields in the Line Items Frame . . . . .	88
Resizing the Line Items Frame and Fields . . . . .	89
Moving and Aligning the Fields . . . . .	90
Resizing the Line Items Frame . . . . .	90
Aligning the Fields and Field Labels . . . . .	91
Setting the Tab Sequence on the Line Items Frame . . . . .	92
Changing the Invoice Frame Title . . . . .	93

## Chapter 6. Creating Screen Entry

### Forms for EDIFACT . . . . . 95

Modifying the DTM Segment . . . . .	95
Modifying the RFF Group . . . . .	95
Modifying the NAD Group . . . . .	96
Modifying the Invoice PAT Group . . . . .	97
The LIN Group . . . . .	97
Changing the Maximum Use of the PIA Segment	97
Changing the Maximum Use of the IMD:2 Segment . . . . .	97
Changing the Maximum Use of the MEA:2 Segment . . . . .	98
Changing the Maximum Use of the QTY:2 Segment . . . . .	98
Changing the Maximum Use of the DTM:11 Segment . . . . .	98
Changing the Maximum Use of the MOA Group in the LIN Group . . . . .	99
Changing the Maximum Use of the TDT Group	99
Changing the Maximum Use of the CNT Segment . . . . .	99
Changing the Maximum Use of the MOA Group	100

## Chapter 7. Modifying Screen Entry

### Forms for EDIFACT . . . . . 101

Setting up the Document Name for the Screen Entry Form . . . . .	101
Customizing the BGM Segment . . . . .	101
The DTM Segment . . . . .	102
Customizing the DTM01 Element . . . . .	102
Customizing the DTM02 Element . . . . .	103
The RFF:2 Group . . . . .	103
The RFF:11 Segment . . . . .	103
Customizing the RFF:1101 Element . . . . .	103
Customizing the RFF:1102 Element . . . . .	104
The DTM:22 Segment . . . . .	105
Customizing the DTM:2201 Element . . . . .	105
Customizing the DTM:2202 Element . . . . .	106
The RFF Segment . . . . .	106
Customizing the RFF01 Element . . . . .	106
Customizing the RFF02 Element . . . . .	107
The DTM:2 Segment . . . . .	108
Customizing the DTM:201 Element . . . . .	108
Customizing the DTM:202 Element . . . . .	108
The NAD Segment . . . . .	109
Customizing the NAD01 Element . . . . .	109
Customizing the Invoice NAD10 Element . . . . .	110
Customizing the Invoice NAD16 Element . . . . .	110

Customizing the Invoice NAD17 Element . . . . .	111
Customizing the Invoice NAD19 Element . . . . .	111
Customizing the Invoice NAD20 Element . . . . .	111
Customizing the Invoice NAD21 Element . . . . .	112
The NAD:3 Segment . . . . .	112
Customizing the NAD:301 Element . . . . .	112
Customizing the NAD:310 Element . . . . .	113
Customizing the NAD:316 Element . . . . .	114
Customizing the NAD:317 Element . . . . .	114
Customizing the NAD:319 Element . . . . .	114
Customizing the NAD:320 Element . . . . .	115
Customizing the NAD:321 Element . . . . .	115
Customizing the PAT01 Element . . . . .	116
Customizing the LIN Group . . . . .	117
Customizing the LIN Segment . . . . .	118
The PIA Segment . . . . .	120
Customizing the PIA01 Element . . . . .	120
Customizing the PIA02 Element . . . . .	121
Customizing the PIA03 Element . . . . .	121
The IMD:2 Segment . . . . .	122
Customizing the IMD:201 Element . . . . .	122
Customizing the Invoice IMD:206 Element . . . . .	123
The MEA:2 Segment . . . . .	123
Customizing the MEA:201 Element . . . . .	123
Customizing the MEA:202 Element . . . . .	124
The QTY:2 Segment . . . . .	125
Customizing the QTY:201 Element . . . . .	125
Customizing the QTY:202, MOA:502, and MOA:1002 Elements . . . . .	126
The DTM:11 Segment . . . . .	128
Customizing the DTM:1101 Element . . . . .	128
Customizing the DTM:1102 Element . . . . .	128
The MOA:5 Segment . . . . .	129
Customizing the MOA:501 Element . . . . .	129
Customizing the MOA:502 Element . . . . .	130
The TDT:2 Segment . . . . .	131
Customizing the TDT:201 Element . . . . .	131
Customizing the TDT:205 Element . . . . .	132
Customizing the TDT:207 Element . . . . .	133
Customizing the Invoice UNS Segment . . . . .	134
The CNT Segment . . . . .	135
Customizing the CNT01 Element . . . . .	135
Customizing the CNT02 Element . . . . .	136
The MOA:10 Segment . . . . .	136
Customizing the MOA:1001 Element . . . . .	137
Customizing the MOA:1002 Element . . . . .	137

## Chapter 8. Customizing Screen Entry

### Forms for EDIFACT . . . . . 139

Resizing the Invoice Frame . . . . .	139
Fields on the Invoice Frame . . . . .	139
Arranging Fields . . . . .	141
Rearranging the Fields . . . . .	141
Resizing the Invoice Message Frame . . . . .	143
Aligning the Fields and Labels . . . . .	143
Adding Column Headings to the Line Items List Box . . . . .	145
Setting the Tab Sequence on the Invoice Message Frame - EDIFACT . . . . .	146
Fields on the Line Items Frame . . . . .	148
Resizing the Line Items Frame and Fields . . . . .	148

Moving and Aligning Fields . . . . .	149
Resizing the Line Items Frame. . . . .	150
Aligning the Fields and Field Labels. . . . .	150
Setting the Tab Sequence on the Line Items Frame . . . . .	151
Changing the Invoice Message Frame Title - EDIFACT. . . . .	152

## Chapter 9. Creating Screen Entry

### Forms for TRADACOMS. . . . . 155

Changing the Maximum Use of the IRF Segment	155
Changing the Maximum Use of the PYT Segment	155
Changing the Maximum Use of the DNA Segment	155
Changing the Maximum Use of the ODD Group	156

## Chapter 10. Modifying Screen Entry

### Forms for TRADACOMS. . . . . 157

Setting up the Document Name for the Screen Entry Form . . . . .	157
The CLO Segment . . . . .	157
Creating a Syntax Token for the CLO Segment	158
Changing the CLO CLOC CLO0 Element and Field Properties. . . . .	158
Customizing the CLO CLOC CLO1 Element . . . . .	159
Customizing the CLO CNAM Element . . . . .	159
Customizing the CLO CADD CAD0 Element	160
Customizing the CLO CADD CAD1 Element	160
Customizing the CLO CADD CAD2 Element	161
Customizing the CLO CADD CAD3 Element	161
Customizing the CLO CADD CAD4 Element	161
The IRF Segment . . . . .	162
Customizing the IRF INVN Element. . . . .	162
Customizing the IRF IVDT Element . . . . .	162
Customizing the IRF TXDT Element. . . . .	163
The PYT Segment . . . . .	164
Customizing the PYT SEQA Element . . . . .	164
Customizing the PYT PAYT Element . . . . .	165
The DNA Segment . . . . .	166
Customizing the DNA SEQA:2 Element . . . . .	166
Customizing the DNA GNAR GNA0 Element	167
Customizing the DNA GNAR GNA1 Element	167
Customizing the DNA GNAR GNA2 Element	167
Customizing the DNA GNAR GNA3 Element	168
The ODD Group . . . . .	168
Customizing the ODD:2 SEQA Element . . . . .	168
Customizing the ODD:2 ORNO ORN0 Element	169
Customizing the ODD:2 ORNO ORN2 Element	169
Customizing the ODD:2 DELN DEL0 Element	170
Customizing the ODD:2 DELN DEL1 Element	170
Customizing the ILD Group . . . . .	171
The ILD:2 Segment . . . . .	172
Customizing the ILD:2 SEQA Element . . . . .	172
Customizing the ILD:2 SEQB Element . . . . .	172
Customizing the ILD:2 SPRO SPR0 Element . . . . .	173
Customizing the ILD:2 SPRO SPR1 Element . . . . .	174
Customizing the ILD:2 CPRO CPR1 Element	174
Customizing the ILD:2 QTYI QTY0 Element . . . . .	175
Customizing the ILD:2 QTYI CD04:2 Element	176
Customizing the ILD:2 AUCT AUC0 Element	177
Customizing the ILD:2 LEXC Element . . . . .	177

Calculating the Extended Price . . . . .	178
The ILD:2 CD12 Element . . . . .	179
Creating a Temporary VATP Element . . . . .	179
Changing the ILD:2 CD12 Element and Field Properties . . . . .	180
Customizing the ILD:2 VATP Element . . . . .	181
Customizing the ILD:2 VATP_TEMP Element	181
Converting Strings into Real Numbers . . . . .	182
Customizing the ILD:2 TDES TDE0 Element . . . . .	183
The STL Segment . . . . .	184
Customizing the STL Segment. . . . .	184
Customizing the STL SEQA:7 Element . . . . .	185
Customizing the STL CD12:2 Element . . . . .	185
Customizing the STL VATP:2 Element . . . . .	186
Customizing the STL NRIL Element . . . . .	187
Customizing the STL LVLA Element. . . . .	187
Customizing the STL EVLA Element . . . . .	188
Customizing the STL ASDA Element . . . . .	188
Customizing the STL VATA Element. . . . .	189
Customizing the STL APSI Element . . . . .	189
The TLR Segment . . . . .	190
Customizing the TLR NSTL Element . . . . .	190
Customizing the TLR LVLTL Element. . . . .	190
Customizing the TLR EVLT Element . . . . .	191
Customizing the TLR ASDT Element . . . . .	191
Customizing the TLR TVAT Element . . . . .	192
Customizing the TLR TPSI Element . . . . .	192
The VAT Summary and the Invoice Trailer . . . . .	193
Defining the Operations for the VAT Summary	194
Declaring Variables . . . . .	194
Counting the STL Segments and Deleting them	195
Counting the ILD Groups . . . . .	195
Compatible VAT Codes in the STL Segments	196
Grouping Line Items . . . . .	196
How to Calculate the VAT Amount and Produce the Invoice Trailer . . . . .	197
Grouping Invoice Totals . . . . .	198
Trailer Calculations . . . . .	198
Extended Rule for the INVOIC Group . . . . .	198
Compiling the Extended Rule . . . . .	199

## Chapter 11. Customizing Screen Entry

### Forms for TRADACOMS. . . . . 201

Resizing the Invoice Frame . . . . .	201
Fields on the Invoice Frame . . . . .	201
Arranging Fields . . . . .	203
Rearranging the Fields . . . . .	203
Aligning the Fields and Labels . . . . .	205
Adding the Customer Details Label . . . . .	208
Adding Column Headings to the Line Items List Box. . . . .	209
Adding Column Headings to the VAT Summary List Box . . . . .	210
Setting the Tab Sequence on the Invoice Details Frame . . . . .	211
Fields on the Line Item Frame. . . . .	212
Fields on the Line Items Frame . . . . .	212
Resizing the Line Items Frame and Fields . . . . .	212
Moving and Aligning the Fields . . . . .	213
Resizing the Line Items Frame. . . . .	213
Aligning the Fields and Field Labels. . . . .	214

Setting the Tab Sequence on the Line Items Frame . . . . .	215
Fields on the VAT Summary Frame . . . . .	216
Resizing the VAT Summary Frame - TRADACOMS . . . . .	216
Resizing the VAT Code Field . . . . .	217

Moving and Aligning the VAT Summary Fields	217
Changing the Invoice Details Frame Title . . . . .	218

**Notices . . . . . 221**



---

# Chapter 1. Getting Started

---

## About this Tutorial

This tutorial for the Sterling Gentran:Server® Forms 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:

- **Print 850 Pet Zone** (for ANSI X12)
- **Print ORDERS Pet Zone** (for EDIFACT)
- **Print TRADACOMS ORDERS Pet Zone** (for TRADACOMS)

This tutorial includes a print example (purchase order) and a screen entry example (invoice). This tutorial defines the tasks necessary to create forms and describes how to customize and format a form before it is compiled into a translation object. A print form enables you to print customized EDI data that has been processed through the translation object. A screen entry form is a predesigned layout that, when compiled into a translation object, enables users in your company to enter the data necessary to create a business document.

The form that you create is a source form. When that source form is compiled, the result is a compiled translation object. You must register the translation object with Sterling Gentran:Server to be able to use the translation object to enter EDI data in messages of that type.

To access reference information, refer to the *IBM® Sterling Gentran:Server for Microsoft Windows Forms 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*.

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.

---

## The Forms Integration Subsystem

A form is a set of instructions you define in the Forms Integration subsystem that indicates how the system should format data. When you compile the form, Sterling Gentran:Server generates a translation object. After you register the translation object with Sterling Gentran:Server and associate the translation object with a partner relationship, the system uses the translation object to format EDI documents. The Forms Integration subsystem enables you to create print and screen entry translation objects.

Regardless of whether the translation object is print or screen entry, Sterling Gentran:Server generates the actual format of the translation object based on the EDI file format (in the EDI File Format Pane) and displays it in the Layout Pane.

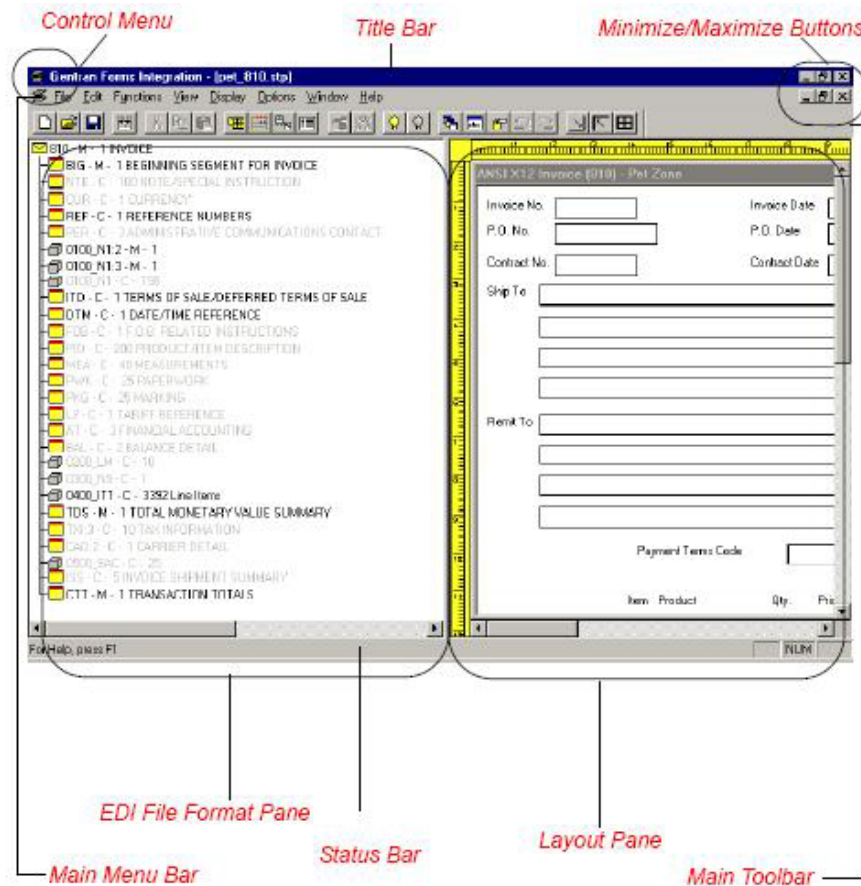
A print translation object organizes and formats the printout of EDI documents that are received from or sent to the trading partners for which you have established a trading relationship that uses that print translation objects. The print translation object enables you to view the EDI document in an easy-to-read format.

A screen entry translation object provides a standardized format for entering an EDI document into the Document Editor for translation and transmission to your trading partners. The screen entry translation object ensures that your users enter all the data necessary to create the required EDI document.

Sterling Gentran:Server generates the translation object format based on the EDI file format in the EDI File Format Pane and displays that format in the Layout Pane.

## Forms Integration Window

The following diagram illustrates the Forms Integration Window. (This is an ANSI X12 example.)

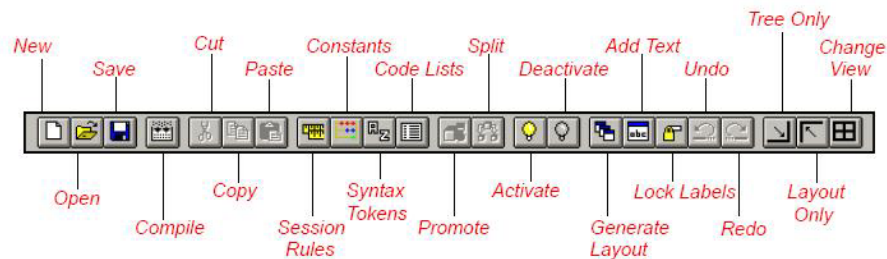


This table describes the Forms Integration window components.

Part	Function
Main Menu Bar	Contains drop-down menus. Unavailable items are dimmed.

Part	Function
Main Toolbar	Enables you access to some of the most common operations in the Application Integration subsystem. Unavailable items are dimmed. The Main Toolbar is a dockable toolbar, so you can affix it to any edge of the client window.
EDI File Format Pane	Cntains the EDI file format. When you click a segment or group in the EDI file format, the corresponding frame is displayed in the Layout Pane. When you click an element in the EDI file format, the corresponding layout component is highlighted in the Layout Pane.
Layout Pane	Contains the format of the translation object. Each group (with a maximum usage greater than one) and repeating segment has a corresponding frame in the Layout Pane. When you click a segment or group in the EDI file format, the corresponding frame is displayed in the Layout Pane. When you click an element in the EDI file format, the corresponding layout component is highlighted in the Layout Pane.
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 modes for typing (e.g., CAP for the "Caps Lock" key, NUM for the "Num Lock" key, etc.).

The Main Toolbar gives you access to some of the most common operations in Sterling Gentran:Server. Unavailable items are dimmed. The Main Toolbar is a dockable toolbar, so you can affix it to any edge of the client window. This diagram illustrates the Main Toolbar.



## EDI File Format Pane

The EDI File Format Pane (left side of the Forms Integration subsystem main window) contains the EDI file format. The EDI file must contain all the information that you need to include to either create a document using the Document Editor (screen entry translation object) or print documents (print translation object), so that your system can accurately process the data.

### Generating EDI files

Sterling Gentran:Server generates an EDI file for you, based on the standard (agency), version, transaction set, and release (for the TRADACOMS standard only) 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.

You typically need to customize the system-generated EDI file by modifying the properties of the form components, and using specialized Sterling Gentran:Server functions to manipulate the EDI file structure.

## Generating specialized EDI standard versions





If you want to use a specialized version of an EDI standard that is not available in the IBM Sterling Gentran® Standards Database for EDI, it may be appropriate for you to define the EDI file yourself.

Regardless of whether the system generates the EDI file or you define it, the specific EDI form components that you use depend on the type of form 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 form components you are using before generating or defining an EDI file.

### Form components

This table describes form components that Sterling Gentran:Server uses to define the EDI file format.

Icon	Description
Group 	A group 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 therefore, it is visually represented the same way as other groups and subgroups in Sterling Gentran:Server.
Segment 	A 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.  Maximum use: Refers to the number of times that a segment can be used within the structure in which the segment is defined. For example, if a segment can be used only once within a group, but the group can be used multiple times, the segment still has a maximum use of one within each occurrence of the group. The standard defines the maximum number of times a segment can be used, but you must determine how many times a segment is used, based on what you are sending your trading partner.
Composite 	A composite 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 	An element is the smallest piece of information defined by the EDI standards. <ul style="list-style-type: none"><li>• When an element has an operation performed against it, a red checkmark is displayed over the element icon.</li><li>• When an element contains a standard or extended rule, a black asterisk appears to the right of the element icon.</li></ul>

---

## Layout Pane

The Layout Pane (right side of the Forms Integration subsystem main window) contains the actual format of the translation object. Sterling Gentran:Server uses frames to format the EDI file for the translation object. Each frame contains the groups, repeating segments, and elements at that level (single segments are not represented on the frame).

For screen entry translation objects, groups (with a maximum usage greater than one) and repeating segments are formatted as lists. Elements are formatted as edit boxes (fields) or drop-down lists on the frame. Elements are typically formatted as fields, but are formatted as a drop-down list if you apply a standard rule that allows a selection of multiple items. Each group and repeating segment also has a corresponding frame that contains all the groups (with a maximum usage greater than one), repeating segments, and elements at that level.

For print translation objects, groups, repeating segments, and elements are always formatted as fields.

Each group and repeating segment also has a corresponding frame that contains all the groups (with a maximum usage greater than one), repeating segments, and elements at that level.

When you click a segment or group in the EDI File Format Pane, the corresponding frame is displayed in the Layout Pane. When you click an element in the EDI File Format Pane, the corresponding layout component is highlighted in the Layout Pane.

---

## About Forms

Sterling Gentran:Server generates a basic form based on the following information:

- Type of form (such as print or screen entry)
- Standard agency (such as ANSI X12, EDIFACT)
- Standard version (such as 003040, 90.1)
- Document/message type (such as 810 INVOICE, INVOIC)
- Release or message version (such as 9 for TRADACOMS)

All mandatory groups, segments, composites, and elements for the standard, version, and transaction set/message you specify are available for use (activated) when Sterling Gentran:Server creates a form. Only these mandatory form components (groups, segments, composites, and elements) are activated automatically. You must activate additional form components that you want to be displayed in the screen entry form, and then customize and format the form so that it is appropriate and useful for your company's needs.

Before you begin to customize a form, you should be familiar with the following elements of form design:

- EDI standards (how EDI standards work and how the information that your users need is translated to and from the standards)
- Your users (the individuals who are using the forms to either create printouts of processed EDI data or enter EDI data on a screen)
- Your trading partners (the organizations exchanging the EDI documents with your company)

You can create a different form for each combination of transaction set/message, trading partner, and standard version. The number of screen entry forms that you create is not limited and does not affect the number of print forms you can create, and vice versa.

We recommend that you mock up a layout of the form the way you ultimately want it to look. As you design the layout, make sure that the form will make sense to the people who will use it. By analyzing your company's needs before you actually create the form, you reduce the amount of time spent later on redesigning or reformatting the form.

You should include the following design considerations in your form planning:

- Which fields should be printed, and which are necessary for the EDI data but do not need to be displayed on the printout
- Where fields should be located on the form
- What labels you are using to identify the fields on the form

---

## Building a Form with Forms Integration

This table describes the steps required to build a form using Forms Integration.

Stage	Description
1	Prepare and Analyze. Obtain a layout of how you want the form to be displayed and determine how it corresponds to the EDI standard you are using. Determine what operations need to be performed to generate the required layout.
2	Set Global Defaults (first time only). The first time you use the Sterling Gentran:Server Forms Integration subsystem, you should verify the default date format that the system uses.
3	Create, Save, and Name a New Form.
4	Activate the Appropriate EDI Groups, Segments, and Elements.
5	Promote, Split, and Change Segments and Groups.
6	Customize the EDI Data.
7	Define the Layout of the Form.
8	Compile the Form.
9	Print the Report. Validate and review the form, and make modifications as needed.
10	Test the Translation Object. For a screen entry translation object, create a new document in Document Editor, using that translation object. For a print translation object, print a document. Verify that the output is correct.

---

## Getting Started

This tutorial is meant to be completed in its entirety. We recommend that you complete each task sequentially. When you create your own forms, the phases may overlap and you may have to return to one or more of the phases several times before the form is completed. The purpose of completing each task in this tutorial in sequential order is not only to teach you how to perform the individual tasks, but also to teach you a logical approach and methods that should be used when you create your own form.

In these tutorials, you create a screen entry form for an invoice and a print form for purchase order. In both of these tutorials, you will be using one of the following standards:

- ANSI X12 003040
- EDIFACT 92.1
- TRADACOMS ANA001 release 9

The default folder is GENSRVNT\Forms. The tutorial data is in the C:\GENSRVNT\TUTORIALS subfolder.

The steps involved in creating forms are broken down into manageable pieces so that you can learn the tasks and procedures involved in creating a form. Then, you can apply the knowledge gained from using this tutorial to create your own forms.

In this scenario, your company is MWT Manufacturing Co., which manufactures a wide variety of pet supplies for pet stores. One of your trading partners, Pet Zone (a large pet supply retailer), orders products from your company. Your company then invoices Pet Zone for those products.

You will create a form that formats and arranges the EDI data you receive from Pet Zone to produce a printout of a purchase order.. You do not want to alter the integrity of the EDI data. However, you want to interpret some of the codes included in the EDI message into more meaningful text.

Then, you will create a form that your data entry users will use to enter EDI data for the invoice that you will send to Pet Zone. From discussions with Pet Zone, you know the requirements for the invoices that they receive from you.

---

## Analyze the EDI File

You and your partner must agree on which standard, version, and message/transaction set you are using. It is helpful to review the EDI standard that you are using before analyzing the EDI file. We recommend that you obtain an EDI standard manual for the standard and version that you are using. Standard manuals are available from EDI standard agencies.

For purchase orders, you must first determine what data your trading partner will be sending you and what data is contained in each element. Discuss with your partner what they will send and which segments and elements your company requires. You can then make a list of the items that you will need to use. You will then make the form components you need available for use

For invoices, you must determine what data you need to send your trading partner and what data your trading partner expects to receive and what data is contained in each element. It is important to analyze the data in this way so that the invoice contains all the necessary information, and so that your company can bill your partner correctly for the order you shipped to them. Discuss with your partner what you are sending and which segments and elements your partner requires. You can then make a list of the items that you will need to use.

Sterling Gentran:Server generates a form based on the groups, segments, composites, and elements that are defined by the standard agency for the version of the document you selected. The system activates all the groups, segments,

composites, and elements that are defined as mandatory by the standard. The system does not enable you to deactivate mandatory groups, segments, composites, and elements.

**Note:** The TRADACOMS standard uses a header with each interchange (ORDHDR for the ORDERS message). The header message contains information that pertains to each message in the interchange. Sterling Gentran:Server copies the header segments to the beginning of each document, to ensure that all the relevant information is contained in the document. Therefore, you will need to load the header message (ORDHDR) into the ORDERS EDI file, so that all the segments and elements are available for use.

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

**Note:** When you activate a conditional group or segment, the mandatory subordinate segments and elements are activated automatically. A conditional group or segment is used only if there is EDI data available for that element.

The first step in creating a form is to analyze the form requirements. If the analysis you perform is complete, you have all the information you need to create the form in an efficient and logical manner. If you omit this critical step and proceed directly to creating the form, it is likely that creating the form will be a longer and more arduous task, and the form may not work the way you need it to, due to oversights and omissions.

Creating a screen entry or print form for an invoice or purchase order requires several steps. Some steps are performed at the document/message level (such as activating form components), and others are iterative steps that are performed for each group, segment, or element in the form. In the analysis phase, you must determine what EDI data is being sent, as well as what information is required to process the data. The fields on the form must account for all information.

For each segment activated (either mandatory or optional), you must ask the following questions:

- Is the segment a group?
- Does the segment have a maximum use greater than one?
- What elements need to be activated for the segment?

---

## EDI Delimiters

If you are using an EDI standard that contains composite elements or subelements, you must verify that Sterling Gentran:Server is specifying the correct 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). The fields vary in length, so 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.

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



This table lists the default EDI delimiters.

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

## Verifying the Global EDI Date Formats

The Forms Integration subsystem enables you to customize the global EDI date formats for all forms. You can specify the default EDI format of dates for both six- and eight-character dates. When you customize the global EDI date formats, the settings are valid for all forms created in the current session of Sterling Gentran:Server. However, you can override the default date formats for an individual element on the Element Properties dialog for that element.

### About this task

You must verify that you are using the correct global date formats the first time you use Sterling Gentran:Server. Typically, you verify the global EDI date formats one time only. You can change the default date formats if they do not match the formats you intend to use.

Use this procedure to verify the global EDI date formats.

### Procedure

1. Launch the Forms Integration subsystem.
2. Select **Options > Preferences**. The Preferences dialog is a property sheet that enables you to set global defaults for Sterling Gentran:Server.
3. Select the **Standard Formats** tab and verify the default date formats that are used when elements are read from the standards database.
4. Verify that the **Six-character dates** list contains YYMMDD to define the format of the six-character EDI dates in your forms.
5. Verify that the **Eight character dates** list contains YYYYMMDD to define the format of the eight-character EDI dates in your forms.
6. Click **OK** to accept the default date formats for 6- and 8-character date fields and exit the Preferences dialog.

**Note:** To change the order in which the date formats appear in the Six-character dates and Eight character dates lists or to add a new date format to the lists, select **Options > Date Formats**.

---

## Tips and Recommendations

### File naming conventions

You allocate a file name to a form when you save the form for the first time or use the Save As function to save a copy of the form under a different name. The name of the form should define the form in a meaningful way.

The default file extension for forms is .STP. Using this extension distinguishes source form files from other types of files, such as compiled translation objects. The naming conventions in Sterling Gentran:Server are as follows:

- The source form (form created in Sterling Gentran:Server) should be named using the file extension .STP.
- The compiled translation object (translation object that is the result of compiling the source form) should be named using the same file name that was allocated to the source form, but with the file extension .TPL.

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

When you make a major change to the form, increase the version to the next higher sequential number (for example, 2.0, 3.0). If you make a minor change to the form, increase the release to the next higher sequential number (for example, 2.1, 2.2).

We recommend that you save the form as often as possible, to mitigate the possible loss of additions or modifications in the event of a hardware or system error.

If you have performed any function that invalidates the current format of the translation object, the Save function is unavailable until you regenerate the layout.

### Document names

We recommend that you set up a Document Name for each form to make the identification of a document created by this form 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 form that contains data that distinguishes this document. (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.

### Generating

You should regenerate the form periodically as you customize it to ensure that the most recent changes to the frame are reflected in the Layout Window.

When you first generate the form, each field in the Layout Window is labeled with the same name as its corresponding element in the EDI File Format Window. As

you customize the form, however, you change some of the labels and remove others, so all the fields are not labeled the same as their corresponding elements. Even though you change or remove some field labels, each field still corresponds to one element.

## Activating

If you click a group, segment, composite, or element that you did not mean to activate, right-click the component and select Deactivate.

When you activate an element in a print form, the tag Printed is displayed before that element's description to indicate that this field will be printed. If you later prevent a field from being displayed on the printout, then the tag Not Printed is displayed before that element's description.

When you activate an element in a screen entry form, either the tag Edit Box or the tag Drop Down is displayed before that element's description. Edit Box indicates that the element is formatted as a field. Drop Down indicates that the element is formatted as a list because you applied a standard rule that allows a selection of multiple items.

To hide the groups, segments, and elements that you are not using, select View > Show Active Only.

When you activate a conditional group or segment, the mandatory subordinate segments and elements are activated automatically. A conditional group or segment is used only if there is EDI data available for an element contained in it.

When you activate a conditional group, segment, or composite, the mandatory subordinate segments, composites, and elements are activated automatically. A conditional group, segment, or composite is used only if there is EDI data available for an element contained in it.

## Promoting and Changing Segments and Groups

The Promote function extracts one iteration (instance) of a group or repeating segment. Promote is a specialized function that preserves the integrity of the EDI structure. By default, the fields corresponding to each group and repeating segment are displayed on a separate frame from the rest of the fields in the document. When you promote a group to the parent frame, the fields corresponding to the group are displayed on the frame to which the group is subordinate. If you do not promote a group to the parent frame, the fields corresponding to the group are displayed on their own frame.

When you promote a segment, the new segment is defined as mandatory (with a minimum use of one). If you want to make the segment conditional, you must change the minimum use to zero.

Changing the minimum use of a segment or group from zero to one changes the status of the segment or group from conditional to mandatory. If EDI data is not present for a segment or group that has a minimum use of one or greater, a compliance error occurs during translation for that segment or group.

Changing the maximum use of a segment or group changes the maximum number of times the segment or group can be used. A segment or group with a maximum use greater than one repeats (loops), and is placed on a separate frame than the

segment or group to which it is subordinate. A segment or group with a maximum use of one does not repeat, and its fields are displayed on the same frame as the group or segment to which they are subordinate.

If a segment or element occurs more than once in a form, it is identified by its name <ID>. The second and subsequent occurrences are identified by <ID>:n, where n is the number of the occurrence in the form.

## Accumulators

There is only one set of accumulators for each form. This means that accumulator 0, whether it is used in the Primary Accumulator or Alternate Accum box, is the same accumulator with the same content. If you assign calculations to accumulator 0 at the beginning of the form and then use accumulator 0 again later in the form, 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 content resulting from an earlier calculation.

## Formatting

When the form is generated, the upper left corner of each frame in the form is placed in the upper left corner of the Layout Window.

Use the horizontal ruler at the top of the frame to help you resize the frame. The instructions in this tutorial are given in centimeters. You can toggle from inches to centimeters by double-clicking the yellow square where the vertical and horizontal rulers meet. Use the horizontal ruler to help you find specific locations on the ruler, or to help you measure width. Use the vertical ruler to the left of the frame to help you measure length.

You should be able to view the entire width of the frame. If the right side of the header frame and the vertical scroll bar for the frame are not visible in the Layout Window, move the center bar between the EDI File Format Window and the Layout Window farther to the left so the entire frame is displayed. Alternatively, you can use the horizontal scroll bar at the bottom of the Forms main window to bring the right side of the header frame into view.

Drag the bottom of the frame to the bottom of the Forms window, so that as many of the fields on the frame are displayed as possible.

If a field is not in the part of the frame that currently is displayed, use the scroll bar to scroll down the frame until you locate the hidden fields.

To select more than one field or field label, click and drag the mouse diagonally across all the fields and field labels you want to select. All the fields and field labels completely included within the dragged-across area are selected.

If the template is larger than the frame (there is a scroll bar on the right side of the frame), the static text is displayed in the upper left corner of the part of the template that is displayed, not at the top of the template.

If you format a form component in a way you did not intend, select Display > Undo.

If you forget which unlabeled field contains what data, you can click the field. Its associated element is highlighted in the EDI File Format Window, providing you with a description of the field.

If a field and its corresponding field label move together, the Lock Labels to Fields option is turned on. Click Lock Labels on the Main Toolbar to turn off the Lock Labels option.

## **Screen Entry Forms**

In general, the column width should be wider than the actual content of the column. The extra space that is not used for the content of the column will provide white space separating the columns. If the width for each column is the exact width of the data, then there will not be space separating the columns of data. However, the last column on the screen does not need to be made wider than the content.

The reference is the item (field, field label, list box, or static text) relative to which all other selected items are formatted. The reference is indicated by an outline of diagonal lines, whereas all other selected items are outlined by a solid line. The last item selected in a group of selected items is the reference.



## Chapter 2. About Screen Entry Forms

### Invoice Components for ANSI X12

#### Mandatory components

This table lists the following groups, segments, and elements have been defined as mandatory by the standard committee for an ANSI X12 invoice (810). These components are activated automatically when you create a new form.

Segment	Element	Description	Data Type	Length
BIG		Beginning Segment for Invoice		
	BIG01	Invoice Date	Dt/Tm	6
	BIG02	Invoice Number	String	22
TDS		Total Monetary Summary		
	TDS01	Total Invoice Amount	Real	10
CTT		Transaction Totals		
	CTT01	Number of Line Items	Integer	6

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

#### Required components

This table lists the form components that are required (need to be activated) and are not mandatory for the standard for this tutorial.

Element	Description	Data Type	Length	Code Value/Format to Be Assigned
Beginning Segment for Invoice (BIG Segment) (Already Activated)				
BIG03	Purchase Order Date	Dt/Tm	6	
BIG04	Purchase Order Number	String	22	
Reference Numbers (REF Segment)				
REF01	Reference Number Qualifier	String	2	CT (Contract Number)
REF02	Reference Number	String	30	
Name and Address (N1 Group)				
Name (N1 Segment)				
N101	Entity Identifier Code	String	2	ST (Ship To) RT (Remit To)
N102	Name	String	35	
Address Information (N3 Segment)				
N301	Address Information	String	35	

Element	Description	Data Type	Length	Code Value/Format to Be Assigned
N302	Address Information	String	35	
Geographic Information (N4 Segment)				
N401	City	String	30	
N402	State or Province Code	String	2	
N403	Postal Code	String	9	
Terms of Sale/Deferred Terms of Sale (ITD Segment)				
ITD01	Terms Type Code	String	2	Any valid code
Date/Time Reference (DTM Segment)				
DTM01	Date/Time Qualifier	String	3	090 (Contract Effective)
DTM02	Date	Dt/Tm	6	
Baseline Item Data (IT1 Group)				
Baseline Item Data (Invoice) (IT1 Segment in the IT1 Group)				
IT101	Assigned Identification	String	11	
IT102	Quantity Invoiced	Real	10	
IT103	Unit or Basis for Measurement Code	String	2	Any valid code
IT104	Unit Price	Real	14	Format = R2
IT106	Product/Service ID	String	30	
IT107	Product/Service ID Qualifier	String	2	UP (UPC Consumer Package Code)
<b>Product/Item Description (PID Group in the IT1 Group)</b>				
Product/Item Description (PID:2 Segment in the PID Group)				
PID:201	Item Description Type	String	1	F (Free-Form Description)
PID:205	Description	String	80	
Date/Time Reference (DTM:2 Segment in the IT1 Group)				
DTM:201	Date/Time Qualifier	String	3	011 (Date Shipped)
DTM:202	Date	Dt/Tm	6	
Carrier Detail (CAD Segment in the IT1 Group)				
CAD01	Transportation Method/Type Code	String	2	Any valid code
CAD08	Reference Number	String	30	

## Customization tasks

Sterling Gentran:Server generates a form based on the groups, segments, and elements you activate. At this point, the form is compliant with the standard and it contains all the necessary components based on the data you send Pet Zone. However, you need to customize the form components to produce a form that is easy to use to enter data in a logical manner.

This table lists the customization tasks described in this tutorial.



Form Component	Description	Customization Task
BIG01 element	Invoice Date	Your users enter the date in the format "MM/DD/YY," but the date in the EDI data should be in the format of "YYMMDD," so you set the format accordingly.
BIG03 element	Purchase Order Date	Your users enter the date in the format "MM/DD/YY," but the date in the EDI data should be in the format of "YYMMDD," so you set the format accordingly.
REF segment	Reference Numbers	The standard allows this segment to be used up to twelve times, but you and your trading partner have decided to use this segment only once. Therefore, you change the maximum use of this segment to one.
REF01 element	Reference Number Qualifier	The only type of reference number that you use is the contract number, so you do not need to load the entire code list table. You define a constant value in this field designating the type of number (contract number) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("CT" for contract number) is entered automatically.
N1 group	Name and Address	The standard allows this group to be used up to two hundred times, but you and your trading partner have decided to use two iterations of this segment and use each iteration once: one iteration is for the Ship To name and address, and one iteration is for the Remit To name and address. You promote this group twice so that one iteration of the N1 group is used for the Ship To name and address and another N1 group is used for the Remit To name and address. Then, you use the key field function to ensure that only the Ship To name and address are displayed in the first N1 group, and only the Remit To name and address are displayed in the second N1 group.
N3 segment in the N1 group	Address Information	The standard allows this segment to be used up to two times for each occurrence of the N1 group. You need this segment to be used only once for each name and address, so you change the maximum use of this segment to one.
N101 element in the Ship To address	Entity Identifier Code	The only type of entity identifier code that you use in this element is the Ship To name, so you do not need to load the entire code list table. You define a constant value in this field designating the type of name (Ship To name) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("ST" for Ship To name) is entered automatically.
N101 element in the Remit To address	Entity Identifier Code	The only type of entity identifier code that you use in this element is the Remit To name, so you do not need to load the entire code list table. You define a constant value in this field designating the type of name (Remit To name) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("RI" for Remit To name) is entered automatically.
ITD segment	Terms of Sale/Deferred Terms of Sale	The standard allows this segment to be used up to five times in one invoice to specify the terms under which this invoice is valid. You need this segment to be used only once for each invoice, so you change the maximum use of this segment to one.
ITD01 element	Terms Type Code	Your users can enter any of the terms type codes that the standard designates as valid codes. You load the entire code list for this element, which creates a list containing valid codes from which users can select.

Form Component	Description	Customization Task
DTM segment	Date/Time Reference	The standard allows the date to be used up to ten times. You use the DTM segment only once (for the contract date), so you change the maximum usage of the DTM segment.
DTM01 element	Date/Time Qualifier	The only type of date that you use in the DTM segment is the contract date, so you do not need to load the entire code list table. You define a constant value in this field designating the type of date (contract date) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("090" for contract date) is entered automatically.
DTM02 element	Date	Your users enter the date in the format MM/DD/YY, but the date in the EDI data should be in the format YYMMDD, so you set the format accordingly.
IT101 element	Assigned Identification	You use an accumulator for this element to count line items in the invoice. This accumulator is used in the Number of Line Items element (CTT01) to calculate the total number of line items in the invoice.
IT102 element	Quantity Invoiced	You use an accumulator for this element to calculate a running total of the invoice amount, which is used to calculate the total invoice amount. This accumulator is used in the Total Invoice Amount element (TDS01) to identify the total dollar amount invoiced.
IT103 element	Unit or Basis for Measurement Code	Your users can enter any of the unit codes that the standard designates as valid codes. You load the entire code list for this element, which creates a list containing valid codes from which users can select.
IT104 element	Unit Price	Both the EDI data and the data that your users enter in the screen entry form should be formatted with an explicit decimal point and two decimal places. Also, you use an accumulator for this element to calculate the total dollar amount of the invoice. This accumulator is used in the Total Invoice Amount element (TDS01) to identify the total dollar amount invoiced.
IT106 element	Product/Service ID Qualifier	The only type of qualifier that you use in this element is the UPC code for the item, so you do not need to load the entire code list table. You define a constant value in this field designating the type of qualifier (UPC code) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("UP" for UPC code) is entered automatically.
PID group in the IT1 group	Product/Item Description	The standard allows this group containing line item information to be used up to two thousand times in one invoice. Your users complete the fields in this group only once per invoiced item, so you change the maximum use of this segment to one.
PID:201 element in the IT1 group	Item Description Type	The only type of item description that you use in this element is a free-form description for the item, so you do not need to load the entire code list table. You define a constant value in this field designating the type of description (free-form) you expect your users to enter. Then, you prevent this field from being displayed in the screen entry form, because the value for this field ("F" for free-form description) is entered automatically.
DTM:2 segment in the IT1 group	Date/Time Reference	The standard allows the date segment to be used up to ten times for each invoiced item. Your users complete the fields in this segment only once per invoiced item. You change the maximum use of this segment to one, which places the Date/Time Reference fields on the same frame as the rest of the line item fields.

Form Component	Description	Customization Task
DTM:201 element in the IT1 group	Date/Time Qualifier	The only type of date that you use in the DTM:2 segment is the date shipped, so you do not need to load the entire code list table. You define a constant value in this field designating the type of date (date shipped) you expect your users to enter. You then prevent this field from being displayed in the screen entry form, because the value for this field ("011" for date shipped) is entered automatically.
DTM:202 element in the IT1 group	Date	Your users enter the date in the format MM/DD/YY, but the date in the EDI data should be in the format YYMMDD, so you set the format accordingly.
CAD segment	Carrier Detail	The standard allows this segment to be used up to 999,999 times for each line item. Your users use the fields in this segment only once per invoiced item. You change the maximum use of this segment to one (which places the Carrier Detail fields on the same frame as the rest of the line item fields).
CAD01 element	Transportation Method/Type Code	Your users can enter any of the transportation type codes that the standard designates as valid codes. You load the entire code list for this element, which creates a list containing valid codes from which users can select when completing a screen entry form.
TDS01 element	Total Invoice Amount	You use an accumulator to generate a running total of price (obtained by multiplying the quantity invoiced for each line item by the unit price) for this element.
CTT01 element	Number of Line Items	You use an accumulator to generate a total of the number of line items in the invoice for this element.

## Invoice Components for EDIFACT

### Mandatory components

This table lists the groups, segments, composites, and elements that have been defined as mandatory by the standards committee for an EDIFACT invoice (INVOIC).

Group	Segment	Composite	Element	Description
	BGM			Beginning of Message
	DTM			Date/Time/Period
		C507	DTM01	Date/Time/Period Qualifier
	UNS			Section Control
			UNS01	Section Identification
MOA				Monetary Amount

### Required components

This table lists the form components for this tutorial that are required (need to be activated) and are not mandatory for the standard.

Element	Description	Data Type	Length	Constant, Code Value, or Format to Be Assigned
	Beginning of Message (BGM Segment) (Already Activated)			

Element	Description	Data Type	Length	Constant, Code Value, or Format to Be Assigned
BGM05	Document/Message Number	String	35	
Date/Time/Period (DTM Segment) (Already Activated)				
DTM01	Date/Time/Period Qualifier	String	3	3 (Invoice Date/Time)
DTM02	Date/Time/Period	String	35	
Reference (RFF Group)				
Reference (RFF Segment in RFF Group)				
RFF01	Reference Qualifier	String	3	<ul style="list-style-type: none"> <li>• CT (Contract Number)</li> <li>• ON (Order Number (Purchase))</li> </ul>
RFF02	Reference Number	String	35	
Date/Time/Period (DTM:2 Segment in RFF Group)				
DTM:201	Date/Time/Period Qualifier	String	3	<ul style="list-style-type: none"> <li>• 92 (Contract Effective Date)</li> <li>• 4 (Order Date/Time)</li> </ul>
DTM:202	Date/Time/Period	String	35	
Name and Address (NAD Group)				
Name and Address (NAD Segment in NAD Group)				
NAD01	Party Qualifier	String	3	<ul style="list-style-type: none"> <li>• ST (Ship To)</li> <li>• RE (Party To Receive Commercial Invoice Remittance)</li> </ul>
NAD10	Party Name	String	35	
NAD16	Street and Number/P.O. Box	String	35	
NAD17	Street and Number/P.O. Box	String	35	
NAD19	City Name	String	35	
NAD20	Country Sub-Entity Identification	String	9	
NAD21	Postcode Identification	String	9	
Payment Terms (PAT Group)				
Payment Terms Basis (PAT Segment in PAT Group)				
PAT01	Payment Terms Type Qualifier	String	3	Any valid code
Line Item (LIN Group)				
Line Item (LIN Segment in LIN Group)				
LIN01	Line Item Number	Number	6	
Additional Product ID (PIA Segment in LIN Group)				
PIA01	Product ID Function Qualifier	String	3	5 (Product Identification)

Element	Description	Data Type	Length	Constant, Code Value, or Format to Be Assigned
PIA02	Item Number	String	35	
PIA03	Item Number Type, Coded	String	3	UP (UPC (Universal Product Code))
Item Description (IMD:2 Segment in LIN Group)				
IMD:201	Item Description Type, Coded	String	3	F (Free Form)
IMD:206	Item Description	String	35	
Measurements (MEA:2 Segment in LIN Group)				
MEA:201	Measurement Application Qualifier	String	3	AAE (Measurement)
MEA:202	Measurement Dimension, Coded	String	3	
Quantity (QTY:2 Segment in LIN Group)				
QTY:201	Quantity Qualifier	String	3	47 (Invoiced Quantity)
QTY:202	Quantity	Number	15	Format = R0
Date/Time/Period (DTM:11 Segment in LIN Group)				
DTM:1101	Date/Time/Period Qualifier	String	3	186 (Departure Date/Time, Actual)
DTM:1102	Date/Time/Period	String	35	
Monetary Amount (MOA Group in LIN Group)				
Monetary Amount (MOA:5 Segment in MOA Group in LIN Group)				
MOA:501	Monetary Amount Type Qualifier	String	3	146 (Unit Price)
MOA:502	Monetary Amount	Number	18	Format = R2
Details of Transport (TDT Group in LIN Group)				
Details of Transport (TDT:2 Segment in TDT Group in LIN Group)				
TDT:201	Transport Stage Qualifier	String	3	20 (Main-Carriage Transport)
TDT:205	Type of Means of Transport Identification	String	8	Any valid code
TDT:207	Carrier Identification	String	17	
Section Control (UNS Segment)				
UNS01	Section Identification	String	1	S (Summary)
Control Total (CNT Segment)				
CNT01	Control Qualifier	String	3	2 (Number of Line Items)
CNT02	Control Value	Number	8	Format = N0
Monetary Amount (MOA Group) (Already Activated)				
Monetary Amount (MOA:10 Segment in MOA Group)				
MOA:1001	Monetary Amount Type Qualifier	String	3	77 (Invoice Amount)
MOA:1002	Monetary Amount	Number	18	Format = R2

## Customization tasks

Sterling Gentran:Server generates a form based on the groups, segments, composites, and elements you activate. At this point, the form is compliant with the standard and it contains all the necessary components based on the data you send Pet Zone. You need to customize the form components to produce a form that is easy to use to enter data in a logical manner.

This table lists the customization tasks described in this tutorial.

Form Component	Description	Customization Task
BGM05 element	Document/Message Number	You will set up the document name (which enables you to differentiate between messages in the document browsers in Sterling Gentran:Server) in this element. Also, your users will enter no longer than an eight-character string in this element, so you will change the maximum length for this element to eight. In addition, you will change the field label to Invoice No., which better describes the data your users will enter.
DTM segment	Date/Time/Period	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.
DTM01 element	Date/Time/Period Qualifier	Your users will enter only the invoice date in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the invoice date. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
DTM02 element	Date/Time/Period	Your users will enter a string no longer than eight characters in this element, so you will change the maximum length for this element to eight. Also, you will change the field label to Invoice Date.
RFF group	Reference	You and your trading partner will use this group only once, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame. Also, you need two iterations of this group: one for the contract number, and one for the purchase order number. You will copy this segment so that you will have the two iterations of this group you need.
RFF01 element	Reference Qualifier	Your users will enter only the contract number in this segment, so you do not need to load the entire code list table. You will define a constant value in this field for the contract number. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically. You will perform the same task (with a different constant value) for the Reference Qualifier field in the new RFF group that you created by copying the original RFF group.
RFF02 element	Reference Number	Your users will enter a string no longer than ten characters in this element, so you will change the maximum length for this element to ten. Also, you will change the field label to P.O. No. ("Contract No." for the Reference Number field in the second iteration of the RFF segment).
DTM:2 segment	Date/Time/Period	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.

Form Component	Description	Customization Task
DTM:201 element	Date/Time/Period Qualifier	Your users will enter only the contract date in this segment, so you do not need to load the entire code list table. You will define a constant value in this field for the contract date. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically. You will perform the same task (with a different constant value) for the Date/Time/Period Qualifier field in the new RFF group that you created by copying the original RFF group.
DTM:202 element	Date/Time/Period	Your users will enter a string no longer than eight characters in this element, so you will change the maximum length for this element to eight. Also, you will change the field label to P.O. Date ("Contract Date" for the Date/Time/Period field in the second iteration of the RFF segment).
NAD group	Name and Address	You and your trading partner have decided to use this group only once, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame. Also, you need two iterations of this group: one for the Ship To name and address, and one for the Remit To name and address. You will copy this segment so that you will have the two iterations of this group you need.
NAD01 element	Party Qualifier	Your users will enter only the Ship To name and address in this group, so you do not need to load the entire code list table. You will define a constant value in this element for the contract number. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically. You will perform the same task (with a different constant value) for the Party Qualifier field in the new NAD group that you created by copying the original NAD group.
NAD10 element	Party Name	You will change the field label for this element to Ship To ("Remit To" for the Party Name field in the new NAD group).
NAD16 element	Street and Number/P.O. Box	The data in this element will be self-explanatory, so you will remove the label from this field.
NAD17 element	Street and Number/P.O. Box	The data in this element will be self-explanatory, so you will remove the label from this field.
NAD19 element	City Name	The data in this element will be self-explanatory, so you will remove the label from this field. Also, your users will enter no longer than a thirty-character string in this element, so you will change the maximum length for this element to thirty.
NAD20 element	Country Sub-Entity Identification	The data in this element will be self-explanatory, so you will remove the label from this field. Also, your users will enter no longer than a two-character string in this element, so you will change the maximum length for this element to two.
NAD21 element	Postcode Identification	The data in this element will be self-explanatory, so you will remove the label from this field.
PAT group	Payment Terms	You and your trading partner will use this group only once, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame.
PAT01 element	Payment Terms Type Qualifier	Your users can enter any of the payment terms type codes that the standard designates as valid codes. You will load the entire code list for this element, which will create a list containing valid codes from which users can select. Also, you will change the field label to Payment Terms Code.

Form Component	Description	Customization Task
LIN group	Line Item	You will add the more descriptive title, Line Items, to the group description to label the fields contained on the LIN frame.
LIN01 element	Line Item Number	You will use an accumulator for this element to count line items in the invoice. This accumulator will be used in the Control Value field (CNT02) to calculate the total number of line items in the invoice. You will instruct the system to display the value in this field in the first column in the Line Items list on the Invoice Message frame. Also, the line item number will be no longer than five digits, so you will change the maximum length for this element to five. In addition, you will change the field label to Item No.
PIA segment in the LIN group	Additional Product ID	You and your trading partner will use this segment only once per line item, so you will change the maximum use of this segment to one.
PIA01 element	Product ID Function Qualifier	Your users will enter only the item number in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the item number. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
PIA02 element	Item Number	Your users will enter a string no longer than ten characters in this segment, so you will change the maximum length for this element to ten. Also, you will change the field name to Product Code. In addition, you will instruct the system to display the value in this field in the second column in the Line Items list on the Invoice Message frame.
PIA03 element	Item Number Type, Coded	Your users will enter only the product identification in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the product identification. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically. Also, the constant you defined for this element is only two characters long, so you will change the maximum length of this element to two.
IMD:2 segment in the LIN group	Item Description	You and your trading partner have decided to use this segment only once per line item, so you will change the maximum use of this segment to one.
IMD:201 element	Item Description Type, Coded	Your users will enter only the free-form description in this segment, so you do not need to load the entire code list table. You will define a constant value in this field for the free-form description. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
MEA:2 segment in the LIN group	Measurements	You and your trading partner have decided to use this segment only once per line item, so you will change the maximum use of this segment to one.
MEA:201 element	Measurement Application Qualifier	Your users will enter only the measurement dimension in this element, so you do not need to load the entire code list table. You will define a constant value in this element for the measurement dimension. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
MEA:202 element	Measurement Dimension, Coded	Your users can enter any of the measurement dimension codes that the standard designates as valid codes. You will load the entire code list for this element, which will create a list containing valid codes from which users can select. Also, you will change the field label to UOM (indicating "Unit of Measure").



Form Component	Description	Customization Task
QTY:2 segment in the LIN group	Quantity	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.
QTY:201 element	Quantity Qualifier	Your users will enter only the invoiced quantity in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the invoiced quantity. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
QTY:202 element	Quantity	You will use an accumulator for this element to generate a running total of the invoice amount. This accumulator will be used in the Monetary Amount field (MOA:1002) to identify the total dollar amount invoiced. You will instruct the system to display the value in this field in the third column in the Line Items list on the Invoice Message frame. Also, your users will enter a number no longer than five digits in this element, so you will change the maximum length for this element to five. In addition, Your users will not use decimal places for the data in this field, so you will format the data with an explicit decimal point and no decimal places.
DTM:11 segment in the LIN group	Date/Time/Period	You and your trading partner will use this segment only once per line item, so you will change the maximum use of this segment to one.
DTM:1101 element	Date/Time/Period Qualifier	Your users will enter only the actual departure date in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the actual departure date. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
DTM:1102 element	Date/Time/Period	Your users will enter a string no longer than eight characters in this element, so you will change the maximum length for this element to eight. Also, you will change the field label to Date Shipped.
MOA group in the LIN group	Monetary Amount	You and your trading partner will use this group only once per line item, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame.
MOA:501 element	Monetary Amount Type Qualifier	Your users will enter only the unit price in this segment, so you do not need to load the entire code list table. You will define a constant value in this element for the unit price. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
MOA:502 element	Monetary Amount	You will use an accumulator for this element to generate the total dollar amount of the invoice amount. This accumulator will be used in the Monetary Amount field (MOA:1002) to identify the total dollar amount invoiced. You will instruct the system to display the value in this field in the fourth column in the Line Items list on the Invoice Message frame. Also, your users will enter a number no longer than eight digits in this element, so you will change the maximum length for this element to eight. In addition, your users will enter prices with two decimal points in this field, so you will format the data with an explicit decimal point and two decimal places. Finally, you will change the field label to Price.
TDT group in the LIN group	Details of Transport	You and your trading partner have decided to use this group only once per line item, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame.

Form Component	Description	Customization Task
TDT:201 element	Transport Stage Qualifier	Your users will enter only the main-carriage transport in this segment, so you do not need to load the entire code list table. You will define a constant value in this field for the transport stage. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
TDT:205 element	Type of Means of Transport Identification	Your users can enter any of the type of means of transport identification codes that the standard designates as valid codes. You will load the entire code list for this element, which will create a list containing valid codes from which users can select. Also, you will change the field label to Transport Method. In addition, your users will enter a string no longer than two characters in this element, so you will change the maximum length for this element to two.
TDT:207 element	Carrier Identification	Your users will enter a string no longer than twelve characters in this element, so you will change the maximum length for this element to twelve. Also, you will change the field name to Carrier Code.
UNS01 element	Section Identification	The only type of section identification used in this segment is summary, so you do not need to load the entire code list table. You will define a constant value in this element for the summary. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
CNT segment	Control Total	You and your trading partner have decided to use this segment only once, so you will change the maximum use of this segment to one.
CNT01 element	Control Qualifier	The only type of control used in this segment is the number of line items, so you do not need to load the entire code list table. You will define a constant value in this element for the number of line items. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
CNT02 element	Control Value	You will use an accumulator for this element to generate a total of the number of line items in the invoice. You will make this field display-only, so that users cannot change the value in this field. Also, the total in this field will be no longer than a six-character string, so you will change the maximum length for this element to six. You will change the field label to Number of Line Items. In addition, the value in this field always will be a whole number, so you will format the data with an explicit decimal point and no decimal places.
MOA group	Monetary Amount	You and your partner will use this group only once, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Message frame.
MOA:1001 element	Monetary Amount Type Qualifier	The only type of monetary amount used in this segment is the invoice amount, so you do not need to load the entire code list table. You will define a constant value in this field for the invoice amount. Then, you will prevent this field from being displayed in the screen entry form, because the value for this field will be entered automatically.
MOA:1002 element	Monetary Amount	You will use an accumulator for this element to generate a running total of price (the quantity invoiced for each line item multiplied by the unit price). You will make this field display-only, so that users cannot change the value in this field. Also, the total in this field will be no longer than a ten-character string, so you will change the maximum length for this element to ten. You will change the field label to Total Invoice Amount. Finally, the value in this field will be a price with two decimal places, so you will format the data with an explicit decimal point and two decimal places.

## Invoice Components for TRADACOMS

### Mandatory components

This table lists the groups, segments, composites, and elements that have been defined as mandatory by the standards committee for a TRADACOMS ANA001 INVOIC release 9 invoice, and are activated automatically when you create a new form.

Group	Group	Segment	Composite	Element	Description
		CLO			Customer's Location
			CLOC		
		IRF			Invoice References
				INVN	Invoice Number
				IVDT	Date of Invoice
				TXDT	Tax-Point Date
ODD					
	ILD				
		STL			VAT Rate Invoice Sub Trailer
				SEQA:7	First Level Sequence Number
				CD12:2	VAT Rate Category Code
				VATP:2	VAT Rate Percentage
				NRIL	Number of Item Lines
				LVLA	Lines Sub-Total (Excluding VAT)
				EVLA	Extended Sub-Total Amount (Excluding VAT)
				ASDA	Extended Sub-Total Amount (After Settlement Discount Has Been Applied)
				VATA	VAT Amount Payable
				APSI	Payable Sub-Total Amount Including Settlement Discount
		TLR			Invoice Trailer
				NSTL	Number of Total Segments
				LVLT	Lines Total Amount (Excluding VAT)
				EVLT	Total Extended Amount Ex Settlement Discount
				ASDT	Total Amount Exc VAT Inc Sett
				TVAT	Total VAT Amount Payable
				TPSI	Total Payable Inc Settlement

## Required components

When translating data, the system does not process groups, segments, composites, and elements that are not activated. Therefore, *you* must make available (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 the form.

For this tutorial, the form components that are required (need to be activated) and are not mandatory for the standard are the following:

Element	Description	Data Type	Length	Constant, Code Value, or Format to Be Assigned
Customer's Location (CLO Segment) (Already Activated)				
CLO CLOC CLO0	Customer's ANA Location Code	String	13	Format = 9
CLO CLOC CLO1	Customer's Own Location Code	String	17	
CLO CNAM	Customer's Name	String	40	
CLO CADD CAD0	Customer's Address Line 1	String	35	
CLO CADD CAD1	Customer's Address Line 2	String	35	
CLO CADD CAD2	Customer's Address Line 3	String	35	
CLO CADD CAD3	Customer's Address Line 4	String	35	
CLO CADD CAD4	Customer's Post Code	String	8	
Settlement Terms (PYT Segment)				
PYT PAYT	Terms of Payment	String	40	
Data Narrative (DNA Segment)				
DNA GNAR GNA0	General Narrative Line 1	String	40	
DNA GNAR GNA1	General Narrative Line 2	String	40	
DNA GNAR GNA2	General Narrative Line 3	String	40	
DNA GNAR GNA3	General Narrative Line 4	String	40	
Order and Delivery Terms (ODD Group) (Already Activated)				
Order and Delivery Terms (ODD:2 Segment)				
ODD:2 ORNO ORN0	Customer's Order Number	String	17	
ODD:2 ORNO ORN2	Date Order Placed by Customer	Dt/Tm	6	Screen Format = △DD/MM/YY
ODD:2 DELN DEL0	Delivery Note Number	String	17	
ODD:2 DELN DEL1	Date of Despatch by Supplier	Dt/Tm	6	Screen Format = △DD/MM/YY
Invoice Line Details (ILD Group in ODD Group) (Already Activated)				
Invoice Line Details (ILD:2 Segment)				
ILD:2 SPRO SPR0	EAN-13 Code for the Traded Unit	String	13	
ILD:2 SPRO SPR1	Supplier's Code for the Traded Unit	String	30	
ILD:2 CPRO CPR1	Customer's Item Code	String	30	
ILD:2 QTYI QTY0	Number of Order Units Invoice	String	15	Format = N0 (Number data type)
ILD:2 QTYI CD04:2	Measure Indicator	String	6	Any valid code
ILD:2 TDES TDE0	Traded Unit Descr. Line 1	String	40	

## Customization tasks

Sterling Gentran:Server generates a form based on the groups, segments, composites, and elements you activate. At this point, the form is compliant with the standard and it contains all the necessary components based on the data you will send Pet Zone. However, you need to customize the form components to produce a form that is easy to use to enter data in a logical manner.

This table lists the required customization tasks described in this tutorial.

Form Component	Description	Customization Task
INVOIC file	Invoice Details	Use an extended rule to calculate the VAT summary for the fields in the STL and TLR segments.
CLO CLOC CLO0 element	Customer's ANA Location Code	Your users will enter the ANA code for the customer's location to which the invoiced items are to be shipped as a string data type accepting numeric characters only. Therefore, you will designate the appropriate string format for this element. Also, you will change the field label to "Location ANA Code."
CLO CLOC CLO1 element	Customer's Own Location Code	Your users will enter a string no longer than ten characters in this element, so you will change the maximum length for this element to ten. Also, you will change the field label to "Location Own Code."
CLO CNAM element	Customer's Name	Your users will enter a string no longer than thirty-five characters in this element, so you will change the maximum length for this element to thirty-five. Also, you will shorten the field label to "Name."
CLO CADD CAD0 element	Customer's Address Line 1	You will shorten the field label for this element to "Address Line 1."
CLO CADD CAD1 element	Customer's Address Line 2	You will shorten the field label for this element to "Address Line 2."
CLO CADD CAD2 element	Customer's Address Line 3	You will shorten the field label for this element to "Address Line 3."
CLO CADD CAD3 element	Customer's Address Line 4	You will shorten the field label for this element to "Address Line 4."
CLO CADD CAD4 element	Customer's Post Code	You will shorten the field label for this element to "Post Code."
IRF segment	Invoice References	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.
IRF INVN element	Invoice Number	You will shorten the field label for this element to "Invoice No." In addition, you will set up the document name (which enables you to differentiate between messages in the document browsers in Sterling Gentran:Server) for this element.
IRF IVDT element	Date of Invoice	Your users will enter the invoice date in DD/MM/YY format (not YYMMDD format, the default format defined by the standard). Therefore, you will change the screen format accordingly. You will change the maximum length for this field and element to eight (to accommodate the longer date format). In addition, you will change the field label to "Invoice Date."
IRF TXDT element	Tax-Point Date	Your users will enter the tax-point date in DD/MM/YY format (not YYMMDD format, the default format defined by the standard). Therefore, you will change the screen format accordingly. You will change the maximum length for this field and element to eight (to accommodate the longer date format).
PYT segment	Settlement Terms	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.

Form Component	Description	Customization Task
PYT SEQA element	First Level Sequence Number	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object. Also, you will define a constant value for this field, as this field will always have the same value (because each invoice corresponds to only one purchase order).
PYT PAYT element	Terms of Payment	You will shorten the field label for this element to "Payment Terms."
DNA segment	Data Narrative	You and your trading partner will use this segment only once, so you will change the maximum use of this segment to one.
DNA SEQA:2 element	First Level Sequence Number	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object. Also, you will define a constant value for this field, as this field will always have the same value (because each invoice corresponds to only one purchase order).
DNA GNAR GNA0 element	General Narrative Line 1	You will shorten the field label for this element to "Invoice Notes."
DNA GNAR GNA1 element	General Narrative Line 2	The data in this element will be self-explanatory, so you will remove the label from this field.
DNA GNAR GNA2 element	General Narrative Line 3	The data in this element will be self-explanatory, so you will remove the label from this field.
DNA GNAR GNA3 element	General Narrative Line 4	The data in this element will be self-explanatory, so you will remove the label from this field.
ODD group	Order and Delivery Terms	You and your trading partner will use this group only once, so you will change the maximum use of this group to one. You will promote this group so that the fields in this group are placed on the main Invoice Details frame.
ODD:2 SEQA element	First Level Sequence Number	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object. Also, you will define a constant value for this field, as this field will always have the same value (because each invoice corresponds to only one purchase order).
ODD:2 ORNO ORN0 element	Customer's Order Number	You will change the field label for this element to "Customer's P.O. No."
ODD:2 ORNO ORN2 element	Date Order Placed by Customer	Your users will enter the purchase order date in DD/MM/YY format (not YYMMDD format, the default format defined by the standard). Therefore, you will change the screen format accordingly. You will change the maximum length for this field and element to eight (to accommodate the longer date format). In addition, you will shorten the field label to "P.O. Date."
ODD:2 DELN DEL0 element	Delivery Note Number	You will add Help text to this field.
ODD:2 DELN DEL1 element	Date of Dispatch by Supplier	Your users will enter the delivery date in DD/MM/YY format (not YYMMDD format, the default format defined by the standard). Therefore, you will change the screen format accordingly. You will change the maximum length for this field and element to eight (to accommodate the longer date format). In addition, you will shorten the field label to "Delivery Date."
ILD group in the ODD group	Invoice Line Details	You will add the more descriptive title "Line Items" to the group description to label the fields contained on the ILD:2 frame. In addition, you will use an extended rule to calculate the extended line cost for the line items, and to convert the VAT rate percentage from a string (its data type in the partner database) to a number (the data type required in the VAT Rate Percentage element).

Form Component	Description	Customization Task
ILD:2 SEQA element	First Level Sequence Number	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object. Also, you will define a constant value for this field, as this field will always have the same value (because each invoice corresponds to only one purchase order)
ILD:2 SEQB element	2nd Level Sequence No.	You will use the Loop Count standard rule to count the number of this iteration of the group in this field (to provide a count of the number of line items in the invoice). You will instruct the system to display the value from this field in the first column in the Line Items list box on the Invoice Details frame. Also, the line item number will be no longer than five digits, so you will change the maximum length for this element to five. In addition, you will shorten the field label to "Item No." and make the field display-only (as the users will not need to enter a value in this field).
ILD:2 SPRO SPR0 element	EAN-13 Code for the Traded Unit	You will shorten the field label for this element to "EAN Code."
ILD:2 SPRO SPR1 element	Supplier's Code for the Traded Unit	You will instruct the system to display the value from this field in the second column in the Line Items list box on the Invoice Details frame. Also, you will change the field label to "Supplier's Product Code."
ILD:2 CPRO CPR1 element	Customer's Item Code	You will change the field label for this element to "Customer's Product Code."
ILD:2 QTYI QTY0 element	Number of Order Units Invoice	Your users will enter the quantity as a number with N0 format (formatted with an implicit decimal point and no decimal places). Therefore, you will change the data type from String to Number and the screen and EDI formats to N0 formats. You will instruct the system to display the value from this field in the third column in the Line Items list box on the Invoice Details frame. Also, the quantity will be no longer than five digits, so you will change the maximum length for this element to five. In addition, you will shorten the field label to "Quantity."
ILD:2 QTYI CD04:2 element	Measure Indicator	Your users can enter any of the measure indicator codes that the standard designates as valid codes. You will load the entire code list for this element, which will create a drop-down list box containing valid codes from which users can select. Also, you will change the field label to "Unit of Measure."
ILD:2 AUCT AUC0 element	Cost Price (Excluding VAT)	Your users will enter the unit price in R4 format (formatted with an explicit decimal point and up to four decimal places). Therefore, you will change the screen format to R4. You will instruct the system to display the value from this field in the fourth column in the Line Items list box on the Invoice Details frame. Also, you will change the field label to "Unit Price (Ex. VAT)."
ILD:2 LEXC element	Extended Line Cost (Excluding VAT)	The extended line cost will be formatted as an R4 number (formatted with an explicit decimal point and up to four decimal places). Therefore, you will change the screen format to R4. In addition, you will prevent this field from being displayed in the screen entry translation object, as users will not need to enter or view a value in this field.
ILD:2 CD12 element	VAT Rate Category Code	You will use a Select standard rule so that all of the available codes from the VAT rate category code table (VATCODES table) will be available in a drop-down list box for your screen entry translation object users. Also, you will shorten the field label to "VAT Code."

Form Component	Description	Customization Task
ILD:2 VATP element	VAT Rate Percentage	You will create a temporary storage field for the VAT rate (with a string data type, to accommodate the VAT rate from the partner database). The extended rule you used on the ILD group will convert the string data in the temporary storage field to a number, then place the number in the ILD:2 VATP element (which has a number data type) and delete the value from the temporary field. You will prevent the ILD:2 VATP field from being displayed on the screen entry translation object.
ILD:2 TDES TDE0 element	Traded Unit Descr. Line 1	You will shorten the field label for this element to "Description."
STL segment	VAT Rate Invoice Sub Trailer	You will add the more descriptive title "VAT Summary" to the group description to label the fields contained on the STL frame.
STL SEQA:7 element	First Level Sequence Number	This element is required in the invoice, but screen entry translation object users will not need to enter a value in this field (this field will be assigned a value in an extended rule used on the INVOIC file). You will prevent this field from being displayed in the screen entry translation object.
STL CD12:2 element	VAT Rate Category Code	You will instruct the system to display the value from this field in the first column in the VAT Summary list box on the Invoice Details frame. Also, you will shorten the field label to "VAT Code" and make the field display-only (as users will not need to enter a value in this field).
STL VATP:2 element	VAT Rate Percentage	The VAT rate will be displayed in the screen entry translation object in R3 format (formatted with an explicit decimal point and up to three decimal places). Therefore, you will change the screen format to R3. You will instruct the system to display the value from this field in the second column in the VAT Summary list box on the Invoice Details frame. Also, you will shorten the field label to "VAT rate" and make the field display-only (as users will not need to enter a value in this field).
STL NRIL element	Number of Item Lines	This field will be assigned a value in an extended rule (used on the INVOIC file). You will change the field label to "Number of Line Items" and make the field display-only (as users will not need to enter a value in this field).
STL LVLA element	Lines Sub-Total (Excluding VAT)	The lines subtotal will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. You will instruct the system to display the value from this field in the third column in the VAT Summary list box on the Invoice Details frame. Also, you will make this field display-only (as users will not need to enter a value in this field) and make minor changes to the field label.
STL EVLA element	Extended Sub-Total Amount (Excluding VAT)	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object (this field will be assigned a value in the extended rule used on the INVOIC file).
STL ASDA element	Extended Sub-Total Amount (After Settlement Discount Has Been Applied)	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object (this field will be assigned a value in the extended rule used on the INVOIC file).



Form Component	Description	Customization Task
STL VATA element	VAT Amount Payable	The VAT amount payable will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).
STL APSI element	Payable Sub-Total Amount Including Settlement Discount	The payable subtotal will be displayed in the screen entry translation object in R3 format (formatted with an explicit decimal point and up to three decimal places). Therefore, you will change the screen format to R3. Also, you will make this field display-only (as users will not need to enter a value in this field) and shorten the field label to "Payable Subtotal (Inc. Sett. Disc.)."
TLR NSTL element	Number of Total Segments	This element is required in the invoice, but is not meaningful for your purposes. You will prevent this field from being displayed in the screen entry translation object (this field will be assigned a value in the extended rule used on the INVOIC file).
TLR LVLT element	Lines Total Amount (Excluding VAT)	The invoice amount (excluding VAT) will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).
TLR EVLT element	Total Extended Amount Ex Settlement Discount	The invoice amount (excluding settlement discount) will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).
TLR ASDT element	Total Amount Exc VAT Inc Sett	The invoice amount (excluding VAT, including settlement discount) will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).
TLR TVAT element	Total VAT Amount Payable	The VAT total will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).
TLR TPSI element	Total Payable Inc Settlement	The total invoice amount will be displayed in the screen entry translation object in R2 format (formatted with an explicit decimal point and up to two decimal places). Therefore, you will change the screen format to R2. Also, you will make this field display-only (as users will not need to enter a value in this field).

## Creating a Screen Entry Form

The first task in creating a new form is to define the type of form and EDI standard, version, and message/transaction set (document). In this tutorial, you are creating a screen entry form so that your data entry users can enter EDI data in an invoice translation object in Sterling Gentran:Server. Instead of defining the message/transaction set yourself, you want Sterling Gentran:Server to use the standards database on your system to build the invoice according to the standard.

## Before you begin

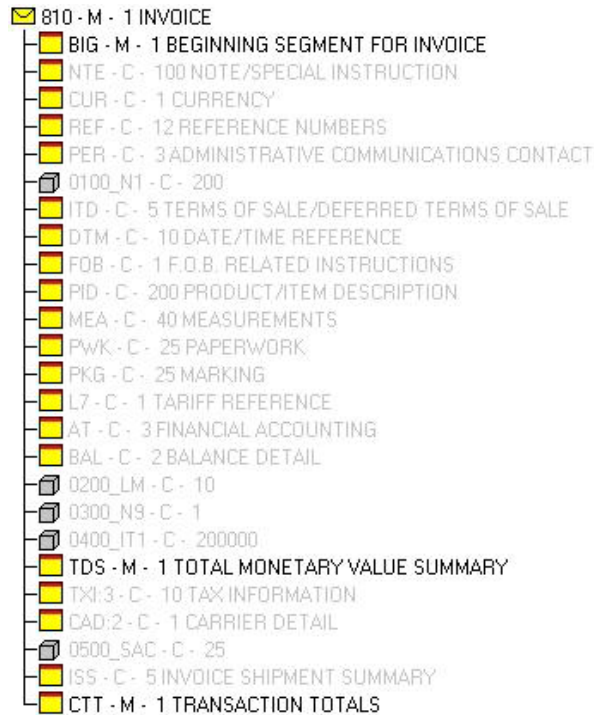
Before you begin this procedure, verify that you have installed the Sterling Gentran Standards Database for EDI.

## About this task

Use this procedure to create a screen entry form.

## Procedure

1. Select **File > New** to display the New Form Wizard.
2. From the "What kind of form are you creating" list, select **Screen Entry**.
3. In the "What is the name of the form" box, enter **Screen Invoice Pet Zone**. This description allows you to differentiate it from similar translation objects in Sterling Gentran:Server.
4. Click **Next**.
5. Select **Delimited EDI** as the data format syntax.
6. Click **Customize**.  
The New Delimited EDI Wizard is displayed.
7. Click **Next**.
8. From the Data Source list, select **Gentran Standards** as the ODBC data.
9. Click **Next**.
10. From the Agency list, select one of the following as the EDI standard:
  - **X12**
  - **Edifact**
  - **Tradacoms**
11. From the Version list, select one of the following for the version of the standard:
  - **[003040] ANSI X 12 VERSION 3 RELEASE 4**
  - **[092001] EDIFACT 1992 RELEASE 1**
  - **[ANA001] (for Tradacoms)**
12. From the Transaction list, select one of the following for the transaction set (document/message) for this translation object:
  - **[810] INVOICE (for ANSI X12)**
  - **[INVOIC] INVOICE MESSAGE (for EDIFACT)**
  - **[INVOIC] INVOICE DETAILS (for TRADACOMS)**
13. For TRADACOMS: From the Release drop-down list box, select **9**. This is the message version for this translation object.
14. Click **Next**.
15. Click **Finish** to create the EDI file This may take a few seconds.  
The form should look similar to the following. (This is an ANSI X12 example; some details may be different for EDIFACT and TRADACOMS.)



16. Select **Edit > Details**.

The Translation Object Details box is displayed.

17. Verify that **Screen Entry** is selected in the Translation Object Function list.

18. In the Major version box, enter **1** to designate the version number for this translation object.

19. In the Minor version box, accept the default value **0** to designate the release number for this translation object.

**Note:** When you make a major change to this form, increase the version to the next higher sequential number (for example, 2.0, 3.0). If you make a minor change to the form, increase the release to the next higher sequential number (for example, 2.1, 2.2).

20. The Input and Output boxes (Agency, Version, Transaction, Release, and F Group) contain information only if the Input and/or Output sides of the form are of EDI format. For this tutorial, do not change the information in these boxes.

**Note:** The system allows you to change the information in the Input and Output boxes, but modifying this information does not alter the content of the form. An example of when you might want to alter these boxes is when you want the form to reflect a standard version that is not loaded on your system. You can change the version in this dialog and then physically alter the form to be compliant with that version.

21. Click **OK** to save the translation object details.

22. Select **File > Save**. If necessary, navigate to the folder where Sterling Gentran:Server is installed.

**Note:** If you have performed any function that invalidates the current format of the translation object, you cannot save until you regenerate the layout.

23. Enter one of the following to replace the default file name:

- **pet\_810s.stp** (for ANSI X12)
- **peteinv.s.stp** (for EDIFACT)
- **pettinvs.stp** (for TRADACOMS)

24. Click **Save**.

## About Activating Invoice Groups, Segments, and Elements

When Sterling Gentran:Server generates the form, the system includes all the groups, segments, and elements that are defined by the standard agency for the version of the transaction set you selected. The system activates all 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, and elements.

When translating data, the system does not process groups, segments, and elements 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 the form.

To view the segments, composites, and elements in a group, segment, or composite on your form, double-click the form component in the EDI File Format Window (left side of the Forms main window). To activate an inactive form component, click **Activate** on the Main Toolbar, then click the form component. The component is no longer dimmed.

### Example for ANSI X12

In the example below, the 810 INVOICE file icon and BIG segment are mandatory for the invoice. You do not need to activate these components. The NTE, CUR, and REF segments are not mandatory, so they are dimmed on the form. To view the segments and elements in a group or segment on your form, double-click the form component in the EDI File Format Window (left side of the Forms main window). To activate an inactive form component, click **Activate** on the Main Toolbar, then click the form component. The component is no longer dimmed.



### Example for EDIFACT

In the example below, the INVOIC file icon, BGM and DTM segments, C507 composite, and DTM01 element are mandatory for the invoice. You do not need to activate these components. The DTM02 and DTM03 elements are not mandatory, so they are dimmed on the form.



## Example for TRADACOMS

In the example below, the INVOIC group, CLO segment, and CLO CLOC composite are mandatory for the invoice. You do not need to activate these components. The CLO CLOC CLO0, CLO CLOC CLO1, and CLO CLOC CLO2 elements are not mandatory, so they are dimmed on the form.



---

## Activating Invoice Groups, Segments, and Elements

You must activate ALL required groups, segments, composites, and elements. Failure to do so will hinder your ability to perform steps later in this tutorial.

### About this task

See the following sections for lists of required components:

- Invoice Components for ANSI X12
- Invoice Components for EDIFACT
- Invoice Components for TRADACOMS

These tables list all the groups, segments, and elements that you need to activate. Opening all the necessary groups and segments before you start to activate enables you to scroll down the form and activate the groups, segments, and elements sequentially.

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

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

### Procedure

1. Click **Activate** on the Main Toolbar.
2. Click each inactive group that you need to use. Clicking an object activates it.
3. Click each inactive segment that you need.
4. Click each inactive composite that you need.
5. Click each inactive element that you need.
6. Click **Activate** on the Main Toolbar to turn activation mode off.
7. Select **File > Save**.

---

## Adding Frame Help Text and Verifying EDI Delimiters

Use this procedure to add frame Help text and set EDI delimiters.

### About this task

### Procedure

1. Right-click the invoice file icon and select **Properties**.  
The File Format Properties dialog is displayed.

2. On the **Display** tab, enter the following text in the Frame Help Text list. (Press **Enter** at the end of each line of text.)

This frame contains information pertaining to the entire invoice. For online Help on an individual field on this frame, select the field and press F1.

**Note:** Pressing **Enter** creates line breaks for the online Help that the screen entry translation object users in Document Editor view when they press F1. If you do not create line breaks, the online Help is displayed on one line of text in the pop-up window (the text does not wrap to the next line), and text that extends beyond the width of the user's monitor is not displayed.

When you generate the form (display the fields in the Layout Window), there is one frame in the Layout Window (right side of Forms main window) for every group and repeating segment in the EDI File Format Window (left side of Forms main window). Entering frame Help text for the group or segment corresponding to each frame enables screen entry translation object users to access context-sensitive Help text for the frame.

3. On the **Delimiters** tab, verify that the correct delimiters are being used for the standard. If the delimiters differ from the default values listed in EDI Delimiters , you can enter either the character or the hexadecimal value.

**Note:** The hexadecimal value must begin with "0x" (that is, the number zero and the letter "x").

**Note:** For this tutorial, do not select **Stream segments**. The translator will insert a carriage return after every segment. If **Stream segments** is selected, carriage returns are not used after every segment, and the segments are "streamed."

4. Click **OK** to save the changes.

---

## Segment and Group Modifications

The Promote function extracts one iteration (instance) of a group or repeating segment. Promote is a specialized function that preserves the integrity of the EDI structure.

The Split function enables you to split (break) a group or repeating segment into two loops. This function is useful when you need more than one instance of the same form component that occurs multiple times. When you split a group, the Promote flag is not set. If you want the split group to be displayed on the parent frame, you must set the Promote flag after you split the group.

Changing the maximum use of a segment or group changes the maximum number of times the segment or group can be used. A segment or group with a maximum use greater than one repeats (loops) and is placed on a separate frame than the segment or group to which it is subordinate. A segment or group with a maximum use of one does not repeat, and its fields are displayed on the same frame as the segment or group or segment to which it is subordinate.

In the next part of the tutorial, you will promote, split, and change the maximum use of the groups and segments before you generate the form (display the fields in the Layout Window). By customizing the group and segment properties first, all fields are placed on their appropriate frames the first time you generate the form. If you promote, split, and change the maximum use of the groups and segments

after you generate the form, the fields are placed on several more frames than you need. Therefore, changing the group and segment properties before you first generate the form enables the fields to be placed on as few frames as necessary.

## Generating the Screen Entry Form

Generating a form is different from compiling a form. When you compile a form, the source form is translated into a compiled translation object. When you generate a form, the fields of the form are displayed on a frame in the Layout Window (right side of the Forms main window), based on the groups, segments, and elements that are activated.

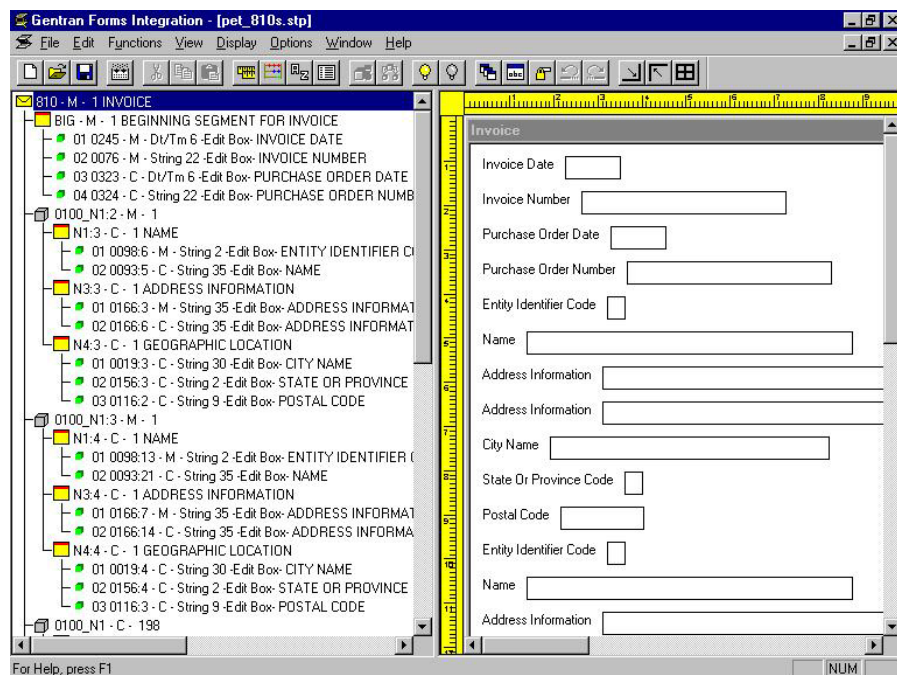
### About this task

Use this procedure to generate the screen entry form based on the groups, segments, and elements you activated.

### Procedure

1. Select the invoice file icon. Selecting the file icon before you generate the layout allows you to view the beginning of the invoice layout in the Layout Window after the layout is generated. However, selecting the file icon is not a prerequisite to generating the layout.
2. Click **Generate Layout** on the Main Toolbar.

The screen entry form should look similar to the following. (This is an ANSI X12 example; some details may be different for EDIFACT and TRADACOMS.)



## After Generating the Form

When you generate the form, there is one field on the right side of your screen (Layout Window) for every activated element on the left side of your screen (EDI File Format Window). You can click either the field or its corresponding element to select it. To access the Element Properties dialog for a field or element, either

double-click the element, or use the right mouse button to click the field or element, and then select Properties from the shortcut menu.

**Note:** When you first generate the form, each field in the Layout Window is labeled with the same name as its corresponding element in the EDI File Format Window. However, as you customize the form, you change some of the labels and remove others, so all the fields are not labeled the same as their corresponding elements. Even though you change or remove some field labels, each field still corresponds to one element.

When the screen entry form is generated, the fields associated with each non-repeating segment or group are displayed on a frame in the Layout Window. If a segment or group is defined as repeating, then a list is displayed on the parent frame, and the fields for that repeating segment or group are displayed on the parent frame, and the fields for that repeating segment or group are displayed on a separate frame.

All frames in a screen entry form are titled. The default title for each frame is its transaction set, group, or segment name, but you can change the default titles to better identify the information that is entered.

---

## About Customization

You can customize the form, including the properties of each type of form component (group, segment, and element).

Customizing the form is an iterative process. This tutorial guides you through all the steps involved in customizing the form, component by component. When you create forms, you usually activate the form components you need to use, customize and format the form components, then compile the form and test the translation object (and print a report, if necessary). As you substantially customize the form, you usually compile the form and test the translation object several times to view your changes before the form truly is finalized.

This following part of the tutorial explains how to customize the form components for each sequential component in this tutorial.

---

## Finalize Screen Entry Forms

### Compiling the Invoice Form

The Compile function compiles the form. The form that you create using Sterling Gentrans:Server is a source form. When that source form is compiled, the result is a compiled translation object.

#### About this task

After you save the translation object, you must register it with the Sterling Gentrans:Server system before you can use it. Use the Compile function after the form is completed and saved.

Use this procedure to compile the form.

#### Procedure

1. Select **File > Compile**.



2. Click **Save** to accept the translation object name. This name for the compiled translation object (.TPL file) is the same file name as the source form (.STP file). Preserving the same file name (with different file extensions) ensures that the relationship between the source form and the compiled translation object remains evident.

The system compiles the form and generates an error report. The error report is displayed in the Compile Errors dialog.

3. Click **OK** to exit the Compile Errors dialog.

**Note:** If the Compile Errors dialog contains errors, you must fix the problems by redoing the appropriate section of the tutorial. Recompile the form after you correct the errors and save the form.

4. Select **File > Save**. The date on which you compiled the form is automatically loaded into the Compiled on box on the Translation Object Details dialog.

## Printing the Invoice Report

The Sterling Gentran:Server report enables you to validate and review the translation object, and make modifications as needed. If you review the report and determine that the translation object is incorrect, you need to make modifications, save and recompile the form, then print the report again.

### About this task

Use this procedure to print the Sterling Gentran:Server report.

#### Procedure

1. Select **File > Print**.
2. Click **OK** to accept the defaults on this dialog (all options checked), so the report includes all sections and only the activated form components.
3. If you need to change setup options, click **Properties**. Set the appropriate options. Click **OK** to begin the print process.

## Testing the Invoice Translation Object

After you compile the form, 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 use the translation object to create a new document. You also should verify acknowledgement processing (if applicable) and verify communications with your network.

### About this task

**Important:** The translation object must be registered with the Sterling Gentran:Server system before you can use it. See the *IBM Sterling Gentran:Server for Microsoft Windows User Guide* for information on registering the translation object.

Use this procedure to test the screen entry translation object you just created.

#### Procedure

1. Register your translation object with Sterling Gentran:Server. The filename should be one of the following:
  - **PET\_810S.TPL** (for ANSI X12)
  - **PETEINVS.TPL** (for EDIFACT)

- **PETTINVS.TPL** (for TRADACOMS)
2. If you have not done so already, import the partner relationship into Sterling Gentrans:Server.
  3. Verify (in Partner Editor) that the screen entry translation object is selected for the Outbound Relationship.
  4. Create a new document to enter the data in the screen entry translation object you created.

---

## Chapter 3. Creating Screen Entry Forms for ANSI X12

---

### Modifying the Maximum Use of the Invoice REF Segment

The REF segment contains Reference Numbers used in the EDI data, such as a contract number used to identify when a relationship began between your company and your trading partner. The standard allows the REF segment to be used up to twelve times in one invoice. In this tutorial, you use the REF segment only once (for the contract number). You change the maximum use of the REF segment to one, which places the associated fields on the same frame as the header segment.

#### About this task

Use this procedure to change the maximum use of the REF segment.

#### Procedure

1. Right-click the **REF** segment and select **Properties**.  
The EDI Segment Properties dialog is displayed.
2. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

### Modifying the Maximum Use of the N3 Segment

The N3 segment in the N1 group contains the Address of the entity or individual named in the N1 segment. If the form were generated now (displaying the layout of the fields in the form on the right side of your screen), the fields associated with the N1 and N4 segments would be located on the main invoice frame, but the fields associated with the N3 segment would be located on a separate frame. The separate frame is necessary because the N3 segment has a maximum use of two, so it requires another frame for users to enter two sets of address information. (In screen entry forms, each group with a maximum use greater than one and repeating segment has a corresponding frame that contains all the groups, segments, and elements at that level.)

#### About this task

Your users need the N3 segment to be used only once in one invoice, so you change the maximum use from two, as the standard allows, to one. When you generate the form, the fields associated with the N3 segment are displayed on the same frame as the fields for the N1 and N4 segments.

Use this procedure to change the maximum use of the N3 segment.

#### Procedure

1. Right-click the **N3** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
3. Click **Yes** at the prompt.
4. Click **OK** to exit the EDI Segment Properties dialog.

---

## Promoting the N1 Group

The standard allows the N1 group to be used up to two hundred times in one invoice. The N1 group contains the N1, N3, and N4 segments to provide the name and address of an entity or individual.

### About this task

You promote the N1 group twice to accommodate the information for both the Ship To and Remit To names and addresses. Promoting the N1 group causes two singly-occurring N1 groups to exist in the form.

Use this procedure to promote the N1 group.

### Procedure

1. Right-click the **N1** segment and select **Promote**.  
Promoting the N1 group extracts one iteration of the N1 group and places it directly above the N1 group that you selected to promote. The new iteration of the N1 group is named N1:2.
2. Right-click the original **N1** group and select **Promote**.  
Another iteration of the N1 group is extracted and placed above the N1 group. The new iteration of the N1 group is named N1:3.
3. Right-click the original **N1** group and select **Deactivate** to deactivate this group.

---

## Changing the Maximum Use of the ITD Segment

The ITD segment is a conditional segment that specifies the Terms of Sale/Deferred Terms of Sale for the invoice. The standard specifies that the ITD segment can be used up to five times in one invoice. For this tutorial, you know that your users must use the ITD segment only once, so you change the maximum use of this field from five to one.

### About this task

If the form were generated now, the Terms Type Code would be displayed on a separate frame than the majority of the invoice fields because the ITD segment has a maximum use of five. After you change the maximum use to one and generate the form, the Terms Type Code field is displayed on the parent frame.

Use this procedure to change the maximum use of the ITD segment.

### Procedure

1. Right-click the **ITD** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

## Changing the Maximum Use of the DTM Segment

The DTM segment contains the Date/Time Reference Numbers for the invoice. In this tutorial, the DTM segment is used for the contract date associated with the contract number (in the REF segment). The standard allows the DTM segment to be used up to ten times in one invoice. In this tutorial, you use the DTM segment

only once (for the contract date). You change the maximum use of the DTM segment to one, which places the associated fields on the main Invoice frame with the majority of the invoice fields.

### About this task

Use this procedure to change the maximum use of the DTM segment.

### Procedure

1. Right-click the **DTM** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

## Changing the Maximum Use of the PID Group

The standard allows the PID group (Product Item/Description) in the IT1 group to be used up to one thousand times in one invoice. If the invoice were generated now, the fields associated with the PID group would be displayed on a separate frame than the majority of the invoice fields. For this tutorial, you know that your users complete the fields in the PID group only once per invoiced item. You change the maximum use of the PID group to one, which moves the Product Item/Description fields to the frame containing line item information.

### About this task

Use this procedure to change the maximum use of the PID group.

### Procedure

1. Right-click the **PID** group and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. On the **Display** tab, click the **Promote group to parent frame** check box to promote this group.

**Note:** If you change the maximum usage of this group, but do not select **Promote group to parent frame**, the fields in this group are not displayed in the same frame as the fields in the parent group.

4. Click **OK** to exit the Group Properties dialog.

---

## Changing the Maximum Use of the DTM:2 Segment

The standard allows the DTM:2 segment (Date/Time Reference) in the IT1 group to be used up to ten times in one invoice. If the invoice were generated now, the fields associated with the DTM:2 segment would be displayed on a separate frame than the majority of the invoice fields. For this tutorial, you know that your users complete the fields in the DTM:2 segment only once per invoiced item. You change the maximum use of the segment from ten to one, which enables the Date/Time Reference fields to be displayed on the frame containing other line item information.

### About this task

Use this procedure to change the maximum use of the DTM:2 segment.

### **Procedure**

1. Right-click the **DTM:2** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to indicate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

## **Changing the Maximum Use of the CAD Segment**

The standard allows the CAD segment (Carrier Detail) to be used up to 999,999 times in one invoice. If the form were generated now, the fields associated with the CAD segment would be displayed on a separate frame than the majority of the invoice fields. For this tutorial, you know that your users complete the fields in the CAD segment only once per invoiced item. You change the maximum use of the CAD segment, which moves the Carrier Detail fields to the frame containing other line item information.

### **About this task**

Use this procedure to change the maximum use of the CAD segment.

### **Procedure**

1. Right-click the **CAD** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to indicate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

## Chapter 4. Modifying Screen Entry Forms for ANSI X12

---

### Setting up the Document Name for the Screen Entry Form

The document name makes the identification of a document created by the form easier by enabling you to differentiate between documents.

#### About this task

We recommend that you set up a Document Name for each form. You can choose any string element as the document name, but we strongly recommend that you select an element that occurs only once in the document and has a data type of string. For an ANSI X12 810 invoice, the document name usually is the Invoice Number. For an EDIFACT 92.1 invoice, the document name is usually the Document/Message Number.

Use this procedure to set up the document name.

#### Procedure

1. Double-click the one of the following elements:
  - **BIG02** (for ANSI X12)
  - **BGM05** (for EDIFACT)
  - **IRF INVN** (for TRADACOMS)

We recommend that you select this element because it is a non-recurring and mandatory element, and it helps to identify this document meaningfully in Sterling Gentran:Server.

2. On **Standard Rule** tab, do the following:
  - Select **Update** from the list.
  - Click **Yes** at the prompt.
  - From the Table/Group list, select **Document record** to indicate that you are updating the document record in Sterling Gentran:Server.
  - From the Column/Field list, select **Document Name** to indicate that you are updating the Name field (in the Sterling Gentran:Server document browsers that contain this message) with the contents of the B1G02 element.
3. Click **OK** to set up the document name.

---

## The BIG Segment

### Customizing the BIG01 Element

The BIG segment contains the Beginning Segment for the invoice. This segment uses two mandatory elements: Invoice Date and Invoice Number. You also have activated the Purchase Order Date and Purchase Order Number elements for this segment. Each of these elements contains information that pertains to the entire invoice.

#### About this task

The BIG01 element is a mandatory element that contains the Invoice Date. Your users format the date as MM/DD/YY when they enter the date in the screen entry

translation object, but the EDI data is sent to your trading partner as YYMMDD. You must change the maximum length of this field from six to eight, to accommodate the entire date (including the / separators). Also, you add Help text to this field.

Use this procedure to set the date format, change the element and field lengths, and add Help text to the Invoice Date field.

### Procedure

1. Double-click the **BIG01** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Data Format list, select **MM/DD/YY** to indicate that this field on the translation object accepts a date entered in the format MM/DD/YY.
  - Verify that **YYMMDD** is selected in the File Format list to indicate that the EDI data is sent in the format YYMMDD.
3. On the **Display** tab, enter **8** in the Maximum number of characters box to allow the entire date (including the / separators) to be contained in this element.
4. On the **Help** tab, enter the following text in the Help Text list:  
Enter the invoice date. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

## Customizing the BIG02 Element

The BIG02 element is a mandatory element containing the Invoice Number. This element is defined by the standard to be a string of twenty-two alphanumeric characters. You know that your invoice number is an eight-character alphanumeric string, so you change the element and field lengths to accommodate the shorter invoice number. In addition, you rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths and the field label, and add Help text to the Invoice Number field.

### Procedure

1. Double-click the **BIG02** element.
2. On the **Validation** tab, enter **8** in the Max box to allow an eight-character string in this element.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Invoice No.** to replace the existing text.
  - In the Maximum number of characters box, enter **8** to allow eight characters to be entered in this field.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the invoice number. The invoice number cannot exceed 8 alphanumeric characters.
5. Click **OK** to exit the dialog.



## Customizing the BIG03 Element

The BIG03 element contains the Purchase Order Date, which is the date when your trading partner sent the purchase order. Your users format the date as MM/DD/YY when they enter the date into the screen entry translation object, but the EDI data is sent to your trading partner as YYMMDD. You change the maximum length of this field to eight to accommodate the entire date, including separators (/). To save space in the screen entry form, you rename this field. Also, you add Help text to the field.

### About this task

Use this procedure to set the date format, change the element and field lengths, change the field name, and add Help text to the Purchase Order Date field.

### Procedure

1. Double-click the **BIG03** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Form Format list, select **MM/DD/YY** to indicate that this field on the translation object accepts a date entered in the format MM/DD/YY.
  - Verify that **YYMMDD** is selected in the File Format list to indicate that the EDI data is sent in the format YYMMDD.
3. On the **Display** tab, do the following:
  - In the Label box, enter **P.O. Date** to replace the existing field label.
  - In the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.
4. On the **Help** tab, enter the following text in the Help Text list:  
Enter the purchase order date. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

## Customizing the BIG04 Element

The BIG04 element contains the Purchase Order Number. This element is defined by the standard to be a string of twenty-two alphanumeric characters. You know that your trading partner's purchase order number is always a ten-character alphanumeric string, so you change the element and field lengths to accommodate the shorter purchase order number. In addition, you rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, change the field label, and add Help text to the Purchase Order Number field.

### Procedure

1. Double-click the **BIG04** element.
2. On the **Validation** tab, enter **10** in the Max box to allow a ten-character string in this element.
3. On the **Display** tab, do the following:
  - In the Label box, enter **P.O. No.** to replace the existing text.

- In the Maximum number of characters box, enter **10** to allow ten characters to be entered in this field.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the purchase order number. The purchase order number cannot exceed 10 alphanumeric characters.
  5. Click **OK** to exit the dialog.
  6. Click **Generate Layout** on the Main Toolbar to refresh the display of the screen entry form.

## Results

The section of the Invoice frame that contains the fields in the BIG segment now should look like this:

The screenshot shows a window titled "Invoice" with the following fields:

- Invoice Date:
- Invoice No.:
- P.O. Date:
- P.O. No.:  (This field is highlighted with a hatched border, indicating it is selected.)
- Entity Identifier Code:
- Name:
- Address Information:
- Address Information:
- City Name:
- State Or Province Code:
- Postal Code:
- Entity Identifier Code:
- Name:

## The REF Segment

### Customizing the Invoice REF01 Element

The REF segment contains Reference Numbers used in the EDI data, such as a contract number. The standard allows the REF segment to be used up to twelve times in one invoice. In this tutorial, you use the REF segment only once (for the contract number). You already have promoted the REF segment to obtain just one instance of the reference number, and to place the associated fields on the same frame as the BIG segment.

#### About this task

The REF01 element (Reference Number Qualifier) is a mandatory element for the REF segment. The REF01 element contains the two-character code to indicate what type of reference number follows (for example, contract number). Because you know that the only type of reference number your users enter for this invoice is a

contract number, you define a constant value for the Reference Number Qualifier field, designating that the constant "CT" always qualifies the number in the Reference Number field. Then, you hide the Reference Number Qualifier field, because it does not need to be displayed in the translation object.

When a user enters a contract number in the Reference Number field, the system assigns the code "CT" to the Reference Number Qualifier field.

Use this procedure to define a constant value in the Reference Qualifier field and hide the field.

### Procedure

1. Double-click the **REF01** element.
2. On the **Standard Rule** tab, do the following:
  - Select the **Use Constant** option.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Contract Number** to identify the constant.
  - From the Type list, select **String** to indicate that the literal constant is formatted as a string data type.
  - In the Value box, enter **CT** to indicate that the Reference Number Qualifier field must contain the contract number. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **CT** to identify the constant that is used for this element.
  - From the Qualifies list, select **0127 REFERENCE NUMBER**, which is the element that the Reference Number Qualifier field qualifies.
7. On the **Display** tab, select **This field should not be displayed**.
8. Click **OK** to exit the dialog.

## Customizing the Invoice REF02 Element

The REF02 element contains the Reference Number. This element is defined by the standard to be a string of thirty alphanumeric characters. In this tutorial, you know that the reference number (the contract number) is an eight-character alphanumeric string, so you change the element and field lengths to accommodate the shorter reference number. In addition, you rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, change the field label, and add Help text to the Reference Number field.

### Procedure

1. Double-click the **REF02** element.
2. On the **Validation** tab, enter **8** in the Max box.
3. On the **Display** tab, do the following:

- In the Label box, enter **Contract No.** to replace the existing text.
  - In the Maximum number of characters box, enter **8** to allow an eight-character string to be entered.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the contract number. The contract number cannot exceed 8 alphanumeric characters.
  5. Click **OK** to exit the dialog.
  6. Click **Generate Layout** on the Main Toolbar to refresh the display of the screen entry form.

## Results

The REF segment of the Invoice frame should now look like this:

The screenshot shows a window titled "Invoice" with a grid of input fields. The fields are organized into two main sections. The first section contains fields for Invoice Date, Invoice No., P.O. Date, P.O. No., Contract No., Entity Identifier Code, Name, Address Information, Address Information, City Name, State Or Provincial Code, Postal Code, Entity Identifier Code, Name, and Address Information. The second section contains fields for Invoice Date, Invoice No., P.O. Date, P.O. No., Contract No., Entity Identifier Code, Name, Address Information, Address Information, City Name, State Or Provincial Code, Postal Code, Entity Identifier Code, Name, and Address Information. The fields are arranged in a structured layout with labels on the left and input boxes on the right.

## N1 Groups

You already promoted the N1 group twice to accommodate the information for both the Ship To and Remit To names and addresses. There are now two N1 groups activated in the form: N1:2 (for the Ship To name and address) and N1:3 (for the Remit To name and address).

You activated the N1, N3, and N4 segments in each N1 group to provide the name and address of an entity or individual. For this tutorial, you use the N1 groups to identify these two types of addresses:

- Ship to name and address (Entity Identifier Code "ST")
- Remit to name and address (Entity Identifier Code "RI")

To make the screen entry translation object more convenient for your users, you changed the maximum use of the N3 segment (for both N1 groups) from two to one. Changing the maximum use of the N3 segment enabled the Address Information fields of the N3 segment to be displayed on the Invoice frame with the N1 and N4 fields.

---

## The N1:3 Segment

The N1:3 segment in the N1:2 group identifies the Name of the entity or individual. If the N1:3 segment is used, then the N1:301 element is mandatory. The N1:301 element contains the Entity Identifier Code, which identifies the type of name and address in that iteration of the group.

To ensure that Sterling Gentran:Server displays the correct name and address in the Ship To and Remit To fields, you should use the key field function. The key field function enables you to specify a second qualification in selecting a segment (the segment name is the first qualification). Data must be provided in the order designated through the use of key fields. For example, for this tutorial, your screen entry translation object users enter the ship to name and address (N1:2 group) first, and then the remit to name and address (N1:3 group).

By using the key field function, if a screen entry translation object user enters only a Remit To name and address (N1:3 group) in a document using this invoice translation object, then saves the document and opens it later, the Remit To name and address are displayed in the correct fields. If you do not use the key field function, then in the same scenario described above, the Remit To name and address are displayed in the Ship To fields (since they are the first N1 fields in which data can be displayed).

### Using a Key Field for the N1:3 Segment

Use this procedure to use a key field for the N1:3 segment (in the N1:2 group).

#### About this task

#### Procedure

1. Right-click the **N1:3** segment and select **Properties**.
2. On the **Key Field** tab, do the following:
  - From the Field list, select **0098 ENTITY IDENTIFIER CODE**.
  - Verify that the **Use constant** option is selected.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to display the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Ship To** to identify the unique literal constant.
  - From the Type list, select **String**.
  - In the Value box, enter **ST** to identify the actual value of the constant.
  - Click **OK** to exit the Edit Constant dialog.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Key Field** tab, select **ST** from the Use Constant list to indicate that this is the Ship To name.
7. Click **OK** to exit the dialog.

### Customizing the N1:301 Element

The N1:301 element (in the N1:3 segment) contains the Entity Identifier Code, which is used to identify whether the name and address that follows is the Ship To or Remit To name and address. For this tutorial, you know that your users enter only the Ship To name and address information in the fields associated with the N1:2 group. Therefore, you use the constant value "ST" (which you defined in the

previous section) in the Entity Identifier Code field, indicating that this group (N1:2) contains only shipping information. Then, you hide the Entity Identifier Code field, because it does not need to be displayed on the translation object.

### About this task

Use this procedure to use a constant value for the Entity Identifier Code field and hide the field.

### Procedure

1. Double-click the **N1:301** element (in the N1:2 group).
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click the second **Constant** option.
  - From the Constants list, select **ST** to identify the constant used for this element.
  - From the Qualifies list, select **0093 NAME**, which is the element that the Entity Identifier Code field qualifies.
3. On the **Display** tab, select **This field should not be displayed**.
4. Click **OK** to exit the dialog.

## Customizing the N1:302 Element

The N1:302 element (in the N1:3 segment) contains the name of the person or company that received the order for which you are sending an invoice. Your users are familiar with the standard address format (the name on the first line; the address on the next lines; the city, state, and postal code on the last line). For this reason, you do not need to label the fields containing the address, city, state, and postal code. You rename the field label and add Help text to the field.

### About this task

Use this procedure to rename the field label and add Help text to the Name field.

### Procedure

1. Double-click the **N1:302** element (in the N1:2 group).
2. On the **Display** tab, enter **Ship To** in the Label box to replace the existing text. This label is the heading for the Ship To name and address information.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the name of the person or organization to whom the order was shipped. The name cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

---

## The N3:3 Segment

The N3:3 segment (in the N1:2 group) contains the Address of the entity or individual named in the N1:3 segment. If the N3:3 segment is used, then the N3:301 element is mandatory. The N3:301 element contains Address Information, which can identify the street name, suite number, or any other address information. This element does not contain the city, state/province, or postal code;

that data is contained in the N4:3 segment. You already activated the N3:302 element, which is a conditional element that contains an additional line of address information, if it is necessary.

Your users need the N3:3 segment to be used only once, so you changed the maximum use from two, as the standard allows, to one. Because you have changed the maximum use, the fields associated with the N3:3 segment are displayed on the Invoice frame with the fields for the N1:3 and N4:3 segments.

## Customizing the N3:301 Element

The address information in the N3:301 element (in the N3:3 segment) corresponds to the name in the N1:301 element, so there is no need to display the labels associated with the address information. For the N3:301 and N3:302 elements, you hide the field labels and add Help text to the fields.

### About this task

Use this procedure to hide the Address Information field label and add Help text.

### Procedure

1. Double-click the **N3:301** element (in the N1:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the first line of the address. This address  
line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N3:302 Element

Use this procedure to hide the second Address Information field label of the Remit To address and add Help text.

### About this task

### Procedure

1. Double-click the **N3:302** element (in the N1:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the second line of the address. This address  
line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

---

## The N4:3 Segment

The N4:3 segment in the N1:2 group contains the Geographic Location of the entity or individual named in the N1:3 segment. The N4:301 element contains the name of the city, the N4:302 element contains the code for the state or province, and the N4:303 element contains the postal code.

The geographic information in the N4:3 segment corresponds to the name in the N1:301 element, so there is no need to display the labels associated with the

geographic information. You hide the field labels for the N4:31, N4:302, and N4:303 elements and add Help text to those fields.

## Customizing the N4:301 Element

### About this task

Use this procedure to hide the field label and add Help text to the City Name field.

### Procedure

1. Double-click the **N4:301** element in the N1:2 group.
2. On the **Validation** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the city name. The city name cannot exceed 30 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N4:302 Element

### About this task

Use this procedure to hide the field label and add Help text to the State or Province Code field.

### Procedure

1. Double-click the **N4:302** element (in the N1:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the state or province code. The code cannot exceed 2 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N4:303 Element

### About this task

Use this procedure to hide the field label and add Help text to the Postal Code field.

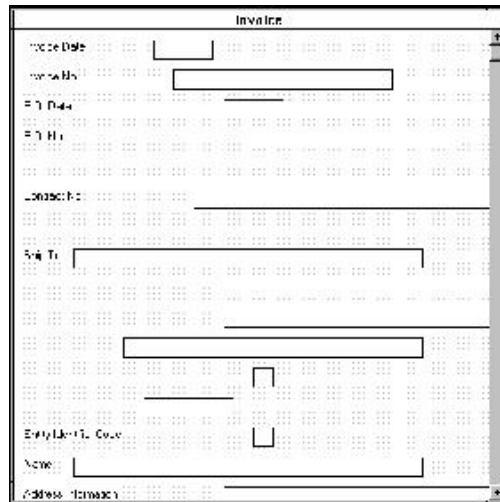
### Procedure

1. Double-click the **N4:303** element (in the N1:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the postal code. The postal code cannot exceed 9 alphanumeric characters. Do not enter a hyphen (-) before the 4-digit postal code extension (if used).
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display of the screen entry form.



## Results

The section of the Invoice frame that contains the fields in the N1:2 group now should look like this:

A screenshot of an invoice form titled "Invoice". The form contains several fields with input boxes: "Invoice Date", "Invoice No.", "Ship To" (with a sub-field for "Ship To"), "Address", and "Address (Branch)". The form is displayed on a grid background.

## Customizing the N1:401 Element

The N1:4 segment in the N1:3 group identifies the Name of the entity or individual. If the N1:4 segment is used, then the N1:401 element is mandatory. The N1:401 element contains the Entity Identifier Code, which identifies the type of name and address in that iteration of the group.

### About this task

The N1:401 element (in the N1:4 segment) contains the Entity Identifier Code, which is used to identify whether the name and address that follows is the Ship To or Remit To name and address. For this tutorial, you know that your users enter only the Remit To name and address information in the fields associated with the N1:3 group. Therefore, you define the constant value "RI" in the Entity Identifier Code field, indicating that this group (N1:3) contains only Remit To information. Then, you hide the Entity Identifier Code field, because it does not need to be displayed on the translation object.

Use this procedure to define a constant value for the Entity Identifier Code field and hide the field.

### Procedure

1. Double-click the **N1:401** element (in the N1:3 group).
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Remit To** to identify the constant.
  - From the Type list, select **String** to indicate that the literal constant is formatted as a string data type.

- In the Value box, enter **RI** to indicate that the Entity Identifier Code field must contain the Remit To name and address. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
  6. On the **Standard Rule** tab, do the following:
    - From the Constants list, select **RI** to identify the constant used for this element.
    - From the Qualifies list, select **0093 NAME**, which is the element that the Entity Identifier Code field qualifies.
  7. On the **Display** tab, select **This field should not appear on the form**.
  8. Click **OK** to exit the dialog.

## Customizing the N1:402 Element

The N1:402 element (in the N1:4 segment) contains the name of the person or company to whom the invoice should be remitted. Your users are familiar with the standard address format (the name on the first line; the address on the next lines; the city, state, and postal code on the last line). For this reason, you do not need to label the fields containing the address, city, state, and postal code. You rename the field label and add Help text to the field.

### About this task

Use this procedure to rename the field label and add Help text to the Name field.

### Procedure

1. Double-click the **N1:402** element (in the N1:3 group).
2. On the **Display** tab, enter **Remit To** in the Label box to replace the existing field label. This label is the heading for the Remit To name and address information.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the name of the person or organization to whom  
the invoice should be remitted. The name cannot exceed  
35 alphanumeric characters.
4. Click **OK** to exit the dialog.

---

## The N3:4 Segment

The N3:4 segment (in the N1:3 group) contains the Address of the entity or individual named in the N1:4 segment. If the N3:4 segment is used, then the N3:401 element is mandatory. The N3:401 element contains Address Information, which can identify the street name, suite number, or any other address information. This element does not contain the city, state/province, or postal code; that data is contained in the N4:4 segment. You already activated the N3:402 element, which is a conditional element that contains an additional line of address information, if it is necessary.

Your users need the N3:4 segment to be used only once in one invoice, so you changed the maximum use from two, as the standard allows, to one. Changing the maximum use of this segment enables the fields associated with the N3:4 segment to be displayed on the Invoice frame with the fields for the N1:4 and N4:4 segments.

## Customizing the N3:401 Element

The address information in the N3:401 element (in the N3:4 segment) corresponds to the name in the N1:401 element, so there is no need to display the labels associated with the address information. For the N3:401 and N3:402 elements, you hide the field labels and add Help text to the fields.

### About this task

Use this procedure to hide the first Address Information field label of the Remit To address and add Help text.

### Procedure

1. Double-click the **N3:401** element (in the N1:3 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the first line of the address. This address line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N3:402 Element

### About this task

Use this procedure to hide the second Address Information field label and add Help text.

### Procedure

1. Double-click the **N3:402** element (in the N1:3 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the second line of the address. This address line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

---

## The N4:4 Segment

The N4:4 segment in the N1:3 group contains the Geographic Location of the entity or individual named in the N1:4 segment in the N1:3 group. The N4:401 element contains the name of the city, the N4:402 element contains the code for the state or province, and the N4:403 element contains the postal code.

The geographic location in the N4:4 segment corresponds to the name in the N1:401 element, so there is no need to display the labels associated with the geographic location. You hide the field labels for the N4:401, N4:402, and N4:403 elements and add Help text to those fields.

## Customizing the N4:401 Element

### About this task

Use this procedure to hide the field label and add Help text to the City Name field.

## Procedure

1. Double-click the **N4:401** element (in the N1:3 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the city name. The city name cannot exceed 30 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N4:402 Element

### About this task

Use this procedure to hide the field label and add Help text to the State or Province Code field.

### Procedure

1. Double-click the **N4:402** element (in the N1:3 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the state or province code. The code cannot exceed 2 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the N4:403 Element

### About this task

Use this procedure to hide the field label and add Help text to the Postal Code field.

### Procedure

1. Double-click the **N4:403** element (in the N1:3 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the postal code. The postal code cannot exceed 9 alphanumeric characters. Do not enter a hyphen (-) before the 4-digit postal code extension (if used).
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

### Results

The section of the Invoice frame that contains the fields in the N1:3 group) now should look like this (you may need to scroll down the frame to see all of these fields):

The screenshot shows a form titled "Invoice" with a dotted background. It contains several input fields and checkboxes. The "Ship To" section has a long text field followed by two shorter ones. Below it is a checkbox and another text field. The "Bill To" section has a similar layout. At the bottom, there are fields for "Terms Type Code" (with a checkbox), "Date/line Qualifier" (with a checkbox), and "Date" (with a text field).

## Customizing the ITD Segment

The ITD segment is a conditional segment that specifies the Terms of Sale/Deferred Terms of Sale for the invoice. The standard specifies that the ITD segment can be used up to five times in one invoice. For this tutorial, you know that your users must use the ITD segment only once, so you changed the maximum use of this segment from five to one.

### About this task

The ITD01 element contains the Terms Type Code, a two-character code that identifies the terms under which this invoice is valid. Sterling Gentran:Server uses a list (instead of an edit box, or field) when you apply a standard rule that allows a selection of multiple items. When users use a translation object that contains a list, they select an item from the list, instead of typing a value in a field. You customize the ITD01 element so that a list containing all valid codes in the Terms Type Code code list is available to your users when they use the screen entry translation object. The Terms Type Code list enables them to select the appropriate EDI code from the code list.

After you specify the code list table to use for the list for the Terms Type Code field, you rename the field label. Also, you add Help text to the field.

Use this procedure to load the Terms Type Code code list from the standard, rename the field label, and add Help text to the Terms Type Code field.

### Procedure

1. Double-click the **ITD01** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Code**.
  - Click **Edit** to access the Edit Code List dialog.

The Table ID box contains **0336**, the name of the element for which this code list table is used. The Desc box contains **TERMS TYPE CODE**, the description of the element for which this code list table is used.

3. On the Edit Code List dialog, click **Load**. You are prompted to select an ODBC data source name.

4. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
5. On the Load Code List dialog, do the following:
  - Click **Add All** to select all the codes and move them to the Codes Selected list.
  - Click **OK** to load the code list and exit the Load Code List dialog.
6. Click **Close** to exit the Edit Code List dialog.
7. On the **Display** tab, enter **Payment Terms Code** in the Label box to replace the existing text
8. On the **Help** tab, enter the following text in the Help Text list:  
Select the payment terms code from the list.
9. Click **OK** to exit the dialog.
10. Click **Generate Layout** on the Main Toolbar to refresh the display.

## Results

The section of the Invoice frame that contains the field in the ITD segment now should look like this (you may need to scroll down the frame to see the field):

The screenshot shows a window titled "Invoice" with a grid background. It contains several input fields and labels. At the top, there is a "Ship To" label followed by a long text box. Below this are several smaller text boxes and a checkbox. In the middle, there is a "Bill To" label followed by another long text box, with more smaller text boxes and a checkbox below it. At the bottom, there are labels for "Payment Terms Code" (with a dropdown arrow), "Date/Time Qualifier" (with a text box), and "Date" (with a text box). A vertical scrollbar is visible on the right side of the form.

## The DTM Segment

### Customizing the DTM01 Element

The DTM segment contains the Date/Time Reference Numbers for the invoice. In this tutorial, the DTM segment is used for the contract date associated with the contract number (in the REF segment). The standard allows the DTM segment to be used up to ten times in one invoice. In this tutorial, you use the DTM segment only once (for the contract effective date). You already changed the maximum use of the DTM segment to obtain just one instance of the DTM segment, and to place the associated fields on the same frame as the majority of the invoice fields.

### About this task

The DTM01 element (Date/Time Qualifier) is a mandatory element for the DTM segment. The DTM01 element contains the two-character code from your EDI data to indicate what type of date follows (e.g., contract effective date). You define a constant value for the Date/Time Qualifier field, designating that the constant

"090" qualifies the date in the Date field. Defining the constant indicates that the Date field contains the contract effective date.

When a user enters a contract effective date in the Date field, the system automatically assigns the code "090" to the Date/Time Qualifier field.

Use this procedure to define a constant value and hide the Date/Time Qualifier field.

### Procedure

1. Double-click the **DTM01** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Contract Effective** to identify the constant.
  - From the Type list, select **String** to indicate that the literal constant is formatted as a string data type.
  - In the Value box, enter **090** to indicate that the Date/Time Qualifier field must contain the contract date. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **090** to identify the constant that is used for this element.
  - From the Qualifies list, select **0373:6 DATE**, which is the element that the Date/Time Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the DTM02 Element

The DTM02 element in the DTM segment contains the contract effective date. This element is defined by the standard to be a date/time data type, consisting of six alphanumeric characters. In this tutorial, you know that the contract date is always an eight-character alphanumeric string, so you change the element and field lengths to accommodate the longer date. In addition, you rename the field label to more accurately reflect the field contents, and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, change the field label, and add Help text to the Date field.

### Procedure

1. Double-click the **DTM02** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.

- From the Form Format list, select **MM/DD/YY** to indicate that this field on the translation object accepts a date entered in the format MM/DD/YY.
  - Verify that **YYMMDD** is selected in the File Format list to indicate that the EDI data is sent in the format YYMMDD.
3. On the **Display** tab, do the following:
    - In the Label box, enter **Contract Date** to replace the existing text.
    - In the Maximum number of characters box, enter **8** to allow the entire date (including the / separators) to be displayed.
  4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the contract date. Use the format MM/DD/YY.
  5. Click **OK** to exit the dialog.
  6. Click **Generate Layout** on the Main Toolbar to refresh the display of the screen entry form.

## Results

The section of the Invoice frame that contains the fields in the DTM segment now should look like this (you may need to scroll down the frame to see the fields):

The screenshot shows a window titled "Invoice" with a dotted background. The fields visible are:

- Print To: [Text Field]
- [Text Field]
- [Text Field]
- [Text Field]
- [Text Field]
- Payment Terms Code: [Text Field]
- Contract Date: [Text Field]
- 0400\_It1: [Text Field]
- Total Invoice Amount: [Text Field]
- Number Of Line Items: [Text Field]

## Customizing the IT1 Group

The standard allows the IT1 group to be used up to one hundred thousand times in one invoice. The IT1 group contains the following segments and group that you already activated: IT1 segment, PID group, DTM:2 segment, and CAD segment.

### About this task

The fields associated with the IT1 group are arranged on the 0400\_It1 frame, which is separate from the Invoice frame that you have been working with thus far in this tutorial. Your users complete the fields on the 0400\_It1 frame for each item in the invoice. The list of all line items in the invoice is displayed in a list on the Invoice frame. In that list, the invoiced items are displayed line by line, forming columns of information.



You already promoted or changed the maximum use of the following form components: PID group, DTM:2 segment, and CAD segment. Now, you are ready to customize these components and rename the IT1 group.

Use this procedure to rename the IT1 group and its frame and add Help text to the list that is displayed on the Invoice frame.

### Procedure

1. Right-click the **IT1** group and select **Properties**.
2. In the Desc box, enter **Line Items** to describe the group.
3. On the **Display** tab, do the following:
  - In the Frame Caption box, enter **Line Items** to rename the frame.
  - In the List Caption box, enter **Line Items** to rename the list that is displayed on the Invoice frame (listing the line items entered on the Line Items frame).
4. On the **Help** tab, enter the following text in the **Frame Help Text** list. (Press **Enter** at the end of each line of text.)

This frame contains the line item detail information.  
For online Help on an individual field on this frame,  
select the field and press F1.
5. On the **Help** tab, enter the following text in the **Listbox Help Text** list. (Press **Enter** at the end of each line of text.)

This list contains the line item detail for the invoice.  
The data in this list is entered or changed on the  
Line Items frame. To enter a new line item, click the  
list and click New. To modify an existing line item,  
click that item and click Open.
6. Click **OK** to exit the Group Properties dialog.

---

## The IT1 Segment

The IT1 segment contains the Baseline Item Data that identifies the line item detail for each item invoiced. For some of the elements in the IT1 segment, you only need to add Help text and rename the field labels so they more accurately reflect your company's needs. With other elements, you change the maximum lengths for some of the fields, use accumulators to calculate the number of line items, or define a constant value.

The IT1 group is subordinate to the Invoice frame, so Sterling Gentran:Server creates a separate frame (the Line Items frame) to contain the group data (the line item details). The system also creates a list (the Line Items list) on the Invoice frame to allow the user to access the items in the list. Each set of data is displayed as a row in the list. After you customize the line item fields, the Line Items list contains these four columns of data: Item No., Product Code, Quantity, and Price.

## Customizing the IT101 Element

The IT101 element (in the IT1 segment in the IT1 group) contains the Assigned Identification for one item in the invoice. In this tutorial, you use the Assigned Identification field to identify sequentially each line item in the invoice. You use the Use Accum function to obtain an incremental count of the number of line items. This number is used in the Number of Line Items field (CTT01 element). The data type currently selected for this element is "String," so you must change the type to "Number" for the accumulators to work properly. You change the screen and EDI formats from "X" (a format appropriate for a string data type) to

"N0" (a format appropriate for a number data type) to indicate that you expect numbers with implied decimal points and no decimal places in both the screen entry translation object and the EDI data.

## About this task

You create a list definition for the IT101 element to include the line number in the list, and rename the field label to more accurately reflect the purpose of this field in this invoice. You change the minimum use of this element to zero to make this element conditional. Also, you know that your users enter no more than 99,999 line items per invoice. Each line item is numbered sequentially, starting with one, so you need a maximum length of only five digits for this field. You change the maximum length for this field from the default setting of eleven to five.

Use this procedure to count line items in the IT1 segment and generate a control total in the CTT01 element of the number of line items, rename the IT101 field label, change the field length and data type, change the screen and EDI formats, add Help text, and create the list definition for the Assigned Identification field.

## Procedure

1. Double-click the **IT101** element.
2. On the **Validation** tab, do the following:
  - In the Min box, enter **0** to make this element conditional.
  - In the Max box, enter **5** to allow a five-digit number in this element.
  - From the Type list, select **Number** as the data type in this element.
  - From the Form Format list, select **N0** to indicate that this field on the translation object accepts a number with an implied decimal point and no decimal places.
  - From the File Format list, select **N0** to indicate that the EDI data contains a number with an implied decimal point and no decimal places.
3. On the **Standard Rule** tab, do the following:
  - Select **Use Accum.**
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
4. In the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **0**. Before any calculations are performed on an accumulator, its content is 0. When you use this accumulator, the system adds a new accumulator to the bottom of this list.
  - In the Name box, enter **Item Number**. This allows you to differentiate the purposes of the accumulators you create.
  - From the First list, select **Increment primary** to specify that the system increments the value in this accumulator by one for each iteration of the IT1 group. This operation is the first operation the system performs.
  - From the Second list, select **Use primary** to specify that the system loads the current value of the accumulator into the IT101 (Assigned Identification) element. This operation is the second operation the system performs.
  - Click **OK** to add the accumulator.
5. On the **Display** tab, do the following:
  - Select **Displayed but not editable** to make this field display-only.
  - In the Label box, enter **Item No.** to replace the existing text.
  - In the Maximum number of characters box, enter **5**.

6. On the **Summary List** tab, do the following:
  - In the Summary List section, select **Display this field in summary**. The value in the Item No. field is displayed in a column in the Line Items list.
  - In the Column Width box, enter **8** to set the width of this column in the Line Items list.

**Note:** The column width should be wider than the actual content of the column. The extra space that is not used for the content of the column provides white space separating the columns.

  - From the Sequence list, select **1** to indicate that this field is the first column in the list.
7. Click **OK** to exit the dialog.
8. Double-click the **CTT01** element (in the CTT segment).
9. On the **Standard Rule** tab, do the following:
  - Select **Use Accum.**
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation for this element.
10. In the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **0**.
  - From the First list, select **Use primary** to specify that the system loads the current value of the accumulator into the CTT01 (Number of Line Items) element.
  - Click **OK** to add the accumulator.
11. On the **Display** tab, select **Displayed but not editable**. The data in the Number of Line Items field will be display-only.
12. Click **OK** to exit dialog.

## Customizing the IT102 Element

The IT102 element contains the Quantity Invoiced for each item in the invoice. The quantity for each line item is used to calculate the total dollar amount of the invoice. From this calculation, you generate a running total of extended price and load the final total into the TDS01 (Total Invoice Amount) element.

### About this task

You create a list definition for the IT102 element to include the quantity invoiced in the list. For brevity on the translation object, you rename the field label. The standard allows up to a ten-digit number in this field. You know that your users do not enter a quantity of more than 99,999 (a five-digit number) for any one item, so you change the maximum length for this field and element to five.

Use this procedure to use an accumulator in the IT102 element to generate a running total of extended price that is used in the TDS01 element, rename the field label, change the field and element lengths, add Help text, and create the list definition for this field.

### Procedure

1. Double-click the **IT102** element (in the IT1 group).
2. On the **Standard Rule** tab, do the following:
  - Select **Use Accum.**

- Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
3. In the Edit Accumulator Entry dialog, do the following:
    - From the Primary Accumulator list, select **1**.
    - In the Name box, enter **Extended Price**. This allows you to differentiate the purpose of the accumulators you create.
    - From the First list, select **Load primary** to specify that the system loads the content of the IT102 element into the Primary Accumulator for each iteration of the IT1 group. This operation is the first operation that the system performs.
    - Click **OK** to add the accumulator.
  4. On the **Validation** tab, do the following:
    - In the Max box on the Element Properties dialog, enter **5** to allow a five-digit number in this element.
    - In the Max box on the Element Properties dialog, enter **5** to allow a five-digit number in this element.
    - From the Form Format list, select **R0** to indicate that this field accepts a number with an explicit decimal point and no decimal places.
  5. On the **Display** tab, do the following:
    - In the Label box, enter **Quantity** to replace the existing field label.
    - In the Maximum number of characters box, enter **5** to allow five numeric digits to be displayed in this field.
  6. On the **Summary List** tab, do the following:
    - Select **Display this field in summary list**. The value in the Quantity field is displayed in a column in the Line Items list.
    - In the Column Width box, enter **8** to set the width of this column in the Line Items list.
    - From the Sequence list, select **3** to indicate that this field is the third column in the list.
  7. On the **Help** tab, enter the following text in the Help Text list. (Press Enter at the end of each line of text.)
 

Enter the quantity of this invoiced item.  
The quantity cannot exceed 5 digits.
  8. Click **OK** to exit the dialog.
  9. Double-click the **IT104** element.
  10. On the **Standard Rule** tab, do the following:
    - Select **Use Accum.**
    - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
  11. In the Edit Accumulator Entry dialog, do the following:
    - From the Primary Accumulator list, select **1**.
    - From the First list, select **Multiply with primary**. The system multiplies the value of the IT104 (Unit Price) element by the content of the primary accumulator, and stores the result in the primary accumulator for each iteration of the IT1 group. This operation is the first operation that the system performs.
    - Click **OK** to add the accumulator.
  12. Click **New** to access the Edit Accumulator Entry dialog to create a new calculation for this element.

13. In the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **2**.
  - In the Name box, enter **Running Price**. This allows you to differentiate the purposes of the accumulators you create.
  - From the First list, select **Add primary to alternate**. The system adds the content of the primary accumulator to the content of the alternate accumulator and stores the result in the primary accumulator for each iteration of the IT1 group.
  - From the Alternate Accum list, select **1**. The system adds the value of accumulator 1 (which contains the extended price for a line item) to the value of accumulator 2. The sum is stored in accumulator 2, which contains a running total of the extended price with each iteration of the IT1 group.
  - Click **OK** to add the accumulator.
14. Click **OK** to exit the Element Properties dialog.
15. Double-click the **TDS01** element (in the TDS segment).
16. On the **Standard Rule** tab, do the following:
  - Select **Use Accum**.
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
17. In the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **2**.
  - From the First list, select **Use primary**. The system loads the content of the primary accumulator into the TDS01 (Total Invoice Amount) element.
  - Click **OK** to add the accumulator.
18. On the **Validation** tab, select **R2** from the Form Format list to indicate that this field accepts a number with an explicit decimal point and two decimal places.
19. On the **Display** tab, select **Displayed but not editable**. Users are able to read the data in the Total Invoice Amount field, but are not able to enter a value in this field.
20. Click **OK** to exit the dialog.

## Customizing the IT103 Element

The IT103 element contains the Unit or Basis for Measurement Code for each item in the invoice. For brevity on the translation object, you rename the field label. Also, you customize the IT103 element so that a list containing all valid codes in the Unit or Basis for Measurement Code code list is available to your users when they use the screen entry translation object. The list enables them to select the appropriate EDI code from the ones available.

### About this task

Use this procedure to rename the field label, add Help text, and load the code list table from the standard for the Unit or Basis for Measurement Code field.

### Procedure

1. Double-click the **IT103** element (in the IT1 group).
2. On the **Display** tab, enter **UOM** in the Label box to replace the existing text.
3. On the Help tab, enter the following text in the Help Text list.  
Select the unit of measurement for the invoiced item.

4. On the **Standard Rule** tab, do the following:
  - Select **Use Code**.
  - Click **Edit** to access the Edit Code List dialog.

The Table ID box contains 0355, which is the name of the element for which this code list table is used. The Desc box contains UNIT OR BASIS FOR MEASUREMENT CODE, which is the description of the element for which this code list table is used.
5. On the Edit Code List dialog, click **Load**. You are prompted to select an ODBC data source name.
6. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
7. On the Load Code List dialog, do the following:
  - Click **Add All** to select all the codes and move them to the Codes Selected list.
  - Click **OK** to load the code list and exit the Load Code List dialog.
8. Click **Close** to exit the Edit Code List dialog.
9. Click **OK** to exit the dialog.

## Customizing the IT104 Element

The IT104 element contains the Unit Price for each item in the invoice. You already used an accumulator for this field so that the price for each line item is used to calculate the total dollar amount of the invoice. From this calculation, a running total of extended price is generated and the final total is loaded into the TDS01 (Total Invoice Amount) element. You create a list definition for the IT104 element to include the unit price in the list.

### About this task

For this tutorial, you rename the field label. Also, the standard designates an "R9" screen format for this field, meaning that the price is formatted with an explicit decimal point and up to nine decimal places. Your users enter a price in an "R2" format (a number with up to two decimal places), so you change the screen format from "R9" to "R2."

The standard defines this element as having a maximum length of fourteen. For this tutorial, the items you sell Pet Zone are not priced at more than \$9,999.99 each, so this field needs a maximum length of only eight (four places for the dollars; two places for the cents; one place for the decimal point; and one place for a plus or minus sign, if present).

Use this procedure to rename the field label, change the field length and number format, add Help text, and create the list definition for the Unit Price field.

### Procedure

1. Double-click the **IT104** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8** to allow eight numeric digits in this field, including a plus or minus sign and a decimal point.
  - From the Form Format list, select **R2** to indicate that this field on the translation object accepts a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:

- In the Label box, enter **Price** to replace the existing text.
  - In the Maximum number of characters box, enter **8** to allow eight numeric digits in this field, including a plus or minus sign and a decimal point.
4. On the **Summary List** tab, do the following:
    - Select **Display this field in summary list**. The value in the Price field is displayed in a column in the Line Items list box.
    - In the Column Width box, enter **8** to set the width of this column in the Line Items list.
    - From the Sequence list, select **4** to indicate that this field is the fourth column in the list.
  5. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the unit price for this item. The price cannot exceed 8 digits, including a plus or minus sign and a decimal point.
  6. Click **OK** to exit the dialog.

## Customizing the IT106 Element

The IT106 element contains the Product/Service ID Qualifier for each item in the invoice. The IT101 element contains the two-character code to indicate what type of product/service ID is in the Product Code field (IT107 element). You know that the only type of product/service ID that your users enter for this invoice is the UPC code, so you define a constant value for the Product/Service ID Qualifier field, designating that the constant "UP" qualifies the number in the Product Code field. When a user enters a UPC code in the Product Code field, the system automatically assigns the code "UP" to the Product/Service ID Qualifier field.

### About this task

Use this procedure to define a constant value and hide the Product/Service ID field.

### Procedure

1. Double-click the **IT106** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **UPC Package Code** to identify the constant.
  - From the Type list, select **String**.
  - In the Value box, enter **UP**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **UP**.
  - From the Qualifies list, select **0234 PRODUCT/SERVICE ID**, which is the element that the Product/service ID Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the IT107 Element

The IT107 element contains the Product/Service ID for each item in the invoice. For this tutorial, you rename the field label to Product Code. The standard allows up to a thirty-character string in this field. You know that your users enter product identification numbers (UPC codes) that are no longer than ten characters, so you change the maximum length for this field. Also, you create a list definition for the IT107 element to include the product code in the Line Items list on the Invoice frame.

### About this task

Use this procedure to rename the field label, change the field length, add Help text, and create the list definition for the Product/Service ID field.

### Procedure

1. Double-click the **IT107** element.
2. On the **Validation** tab, enter **10** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Product Code**.
  - In the Maximum number of characters box, enter **10**.
4. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Price field is displayed in a column in the Line Items list box.
  - In the Column Width box, enter **13** to set the width of this column in the Line Items list.
  - From the Sequence list, select **2** to indicate that this field is the second column in the list.
5. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter your company's product code for this item  
in the invoice. The product code cannot exceed  
10 alphanumeric characters.
6. Click **OK** to exit the dialog.

---

## The PID:2 Segment

The PID group contains the Product/Item Description for each item in the invoice. You already activated the PID:2 segment in the PID group.

The PID:2 segment (in the PID group) contains the Product/Item Description for each item in the invoice. When the PID:2 segment is activated, the PID:201 element is mandatory. Earlier in this tutorial, you activated the PID:205 element also. The PID:205 element provides a description of each item in the invoice, and the PID:201 element qualifies that description.

## Customizing the PID:201 Element

By standard definition, the PID:201 element contains the Item Description Type ("F" for free-form item description, "S" for structured description, or "X" for semi-structured description) for the invoiced item. For this tutorial, you know that the only type of description your users enter for this invoice is a free-form description. You define a constant value for the Item Description Type field to indicate that the constant "F" qualifies the text in the Description field. When a



user enters a free-form description in the Description field, the system automatically assigns the code "F" to the Item Description Type field.

### About this task

Use this procedure to define a constant value and hide the Item Description Type field.

### Procedure

1. Double-click the **PID:201** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Free-Form Description** to identify the constant.
  - From the Type list, select **String**.
  - In the Value box, enter **F**. The Product/Service ID Qualifier field is a free-form description. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **F** to identify the constant that is used for this element.
  - From the Qualifies list, select **0352 DESCRIPTION**, which is the element that the Item Description Type field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the PID:205 Element

The PID:205 element contains the Description of each invoiced item and is defined by the standard to be a string of up to eighty alphanumeric characters. Add Help text to this field.

### About this task

Use this procedure to add Help text to the Description field.

### Procedure

1. Double-click the **PID:205** element.
2. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the description of the invoiced item.  
The description cannot exceed 80 alphanumeric characters.
3. Click **OK** to exit the dialog.

---

## The DTM:2 Segment for an Invoice

### Customizing the DTM:201 Element

In this tutorial, you use two iterations of the DTM segment (Date/Time Reference). The first active DTM segment in the invoice (the DTM:2 segment) is used to enter the contract date of the invoice. The DTM:2 segment you customize first is in the IT1 group (on the Line Items frame) and specifies the date on which each item in the invoice was shipped. You already changed the maximum use of the DTM:2 segment so that its associated fields are displayed on the same frame as the PID:2 and IT1 fields.

#### About this task

The DTM:201 element (Date/Time Qualifier) is a mandatory element for the DTM:2 segment. The DTM:201 element contains the three-character code from your EDI data to indicate what type of date follows (e.g., date shipped). You define a constant value for the Date/Time Qualifier field, designating that the constant "011" qualifies the date in the Date field.

When a user enters the date on which the item was shipped in the Date field, the system automatically assigns the code 011 to the Date/Time Qualifier field. The user does not need to enter the code in the qualifier field, so the qualifier field does not need to be displayed.

Use this procedure to define a constant and hide the Date/Time Qualifier field.

#### Procedure

1. Double-click the **DTM:201** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Date Shipped** to identify the constant.
  - From the Type list, select **String**.
  - In the Value box, enter **011**. The Date/Time Qualifier field contains the Date Shipped.. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **011**.
  - From the Qualifies list, select **0373:6 DATE**, which is the element that the Date/Time Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

### Customizing the DTM:202 Element

The DTM:202 element in the DTM:2 segment contains the Date qualified by the Date/Time Qualifier field. This element is defined by the standard to be a Date/Time data type of six characters. In this tutorial, you know that the shipped

date is always an eight-character date, so you change the element and field lengths to accommodate the new length. Also, you rename the field label and add Help text to the field.

### About this task

Your users format the date as MM/DD/YY when they enter the date in the screen entry translation object, but the EDI data is sent to your trading partner as YYMMDD. You set the screen format and EDI format for this element accordingly.

Use this procedure to set the date format, change the element and field lengths, rename the field label, and add Help text to the Date field.

### Procedure

1. Double-click the **DTM:202** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Form Format list, select **MM/DD/YY** to indicate that this field on the translation object accepts a date entered in the format MM/DD/YY.
  - Verify that **YYMMDD** is selected in the File Format list to indicate that the EDI data is sent in the format YYMMDD.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Date Shipped**.
  - In the Maximum number of characters box, enter **8** to allow the entire date (including the / separators) to be displayed.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the date on which this invoiced item was shipped. Use ␣the format MM/DD/YY.
5. Click **OK** to exit the Display dialog.

---

## The CAD Segment

### Customizing the CAD01 Element

The CAD segment contains Carrier Detail, such as the transportation method. For this tutorial, you provide a list for users from which users select the transportation method for the invoiced item, and provide a field so they can enter a reference number to identify the carrier.

### About this task

The CAD01 element, the Transportation Method/Type Code, contains the two-character code that identifies the transportation method (e.g., parcel post, air express, etc.) for each invoiced item. You customize the CAD01 element so that a list containing all valid codes in the Transportation Method/Type Code list is available to your users when they use the screen entry translation object.

After you specify the code list table to use for the list for the Transportation Method/Type Code field, you rename the field label to identify this field better.

Use this procedure to load the code list table from the standard, rename the field label, and add Help text to the Transportation Method/Type Code field.

### Procedure

1. Double-click the **CAD01** element.
2. On the **Standard Rule** tab do the following:
  - Select **Use Code**.
  - Click **Edit** to access the Edit Code List dialog.  
The Table ID box contains **0091**, the name of the element for which this code list table is used. The Desc box contains **TRANSPORTATION METHOD/TYPE CODE**, the description of the element for which this code list table is used.
3. On the Edit Code List dialog, click **Load**. You are prompted to select an ODBC data source name.
4. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
5. On the Load Code List dialog, do the following:
  - Click **Add All** to select all the codes and move them to the Codes Selected list.
  - Click **OK** to load the code list and exit the Load Code List dialog.
6. Click **Close** to exit the Edit Code List dialog.
7. On the **Display** tab, enter **Transport Method** in the Label box.
8. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Select the transportation method code  
for this invoiced item from the list.
9. Click **OK** to exit the dialog.

## Customizing the CAD08 Element

The CAD08 element contains a Reference Number, which is used in this tutorial to identify the carrier for an invoiced item. This element is defined by the standard to be a string of thirty alphanumeric characters. Your company has assigned reference numbers to the carriers with whom they have contracted. In this tutorial, you know that the carrier reference number cannot exceed twelve alphanumeric characters. You change the element and field lengths to accommodate the shorter reference number. In addition, you rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, rename the field label, and add Help text for the Reference Number field.

### Procedure

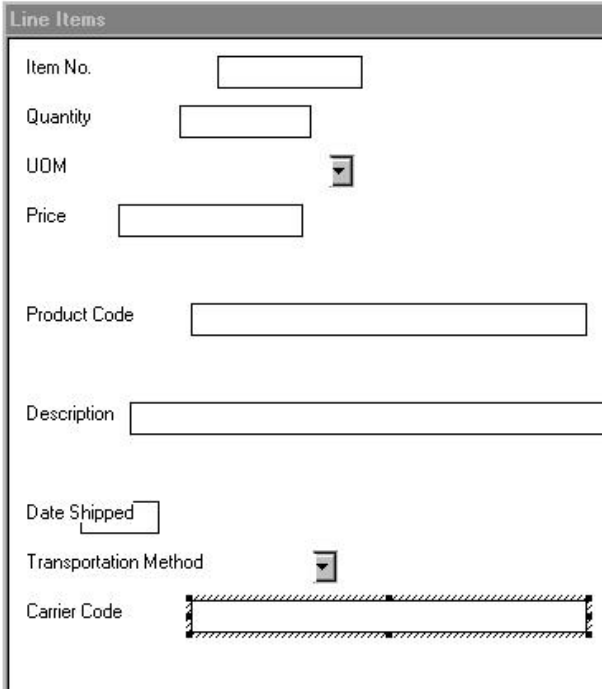
1. Double-click the **CAD08** element.
2. On the **Validation** tab, enter **12** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Carrier Code**.
  - In the Maximum number of characters box, enter **12**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter your company's reference number for this carrier.  
The reference number cannot exceed 12 alphanumeric characters.

5. Click **OK** to exit the dialog.
6. Click **Generate Layout** on the Main Toolbar to refresh the display of the screen entry form.
7. Click **Save** from the File menu to save the form.

## Results

The Line Items list now should look like this:



The screenshot shows a window titled "Line Items" with the following fields and controls:

- Item No. (text input)
- Quantity (text input)
- UDM (dropdown menu)
- Price (text input)
- Product Code (text input)
- Description (text input)
- Date Shipped (text input)
- Transportation Method (dropdown menu)
- Carrier Code (text input with a hatched border)

---

## The TDS Segment

The TDS segment contains the Total Monetary Value Summary for the invoice.

You already used an accumulator in the TDS01 element to calculate the total dollar amount invoiced, and made this field display-only so that users cannot change the value in this field.

---

## The CTT Segment

The CTT segment is a mandatory segment that displays Transaction Totals for the invoice.

For this tutorial, you use the CTT01 element to display the total number of line items invoiced. You already used an accumulator in the CTT01 element to generate a total of the number of line items, and made this field display-only so that users cannot change the value in this field.

Now that you have customized all of the elements used in this invoice, you are ready to format the fields and labels to make the frames more consistent and visually attractive.



---

## Chapter 5. Customizing Screen Entry Forms for ANSI X12

---

### Resizing the Invoice Frame

When a form is compiled into a translation object, the fields are arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

#### About this task

**Important:** When you resize the frames of a screen entry form, you must resize based on the resolution of the target monitor (for example, the monitor on which the end user views the translation object).

Use this procedure to resize the Invoice frame.

#### Procedure

1. Click the invoice file icon to display the Invoice frame in the Layout Window.

**Note:** When the form is generated, the upper left corner of each frame in the form is placed in the upper left corner of the Layout Window.

2. To display more of the form on your screen, click and drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want to view.
3. To resize the Invoice frame, click and drag the right side of the frame approximately to the 14 cm. mark on the horizontal ruler so that the form is wide enough to format the fields according to the instructions in this tutorial.

---

### Fields on the Invoice Frame

You begin formatting the screen entry form by arranging the fields on the Invoice frame. You place the fields in the translation object in a logical order, then align the fields to give the frame a consistent and orderly appearance.

By default, each field and its associated label are displayed on their own line. However, it is common for invoices to place two or more fields on a line.

You prevented some of the field labels from being displayed (by removing the field label in the Label field of the Display dialog). For these fields, the fields are displayed on your screen entry form, but their associated labels are not displayed.

## ANSI X12

The Invoice frame now should look like this:

The screenshot shows a window titled "invoice" with a dotted background. It contains several input fields for data entry:

- Invoice Date: [ ]
- Invoice No.: [ ]
- P.O. Date: [ ]
- P.O. No.: [ ]
- Contract No.: [ ]
- Ship To: [ ]
- Remit To: [ ]

There are also several empty lines and a small square checkbox below the "Ship To" field.

## EDIFACT

The Invoice Message frame now should look like this:

The screenshot shows a window titled "Invoice Message" with a dotted background. It contains several input fields for data entry:

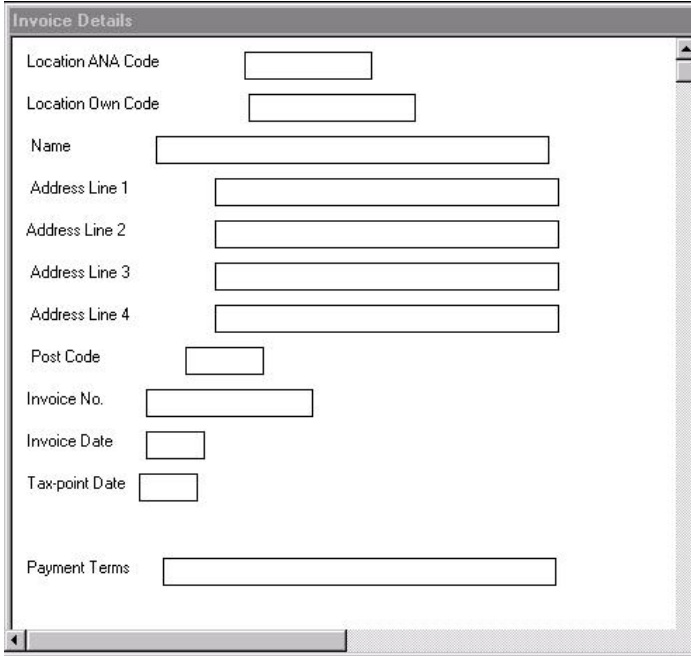
- Invoice No.: [ ]
- Invoice Date: [ ]
- P.O. No.: [ ]
- P.O. Date: [ ]
- Contract No.: [ ]
- Contract Date: [ ]
- Ship To: [ ]

There are also several empty lines below the "Ship To" field.



## TRADACOMS

The Invoice Details frame now should look like this:



The screenshot shows a window titled "Invoice Details" with a scrollable area containing the following fields:

- Location ANA Code:
- Location Own Code:
- Name:
- Address Line 1:
- Address Line 2:
- Address Line 3:
- Address Line 4:
- Post Code:
- Invoice No.:
- Invoice Date:
- Tax-point Date:
- Payment Terms:

---

## Arranging Fields

### Rearranging the Fields

Use this procedure to resize, move, and align the fields on the Invoice frame of the screen entry form:

#### About this task

#### Procedure

1. Select the following fields and select **Display > Size to Length**.

- Invoice Date
- Invoice No.
- P.O. Date
- P.O. No.
- Contract No.
- Contract Date

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

2. Drag the following fields closer to their respective labels:

- Invoice Date
- Invoice No.
- P.O. Date
- P.O. No.
- Contract No.

- Contract Date
3. Drag the **Invoice Date** label and field to the upper right corner of the Invoice frame.
  4. Drag the **Invoice No.** label and field to the upper left corner of the frame.
  5. Drag the **P.O. Date** label and field to the right side of the frame, below the Invoice Date label and field.
  6. Drag the **P.O. No.** label and field to the left side of the frame, below the Invoice No. label and field.
  7. Drag the **Contract No.** label and field to the left side of the frame, below the P.O. No. label and field.
  8. Drag the **Contract Date** label and field to the right side of the frame, below the P.O. Date label and field.
  9. Rearrange the fields of the Ship To address as follows:
    - Select the **Ship To** field (not the label), the two Address Information fields, and the City Name field.
    - Select **Display > Align Controls > Left**.
    - Drag the **State or Province Code** field to the immediate right of the City Name field.
    - Drag the **Postal Code** field to the immediate right of the State or Province Code field.
    - Drag all of the **Ship To** fields (including the Ship To field label) to the left side of the frame, below the Contract No. label and field.
    - Drag all of the **Ship To** fields (not including the Ship To field label) closer to the Ship To field label.
  10. Rearrange the fields of the Remit To address as follows:
    - Select the **Remit To** field (not the label), the two Address Information fields, and the City Name field.
    - Select **Display > Align Controls > Left**.
    - Drag the **State or Province Code** field to the immediate right of the City Name field.
    - Drag the **Postal Code** field to the immediate right of the State or Province Code field.
    - Drag all of the **Remit To** fields (not including the Remit To field label) closer to the Remit To field label.
    - Drag all of the **Remit To** fields (including the Remit To field label) below the Ship To address.
  11. Select the **Payment Terms Code** list and do the following:
    - Click and drag its right handle so that the list is approximately 1.5 cm. wide (including the down arrow).
    - Click and drag its bottom handle to make the drop-down part of the list long enough to list approximately four codes.
    - Drag the **Payment Terms Code** list and label to the center of the frame, below the Remit To address.
  12. Rearrange the fields of the Line Items as follows:
    - Drag the **Line Items** list closer to its label.
    - Drag the **Line Items** list and label to the center of the frame, below the Payment Terms Code list and label.

Leave extra space between the Payment Terms Code list and label, and the Line Items list and label, to add column headings (using static text) to label the data in the list.

- Drag the **Number of Line Items** field closer to its label.
  - Drag the **Number of Line Items** label and field to the center of the frame, below the Line Items list and label.
13. Drag the **Total Invoice Amount** field closer to its label. Then drag its label and field to the center of the frame, below the Number of Line Items label and field.

## Resizing the Invoice Frame

You should resize the Invoice frame to make the most efficient use of space. You already resized the frame horizontally before you began arranging the fields. Then, you arranged the fields on the frame, so the fields do not use the same amount of vertical space as before you arranged the fields.

### About this task

To make better use of the frame space, resize the frame vertically now.

### Procedure

1. To resize the Invoice frame, click and drag the bottom of the frame to just below the Total Invoice Amount label and field.
2. Select **File > Save**.

### Results

The Invoice frame now should look like this:

The screenshot shows a window titled "Invoice" with a dotted background. It contains several input fields and a list area. At the top, there are fields for "Invoice No.", "Invoice Date", "P.O. No.", "P.O. Date", "Contract No.", and "Contract Date". Below these are "Ship To:" and "Rent To:" sections, each with three stacked text input fields. A "Payment Terms Code" field with a dropdown arrow is located below the "Rent To:" section. At the bottom, there is a "Line Items" list area with a scroll bar, a "Number Of Line Items" field, and a "Total Invoice Amount" field. The window has a standard Mac OS-style title bar and scroll bars.

## Aligning the Fields and Labels

Now that the fields in the Invoice frame are resized and moved to their proper locations, you can align the fields and labels.

### About this task

Use this procedure to align the fields and field labels on the Invoice frame.

### Procedure

1. Select the following labels and select **Display > Align Controls > Left**.
  - Invoice No.
  - P.O. No.
  - Contract No.
  - Ship To
  - Remit To
2. Select the following fields and select **Display > Align Controls > Left**.
  - Invoice No.
  - P.O. No.
  - Contract No.
3. Select the following labels and select **Display > Align Controls > Left**.
  - Invoice Date
  - P.O. Date
  - Contract Date
4. Select the following fields and select **Display > Align Controls > Left**.
  - Invoice Date
  - P.O. Date
  - Contract Date
5. Select the following labels and select **Display > Align Controls > Left**.
  - Number of Line Items
  - Total Invoice Amount
6. Select the following fields and select **Display > Align Controls > Left**.
  - Number of Line Items
  - Total Invoice Amount
7. To align the tops of all of the field labels and fields, select each row of items (one row at a time) as listed below. Then select **Display > Align Controls > Top**.
  - Invoice No. label and field, Invoice Date label and field
  - P.O. No. label and field, P.O. Date label and field
  - Contract No. label and field, Contract Date label and field
  - Ship To label and field
  - City Name, State or Province Code, and Postal Code fields of the Ship To address
  - Remit To label and field
  - City Name, State or Province Code, and Postal Code fields of the Remit To address
  - Payment Terms Code label and list
  - Line Items label and list

- Number of Line Items label and field
- Total Invoice Amount label and field

## Results

The Invoice frame now should look like this:

The screenshot shows a window titled "Invoice" with the following fields and controls:

- Invoice No. [text box]
- Invoice Date [text box]
- P.O. No. [text box]
- P.O. Date [text box]
- Contract No. [text box]
- Contract Date [text box]
- Ship To [text box]
- Remit To [text box]
- Payment Terms Code [text box]
- Line Items [list box]
- Number Of Line Items [text box]
- Total Invoice Amount [text box]

## Adding Column Headings to the Line Items List

When you moved the fields on the frame, you already left space in the appropriate locations for the static text. In this section of the tutorial, you will add the static text and move it to the proper locations in the frame.

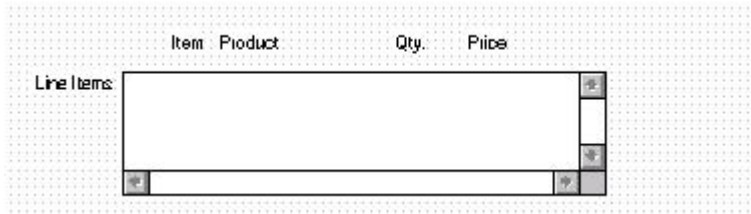
### About this task

Sterling Gentran:Server labels the fields on the Line Items frame but does not label the column headings for the Line Items list on the Invoice frame. The Line Items list displays the information entered into the fields on the Line Items frame. To label the columns in the Line Items list, you must add the column headings with static text.

You will add the following column headings to the Line Items list on the Invoice frame:

Column Heading (Static Text)	Placement Above Line Items List
Item	First column
Product	Second column
Qty.	Third column
Price	Fourth column

After you add the column headings and move each column heading to its proper location, the Line Items list and the column headings should look like this:



Use this procedure to add and position the column headings.

### Procedure

1. Click **Add Text** on the Main Toolbar. Text is added to the current frame, displayed in the upper left corner of the frame. If the template is larger than the frame (there is a scroll bar on the right side of the frame), the static text is displayed in the upper left corner of the part of the template that is displayed, not at the top of the template.
2. In the new text box, enter **Item** and click **OK**.
3. Click **Add Text** on the Main Toolbar and enter **Product** in the text box and click **OK**.
4. Click **Add Text** and enter **Qty.** in the text box and click **OK**.
5. Click **Add Text** and enter **Price** in the text box and click **OK**.
6. The column headings you added are displayed in the upper left corner of the frame.
7. Drag the **Item** static text to above the Line Items list, starting about 1 cm from the left margin of the Line Items list.
8. Drag the **Product** static text to above the Line Items list, to the right of the Item column heading.
9. Drag the **Qty.** static text to above the Line Items list, , nearly 8 cm. from the left margin of the list box.
10. Drag the **Price** static text to above the Line Items list, near the right margin of the list box.
11. To ensure that the column headings (static text) you just added are aligned properly, select all the static text you just added (Item, Qty., Product, Price). Select **Display > Align Controls > Top**.

## Results

The Invoice frame now should look like this:

The screenshot shows a window titled "Invoice" with the following fields and sections:

- Invoice No. [ ] Invoice Date [ ]
- P.O. No. [ ] P.O. Date [ ]
- Contract No. [ ] Contract Date [ ]
- Ship To: [ ] [ ] [ ] [ ] [ ] [ ]
- Bills To: [ ] [ ] [ ] [ ] [ ] [ ]
- Payment Terms Code [ ] [ ]
- Line Items table with columns: Item, Product, Qty, Price
- Number Of Line Items [ ]
- Total Invoice Amount [ ]

## Setting the Tab Sequence on the Invoice Frame

The tab sequence is the order in which the cursor moves from field to field in the screen entry translation object when a user presses Tab. When you create a screen entry form, the system automatically positions the fields and sets the tab sequence for those fields. However, usually you want to modify the tab sequence of the fields to meet your screen entry requirements and the new positions of the fields on the frame.

### About this task

**Note:** If you click a field out of sequence, you must begin setting the tab sequence again. To start over, select **Display > Set Tab Order** so that the tab sequence numbers are no longer displayed in the fields on the frame. Then begin the steps again. When you click the last field in the sequence, the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

Use this procedure to set the tab sequence for the fields on the Invoice frame.

### Procedure

1. Select **Display > Set Tab Order**.  
Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field will change to the next sequential number in the tab sequence.
  - a. Invoice No.
  - b. Invoice Date
  - c. P.O. No.
  - d. P.O. Date
  - e. Contract No.

- f. Contract Date
- g. Ship To name
- h. Ship To address (first line of address)
- i. Ship To address (second line of address)
- j. Ship To city
- k. Ship To state or province code
- l. Ship To postal code
- m. Remit To name
- n. Remit To address (first line of address)
- o. Remit To address (second line of address)
- p. Remit To city
- q. Remit To state or province code
- r. Remit To postal code
- s. Payment Terms Code
- t. Line Items
- u. Number of Line Items
- v. Total Invoice Amount

## Results

The new tab sequence should look like this:

The screenshot shows an 'Invoice' form with the following fields and their tab sequence numbers:

- Invoice No.: 1
- Invoice Date: 2
- P.O. No.: 3
- P.O. Date: 4
- Contract No.: 5
- Contract Date: 6
- Ship To: 7 (name), 8 (address), 9 (address), 10 (city), 11 (state), 12 (postal code)
- Remit To: 13 (name), 14 (address), 15 (address), 16 (city), 17 (state), 18 (postal code)
- Payment Terms Code: 19
- Line Items: 20 (table with columns Item, Product, Qty, Price)
- Number of Line Items: 21
- Total Invoice Amount: 22

## Fields in the Line Items Frame

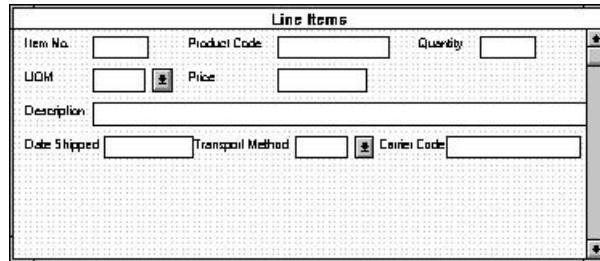
Now that the fields, labels, and static text are arranged on the Invoice frame, you are ready to arrange the fields on the Line Items frame.



## About this task

You will place the fields in a logical order, then align the fields (as you did with the fields on the Invoice frame) to give the frame a consistent and orderly appearance.

When you finish arranging the fields, the Line Items frame in your form should look like the one in the example below.



## Resizing the Line Items Frame and Fields

Before you begin arranging the fields on the Line Items frame, you should resize the frame so that it is the same width as the Invoice frame. When this form is compiled into a translation object, the fields will be arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

### About this task

Use this procedure to resize the line items frame.

#### Procedure

1. Click the IT1 group to display the Line Items frame in the Layout Window.
2. To resize the Line Items frame, click and drag the right side of the frame to the 14 cm. mark on the horizontal ruler.
3. To display more of the form on your screen, drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want.
4. Select the following fields and select **Display > Size to Length**.
  - Item No.
  - Quantity
  - Price
  - Product Code
  - Date Shipped
  - Carrier Code

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

## Moving and Aligning the Fields

### About this task

Use this procedure to move and align the fields on the Line Items frame of the screen entry form.

### Procedure

1. Select the **UOM** list and drag its right handle so that it is approximately 2 cm. wide (including the down arrow).
2. Drag its bottom handle so that the list is long enough for four codes to be displayed in it when the drop-down section is open (approximately 2 cm. on the vertical ruler).
3. Select the **Transport Method** and **UOM** lists (in that order) and select **Display > Size Equally**. The Transport Method list is the same size as the UOM list (the reference).
4. Select each field on the frame individually and move it closer to its respective field label. If the field overlaps its label (for example, Date Shipped), move the field slightly to the right of the label.
5. Drag the **Product Code** label and field to the right of the Item No. label and field.

**Note:** The Item No. label and field are already positioned where you want them (in the upper left corner of the frame). You do not need to move them.

6. Drag the **Quantity** label and field to the right of the Product Code label and field.
7. Drag the **UOM** label and list below the Item No. label and field. The left side of the UOM field label should be aligned with the left side of the Item No. field label.
8. Drag the **Price** label and field below the Product Code label and field. The left side of the Price field label should be aligned with the left side of the Product Code field label.
9. Drag the **Description** label and field below the UOM and Price labels and fields. The left side of the Description field label should be aligned with the left side of the Item No. and UOM field labels.
10. Drag the **Date Shipped** label and field to the left side of the frame, below the Description label and field. The left side of the Date Shipped field label should be aligned with the left side of the Item No., UOM, and Description field labels.
11. Drag the **Transport Method** label and list to the right of the Date Shipped label and field.
12. Drag the **Carrier Code** label and field to the right of the Transport Method label and field.

## Resizing the Line Items Frame

### About this task

Use this procedure to resize the Line Items frame.

### Procedure

To resize the Line Items frame, click and drag the bottom of the frame to below the last row of fields and labels (Date Shipped, Transport Method, and Carrier Code).

**Note:** Allow enough space between the last row of fields/labels and the bottom of the frame for the Transport Method list to be opened.

## **Aligning the Fields and Field Labels**

### **About this task**

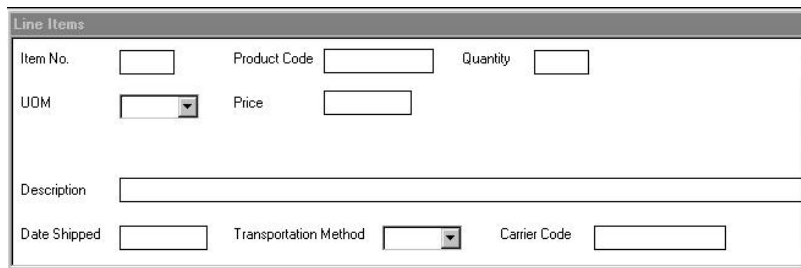
Use this procedure to align the fields and field labels on the Line Items frame.

### **Procedure**

1. Select the following labels and fields and select **Display > Align Controls > Top**.
  - Item No.
  - Product Code
  - Quantity
2. Select the following labels and fields and select **Display > Align Controls > Top**.
  - UOM
  - Price
3. Select the **Description** label and field and select **Display > Align Controls > Top**.
4. Select the following labels and fields and select **Display > Align Controls > Top**.
  - Date Shipped
  - Transport Method
  - Carrier Code
5. Select the following field labels and select **Display > Align Controls > Left**.
  - Item No.
  - UOM
  - Description
  - Date Shipped
6. Select the following fields and select **Display > Align Controls > Left**.
  - Item No.
  - UOM
  - Description
7. Select the following field labels and select **Display > Align Controls > Left**.
  - Product Code
  - Price
8. Select the following fields (in this order) and select **Display > Align Controls > Left**.
  - Price
  - Product Code

## Results

The Line Items frame now should look like this:



The screenshot shows a window titled "Line Items" with the following fields:

- Item No.
- Product Code
- Quantity
- UOM
- Price
- Description
- Date Shipped
- Transportation Method
- Carrier Code

## Setting the Tab Sequence on the Line Items Frame

### About this task

Use this procedure to set the tab sequence of the fields on the Line Items frame.

### Procedure

1. Select **Display > Set Tab Order**.  
Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field change to the next sequential number in the tab sequence you are now setting.
  - a. Product Code
  - b. Quantity
  - c. UOM
  - d. Price
  - e. Description
  - f. Date Shipped
  - g. Transport Method
  - h. Carrier Code
  - i. Item No.

**Note:** The Item No. field is the last field in the tab sequence, although it is the first field in the layout of the Line Items frame. This field is display-only, displaying the next consecutive line item number (the line item number is generated by an extended rule in the IT1 segment). By placing the Item No. field last in the tab sequence, this field can be skipped easily by users entering data. The first field in the sequence is the Product Code field, which is the first field into which users can enter a value.

## Results

The new tab sequence should look like this:

The screenshot shows a window titled "Line Items" with a form containing the following fields and their tab sequence numbers:

- Item No. (0)
- Product Code (1)
- Quantity (2)
- UOM (3)
- Price (4)
- Description (5)
- Date Shipped (6)
- Transportation Method (7)
- Carrier Code (8)

When you click the last field in the sequence (Item No.), the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

---

## Changing the Invoice Frame Title

The system automatically titles the frames in a screen entry form when the form is created, based on the name of the file, segments, or groups. You can modify the frame titles (for example, at the file or document level) to distinguish one form from the others. The parent frame of the invoice currently is titled Invoice. You give this frame a more descriptive title to distinguish it from other invoices that your company uses.

### About this task

Use this procedure to change the frame title.

### Procedure

1. Right-click the invoice file icon and select **Properties**.
2. On the **Display** tab, enter **ANSI X12 Invoice (810) - Pet Zone** in the Frame Caption box.
3. Click **OK**.

The new frame title is displayed in the frame title in the Layout Window.

4. Click **Generate Layout** on the Main Toolbar to refresh the display.
5. Select **File > Save**.

### Results

You have completed your Invoice form. Now, you are ready to finalize the form.



---

## Chapter 6. Creating Screen Entry Forms for EDIFACT

---

### Modifying the DTM Segment

The DTM segment contains the Date/Time Reference Numbers for the invoice. The DTM segment is used for the invoice date associated with the invoice number (in the BGM segment). The standard allows the DTM segment to be used up to 35 times in one invoice. You will use the DTM segment only once (for the invoice date). You will change the maximum use of the DTM segment to one, which will place the associated fields on the main Invoice Message frame with the majority of the invoice fields.

#### About this task

The DTM:2 segment (in the RFF group) contains the Date/Time Reference information for the reference. In this tutorial, the DTM:2 segment is used for the purchase order date associated with the purchase order number (in the RFF segment). The standard allows the DTM:2 segment to be used up to five times each time the RFF group is used. You need use the DTM:2 segment once (for the purchase order date). You will change the maximum use of the DTM:2 segment to one, which will place the associated fields on the main Invoice Message frame with the majority of the invoice fields.

Use this procedure to change the maximum use of the DTM segment.

#### Procedure

1. Right-click the **DTM** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the Segment Properties dialog.
4. Right-click the **DTM:2** segment and select **Properties**.
5. On the **Looping** tab, enter **1** in the Max Usage box to designate that this segment can be used only once per invoice.
6. Click **Yes** at the prompt.
7. Click **OK** to exit the Segment Properties dialog.

---

### Modifying the RFF Group

The standard allows the RFF group (Reference) to be used up to 10 times in one invoice. If the invoice were generated now, the fields associated with the RFF group would be displayed on a separate frame than the majority of the invoice fields. You need two iterations of the RFF group, each with a maximum use of one. You will enter the purchase order number and date in the first RFF group and the contract number and date in the second RFF group.

#### About this task

You need to split the RFF group to obtain a second iteration of the RFF group (the new RFF group will be named RFF:2), then you need to change the maximum use of the original group (RFF).

Use this procedure to modify the RFF group.

### Procedure

1. Right-click the **RFF group** and select **Split**.
2. Click **Yes** at the prompt.  
The system displays the Split dialog.
3. In the First Loop Entries box, enter **1** to indicate that you want the RFF group to be split after the first iteration.  
The resulting split will generate one RFF group (RFF:2) that has a maximum use of one, and will retain the original RFF group (with a maximum use of nine).
4. Click **OK** to exit the Split dialog.
5. Right-click the **RFF:2 group** and select **Properties**.
6. On the **Display** tab, select **Promote group to parent frame** to display the fields in this group on the same frame as the fields in the parent group.
7. Click **OK** to exit the Group Properties dialog.
8. Right-click the **RFF group** and select **Properties**.
9. On the **Looping** tab, enter **1** in the Max Usage box to designate that this group can be used only once per invoice.
10. On the **Display** tab, select **Promote group to parent frame** to display the fields in this group on the same frame as the fields in the parent group.
11. Click **OK** to exit the Group Properties dialog.

---

## Modifying the NAD Group

The standard allows the NAD group (Name and Address) to be used up to 20 times in one invoice. If the invoice were generated now, the fields associated with the NAD group would be displayed on a separate frame than the majority of the invoice fields. You know that your users complete the fields in this iteration of the NAD group only once per invoice. You need to change the maximum use of the NAD group to one, which moves the Name and Address fields to the parent frame (the main Invoice Message frame).

### About this task

After you change the maximum use of the NAD group, you need to copy the NAD group and paste the copy at the same level as the original group to create a second iteration of the NAD group. Users will enter the Ship To name and address in the first iteration of the NAD group, and they will enter the Remit To name and address in the second iteration of the NAD group (NAD:2).

Use this procedure to modify the NAD group

### Procedure

1. Right-click the **NAD group** and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. On the **Display** tab, select **Promote group to parent frame** to display the fields in this group on the same frame as the fields in the parent group.
4. Click **OK** to exit the Group Properties dialog.
5. With the **NAD group** still selected, click **Copy** on the Main Toolbar.



6. Click **Paste** on the Main Toolbar to paste the NAD group after the existing NAD group.
7. Click **Paste** after the selected item (at the same level) option to paste the Clipboard contents after the original NAD group. The pasted NAD group is named NAD:2.
8. Click **OK** to exit the dialog.

---

## Modifying the Invoice PAT Group

The standard allows the PAT group (Payment Terms) to be used up to 10 times in one invoice. If the invoice were generated now, the fields associated with the PAT group would be displayed on a separate frame than the majority of the invoice fields. For this tutorial, you know that your users complete the fields in the PAT group only once per invoice. You need to change the maximum use of the PAT group to one, which moves the Payment Terms fields to the main Invoice Message frame.

### About this task

Use this procedure to change the maximum use of the PAT group.

### Procedure

1. Right-click the **PAT** group and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. On the **Display** tab, select **Promote group to parent frame** to display the fields in this group on the same frame as the fields in the parent group.
4. Click **OK** to exit the dialog.

---

## The LIN Group

### Changing the Maximum Use of the PIA Segment

The PIA segment (in the LIN group) contains the Additional Product ID for each line item. The standard allows the PIA segment to be used up to 25 times per line item. Your users use the PIA segment only once per line item (for the product code). You need to change the maximum use of the PIA segment to one, which places the associated fields on the frame containing other line item fields.

### About this task

Use this procedure to change the maximum use of the PIA segment.

### Procedure

1. Right-click the **PIA** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. Click **OK** to exit the Segment Properties dialog.

### Changing the Maximum Use of the IMD:2 Segment

The IMD:2 segment (in the LIN group) contains the Item Description for each line item. The standard allows the IMD:2 segment to be used up to 10 times per line item. Your users use the IMD:2 segment only once per line item (for the free-form description). You need to change the maximum use of the IMD:2 segment to one, which places the associated fields on the frame containing other line item fields.

## About this task

Use this procedure to change the maximum use of the IMD:2 segment.

### Procedure

1. Right-click the **IMD:2** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. Click **OK** to exit the Segment Properties dialog.

## Changing the Maximum Use of the MEA:2 Segment

The MEA:2 segment (in the LIN group) contains the Measurements for each line item. The standard allows the MEA:2 segment to be used up to five times per line item. Your users use the MEA:2 segment only once per line item (for the unit of measure). You need to change the maximum use of the MEA:2 segment to one, which places the associated fields on the frame containing other line item fields.

### About this task

Use this procedure to change the maximum use of the MEA:2 segment.

### Procedure

1. Right-click the **MEA:2** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. Click **OK** to exit the Segment Properties dialog.

## Changing the Maximum Use of the QTY:2 Segment

The QTY:2 segment (in the LIN group) contains the Quantity for each line item. The standard allows the QTY:2 segment to be used up to five times per line item. Your users use the QTY:2 segment only once per line item (for the invoiced quantity). You need to change the maximum use of the QTY:2 segment to one, which places the associated fields on the frame containing other line item fields.

### About this task

Use this procedure to change the maximum use of the QTY:2 segment.

### Procedure

1. Right-click the **QTY:2** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. Click **OK** to exit the Segment Properties dialog.

## Changing the Maximum Use of the DTM:11 Segment

The DTM:11 segment (in the LIN group) contains the Date/Time/Period for each line item. The standard allows the DTM:11 segment to be used up to 35 times per line item. Your users use the DTM:11 segment only once per line item (for the date shipped). You need to change the maximum use of the DTM:11 segment to one, which places the associated fields on the frame containing other line item fields.

### About this task

Use this procedure to change the maximum use of the DTM:11 segment.

### **Procedure**

1. Right-click the **DTM:11** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. Click **OK** to exit the Segment Properties dialog.

## **Changing the Maximum Use of the MOA Group in the LIN Group**

The standard allows the MOA group (Monetary Amount) in the LIN group to be used up to five times per line item. If the invoice were generated now, the fields associated with the MOA group would be displayed on a separate frame than the majority of the line item fields. For this tutorial, you know that your users will complete the fields in the MOA group only once per line item. You will change the maximum use of the MOA group to one, which will place the Monetary Amount fields on the frame containing other line item fields.

### **About this task**

Use this procedure to change the maximum use of the MOA group.

### **Procedure**

1. Right-click the **MOA** group and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. On the **Display** tab, select **Promote group to parent frame**.
4. Click **OK** to exit the Group Properties dialog.

## **Changing the Maximum Use of the TDT Group**

The standard allows the TDT group (Details of Transport) in the LIN group to be used up to five times per line item. If the invoice were generated now, the fields associated with the TDT group would be displayed on a separate frame than the majority of the line item fields. For this tutorial, you know that your users will complete the fields in the TDT group only once per line item. You will change the maximum use of the TDT group to one, which will place the Details of Transport fields on the frame containing other line item fields.

### **About this task**

Use this procedure to change the maximum use of the TDT group.

### **Procedure**

1. Right-click the **TDT** group select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. On the **Display** tab, select **Promote group to parent frame**.
4. Click **OK** to exit the Group Properties dialog.

## **Changing the Maximum Use of the CNT Segment**

The CNT segment contains the Control Totals for each line item. The standard allows the CNT segment to be used up to 10 times per line item. Your users use the CNT segment only once per line item (for the total number of line items). You need to change the maximum use of the CNT segment to one, which moves the Control Total fields to the main Invoice Message frame.

## About this task

Use this procedure to change the maximum use of the CNT segment.

### Procedure

1. Right-click the **CNT** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box.
3. Click **OK** to exit the Segment Properties dialog.

## Changing the Maximum Use of the MOA Group

The standard allows the MOA group (Monetary Amount), in the summary section, to be used up to one hundred times per invoice. If the invoice were generated now, the fields associated with the MOA group would be displayed on a separate frame than many of the invoice fields. You know that your users complete the fields in the MOA group only once per invoice. You need to change the maximum use of the MOA group to one, which places the Monetary Amount fields on the main Invoice Message frame.

## About this task

Use this procedure to change the maximum use of the MOA group.

### Procedure

1. Right-click the **MOA** group and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage box .
3. On the **Display** tab, select **Promote group to parent frame**.
4. Click **OK** to exit the Group Properties dialog.

---

## Chapter 7. Modifying Screen Entry Forms for EDIFACT

---

### Setting up the Document Name for the Screen Entry Form

The document name makes the identification of a document created by the form easier by enabling you to differentiate between documents.

#### About this task

We recommend that you set up a Document Name for each form. You can choose any string element as the document name, but we strongly recommend that you select an element that occurs only once in the document and has a data type of string. For an ANSI X12 810 invoice, the document name usually is the Invoice Number. For an EDIFACT 92.1 invoice, the document name is usually the Document/Message Number.

Use this procedure to set up the document name.

#### Procedure

1. Double-click the one of the following elements:
  - **BIG02** (for ANSI X12)
  - **BGM05** (for EDIFACT)
  - **IRF INVN** (for TRADACOMS)

We recommend that you select this element because it is a non-recurring and mandatory element, and it helps to identify this document meaningfully in Sterling Gentran:Server.

2. On **Standard Rule** tab, do the following:
  - Select **Update** from the list.
  - Click **Yes** at the prompt.
  - From the Table/Group list, select **Document record** to indicate that you are updating the document record in Sterling Gentran:Server.
  - From the Column/Field list, select **Document Name** to indicate that you are updating the Name field (in the Sterling Gentran:Server document browsers that contain this message) with the contents of the B1G02 element.
3. Click **OK** to set up the document name.

---

### Customizing the BGM Segment

The BGM segment contains the Beginning of Message for the invoice. This mandatory segment contains information that is pertinent to the entire invoice.

#### About this task

The BGM05 element contains the Document/Message Number. This element is defined by the standard to be a string of 35 alphanumeric characters. You know that the invoice number your users enter is always an eight-character alphanumeric string so you need to change the element and field lengths to accommodate the shorter invoice number. You also need to rename the field label and add Help text to the field.

Use this procedure to change the field and element lengths, rename the field label, and add Help text to the Document/Message Number field.

### Procedure

1. Double-click the **BGM05** element.
2. On the **Validation** tab, enter **8** in the Max box for the maximum number of characters allowed for this element.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Invoice No.** to replace the existing text.
  - In the Maximum number of characters to be printed box, enter **8** to allow eight characters to be entered in this field.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the invoice number. The invoice number cannot exceed 8 alphanumeric characters.
5. Click **OK** to exit the dialog.

---

## The DTM Segment

### Customizing the DTM01 Element

The DTM segment (Date/Time/Period) is used to enter the invoice date. The standard allows the DTM segment to be used up to 35 times per invoice. You will use the DTM segment only once per invoice. You have already changed the maximum use of the DTM segment to obtain just one instance of the DTM segment and to place the invoice date on the same frame as the invoice number.

#### About this task

The DTM01 element contains the Date/Time/Period Qualifier, a mandatory three-character code that qualifies the date that follows (in the DTM02 element). You know that the only type of date your users enter in the Date/Time/Period element (DTM02) is an invoice number so you need to define a constant value for the Date/Time/Period Qualifier field, designating that the constant 3 (Invoice Date/Time) always qualifies the date in the Date/Time/Period field. You need to hide the qualifier field because it does not need to be displayed in the translation object.

When a user enters the invoice date in the Date/Time/Period field, the system automatically assigns the code 3 to the Date/Time/Period Qualifier field.

Use this procedure to define a constant value in the Date/Time/Period Qualifier field and hide the field.

Action

### Procedure

1. Double-click the **DTM01** element.
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Invoice Date/Time** to identify the constant.

7. From the Type list, select **String** to indicate that the literal constant will be formatted as a string data type.
8. In the Value box, enter **3** to indicate that the Date/Time/Period Qualifier field must contain the invoice date. This value is the actual value of the literal constant.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants list, select **3** to identify the constant that will be used for this element.
12. From the Qualifies list, select **2380 DATE/TIME/PERIOD**, which is the element that the Date/Time/Period Qualifier field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the Display Properties dialog.

## Customizing the DTM02 Element

The DTM02 element (Date/Time/Period) contains the invoice date. The standard allows this field to contain up to a 35 character string but your users enter shorter dates. You need to change the element and field lengths to accommodate the shorter dates and then rename the field label.

### About this task

Use this procedure to change the element and field lengths, rename the field label, and add Help text to the Date/Time/Period field.

### Procedure

1. Double-click the **DTM02** element.
2. On the **Validation** tab, enter **8** in the Max box, enter **8** to allow the entire date (including the / separators) to be contained in this element.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Invoice Date**.
  - In the Maximum number of characters to be printed box, enter **8**.
4. On the Help tab, enter the following text in the Help Text list.  
Enter the invoice date. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

---

## The RFF:2 Group

The RFF:2 group (Reference) is used to enter the purchase order number (RFF:11 segment) and date (DTM:22 segment). You have already promoted the RFF:2 group to place the purchase order number and date on the main Invoice Message frame.

---

## The RFF:11 Segment

### Customizing the RFF:1101 Element

The RFF:11 segment (Reference) is used to enter the purchase order number. Your users enter the purchase order number in the Reference Number element (RFF:1102). You need to set a constant in the Reference Qualifier element so that the constant value is entered automatically when a user enters the purchase order number.

## About this task

The RFF:1101 element contains the Reference Qualifier, a mandatory three-character code that identifies the type of reference that follows (in the RFF:1102 element). You know that the only type of reference your users enter in the Reference Number element is the purchase order number so you need to define a constant value for the Reference Qualifier field, designating that the constant "ON" (Order Number (Purchase)) always qualifies the reference in the Reference Number field. You must also hide the qualifier field because it does not need to be displayed in the translation object.

When a user enters the purchase order number in the Reference Number field, the system automatically assigns the code ON to the Reference Qualifier field.

Use this procedure to define a constant value in the first Reference Qualifier field and hide the field.

### Procedure

1. Double-click the **RFF:1101** element (in the RFF:2 group).
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Order Number** to identify the constant.
7. From the Type list, select **String**.
8. In the Value box, enter **ON**.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants list, select **ON**.
12. From the Qualifies list, select **1154 REFERENCE NUMBER**, which is the element that the Reference Qualifier field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

## Customizing the RFF:1102 Element

The RFF:1102 element contains the Reference Number. This element is defined by the standard to be a string of 35 alphanumeric characters. You know that the reference number (the purchase order number) is a 10-character alphanumeric string, so you need to change the element and field lengths to accommodate the shorter reference number. In addition, you must rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, rename the field label, and add Help text to the first Reference Number field.

### Procedure

1. Double-click the **RFF:1102** element.
2. On the **Validation** tab, enter **10** in the Max box.
3. On the **Display** tab, do the following:



- In the Label box, enter **P.O. No.** (note the period included in the label) to replace the existing field label.
  - In the Maximum number of characters to be printed box, enter **10**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the purchase order number. The purchase order number cannot exceed 10 alphanumeric characters.
  5. Click **OK** to exit the dialog.

## The DTM:22 Segment

### Customizing the DTM:2201 Element

The DTM:22 segment (Date/Time/Period) is used to enter the purchase order date. The standard allows the DTM:22 segment to be used up to five times per invoice. You use the DTM:22 segment only once per invoice. You have already changed the maximum use of the DTM:22 segment to obtain just one instance of the segment and to place the purchase order date on the same frame as the invoice date and number.

#### About this task

The DTM:2201 element contains the Date/Time/Period Qualifier, a mandatory three-character code that identifies the type of date that follows. The only type of date your users enter in the Date/Time/Period element (DTM:2202) that follows is the purchase order date so you need to define a constant value for the Date/Time/Period Qualifier field, designating that the constant 4 (Order Date/Time) always qualifies the date in the Date/Time/Period field. Then you need to hide the qualifier field because it does not need to be displayed in the translation object.

When a user enters the purchase order date in the Date/Time/Period field, the system automatically assigns the code 4 to the Date/Time/Period Qualifier field.

Use this procedure to define a constant value in the first Date/Time/Period Qualifier field and hide the field.

#### Procedure

1. Double-click the **DTM:2201** element.
2. Select the **Standard Rule** tab.
3. Click **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Order Date/Time** to identify the constant.
7. From the Type list, select **String**.
8. In the Value box, enter **4** to indicate that the Date/Time/Period Qualifier field must contain the purchase order date.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants list, select **4** to identify the constant that will be used for this element.

12. From the Qualifies list, select **2380 DATE/TIME/PERIOD**, which is the element that the Date/Time/Period Qualifier field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

## Customizing the DTM:2202 Element

The DTM:2202 element (Date/Time/Period) contains the purchase order date. The standard allows this field to contain up to a 35 character string but your users enter shorter dates. You need to change the element and field lengths to accommodate the shorter dates, rename the field label and add Help text.

### About this task

Use this procedure to change the element and field lengths, rename the field label, and add Help text to the first Date/Time/Period field.

### Procedure

1. Double-click the **DTM:2202** element.
2. On the **Validation** tab, enter **8** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **P.O. Date**.
  - In the Maximum number of characters to be printed box, enter **8**.
4. On the Help tab, enter the following text in the Help Text list.  
Enter the purchase order date. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

---

## The RFF Segment

### Customizing the RFF01 Element

The RFF group (Reference) is used to enter the contract number (RFF segment) and date (DTM:2 segment). Your users enter the contract number in the Reference Number element, and you will set a constant in the Reference Qualifier element so that the constant value is entered automatically when the users enter the contract number.

### About this task

The RFF01 element contains the Reference Qualifier, a mandatory three-character code that identifies the type of reference that follows. You know that the only type of reference your users enter in the Reference Number element (RFF02) is the contract number, so you need to define a constant value for the Reference Qualifier field, designating that the constant CT (Contract Number) always qualifies the reference in the Reference Number field. You need to hide the qualifier field because it does not need to be displayed in the translation object.

When a user enters the contract number in the Reference Number field, the system automatically assigns the code CT to the Reference Qualifier field.

Use this procedure to define a constant value in the second Reference Qualifier field and hide the field.

## Procedure

1. Double-click the **RFF01** element.
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Contract Number** to identify the constant.
7. From the Type list, select **String**.
8. In the Value box, enter **CT** to indicate that the Reference Qualifier field must contain the contract number.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants list, select **CT** to identify the constant that will be used for this element.
12. From the Qualifies list, select **1154 REFERENCE NUMBER**, which is the element that the Reference Qualifier field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

## Customizing the RFF02 Element

The RFF02 element contains the Reference Number. This element is defined by the standard to be a string of 35 alphanumeric characters. You know that the reference number (the contract number) is always an eight-character alphanumeric string, so you need to change the element and field lengths to accommodate the shorter reference number. You need to rename the field label and add Help text to the field.

### About this task

Use this procedure to change the field and element lengths, rename the field label, and add Help text to the second Reference Number field.

## Procedure

1. Double-click the **RFF02** element.
2. On the **Validation** tab, enter **8** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Contract No.** (note the period included in the label) to replace the existing field label.
  - In the Maximum number of characters to be printed box, enter **8**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the contract number. The contract number cannot exceed 8 alphanumeric characters.
5. Click **OK** to exit the dialog.

---

## The DTM:2 Segment

### Customizing the DTM:201 Element

The DTM:2 segment (Date/Time/Period) is used to enter the contract date. The standard allows the DTM:2 segment to be used up to five times per invoice. You use this segment only once per invoice. You have already changed the maximum use of the DTM:2 segment to obtain just one instance of this segment, and to place the contract date on the same frame as the invoice date and number.

#### About this task

The DTM:201 element contains the Date/Time/Period Qualifier, a mandatory three-character code that identifies the type of date that follows. You know that the only type of date your users enter in the Date/Time/Period element (DTM:202) is the contract date so you need to define a constant value for the Date/Time/Period Qualifier field, designating that the constant "92" (Contract Effective Date) always qualifies the date in the Date/Time/Period field. Then, you need to hide the qualifier field because it does not need to be displayed in the translation object.

When a user enters the contract date in the Date/Time/Period field, the system automatically assigns the code 92 to the Date/Time/Period Qualifier field.

Use this procedure to define a constant value in the second Date/Time/Period Qualifier field and hide the field.

#### Procedure

1. Double-click the **DTM:201** element.
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Contract Effective Date**.
7. From the Type option, select **String**.
8. In the Value box, enter **92** to indicate that the Date/Time/Period Qualifier field must contain the contract date.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants option, select **92** to identify the constant that is used for this element.
12. From the Qualifies option, select **2380 DATE/TIME/PERIOD**, which is the element that the Date/Time/Period Qualifier field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

### Customizing the DTM:202 Element

The DTM:202 element (Date/Time/Period) contains the contract date. The standard allows this field to contain up to a 35 character string but your users enter shorter dates. You need to change the element and field lengths to accommodate the shorter dates. In addition, you need to rename the field label and add Help text.

## About this task

Use this procedure to change the element and field lengths, rename the field label, and add Help text to the second Date/Time/Period field.

### Procedure

1. Double-click the **DTM:202** element.
2. On the **Validation** tab, enter **8** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Contract Date**.
  - In the Maximum number of characters to be printed box, enter **8**.
4. On the Help tab, enter the following text in the Help Text list.  
Enter the contract date. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

---

## The NAD Segment

You have already changed the maximum use and promoted the NAD group, then copied the NAD group to create a second iteration of this group (NAD:2). Your users enter the ship to name and address in the first iteration of the NAD group, and the remit to name and address in the second iteration of the group (NAD:2). By promoting the NAD group to the parent frame before copying the group, you cause all the Ship To and Remit To fields to be placed on the main Invoice Message frame.

The NAD segment (in the NAD group) identifies the Name and Address of an entity or individual. In this iteration of the NAD segment, users enter the Ship To name and address for the invoice.

## Customizing the NAD01 Element

The NAD01 element (in the NAD segment) contains the Party Qualifier, which is used to identify whether the name and address information that follows pertains to the Ship To or Remit To name. Your users enter only the Ship To name and address in the segment associated with the first NAD group. You need to define the constant value "ST" in the Party Qualifier element, indicating that this group (NAD) contains only Ship To information. You need to hide the Party Qualifier field because it does not need to be displayed on the translation object.

## About this task

Use this procedure to define a constant value for the Party Qualifier field and hide the field.

### Procedure

1. Double-click the **NAD01** element (in the NAD group).
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Ship To** to identify the constant.
7. From the Type option, select **String**.

8. In the Value box, enter **ST** to indicate that the Entity Identifier Code field must contain the Ship To name and address.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants option, select **ST**.
12. From the Qualifies option, select **3036 PARTY NAME**, which is the element that the Entity Identifier Code field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

## Customizing the Invoice NAD10 Element

The NAD10 element (Party Name) contains the name of the entity or individual to whom the order will be shipped. Your users are familiar with the standard address format (the name on the first line; the address on the next line(s); the city, state (or province or country), and postal code on the last line). For this reason, you do not need to label the fields containing the address, city, state, and postal code. You need to rename the field label (so that your users know that the fields that follow contain the Ship To information) and add Help text to the field.

### About this task

Use this procedure to rename the field label and add Help text to the first Party Name field.

### Procedure

1. Double-click the **NAD10** element.
2. On the **Display** tab, enter **Ship To** in the Label box to replace the existing field label. This label is the heading for the Ship To name and address information.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the name of the person or organization to whom the order will be shipped. The name cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the Invoice NAD16 Element

The address information in the NAD16 element (in the NAD segment) corresponds to the name in the NAD10 element so there is no need to display the label associated with the address. For the NAD16 element, you need to remove the field label and add Help text.

### About this task

Use this procedure to remove the field label and add Help text to the first Street and Number/P.O. Box field of the Ship To address.

### Procedure

1. Double-click the **NAD16** element (in the NAD group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the first line of the address. This address line cannot exceed 35 alphanumeric characters.

4. Click **OK** to exit the dialog.

## Customizing the Invoice NAD17 Element

### About this task

Use this procedure to remove the field label and add Help text to the second Street and Number/P.O. Box field of the Ship To address.

#### Procedure

1. Double-click the **NAD17** element (in the NAD group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the second line of the address. This address line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the Invoice NAD19 Element

The NAD19 element contains the City Name of the Ship To address. You will remove the field label for this element, because it will be evident to your users that they should enter the city name associated with the name and street address they have entered already. Also, you will change the element and field lengths, because the City Name field does not need to be longer than thirty characters.

### About this task

Use this procedure to remove the field label, change the element and field lengths, and add Help text to the City Name field of the Ship To address.

#### Procedure

1. Double-click the **NAD19** element (in the NAD group).
2. On the **Validation** tab, enter **30** in the Max box for the maximum number of characters allowed for this element.
3. On the **Display** tab, do the following:
  - In the Label box, delete the existing text.
  - In the Maximum number of characters to be printed box, enter **30**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the city name. The city name cannot exceed 30 alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the Invoice NAD20 Element

The NAD20 element contains the Country Sub-Entity Identification. You need to remove the field label for this element, because it is evident to your users that they should enter the country sub-entity identification (e.g., state) associated with the name and street address they have entered already. Also, you need to change the field and element lengths because this field does not need to be longer than two characters.

## About this task

Use this procedure to remove the field label, change the element and field lengths, and add Help text to the Country Sub-Entity Identification field of the Ship To address.

### Procedure

1. Double-click the **NAD20** element (in the NAD group).
2. On the **Validation** tab, enter **2** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, delete the existing text.
  - In the Maximum number of characters to be printed box, enter **2**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the country sub-entity identification.  
The code cannot exceed 2 alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the Invoice NAD21 Element

### About this task

Use this procedure to remove the field label and add Help text to the Postcode Identification field.

### Procedure

1. Double-click the **NAD21** element (in the NAD group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the postal code. The postal code cannot exceed  
9 alphanumeric characters. Do not enter a hyphen (-)  
before the 4-character postal code extension (if used).
4. Click **OK** to exit the dialog.

---

## The NAD:3 Segment

The NAD:2 group was created when you copied the NAD group to create a second iteration of that group. Your users enter the Remit To name and address in the NAD:2 group.

The NAD:3 segment (in the NAD:2 group) identifies the Name and Address of an entity or individual. In the NAD:3 segment, your users enter the Remit To name and address for the invoice.

## Customizing the NAD:301 Element

The NAD:301 element (in the NAD:2) group contains the Party Qualifier, which is used to identify whether the name and address information that follows pertains to the Ship To or Remit To name. Your users enter only the Remit To name and address in the fields associated with the NAD:2 group. You need to define the constant value "RE" in the Party Qualifier element, indicating that this group (NAD:2) contains only Remit To information. You need to hide the Party Qualifier field, because it does not need to be displayed on the translation object.



## About this task

Use this procedure to define a constant value for the second Party Qualifier field and hide the field.

### Procedure

1. Double-click the **NAD:301** element (in the NAD:2 group).
2. Select the **Standard Rule** tab.
3. Select **Use Constant** from the list.
4. Click **Edit** to access the Map Constants dialog.
5. Click **New** to access the Edit Constant dialog.
6. In the ID box, enter **Remit To Party**.
7. From the Type list, select **String**.
8. In the Value box, enter **RE** to indicate that the Entity Identifier Code field must contain the Remit To name and address.
9. Click **OK** to add the constant.
10. Click **Close** to exit the Map Constants dialog.
11. From the Constants list, select **RE**.
12. From the Qualifies list, select **3036 PARTY NAME**, which is the element that the Entity Identifier Code field qualifies.
13. On the **Display** tab, select **This field should not appear on the form**.
14. Click **OK** to exit the dialog.

## Customizing the NAD:310 Element

The NAD:310 element (Party Name) contains the name of the entity or individual to whom the invoice will be remitted. Your users are familiar with the standard address format (the name on the first line; the address on the next line(s); the city, state (or province or country), and postal code on the last line). For this reason, you do not need to label the fields containing the address, city, state, and postal code. You need to rename the field label (so that your users know that the fields that follow contain the remit to information) and add Help text to the field.

## About this task

Use this procedure to rename the field and add Help text to the second Party Name field.

### Procedure

1. Double-click the **NAD:310** element (in the NAD:2 group).
2. On the **Display** tab, enter **Remit To** in the Label box to replace the existing text. This label is the heading for the Remit To name and address information.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the name of the person or organization  
to whom the invoice will be remitted. The name  
cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the NAD:316 Element

The address information in the NAD:316 element (in the NAD:2 group) corresponds to the name in the NAD:310 element so there is no need to display the label associated with the address. For the NAD:316 element, you will remove the field label and add Help text.

### About this task

Use this procedure to remove the field label and add Help text to the first Street and Number/P.O. Box field of the Remit To address.

### Procedure

1. Double-click the **NAD:316** element (in the NAD:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the first line of the address. This address  
line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the NAD:317 Element

### About this task

Use this procedure to remove the field label and add Help text to the second Street and Number/P.O. Box field of the Remit To address.

### Procedure

1. Double-click the **NAD:317** element (in the NAD:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)  
Enter the second line of the address. This address  
line cannot exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the NAD:319 Element

The NAD:319 element contains the City Name of the Remit To address. You need to remove the field label for this element, because it is evident to your users that they should enter the city name associated with the name and street address they have entered already. Also, you need to change the element and field lengths, because the City Name field does not need to be longer than 30 characters.

### About this task

Use this procedure to remove the field label, change the element and field lengths, and add Help text to the City Name field of the Remit To address.

### Procedure

1. Double-click the **NAD:319** element (in the NAD:2 group).
2. On the **Validation** tab, enter **30** in the Max box.
3. On the **Display** tab, do the following:

- In the Label box, delete the existing text.
  - In the Maximum number of characters to be printed box, enter **30**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the city name. The city name cannot exceed 30 alphanumeric characters.
  5. Click **OK** to exit the dialog.

## Customizing the NAD:320 Element

The NAD:320 element contains the Country Sub-Entity Identification. You will remove the field label for this element, because it will be evident to your users that they should enter the country sub-entity identification (such as state, province, or country) associated with the name and street address they have entered already. Also, you will change the element and field lengths, because you do not need this field to be longer than two characters.

### About this task

Use this procedure to remove the field label, change the element and field lengths, and add Help text to the Country Sub-Entity Identification field of the Remit To address.

### Procedure

1. Double-click the **NAD:320** element (in the NAD:2 group).
2. On the **Validation** tab, enter **2** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, delete the existing text.
  - In the Maximum number of characters to be printed box, enter **2**.
4. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the country sub-entity identification.  
The code cannot exceed 2 alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the NAD:321 Element

### About this task

Use this procedure to remove the field label and add Help text to the Postcode Identification field.

### Procedure

1. Double-click the **NAD:321** element (in the NAD:2 group).
2. On the **Display** tab, delete the text in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)
 

Enter the postal code. The postal code cannot exceed 9 alphanumeric characters. Do not enter a hyphen (-) before the 4-character postal code extension (if used).
4. Click **OK** to exit the dialog.

---

## Customizing the PAT01 Element

The PAT group (Payment Terms) is used to enter the payment terms code for the invoice. The standard allows the PAT group to be used up to 10 times in an invoice. You know that your users need to use the PAT segment only once per invoice so you have already changed the maximum use of this segment from five to one.

### About this task

The PAT segment is a conditional segment that specifies the Payment Terms Basis for the invoice.

The PAT01 element contains the Payment Terms Type Qualifier, a three-character code that identifies the payment terms under which this invoice is valid. Sterling Gentran:Server uses a list (instead of an edit box or field) when you apply a standard rule that allows a selection of multiple items. When users use a translation object that contains a list, they select an item from the list instead of typing a value in the field. You will customize the PAT01 element so that a list containing all valid codes in the Payment Terms Type Qualifier code list is available to your users when they use the screen entry translation object. The Payment Terms Type Qualifier list enables them to select the appropriate EDI code from the code list.

After you specify the code list table to use for the list for the Payment Terms Type Qualifier field, you need to rename the field label. You also need add Help text to the field.

Use this procedure to load the entire code list from the standard, rename the field label, and add Help text to the Payment Terms Type Qualifier field.

### Procedure

1. Double-click the **PAT01** element.
2. Select the **Standard Rule** tab.
3. Select **Use Code** from the list.
4. Click **Edit** to access the Edit Code List dialog.
5. The Table ID box contains 4279, the name of the element for which this code list table will be used. The Desc box contains PAYMENT TERMS TYPE QUALIFIER, the description of the element for which this code list table will be used.
6. Click **Load**. You are prompted to select an ODBC data source name.
7. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
8. Click **Add All** to select all the codes and move them to the Codes Selected list.

**Note:** Adding all the codes in the table (by using Add All) creates a much larger form than if you use only selected codes. However, it is necessary for your users to have all the codes available from which to select.

9. Click **OK** to load the code list and exit the Load Code List dialog.
10. Click **Close** to exit the Edit Code List dialog.
11. On the **Display** tab, enter **Payment Terms Code** in the Label box.
12. On the Help tab, enter the following text in the Help Text list.  
Select the payment terms code from the drop-down box.

13. Click **OK** to exit the dialog.
14. Click **Generate Layout** on the Main Toolbar to refresh the display.  
The Invoice Message frame now should look like this:

The screenshot shows a window titled "Invoice Message" with a grid background. The form contains the following fields:

- Invoice No. (text box)
- Invoice Date (text box)
- P.O. No. (text box)
- P.O. Date (text box)
- Cont. ed. No. (text box)
- Cont. ed. Date (text box)
- Ship. to (text box)

There are also several empty text boxes at the bottom of the form.

15. Select **File > Save**.

---

## Customizing the LIN Group

The standard allows the LIN group to be used up to 200000 times in one invoice. The LIN group contains the following form components that you have already activated: LIN, PIA, IMD:2, MEA:2, QTY:2, and DTM:11 segments; MOA and TDT groups.

### About this task

The fields associated with the LIN group are arranged on the 2200\_Lin frame, which is separate from the Invoice Message frame that you have been working with thus far. Your users need to complete the fields on the 2200\_Lin frame for each item in the invoice. The list of all line items in the invoice are displayed in a list box on the Invoice Message frame. In that list box, the invoiced items are displayed line by line, forming columns of information.

Use this procedure to rename the LIN frame and list box, provide a description for the LIN group, and add Help text to the line items list box.

### Procedure

1. Right-click the **LIN** group and select **Properties**.
2. In the Desc box, enter **Line Items**.
3. Select the **Display** tab.
4. In the Frame Caption box, enter **Line Items**.
5. In the List Caption box, enter **Line Items** to rename the list box that is displayed on the Invoice Message frame (listing the line items entered on the Line Items frame).
6. In the Frame Help Text list box, enter the following text:

This frame contains line item detail information.  
For online Help on an individual field on this frame,  
select the field and press F1.

7. In the Listbox Help Text list box, enter the following text:

This box contains the line item detail for the invoice.  
The data in this list box is entered or changed on the  
Line Items frame. To enter a new line item, click the  
list box and click New. To modify an existing line item,  
click that item and click Open.

8. Click OK to exit the Group Properties dialog.

## Customizing the LIN Segment

The LIN segment contains the details of the items on the invoice. For some of the elements in the LIN segment, you only need to add Help text and rename the field labels so they more accurately reflect your company's needs. With other elements, you need to change the maximum lengths for some of the fields, use accumulators to calculate the number of line items, or define a constant value.

### About this task

The LIN group is subordinate to the Invoice Message frame, so Sterling Gentran:Server creates a separate frame (the Line Items frame) to contain the group data (the line item details). The system also creates a list box (the Line Items list box) on the Invoice Message frame to allow you to access the items in the list box. Each set of data is displayed as a row in the list box. After you customize the line item fields, the Line Items list box contains these four columns of data: Item No., Product Code, Quantity, and Price.

The LIN01 element (in the LIN group) contains the Line Item Number for each item in the invoice. You use the Line Item Number field to identify sequentially each line item in the invoice. You use the Use Accum function to obtain an incremental count of the number of line items. This number is used in the Control Value field (CNT02 element).

You create a list box definition for the LIN01 element to include the line number in the list box, and rename the field label to more briefly label this field. Also, you know that your users will enter no more than 99,999 line items per invoice. Each line item is numbered sequentially, starting with one so you need a maximum length of only five digits for this field. You need to change the maximum length for this field to five.

Use this procedure to count line items in the LIN segment and generate a control total in the CNT02 element of the number of line items, rename the LIN01 field label, change the field and element lengths and create the list box definition for the Line Item Number field.

### Procedure

1. Double-click the **LIN01** element.
2. On the **Validation** tab, enter **5** in the Max box to allow a five-digit number in this element.
3. On the **Standard Rule** tab, do the following:
  - Select **Use Accumulator** from the list.
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.

4. From the Primary Accumulator list, select **0**. Before any calculations are performed on an accumulator, its content is **0**. When you use this accumulator, the system adds a new accumulator to the bottom of this list.

**Note:** There is only one set of accumulators for each form. This means that accumulator 0, whether it is used in the Primary Accumulator or Alternate Accum box, is the same accumulator with the same content. If you assign calculations to accumulator 0 at the beginning of the form and then use accumulator 0 again later in the form, 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 content resulting from an earlier calculation.

5. In the Name box, enter **Item Number** to give the accumulator a descriptive alias that enables you to distinguish it from other accumulators you create.
6. From the First list, select **Increment primary** to specify that the system increments the value in this accumulator by one for each iteration of the LIN group. This operation is the first operation that the system performs.
7. From the Second list, select **Use primary** to specify that the system loads the current value of the accumulator into the LIN01 (Line Item Number) element. This operation is the second operation that the system performs, after the first operation is completed.
8. Click **OK** to add the accumulator and exit the Edit Accumulator Entry dialog.
9. On the **Display** tab, do the following:
  - Select **This field should be displayed but not editable**.
  - In the Label box, enter **Item No.** to replace the existing field label.
  - In the Maximum number of characters to be printed box, enter **5** to allow five digits to be displayed in this field.
10. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Item No. field is displayed in a column in the Line Items list box.
  - In the Column Width box, enter **8** to set the width of this column in the Line Items list.

**Note:** The column width should be wider than the actual content of the column. The extra space that is not used for the content of the column will provide white space separating the columns. If the column width is the exact width of the data, then there will not be space separating the columns of data.

- From the Sequence list, select **1** to indicate that this field is the first column in the list box.
11. Click **OK** to exit the dialog.
12. Double-click the **CNT02** element (in the CNT segment).
13. On the **Standard Rule** tab, do the following:
  - Click the **Use Accumulator** option.
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation for this element.
14. On the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **0**.
  - In the Name box, enter **Item Number**.
  - From the First list, select **Use primary** to specify that the system loads the current value of the accumulator into the CNT02 (Control Value) element.

- Click **OK** to add the accumulator.
15. On the **Display** tab, select **This field should displayed but not editable option**.
  16. Click **OK** to exit the dialog.

---

## The PIA Segment

### Customizing the PIA01 Element

The PIA segment (in the LIN group) contains the Additional Product ID for each item in the invoice. The standard allows the PIA segment to be used up to 25 times per line item. Your users enter information in the PIA segment only once per line item so you have already changed the maximum use of this segment to one.

#### About this task

The PIA01 element contains the Product ID Function Qualifier, a mandatory three-character code that identifies the type of product identification that follows. You know that the only type of product identification your users enter in the Item Number field (PIA02) is the product code, so you need to define a constant value for the Product ID Function Qualifier field, designating that the constant "5" (Product Identification) always qualifies the value in the Item Number field. You need to hide the qualifier field, because it does not need to be displayed in the translation object.

When you enter the product code in the Item Number field, the system assigns the code "5" to the Product ID Function Qualifier field.

Use this procedure to define a constant value in the Product ID Function Qualifier field and hide the field.

#### Procedure

1. Double-click the **PIA01** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Product Identification** to identify the constant.
  - From the Type list, select **String** to indicate that the literal constant will be formatted as a string data type.
  - In the Value box, enter **5** to indicate that the Reference Qualifier field must contain the product identification. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard Rule** tab, do the following:
  - From the Constants list, select **5** to identify the constant that will be used for this element.
  - From the Qualifies list, select **7140:2 ITEM NUMBER**, which is the element that the Reference Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.



8. Click **OK** to exit the dialog.

## Customizing the PIA02 Element

The PIA02 element contains the Item Number for each item in the invoice. For this tutorial, you need to rename the field label. Also, the standard allows up to 35 characters in this field. You know that your users will enter product identification numbers that are no longer than 10 characters, so you need to change the element and field lengths. In addition, you need to create a list box definition for the PIA02 element to include the product code in the Line Items list box on the Invoice Message frame.

### About this task

Use this procedure to rename the field label, change the field and element lengths, add Help text, and create the list box definition for the Item Number field.

### Procedure

1. Double-click the **PIA02** element.
2. On the **Validation** tab, enter **10** in the Max box.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Product Code**.
  - In the Maximum number of characters to be printed box, enter **10**.
4. On the **Summary List** tab, do the following:
  - In the Summary List section, select **Display this field in summary list**. The value in the Product Code field will be displayed in a column in the Line Items list box.
  - In the Column Width box, enter **13** to set the width of this column in the Line Items list box.
  - From the Sequence list, select **2** to indicate that this field will be the second column in the list box.
5. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter your company's product code for this item  
in the invoice. The product code cannot exceed  
10 alphanumeric characters.
6. Click **OK** to exit the dialog.

## Customizing the PIA03 Element

The PIA03 element contains the Item Number Type, Coded, a three-character code that identifies the type of item number in the PIA02 element. You know that the only type of product code your users enter in the Item Number field (PIA02) is the UPC code, so you need to define a constant value for the Item Number Type, Coded field, designating that the constant, UP (UPC (Universal Product Code)), always qualifies the value in the Item Number field. Then, you will hide the qualifier field, because it does not need to be displayed in the translation object.

### About this task

When a user enters the product code in the Item Number field, the system automatically assigns the code UP to the Item Number Type, Coded field.

Use this procedure to define a constant value in the Item Number Type, Coded field and hide the field.

### Procedure

1. Double-click the **PIA03** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **UPC Code**.
  - From the Type list, select **String**.
  - In the Value box, enter **UP**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **UP**.
  - From the Qualifies list, select **7140:2 ITEM NUMBER**, which is the element that the Reference Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

---

## The IMD:2 Segment

### Customizing the IMD:201 Element

The IMD:2 segment (in the LIN group) contains the Item Description for each item in the invoice. The standard allows the IMD:2 segment to be used up to ten times per line item. Your users enter information in the IMD:2 segment only once per line item, so you have already changed the maximum use of this segment to one.

#### About this task

The IMD:201 element contains the Item Description Type, Coded for the invoiced item. You know that the only type of item description your users enter for this invoice is a free-form description. You need to define a constant value for the Item Description Type field, to indicate that the constant "F" (Free Form) qualifies the text in the Item Description field. When a user enters a free-form description in the Description field, the system automatically will assign the code "F" to the Item Description Type, Coded field.

Use this procedure to define a constant value and hide the Item Description Type, Coded field.

### Procedure

1. Double-click the **IMD:201** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.

4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Free Form**.
  - From the Type list, select **String**.
  - In the Value box, enter **F** to indicate that the Item Description Type, Coded field will be a free-form description. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **F**.
  - From the Qualifies list, select **7008 ITEM DESCRIPTION**, which is the element that the Item Description Type, Coded field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the Invoice IMD:206 Element

The IMD:206 element contains the Item Description for each invoiced item, and is defined by the standard to be a string of up to 35 alphanumeric characters. You need to add Help text to this field.

### About this task

Use this procedure to add Help text to the Item Description field.

### Procedure

1. Double-click the **IMD:206** element.
2. On the **Help** tab, enter the following text in the Help Text list. (Press **Enter** at the end of each line of text.)

Enter the description of the invoiced item. The item description cannot exceed 35 alphanumeric characters.
3. Click **OK** to exit the dialog.

---

## The MEA:2 Segment

### Customizing the MEA:201 Element

The MEA:2 segment (in the LIN group) contains the Measurements for each item in the invoice. The standard allows the MEA:2 segment to be used up to five times per line item. Your users enter information in the MEA:2 segment only once per line item, so you have already changed the maximum use of this segment to one.

### About this task

The MEA:201 element contains the Measurement Application Qualifier for each invoiced item. You know that the only type of measurement application your users enter for this invoice is a measurement. You need to define a constant value for the Measurement Application Qualifier field to indicate that the constant "AAE" (Measurement) qualifies the text in the Measurement Dimension, Coded field. When a user enters a measurement in the Measurement Dimension, Coded field, the system automatically assigns the code "AAE" to the Measurement Application Qualifier field.

Use this procedure to define a constant value and hide the Measurement Application Qualifier field.

### Procedure

1. Double-click the **MEA:201** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Measurement**.
  - From the Type list, select **String**.
  - In the Value box, enter **AAE** to indicate that the Item Description Type, Coded field will be a free-form description. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **AAE**.
  - From the Qualifies list, select **6313 MEASUREMENT DIMENSION, CODED**, which is the element that the Item Description Type, Coded field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the Display Properties dialog.

## Customizing the MEA:202 Element

The MEA:202 element contains the Measurement Dimension, Coded for each item in the invoice. For brevity on the translation object, you need to rename the field label. Also, you need to customize the MEA:202 element so that a drop-down list box containing all valid codes in the code list is available to your users when they use the screen entry translation object. The drop-down list box will enable them to select the appropriate EDI code from the ones available

### About this task

Use this procedure to rename the field label, add Help text, and load the code list table from the standard for the Measurement Dimension, Coded field.

### Procedure

1. Double-click the **MEA:202** element (in the LIN group).
2. On the **Display** tab, enter **UOM** in the Label box.
3. On the **Help** tab, enter the following text in the Help Text list.  
Select the unit of measurement for the invoiced item.
4. On the **Standard Rule** tab, do the following:
  - Select **Use Code**.
  - Click **Edit** to access the Edit Code List dialog.  
The Table ID box contains **6313**, which is the name of the element for which this code list table will be used. The Desc box contains **MEASUREMENT DIMENSION, CODED**, which is the description of the element for which this code list table is used.

- Click **Load**. You are prompted to select an ODBC data source name.
5. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
  6. On the Load Code List dialog, do the following:
    - Click **Add All** to select all the codes and move them to the Codes Selected list. Adding all the codes in the table (by using Add All) creates a much larger form than if you only use selected codes.
    - Click **OK** to load the code list and exit the Load Code List dialog.
  7. Click **Close** to exit the Edit Code List dialog.
  8. Click **OK** to exit the dialog.

## The QTY:2 Segment

### Customizing the QTY:201 Element

The QTY:2 segment (in the LIN group) contains the Quantity for each item in the invoice. The standard allows the QTY:2 segment to be used up to five times per line item. Your users enter information in the QTY:2 segment only once per line item so you have already changed the maximum use of this segment to one.

#### About this task

The QTY:201 element contains the Quantity Qualifier for each invoiced item. For this tutorial, you know that the only type of quantity your users enter for this invoice is the invoiced quantity. You need to define a constant value for the Quantity Qualifier field, to indicate that the constant, 47 (Invoiced Quantity), qualifies the text in the Quantity field. When a user enters a measurement in the Quantity field, the system automatically assigns the code, 47, to the Quantity Qualifier field.

Use this procedure to define a constant value and hide the Quantity Qualifier field.

#### Procedure

1. Double-click the **QTY:201** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Invoiced Quantity**.
  - From the Type list, select **String**.
  - In the Value box, enter **47** to indicate that the Quantity Qualifier field will be the invoiced quantity.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **47**.
  - From the Qualifies list, select **6060 QUANTITY**, which is the element that the Quantity Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the QTY:202, MOA:502, and MOA:1002 Elements

The QTY:202 element contains the Quantity for each item on the invoice. The quantity for each line item is used to calculate the total dollar amount of the invoice. From this calculation, you need to generate a running total of extended price and load the final total into the MOA:1002 (Monetary Amount) element.

### About this task

You need to create a list box definition for the QTY:202 element to include the quantity invoiced in the list box. The standard allows up to 15 digits in this field. You know that your users do not enter a quantity of more than 99,999 (a five-digit number) for any one item, so you need to change the maximum lengths for this field and element to five.

Also, the screen format and EDI format of the data currently use the number format R9, indicating a number with an explicit decimal point and up to nine decimal places. Your users do not enter any quantities with a decimal point so you need to change the screen and EDI formats to R0, indicating a number with an explicit decimal point and no decimal places.

Use this procedure to use an accumulator in the QTY:202 element to generate a running total of extended price that is used in the MOA:1002 element, change the screen and EDI formats, change the field and element lengths, add Help text, and create the list box definition for the Quantity field.

### Procedure

1. Double-click the **QTY:202** element (in the LIN group).
2. On the **Validation** tab, do the following:
  - In the Max box, enter **5** for the maximum number of digits allowed in this element.
  - From the Form Format list, select **R0** to allow a number with an explicit decimal point and no decimal places to be entered in this field.
  - From the File Format list, select **R0** to format the EDI data with an explicit decimal point and no decimal places.
3. On the **Standard Rule** tab, do the following:
  - Click the **Use Accumulator** option.
  - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
4. On the Edit Accumulator Entry dialog, do the following:
  - From the Primary Accumulator list, select **1**.
  - In the Name box, enter **Extended Price**. This allows you to differentiate the purposes of the accumulators you create.
  - From the First list, select **Load primary** to load the content of the QTY:202 element into the Primary Accumulator for each iteration of the LIN group. This operation is the first operation that the system performs.
  - Click **OK** to add the accumulator.
5. On the **Display** tab, enter **5** in the Maximum number of characters to be printed box to allow five digits to be displayed in this field.
6. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Quantity field is displayed in a column in the Line Items list box.

- In the Column Width box, enter **8** to set the width of this column in the Line Items list box.
  - From the Sequence list, select **3** to indicate that this field is the third column in the list box.
7. On the Help tab, enter the following text in the Help Text box.  
Enter the quantity of this invoiced item.  
The quantity cannot exceed 5 digits.
  8. Click **OK** to exit the dialog.
  9. Double-click the **MOA:502** element (in the LIN group).
  10. On the **Standard Rule** tab, do the following:
    - Click the **Use Accumulator** option.
    - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
  11. On the Edit Accumulator Entry dialog, do the following:
    - From the Primary Accumulator list, select **1**.
    - From the First list, select **Multiply with primary** to specify that the system multiply the value of the MOA:502 (Monetary Amount) element (in the LIN group) by the content of the primary accumulator, and store the result in the primary accumulator for each iteration of the LIN group. This operation is the first operation that the system performs.
    - Click **OK** to add the accumulator.
  12. Click **New** to access the Edit Accumulator Entry dialog to create a new calculation for this element.
  13. On the Edit Accumulator Entry dialog, do the following:
    - From the Primary Accumulator list, select **2**.
    - In the Name box, enter **Running Price**. This allows you to differentiate the purposes of the accumulators you create.
    - From the First list, select **Add primary to alternate** to specify that the system add the content of the primary accumulator to the content of the alternate accumulator, and store the result in the primary accumulator for each iteration of the LIN group.
    - From the Alternate Accum list, select **1** to add the value of accumulator 1 (the extended price for a line item) to the value of accumulator 2. The system stores the sum in accumulator 2, which contains a running total of the extended price with each iteration of the LIN group.
    - Click **OK** to add the accumulator.
  14. Click **OK** to exit the Element Properties dialog.
  15. Double-click the **MOA:1002** element (in the MOA group).
  16. On the **Standard Rule** tab, do the following:
    - Click the **Use Accumulator** option.
    - Click **New** to access the Edit Accumulator Entry dialog to create a new calculation using this element.
  17. On the Edit Accumulator Entry dialog, do the following:
    - From the Primary Accumulator list, select **2**.
    - From the First list, select **Use primary** to load the content of the primary accumulator into the MOA:1002 (Monetary Amount) element.
    - Click **OK** to add the accumulator.
  18. On the **Display** tab, select **This field should be displayed but is not editable**.
  19. Click **OK** to exit the dialog.

---

## The DTM:11 Segment

### Customizing the DTM:1101 Element

The DTM:11 segment (in the LIN group) contains the Date/Time/Period for each item in the invoice. The standard allows the DTM:11 segment to be used up to 35 times per line item. Your users enter information in the DTM:11 segment only once per line item so you have already changed the maximum use of this segment to one.

#### About this task

The DTM:1101 element (Date/Time Qualifier) is a mandatory element for the DTM:11 segment. The DTM:1101 element contains the two-character code from your EDI data to indicate what type of date follows (e.g., date shipped). You need to define a constant value for the Date/Time/Period Qualifier field, designating that the constant, 186 (Departure Date/Time, Actual), qualifies the date in the Date/Time/Period field.

When a user enters the date on which the item is shipped in the Date/Time/Period field, the system assigns the code 186 to the Date/Time/Period Qualifier field. The qualifier field does not need to be displayed.

Use this procedure to define a constant and hide the Date/Time/Period Qualifier field.

#### Procedure

1. Double-click the **DTM:1101** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Date Shipped**.
  - From the Type list, select **String**.
  - In the Value box, enter **186**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **186**.
  - From the Qualifies list, select **2380 DATE/TIME/PERIOD**.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

### Customizing the DTM:1102 Element

The DTM:1102 element in the DTM:11 segment contains the Date/Time/Period qualified by the Date/Time/Period Qualifier field. This element is defined by the standard to be a string of 35 characters. In this tutorial, you know that the ship date always is an eight-character string, so you need to change the element and field lengths to accommodate the new length. Also, you need to rename the field label and add Help text to the field



## About this task

Use this procedure to change the element and field lengths, rename the field label, and add Help text to the Date field.

### Procedure

1. Double-click the **DTM:1102** element.
2. On the **Validation** tab, enter **8** in the Max box to allow the entire date (including the / separators) in this element.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Date Shipped**.
  - In the Maximum number of characters to be printed box, enter **8**.
4. On the Help tab, enter the following text in the Help Text box.  
Enter the date on which this invoiced item was shipped. Use the format MM/DD/YY.
5. Click **OK** to exit the dialog.

---

## The MOA:5 Segment

### Customizing the MOA:501 Element

The MOA group (in the LIN group) contains the Monetary Amount for each line item. The standard allows the MOA group to be used up to five times per line item. You have already changed the maximum use of the MOA group and promoted the group to obtain just one instance of the MOA group, and to place the price on the Line Items frame.

### About this task

The MOA:5 segment (in MOA group which is in the LIN group) contains the Monetary Amount for each item in the invoice.

The MOA:501 element (Monetary Amount Type Qualifier) is a mandatory element for the MOA:5 segment. The MOA:501 element contains the three-character code from your EDI data to indicate what type of monetary amount follows (e.g., price). You need to define a constant value for the Monetary Amount Type Qualifier field, designating that the constant 146 (Unit Price) qualifies the monetary amount in the Monetary Amount field.

When a user enters the price for an item in the Monetary Amount field, the system assigns the code 146 to the Monetary Amount Type Qualifier field. The qualifier field does not need to be displayed.

Use this procedure to define a constant and hide the Monetary Amount Type Qualifier field.

### Procedure

1. Double-click the **MOA:501** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:

- In the ID box, enter **Unit Price**.
  - From the Type list, select **String**.
  - In the Value box, enter **146**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
  6. On the **Standard** tab, do the following:
    - From the Constants list, select **146**.
    - From the Qualifies list, select **5004 MONETARY AMOUNT**, which is the element that the Monetary Amount Type Qualifier field qualifies.
  7. On the **Display** tab, select **This field should not appear on the form**.
  8. Click **OK** to exit the dialog.

## Customizing the MOA:502 Element

The MOA:502 element contains the Monetary Amount for each item in the invoice. You have already used an accumulator for this field so that the price for each line item is used to calculate the total dollar amount of the invoice. From this calculation, a running total of extended price is generated and the final total will be loaded into the MOA:1002 (Monetary Amount) element. You need to create a list box definition for the MOA:502 element to include the unit price in the Line Items list box.

### About this task

You need to rename the field label. The standard designates an R9 screen format and EDI format for this field, meaning that the price is formatted with an explicit decimal point and up to nine decimal places. Your users enter a price in an R2 format (a number with up to two decimal places) so you need to change the screen and EDI formats from R9 to R2.

The standard defines this element as having a maximum length of 18. The items you sell to Pet Zone are not priced at more than \$9,999.99 each, so this field needs a maximum length of only eight (four places for the dollars; two places for the cents; one place for the decimal point; and one place for a plus or minus sign, if present).

Use this procedure to rename the field label, change the field and element lengths, change the number formats, add Help text, and create the list box definition for the Monetary Amount field.

### Procedure

1. Double-click the **MOA:502** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **8**.
  - From the Screen Format list, select **R2** to indicate that this field on the translation object accept a number with an explicit decimal point and up to two decimal places.
  - From the EDI Format list, select **R2** to format the EDI data with an explicit decimal point and two decimal places.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Price** to replace the existing text.

- In the Maximum number of characters to be printed box, enter **8** to allow eight numeric digits in this field, including a plus or minus sign and a decimal point.
4. On the **Summary List** tab, do the following:
    - Select **Display this field in summary list**. The value in the Price field is displayed in a column in the Line Items list box.
    - In the Column Width box, enter **8** to set the width of this column in the Line Items list box.
    - From the Sequence list, select **4** to indicate that this field is the fourth column in the list box.
  5. On the Help tab, enter the following text in the Help Text box.  
Enter the unit price for this item. The price cannot exceed 8 digits, including a plus or minus sign and a decimal point.
  6. Click **OK** to exit the dialog.

## The TDT:2 Segment

### Customizing the TDT:201 Element

The TDT group (in the LIN group) contains the Details of Transport for each line item. The standard allows the TDT group to be used up to 10 times per line item. You use the TDT group only once per line item. You have already changed the maximum use of the TDT group and promoted the group to obtain just one instance of the TDT group and to place the transport method on the Line Items frame.

#### About this task

The TDT:2 segment (in the LIN group) contains the Details of Transport for each item in the invoice.

The TDT:201 element (Transport Stage Qualifier) is a mandatory element for the TDT:2 segment. The TDT:201 element contains the three-character code from your EDI data to indicate the type of transport (e.g., main-carriage transport). You need to define a constant value for the Transport Stage Qualifier field, designating that the constant "20" (Main-Carriage Transport) qualifies the transport type in the Type of Means of Transport Identification field.

When a user selects a transport method from the Type of Means of Transport Identification list box, the system assigns the code "20" to the Transport Stage Qualifier field. The qualifier field does not need to be displayed.

Use this procedure to define a constant and hide the Transport Stage Qualifier field.

#### Procedure

1. Double-click the **TDT:201** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Main-Carriage Transport**.

- From the Type list, select **String**.
  - In the Value box, enter **20**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
  6. On the **Standard** tab, do the following:
    - From the Constants list, select **20**.
    - From the Qualifies list, select **3127 CARRIER IDENTIFICATION**, which is the element that the Transport Stage Qualifier field qualifies.
  7. On the **Display** tab, select **This field should not appear on the form**.
  8. Click **OK** to exit the dialog.

## Customizing the TDT:205 Element

The TDT:205 element, the Type of Means of Transport Identification, contains the eight-character string that identifies the means of transportation (e.g., ship) for each invoiced item. You need to customize the TDT:205 element so that a drop-down list box containing all valid codes in the Transportation Method/Type Code list is available to your users when they use the screen entry translation object.

### About this task

After you specify the code list table to use for the drop-down list box for the Type of Means of Transport Identification field, you need to rename the field label to identify this field better.

Also, the standard allows this field to contain an eight-character string. You know that the codes from which your users will select are no longer than two characters, so you need to change the element and field lengths to two.

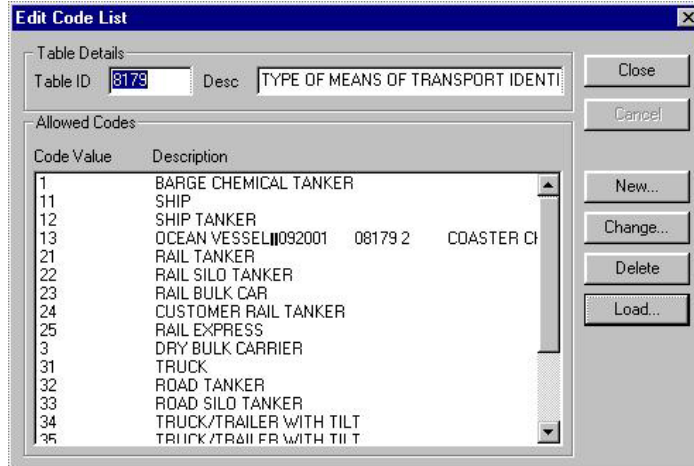
Use this procedure to load the code list table from the standard, change the element and field lengths, rename the field label, and add Help text to the Transportation Method/Type Code field.

### Procedure

1. Double-click the **TDT:205** element.
2. On the **Validation** tab, enter **2** in the Max box for the maximum number of characters allowed in this element.
3. On the **Standard Rule** tab, do the following:
  - Select **Use Code** from the list.
  - Click **Edit** to access the Edit Code List dialog.
 

The Table ID box contains **8179**, the name of the element for which this code list table is used. The Desc box contains, **TYPE OF MEANS OF TRANSPORT IDENTIFICATION**, the description of the element for which this code list table is used.
  - Click **Load**. You are prompted to select an ODBC data source name.
4. Select the appropriate DSN and click **OK** to access the Load Code List dialog.
5. On the Load Code List dialog, do the following:
  - Click **Add All** to select all the codes and move them to the Codes Selected list box.
  - Click **OK** to load the code list and exit the Load Code List dialog.

- Click **Close** to exit the Edit Code List dialog.  
The dialog should now look like this:



- On the **Display** tab, do the following:
  - In the Label box, enter **Transport Method**.
  - In the Maximum number of characters to be printed box, enter **2**.
- On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Select the transportation method code for this invoiced item from the drop-down list box.
- Click **OK** to exit the dialog.

## Customizing the TDT:207 Element

The TDT:207 element contains the Carrier Identification, a 17-character string that identifies the carrier for each line item. Your users enter a carrier code no longer than 12 characters, so you need to change the element and field lengths. You also need to rename the field label to more accurately describe the contents of this field for your users and add Help text to this field.

### About this task

Use this procedure to change the element and field lengths, rename the field, and add Help text to the Carrier Identification field.

### Procedure

- Double-click the **TDT:207** element.
- On the **Validation** tab, enter **12** in the Max box.
- On the **Display** tab, do the following:
  - In the Label box, enter **Carrier Code**.
  - In the Maximum number of characters to be printed box, enter **12**.
- On the **Help** tab, enter the following text in the Help Text box.  
Enter your company's reference number for this carrier.  
The reference number cannot exceed 12 alphanumeric characters.
- Click **OK** to exit the dialog.

---

## Customizing the Invoice UNS Segment

The UNS segment contains the Section Control for the invoice. The Section Control contains EDI data to instruct the system that the data that follows pertains to the summary section of the invoice, not the header or detail sections.

### About this task

The UNS01 element (Section Identification) is a mandatory element for the invoice. The UNS01 element contains the one-character code to indicate that the data that follows pertains to the summary section of the invoice. You need to define a constant value for the Section Identification field, designating that the constant S (Summary) indicates that the summary section follows. The system assigns the code S to the Section Identification field, which does not need to be displayed.

Use this procedure to define a constant and hide the Section Identification field.

### Procedure

1. Double-click the **UNS01** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Summary**.
  - From the Type list, select **String**.
  - In the Value box, enter **S**.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, select **S** from the Qualifies list.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.
9. Click **Generate Layout** on the Main Toolbar to refresh the screen entry form display.
10. Click **File > Save**.

## Results

The Line Items frame now should look like this:

---

## The CNT Segment

### Customizing the CNT01 Element

The CNT segment contains the Control Total for the invoice. You have already used an accumulator to generate the total number of line items in the invoice. The standard allows the CNT segment to be used up to 10 times per invoice. You need to use the CNT segment only once per invoice so you have already changed the maximum use of this segment to one. Changing the maximum use of this segment placed the total number of line items on the main Invoice Message frame.

#### About this task

The CNT01 element (Control Qualifier) is a mandatory element for the CNT segment. The CNT01 element contains the three-character code from your EDI data to indicate what type of control follows (e.g., total number of line items). You need to define a constant value for the Control Qualifier field, designating that the constant, 2 (Number of Line Items in Message), qualifies the value in the Control Value field. The system assigns the code 2 to the Control Qualifier field so this field does not need to be displayed.

Use this procedure to define a constant and hide the Control Qualifier field.

#### Procedure

1. Double-click the **CNT01** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Number of Line Items**.
  - From the Type list, select **String**.

- In the Value box, enter **2** to indicate that the Control Qualifier field will contain the total number of line items in the invoice.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
  6. On the **Standard** tab, do the following:
    - From the Constants list, select **2**.
    - From the Qualifies list, select **6066 CONTROL VALUE**, which is the element that the Monetary Amount Type Qualifier field qualifies.
  7. On the **Display** tab, select **This field should not appear on the form**.
  8. Click **OK** to exit the dialog.

## Customizing the CNT02 Element

The CNT02 element contains the Control Value for the invoice. You have already used an accumulator for this field to generate a total of the number of line items and made this field display-only so that users cannot change the value in this field.

### About this task

You must rename the field label to more clearly identify its contents. The standard designates an R9 screen format and EDI format for this field, meaning that the number is formatted with an explicit decimal point and up to nine decimal places. The data is formatted in the N0 format (a number with an implicit decimal point and no decimal places) so you need to change the screen format and EDI format from R9 to N0.

The standard defines this element as having a maximum length of eight. Your users enter no more than 99,999 line items so this field needs a maximum length of only six.

Use this procedure to rename the field label, change the field and element lengths, and change the screen and EDI formats for the Control Value field.

### Procedure

1. Double-click the **CNT02** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **6**.
  - From the Screen Format list, select **N0** to indicate that this field on the translation object will accept a number with an implicit decimal point and no decimal places.
  - From the EDI Format list, select **N0** to format the EDI data with an implicit decimal point and no decimal places.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Number of Line Items**.
  - In the Maximum number of characters to be printed box, enter **6**.
4. Click **OK** to exit the dialog.

---

## The MOA:10 Segment

The MOA group contains the Monetary Amount for the invoice. The standard allows this MOA group to be used up to 100 times per invoice.



You need to use this MOA group only once per invoice. You have already changed the maximum use of the MOA group to one and promoted the group to obtain just one instance of the MOA group and to place the total invoice amount on the main Invoice Message frame.

**Note:** The MOA group that you want to customize is at the bottom of the map NOT in the LIN group.

The MOA:10 segment contains the invoice's Monetary Amount. You have already used an accumulator to calculate the total dollar amount invoiced.

## Customizing the MOA:1001 Element

The MOA:1001 element (Monetary Amount Type Qualifier) is a mandatory element for the MOA:10 segment. The MOA:1001 element contains the three-character code from your EDI data to indicate what type of monetary amount follows (e.g., total invoice amount). You need to define a constant value for the Monetary Amount Type Qualifier field, designating that the constant "77" (Invoice Amount) qualifies the value in the Monetary Amount field. The system automatically will assign the code "77" to the Monetary Amount Type Qualifier field, so this field does not need to be displayed on the translation object.

### About this task

Use this procedure to define a constant and hide the Monetary Amount Type Qualifier field.

### Procedure

1. Double-click the **MOA:1001** element.
2. On the **Standard** tab, do the following:
  - Select **Use Constant**.
  - Click **Edit** to access the Map Constants dialog.
3. On the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. On the Edit Constant dialog, do the following:
  - In the ID box, enter **Invoice Amount**.
  - From the Type list, select **String**.
  - In the Value box, enter **77** to indicate that the Control Qualifier field will contain the total number of line items in the invoice.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
6. On the **Standard** tab, do the following:
  - From the Constants list, select **77**.
  - From the Qualifies list, select **5004 MONETARY AMOUNT**, which is the element that the Monetary Amount Type Qualifier field qualifies.
7. On the **Display** tab, select **This field should not appear on the form**.
8. Click **OK** to exit the dialog.

## Customizing the MOA:1002 Element

The MOA:1002 element contains the Monetary Amount for the invoice. You have already used an accumulator for this field to calculate the total dollar amount invoiced and made this field display-only so that users cannot change the value in this field.

## About this task

You need to rename the field label to more clearly identify its contents. Also, the standard designates an "R9" screen format and EDI format for this field, meaning that the number is formatted with an explicit decimal point and up to nine decimal places. The data is formatted in the "R2" format (a number with an explicit decimal point and up to two decimal places) so you need to change the screen format and EDI format from "R9" to "R2."

The standard defines this element as having a maximum length of 18. The total invoice amount will total no more than \$999,999.99 so this field needs a maximum length of only 10 (six places for the dollars; two places for the cents; one place for the decimal point, and one place for a plus or minus sign, if present).

Use this procedure to rename the field label, change the field and element lengths and to change the screen and EDI formats for the Monetary Amount field.

## Procedure

1. Double-click the **MOA:1002** element.
2. On the **Validation** tab, do the following:
  - In the Max box, enter **10** to allow a 10-digit number in this element, including a plus or minus sign and a decimal point.
  - From the Please choose the format of the data in the form list, select **R2**.
  - From the Please choose the format of the data in the file, select **R2**.
3. On the **Display** tab, do the following:
  - In the Label box, enter **Total Invoice Amount**.
  - In the Maximum number of characters to be printed box, enter **10**.
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the print form display.
6. Click **Save** from the File menu to save the form.

## What to do next

Now that you have customized all of the elements used in this invoice, you are ready to format the fields and labels to make the frames more consistent and visually attractive.

---

## Chapter 8. Customizing Screen Entry Forms for EDIFACT

---

### Resizing the Invoice Frame

When a form is compiled into a translation object, the fields are arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

#### About this task

**Important:** When you resize the frames of a screen entry form, you must resize based on the resolution of the target monitor (for example, the monitor on which the end user views the translation object).

Use this procedure to resize the Invoice frame.

#### Procedure

1. Click the invoice file icon to display the Invoice frame in the Layout Window.

**Note:** When the form is generated, the upper left corner of each frame in the form is placed in the upper left corner of the Layout Window.

2. To display more of the form on your screen, click and drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want to view.
3. To resize the Invoice frame, click and drag the right side of the frame approximately to the 14 cm. mark on the horizontal ruler so that the form is wide enough to format the fields according to the instructions in this tutorial.

---

### Fields on the Invoice Frame

You begin formatting the screen entry form by arranging the fields on the Invoice frame. You place the fields in the translation object in a logical order, then align the fields to give the frame a consistent and orderly appearance.

By default, each field and its associated label are displayed on their own line. However, it is common for invoices to place two or more fields on a line.

You prevented some of the field labels from being displayed (by removing the field label in the Label field of the Display dialog). For these fields, the fields are displayed on your screen entry form, but their associated labels are not displayed.

## ANSI X12

The Invoice frame now should look like this:

The screenshot shows a window titled "invoice" with a dotted background. It contains several input fields for data entry:

- Invoice Date: [ ]
- Invoice No.: [ ]
- P.O. Date: [ ]
- P.O. No.: [ ]
- Contract No.: [ ]
- Ship To: [ ]
- Remit To: [ ]

There are also several empty lines and a small square checkbox below the "Ship To" field.

## EDIFACT

The Invoice Message frame now should look like this:

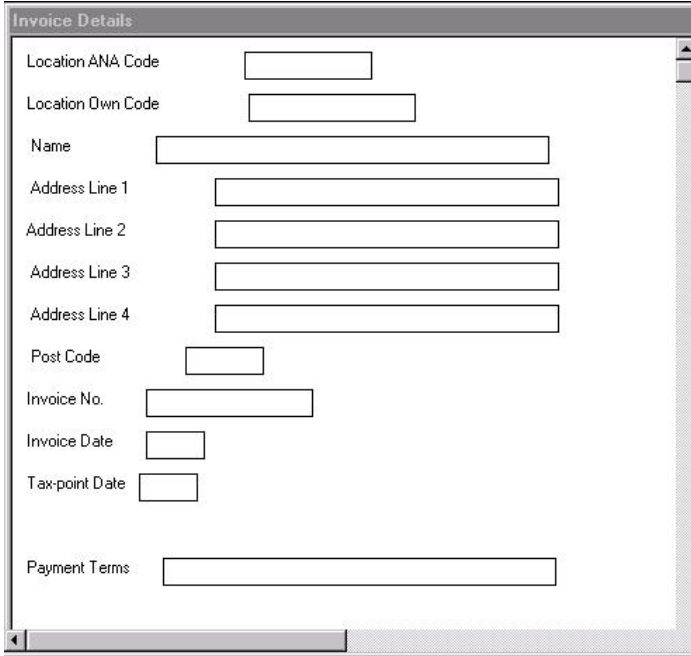
The screenshot shows a window titled "Invoice Message" with a dotted background. It contains several input fields for data entry:

- Invoice No.: [ ]
- Invoice Date: [ ]
- P.O. No.: [ ]
- P.O. Date: [ ]
- Contract No.: [ ]
- Contract Date: [ ]
- Ship To: [ ]

There are also several empty lines below the "Ship To" field.

## TRADACOMS

The Invoice Details frame now should look like this:



The screenshot shows a window titled "Invoice Details" with a scrollable area containing the following fields:

- Location ANA Code:
- Location Own Code:
- Name:
- Address Line 1:
- Address Line 2:
- Address Line 3:
- Address Line 4:
- Post Code:
- Invoice No.:
- Invoice Date:
- Tax-point Date:
- Payment Terms:

---

## Arranging Fields

### Rearranging the Fields

#### About this task

Use this procedure to resize, move, and align the fields on the Invoice Message frame of the screen entry form.

#### Procedure

1. Select the following fields and select **Display > Size to Length**.

- Invoice No.
- Invoice Date
- P.O. No.
- P.O. Date
- Contract No.
- Contract Date
- City Name (both Ship To and Remit To)
- Country Sub-Entity Identification (both Ship To and Remit To)
- Number of Line Items
- Total Invoice Amount

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

2. Drag the following fields closer to their respective labels:
  - Invoice No.

- Invoice Date
  - P.O. No.
  - P.O. Date
  - Contract No.
  - Contract Date
3. Drag the **Invoice Date** label and field to the upper right corner of the Invoice Message frame.
  4. Drag the **P.O. No.** label and field to the left side of the frame, below the Invoice No. label and field.
  5. Drag the **P.O. Date** label and field to the right side of the frame, below the Invoice Date label and field.
  6. Drag the **Contract No.** label and field to the left side of the frame, below the P.O. No. label and field.
  7. Drag the **Contract Date** label and field to the right side of the frame, below the P.O. Date label and field.
  8. Rearrange the fields of the Ship To address as follows:
    - Select the **Ship To** field (not the label), the two Street and Number/P.O. Box fields, and the City Name field.
    - Select **Display > Align Controls > Left**.
    - Drag the **Country Sub-Entity Identification** field to the immediate right of the City Name field.
    - Drag the **Postcode Identification** field to the immediate right of the Country Sub-Entity Identification field.
    - Drag all of the **Ship To** fields (not including the Ship To label) closer to the Ship To label, so that none of the fields extend beyond the right side of the frame.
    - Drag all of the **Ship To** fields (including the Ship To field label) to the left side of the frame, below the Contract No. label and field.
  9. Rearrange the fields of the Remit To address as follows:
    - Select the **Remit To** field (not the label), the two Street and Number/P.O. Box fields, and the City Name field of the Remit To address.
    - Select **Display > Align Controls > Left**.
    - Drag the **Country Sub-Entity Identification** field to the immediate right of the City Name field.
    - Drag the **Postcode Identification** field to the immediate right of the Country Sub-Entity Identification Code field.
    - Drag all of the **Remit To** fields (not including the Remit To label) closer to the Remit To label, so that none of the fields extend beyond the right side of the frame.
    - Drag all of the **Remit To** fields (including the Remit To label) below the Ship To address.
  10. Select the **Payment Terms Code** list, and do the following:
    - Click and drag its right handle so that the list is approximately 1.5 cm. wide (including the down arrow).
    - Click and drag its bottom handle to make the drop-down part of the list box long enough to list approximately four codes (approximately 2 cm. long on the vertical ruler).
    - Drag the **Payment Terms Code** drop-down list box closer to its label.

- Drag the **Payment Terms Code** drop-down list box and label to the center of the frame, below the Remit To address.
11. Rearrange the fields of the Line Items as follows:
    - Drag the **Line Items** list box closer to its label.
    - Drag the **Line Items** list box and label to the center of the frame, below the Payment Terms Code list box and label.  
Leave extra space between the Payment Terms Code list box and label, and the Line Items list box and label, to add column headings (using static text) to label the data in the list box.
    - Drag the **Number of Line Items** field closer to its label.
    - Drag the **Number of Line Items** label and field to the center of the frame, below the Line Items list box.
  12. Drag the **Total Invoice Amount** field closer to its label. Drag the **Total Invoice Amount** label and field to the center of the frame, below the Number of Line Items label and field.

## Resizing the Invoice Message Frame

You should resize the Invoice Message frame to make the most efficient use of space. You have already resized the frame horizontally before you began arranging the fields. Then, you arranged the fields on the frame so the fields do not use the same amount of vertical space as before you arranged the fields.

### About this task

To make better use of the frame space, you need to resize the frame vertically.

### Procedure

1. To resize the Invoice Message frame, scroll to the top of the Invoice Message frame, then click and drag the bottom of the frame to just below the Total Invoice Amount label and field.
2. Select **File > Save**.

## Aligning the Fields and Labels

Now that the fields in the Invoice Message frame are resized and moved to their proper locations, you can align the fields and labels.

### About this task

Use this procedure to align the fields and field labels on the Invoice Message frame.

### Procedure

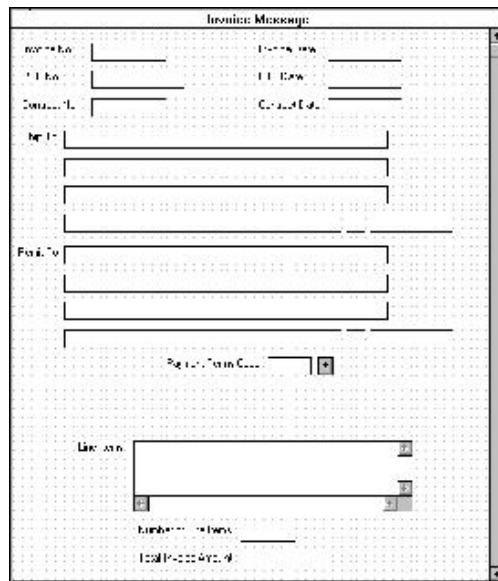
1. Select the following labels and select **Display > Align Controls > Left**.
  - Invoice No.
  - P.O. No.
  - Contract No.
  - Ship To
  - Remit To
2. Select the following fields and select **Display > Align Controls > Left**.
  - Invoice No.

- P.O. No.
  - Contract No.
3. Select the following labels and select **Display > Align Controls > Left**.
    - Invoice Date
    - P.O. Date
    - Contract Date
  4. Select the following fields and select **Display > Align Controls > Left**.
    - Invoice Date
    - P.O. Date
    - Contract Date
  5. Select the following labels and select **Display > Align Controls > Left**.
    - Number of Line Items
    - Total Invoice Amount
  6. Select the following fields and select **Display > Align Controls > Left**.
    - Number of Line Items
    - Total Invoice Amount
  7. To align the tops of all of the field labels and fields, select each row of items (one row at a time) as listed below. Then select **Display > Align Controls > Top**.
    - Invoice No. label and field, Invoice Date label and field
    - P.O. No. label and field, P.O. Date label and field
    - Contract No. label and field, Contract Date label and field
    - Ship To label and field
    - City Name, Country Sub-Entity Identification, and Postcode Identification fields of the Ship To address
    - Remit To label and field
    - City Name, Country Sub-Entity Identification, and Postcode Identification fields of the Remit To address
    - Payment Terms Code label and drop-down list box
    - Line Items label and list box
    - Number of Line Items label and field
    - Total Invoice Amount label and field



## Results

The Invoice Message frame now should look like this:



## Adding Column Headings to the Line Items List Box

Sterling Gentran:Server labels the fields on the Line Items frame, but does not label the column headings for the Line Items list box on the Invoice Message frame. The Line Items list box displays the information entered into the fields on the Line Items frame. To label the columns in the Line Items list box, you must add the column headings with static text (text that is always included in the screen entry translation object).

### About this task

You will add the following column headings to the Line Items list box on the Invoice Message frame:

Column Heading (Static Text)	Placement Above Line Items List
Item	First column
Product	Second column
Qty.	Third column
Price	Fourth column

Use this procedure to add and position the column headings.

### Procedure

1. Click **Add Text** on the Main Toolbar. Text is added to the current frame, displayed in the upper left corner of the frame. If the template is larger than the frame (there is a scroll bar on the right side of the frame), the static text is displayed in the upper left corner of the part of the template that is displayed, not at the top of the template.
2. In the new text box, enter **Item** and click **OK**.

3. Click **Add Text** on the Main Toolbar and enter **Product** in the text box and click **OK**.
4. Click **Add Text** and enter **Qty.** in the text box and click **OK**.
5. Click **Add Text** and enter **Price** in the text box and click **OK**.  
The column headings you added are displayed in the upper left corner of the frame.
6. Drag the **Item** static text to above the Line Items list, immediately to the right of the left margin of the Line Items list.
7. Drag the **Product** static text to above the Line Items list, to the right of the Item column heading.
8. Drag the **Qty.** static text to above the Line Items list, to the right of the Product column heading.
9. Drag the **Price** static text to above the Line Items list, to the right of the Qty. column heading.
10. To ensure that the column headings (static text) you just added are aligned properly, select all the static text you just added (Item, Qty., Product, Price). Select **Display > Align Controls > Top**.

## Results

The Invoice Message frame now should look like this:

The screenshot shows a window titled "Invoice Message" with a grid background. The form contains several input fields and a table. At the top, there are fields for "Invoice No." and "Invoice Date". Below these are fields for "Invoice Type" and "Invoice Status". A large text area is labeled "Description". Below that is a "Header" section with several lines of text. A "Table" section contains a table with columns for "Item", "Quantity", and "Price". Below the table are fields for "Total Invoice Amount" and "Total Invoice Tax".

## Setting the Tab Sequence on the Invoice Message Frame - EDIFACT

The tab sequence is the order in which the cursor moves from field to field in the screen entry translation object when a user presses Tab. When you create a screen entry form, the system automatically positions the fields and sets the tab sequence for those fields. However, you usually will want to modify the tab sequence of the fields to meet your screen entry requirements and the new positions of the fields on the frame.

## About this task

**Note:** If you click a field out of sequence, you must begin setting the tab sequence again. To start over, select **Display > Set Tab Order** so that the tab sequence numbers are no longer displayed in the fields on the frame, and then begin the steps again. When you click the last field in the sequence, the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

Use this procedure to set the tab sequence for the fields on the Invoice Message frame.

## Procedure

1. Select **Display > Set Tab Order**.  
Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field will change to the next sequential number in the tab sequence.
  - a. Invoice No.
  - b. Invoice Date
  - c. P.O. No.
  - d. P.O. Date
  - e. Contract No.
  - f. Contract Date
  - g. Ship To Party Name
  - h. Ship To Street and Number/P.O. Box (first line of address)
  - i. Ship To Street and Number/P.O. Box (second line of address)
  - j. Ship To City Name
  - k. Ship To Country Sub-Entity Identification
  - l. Ship To Postcode Identification
  - m. Remit To Party Name
  - n. Remit To Street and Number/P.O. Box (first line of address)
  - o. Remit To Street and Number/P.O. Box (second line of address)
  - p. Remit To City Name
  - q. Remit To Country Sub-Entity Identification
  - r. Remit To Postcode Identification
  - s. Payment Terms Code
  - t. Line Items
  - u. Number of Line Items
  - v. Total Invoice Amount

## Results

The new tab sequence should look like this:

The screenshot shows a window titled "Invoice Message" with various input fields and labels. A tab sequence is overlaid on the form, consisting of small numbered boxes (1 through 23) indicating the order of focus for the fields. The fields include Invoice No., Invoice Date, U No., Inv. Date, Invoice Amt, and Invoice Status. Below these are several text boxes for description and item details, followed by a "Total Invoice amount" field at the bottom.

---

## Fields on the Line Items Frame

### Resizing the Line Items Frame and Fields

Now that the fields, labels, and static text are arranged on the Invoice Message frame, you are ready to arrange the fields on the Line Items frame. You will place the fields in a logical order, then align the fields (as you did with the fields on the Invoice Message frame) to give the frame a consistent and orderly appearance.

### About this task

Before you begin arranging the fields on the Line Items frame, you should resize the frame so that it is the same width as the Invoice Message frame. When this form is compiled into a translation object, the fields will be arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

Use this procedure to resize the line items frame.

### Procedure

1. Click the **LIN** group to display the Line Items frame in the Layout Window.
2. To resize the Line Items frame, click and drag the right side of the frame to the 14 cm. mark on the horizontal ruler.
3. To display more of the form on your screen, drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want.
4. Select the following fields and select **Display > Size to Length**.
  - Item No.
  - Product Code

- Quantity
- Date Shipped
- Price
- Transport Method
- Carrier Code

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

## Moving and Aligning Fields

### About this task

Use this procedure to move and align the fields on the Line Items frame of the screen entry form.

### Procedure

1. Select the **UOM** field and drag its right handle so that it is approximately 2 cm. wide (including the down arrow).
2. Drag its bottom handle so that the field is long enough for four codes to be displayed in it when the drop-down list is open (approximately 2 cm. on the vertical ruler).
3. Select the **Transport Method** and **UOM** fields (in that order) and select **Display > Size Equally**. The Transport Method list is the same size as the UOM list (the reference).
4. Select each field on the frame individually and move it closer to its respective field label. If the field overlaps its label (for example, Date Shipped), move the field slightly to the right of the label.
5. Drag the **Product Code** label and field to the right of the Item No. label and field.

**Note:** The Item No. label and field are already positioned where you want them (in the upper left corner of the frame). You do not need to move them.

6. Drag the **Quantity** label and field to the right of the Product Code label and field.
7. Drag the **UOM** label and field below the Item No. label and field. The left side of the UOM field label should be aligned with the left side of the Item No. label.
8. Drag the **Price** label and field below the Product Code label and field. The left side of the Price field label should be aligned with the left side of the Product Code label.
9. Drag the **Item Description** label and field below the UOM and Price labels and fields. The left side of the Description field label should be aligned with the left side of the Item No. and UOM labels.
10. Drag the **Date Shipped** label and field to the left side of the frame, below the Item Description label and field. The left side of the Date Shipped field label should be aligned with the left side of the Item No., UOM, and Item Description labels.
11. Drag the **Transport Method** label and field to the right of the Date Shipped label and field.
12. Drag the **Carrier Code** label and field to the right of the Transport Method label and field.

## Resizing the Line Items Frame

Use this procedure to resize the line items frame.

### About this task

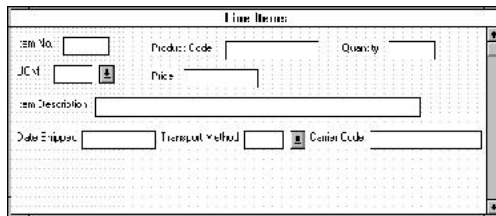
### Procedure

To resize the Line Items frame, click and drag the bottom of the frame to below the last row of fields and labels (Date Shipped, Transport Method, and Carrier Code).

**Note:** Allow enough space between the last row of fields/labels and the bottom of the frame for the Transport Method drop-down list box to be opened.

### Results

The Line Items frame now should look like this:



## Aligning the Fields and Field Labels

### About this task

Use this procedure to align the fields and field labels on the Line Items frame.

### Procedure

1. Select the following labels and fields and select **Display > Align Controls > Top**.
  - Item No.
  - Product Code
  - Quantity
2. Select the following labels and fields and select **Display > Align Controls > Top**.
  - UOM
  - Price
3. Select the **Item Description** label and field and select **Display > Align Controls > Top**.
4. Select the following labels and fields and select **Display > Align Controls > Top**.
  - Date Shipped
  - Transport Method
  - Carrier Code
5. Select the following field labels and select **Display > Align Controls > Left**.
  - Item No.
  - UOM

- Item Description
  - Date Shipped
6. Select the following fields (in this order) and select **Display > Align Controls > Left**.
    - UOM
    - Item No.
  7. Select the following field labels and select **Display > Align Controls > Left**.
    - Product Code
    - Price
  8. Select the following fields (in this order) and select **Display > Align Controls > Left**.
    - Price
    - Product Code

## Results

The Line Items frame now should look like this:

The screenshot shows a window titled "Line Items" with a grid background. The form contains the following fields and labels:

- Item No. (text box)
- Product Code (text box)
- Quantity (text box)
- UOM (dropdown menu)
- Price (text box)
- Item Description (text area)
- Date Shipped (text box)
- Transport Method (dropdown menu)
- Carrier Code (text box)

## Setting the Tab Sequence on the Line Items Frame

### About this task

Use this procedure to set the tab sequence of the fields on the Line Items frame.

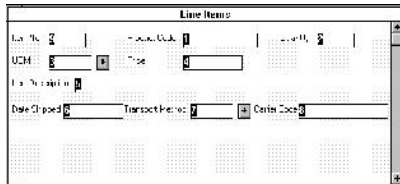
### Procedure

1. Select **Display > Set Tab Order**.  
Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field changes to the next sequential number in the tab sequence you are now setting.
  - a. Product Code
  - b. Quantity
  - c. UOM
  - d. Price
  - e. Item Description
  - f. Date Shipped
  - g. Transport Method
  - h. Carrier Code
  - i. Item No.

**Note:** The Item No. field is the last field in the tab sequence, although it is the first field in the layout of the Line Items frame. This field is display-only, displaying the next consecutive item number for the invoice (the item number is generated by an accumulator in the Item No. field). By placing the Item No. field last in the tab sequence, this field can be skipped easily by users entering data. The first field in the sequence is the Product Code field, which is the first field into which users can enter a value.

## Results

The new tab sequence should look like this:



When you click the last field in the sequence (Item No.), the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

---

## Changing the Invoice Message Frame Title - EDIFACT

The system automatically titles the frames in a screen entry form when the form is created, based on the name of the file, segment(s), or group(s). You can modify the frame titles (for example, at the file or message level) to distinguish one form from the others. The parent frame of the invoice currently is titled Invoice Message. You need to give this frame a more descriptive title to distinguish it from other invoices that your company uses.

### About this task

Use this procedure to change the frame title.

### Procedure

1. Right-click the invoice file icon and select **Properties**.
2. On the **Display** tab, enter **EDIFACT Invoice (INVOIC) - Pet Zone** in the Frame Caption box.
3. Click **OK**.  
The new frame title is displayed in the frame title in the Layout Window.
4. Click **Generate Layout** on the Main Toolbar to refresh the display.
5. Select **File > Save**.

### Results

When you have finished arranging the fields, your Invoice Message frame should look like the following.



The screenshot shows a window titled "Invoice Message" containing a form with the following fields and labels:

- Invoice No: [ ]
- Invoice Date: [ ]
- PO No: [ ]
- PO Date: [ ]
- Contract No: [ ]
- Contract Date: [ ]
- Supplier: [ ]
- Buyer: [ ]
- Product: [ ]
- Quantity: [ ]
- Unit Price: [ ]
- Total Invoice Amount: [ ]

## What to do next

You have completed your Invoice form. Now, you are ready to finalize the form.



---

## Chapter 9. Creating Screen Entry Forms for TRADACOMS

---

### Changing the Maximum Use of the IRF Segment

The IRF segment contains the Invoice References for the invoice. In this tutorial, the IRF segment will be used for the invoice number, invoice date, and tax-point date. The standard allows the IRF segment to be used up to 999,999 times in one invoice. In this tutorial, you will use the IRF segment only once per invoice. You will change the maximum use of the IRF segment to one, which will place the associated fields on the main Invoice Details frame with the majority of the invoice fields.

#### About this task

Use this procedure to change the maximum use of the IRF segment.

#### Procedure

1. Right-click the **IRF** segment and select **Properties**.  
The EDI Segment Properties dialog is displayed.
2. On the **Looping** tab, enter **1** in the Max Usage field to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

### Changing the Maximum Use of the PYT Segment

The PYT segment contains the Settlement Terms for the invoice. In this tutorial, the PYT segment will be used for the describing the terms of payment. The standard allows the PYT segment to be used up to 999,999 times in one invoice. In this tutorial, you will use the PYT segment only once per invoice. You will change the maximum use of the PYT segment to one, which will place the associated fields on the main Invoice Details frame with the majority of the invoice fields.

#### About this task

Use this procedure to change the maximum use of the PYT segment.

#### Procedure

1. Right-click the **PYT** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage field to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the EDI Segment Properties dialog.

---

### Changing the Maximum Use of the DNA Segment

The DNA segment contains the Data Narrative for the invoice. In this tutorial, the DNA segment will be used for narrative (descriptive text) describing information that cannot be sent in a coded form. The standard allows the DNA segment to be used up to 999,999 times in one invoice. In this tutorial, you will use the DNA segment only once per invoice. You will change the maximum use of the DNA segment to one, which will place the associated fields on the main Invoice Details frame with the majority of the invoice fields.

## About this task

Use this procedure to change the maximum use of the DNA segment.

### Procedure

1. Right-click the **DNA** segment and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage field to designate that this segment can be used only once per invoice.
3. Click **OK** to exit the Segment Properties dialog.

---

## Changing the Maximum Use of the ODD Group

The ODD group contains the Order and Delivery Terms information for the invoice. In this tutorial, the ODD group will be used for information about the customer's order number, the date the order was placed, and the delivery number and date. The standard allows the ODD group to be used up to 999,999 times per invoice (because you are addressing only one order with this invoice). In this tutorial, you will use the ODD group only once per invoice. You will change the maximum use of the ODD group to one, which will place the associated fields on the main Invoice Details frame with the majority of the invoice fields.

## About this task

Use this procedure to change the maximum use of the ODD group.

### Procedure

1. Right-click the **ODD** group and select **Properties**.
2. On the **Looping** tab, enter **1** in the Max Usage field to designate that this segment can be used only once per invoice.
3. On the **Display** tab, select **Promote group to parent frame** to promote this group. The fields in this group will be displayed on the same frame as the fields in the parent group (INVOIC).
4. Click **OK** to exit the Group Properties dialog.

---

## Chapter 10. Modifying Screen Entry Forms for TRADACOMS

---

### Setting up the Document Name for the Screen Entry Form

The document name makes the identification of a document created by the form easier by enabling you to differentiate between documents.

#### About this task

We recommend that you set up a Document Name for each form. You can choose any string element as the document name, but we strongly recommend that you select an element that occurs only once in the document and has a data type of string. For an ANSI X12 810 invoice, the document name usually is the Invoice Number. For an EDIFACT 92.1 invoice, the document name is usually the Document/Message Number.

Use this procedure to set up the document name.

#### Procedure

1. Double-click the one of the following elements:
  - **BIG02** (for ANSI X12)
  - **BGM05** (for EDIFACT)
  - **IRF INVN** (for TRADACOMS)

We recommend that you select this element because it is a non-recurring and mandatory element, and it helps to identify this document meaningfully in Sterling Gentran:Server.

2. On **Standard Rule** tab, do the following:
  - Select **Update** from the list.
  - Click **Yes** at the prompt.
  - From the Table/Group list, select **Document record** to indicate that you are updating the document record in Sterling Gentran:Server.
  - From the Column/Field list, select **Document Name** to indicate that you are updating the Name field (in the Sterling Gentran:Server document browsers that contain this message) with the contents of the B1G02 element.
3. Click **OK** to set up the document name.

---

### The CLO Segment

The CLO segment (Customer's Location) contains details about the specific customer location pertaining to this invoice. In this tutorial, the CLO segment contains details relating to the specific Pet Zone store you are invoicing.

The CLO CLOC CLO0 element (Customer's ANA Location Code) contains the code assigned by the Article Numbering Association for the customer's location. In this tutorial, your users will enter the customer's ANA location code (which they will obtain from the purchase order for the invoiced items).

Your trading partner, Pet Zone, uses a string of numbers for the ANA location code, so you will create a syntax token that allows only numbers in the screen and EDI formats of the data. Syntax tokens enable you to designate a "token" that

defines ranges of characters and/or numbers that are allowed to be used for a string-type element. The characters defined in the syntax token are used while compliance checking each element to ensure that the data in the element falls within the range of allowed characters.

In addition to creating a syntax token to be used for the screen and EDI formats of the data, you will rename the field label to make it shorter and add Help text to the field.

## Creating a Syntax Token for the CLO Segment

### About this task

Use this procedure to create a syntax token.

#### Procedure

1. Select **Edit > Syntax Tokens**.

The Token column contains the value designated as the syntax token for each existing syntax token. The Token contains a range of characters that, when applied to an element, dictate the way that element must be formatted. If the element is not formatted as specified, the system will generate a compliance error.

The Allowed character ranges column contains the range(s) of characters that are permitted for each existing syntax token. Each range consists of a pair of characters that define the start and end characters.

2. Click **New** to access the Edit Syntax Token dialog.
3. In the Token field, enter **9** to designate the unique one-character alphanumeric value that the system will recognize as containing the allowed range of characters you designate.

The Character Ranges list box contains the character range or ranges that you defined for this token. You can define more than one character range for each token.

4. Click **New** to access the Edit Character Range dialog, which enables you to create a character range.

**Note:** Sterling Gentran:Server uses the ANSI character set when determining the start-end range.

5. Enter **0** in the Start character field and **9** in the End character field to define the token range.
6. Click **OK** to exit the Edit Character Range dialog.
7. Click **OK** to save the syntax token and exit the Edit Syntax Token dialog.
8. Click **Close** to exit the Syntax Tokens dialog.

## Changing the CLO CLOC CLO0 Element and Field Properties

### About this task

Use this procedure to change the screen and EDI formats for the data, rename the field label, and add Help text to the Customer's ANA Location Code field.

#### Procedure

1. Double-click the **CLO CLOC CLO0** element.
2. On the **Validation** tab, do the following:

- In the Form Format field, enter **9**, which is the name of the syntax token you just created for allowing users to enter data with only the characters 0–9 in this element.
  - In the File Format field, enter **9**, which is the name of the syntax token you just created for allowing the EDI data to consist of only the characters 0–9 in this element.
3. On the **Display** tab, enter **Location ANA Code** in the Label field to replace the existing text.
  4. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)
 

Enter the EAN location number identifying this customer's location. You must enter a numeric value in this field.
  5. Click **OK** to exit the dialog.

## Customizing the CLO CLOC CLO1 Element

The CLO CLOC CLO1 element (Customer's Own Location Code) contains the code assigned by the customer for the location to which the invoiced items are to be delivered. In this tutorial, your users will enter the customer's own location code (which you have obtained from Pet Zone).

### About this task

In this tutorial, you know that Pet Zone's own location code will not exceed ten characters, so you will change the field and element lengths to ten. In addition, you will rename the field label and add Help text to the field.

Use this procedure to change the field and element lengths, rename the field label, and add Help text to the Customer's Own Location Code field.

### Procedure

1. Double-click the **CLO CLOC CLO1** element.
2. On the **Validation** tab, enter **10** in the Max field to allow a ten-character string in this element.
3. On the **Display** tab, do the following:
  - In the Label field, enter **Location Own Code** to replace the existing text.
  - In the Display Length field, enter **10** to allow ten characters to be entered in this field.
4. On the Help tab, enter the following text in the Help Text box. (Press Enter at the end of each line of text.)
 

Enter the customer's own location number identifying the location to which the invoiced items are to be delivered.△The customer's location number may not exceed 10△alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the CLO CNAM Element

The CLO CNAM element (Customer's Name) contains the customer's registered legal name.

### About this task

In this tutorial, you want the Customer's Name field to be the same length as the address fields that follow (in the CLO CADD composite), so you will change the

field and element lengths for the Customer's Name field to thirty-five. In addition, you will rename the field label and add Help text to the field.

Use this procedure to change the field and element lengths, rename the field label, and add Help text to the Customer's Name field.

### Procedure

1. Double-click the **CLO CNAM** element.
2. On the **Validation** tab, enter **35** in the Max field to allow a thirty-five-character string in this element.
3. On the **Display** tab, do the following:
  - In the Label field, enter **Name** to replace the existing text.
  - In the Display Length field, enter **35** to allow thirty-five characters to be entered in this field.
4. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the customer's name. The name may not exceed 35 alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the CLO CADD CAD0 Element

The CLO CADD CAD0 element (Customer's Address Line 1) contains the first line of the customer's address. You will rename the field label to shorten it and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Customer's Address Line 1 field.

### Procedure

1. Double-click the **CLO CADD CAD0** element.
2. On the **Display** tab, enter **Address Line 1** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the first line of the customer's address.  
This address line may not exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the CLO CADD CAD1 Element

The CLO CADD CAD1 element (Customer's Address Line 2) contains the second line of the customer's address. You will rename the field label to shorten it and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Customer's Address Line 2 field.

### Procedure

1. Double-click the **CLO CADD CAD1** element.



2. On the **Display** tab, enter **Address Line 2** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the second line of the customer's address.  
This address line may not exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the CLO CADD CAD2 Element

The CLO CADD CAD2 element (Customer's Address Line 3) contains the third line of the customer's address. You will rename the field label to shorten it and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Customer's Address Line 3 field.

### Procedure

1. Double-click the **CLO CADD CAD2** element.
2. On the **Display** tab, enter **Address Line 3** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the third line of the customer's address.  
This address line may not exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the CLO CADD CAD3 Element

The CLO CADD CAD3 element (Customer's Address Line 4) contains the fourth line of the customer's address. You will rename the field label to shorten it and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Customer's Address Line 4 field.

### Procedure

1. Double-click the **CLO CADD CAD3** element.
2. On the **Display** tab, enter **Address Line 4** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the fourth line of the customer's address.  
This address line may not exceed 35 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the CLO CADD CAD4 Element

The CLO CADD CAD4 element (Customer's Post Code) contains the post code of the customer's address. You will rename the field label to shorten it and add Help text to this field.

## About this task

Use this procedure to rename the field label and add Help text to the Customer's Post Code field.

### Procedure

1. Double-click the **CLO CADD CAD4** element.
2. On the **Display** tab, enter **Post Code** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the post code of the customer's address.  
The post code may not exceed 8 alphanumeric characters.
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

---

## The IRF Segment

### Customizing the IRF INVN Element

The IRF segment (Invoice References) contains details about the invoice, such as the invoice number, invoice date, and tax-point date. This segment, and all the elements contained in it, must be present in the invoice. You already changed the maximum use for this segment, so that this segment will be used only once in an invoice.

#### About this task

The IRF INVN element (Invoice Number) contains the number assigned by the supplier for this invoice (in this tutorial, you are the supplier). You will rename the field label to shorten it and add Help text to this field. (You already set up this element as the document name.)

Use this procedure to rename the field label and add Help text to the Invoice Number field.

### Procedure

1. Double-click the **IRF INVN** element.
2. On the **Display** tab, enter **Invoice No.** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the invoice number. The invoice number may not exceed 17 alphanumeric characters.
4. Click **OK** to exit the dialog.

### Customizing the IRF IVDT Element

The IRF IVDT element (Date of Invoice) contains the invoice date. You will change the screen format for the invoice date to DD/MM/YY. Also, this element is defined by the standard to be a six-digit date. In this tutorial, your users will enter the invoice date as an eight-digit date, so you will change the element and field lengths to accommodate the longer date. In addition, you will rename the field label and add Help text to this field.

## About this task

Use this procedure to change the screen format, change the field and element lengths, rename the field label, and add Help text to the Date of Invoice field.

### Procedure

1. Double-click the **IRF IVDT** element.
2. On the **Validation** tab, do the following:
  - In the Max field, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Form Format drop-down list box, select **DD/MM/YY** to indicate that this field on the translation object will accept a date entered in that format.
3. On the **Display** tab, do the following:
  - In the Label field, enter **Invoice Date** to replace the existing text.
  - In the Display Length field, enter **8** to allow the entire date (including the / separators) to be displayed.
4. On the Help tab, enter the following text in the Help Text box.  
Enter the invoice date. Use the format DD/MM/YY.
5. Click **OK** to exit the dialog.

## Customizing the IRF TXDT Element

The IRF TXDT element (Tax-Point Date) contains the date on which the VAT is applied. The tax-point date often is the same as the invoice date. You will change the screen format for the tax-point date to DD/MM/YY. Also, this element is defined by the standard to be a six-digit date. In this tutorial, your users will enter the invoice date as an eight-digit date, so you will change the element and field lengths to accommodate the longer date. In addition, you will add Help text to this field.

## About this task

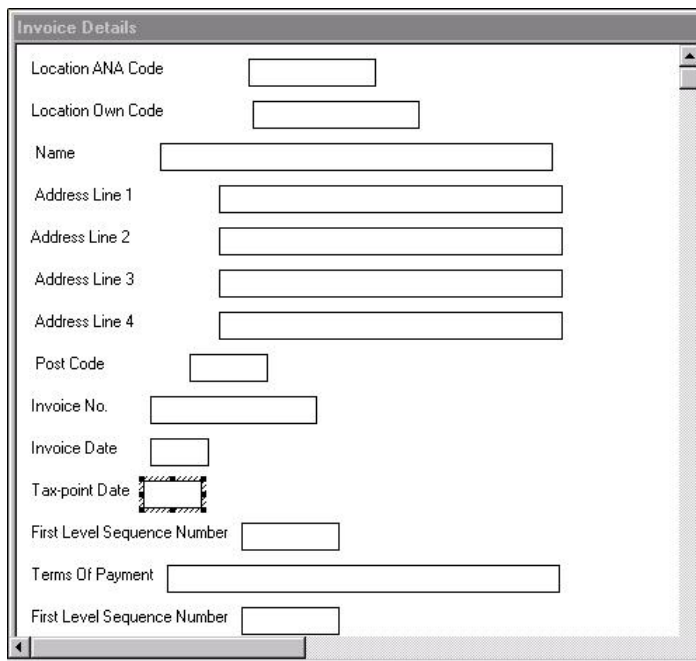
Use this procedure to change the screen format, change the field and element lengths, and add Help text to the Date of Invoice field.

### Procedure

1. Double-click the **IRF TXDT** element.
2. On the **Validation** tab, do the following:
  - In the Max field, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Form Format drop-down list box, select **DD/MM/YY** to indicate that this field on the translation object will accept a date entered in that format.
3. On the **Display** tab, enter **8** in the Display Length field to allow the entire date (including the / separators) to be displayed.
4. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the tax-point date. The tax-point date is the date the VAT was applied. Use the format DD/MM/YY.
5. Click **OK** to exit the dialog.
6. Click **Generate Layout** on the Main Toolbar to refresh the display.

## Results

The Invoice Details frame now should look like this:



The screenshot shows a window titled "Invoice Details" with the following fields:

- Location ANA Code
- Location Own Code
- Name
- Address Line 1
- Address Line 2
- Address Line 3
- Address Line 4
- Post Code
- Invoice No.
- Invoice Date
- Tax-point Date
- First Level Sequence Number
- Terms Of Payment
- First Level Sequence Number

---

## The PYT Segment

### Customizing the PYT SEQA Element

The PYT segment (Settlement Terms) specifies the settlement terms that apply to the invoice. You already changed the maximum use of the PYT segment to one.

#### About this task

The PYT SEQA element (First Level Sequence Number) contains the sequence number for the PYT segment. According to the standard, this number starts at one and increases for each occurrence of the PYT segment. You already changed the maximum use of the PYT segment to one (indicating that you will use the PYT segment only once per invoice). You will define a constant value for this field, designating that the constant "ONE" (which has a value of "1") is always the value in the PYT SEQA element. Then, you will prevent this field from being displayed in the screen entry form, since users will not need to enter a value in this field.

Use this procedure to define a constant and hide the First Level Sequence Number field.

#### Procedure

1. Double-click the **PYT SEQA** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant** from the drop-down list.
  - Click **Edit** to access the Map Constants dialog.
3. In the Map Constants dialog, click **New** to access the Edit Constant dialog.
4. In the Edit Constant dialog, do the following:

- In the ID field, enter **ONE** to identify the constant.
  - From the Type drop-down list box, select **Integer** to indicate that the literal constant will be formatted as an integer data type.
  - In the Value field, enter **1** to indicate that the First Level Sequence Number field must contain the value 1. This value is the actual value of the literal constant.
  - Click **OK** to add the constant.
5. Click **Close** to exit the Map Constants dialog.
  6. On the **Standard Rule** tab, select **1** in the Constants drop-down list box to identify the constant that will be used for this element.
  7. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
  8. Click **OK** to exit the dialog.

## Customizing the PYT PAYT Element

The PYT PAYT element (Terms of Payment) contains the description of the settlement terms. You will rename the field label and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Terms of Payment field.

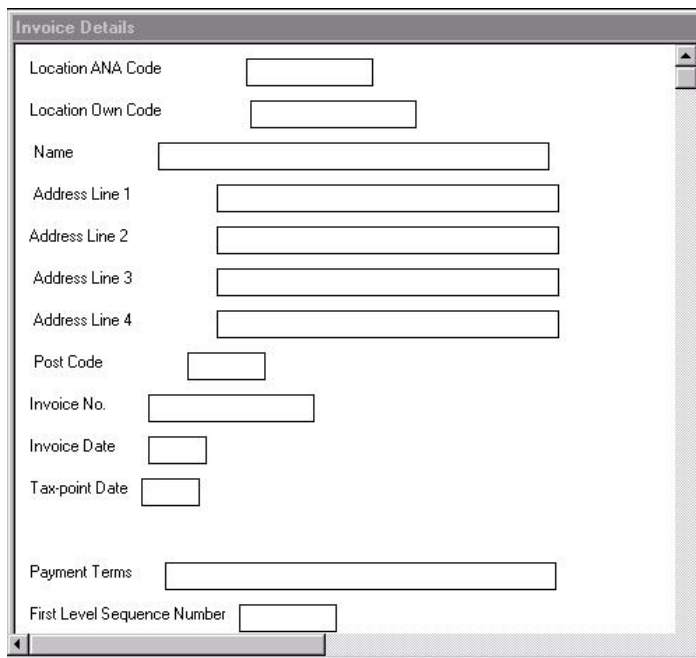
### Procedure

1. Double-click the **PYT PAYT** element.
2. On the **Display** tab, enter **Payment Terms** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)
 

Enter the payment terms. The payment terms  
may not exceed 40 alphanumeric characters.
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

## Results

The Invoice Details frame now should look like this:



The screenshot shows a window titled "Invoice Details" with the following fields:

- Location ANA Code:
- Location Own Code:
- Name:
- Address Line 1:
- Address Line 2:
- Address Line 3:
- Address Line 4:
- Post Code:
- Invoice No.:
- Invoice Date:
- Tax-point Date:
- Payment Terms:
- First Level Sequence Number:

---

## The DNA Segment

### Customizing the DNA SEQA:2 Element

The DNA segment (Data Narrative) contains narrative (descriptive text) pertaining to the invoice. The standard allows this segment to be used up to 999,999 times in an invoice. Your users will use this segment only once per segment, so you already changed the maximum use to one.

#### About this task

The DNA SEQA:2 element (First Level Sequence Number) contains the sequence number for the DNA segment. According to the standard, this number starts at one and increases for each occurrence of the DNA segment. You already changed the maximum use of the DNA segment to one (indicating that you will use the DNA segment only once per invoice). You will use the constant "ONE" (which has a value of "1"), so that "1" is always the value in the DNA SEQA:2 element. Then, you will prevent this field from being displayed in the screen entry form, since users will not need to enter a value in this field.

#### Procedure

1. Double-click the **DNA SEQA:2** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant** from the drop-down list.
  - In the Constants drop-down list box, select **1** to identify the constant that will be used for this element.
3. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
4. Click **OK** to exit the dialog.

## Customizing the DNA GNAR GNA0 Element

The DNA GNAR GNA0 element (General Narrative Line 1) contains descriptive text pertaining to the invoice. Users can enter up to four lines (each with up to forty characters) of descriptive text. For this tutorial, you will rename the field label Invoice Notes® and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the General Narrative Line 1 field.

### Procedure

1. Double-click the **DNA GNAR GNA0** element.
2. On the **Display** tab, enter **Invoice Notes** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the first line of the invoice notes. The invoice notes consist of descriptive text that pertains to the entire invoice. This line of invoice notes may not exceed 40 alphanumeric characters.

4. Click **OK** to exit the dialog.

## Customizing the DNA GNAR GNA1 Element

The DNA GNAR GNA1 element (General Narrative Line 2) contains the second line of descriptive text pertaining to the invoice. Users can enter up to four lines (each with up to forty characters) of descriptive text. For this tutorial, only the first line of descriptive text (General Narrative Line 1) will be labelled. Therefore, you will remove the field label for the General Narrative Line 2 field and add Help text to this field.

### About this task

Use this procedure to remove the field label and add Help text to the General Narrative Line 2 field.

### Procedure

1. Double-click the **DNA GNAR GNA1** element.
2. On the **Display** tab, delete the text in the Label field.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the second line of the invoice notes. The invoice notes consist of descriptive text that pertains to the entire invoice. This line of invoice notes may not exceed 40 alphanumeric characters.

4. Click **OK** to exit the dialog.

## Customizing the DNA GNAR GNA2 Element

The DNA GNAR GNA2 element (General Narrative Line 3) contains the third line of descriptive text pertaining to the invoice. Users can enter up to four lines (each with up to forty characters) of descriptive text. For this tutorial, only the first line

of descriptive text (General Narrative Line 1) will be labelled. Therefore, you will remove the field label for the General Narrative Line 3 field and add Help text to this field.

### About this task

Use this procedure to remove the field label and add Help text to the General Narrative Line 3 field.

### Procedure

1. Double-click the **DNA GNAR GNA2** element.
2. On the **Display** tab, delete the text in the Label field.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the third line of the invoice notes. The invoice notes consist of descriptive text that pertains to the entire invoice. This line of invoice notes may not exceed 40 alphanumeric characters.

4. Click **OK** to exit the dialog.

## Customizing the DNA GNAR GNA3 Element

The DNA GNAR GNA3 element (General Narrative Line 4) contains the fourth line of descriptive text pertaining to the invoice. Users can enter up to four lines (each with up to forty characters) of descriptive text. For this tutorial, only the first line of descriptive text (General Narrative Line 1) will be labelled. Therefore, you will remove the field label for the General Narrative Line 4 field and add Help text to this field.

### About this task

Use this procedure to remove the field label and add Help text to the General Narrative Line 4 field.

### Procedure

1. Double-click the **DNA GNAR GNA3** element.
2. On the **Display** tab, delete the text in the Label field.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the fourth line of the invoice notes. The invoice notes consist of descriptive text that pertains to the entire invoice. This line of invoice notes may not exceed 40 alphanumeric characters.

4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

---

## The ODD Group

### Customizing the ODD:2 SEQA Element

The ODD group contains the Order and Delivery Terms information for the invoice. In this tutorial, the ODD group will be used for information about the customer's order number, the date the order was placed, and the delivery number and date. The standard allows the ODD group to be used up to 999,999 times per invoice. In this tutorial, you will use the ODD group only once per invoice. You



already changed the maximum use of the ODD group to one, which placed the associated fields on the main Invoice Details frame with the majority of the invoice fields.

### About this task

The ODD:2 SEQA element (First Level Sequence Number) contains the sequence number for the ODD:2 segment. According to the standard, this number starts at one and increases for each occurrence of the ODD:2 segment. The ODD:2 segment has a maximum use of only one, so the value in the ODD:2 SEQA element will always be "1". You will use the constant "ONE" (which has a value of "1"), so that "1" is always the value in the ODD:2 SEQA:2 element. Then, you will prevent this field from being displayed in the screen entry form, since users will not need to enter a value in this field.

### Procedure

1. Double-click the **ODD:2 SEQA** element.
2. On the **Standard Rule** tab, do the following:
  - Select **Use Constant** from the drop-down list.
  - In the Constants drop-down list box, select **1** to identify the constant that will be used for this element.
3. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
4. Click **OK** to exit the dialog.

## Customizing the ODD:2 ORNO ORN0 Element

The ODD:2 ORNO ORN0 element (Customer's Order Number) contains the number assigned by the customer to identify the order. You will rename the field label and add Help text to this field.

### About this task

Use this procedure to change the field label for the Customer's Order Number field.

### Procedure

1. Double-click the **ODD:2 ORNO ORN0** element.
2. On the **Display** tab, enter **Customer's P.O. No.** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)

Enter the customer's purchase order number. The purchase order number may not exceed 17 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the ODD:2 ORNO ORN2 Element

The ODD:2 ORNO ORN2 element (Date Order Placed by Customer) contains the date on which the customer placed the purchase order. You will change the screen format for the purchase order date to DD/MM/YY. Also, this element is defined by the standard to be a six-digit date. In this tutorial, the purchase order date will be printed as an eight-digit date, so you will change the element and field lengths to accommodate the longer date. For brevity, you will change the field label to P.O. Date.

## About this task

Use this procedure to change the screen format, change the element and field lengths, and rename the field label for the Date Order Placed by Customer field.

### Procedure

1. Double-click the **ODD:2 ORNO ORN2** element.
2. On the **Validation** tab, do the following:
  - In the Max field, enter **8** to allow the entire date (including the / separators) to be contained in this element.
  - From the Form Format drop-down list box, select **DD/MM/YY** to indicate that this field on the translation object will accept a date entered in the format DD/MM/YY.
3. On the **Display** tab, do the following:
  - In the Label field, enter **P.O. Date** to replace the existing text.
  - In the Display Length field, enter **8** to allow the entire date (including the / separators) to be displayed.
4. On the **Help** tab, enter the following text in the Help Text box.  
Enter the purchase order date. Use the format DD/MM/YY.
5. Click **OK** to exit the dialog.

## Customizing the ODD:2 DELN DEL0 Element

The ODD:2 DELN DEL0 element (Delivery Note Number) contains the number corresponding to the delivery note. The only customizing you will perform for this field is adding Help text.

### About this task

Use this procedure to add Help text to the Delivery Note Number field.

### Procedure

1. Double-click the **ODD:2 DELN DEL0** element.
2. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the number corresponding to the delivery note.  
The  $\Delta$ delivery note number may not exceed 17  
alphanumeric characters.
3. Click **OK** to exit the dialog.

## Customizing the ODD:2 DELN DEL1 Element

The ODD:2 DELN DEL1 element (Date of Despatch by Supplier) contains the date on which the order was delivered. You will change the screen format for the delivery date to DD/MM/YY. Also, this element is defined by the standard to be a six-digit date. In this tutorial, the delivery date will be printed as an eight-digit date, so you will change the element and field lengths to accommodate the longer date. For brevity, you will change the field label to P.O. Date.

### About this task

Use this procedure to change the screen format, change the element and field lengths, and rename the field label for the Date of Despatch by Supplier field.

## Procedure

1. Double-click the **ODD:2 DELN DEL1** element.
2. On the **Validation** tab, do the following:
  - In the Max field, enter 8 to allow the entire date (including the / separators) to be contained in this element.
  - From the Screen Format drop-down list box, select **DD/MM/YY** to indicate that this field on the translation object will accept a date entered in the format DD/MM/YY.
3. On the **Display** tab, do the following:
  - In the Label field, enter **Delivery Date** to replace the existing text.
  - In the Display Length field, enter 8 to allow the entire date (including the / separators) to be displayed.
4. On the **Help** tab, enter the following text in the Help Text box.  
Enter the delivery date. Use the format DD/MM/YY.
5. Click **OK** to exit the dialog.

---

## Customizing the ILD Group

The ILD group (Invoice Line Details) contains the line item detail for each item invoiced. The standard allows the ILD group to be used up to 999,999 times per invoice.

### About this task

The fields associated with the ILD group are arranged on the ILD frame, which is separate from the Invoice Details frame that you have been working with thus far in this tutorial. Your users will complete the fields on the ILD frame for each item in the invoice. The list of all line items in the invoice will be displayed in a list box on the Invoice Details frame. In that list box, the invoiced items will be displayed line by line, forming columns of information.

Use this procedure to rename the ILD frame and list box, provide a description for the ILD group, and add Help text to the line items list box.

### Procedure

1. Right-click the **ILD** group and select **Properties**.
2. In the Desc field, enter **Line Items** to describe the group.
3. On the **Display** tab, do the following:
  - In the Frame Caption field, enter **Line Items** to rename the frame.
  - In the List Caption field, enter **Line Items** to rename the list box that is displayed on the Invoice Details frame (listing the line items entered on the Line Items frame).
4. In the Frame Help Text list box, enter the following text. (Press **Enter** at the end of each line of text.)  
This frame contains line item detail information.  
For online Help on an individual field on this frame,  
select the field and press F1.
5. In the Listbox Help Text list box, enter the following text. (Press **Enter** at the end of each line of text.)

This list box contains the line item detail for the invoice. The data in this list box is entered or changed on the Line Items frame. To enter a new line item, click the list box and click New. To modify an existing line item, click that item and click Open.

6. Click **OK** to exit the Group Properties dialog.

---

## The ILD:2 Segment

The ILD:2 segment (Invoice Line Details) contains the line item detail for each item invoiced. For some of the elements in the ILD:2 segment, you only need to add Help text and rename the field labels so they more accurately reflect your company's needs. With other elements, you will change the maximum lengths for some of the fields, use accumulators to calculate the number of line items, or define a constant value.

The ILD:2 group is subordinate to the Invoice Details frame, so Sterling Gentran:Server creates a separate frame (the Line Items frame) to contain the group data (the line item details). The system also creates a list box (the Line Items list box) on the Invoice Details frame to allow the user to access the items in the list box. Each set of data is displayed as a row in the list box. After you customize the line item fields, the Line Items list box will contain these four columns of data: Item, Product, Qty, and Price.

## Customizing the ILD:2 SEQA Element

The ILD:2 SEQA element (First Level Sequence Number) contains the sequence number for the ODD group (the parent group in which the ILD:2 SEQA element resides). According to the standard, this number starts at one and increases for each occurrence of the ODD group. The ODD group has a maximum use of only one, so the value in the ILD:2 SEQA element will always be "1". You will use the constant "ONE" (which has a value of "1"), so that "1" is always the value in the ILD:2 SEQA:2 element. Then, you will prevent this field from being displayed in the screen entry form, since users will not need to enter a value in this field.

### About this task

Use this procedure to use a constant and hide the First Level Sequence Number field.

### Procedure

1. Double-click the **ILD:2 SEQA** element.
2. On the **Use Standard Rule** tab, do the following:
  - Select **Use Constant**.
  - In the Constants drop-down list box, select **1** to identify the constant that will be used for this element.
3. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
4. Click **OK** to exit the dialog.

## Customizing the ILD:2 SEQB Element

The ILD:2 SEQB element (Second Level Sequence No.) contains the second-level sequence number for the ILD:2 segment in the ILD group (the subordinate group in which the ILD:2 SEQB element resides). According to the standard, this number starts at one and increases for each occurrence of the ILD group. You will use the Loop Count function to obtain the value of the current loop count, and then you

will make this field display-only (since the users will not need to enter a value in this field). Also, since the value in this field reflects the sequential number for each line item, you will rename the field label Item No.

### About this task

You will create a list box definition for this element to include the item number in the list box. Also, you know that your users will enter no more than 99,999 line items per invoice. Each line item will be numbered sequentially, starting with one, so you need a maximum length of only five digits for this field. You will change the field and element lengths for this field to five.

Use this procedure to rename the field label, change the field and element lengths, add Help text, and create the list box definition for the Second Level Sequence No. field.

### Procedure

1. Double-click the **ILD:2 SEQB** element.
2. On the **Validation** tab, enter **5** in the Max field to allow a five-digit number in this element.
3. On the **Use Standard Rule** tab, do the following:
  - Select the **Loop Count** option from the drop-down list.
  - In the Groups drop-down list box, select **ILD** to identify the loop for which you want to obtain the current value of the loop count. The ILD group is a nested group (the ODD group is the parent group of the ILD group).
4. On the **Display** tab, do the following:
  - In the Display section, select **Display** to make this field display-only.
  - In the Label field, enter **Item No.** to replace the existing text.
  - In the Display Length field, enter **5** to allow five numeric digits to be displayed in the field.
5. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Item No. field will be displayed in a column in the Line Items list box.
  - In the Column Width field, enter **8** to set the width of this column in the Line Items list box.
  - From the Sequence drop-down list box, select **1** to indicate that this field will be the first column in the list box.
6. Click **OK** to exit the dialog.

## Customizing the ILD:2 SPRO SPR0 Element

The ILD:2 SPRO SPR0 element (EAN-13 Code for the Traded Unit) contains the number of the thirteen-digit European Article Number allocated to the unit of trade (the invoiced item). In this tutorial, you will rename the field label to shorten it and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the EAN-13 Code for the Traded Unit field.

### Procedure

1. Double-click the **ILD:2 SPRO SPR0** element.

2. On the **Display** tab, enter **EAN Code** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the EAN code for the invoiced item. The EAN code must be exactly 13 alphanumeric characters long.
4. Click **OK** to exit the dialog.

## Customizing the ILD:2 SPRO SPR1 Element

The ILD:2 SPRO SPR1 element (Supplier's Code for the Traded Unit) contains the supplier's internal reference identifying the invoiced item (in this tutorial, your company is the supplier). You will rename the field label and add Help text to this field.

### About this task

Also, you will create a list box definition for this element to include the supplier's product code in the Line Items list box on the Invoice Details frame.

Use this procedure to rename the field label, add Help text, and create the list box definition for the Supplier's Code for the Traded Unit field.

### Procedure

1. Double-click the **ILD:2 SPRO SPR1** element.
2. On the **Display** tab, enter **Supplier's Product Code** in the Label field to replace the existing text.
3. On the **Summary List** tab, do the following:
  - Select **Display this field in summary**. The value in the Supplier's Product Code field will be displayed in a column in the Line Items list box.
  - In the Column Width field, enter **33** to set the width of this column in the Line Items list box.
  - From the Sequence drop-down list box, select **2** to indicate that this field will be the second column in the list box.
4. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Enter the supplier's product code for the invoiced item.  
The product code may not exceed 30 alphanumeric characters.
5. Click **OK** to exit the dialog.

## Customizing the ILD:2 CPRO CPR1 Element

The ILD:2 CPRO CPR1 element (Customer's Item Code) contains the customer's internal reference identifying the invoiced item. Your users can obtain this information from the customer's purchase order. In this tutorial, you will rename the field label and add Help text to this field.

### About this task

Use this procedure to rename the field label and add Help text to the Customer's Item Code field.

### Procedure

1. Double-click the **ILD:2 CPRO CPR1** element.

2. On the **Display** tab, enter **Customer's Product Code** in the Label field to replace the existing text.
3. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)
 

Enter the customer's product code for the invoiced item.  
The code may not exceed 30 alphanumeric characters.
4. Click **OK** to exit the dialog.

## Customizing the ILD:2 QTYI QTY0 Element

The ILD:2 QTYI QTY0 element (Number of Order Units Invoiced) contains the quantity of invoiced items for this line item. You will create a list box definition for this element to include the quantity invoiced in the list box on the Invoice Details frame. For brevity, you will rename the field label. Also, the standard defines this field as a string data type, and allows up to fifteen alphanumeric characters in this element. However, your users will enter number-type data in N0 format (formatted with an implicit decimal point and no decimal places). Therefore, you will change the data type and the screen and EDI formats to reflect the data your users will enter.

### About this task

In addition, your users will enter quantities no greater than five digits (e.g. 99,999). You will change the field and element lengths to reflect the smaller data length. Then, you will add Help text to this field.

Use this procedure to change the data type and screen and EDI formats, rename the field label, change the field and element lengths, add Help text, and create the list box definition for the Number of Order Units Invoiced field.

### Procedure

1. Double-click the **ILD:2 QTYI QTY0** element.
2. On the **Validation** tab, do the following:
  - In the Max field, enter **5** to allow a five-digit number in this element.
  - From the Data Type drop-down list box, select **Number**. Sterling Gentran:Server prompts you that changing the field's data type will invalidate its format. Click **Yes**.
  - From the Form Format drop-down list box, select **N0** to indicate that this field will accept a number with an implied decimal point and no decimal places.
  - From the File Format drop-down list box, select **N0** to format the EDI data with an implied decimal point and no decimal places.
3. On the **Display** tab, do the following:
  - In the Label field, enter **Quantity** to replace the existing text.
  - In the Display Length field, enter **5** to allow five numeric digits to be displayed in the field.
4. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Quantity field will be displayed in a column in the Line Items list box on the Invoice Details frame.
  - In the Column Width field, enter **8** to set the width of this column in the Line Items list box.

- From the Sequence drop-down list box, select **3** to indicate that this field will be the third column in the list box.
5. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)
    - Enter the quantity of this invoiced item.
    - The quantity may not exceed 5 digits.
  6. Click **OK** to exit the dialog.

## Customizing the ILD:2 QTYI CD04:2 Element

The ILD:2 QTYI CD04:2 element (Measure Indicator) contains the abbreviation for the measure of the invoiced item (e.g. kilometres, metres, litres). You want all the available codes from Code Values List 4 to be available to your screen entry users, so you will load the entire code list. Loading the code list in this element causes a drop-down list box to be displayed on the Invoice Details frame (instead of a field). Users will select an appropriate code from the list box, instead of entered a value in the field.

### About this task

After you specify the code list table to use for the drop-down list box for the Measure Indicator field, you will rename the field label and add Help text to the field.

Use this procedure to load Code Values List 4 from the standard, rename the field label, and add Help text to the Measure Indicator field.

### Procedure

1. Double-click the **ILD:2 QTYI CD04:2** element.
2. On the **Standard Rule** tab, do the following:
  - Select the **Use Code** option.
  - Click **Edit** to access the Edit Code List dialog. The Table ID field contains CD04, the name of the element for which this code list table will be used. The Desc field contains "Measure Indicator", the description of the element for which this code list table will be used.
3. In the Edit Code List dialog, click **Load**. You will be prompted to select an ODBC data source name.
4. Select the appropriate DSN and click **OK** to access the Load Code List dialog. The Codes In Standard list box contains the entire code list.
5. Click **Add All** to move all of the codes in the code list table to the Codes Selected list box.

**Note:** Adding all the codes in the list (by using Add All) creates a much larger form than if you use only selected codes. However, it is necessary for your users to have all the codes available from which to choose.

6. Click **OK** to load the code list table and exit the Load Code List dialog.
7. Click **Close** to exit the Edit Code List dialog.
8. On the **Standard Rule** tab, select **Raise a compliance error** to specify that the element must contain one of the codes from Code Values List 4 (nothing else is valid for that element).
9. On the **Display** tab, enter **Unit of Measure** in the Label field to replace the existing text.



10. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Select the unit of measure for this invoiced item from the drop-down list box.
11. Click **OK** to exit the dialog.

## Customizing the ILD:2 AUCT AUC0 Element

The ILD:2 AUCT AUC0 element (Cost Price (Excluding VAT)) contains the price per unit invoiced. This price is the cost in pounds before line discounts and VAT have been applied. The EDI data will be formatted in N4 format (formatted with an implicit decimal point and four decimal places), but your users will enter the price in the translation object in R4 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the price to be entered in the translation object.

### About this task

You will create a list box definition for this element to include the unit price in the list box on the Invoice Details frame. Also, you will rename the field label and add Help text to this field.

Use this procedure to change the screen format, rename the field label, add Help text, and create the list box definition for the Cost Price (Excluding VAT) field.

### Procedure

1. Double-click the **ILD:2 AUCT AUC0** element.
2. On the **Validation** tab, select **R4** from the Form Format drop-down list box to indicate that this field will accept a number with an explicit decimal point and up to four decimal places.
3. On the **Display** tab, enter **Unit Price (Ex. VAT)** in the Label field to replace the existing text.
4. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the Unit Price (Ex. VAT) field will be displayed in a column in the Line Items list box on the Invoice Details frame.
  - In the Column Width field, enter **14** to set the width of this column in the Line Items list box.  
You do not need to make the column width for this field wider than the actual content of the column. The data from this field will form the last column in the list box, and you do not need to leave white space between the last column and the side of the list box.
  - From the Sequence drop-down list box, select **4** to indicate that this field will be the third column in the list box.
5. On the **Help** tab, enter the following text in the Help Text box.  
Enter the unit price for this invoiced item.
6. Click **OK** to exit the dialog.

## Customizing the ILD:2 LEXC Element

The ILD:2 LEXC element (Extended Line Cost (Excluding VAT)) contains the price per unit invoiced, after any line discounts have been applied. This price is the net cost in pounds (e.g. after deducting line discounts, etc., but before the application of VAT). The EDI data will be formatted in N4 format (formatted with an implicit decimal point and four decimal places), but your users will enter the price in the

translation object in R4 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the price to be formatted in the translation object.

### About this task

Also, you will prevent this field from being displayed in the translation object. The extended line cost will be calculated automatically when users click Store on the Line Items frame when they use this translation object in Sterling Gentran:Server. You can hide this field because users will not need to enter the value in the field.

Use this procedure to change the screen format for the Extended Line Cost (Excluding VAT) field, and prevent this field from being displayed.

### Procedure

1. Double-click the **ILD:2 LEXC** element.
2. On the **Validation** tab, select **R4** from the Form Format drop-down list box to indicate that this field will accept a number with an explicit decimal point and up to four decimal places.
3. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
4. Click **OK** to exit the dialog.

## Calculating the Extended Price

You want to automate the calculation that results in the extended price for each line item, so that the screen entry users who use your invoice translation object do not have to perform this calculation manually. A simple way to perform this calculation is to use an extended rule to define the operation in the ILD group. You define extended rule with the Sterling Gentran:Server proprietary programming language, which gives you access to the entire Sterling Gentran:Server internal storage area.

### About this task

Use this procedure to define an extended rule to calculate the extended price.

### Procedure

1. Right-click the **ILD** group (in the **ODD** group) and select **Extended Rules**.  
The Loop Level Extended Rules dialog is displayed.
2. Select **On Store** to indicate that you want the rule to be executed when you store a group.
3. In the Editor list box, enter the following extended rule:

```
#LEXC = #QTY0 * #AUC0;
```

This extended rule means that the value of the ILD:2 LEXC field is equal to the product of the values in the ILD:2 QTYI QTY0 and ILD:2 AUCT AUC0 fields. In other words, the quantity invoiced for one line item, multiplied by the price (excluding VAT) for each unit invoiced, equals the extended price (excluding VAT).

4. Click **Compile** to compile the extended rule and verify that this rule does not cause errors or warnings.

If you receive any errors or warnings when you compile the rule, verify that you entered the rule exactly as it is written in the previous step. After you make any change to the extended rule to correct it, click **Compile** again. Repeat this process until there are no errors generated.

5. Click **OK** to add the extended rule to the form and exit the Loop Level Extended Rules dialog.

## The ILD:2 CD12 Element

The ILD:2 CD12 element (VAT Rate Category Code) contains the code from Codes Values List 12 to designate the VAT rate category for this invoiced item (e.g. standard rate, exemption from VAT, higher rate, etc.). You will use a Select standard rule on the VAT Rate Category Code field, but first you need to create a temporary VATP element.

Sterling Gentran:Server enables you to use selected information from the Sterling Gentran:Server partner database in your forms via a Select standard rule. You can map information from your trading partner's profile in the Partner Editor to a selected element in the form. The information that you can use in the form includes any fields in a table (location, lookup, or cross-reference) or data from the partner record.

For this form, you need to map the appropriate VAT rate based on the code in the ILD:2 CD12 element from a lookup table, to look up data that you will map (via a standard rule) to the temporary VATP\_TEMP field that you create. When you use tables, you must decide whether to create a code table in Sterling Gentran:Server that can be used only with this form, or to add the table to either the partner relationship or the internal system partner in Partner Editor. In this tutorial, you will set up the table you use under the internal system partner (Internal System User) so the table can be used globally.

In this tutorial, you need to extract information from a lookup table and insert it into the form. A lookup table is used when you want to supplement data before it is sent to your partner. See the *IBM Sterling Gentran:Server for Microsoft Windows User Guide* for more information on lookup tables.

**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.

After you use the Select function, all the available codes from the selected table will be available in a drop-down list box (instead of a field) on the Invoice Details frame. Users will select an appropriate code from the drop-down list box, instead of entered a value in the field.

In addition to using the Select function, you will rename the field label and add Help text to the field.

## Creating a Temporary VATP Element

### About this task

Use this procedure to create a temporary VATP element.

### Procedure

1. Select the **ILD:2 VATP** element.
2. Click **Copy** on the Main Toolbar.
3. Select the **ILD:2 SCRF** composite, which is the last form component in the ILD:2 segment. The ILD:2 SCRF composite is the composite after which you want the ILD:2 VATP element to be pasted.
4. Click **Paste** on the Main Toolbar to paste the ILD:2 VATP element.

5. Select **Paste after selected item (at the same level)** to paste the Clipboard contents after the ILD:2 SCRF composite. A new element (ILD:2 VATP:2) is created. The ILD:2 VATP:2 element is an exact copy of the ILD:2 VATP element.
6. Click **OK** to exit the dialog.

**Note:** You should rename the ILD:2 VATP:2 element to give it a more descriptive name.

7. Double-click the **ILD:2 VATP:2** element.
8. In the Name field, enter **VATP\_TEMP** to replace the existing text.
9. Click **OK** to exit the Element Properties dialog.

The ILD:2 VATP:2 element is renamed ILD:2 VATP\_TEMP.

## Changing the ILD:2 CD12 Element and Field Properties

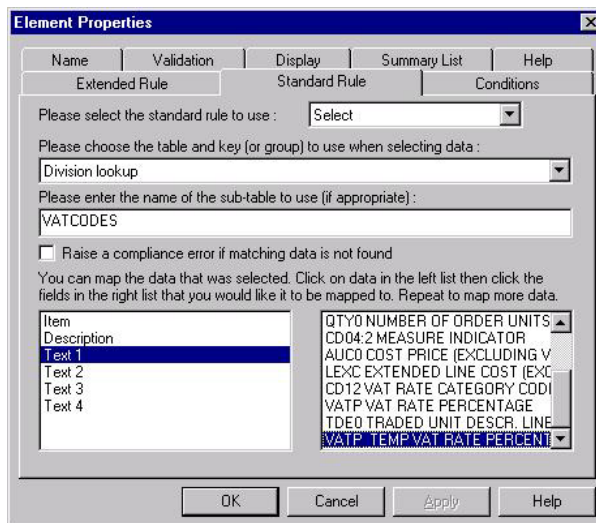
### About this task

Use this procedure to use the Select function, rename the field label, and add Help text to the VAT Rate Category Code field.

### Procedure

1. Double-click the **ILD:2 CD12** element.
2. On the **Standard Rule** tab, do the following:
  - Click the **Select** option.
  - In the Table drop-down list box, select **Division lookup**. You are using the Division lookup because the VAT codes do not vary on a partner-by-partner basis, so you can use the Internal System User partner and map from any field on the Lookup Entry dialog (in Partner Editor in Sterling Gentran:Server). You will be able to set up the lookup only once, regardless of the number of partners with which you will use this translation object.
  - In the Sub Table field, enter **VATCODES**, which is the name of the table name for the Internal System User partner that you will import.
  - In the Map From list box, select **Text 1**, which is the field on the Lookup Entry dialog in Partner Editor from which the contents will be mapped.
  - In the Map To list box, select **VATP\_TEMP**, which is the temporary VATP element you just created. The system will map the value from Partner Editor to the VATP\_TEMP element.

The dialog now should look like the following:



3. On the **Display** tab, enter **VAT Code** in the Label field to replace the existing text.
4. On the **Help** tab, enter the following text in the Help Text box. (Press **Enter** at the end of each line of text.)  
Select the VAT code for this invoiced item from the drop-down list box.
5. Click **OK** to exit the dialog.

## Customizing the ILD:2 VATP Element

The ILD:2 VATP element (VAT Rate Percentage) contains the percentage rate for the VAT category code. Screen entry translation object users will not need to enter a value in this field because Sterling Gentrans:Server will look up the percentage in the VATCODES table in Partner Editor and place the result in the ILD:2 VATP element automatically. You will prevent the ILD:2 VATP element from being displayed on the translation object.

### About this task

Use this procedure to hide the VAT Rate Percentage field.

### Procedure

1. Double-click the **ILD:2 VATP** element.
2. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
3. Click **OK** to exit the dialog.

## Customizing the ILD:2 VATP\_TEMP Element

The ILD:2 VATP\_TEMP element (VAT Rate Percentage) is the temporary element you created to map the VAT rate percentage in the VATCODES division lookup table. To map from the partner database to the VATP\_TEMP field, the target field (VATP\_TEMP) needs to be a string-type element. You will use the ILD:2 VATP\_TEMP element to convert the VAT rate percentage (a string) into a real number (the data type required in the ILD:2 VATP field). For compliance reasons, you cannot change the data type in the ILD:2 VATP element; therefore, you created the ILD:2 VATP\_TEMP element, whose data type you may change.

## About this task

The system will be able to look up the VAT rate percentage (a string data type) in the VATCODES table, and map the string to the ILD:2 VATP\_TEMP element. Later, you will add an extended rule to the ILD group to convert the string in the ILD:2 VATP\_TEMP element to a number in the ILD:2 VATP element, then remove all data from the ILD:2 VATP\_TEMP element (so that element is empty). After having executed these functions, the system will have converted a string data type to a real number, maintaining the integrity of the data and the compliance of the invoice.

Use this procedure to hide the VAT Rate Percentage field and change the data type for this field to string.

## Procedure

1. Double-click the **ILD:2 VATP\_TEMP** element.
2. On the **Validation** tab, do the following:
  - Select **Mandatory** to make this element conditional.
  - In the Min field, enter **0** for the minimum number of digits allowed for this element.
  - From the Data Type drop-down list box, select **String**. Sterling Gentran:Server prompts you that changing the field's data type will invalidate its format. Click **Yes**.
3. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
4. Click **OK** to exit the dialog.

## Converting Strings into Real Numbers

You created the ILD:2 VATP\_TEMP element as a temporary element for converting strings into numbers. The first step in converting strings into elements, in this tutorial, was to create the ILD:2 VATP\_TEMP element so that the system will use that element to look up the VAT rate percentage (a string data type) in the VATCODES table, then map the string to the ILD:2 VATP\_TEMP element. The next step is to use an extended rule in the ILD group to convert the string in the ILD:2 VATP\_TEMP element into a real number that can be used in the ILD:2 VATP element, and then delete any data left in the temporary element (ILD:2 VATP\_TEMP).

## About this task

Use this procedure to define an extended rule to convert strings into numbers.

## Procedure

1. Right-click the **ILD** group (in the **ODD** group) and select **Extended Rules**.
2. Select **On Store** to indicate that you want the rule to be executed when you store a group. (The extended rule you added to calculate an extended price is displayed in the Editor list box of the Loop Level Extended Rules dialog.)  
When the screen entry users click Store on the Line Items frame, all On Store extended rules in the Loop Level Extended Rules dialog will be executed.
3. On the next two lines in the Editor list box, enter the following extended rule:

```
#VATP = ATON(#VATP_TEMP);  
empty(#VATP_TEMP);
```

The ATON function tells the system to convert the string data in the ILD:2 VATP\_TEMP element into a real number.

The calculation you entered on the first line places the number data in the ILD:2 VATP element.

The empty function sets the value of the ILD:2 VATP\_TEMP field to null.

4. Click **Compile** to compile the extended rule and verify that this rule does not cause errors or warnings. If you receive any errors or warnings when you compile the rule, verify that you entered the rule exactly as it is written in step 4 above. After you make any change to the extended rule to correct it, click **Compile** again. Repeat this process until there are no errors generated.
5. Click **OK** to add the extended rule to the form and exit the Loop Level Extended Rules dialog.

## Customizing the ILD:2 TDES TDE0 Element

The ILD:2 TDES TDE0 element (Traded Unit Descr. Line 1) contains the description of the invoiced item. You will rename the field label to shorten it and add Help text to this element.

### About this task

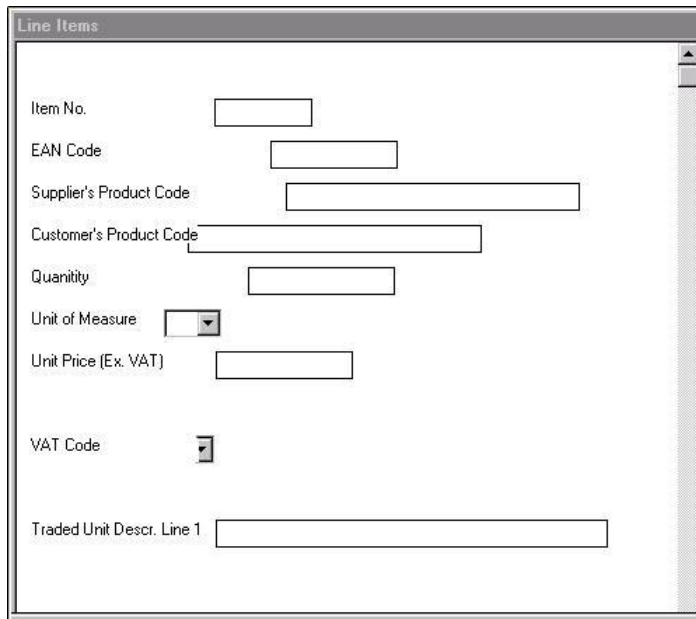
Use this procedure to rename the field label and add Help text to the Traded Unit Descr. Line 1 field.

### Procedure

1. Double-click the **ILD:2 TDES TDE0** element.
2. On the **Display** tab, enter **Description** in the Label field to replace the existing text.
3. On the Help tab, enter the following text in the Help Text box. (Press Enter at the end of each line of text.)  
Enter the description of the invoiced item.  
The description may not exceed 40 alphanumeric characters.
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

## Results

The Line Items frame now should look like this:



The screenshot shows a window titled "Line Items" with the following fields:

- Item No. (text input)
- EAN Code (text input)
- Supplier's Product Code (text input)
- Customer's Product Code (text input)
- Quantity (text input)
- Unit of Measure (dropdown menu)
- Unit Price (Ex. VAT) (text input)
- VAT Code (dropdown menu)
- Traded Unit Descr. Line 1 (text input)

---

## The STL Segment

The STL segment (VAT Rate Invoice Sub Trailer) contains the invoice amounts relating to the VAT rate.

All monetary values in this segment are in pounds. You will use an extended rule to perform the calculations that will be displayed in the fields in the STL segment. Screen entry translation object users will be able to view the values in these fields (in the VAT Summary frame), but will not be able to change the values. See The VAT Summary and the Invoice Trailer for details on how to add the extended rule.

The fields associated with the STL segment are arranged on the STL frame. Your users will complete the fields on the STL frame for each VAT rate calculation. The list of all VAT rates in the invoice will be displayed in a list box on the Invoice Details frame. In that list box, the VAT rates will be displayed for each line item, forming columns of information.

## Customizing the STL Segment

Use this procedure to rename the STL frame and list box, provide a description for the STL segment, and add Help text to the list box.

### About this task

#### Procedure

1. Right-click the **STL** segment and select **Properties**.
2. On the **Display** tab, enter **VAT Summary** in the Frame Caption field to rename the frame.



3. In the List Caption field, enter **VAT Summary** to rename the list box that is displayed on the Invoice Details frame (listing the VAT rates entered on the VAT Summary frame).
4. In the Frame Help Text list box, enter the following text. (Press **Enter** at the end of each line of text below.)

This frame contains VAT summary information. All of the fields on this frame are display-only. You may view the values in these fields, but you cannot change any of the values. All calculations will be updated when you click the Recalculate button on the Invoice Details frame.
5. In the Listbox Help Text list box, enter the following text. (Press **Enter** at the end of each line of text below.)

This list box contains VAT summary information. To view details about a VAT rate listed in the VAT Summary list box, click that VAT rate and click Open. You will be able to view the values in these fields, but you will not be able to change any of them. All calculations will be updated when you click the Recalculate button on the Invoice Details frame.
6. Click **OK** to exit the EDI Segment Properties dialog.

## Customizing the STL SEQA:7 Element

The STL SEQA:7 element (First Level Sequence Number) contains the sequence number for the STL segment. This element is mandatory, but your screen entry translation object users will not need to enter a value in this field (the value will be assigned in the extended rule you add later in this tutorial in the INVOIC file). Therefore, you will prevent this field from being displayed in the screen entry translation object, since users will not need to enter a value in this field.

### About this task

Use this procedure to hide the First Level Sequence Number field.

### Procedure

1. Double-click the **STL SEQA:7** element.
2. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
3. Click **OK** to exit the dialog.

## Customizing the STL CD12:2 Element

The STL CD12:2 element (VAT Rate Category Code) contains the VAT rate category as listed in Code Values List 12. You will create a list box definition for this element to include the VAT rate category code in the VAT Summary list box on the Invoice Details frame. You will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. (The values in this field will be assigned in the extended rule you add later in this tutorial in the INVOIC file.) Also, you will rename the field label.

### About this task

Use this procedure to rename the field label, make this field display-only, and create the list box definition for the VAT Rate Category Code field.

## Procedure

1. Double-click the **STL CD12:2** element.
2. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **VAT Code** to replace the existing text.
3. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the VAT Code field will be displayed in a column in the VAT Summary list box.
  - In the Column Width field, enter **4** to set the width of this column in the VAT Summary list box.
  - From the Sequence drop-down list box, select **1** to indicate that this field will be the first column in the list box.
4. Click **OK** to exit the dialog.

## Customizing the STL VATP:2 Element

The STL VATP:2 element (VAT Rate Percentage) contains the percentage rate for the VAT category code (in the STL CD12:2 element). The EDI data will be formatted in N3 format (formatted with an implicit decimal point and three decimal places), but you want the VAT rate percentage to be displayed in the translation object in R3 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object.

### About this task

You will create a list box definition for this element to include the VAT rate percentage in the VAT Summary list box on the Invoice Details frame. You will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

Use this procedure to change the screen format, make the field display-only, rename the field label, and create the list box definition for the VAT Rate Percentage field.

## Procedure

1. Double-click the **STL VATP:2** element.
2. From the Form Format drop-down list box, select **R3** to indicate that this field will display a number with an explicit decimal point and up to three decimal places.
3. On the **Display** tab, do the following:
  - Select **Displayed but not editable** to make this field display-only.
  - In the Label field, enter **VAT Rate** to replace the existing text.
4. On the **Summary List** tab, do the following:
  - Select **Display this field in summary list**. The value in the VAT Rate field will be displayed in a column in the VAT Summary list box on the Invoice Details frame.
  - In the Column Width field, enter **9** to set the width of this column in the VAT Summary list box.
  - From the Sequence drop-down list box, select **2** to indicate that this field will be the second column in the list box.

5. Click **OK** to exit the dialog.

## Customizing the STL NRIL Element

The STL NRIL element (Number of Item Lines) contains the number of ILD segments with the VAT category code specified in the STL CD12:2 element. You will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

### About this task

Use this procedure to make the field display-only and rename the field label for the Number of Item Lines field.

### Procedure

1. Double-click the **STL NRIL** element.
2. On the **Display** tab, do the following:
  - Select **Displayed but not editable** to make this field display-only.
  - In the Label field, enter **Number of Line Items** to replace the existing text.
3. Click **OK** to exit the dialog.

## Customizing the STL LVLA Element

The STL LVLA element (Lines Sub-Total (Excluding VAT)) contains the subtotal for this line item, before VAT has been applied. The value in this field equals the total of the extended line cost (in the ILD:2 LEXC element) for line items with this VAT category code. The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the lines subtotal (excluding VAT) to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object.

### About this task

You will create a list box definition for this element to include the lines subtotal (excluding VAT) in the VAT Summary list box on the Invoice Details frame. You will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

Use this procedure to change the screen format, make the field display-only, rename the field label, and create the list box definition for the Lines Sub-Total (Excluding VAT) field:

### Procedure

1. Double-click the **STL LVLA** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Displayed but not editable** to make this field display-only.

- In the Label field, enter **Lines Subtotal (Excluding VAT)** to replace the existing text. (Making these slight changes to the field label maintains the consistency of labelling in this form.)
4. On the **Summary List** tab, do the following:
    - Select **Display this field in summary list**. The value in the Lines Subtotal (Excluding Vat) field will be displayed in a column in the VAT Summary list box on the Invoice Details frame.
    - In the Column Width field, enter **12** to set the width of this column in the VAT Summary list box.
    - From the Sequence drop-down list box, select **3** to indicate that this field will be the third column in the list box.
  5. Click **OK** to exit the dialog.

## Customizing the STL EVLA Element

The STL EVLA element (Extended Sub-Total Amount (Excluding VAT)) contains the extended subtotal before the VAT has been applied. In this tutorial, the value in the STL EVLA element equals the value in the STL LVLA element (because we are not using settlement discounts in this tutorial). For this reason, you do not need to display the STL EVLA element (the STL LVLA element will be displayed). Therefore, you will prevent this field from being displayed in the screen entry translation object, since users will not need to enter or view a value in this field (the value will be assigned in the extended rule you add later in this tutorial in the INVOIC file).

### About this task

Use this procedure to hide the Extended Sub-Total Amount (Excluding VAT) field.

### Procedure

1. Double-click the **STL EVLA** element.
2. On the **Display** tab, select **Hidden** to prevent the field from being displayed
3. Click **OK** to exit the dialog.

## Customizing the STL ASDA Element

The STL ASDA element (Extended Sub-Total Amount (After Settlement Discount Has Been Applied)) contains the extended subtotal amount before VAT has been applied. In this tutorial, the value in the STL ASDA element equals the value in the STL EVLA element (which is equal to the STL LVLA element), because we are not using settlement discounts in this tutorial. For this reason, you do not need to display the STL ASDA element (the STL LVLA element will be displayed). Therefore, you will prevent this field from being displayed in the screen entry translation object, since users will not need to enter or view a value in this field (the value will be assigned in the extended rule you add later in this tutorial in the INVOIC file).

### About this task

Use this procedure to hide the Extended Sub-Total Amount (After Settlement Discount Has Been Applied) field.

## Procedure

1. Double-click the **STL ASDA** element.
2. On the **Display** tab, select **Hidden** to prevent the field from being displayed.
3. Click **OK** to exit the dialog.

## Customizing the STL VATA Element

The STL VATA element (VAT Amount Payable) contains the VAT amount at the quoted VAT rate. The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the VAT amount payable to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

### About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the VAT Amount Payable field.

## Procedure

1. Double-click the **STL VATA** element.
2. From the Form Format drop-down list box, select **R2** to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **VAT Amount Payable** to replace the existing text. Making these slight changes to the field label maintains the consistency of labelling in this form.
4. Click **OK** to exit the dialog.

## Customizing the STL APSI Element

The STL APSI element (Payable Sub-Total Amount Including Settlement Discount) contains the amount after VAT has been applied. The value in this element equals the sum of the values in the STL ASDA and STL VATA elements. The EDI data will be formatted in N2 format (formatted with an implicit decimal point and three decimal places), but you want the VAT amount payable to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

### About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the Payable Sub-Total Amount Including Settlement Discount field.

## Procedure

1. Double-click the **STL APSI** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **Payable Subtotal (Inc. Sett. Disc.)** to replace the existing text
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

---

## The TLR Segment

### Customizing the TLR NSTL Element

#### About this task

The TLR segment (Invoice Trailer) contains the total invoice amounts. All monetary values in this segment are in pounds. You will use an extended rule to perform the calculations that will be displayed in the fields in the TLR segment. Screen entry translation object users will be able to view the values in these fields (on the Invoice Details frame), but will not be able to change the values. See The VAT Summary and the Invoice Trailer for details on how to add the appropriate extended rule.

The TLR NSTL element (Number of Total Segments) contains the number of STL segments in the invoice. You do not need to display the this element, as the screen entry translation object users will not need to enter or view a value in this field.

Use this procedure to hide the Number of Total Segments field.

#### Procedure

1. Double-click the **TLR NSTL** element.
2. On the **Display** tab, select **Hidden** to prevent the field from being displayed
3. Click **OK** to exit the dialog.

### Customizing the TLR LVLT Element

The TLR LVLT element (Lines Total Amount (Excluding VAT)) contains the sum of the STL LVLA elements in the preceding STL segments (before VAT is applied). The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the total amount (excluding VAT) to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

#### About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the Lines Total Amount (Excluding VAT) field.

## Procedure

1. Double-click the **TLR LVLT** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **Invoice Amount (Excluding VAT)** to replace the existing text
4. Click **OK** to exit the dialog.

## Customizing the TLR EVLT Element

The TLR EVLT element (Total Extended Amount Ex Settlement Discount) contains the sum of the STL EVLA elements in the preceding STL segments (before VAT is applied). The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the total amount (excluding settlement discount and VAT) to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

### About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the Total Extended Amount Ex Settlement Discount field.

## Procedure

1. Double-click the **TLR EVLT** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **Invoice Amount (Ex. Settlement Disc.)** to replace the existing text
4. Click **OK** to exit the dialog.

## Customizing the TLR ASDT Element

The TLR ASDT element (Total Amount Exc VAT Inc Sett) contains the sum of the STL ASDA elements in the preceding STL segments (before VAT is applied). The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the total amount (excluding settlement discount and VAT) to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

## About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the Total Amount Exc VAT Inc Sett field.

### Procedure

1. Double-click the **TLR ASDT** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **Invoice Amount (Ex. VAT Inc. Sett.)** to replace the existing text
4. Click **OK** to exit the dialog.

## Customizing the TLR TVAT Element

The TLR TVAT element (Total VAT Amount Payable) contains the sum of the STL VATA elements in the preceding STL segments. The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the total amount to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.

## About this task

Use this procedure to change the screen format, make the field display-only, and rename the field label for the Total VAT Amount Payable field.

### Procedure

1. Double-click the **TLR TVAT** element.
2. On the **Validation** tab, select **R2** from the Form Format drop-down list box to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **VAT Total** to replace the existing text
4. Click **OK** to exit the dialog.

## Customizing the TLR TPSI Element

The TLR TPSI element (Total Payable Inc. Settlement) contains the sum of the STL APSI elements in the preceding STL segments. The EDI data will be formatted in N2 format (formatted with an implicit decimal point and two decimal places), but you want the total amount to be displayed in the translation object in R2 format (formatted with an explicit decimal point). Therefore, you will change the screen format to reflect how you want the amount to be formatted in the translation object. In addition, you will make this field display-only, as the screen entry translation object users who use this invoice translation object should be able to view, but not change, the value in this field. Also, you will rename the field label.



## About this task

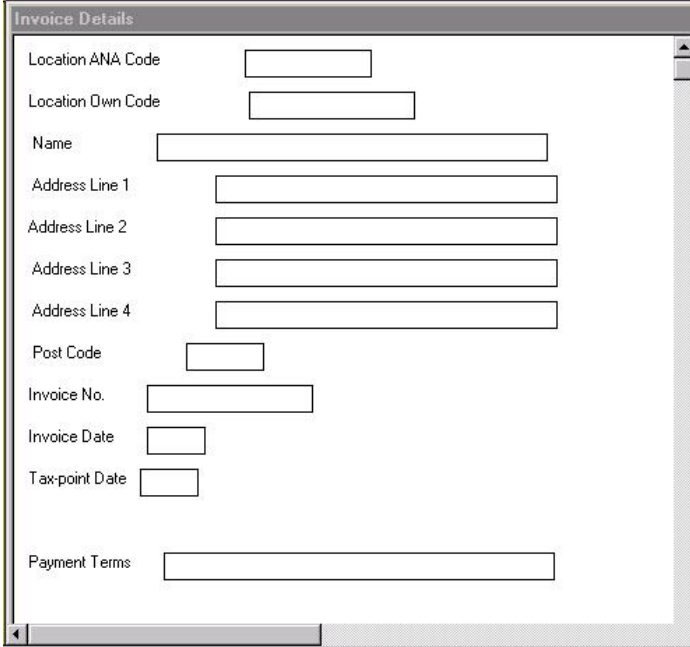
Use this procedure to change the screen format, make the field display-only, and rename the field label for the Total Payable Inc. Settlement field.

## Procedure

1. Double-click the **TLR TPSI** element.
2. From the Screen Format drop-down list box, select **R2** to indicate that this field will display a number with an explicit decimal point and up to two decimal places.
3. On the **Display** tab, do the following:
  - Select **Display** to make this field display-only.
  - In the Label field, enter **Total Invoice Amount (Inc. Sett. Disc.)** to replace the existing text
4. Click **OK** to exit the dialog.
5. Click **Generate Layout** on the Main Toolbar to refresh the display.

## Results

The section of the Invoice Details frame that contains the fields in the TLR segment now should look like this:



The screenshot shows a window titled "Invoice Details" with a scrollable area containing the following fields:

- Location ANA Code:
- Location Own Code:
- Name:
- Address Line 1:
- Address Line 2:
- Address Line 3:
- Address Line 4:
- Post Code:
- Invoice No.:
- Invoice Date:
- Tax-point Date:
- Payment Terms:

---

## The VAT Summary and the Invoice Trailer

Now that you have customized the individual elements in the invoice, one last customizing task remains: to produce the VAT summary and invoice trailer. The VAT summary and invoice trailer calculations include calculating the totals for the invoice for each of the different VAT rates and grouping the totals by VAT rate. To produce the VAT summary calculations for the invoice, you will use an extended rule to define operations with the Sterling Gentran:Server proprietary programming language.

There are two sections for extended rules: a declarations section and a statements section. The declarations section is used to declare the names and types of any variables you will use. The statements section is where you define the operations that you want the rule to execute. Within the statements section, you can leave blank lines to visually separate portions of an extended rule. (Blank lines are used more often in complex extended rules, rather than in simple one- or two-line extended rules.) Leaving a blank line does not affect the execution of extended rules.

As you define the operations for the VAT summary calculations, you will enter many lines of rules in the Loop Level Extended Rules dialog. This section describes each of the individual operations that you will define, and explains what you should enter in order to execute each operation.

**Note:** As an alternative to entering the extended rule yourself, you may copy the extended rule from the example form provided with the tutorial data in the C:\GENSRVNT\TUTORIALS subfolder.

You will define the VAT summary and invoice trailer calculations on the INVOIC group so that the calculations are run when the screen entry translation object users in Sterling Gentran:Server either calculates or saves the file. After Sterling Gentran:Server stores the data in the fields, the system will run the calculations and store them in the appropriate VAT summary and invoice trailer fields. The extended rule will be used with the On Store function so the system will perform the calculations last, after the group is stored.

## Defining the Operations for the VAT Summary

### About this task

Use this procedure to access the Loop Level Extended Rules dialog to define the operations for the VAT summary calculations.

### Procedure

1. Right-click the **INVOIC EDI file** icon and select **Extended Rules**.
2. Select **On Store** to indicate that you want the rule to be executed when you save or recalculate the screen entry translation object. When the screen entry users save or recalculate the Invoice Details frame in Sterling Gentran:Server, all On Store extended rules in the Loop Level Extended Rules dialog will be executed.

## Declaring Variables

Before you begin defining any operations in the statements section of the extended rule, you must first define the variables that you will use in the extended rule. Variables consist of a name and a data type, and are used to store values.

### About this task

For this extended rule, you will use these four variables (all of which have a data type of integer).

- **i** (temporary variable assigned any value you define in the extended rule)
- **j** (another temporary variable assigned any value you define in the extended rule)
- **ildlimit** (temporary variable that contains the number of ILD segments)

- **stllimit** (temporary variable that contains the number of STL segments)

Use this procedure to declare the four integer variables listed above.

### Procedure

1. On the first line in the Editor list box, enter the following declaration:  

```
integer i,j,ildlimit,stllimit;
```
2. Press **Enter** twice to insert a blank line after the declarations section.

**Note:** It is not necessary to include a blank line after the declaration and statement sections. However, doing so may improve readability of the extended rule.

### What to do next

You are now ready to define the statements section of the extended rule.

## Counting the STL Segments and Deleting them

The STL segment is a repeating segment, so there is one STL segment for each VAT code used in the invoice. You want Sterling Gentran:Server to count the STL segments used in the invoice (the value from counting the STL segments will be placed in variable "i"). Next, you want the system to visit each STL segment and delete the segment. The reason you want the system to delete the STL segments is that the system makes the assumption that the form has been modified and, therefore, deletes the STL segments to reset the form before performing any calculations relating to the STL segments. Finally, you want the system to initialize the value of the last STL segment to zero.

### About this task

Use this procedure to define a statement that counts the STL segments and deletes them, then initializes the value of the last STL to zero.

### Procedure

1. On the next line in the Editor list box, enter the following statement:  

```
i=count($STL[*]);  
while i > 0 do  
begin  
  delete($STL[i]);  
  i=i-1;  
end  
stllimit = 0;
```
2. Press **Enter** twice to insert a blank line after the statement.

## Counting the ILD Groups

The ILD group is a repeating group, so there is one ILD group for each line item in the invoice. You want Sterling Gentran:Server to count the ILD groups used in the invoice (the value from counting the ILD groups will be placed in variable "ildlimit").

### About this task

Use this procedure to define a statement that counts the ILD groups.

## Procedure

1. On the next line in the Editor list box, enter the following statement:  
`ildlimit = count($ILD[1][*]);`
2. Press **Enter** twice to insert a blank line after the statement.

## Compatible VAT Codes in the STL Segments

Now that Sterling Gentran:Server has counted (and deleted) the STL segments and counted the ILD groups in the invoice, you want the system to determine which VAT code is used for each line item (each instance of the ILD group). Next, you want to group the line items that use the same VAT code so you can determine the VAT rate percentage (based on each VAT code) and then calculate the total VAT payable for each group of line items.

If the system finds a VAT code that is the same in both an ILD group and an STL segment (compatible VAT codes), then you want the system to execute the following operations:

- Add the extended line cost (ILD:2 LEXC element) into the lines subtotal (ILD:2 LVLA element) to add the line item from the ILD group to the compatible STL segment
- Increment a counter in the STL segment of how many of the existing ILD segments are compatible with that STL segment

If the system does not find an STL segment with the same VAT code as the ILD group it is visiting, then it executes the following operations:

- Creates an STL segment with the VAT code of the current ILD group
- Sets the number of STL segments (STL SEQA:7 element) to be the number of the last STL segment (the current segment, which was just created)
- Sets the VAT rate percentage of the STL segment (STL VATP:2 element) to equal the VAT rate percentage of the ILD group (ILD:2 VATP element)
- Sets the VAT code of the STL segment (STL CD12:2 element) to equal the VAT code of the ILD group (ILD:2 CD12 element)
- Sets the lines subtotal of the STL segment (STL LVLA element) to be the extended line cost of the ILD group (ILD:2 LEXC element)
- Sets the number of line items to be "1" (STL NRIL element)
- Sets the number of STL segments to be the number of the current STL segment (which was just created)

Finally, you want the system to repeat the process described above (finding compatible VAT codes in the STL segments and ILD segments) until it has no more ILD groups to count (each line item has been assessed).

## Grouping Line Items

### About this task

Use this procedure to define a statement that groups line items with the same VAT code.

### Procedure

1. On the next line in the Editor list box, enter the following statement:  
`i=1;△  
while i <= ildlimit do△  
begin△`

```

j=1;
while j <= stllimit do△
begin△
if $ILD[1][i].#CD12 = $STL[j].#CD12:2 then△
begin△
$STL[j].#LVLA = $STL[j].#LVLA + $ILD[1][i].#LEXC;
$STL[j].#NRIL = $STL[j].#NRIL + 1;△
break;△
end△
j=j+1;△
end△
if j > stllimit then△
begin△
$STL[j].#SEQA:7 = j;△
$STL[j].#VATP:2 = $ILD[1][i].#VATP;△
$STL[j].#CD12:2 = $ILD[1][i].#CD12;△
$STL[j].#LVLA = $ILD[1][i].#LEXC;△
$STL[j].#NRIL = 1;△
stllimit = stllimit + 1;△
end△
i=i+1;△
end

```

2. Press **Enter** twice to insert a blank line after the statement.

**Note:** It is not necessary to include a blank line after this statement. However, doing so may improve readability of the extended rule.

## How to Calculate the VAT Amount and Produce the Invoice Trailer

Up to this point, the extended rule you have defined instructs Sterling Gentran:Server to calculate the totals for the invoice for each of the different VAT rates. Now you will define a rule that calculates the total VAT amount and produces the invoice trailer.

First, the system will initialize the lines total amount (TLR LVL element) and the total VAT amount payable (TLR TVAT element) to zero. Next, the system will perform the following calculations for every STL segment:

- Set the VAT amount payable (STL VATA element) equal to the product of the lines subtotal (STL LVLA element) and the VAT rate percentage (STL VATP:2 element), divided by one hundred (to calculate the VAT payable).
- Set the extended subtotal amount (STL EVLA element) equal to the lines subtotal (STL LVLA element), because you are not using settlement discounts in this tutorial.
- Set the extended subtotal amount (STL ASDA element) equal to the lines subtotal (STL LVLA element), because you are not using settlement discounts in this tutorial.
- Set the payable subtotal amount (STL APSI element) equal to the sum of the lines subtotal (STL LVLA element) and the VAT amount payable (STL VATA element).
- Set the lines total amount (TLR LVL element) equal to the sum of the lines total amount (TLR LVL element) and the extended subtotal amount (STL EVLA element).
- Set the total VAT amount payable (TLR TVAT element) equal to the sum of the total VAT amount payable (TLR VATA element) and the VAT amount payable (STL VATA element).

Finally, you want the system to repeat the calculations described above until all STL segments have been processed.

## Grouping Invoice Totals

### About this task

Use this procedure to define a statement that groups the invoice totals by VAT rate.

### Procedure

1. On the next line in the Editor list box, enter the following statement:

```
#LVLТ = 0;△  
#TVAT = 0;△  
j=1;△  
while j <= stllimit do△  
begin△  
  $STL[j].#VATA = ($STL[j].#LVLA * $STL[j].#VATP:2) / 100.0;△  
  $STL[j].#EVLA = $STL[j].#LVLA;  
  $STL[j].#ASDA = $STL[j].#LVLA;△  
  $STL[j].#APSI = $STL[j].#LVLA + $STL[j].#VATA;△  
  
  △ #LVLТ = #LVLТ + $STL[j].#LVLA;△  
  #TVAT = #TVAT + $STL[j].#VATA;△  
  
  △ j=j+1;△  
end
```

2. Press **Enter** twice to insert one blank line after the statement.

**Note:** It is not necessary to include a blank line after this statement. However, doing so may improve readability of the extended rule.

## Trailer Calculations

The final operation that Sterling Gentran:Server will execute when processing the extended rule is to calculate the line value total and VAT. You want the system to perform these calculations:

- Set the number of total segments (TLR NSTL element) equal to the count of STL segments.
- Set the total extended amount (TLR EVLT element) equal to the lines total amount (TLR LVLТ element).
- Set the total amount (TLR ASDT element) equal to the lines total amount (TLR LVLТ element).
- Set the total amount payable (TLR TPSI element) equal to the sum of the lines total amount (TLR LVLТ element) and the total VAT amount payable (TLR TVAT element).

To calculate the line value total and VAT, on the next line in the Editor list box, enter the following statement:

```
#NSTL = stllimit;△  
#EVLT = #LVLТ;△  
#ASDT = #LVLТ;△  
#TPSI = #LVLТ + #TVAT;
```

## Extended Rule for the INVOIC Group

Now that you have entered the entire extended rule that will be processed for the INVOIC group, your extended rule should look like this:

```

integer i,j,ildlimit,stllimit;

i=count($STL[*]);
while i > 0 do△
begin△
  delete($STL[i]);△
  i=i-1;△
end△
stllimit = 0;△

ildlimit = count($ILD[1][*]);△

i=1;△
while i <= ildlimit do△
begin△
  j=1;△
  while j <= stllimit do△
begin△
  if $ILD[1][i].#CD12 = $STL[j].#CD12:2 then△
begin△
  $STL[j].#LVLA = $STL[j].#LVLA + $ILD[1][i].#LEXC;△
  $STL[j].#NRIL = $STL[j].#NRIL + 1;△
break;△
end△
j=j+1;△
end△
if j > stllimit then△
begin△
  $STL[j].#SEQA:7 = j;△
  $STL[j].#VATP:2 = $ILD[1][i].#VATP;△
  $STL[j].#CD12:2 = $ILD[1][i].#CD12;△
  $STL[j].#LVLA = $ILD[1][i].#LEXC;△
  $STL[j].#NRIL = 1;△
  stllimit = stllimit + 1;△
end△
i=i+1;△
end
end

#LVLT = #TVAT = 0;△
j=1;△
while j <= stllimit do△
begin△
  $STL[j].#VATA = ($STL[j].#LVLA * $STL[j].#VATP:2) / 100.0;△
  $STL[j].#EVLA = $STL[j].#LVLA;△
  $STL[j].#ASDA = $STL[j].#LVLA;△
  $STL[j].#APSI = $STL[j].#LVLA + $STL[j].#VATA;

△△ #LVLT = #LVLT + $STL[j].#LVLA;△
   #TVAT = #TVAT + $STL[j].#VATA;△

△ j=j+1;△
end△△

#NSTL = stllimit;△
#EVL = #LVLT;△
#ASDT = #LVLT;△
#TPSI = #LVLT + #TVAT;

```

## Compiling the Extended Rule

Now that you have entered the extended rule to perform all the INVOIC group-level calculations for the invoice, you should compile the extended rule to verify that you have entered the rule correctly.

## About this task

Use this procedure to compile the extended rule.

### Procedure

1. Click **Compile** to compile the extended rule.

**Note:** If you receive any errors or warnings when you compile the rule, verify that you entered the rule exactly as it is written in this tutorial. After you make any changes to the extended rule to correct it, click **Compile** again. Repeat this process until there are no errors generated.

2. Click **OK** to add the extended rule to the form and exit the Loop Level Extended Rules dialog.
3. Save the form.



---

## Chapter 11. Customizing Screen Entry Forms for TRADACOMS

---

### Resizing the Invoice Frame

When a form is compiled into a translation object, the fields are arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

#### About this task

**Important:** When you resize the frames of a screen entry form, you must resize based on the resolution of the target monitor (for example, the monitor on which the end user views the translation object).

Use this procedure to resize the Invoice frame.

#### Procedure

1. Click the invoice file icon to display the Invoice frame in the Layout Window.

**Note:** When the form is generated, the upper left corner of each frame in the form is placed in the upper left corner of the Layout Window.

2. To display more of the form on your screen, click and drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want to view.
3. To resize the Invoice frame, click and drag the right side of the frame approximately to the 14 cm. mark on the horizontal ruler so that the form is wide enough to format the fields according to the instructions in this tutorial.

---

### Fields on the Invoice Frame

You begin formatting the screen entry form by arranging the fields on the Invoice frame. You place the fields in the translation object in a logical order, then align the fields to give the frame a consistent and orderly appearance.

By default, each field and its associated label are displayed on their own line. However, it is common for invoices to place two or more fields on a line.

You prevented some of the field labels from being displayed (by removing the field label in the Label field of the Display dialog). For these fields, the fields are displayed on your screen entry form, but their associated labels are not displayed.

## ANSI X12

The Invoice frame now should look like this:

The screenshot shows a window titled "invoice" with a dotted background. It contains several input fields for data entry:

- Invoice Date: [ ]
- Invoice No.: [ ]
- P.O. Date: [ ]
- P.O. No.: [ ]
- Contract No.: [ ]
- Ship To: [ ]
- Remit To: [ ]

There are also several empty lines and a small square checkbox below the "Ship To" field.

## EDIFACT

The Invoice Message frame now should look like this:

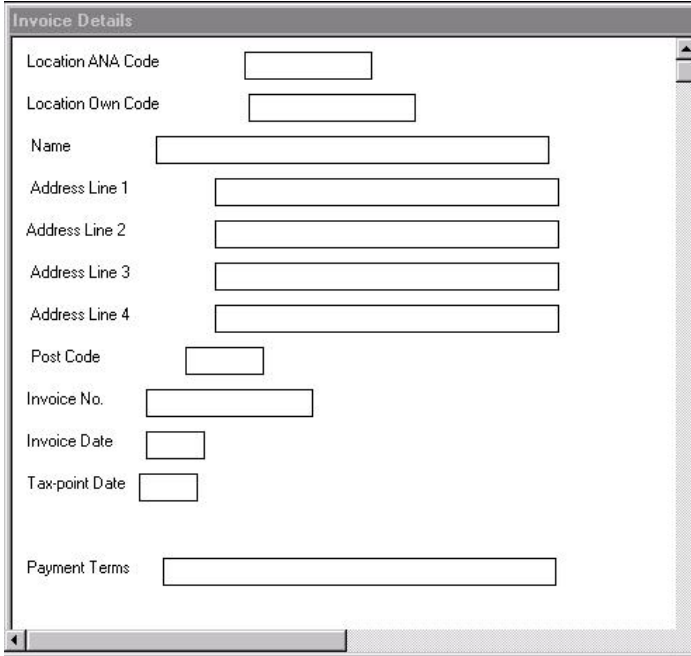
The screenshot shows a window titled "Invoice Message" with a dotted background. It contains several input fields for data entry:

- Invoice No.: [ ]
- Invoice Date: [ ]
- P.O. No.: [ ]
- P.O. Date: [ ]
- Contract No.: [ ]
- Contract Date: [ ]
- Ship To: [ ]

There are also several empty lines below the "Ship To" field.

## TRADACOMS

The Invoice Details frame now should look like this:



The screenshot shows a window titled "Invoice Details" containing the following fields:

- Location ANA Code
- Location Own Code
- Name
- Address Line 1
- Address Line 2
- Address Line 3
- Address Line 4
- Post Code
- Invoice No.
- Invoice Date
- Tax-point Date
- Payment Terms

---

## Arranging Fields

### Rearranging the Fields

#### About this task

Use this procedure to resize, move, and align the fields on the Invoice Details frame of the screen entry form:

#### Procedure

1. Select the following fields and select **Display > Size to Length**.

- Location Own Code
- Name
- Invoice Date
- Tax-point Date
- P.O. Date
- Delivery Date

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

2. Select each field in the form individually and drag it closer to its respective label.
3. Select all of the items (fields, field labels, list boxes) on the frame and drag them a few centimetres lower on the frame. You will be arranging the fields at the top of the frame, so moving the fields and field labels out of the way initially will give you room to work with at the top of the frame.

4. Click **Lock Labels** on the Main Toolbar to turn on the **Lock Labels** function. When you select a field, its corresponding field label will be selected also.
5. Drag the **Invoice No.** label and field to the upper left corner of the Invoice Details frame. (Their field labels will be selected, too, because you have the Lock Labels function turned on.)
6. Drag the **Invoice Date** label and field to the upper right corner of the Invoice Details frame (at approximately 8 cm on the horizontal ruler).
7. Drag the **Tax-point Date** label and field under the Invoice Date label and field.
8. Drag the **Customer's P.O. No.** label and field under the Invoice No. label and field (but not on the same line as the Tax-point Date label and field).
9. Drag the **P.O. Date** label and field below the Tax-point Date label and field.
10. Drag the **Delivery Note Number** label and field below the Customer's P.O. No. label and field.
11. Drag the **Delivery Date** label and field below the P.O. Date label and field.
12. Drag the **Location ANA Code** label and field below the Delivery Note Number label and field (and indented about half a centimetre).

**Note:** You will add static text later in this tutorial to label all the fields providing customer details. Therefore, leave extra space between the Delivery Note Number and Delivery Date labels and fields, and the Location ANA Code and Location Own Code labels and fields, to insert the static text between them.

13. Drag the **Location Own Code** label and field to the right of the Location ANA Code label and field (at approximately 7 cm on the horizontal ruler).
14. Select the following fields and labels and drag them below the Location ANA Code label and field:
  - Name
  - Address Line 1
  - Address Line 2
  - Address Line 3
  - Address Line 4
  - Post Code
15. Drag the **Payment Terms** label and field below the Post Code field. (The left margin of the Payment Terms label should be aligned with the left margin of the Delivery Note Number label.)

**Note:** Leave extra space between the Post Code field and label, and the Payment Terms field and label, to designate the end of the Customer Details section.

16. Drag the **Invoice Notes** label and fields (there are four fields, three of which are unlabeled) below the Payment Terms label and field.
17. Drag the **Line Items** label and list box below the fourth Invoice Notes field (the second, third, and fourth Invoice Notes fields are unlabeled).

**Note:** Leave extra space above the Line Items field and list box to add column headings (using static text) to label the data in the list box.

18. Drag the right or left handle on the **Line Items** list box until the list box is approximately 11.25 cm wide. The list box must be at least 11.25 cm wide to be able to display all of the summary list data.

19. Drag the **VAT Summary** label and list box below the Line Items label and list box.  
  
**Note:** Leave extra space above the VAT Summary field and list box to add column headings (using static text) to label the data in the list box.
20. Drag the right or left handle on the **VAT Summary** list box until the list box is approximately 4.5 cm wide. The list box must be approximately 4.5 cm wide to display all of the summary list data appropriately.
21. Select the following fields and labels and drag them below the VAT Summary list box (so the fields and labels are approximately centred horizontally on the frame):
  - Invoice Amount (Excluding VAT)
  - Invoice Amount (Ex. Settlement Disc.)
  - Invoice Amount (Ex. VAT Inc. VAT)
  - VAT Total
  - Total Invoice Amount (Inc. Sett. Disc.)
22. Click **Lock Labels** on the Main Toolbar to turn off the **Lock Labels** function.

## Aligning the Fields and Labels

Now that the fields in the Invoice Details frame are resized and moved to their proper locations, you can align the fields and labels.

### About this task

Use this procedure to align the fields and field labels on the Invoice Details frame.

### Procedure

1. Select the following labels and select **Display > Align Controls > Left**.
  - Invoice No.
  - Customer's P.O. No.
  - Delivery Note Number
  - Payment Terms
  - Invoice Notes
  - Line Items
  - VAT SummaryThe left margins of the selected field labels are aligned.
2. Select the following labels and select **Display > Align Controls > Left**.
  - Invoice Date
  - Tax-point Date
  - P.O. Date
  - Delivery Date
3. Select the following labels and select **Display > Align Controls > Left**.
  - Location ANA Code
  - Name
  - Address Line 1
  - Address Line 2
  - Address Line 3
  - Address Line 4

- Post Code
4. Select the following labels and select **Display > Align Controls > Left**.
    - Invoice Amount (Excluding VAT)
    - Invoice Amount (Ex. Settlement Disc.)
    - Invoice Amount (Ex. VAT Inc. Sett.)
    - VAT Total
    - Total Invoice Amount (Inc. Sett. Disc.)
  5. Select the following fields and select **Display > Align Controls > Left**.
    - Invoice No.
    - Customer's P.O. No.
    - Delivery Note Number
    - Name
    - Address Line 1
    - Address Line 2
    - Address Line 3
    - Address Line 4
    - Post Code
    - Location ANA Code

**Note:** Select the Location ANA Code field last so it is the reference. The reference is the item (field, field label, list box, or static text) relative to which all other selected items are formatted. The reference is indicated by an outline of diagonal lines, whereas all other selected items are outlined by a solid line. The last item selected in a group of selected items is the reference.

6. Select the Line Items and VAT Summary list boxes and select **Display > Align Controls > Left**.  
Select the VAT Summary field last so it is the reference.
7. Select the following fields and select **Display > Align Controls > Left**.
  - Invoice Date
  - Tax-point Date
  - P.O. Date
  - Delivery Date

**Note:** Select the Tax-point Date field last so it is the reference.

8. Select the following fields and select **Display > Align Controls > Left**.
  - Payment Terms
  - Invoice Notes (all four fields)

**Note:** Select the Payment Terms field last so it is the reference.

9. Select the following fields and select **Display > Align Controls > Left**.
  - Invoice Amount (Excluding VAT)
  - Invoice Amount (Ex. Settlement Disc.)
  - Invoice Amount (Ex. VAT Inc. Sett.)
  - VAT Total
  - Total Invoice Amount (Inc. Sett. Disc.)

**Note:** Select the Total Invoice Amount (Inc. Sett. Disc.) field last so it is the reference.

10. To align the tops of all of the field labels, fields, and list boxes, select each row of items (one row at a time). Then select **Display > Align Controls > Top**. The items in each row are listed below:
- Invoice No. label and field, Invoice Date label and field
  - Tax-point Date label and field
  - Customer's P.O. No. label and field, P.O. Date label and field
  - Delivery Note Number label and field, Delivery Date label and field
  - Location ANA Code label and field, Location Own Code label and field
  - Name label and field
  - Address Line 1 label and field
  - Address Line 2 label and field
  - Address Line 3 label and field
  - Address Line 4 label and field
  - Post Code label and field
  - Payment Terms label and field
  - Invoice Notes label and field (first Invoice Notes field only)
  - Line Items label and list box
  - VAT Summary label and list box
  - Invoice Amount (Excluding VAT) label and field
  - Invoice Amount (Ex. Settlement Disc.) label and field
  - Invoice Amount (Ex. VAT Inc. Sett.) label and field
  - VAT Total label and field
  - Total Invoice Amount (Inc. Sett. Disc.) label and field

## Results

The Invoice Details frame now should look like this:

The screenshot shows a window titled "Invoice Details" with a dotted background. It contains several sections of input fields:

- Invoice Information:** Invoice No., Invoice Date, Taxpoint Date.
- Customer Information:** Customer's P.O. No., P.O. Date, Delivery Note Number, Delivery Date.
- Location Information:** Location AHA Code, Location Own Code.
- Address Information:** Name, Address Line 1, Address Line 2, Address Line 3, Address Line 4, Post Code.
- Payment Terms:** A single text input field.
- Invoice Notes:** Four stacked text input fields.
- Line Items:** A list box with a scroll bar and a small table icon on the right.
- VAT Summary:** A list box with a scroll bar and a small table icon on the right.

## Adding the Customer Details Label

### About this task

You need to add static text (text that is always included in the screen entry template) to the Invoice Details frame to do the following:

- Label the area of the frame containing customer detail fields
- Add column headings to the Line Items list box
- Add column headings to the VAT Summary list box

When you moved the fields on the frame, you already left space in the appropriate locations for the static text. In this section of the tutorial, you will add the static text and move it to the proper locations in the frame.

Use this procedure to add static text that will label the group of customer detail fields on the frame.

### Procedure

1. Click **Add Text** on the Main Toolbar. Text is added to the current frame, displayed in the upper left corner of the frame. If the template is larger than



the frame (there is a scroll bar on the right side of the frame), the static text is displayed in the upper left corner of the part of the template that is displayed, not at the top of the template.

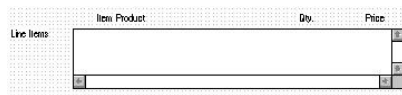
2. In the new text field, enter **CUSTOMER DETAILS**, all in capital letters. The Text Properties dialog is displayed as you are typing. Click **OK** to add the text. The text you added is displayed in the upper left corner of the frame.
3. Select the **CUSTOMER DETAILS** static text and drag it below the Delivery Note Number label and field (The left margin of the static text should be aligned with the left margin of the Delivery Note Number label.).

## Adding Column Headings to the Line Items List Box

Sterling Gentran:Server labels the fields on the Line Items frame but does not label the column headings for the Line Items list box on the Invoice Details frame. The Line Items list box displays the information entered into the fields on the Line Items frame. To label the columns in the Line Items list box, you must add the column headings with static text.

### About this task

After you add the column headings and move each column heading to its proper location, the Line Items list box and the column headings should look like this:



Use this procedure to add and position the column headings.

### Procedure

1. Click **Add Text** on the Main Toolbar. Text is added to the current frame, displayed in the upper left corner of the frame. If the template is larger than the frame (there is a scroll bar on the right side of the frame), the static text is displayed in the upper left corner of the part of the template that is displayed, not at the top of the template.
2. In the new text box, enter **Item** and click **OK**.
3. Click **Add Text** on the Main Toolbar and enter **Product** in the text box and click **OK**.
4. Click **Add Text** and enter **Qty.** in the text box and click **OK**.
5. Click **Add Text** and enter **Price** in the text box and click **OK**.
6. The column headings you added are displayed in the upper left corner of the frame.
7. Drag the **Item** static text to above the Line Items list, starting about 1 cm from the left margin of the Line Items list.
8. Drag the **Product** static text to above the Line Items list, to the right of the Item column heading.
9. Drag the **Qty.** static text to above the Line Items list, , nearly 8 cm. from the left margin of the list box.
10. Drag the **Price** static text to above the Line Items list, near the right margin of the list box.

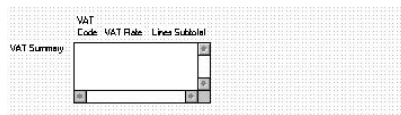
11. To ensure that the column headings (static text) you just added are aligned properly, select all the static text you just added (Item, Qty., Product, Price). Select **Display > Align Controls > Top**.

## Adding Column Headings to the VAT Summary List Box

Sterling Gentran:Server labels the fields on the VAT Summary frame, but does not label the column headings for the VAT Summary list box on the Invoice Details frame. The VAT Summary list box displays the information entered into the fields on the Line Items frame. To label the columns in the VAT Summary list box, you must add the column headings with static text.

### About this task

After you add the column headings and move each column heading to its proper location, the VAT Summary list box and the column headings should look like this:



Use this procedure to add and position the column headings.

### Procedure

1. Click **Add Text**.
2. In the new text field, enter **Code**. Click **OK** to add the text.
3. Drag it to above the VAT Summary list box, immediately to the right of the left margin of the VAT Summary list box (refer to the example above).
4. Click **Add Text**.
5. In the new text field, enter **VAT**. Click **OK** to add the text.
6. Drag it to above the "Code" static text.
7. Click **Add Text**.
8. In the new text field, enter **VAT Rate**. Click **OK** to add the text.
9. Drag it to above the VAT Summary list box, about 1 cm from the left margin of the list box.
10. Click **Add Text**.
11. In the new text field, enter **Lines Subtotal**. Click **OK** to add the text.
12. Drag it to above the VAT Summary list box, nearly to the right margin of the list box.
13. To ensure that the column headings (static text) you just added are aligned properly, select the following static text and select **Display > Align Controls > Top**.
  - Code
  - VAT Rate
  - Lines Subtotal
14. Select the **VAT** and **Code** static text and select **Display > Align Controls > Left**.

## Setting the Tab Sequence on the Invoice Details Frame

The tab sequence is the order in which the cursor moves from field to field in the screen entry translation object when a user presses Tab. When you create a screen entry form, the system automatically positions the fields and sets the tab sequence for those fields. However, you usually will want to modify the tab sequence of the fields to meet your screen entry requirements and the new positions of the fields on the frame.

### About this task

**Note:** If you click a field out of sequence, you must begin setting the tab sequence again. To start over, select **Display > Set Tab Order** so the tab sequence numbers are no longer displayed in the fields on the frame. Then begin the steps again. When you click the last field in the sequence, the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

Use this procedure to set the tab sequence for the fields on the Invoice Details frame.

### Procedure

1. Select **Display > Set Tab Order**. Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field will change to the next sequential number in the tab sequence.
  - a. Invoice No.
  - b. Invoice Date
  - c. Tax-point Date
  - d. Customer's P.O. No.
  - e. P.O. Date
  - f. Delivery Note Number
  - g. Delivery Date
  - h. Location ANA Code
  - i. Location Own Code
  - j. Name
  - k. Address Line 1
  - l. Address Line 2
  - m. Address Line 3
  - n. Address Line 4
  - o. Post Code
  - p. Payment Terms
  - q. Invoice Notes (first field)
  - r. Invoice Notes (second field, unlabeled)
  - s. Invoice Notes (third field, unlabeled)
  - t. Invoice Notes (fourth field, unlabeled)
  - u. Line Items
  - v. VAT Summary
  - w. Invoice Amount (Excluding VAT)
  - x. Invoice Amount (Ex. Settlement Disc.)

- y. Invoice Amount (Ex. VAT Inc. Sett.)
- z. VAT Total
- aa. Total Invoice Amount (Inc. Sett. Disc.)

---

## Fields on the Line Item Frame

### Fields on the Line Items Frame

Now that the fields, labels, and static text are arranged on the Invoice Details frame, you are ready to arrange the fields on the Line Items frame. You will place the fields in a logical order, then align the fields (as you did with the fields on the Invoice Details frame) to give the frame a consistent and orderly appearance.

When you finish arranging the fields, the Line Items frame in your form should look like the one in the example below.

The screenshot shows a window titled "Line Items" with a grid background. The fields are arranged as follows:

- Item No. (text box)
- EAN Code (text box)
- Supplier's Product Code (text box)
- Customer's Product Code (text box)
- Quantity (text box)
- Unit of Measure (text box with a dropdown arrow)
- Unit Price (Ex. VAT) (text box)
- VAT Code (text box with a dropdown arrow)
- Description (text box)

### Resizing the Line Items Frame and Fields

Before you begin arranging the fields on the Line Items frame, you should resize the frame so that it is the same width as the Invoice Details frame. When this form is compiled into a translation object, the fields will be arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

#### About this task

Use this procedure to resize the line items frame and fields.

#### Procedure

1. Click the **ILD** group to display the Line Items frame in the Layout Window.
2. To resize the Line Items frame, click and drag the right side of the frame to the 14 cm mark on the ruler.
3. To display more of the form on your screen, drag the center bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want.
4. Select the following fields and select **Display > Size to Length**.
  - Item No.
  - Quantity

The selected fields are resized to the lengths specified in the Maximum number of characters box of the Display dialog for each field.

## Moving and Aligning the Fields

### About this task

Use this procedure to move and align the fields on the Line Items frame of the screen entry form.

### Procedure

1. Select the **Unit of Measure** field and drag its bottom handle so that the field is long enough for four codes to be displayed in it when the drop-down part of the drop-down list is open (approximately 2 cm on the vertical ruler).
2. Select the **VAT Code** and **Unit of Measure** fields (in that order) and select **Display > Size Equally**.

#### Notes:

- Select the Unit of Measure field last, so that it is the reference.
  - The Unit of Measure and VAT Code drop-down list boxes have slightly different appearances. When Exclusive is selected (in the Advanced section of the Field Properties dialog), the text box is attached to the drop-down arrow. When Exclusive is not selected, there is a gap between the text box and the drop-down arrow.
3. Select each field and list box on the frame individually and move it closer to its respective label.
  4. Click **Lock Labels** on the Main Toolbar to turn on the **Lock Labels** function. When you select a field, its corresponding field label will be selected also.
  5. Drag the **Item No.** label and field to the upper left corner of the frame.
  6. Select the **EAN Code** label and field and drag them to the upper right corner of the frame.
  7. Drag the following fields and labels below the Item No. label and field:
    - Supplier's Product Code
    - Customer's Product Code
    - Quantity
  8. Drag the **Unit of Measure** label and list box to the right of the Quantity label and field.
  9. Drag the **Unit Price** (Ex. VAT) label and field below the Quantity label and field.
  10. Drag the **VAT Code** label and field under the Unit of Measure label and list box.
  11. Drag the **Description** label and field below the Unit Price (Ex. VAT) label and field.
  12. Click **Lock Labels** on the Main Toolbar to turn off the Lock Labels function.

## Resizing the Line Items Frame

### About this task

Use this procedure to resize the Line Items frame.

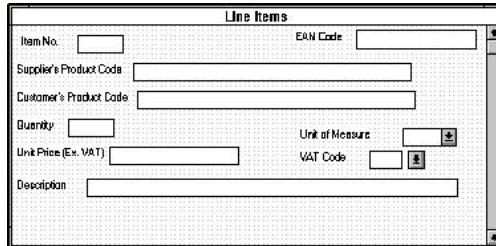
### Procedure

To resize the Line Items frame, click and drag the bottom of the frame to below the Description label and field.

**Note:** Allow enough space between the Description label and field, and the bottom of the frame, for the VAT Code drop-down list box to be opened.

## Results

The Line Items frame now should look like this:



The screenshot shows a window titled "Line Items" with the following fields and labels:

- Item No. [text box]
- Supplier's Product Code [text box]
- Customer's Product Code [text box]
- Quantity [text box]
- Unit Price (Ex. VAT) [text box]
- Description [text box]
- EAN Code [text box]
- Unit of Measure [dropdown menu]
- VAT Code [dropdown menu]

## Aligning the Fields and Field Labels

### About this task

Use this procedure to align the fields and field labels on the Line Items frame.

### Procedure

1. Select the following labels and select **Display > Align Controls > Left**.

- Item No.
- Supplier's Product Code
- Customer's Product Code
- Quantity
- Unit Price (Ex. VAT)
- Description

**Note:** The left margins of the selected field labels are aligned.

2. Select the following fields and select **Display > Align Controls > Left**.

- Item No.
- Supplier's Product Code
- Quantity
- Unit Price (Ex. VAT)
- Customer's Product Code

**Note:** Select the Customer's Product Code field last so it is the reference.

3. Select the following labels and select **Display > Align Controls > Left**.

- EAN Code
- Unit of Measure
- VAT Code

4. Select the following items and select **Display > Align Controls > Left**.

- EAN Code
- Unit of Measure
- VAT Code

**Note:** Select the Unit of Measure list box last so it is the reference.

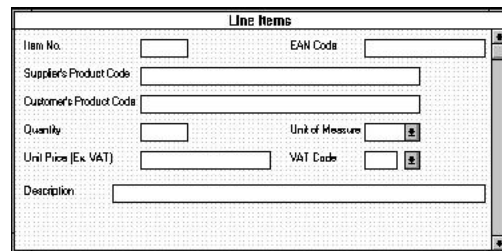
5. Select the **Description** and **EAN Code** fields and select **Display > Align Controls > Right**.

**Note:** Select the EAN Code field last so it is the reference.

6. Select each row of items (one row at a time) and select **Display > Align Controls > Top**. The items in each row are listed below:
  - Item No. label and field and EAN Code label and field
  - Supplier's Product Code label and field
  - Customer's Product Code label and field
  - Quantity label and field and Unit of Measure label and drop-down list box
  - Unit Price (Ex. VAT) label and field and VAT Code label and drop-down list box
  - Description label and field

## Results

The Line Items frame now should look like this:



The screenshot shows a window titled "Line Items" with a dotted background. The fields are arranged as follows:

- Item No. (text field)
- EAN Code (text field)
- Supplier's Product Code (text field)
- Customer's Product Code (text field)
- Quantity (text field)
- Unit of Measure (drop-down list box)
- Unit Price (Ex. VAT) (text field)
- VAT Code (drop-down list box)
- Description (text field)

## Setting the Tab Sequence on the Line Items Frame

### About this task

Use this procedure to set the tab sequence of the fields on the Line Items frame.

### Procedure

1. Select **Display > Set Tab Order**. Numbers are displayed in the fields on the frame to indicate the current tab sequence.
2. Click the items below in the order in which they are listed. As you click each field, the tab sequence number for that field will change to the next sequential number in the tab sequence you are now setting.
  - a. EAN Code
  - b. Supplier's Product Code
  - c. Customer's Product Code
  - d. Quantity
  - e. Unit of Measure
  - f. Unit Price (Ex. VAT)
  - g. VAT Code
  - h. Description
  - i. Item No.

**Note:** The Item No. field is the last field in the tab sequence, although it is the first field in the layout of the Line Items frame. This field is display-only,

displaying the next consecutive line item number (the line item number is generated by an extended rule in the ILD group). By placing the Item No. field last in the tab sequence, this field can be skipped easily by users entering data. The first field in the sequence is the EAN Code field, which is the first field into which users can enter a value.

## Results

The new tab sequence for the Line Items frame should look like this:

The screenshot shows a window titled "Line Items" with the following fields and their tab sequence numbers:

- Item No.: 9
- EAN Code: 1
- Supplier's Product Code: 2
- Customer's Product Code: 3
- Quantity: 4
- Unit of Measure: 5
- Unit Price (Ex. VAT): 6
- VAT Code: 7
- Description: 8

When you click the last field in the sequence (Item No.), the tab sequence is set, and the tab sequence numbers no longer are displayed in the fields.

## Fields on the VAT Summary Frame

### Resizing the VAT Summary Frame - TRADACOMS

Just as you arranged the fields, labels, and static text on the Invoice Details and Line Items frames, now you will arrange the items on the VAT Summary frame. You will place the fields in a logical order, then align the fields to give the frame a consistent and orderly appearance.

#### About this task

When you finish arranging the fields, the VAT Summary frame in your form should look like the one in the example below.

The screenshot shows a window titled "VAT Summary" with the following fields:

- VAT Code: [ ]
- VAT Rate: [ ]
- Number of Line Items: [ ]
- Lines Subtotal (Excluding VAT): [ ]
- VAT Amount Payable: [ ]
- Payable Subtotal (Inc. Sett. Disc.): [ ]

Before you begin arranging the fields on the VAT Summary frame, you should resize the frame so that it is the same width as the Invoice Details and Line Items frames. When this form is compiled into a translation object, the fields will be arranged according to how the frames and the fields contained on them were arranged when the form was compiled. You should eliminate unnecessary space as you arrange the fields on each frame.

#### Procedure

1. Click the STL segment to display the VAT Summary frame in the Layout Window.



2. To resize the VAT Summary frame, click and drag the right side of the frame to the 14 cm mark on the ruler so all the fields on the frame are visible.
3. To display more of the form on your screen, click and drag the centre bar between the EDI File Format Window and the Layout Window to the left until the Layout Window is wide enough to display as much of the form as you want to view.

## Results

The VAT Summary frame now should look like this:

The screenshot shows a window titled "VAT Summary" with a dotted background. The fields are arranged as follows:

- VAT Code: A small rectangular input field.
- VAT Rate: A rectangular input field.
- Number of Line Items: A rectangular input field.
- Line Subtotal (Excluding VAT): A rectangular input field.
- VAT Amount Payable: A rectangular input field.
- Payable Subtotal (Inc. Sell. Disc.): A rectangular input field.

## Resizing the VAT Code Field

Sterling Gentran:Server bases the lengths of fields on the widths of lowercase letters. For example, if a field has a display length (defined on the Display Properties dialog) of five, then Sterling Gentran:Server produces a field with a length able to accommodate the average width of lowercase letters.

### About this task

The VAT Code field will contain a code in an uppercase letter. Therefore, you should adjust the width of the field to prevent the code in the VAT Code field from being truncated.

Use this procedure to resize the VAT Code field.

### Procedure

1. Select the VAT Code field.
2. Drag its handles so the field is approximately twice as wide as originally.

## Moving and Aligning the VAT Summary Fields

### About this task

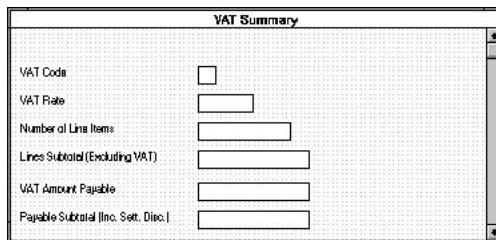
Use this procedure to move and align the fields on the VAT Summary frame of the screen entry form.

## Procedure

1. Drag the **VAT Amount Payable** and **Payable Subtotal (Inc. Sett. Disc.)** fields and labels closer to the **Lines Subtotal (Excluding VAT)** field and label.
2. Select all of the fields on the frame.  
  
**Note:** Select the VAT Amount Payable field last so it is the reference.
3. Select **Display > Align Controls > Left** . The left margins of the selected field labels are aligned.
4. Click and drag the bottom of the frame to below the **Payable Subtotal (Inc. Sett. Disc.)** label and field.

## Results

The VAT Summary frame now should look like this:



The screenshot shows a window titled "VAT Summary" with a grid background. The fields are aligned to the left:

VAT Code	<input type="checkbox"/>
VAT Rate	<input type="text"/>
Number of Line Items	<input type="text"/>
Lines Subtotal (Excluding VAT)	<input type="text"/>
VAT Amount Payable	<input type="text"/>
Payable Subtotal (Inc. Sett. Disc.)	<input type="text"/>

You do not need to set the tab sequence for the VAT Summary frame. All the fields on this frame (other than the hidden fields) are display-only. Screen entry translation object users will not be able to enter a value in any of the fields, so the tab sequence is irrelevant.

---

## Changing the Invoice Details Frame Title

The system automatically titles the frames in a screen entry form when the form is created, based on the name of the file, segment(s), or group(s). You can modify the frame titles (for example, at the file or message level) to distinguish one form from the others. The parent frame of the invoice currently is titled Invoice Details. You will give this frame a more descriptive title to distinguish it from other invoices that your company uses.

### About this task

Use this procedure to change the frame title.

### Procedure

1. Right-click the invoice file icon and select **Properties**.
2. In the Frame Caption field, enter **TRADACOMS ANA001 INVOIC Release 9 - Pet Zone**.
3. Click **OK**.  
The new frame title is displayed in the frame title in the Layout Window.
4. Click **Generate Layout** on the Main Toolbar to refresh the display.
5. Select **File > Save**.

## Results

When you have finished arranging the fields, your Invoice Details frame should look like the one in the example below (only part of the frame is shown below).

The image shows a screenshot of a software window titled "Invoice Details". The window contains several input fields for data entry. At the top, there are fields for "Invoice No.", "Invoice Date", "Customer's P.O. No.", "P.D. Date", "Delivery Note Number", and "Delivery Date". Below these is a section titled "CUSTOMER DETAILS" which includes fields for "Location ANA Code", "Location Own Code", "Name", "Address Line 1", "Address Line 2", "Address Line 3", "Address Line 4", and "Postal Code". At the bottom of the form, there are fields for "Payment Terms" and "Invoice Notes" (with four stacked text boxes). The window has a standard border with a title bar and a scroll bar on the right side.

## What to do next

You have completed your Invoice form. Now, you are ready to finalize the form.



---

## 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](http://www.ibm.com)<sup>®</sup> 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.







Product Number: 5725-D09

Printed in USA