

CII User Guide

Version 5.3.1



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Chapter 1. Sterling Gentran: Server CII Overview

About the CII Standard

Japanese Center for Informatization of Industry (CII) provides the Japanese syntax definition for electronic data interchange messages. The CII Syntax Rule specifies the details, such as looping structures and data types, of CII messages. The CII implementation of IBM® Sterling Gentran:Server® for Microsoft Windows is based on the CII Syntax Rule, which is available in both Japanese and English.

CII does not include standard message types; these are provided by industry groups (for example, EIAJ for the electronics industry).

See the *IBM Sterling Gentran:Server for Microsoft Windows Installation Guide* for more information about installing the Sterling Gentran:Server standards.

CII standard versions

The following are versions of the Japanese Center for Informatization of Industry (CII) standard that are included in the Sterling Gentran:Server standards database. Descriptions are available in the standards database, in Japanese.

- CINT0110
- CINT0111
- CINT0112
- EIAJ011A
- EIAJ011B
- EIAJ011C
- EIAJ011D
- EIAJ012E
- EIAJ012F
- EIAJ012G
- EIAJ012H
- EIAJ022D
- EIAJ022T
- FEPCE12A
- FEPCO12A
- FEPCS11A
- FEPCS12B
- FEPCU12A
- HIIS0110
- HWSW001A
- HWSW001B
- JGAS0001
- JISI0105
- JISI0110
- JPCA0101
- JPCA0102

- JTRNEI00
- JTRNEI2E
- JTRNFF00
- JTRNFF1A
- JTRNFF2A
- JTRNFF2C
- JTRNFF2D
- JTRNJI00
- JTRNTR00
- NEWS0011
- TIRAAS03
- TIRARA01
- TIRARA02
- TIRARA03
- TIRATA01
- TIRATA02
- TIRATA03
- TRPT011A

About Using CII with Sterling Gentran:Server

Sterling Gentran:Server enables you to map to and from CII data documents, along with other electronic commerce messages in the same manner. This allows you to maintain a homogenous processing and data management environment, regardless of how the incoming and outgoing data is formatted (such as CII, XML, EDI, or proprietary message formats).

You should be familiar with the following.

- Sterling Gentran:Server
- · Microsoft Windows
- CII

The following are the software prerequisites to use CII with Sterling Gentran:Server.

- You must have Sterling Gentran: Server version 5.0 (or later) currently installed.
- You must have installed the CII standards from the Internet or from the CII Standards Database DVD.

CII Map Objects

Sterling Gentran:Server uses a set of icons to represent CII map objects.

The following table lists the components that make up the CII format, the icons that represent the components, and descriptions of the components. For information about adding a map component to a layout and information about the properties of these map components, see CII File Properties Dialog Box, Group Properties Dialog Box, and CII TFD Properties Dialog Box.

Table 1. CII format components

Component	Icon	Description
CII root element	□本	The CII File root element represents the CII document that Sterling Gentran:Server is mapping.
Group	g	A group contains related groups and transfer form data (TFDs).
TFD	Ō	Transfer form data (TFD) is a block of data that consists of a tag, a length indicator, and data. The length of the element is always indicated, so delimiters are unnecessary.
		When a TFD has a mapping operation performed against it, a red check mark appears over the TFD icon.

Text and Hex Views

While EDIFACT and ANSI messages can easily be viewed in text mode, it is usually more appropriate to view CII messages in hex format. Therefore, this option is available to the user viewing CII data in the Sterling Gentran:Server EDI Manager (desktop) browsers.

Hex view is the default view for Raw EDI when you view CII messages, but for the following views, text mode is the default:

- Translator Report
- Tracking Information
- Audit Log

To change the view on a browser, select Text or Hex from the EDI Manager View menu.

Chapter 2. Mapping CII Documents

About the CII Data Format

The CII data format provides the Japanese syntax definition for EDI messages. The CII implementation in Sterling Gentran:Server is based on the CII Syntax Rule, available in both Japanese and English.

The CII Syntax Rule specifies details such as looping structures and data types, but it does not include standard message types. Message types are provided by industry groups. Sterling Gentran:Server provides a number of these standard message types in the EDI Standards, which you can download.

In Sterling Gentran:Server, a CII map that contains an FA, FD, or F9 data tag in extended mode on the output side of the map must have a Use Constant standard rule defined, so that a detail number is generated. A detail number is mandatory for these tags in extended mode.

For CII inbound and outbound processes, the user has to specify either 8-bit or 16-bit character set in the map. For 8-bit character set, the user can choose JIS0201, SJIS, or Default, where Default is JIS0201. For 16-bit character set, the user can choose JIS0208, JIS0212, SJIS, or Default, where Default is SJIS. If a user does not set these two values, the default value will be used in translation.

CII messages

CII headers and trailers are in text, but messages are binary. To read a raw CII message outside of Sterling Gentran:Server, you need a hex editor. Using a hex editor, you can see the basic structure of a CII message, which consists of:

- Control tags
- Transfer form data (TFDs)
- Length indicators
- Data bytes

A typical TFD consists of a tag, a length indicator, and data. The length of the element is always indicated, so delimiters are unnecessary.

The Sterling Gentran:Server Translation service handles hexadecimal data in the range of 0x01 through 0xFF. Because the translator does not handle 0x00, it cannot translate pure binary data such as bitmaps.

In the following sample from a dividing-mode CII message, **bold** indicates the tag and *italics* indicates the length. The data is displayed in hex and spaces are added here for readability.

... **01** *04* 34 32 39 30 **02** *04* 30 35 30 34 **03** *06* 39 38 30 35 32 39 ...

Dividing mode

Most CII files are sent in dividing mode (also translated as division mode). This mode requires the messages to be sent in chunks of 251 bytes to facilitate communications. To set dividing mode, use the Partner Editor. See CII File Properties Dialog Box for more information about how to configure dividing mode.

Dividing mode does not affect message group headers or trailers because they are always 251 bytes.

Non-transparent mode

According to the CII Syntax Rule, non-transparent mode is an option that helps you avoid interfering with communication control characters in some communications systems. Transparent mode is the default setting in Sterling Gentran:Server.

Extended-mode tags

A TFD is in compressed mode unless an extended-mode indicator (0xF0) was previously encountered in the TFD stream.

According to the CII specification, tags are in either compressed or extended mode. The following table illustrates the differences.

Mode	Size	Range (decimal)
Compressed	1 byte	1 - 239
Extended	2 bytes	1-61439

CII control tags

Table 2. Hexadecimal control tags used in CII

Control Tag	Function
0xF0	Starts extended mode
0xF2	Length extender
0xF7	Length indicator
0xF8	Escape indicator
0xF9	Internal segment separator
0xFA/0xFD	Multi-detail header (loop start)
0xFB	Multi-detail return
0xFC	Multi-detail trailer (loop end)
0xFE	Message Trailer

Map Types

The following are the available map types.

Map Type	Description
Import	Used for outbound maps.
Export	Used for inbound maps.
Interchange break	Used in advanced mapping to separate interchanges.
Functional Acknowledgement Inbound	Used in advanced mapping to reconcile functional acknowledgements.

Map Type	Description
Functional Acknowledgement Outbound	Used in advanced mapping to generate functional acknowledgements.
System Import Header	Used to determine which trading relationship (established in Partner Editor) corresponds to each document in the application file, so the system knows which import translation object to use to process the document.
Turnaround	Used for EDI to EDI maps.
Transaction build	Used in advanced mapping to build transaction envelopes.
Transaction break	Used in advanced mapping to separate documents.
Functional group build	Used in advanced mapping to build functional group envelopes.
Functional group break	Used in advanced mapping to separate functional groups.
Interchange build	Used in advanced mapping to build interchange envelopes.

Creating a Map

You can create four different types of maps: System Import (containing the header information for an Import map), Import (for Outbound Maps), Export (for Inbound Maps), or Turnaround (for EDI to EDI maps). The initial procedures for creating a new map of each of the four types is the same.

About this task

Use this procedure to create a map.

Procedure

1. Select File > New.

The system displays the New Map Wizard.

- 2. Enter the following information and click Next:
 - Select the type of map
 - Type the unique name of the map. The system adds the .MAP extension.
 - Type your name if it differs from the user name prompted by the system.

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

Note: You need to complete the format for the Input side of the map (Steps 3) - 7). This is the format of the data that is translated by the Sterling Gentran:Server system.

- 3. For the input side of the map, do one of the following:
 - Create a data format using a syntax that you define go to step 4.
 - Load the data format from a saved definition go to step 7.
- 4. Select one of the following input format options:
 - **Delimited EDI** (Electronic Data Interchange file)
 - Positional (VDA, GENCOD, application files)
 - CII (Japanese standard)
 - CII Positional (for CII Build/Break maps)

Notes:

- For Inbound maps (Export), the Input Format Type is CII or EDI.
- For Outbound maps (System Import or Import), the Input Format Type is Positional.
- For Turnaround maps, the Input Format Type is EDI or CII.
- 5. If you selected **Delimited EDI** or **CII** and want to customize the format, click **Customize** and continue with the next step. Otherwise, click **Next** and continue with step 9.

The system displays the New Delimited EDI Wizard or New CII Wizard dialog box. The Delimited EDI and CII wizards enable you to create your format from the standards database.

- 6. Follow the steps for the appropriate dialog box:
 - If the dialog is New Delimited EDI Wizard, do the following:
 - a. Click Next.
 - b. Select the ODBC data source that contains the standards database.
 - c. Select the standards agency, version, transaction set, and (for TRADACOMS) release number and click Next.
 - d. Click Finish.
 - If the dialog is **New CII Wizard**, do the following:
 - a. Click Next.
 - b. Select the ODBC data source that contains the standards database.
 - c. Specify if you want to use Japanese descriptions and click Next.
 - d. Select the standards agency, version, transaction set, and (for TRADACOMS) release number and click **Next**.
 - e. Select the appropriate Multi-detail header and click Next.
 - f. Click Finish.

The system displays the New Map Wizard - Output Format dialog box. Continue with step 8.

7. To load the data format from a saved definition, select **Load the data format from a saved definition** and either enter the path and filename of the saved definition or browse to navigate and select the file.

Note: You can select either a .DDF or .IFD file. If the DDF is invalid, the system displays a message box explaining the problem and terminates the import.

- 8. For the output side of the map, do one of the following:
 - Load the data format from a saved definition go to step 12.
 - Create a data format using a syntax that you define go to step 9.
- 9. Select one of the following input format options:
 - **Delimited EDI** (Electronic Data Interchange file)
 - Positional (VDA, GENCOD, application files)
 - CII (Japanese standard)
 - CII Positional (for CII Build/Break maps)

Notes

- For Inbound maps (Export), the Output Format Type is CII or EDI.
- For Outbound maps (System Import or Import), the Output Format Type is Positional.
- For Turnaround maps, the Output Format Type is EDI or CII.

- 10. If you selected **Delimited EDI** or **CII** and want to customize the format, click **Customize** and continue with the next step. Otherwise, go to step 13. The system displays the New Delimited EDI Wizard or New CII Wizard dialog box. The Delimited EDI and CII wizards enable you to create your format from the standards database.
- 11. Follow the steps for the appropriate dialog box:
 - If the dialog is **New Delimited EDI Wizard**, do the following:
 - a. Click Next.
 - b. Select the ODBC data source that contains the standards database.
 - c. Select the standards agency, version, transaction set, and (for TRADACOMS) release number. Click **Next**.
 - d. Click Finish.
 - If the dialog is **New CII Wizard**, do the following:
 - a. Click Next.
 - b. Select the ODBC data source that contains the standards database.
 - c. Specify if you want to use Japanese descriptions and click Next.
 - d. Select the standards agency, version, transaction set, and (for TRADACOMS) release number. Click **Next**.
 - e. Select the appropriate Multi-detail header and click Next.
 - f. Click Finish.

The system displays the New Map Wizard dialog box. Continue with step 13.

12. To load the data format from a saved definition, select the Load the data format from a saved definition option and either enter the path and filename of the saved definition or browse to navigate and select the file.

Note: You can select either a .DDF or .IFD file. If the DDF is invalid, the system displays a message box explaining the problem and terminates the import.

13. Click **Finish** to load the standards information you selected and create the new map (this may take a few seconds).

The system displays the new map in the Application Integration Window.

What to do next

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

CII File Properties Dialog Box

CII File Properties dialog box contains several tabs: Name, Mode, Character Sets, and Loop Extended Rules.

Table 3. Name tab parts and functions

Part	Function
Name	Map component name. Note: Do not use spaces or hyphens (-) in the name. You can use the underscore (_) to separate words.
Description	Description of the map component.

Table 3. Name tab parts and functions (continued)

Part	Function
Additional notes	When you import an XML schema, the annotation attached to each XML map component is saved in this box. For non-XML map components, contains any user-defined comments.

Table 4. Mode tab parts and functions

Part	Function
Dividing Mode	Most CII files are sent in dividing mode (also translated as division mode). This mode requires the messages to be sent in chunks of 251 bytes to facilitate communications. To set dividing mode, use the Partner Editor.
Non-Transparent Mode	According to the CII Syntax Rule, non-transparent mode is an option that helps you avoid interfering with communication control characters in some communications systems. Transparent mode is the default setting in Sterling Gentran:Server.

Table 5. Character Sets tab parts and functions

Part	Function
Select 8 Bit Character Set	Valid values are Default, JIS-X0201, and Other. Default instructs the translator to use the default character setting of the computer on which the translator is running. Use Other if you must specify any other type of character encoding.
Select 16 Bit Character Set	Valid values are Default, JIS-X0208, and Other. Default instructs the translator to use the default character setting of the computer on which the translator is running. Use Other if you must specify any other type of character encoding.

Table 6. Loop Extended Rules tab parts and functions

Part	Function
On Begin	Extended rule to be run before the translator processes the map object.
On End	Extended rule to be run after the translator concludes processing the map object. Application Integration processes On End rules at the end of each loop occurrence, not at the end of all loops.
Full Screen	Maximizes the dialog box.
Compile	Compiles the extended rule. This function enables you to view compile errors for this rule prior to compiling the translation object. This function gives you immediate feedback about the accuracy of your rule. Double-click an error to immediately navigate to the line containing the error. The rule is also compiled when you compile the map.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked the Compile button to compile the extended rule. Double-click an error to make the cursor go to the line containing the error.

Group Properties Dialog Box

The Group Properties dialog box contains several tabs: Name, Looping, and Looping Extended Rules.

Table 7. Name tab parts and functions

Part	Function
Name	Map component name. Note: Do not use spaces or hyphens (-) in the name. You can use the underscore (_) to separate words.
Description	Description of the map component.
Additional notes	When you import an XML schema, the annotation attached to each XML map component is saved in this box. For non-XML map components, contains any user-defined comments.

Table 8. Looping tab parts and functions

Part	Function
Minimum usage	Minimum number of times the loop must be repeated.
	For a conditional loop, the minimum usage is zero.
Maximum usage	Maximum number of times the loop must be repeated.
Promote records to parent	Select this check box to specify that when the group is compiled, the subordinate records and groups are extracted from the loop and located in the parent group. This function is valid for single iteration subgroups only. Note: Select this check box if you are mapping the fields in this group to data that is not grouped in the output.

Table 9. Looping Extended Rules tab parts and functions

Part	Function
On Begin	Extended rule to be run before the translator processes the map object.
On End	Extended rule to be run after the translator concludes processing the map object. Application Integration processes On End rules at the end of each loop occurrence, not at the end of all loops.
Full Screen	Maximizes the dialog box.
Compile	Compiles the extended rule. This function enables you to view compile errors for this rule prior to compiling the translation object. This function gives you immediate feedback about the accuracy of your rule. Double-click an error to immediately navigate to the line containing the error. The rule is also compiled when you compile the map.
Extended rule	Defines the extended rule.
Errors	Displays any errors generated when you clicked the Compile button to compile the extended rule. Double-click an error to make the cursor go to the line containing the error.

CII TFD Properties Dialog Box

The CII TFD Properties dialog box contains several tabs: Name, Tag, Looping, Validation, Standard Rule, Extended Rule, and Character Set.

Table 10. Name tab parts and functions

Part	Function
Name	Map component name. Note: Do not use spaces or hyphens (-) in the name. You can use the underscore (_) to separate words.
Description	Description of the map component.
Additional notes	When you import an XML schema, the annotation attached to each XML map component is saved in this box. For non-XML map components, contains any user-defined comments.

Table 11. Tag tab parts and functions

Part	Function
Tag	The element ID, which is defined by a CII standard.
Hex	Whether you view the tag in hexadecimal or decimal and
Decimal	applies only to what you see in Application Integration. This setting does not affect translation.

Table 12. Looping tab parts and functions

Part	Function
Normal	Type of loop. Values are:
Loop Start	Normal – In the loop, but is not the beginning or ending
	Loop Start – Marks the beginning of the loop
Loop End	Loop End – Marks the end of the loop
Loop Repeat	Loop Repeat – Marks the end of one loop iteration and the beginning of the next iteration

Table 13. Validation tab parts and functions

Part	Function
Mandatory field	Select this check box to indicate that the map component is required.
Minimum length	Minimum number of characters in the map component.
Maximum length	Maximum number of characters of the map component.

Table 13. Validation tab parts and functions (continued)

Part	Function
Data-type	Type of data for this map component. Valid values are:
	String - Alphanumeric
	Number - Numeric, real, overpunched, or packed (for Positional only)
	Date/time - Date or time
	Bin Data - binary data (only available if you select "Binary" on the Special tab of the EDI Segment Properties dialog box)
	Bin Length - length of binary data (only available if you select "Binary" on the Special tab of the EDI Segment Properties dialog box)
	Note: If you select Binary, you must define an element of data-type Bin Length and another element of data-type Bin Data. The Bin Length element must precede the Bin Data element.
Data format	How the data in the map component will be formatted. Depending on the data type you selected, you can either:
	• For the String data-type, select a syntax token to denote that this map component must be formatted as the syntax token dictates.
	• Free Format indicates that any characters are acceptable in the field. The translator does not check the characters for compliance.
	For Number or Date/Time data-type, select the data format from a list.
Data is Read/written as	Type of byte ordering:
Raw Bytes	Little-endian byte ordering specifies that the least significant character is first. Intel and Windows use this order.
	• Big-endian byte ordering specifies that the most significant character is first. UNIX and Java™ use this order.

Table 14. Standard Rule tab parts and functions

Part	Function
Please select the standard rule to use	• Select
	• Update
	Use System Variable
	Use Constant
	Use Accumulator
	Loop Count
	Use Code

Table 15. Extended Rule tab parts and functions

Part	Function
Extended Rule	Area where you type the extended rule.
Full Screen	Enlarges the extended rule area to the size of your entire display to give you more room to see what you type.

Table 15. Extended Rule tab parts and functions (continued)

Part	Function
Compile	Compiles the extended rule. This function enables you to view compile errors for this rule prior to compiling the translation object. This function gives you immediate feedback about the accuracy of your rule. Double-click an error to immediately navigate to the line containing the error. The rule is also compiled when you compile the map.
Errors	If you compiled this extended rule, any warnings or errors are displayed in the Errors list. Double-click an error to make the cursor go to the line containing the error.

Table 16. Character Set tab parts and functions

Part	Function
Character Set	Select 8 Bit if the TFD is single-byte and 16 Bit if the TFD is double-byte.

About Loops

In CII terminology, a loop is expressed as a multi-detail. Multi-details are indicated through the use of specific TFDs.

Before the start of a loop is a multi-detail header (MDH). At the end of each iteration is the multi-detail return (MDR). The multi-detail trailer (MDT) is at the end of the loop.

Table 17. Configuration for multi-details

TFD Type	Tag	Properties
Multi-detail header (MDH)	0xFA	One-byte string
MDH	0xFD	Two-byte binary numeric type N0
Multi-detail return (MDR)	0xFB	No data
Multi-detail trailer (MDT)	0xFC	No data

Table 18. Tag properties

Tag	Data Type	Range of Values
0xFA	String	A to Z, 1 to 9
0xFD	String	0000 to 65535

Configuring Key Fields for Multi-Detail Headers

In extended mode, multi-detail headers must be identified with key fields. You must also specify key fields if there is any possibility of ambiguity in the data (for example, if a multi-detail in the CII file layout has no corresponding data).

About this task

To configure a key field for a multi-detail header, complete the following steps.

Procedure

- 1. In Application Integration, double-click or right-click the multi-detail header and select **Properties**.
- 2. Click the **Key Field** tab.
- 3. Select Use constant and click Edit.
- 4. In the **Map Constants** dialog box, type the constant you need.

About Character Encoding

An encoding system determines the hexadecimal values that represent display characters. Application Integration uses the default character set of the computer you are working on.

The default encoding for Japanese Windows is Shift-JIS although there are several other encoding systems for Japanese characters.

The Sterling Gentran:Server CII implementation supports the following character conversions:

- Shift-JIS to JIS x0201 (no conversion required)
- Shift-JIS to JIS x0208
- JIS x0201 to Shift-JIS (no conversion required)
- JIS x0208 to Shift-JIS

When you are specifying character sets for the CII side of a map, you must indicate one character set each for 8-bit and 16-bit characters in the CII File Properties dialog box. Then in the CII TFD Properties dialog box, you indicate whether the TFD uses an 8-bit or 16-bit character set.

Setting up Character Set Conversion

An encoding system determines the hexadecimal values that represent display characters. Application Integration uses the default character set of the computer you are working on.

About this task

To set up character set conversion, complete the following steps.

Procedure

- 1. In the CII File Properties dialog box, select the **Character Sets** tab.
- 2. From the lists, select an 8-bit character set and a 16-bit character set. The choices for 8-bit are Default and JIS-X0201. The choices for 16-bit are Default, IIS-X0208, and Other.
- 3. Double-click the first string-type TFD and select the **Character Set** tab.

Note: You must open the dialog box to select 8-bit or 16-bit. This selection refers to the choices made in the CII File Properties dialog. The default will be 8-bit. If a user changes a 16-bit TFD to numeric, and changes again to string, the default will be 8-bit.

4. Select either the 8 bit (Default) or 16 bit option.

Notes:

- This selection refers to the choice you made in step 2 on the CII File Properties dialog box.
- If you change a 16-bit TFD to numeric and change it again to string, the default will be 8-bit.
- The settings in Partner Editor override the settings in the map. See About Setting up CII Partners for more information.

CII Data Attributes and Application Integration Data Types

The following table shows how CII data attributes correspond to the data types in Application Integration:

Description of Data	CII Attribute	Application Integration Data Type
Numeric, implied decimal	9	N0 to N9
Numeric, explicit decimal	N	R0 to R9
8-bit characters	X	X, J, or other single-byte syntax token
16-bit characters	K	K, double-byte syntax token
8-digit date	Y	Date: YYYYMMDD

Syntax Tokens

To process Japanese characters, you must use a syntax token that enables non-Latin characters in the data that the map will process. Application Integration provides the syntax token K, which enables all double-byte Japanese characters.

You can create a syntax token to meet your specific needs. For more information about syntax tokens and creating them, see the *IBM Sterling Gentran:Server for Microsoft Windows Application Integration User Guide*. If you create a double-byte character set (DBCS) syntax token, you must configure the syntax tokens on a computer with a DBCS operating system (Japanese, Korean, Traditional Chinese, or Simplified Chinese) or a Windows 2000 system to which you have added font support for one of those languages. If you do not, the DBCS button is inactive; you cannot use it. Syntax tokens cannot be imported.

Some syntax tokens are provided in Application Integration. If you need a different syntax token, you can create a syntax token to meet your needs.

Note: When you create a syntax token, it applies only to the current map. You must create a syntax token for each map you create.

Creating a Syntax Token for Asian Languages

Double-byte character set (DBCS) syntax tokens enable you to create a map that accepts double-byte characters.

About this task

The DBCS button is active on the Syntax Tokens dialog box if:

- You are running Application Integration on a Chinese, Japanese, or Korean version of the supported Windows operating systems (see the *IBM Sterling Gentran:Server for Microsoft Windows Quick Start Guide* for information on which operating systems are supported).
- You have added font support for one of these languages to a Windows 2000 system.

DBCS tokens are displayed only in the DBCS Syntax Tokens dialog box, not in the list on the Syntax Tokens dialog box.

To create a DBCS token, complete the following steps.

Procedure

- 1. From the Application Integration Edit menu, select Syntax Tokens.
- 2. Click **DBCS**. The system displays the DBCS Syntax Tokens dialog box.
- 3. From the Codepage list, select the 932 codepage to map Japanese characters.
- 4. Click New.
- 5. In the Edit DBCS Syntax Token dialog box, in the Token field, type the unique one-character alphanumeric value that Application Integration recognizes as containing the allowed range of characters you designate.
- 6. Select the lead byte from the Lead-Byte box.

Note: Double-byte characters are co	emposed of a lead byte and a trail byte. For
example, the character $f B$ is code	point 93F9 (lead byte 93, trail byte F9).

- 7. To exclude individual characters or groups of characters from the token (you do this if there are certain characters that you will not accept in your data), make characters unavailable by either:
 - Clicking a character to make it appear shaded.
 - Dragging the cursor across a group of characters to make them appear shaded
- 8. Click **Close** to save the syntax token.

Deleting a Syntax Token

About this task

To delete a syntax token, complete the following steps.

Procedure

- 1. From the Application Integration Edit menu, select Syntax Tokens.
- 2. If you are deleting a DBCS syntax token, click **DBCS**.
- Select the token you want and click Delete.The selected syntax token is deleted without a warning message.

Deleting a Character Range

About this task

To delete a character range from a syntax token, complete the following steps.

Procedure

- 1. From the Application Integration Edit menu, select Syntax Tokens.
- 2. If you are deleting a character range for a DBCS syntax token, click DBCS.
- 3. Select a syntax token and click Change.
- 4. Select the character range you want and click **Delete**. The selected syntax token is deleted without a warning message.

Preserving Leading Spaces When Mapping to a Positional Data Format

In the EDIFACT and ANSI standards, leading spaces in fields are eliminated. However, in the CII format, according to the CII Syntax Rule, leading spaces are typically preserved (although they can be eliminated).

About this task

To preserve leading spaces in a map for translating CII to the positional format, complete the following steps.

Procedure

- 1. From the Application Integration Edit menu, select Details.
- 2. In the Map Details dialog box, select **Use Configurable Trimming** and click **OK**.
- 3. In each field on the positional side of the map, open the Field Properties dialog box and click the **Position** tab.
- 4. If the spaces are single-byte, do the following:
 - a. In the "characters used in empty portions of the map" box, type SP.
 - b. From the data alignment options, select **beginning of the field**.
- 5. If the spaces in the field are double-byte and the data is encoded in Shift-JIS (windows codepage 932), for "Enter the character used in empty portions of the field", type 0x8140 or the appropriate key code combination.
- 6. Click OK.

Changing to Non-Transparent Mode

According to the CII Syntax Rule, non-transparent mode is an option that helps you avoid interfering with communication control characters in some communications systems. Transparent mode is the default setting in Sterling Gentran:Server.

About this task

To change to non-transparent mode, complete the following steps.

Procedure

- 1. Open a map in Application Integration.
- 2. Right-click the top icon on the CII side of the map, and select **Properties**.
- 3. Click the Mode tab, and select Non-Transparent Mode.

Note: Note that the settings in Partner Editor override the settings in the above dialogs. See About Setting up CII Partners for more information.

Finalizing your CII Map

All maps, regardless of format, follow the same steps.

See the IBM Sterling Gentran:Server for Microsoft Windows Application Integration User Guide for information on how to finalize your CII map.

Chapter 3. Setting up Sterling Gentran: Server for CII

Registering your CII Maps

The Register Translation Object function enables you to register your CII translation object file with Sterling Gentran:Server so the system can identify the translation object.

About this task

To register a translation object, complete the following steps.

Procedure

- In the EDI Manager, select View > Translation Objects.
 The system displays the EDI Translation Object browser.
- Click New.
 - The system displays the Register Translation Object dialog box.
- 3. Select or enter the CII translation object file that you want to register with the system.

Note: You can use the Shift and Ctrl keys to select multiple objects.

4. Click Open.

The system registers the translation object files exits the Register Translation Object dialog box.

Notes:

- If the selected file is invalid, you receive a warning message. Only valid Sterling Gentran:Server translation object files can be installed.
- If the translation object is a duplicate, you are prompted with a message asking whether or not you want to overwrite the existing translation object.

Defining an Import Specification

You need to define an import specification for each type of file (such as file location, file name, and file extension) that you are importing. If you want to import files from a location, from a specific file name, or from files with a specific extension that is not currently defined in an import specification, you need to create a new import specification.

About this task

To define a new import specification, complete the following steps.

Procedure

- 1. From the Start menu, select **Programs > Gentran Server> Gentran Server Configuration**.
 - The system displays the System Configuration dialog box (Controllers tab).
- 2. Select the **Imports** tab.
- 3. Click New.

The system allows you to define a new import specification.

4. In the File Path box, enter the file type or browse to select the folder. We recommend that you enter a file type in this box, rather than specifying a path and folder. This ensures that users can import files of the specified type from their local drives without using UNC file names.

Note: For a Mailbox Import, you must specify the UNC path and file name. This must exactly match the path you set for the TRANSIN directory on the Directories tab.

The system displays the Choose Directory dialog box.

- 5. Select the directory and click **OK**.
- 6. From the Translation Object list, select the CII import or system import translation object that you want the system to use to begin translation when a file of the specified type is imported.

Note: Some Japanese import files use a six-character field for the version number while others use an eight-character field.

7. Either click **OK** to exit the System Configuration program or click **Apply** to save the import specification without exiting System Configuration.

About Setting up CII Partners

Setting up a CII partner is similar to setting up other partners, with the following exceptions:

- There are several values that can be configured on the Generic Interchange Envelope dialog box.
- The structure of CII messages dictates that you must select **<none>** for Groups for both Inbound and Outbound relationships.

See the IBM Sterling Gentran:Server for Microsoft Windows User Guide for comprehensive information on how to create partner relationships.

The Generic Interchange Envelope dialog box

To access the Generic Interchange Envelope dialog box, from the EDI Manager, select Partners > Outbound > Interchanges > Edit > Envelope.

The following table describes the non-generic fields on this dialog box, and the CII column indicates how they are used for CII partners.

Dialog Box Component	How it is used in CII	Valid Values
Decimal notation	Not used.	Not used.
Segment code separator	Non-transparent mode	S or space = transparent
		M = non-transparent
Release indicator	Not used.	Not used.
Component element separator	16-bit character set	S or space = JISX0208 D = Shift-JIS
Element separator	8-bit character set	S or space = JISX0201 M = Shift-JIS

Dialog Box Component	How it is used in CII	Valid Values	
Segment terminator	Dividing mode	S = non-dividing	
		M or space = dividing	
Note: These settings override anything you configured in the map.			

Using the CII Total-Items-Number Feature

According to the CII Syntax Rule, there are two areas in the message group header reserved for total-items number, a checksum function. Each area consists of two fields, which hold the TFDs to be totalled; they are mutually exclusive. One area is for compressed-mode TFDs. The other is for extended-mode TFDs. In Sterling Gentran:Server, you identify these fields in Partner Editor.

About this task

To configure the CII total-items-number feature, complete the following steps.

Procedure

- 1. In the Outbound Relationship dialog box, click **Interchanges**.
- 2. Select the appropriate interchange and click **Edit**. The system displays the Outbound Interchange Entry dialog box.
- 3. Click Envelope.

The system displays the Generic Interchange Envelope dialog box.

- 4. Type the tags (in decimal) of the two TFDs that you want to sum.
 - If your map uses compressed-mode tags, type the tags in Field 21 and Field
 - If the map uses extended-mode tags, type the tags Field 23 and Field 24.

Example

Compressed mode example

To sum TFDs 00003 and 00011, type the following on the Generic Interchange Envelope dialog box:

Field	Value you type
Field 21	003
Field 22	011

- The TFDs must be numeric or string type.
- The TFDs must contain only single-byte numeric characters, not alphabetic characters.
- Sterling Gentran: Server sums all TFDs with the identified TFD tag.
- In the output file, the totals are placed in 15-byte fields in the message group trailer, as specified in the CII Syntax Rule.

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