Gentran:Server® for Windows®

Gentran EAI Server
User's Guide

Version 5.1

Sterling Commerce
An IBM Company

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Appendix A Gentran EAI Server Utilities

About This Guide

Contents

Introduction

Overview

This manual contains the procedures you must follow to configure the components of the Gentran EAI Server to meet your business needs.

Intended audience

The intended audience for this manual is:

◗   system administrators

◗   Gentran:Server users

Prerequisite knowledge

The audience using this software should be familiar with your Microsoft$^{®}$ operating system.

Description of Contents

Introduction

The *Gentran EAI Server User's Guide* is organized into the tasks that you complete to implement and maintain your system.

Organization of chapters

The *Gentran EAI Server User's Guide* is organized into chapters. A brief description of each chapter's contents follows.

- ◗ About This Guide explains the content, organization, and conventions in this guide.
- ◗ System Overview provides a high-level overview of Gentran:Server Windows system components.
- ◗ Analyzing the Business Process describes the process of identifying the business requirements you want to address with Gentran:Server Windows.
- ◗ Using the Map Manager describes how to manage translation components used in your system.
- ◗ Working With Business Rules describes how to use business rules to route information, and how to create a Business Rules Engine mailbox.
- ◗ Tracking Messages describes the procedure for viewing the status and stages of a message routed through the system.
- ◗ Gentran EAI Server Utilities describes the Gentran EAI Server utility programs.

Online Help

Introduction   The majority of this documentation is also contained in the online Help system. This includes all the dialog box element definitions, detailed processing information, and all the "how to" information that is contained in this manual.

Getting Support

Introduction

Sterling Commerce's Gentran:Server software is supported by trained product support personnel who are available to help you with product questions or concerns.

Note
Gentran:Server Customer Support does not support non-Sterling Commerce products (e.g., SQL Server, Oracle, etc.), but can assist you in configuring non-Sterling Commerce products to work with Gentran:Server.

Phone number

For assistance, please refer to your *Getting Started Guide* to determine which support phone number you should use.

Before calling support

To help us provide prompt service, we ask that you do the following:

◗ Attempt to recreate any problem that you encounter and record the exact sequence of events.

◗ When you call product support, you should be prepared to provide us with the information below.

Information	Description
Identification	Your company name, your name, telephone number and extension, and the case number (if the question refers to a previously reported issue).
System Configuration	The Gentran:Server version (and any service packs installed) and information about the primary Gentran system controller and all machines experiencing problems, including: the Windows operating system version, amount of memory, available disk space, database version, Microsoft Data Access (MDAC) version, and Internet Explorer version. Also, please describe any recent changes in your hardware, software, or the configuration of your system.
System Data Store	Which machines contain folders in the system data store?
Error Messages	Record the exact wording of any error messages you receive and the point in the software where the error occurred, as well as any log files.
Attempted Solutions	Record any steps that you took attempting to resolve the problem and note all the outcomes, and provide an estimate on how many times the problem occurred and whether it can be reproduced.

Accessing the Sterling Commerce Support Web Site

The Sterling Commerce Customer Support Web Site contains valuable information about getting support for Gentran:Server for Windows, including the:

◗ scope of support services

◗ customer support policies

◗ call prioritizing

◗ customer support phone directory

◗ how to create new Support on Demand cases

◗ how to check the status of Support on Demand cases

◗ how to add information to Support on Demand cases

The Customer Support Web Site is constantly updated and all Sterling Commerce customers have access to it. This web site also contains the most recent product updates and is a valuable source of product information.

Reference
Refer to the *Getting Started Guide* for information on how to access the Customer Support World Wide Web Site.

Documentation

The Customer Support Web Site contains a documentation library, which has the entire Gentran:Server for Windows documentation set. You can download the product manuals in PDF format from this library at any time.

System Overview

Contents

Introduction

In this chapter   This chapter contains:

◗   a high-level overview of the components of the Gentran EAI Server

◗   the implementation process for setting up your Gentran EAI Server

◗   instructions for getting started with Gentran EAI Server

Components

Overview

Introduction   Gentran EAI Server consists of several functional modules that work as a unit.

Descriptions   This table describes the basic subsystems of Gentran EAI Server.

Module	Function
Business Rule Editor	Enables you to define the business rules and events that the Business Rules Engine acts on. This tells the system what to do with the message and to whom it should be delivered.
Business Rules Engine	Evaluates business rules and is where data is transformed based on business rules.
Map Manager	Manages translation components (maps and translation objects). Enables you to view, register, edit, delete, and create maps and translation objects in the Application Integration subsystem.
Message Tracking	Enables you to track the flow of messages through the system.

Optional gateways   Your company may have purchased one or more optional gateways. Gateways are available that enable Gentran EAI Server to connect to:

◗   external messaging software or transportation stacks

◗   ERP and electronic commerce (EC) applications

Each optional gateway has its own documentation.

Business Rules Engine

Introduction   The Business Rules Engine:

◗   Evaluates business rules defined in the Business Rule Editor.

◗   Determines whether data should be transformed.

◗   Concludes where to direct the transformed data.

The Business Rules Engine is installed automatically when you install Gentran EAI Server.

The basic properties of the Business Rules Engine are already configured for you, and you cannot edit them. However, when you create the mailboxes for the Business Rules Engine, you specify:

◗   what to do with the output of translation when errors occur,

◗   whether the gateway should check business rules for each message or for each item attached to a message, and

◗   the content type for messages that the Business Rules Engine sends to recipients.

Reference
See *How to Create a Business Rules Engine Mailbox* on page 4 - 38 for more information on creating a Business Rules Engine mailbox.

Message Tracking

Introduction	The Gentran EAI Server Message Tracking feature tracks the path of messages throughout the Gentran:Server product.
How tracking works	As a message enters Gentran:Server, the Mailbox Server Manager gives it a session ID. This session ID stays with the message throughout the system as each module processes it. Each module that processes the message writes tracking information to the audit server, using the session ID to identify the message. This supplies the data that you can view to trace the path and status of the message as it is processed through the various parts of the system.
Viewing data	When you start the tracking feature, the system displays a session viewer. This viewer displays a list of all unique session IDs in the session table, one for each time a session ID is created for a message. The tracking system supports entire views of a single session. You can descend hierarchically into the message, item, and item contents levels. You can also view the translation reports for any errors that occurred.
Session filter	The session filter enables you to access information selectively. You use it to limit the amount of data displayed on the session viewer. The system saves the filter information in registry settings and applies the filter the next time you start the tracking feature. You can stop the filtering process with a toggle button on the session viewer.

Map Manager

Introduction   The Map Manager feature enables you to manage translation components. This functionality includes deleting or registering translation components and testing the validity of translation objects. The Map Manager also provides you with access to the Application Integration subsystem, which enables you to create and edit maps and compile translation objects.

Translation component   A translation component is either a map or a translation object.

Map definition   A map is the source set of instructions you define in the Application Integration subsystem. A map indicates the corresponding relationship between input and output data files of disparate formats, and defines how the system should translate data.

Translation object definition   A translation object is a compiled map. The translation object contains a set of definitions, links, and rules that combine to provide the translator with all the information necessary to convert data from one format to another. The Gentran EAI Server Business Rule Engine uses translation objects to control the processing of the translator subsystem.

Business Rule Editor

Introduction	This section provides a high-level overview of the Business Rule Editor.

What is a Business Rule?

A business rule is the criteria that determines how messages and attachments are transformed and routed between application systems. A business rule is typically defined for a specific source mailbox—unless a Global business rule is defined (a Global business rule is a rule that applies to all mailboxes). The Business Rule Engine searches Global rules for match criteria when it does not find a viable business rule match at the source mailbox level.

What is the Business Rule Editor?

The Business Rule Editor is the tool that enables you to define, delete, edit, and reorder business rules for mailboxes configured in the Mailbox Server Manager. Using the Business Rule Editor, you select the:

◗ Source mailbox

◗ Business rule name

◗ Match criteria options, including:

— Email Address

— Content type/Subtype

— Subject

— Filename

◗ Translation object

◗ Recipient mailbox values, including:

— recipient mailbox name

— Address type

— Translation object

— Audit Message number

— Override values for the match criteria

Related topic

See *Working With Business Rules*, chapter 4, for additional information on Business Rules and Business Rule Editor functionality.

Getting Started

The Implementation Process

Introduction

The process of implementing your Gentran EAI Server begins with analyzing your business processes and ends with testing the system.

Stage table

This table describes the stages in the implementation process.

Stage	Description
1	Analyze your business processes. **Reference** See *Analyzing the Business Process*, chapter 2, for instructions.
2	Identify each application system in the environment and the connection types needed for each. Create a system flow diagram that diagrams each connection. **Reference** See *Analyzing the Business Process*, chapter 2, for instructions.
3	Install the Gentran EAI Server components. **Reference** See the *Gentran EAI Server Installation Card* for instructions.
4	Install and configure any optional gateways. **Reference** See the *Options Pack Installation Card* that accompanied the gateway software for instructions.
5	Create transformation maps and register translation objects **Reference** See *Using the Map Manager*, chapter 3, for instructions.
6	Create a business rules engine mailbox. **Reference** See *Working With Business Rules*, chapter 4, for instructions.
7	Configure business rules. **Reference** See *Working With Business Rules*, chapter 4, for instructions.

(Contd) Stage	Description
8	Test the system and use message tracking to resolve any problems. **Reference** See *Tracking Messages*, chapter 5, for instructions.

Analyzing the Business Process

Contents

Overview

Introduction

In this chapter   The first step in implementing the Gentran EAI Server is to analyze your business processes. The purpose of the analysis is to determine how you want to integrate your application systems with Gentran EAI Server.

This chapter uses a business situation to illustrate how to:

◗   Analyze a business process.

◗   Achieve a business objective by using Gentran EAI Server to control the flow of data among applications.

Key terms   This table lists the key terms used in this chapter.

Term	Description
business process	A series of activities that accomplishes a business result.
business event	An activity that produces a result and moves the business process forward.
business rule	The criteria that determines whether data sent through the Mailbox Server Manager is translated and to whom data is sent.

Business Scenario

Introduction

This topic introduces the business scenario used to illustrate the analysis process.

Business situation

The CandyStore is a candy distributor. They use Gentran:Server for all of their EDI processing. They use third party software for their accounts receivable, general ledger, and accounts payable applications. They recently purchased SAP's Sales and Distribution (SD) and Merchandise Management (MM) modules to replace their legacy systems, which handle order processing, order fulfillment, invoicing, and inventory control.

The CandyStore purchased Gentran EAI Server to help integrate their applications and provide them with the information and systems management they need with these varied systems.

Business objective

The CandyStore wants to implement SAP in stages. They plan to use the SAP SD order processing system for a few selected customers first. When they know that the process works smoothly, they will gradually add customers. After fully implementing the SAP SD system, the CandyStore will begin using the SAP MM inventory control system for a few selected customers.

Until they discontinue using their legacy systems, the CandyStore needs all order entry and invoice data directed to the legacy system to retain the history database. Once their SAP MM system is fully implemented, they will discontinue using the legacy systems.

The Flow of Work

Introduction

The analysis process consists of three stages.

Summary

This table summarizes the stages in the analysis process.

Stage	Action
1	Identify the business processes.
2	Identify the events in the business processes.
3	Define the business rules.

Processes

Identifying Business Processes

Introduction

The first step in the analysis process is to identify the business processes that you want to address.

Purpose

The purpose of identifying a business process is to define the sequence of stages in the process and identify the application systems that handle each stage.

What is a business process?

A business process is a series of activities that accomplishes a business result. A business process can consist of a sequence of smaller business processes.

Examples

Examples of business processes are

◗ Order entry

◗ Order processing

◗ Invoicing

The CandyStore's customer order process

The business process that the CandyStore wants to address is its customer order process is that the CandyStore's customers order merchandise electronically, so customer orders are EDI documents that Gentran:Server processes. Gentran:Server sends the output documents to the legacy order processing application. After the legacy systems have processed the documents, the system sends them to the third party AR system, which generates the statements.

Business process diagram

This diagram shows the business processes that make up the CandyStore's current customer order process.
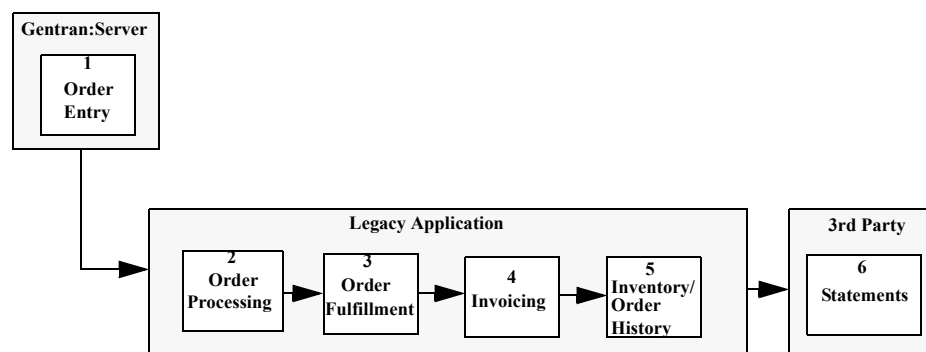
New customer order process

For selected customers, the CandyStore will use the SAP SD application to process orders, fill orders, and produce invoices. They will continue to use the legacy system to process orders from all other customers.

Invoices from both the SAP SD system and from the legacy systems will be sent to:

◗ third party accounts receivable system

◗ legacy system to retain order history
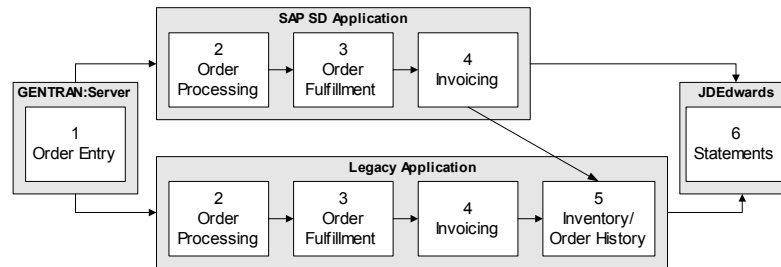
Eventually, the CandyStore wants to have invoices for selected customers directed from the SAP SD system to the new SAP MM merchandise management system. The SAP MM system will eventually replace the legacy Inventory and Order History module.
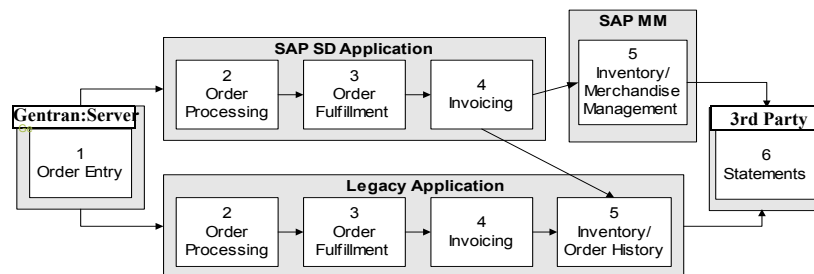
Identifying Events in the Business Process

Introduction   After you identify your business processes and diagram the stages in the business process, you can identify the business events in the processes.

Purpose   The purpose of identifying the events in the business process is to determine the points at which you need business rules to direct data between systems.

What is a business event?   A business event is an activity that produces a result and moves the business process forward.

Examples

Examples of business events are

◗   Supply requisitions enter the system

◗   Requisitions are sorted by supplier type

◗   Requisitions are processed

◗   Supply orders are sent to vendors

A business event can be an automated or a manual activity.

Business events at the CandyStore   This table identifies the business events in each stage of the customer order process at the CandyStore. Notice that some business events are manual processes.

Activity	Events
1 Order Entry	◗ Orders enter system via EDI VAN (automated process) ◗ Orders are translated into SAP Intermediate documents (IDocs) or into legacy system format (automated process) ◗ Orders are sent to SAP or to the legacy system (automated process)
2 Order Processing	◗ Orders are processed (automated process) ◗ Picktickets are produced (automated process) ◗ Picktickets are sent to warehouse (manual process)
3 Order Fulfillment	◗ Orders are picked (automated process) ◗ Picktickets are sent to invoicing (manual process) *(Continued on next page)*

(Contd) Activity	Events
4 Invoicing	◗ Changes are made to orders (automated process) ◗ Invoices are produced (automated process) ◗ Invoices are sent to Accounts Receivable system (automated process) ◗ Invoices are sent to Merchandise Management system (automated process) ◗ Invoices are sent to legacy system (automated process)
5 Inventory Control	◗ Orders are processed in the inventory control record (automated process)
5 Merchandise Management	◗ Orders are processed in the inventory control record (automated process)
6 Accounts Receivable	◗ Invoices are processed (automated process) ◗ Statements are produced (automated process)

Defining the Business Rules

Introduction   Business rules determine whether data sent through the Mailbox Server Manager is sorted or translated, and define where data is sent. You can define business rules in Gentran EAI Server wherever you have an automated business event. Usually, you will need a business rule when a business event involves moving information from one application to another.

Purpose   The purpose of defining business rules is to identify the points in the automated process that require business rules and then determine what the business rules must do.

Procedure   Use this procedure to define the business rules your system requires.

Step	Action
1	Draw a flow diagram of the business events, grouped by application system.
2	Identify the business events that involve automated movement of information from one application to another. Mark these points on the diagram.
3	Define what each business rule will do. **Examples** These are examples of activities you can have business rules perform: ◗ sort data files ◗ transform or reformat data ◗ route data

Diagram   This diagram shows the business events in the CandyStore's customer order process that involve automated movement of information from one application to another. The points at which information is moved from one application to another are marked with the letters A, B, C, and D. These points require business rules.
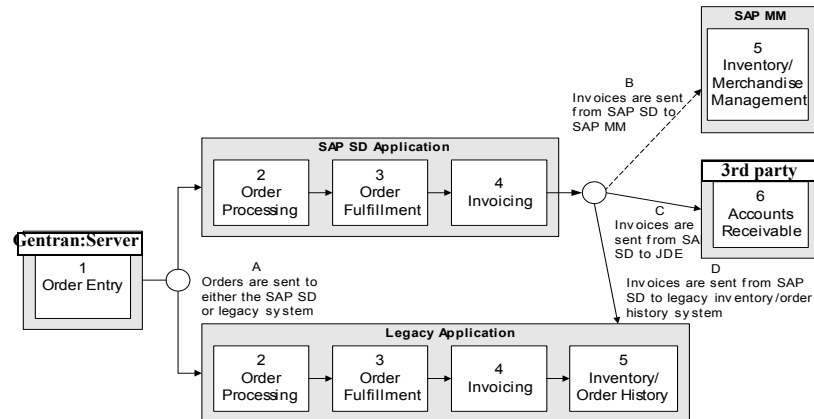
Events that require rules

These are the CandyStore business events that involve moving information from one application to another.

◗   Orders are sent from Gentran:Server to the SAP SD system or to the legacy systems

◗   Invoices are sent from the SAP SD system to the third party accounts receivable system

◗   Invoices are sent from the SAD SD system to the SAP MM merchandise management system

◗   Invoices are sent from the SAP SD system to the legacy systems

Business rules for Point A

Gentran EAI Server must distinguish between orders going to the SAP SD system and those going to the legacy system. Also, because EDI is used for other types of documents in addition to customer orders, Gentran EAI Server must send only customer orders to the SAP SD system.

The CandyStore can use the Content Type and Subtype to enable Gentran EAI Server to distinguish between the types of documents. They can define these in the Trading Partnership records within Gentran:Server so that the data is transformed before it enters Gentran EAI Server. Here are the content types that the CandyStore will assign to customer orders:

Document	Content Type	Content Subtype
SAP orders	Ord	SAP1
Legacy orders	Ord	Golden

Here are the rules needed at point A:

◗ A rule that directs data marked Ord/SAP1 to the SAP SD system

◗ A rule that directs data marked Ord/Golden to the legacy order system

◗ A rule that directs any other content type to the other legacy systems

Rules for Points B and D

At this time, the SAP SD system sends invoices to the accounts receivable and the legacy systems. (Eventually, some invoices will be sent to the SAP MM system.)

Because other types of information may eventually come from SAP SD, Gentran EAI Server needs to identify the invoices from other document types. To identify invoices, the CandyStore can have the SAP R/3 Gateway pull information from the SAP Control Record (EDI_DC) and put it into the Content Type/Subtype field of the message. Here is the content type that the CandyStore will assign to invoices:

Document	Content Type	Content Subtype
SAP invoices	Inv	SAP1

Here are the rules needed at points B and D:

◗ A rule that directs data with content type Inv/SAP1 to the accounts receivable and legacy systems

◗ A rule that directs any other content type to the legacy system for processing

◗ For each recipient, a rule that converts the information into the appropriate format for the receiving application

**Rules for
Point C**

When the CandyStore begins using the SAP MM system, they must enable Gentran EAI
Server to distinguish between invoices going to the SAP MM system and those going to
the legacy system. To do this, they can have the SAP Adapter pull another value,
SAPMM, from the SAP Control Record and store the value in the message header field.
Then they create new rules for point C:

◗   A rule that directs data with message header SAPMM and content type of Inv/SAP1
    to both the SAP MM and legacy systems

◗   A rule that directs any other content type to both the third party accounts receivable
    and to the legacy system

◗   For each recipient, a rule that converts the information into the appropriate format for
    the receiving application

Note
In all cases, the invoices go to the legacy system to retain history information. This
continues until the legacy systems are turned off.

Using the Map Manager

Overview

In this chapter	This chapter describes how to use the Gentran EAI Server Map Manager, which enables you to manage translation components.
Translation component	A translation component is either a map or a translation object.
Map definition	A map is the source set of instructions you define in the Application Integration subsystem. A map indicates the corresponding relationship between input and output data files of disparate formats, and defines how the system should translate data.
Translation object definition	A translation object is a compiled map. The translation object contains a set of definitions, links, and rules that combine to provide the translator with all the information necessary to convert data from one format to another. The Gentran EAI Server Business Rule Engine uses translation objects to control the processing of the translator subsystem.

Map Manager

Introduction	The Map Manager enables you to manage translation components. This functionality includes deleting or registering translation components and testing the validity of translation objects. The Map Manager also provides you with access to the Application Integration subsystem, which enables you to create and edit maps and compile translation objects.

Reference

See the *Application Integration User's Guide* for more information about that subsystem.

This table lists the dialog boxes that comprise the Map Manager.

Dialog box	Function
Map Manager	Allows you to create, edit, delete, register, and test translation components.
Open	Allows you to select maps (if you are using the Register function) or select a file to use in testing a translation object (if you are using the Test function).

Map Manager dialog box	This diagram illustrates the Map Manager dialog box.
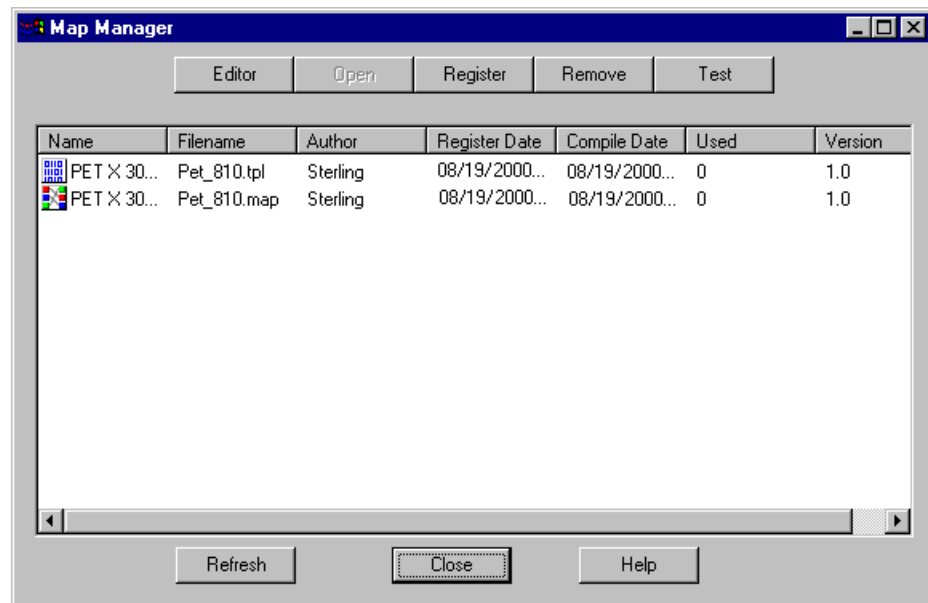
Map Manager dialog box parts and functions

This table lists the parts of the Map Manager dialog box and their functions.

Part	Function
Editor	Accesses the Application Integration subsystem to create a new translation component.
Open	Accesses the Application Integration subsystem to edit the selected translation component. **Note** This button is only activated if a map is selected.
Register	Accesses the Open dialog box, which enables you to register one or more maps or translation objects with the system.
Remove	Deletes the selected translation component or components.
Test	Accesses the Open dialog box, which allows you to select a file with which the system tests the selected translation object. **Note** This button is activated only if a single translation object is selected.
Name	Contains the descriptive name of the translation component from the Application Integration subsystem.
Filename	Contains the relative filename of the translation component file, which is located on the controller.
Author	Contains the name of the person or organization that created the translation component.
Register Date	Contains the date when the translation component was registered with the Map Manager.
Compile Date	Contains the date when the map was created or translation object was last compiled.
Used	Indicates the number of times that the translation component is used in a business rule.
Version	Contains the version number of the translation component. **Note** This number is set in the Application Integration subsystem.
Refresh	Updates the display of the Map Manager dialog box.
Close	Exits the Map Manager dialog box.
Help	Accesses context-sensitive online help.

Open dialog box   This diagram illustrates the Open dialog box.
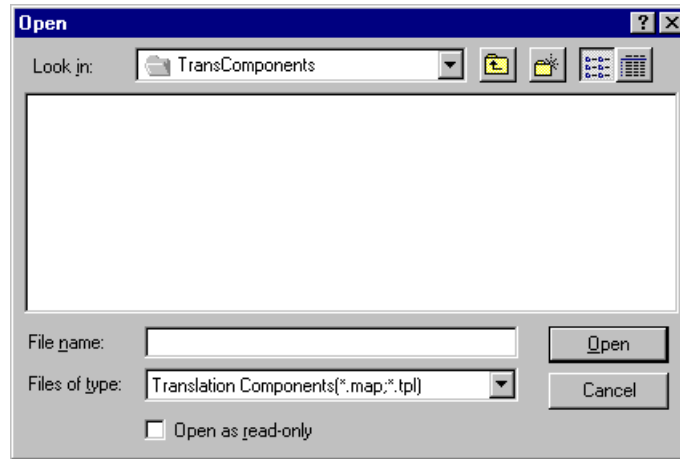
Open dialog box   This table lists the parts of the Open dialog box and their functions.
parts and
functions

Part	Function
Look in	Indicates the drive and folder where the file is located.
File name	Contains the name of the file that you want to select.
Files of type	Indicates the type of file that you want to access. **Note** ◗ The file extension for maps is .MAP. ◗ The file extension for translation objects is .TPL.
Open	Selects the chosen file and exit the Open dialog box.
Cancel	Exits the Open dialog box without selecting a file.

Test Viewer dialog box

This diagram illustrates the Test Viewer dialog box.
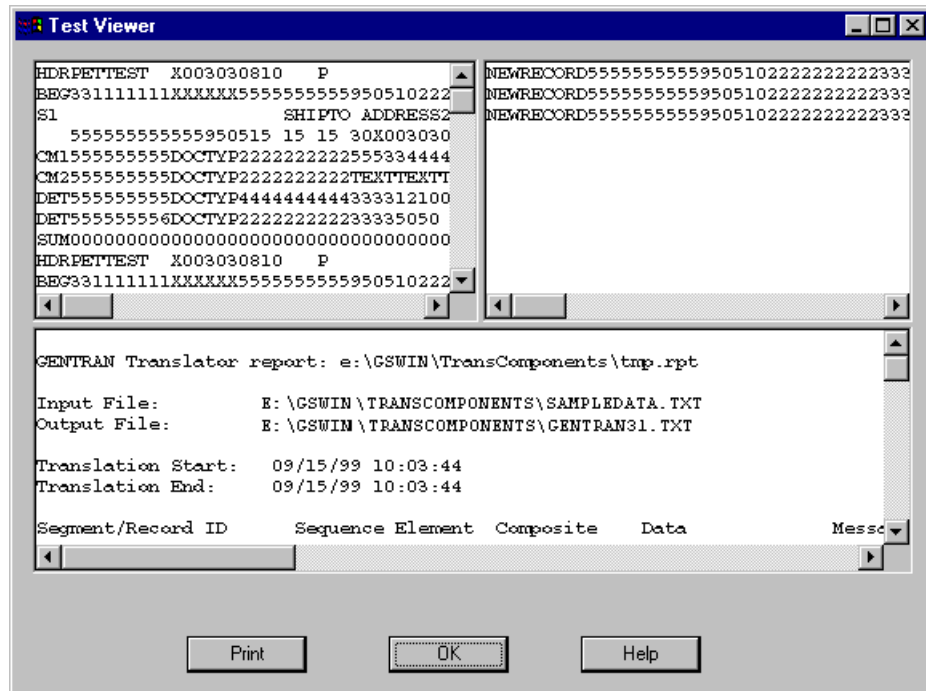
Test Viewer dialog box parts and functions

This table lists the parts of the Test Viewer dialog box and their functions.

Part	Function
Input (upper left pane)	Displays the translation object input.
Output (upper right pane)	Displays the translation object output.
Translator report (bottom pane)	Displays the translation report.
Save	Saves the contents of the selected pane in an external file.
OK	Exits the Test Viewer dialog box.
Help	Displays context-sensitive online help.

How to Create a Translation Component

Introduction   You create translation objects by compiling an application map, using the Application
Integration subsystem in Gentran:Server.

Procedure   Use this procedure to create a new translation component.

Step	Action
1	From the Start Menu, select **Programs\Gentran Server\Map Manager**. **System response** The system displays the Map Manager dialog box.
2	Click **Editor**. **System response** The system displays the Application Integration subsystem. **Reference** See the *Application Integration User's Guide* for more information on creating a new map and compiling a translation object.

How to Edit a Translation Component

Introduction   You edit translation objects by using the Application Integration subsystem in Gentran:Server.

Procedure   Use this procedure to edit a translation component.

Step	Action
1	From the Start Menu, select **Programs\Gentran Server\Map Manager**. **System response** The system displays the Map Manager dialog box.
2	▶ Select the translation component you want to modify and ▶ click **Open**. **System response** The system displays the selected map in the Application Integration subsystem. **Reference** See the *Application Integration User's Guide* or more information on modifying a map and compiling a translation object.

How to Register a Translation Component

Introduction   The Register function enables you to register your translation component with Gentran:Server so the system can identify the translation component.

Procedure   Use this procedure to register a translation object.

Step	Action
1	From the Start Menu, select **Programs\Gentran Server\Map Manager**. **System response** The system displays the Map Manager dialog box.
2	Click **Register**. **System response** The system displays the Open dialog box.
3	In the File name box, type the file name of the translation component that you want to register with the system from the list (or select translation components from the list). **Note** To highlight a group of translation components, select the first one, press the **SHIFT** key, and then select the last translation component in the group. To highlight several translation components that are not adjacent to each other, press the **CTRL** key and select each component.
4	Click **Open**. **System response** The translation components are registered and you exit the Open dialog box. <table><tr><td>**IF...**</td><td>**THEN...**</td></tr><tr><td>The selected file is invalid,</td><td>you receive a warning message. **Note** *Only* valid Gentran:Server translation object files can be installed.</td></tr><tr><td>The translation component is a duplicate,</td><td>you are prompted with a message asking whether you want to overwrite the existing component.</td></tr></table>

How to Test a Translation Object

Introduction   The test function enables you to test a translation object within the Map Manager.

Procedure   Use this procedure to test a translation object.

Step	Action
1	From the Start Menu, select **Programs\Gentran Server\Map Manager**. **System response** The system displays the Map Manager dialog box.
2	▶ Select the translation object you want to test and ▶ click **Test**. **System response** The system displays the Open dialog box.
3	Select the data file that the system will use to test the translation object.
4	Click **Open**. **System response** ▶ The system copies the translation object from the controller to your client machine and launches the translator. ▶ After the translator executes the translation object against the selected file, the system displays the Test Viewer dialog box, which displays the input, output, and translator report files.
5	Do you want to save the input, output, or translator report as an external file? **Note** This enables you to print the input, output, or translator report. ▶ If *yes*, select the appropriate pane, click **Save**, set your print options and click **OK**. ▶ If *no*, continue with the next step.
6	Click **OK** to close the browser window. **Note** The system deletes the output and translator report files when you close the browser window.

How to Delete Translation Components

Introduction   You can delete translation components from the system only if they are not used by the system (denoted with "Yes" in the Used column of the EDI Translation Objects browser).

Reference
See the "Using Translation Objects" chapter of the *Gentran:Server User's Guide* for more information on the EDI Translation Objects browser.

Procedure   Use this procedure to delete a translation component.

Step	Action
1	From the Start Menu, select **Programs\Gentran Server\Map Manager**. **System response** The system displays the Map Manager dialog box.
2	Select the translation component or components you want to delete.
3	Click **Remove**. **System response** The system deletes the selected translation components.

Working With Business Rules

Contents

Overview

Introduction

In this chapter   This chapter describes how to create a Business Rules Engine mailbox, and how and when to use business rules. It includes how to create, modify, or remove business rules using the Business Rule Editor.

Key terms   This table describes key terms used in this chapter.

Term	Description
Business Rules Engine	The engine that evaluates business rules. It is where data is transformed based on business rules.
Mailbox Server Manager	The main Gentran:Server administrative component that controls message brokering.
Match Criteria	Optional, predefined attributes that the Business Rules Engine evaluates to select a business rule. Match criteria is defined in the Business Rule Editor; selection depends on your business processes. Valid match criteria options are: ◗ Sender Email ◗ Content Type/Subtype ◗ Subject ◗ Filename Users can enter multiple match criteria options to further define a business rule. **Note** If a match criteria field contains no specified value, the Business Rules Engine accepts any value as valid match criteria.
Recipient Mailbox	A mailbox that receives information from another mailbox.
Source mailbox	A mailbox that receives application information and then passes that information to the Mailbox Server Manager for processing.

What is a business rule?   A business rule is the criteria that determines how messages and attachments are transformed and routed between application systems. A business rule is typically defined for a specific source mailbox unless a Global business rule is defined.

What is a Global Business rule?

A Global business rule is a rule that applies to all mailboxes. The Business Rules Engine searches Global rules for match criteria when it does not find a viable business rule match at the source mailbox level.

When would I use a business rule or Global business rule?

You use a business rule or Global business rule when you need to make a decision on how to route information or when information requiring translation should be routed.

Reference
See *Defining the Business Rules* on page 2 - 9 for a sample scenario of when and how to apply business rules.

What is the Business Rule Editor?

The Business Rule Editor is the tool that enables you to define, delete, edit, or reorder business rules for mailboxes configured in the Mailbox Server Manager. Using the Business Rule Editor, you select the:

◗ Source mailbox

◗ Business rule name

◗ Match criteria options, including:

— Sender E-mail Address

— Content type/Subtype

— Subject

— Filename

◗ Translation object

◗ Recipient mailbox values, including:

— recipient mailbox name

— Address type

— Recipient E-mail Address

— Translation object

— Audit Message number

— Override values for the match criteria

Accessing the Business Rule Editor

You can access the Business Rule Editor from the Gentran:Server Programs group.

What is the Business Rules Engine?

The Business Rules Engine evaluates, transforms, and routes messages that it receives from:

◗ applications passing data to mailboxes

◗ the EAITrigger Program, which triggers ODBC translation maps

What is the EAITrigger Program?

EAITrigger Program is an external program that enables the Business Rules Engine to directly access a business rule and to translate Gentran:Server ODBC data.

In the EAITrigger Program, delineated command line parameters define the source mailbox name and business rule match criteria options. The Business Rules Engine uses this information to select a business rule that uses a translation map written to select or extract data from an ODBC data source. Translation occurs based on the business rule that is applied.

This table describes valid business rule command line parameters.

To specify...	Use command Line parameter....	Is this parameter required or optional?
host name or IP address	-h	Required
Source mailbox name	-c	Required
Content Type/Subtype	-ct	Optional
Subject	-mh	Optional
Email	-pn	Optional

Example Syntax Format

This is the syntax format used with EAITrigger Program.

```
EAItrigger -h Server -c Mailbox [-ct application/txt];
```

Where:

◗ -h is the server host name or IP address (required)

◗ -c is the source mailbox name (required)

◗ [-ct application/txt] represents optional Content Type/Subtype match criteria

Dynamic routing

Typically, the Business Rules Engine routes data to recipients based on values defined in the Business Rule Editor. To add, delete, or modify business rule recipient information based on specific business data, you can define a User Exit in the translation map.

Example
If the value of an invoice is less than $100, you want the recipients to be A, B, and C. To accomplish this, you define a business rule in the Business Rule Editor that specifies A, B, and C as recipients of invoices less than $100.

If the value of the invoice is $100 or more, you also want D to receive the invoice. To accomplish this, you define a User Exit in the translation map that tells the Business Rules Engine to route the invoice to D, in addition to recipients A, B, and C.

Reference
See the "User Exits" appendix in the *Application Integration User's Guide* for detailed information on User Exits.

Dynamic recipients

Typically, the recipient mailbox is defined as a mailbox name. However, you can dynamically assign a recipient mailbox based on the source mailbox content, sub content, subject, e-mail, or filename message value.

Valid dynamic recipient mailbox options are:

◗ $CONTENT$- Content Type

◗ $FILE1$- First node of the File Name (ex. in file.txt, "file" is the first node of the file name.)

◗ $SUBJECT$- Subject

◗ $EMAIL_ADDRESS$- E-mail Address

◗ $SUBCONTENT$ - Sub Content Type

Note
To use the dynamic recipient function, you must first define a mailbox for each content type, sub content type, subject, E-mail Address, or file name value that you want to use. Otherwise, the system will not know where to send messages and you will receive an message error indicating the data failed to send.

Dynamic recipients example

You want to route a business rule to 1000 recipients. Instead of manually selecting each recipient mailbox name, you can dynamically assign a recipient mailbox based on the file name value of the source mailbox message.

In our scenario, the file name value of the source mailbox is Invoice.txt. To dynamically assign a recipient, you:

◗ create a mailbox named Invoice and

◗ select $FILE1$ as the Recipient Mailbox on the New Business Rule - Recipients dialog box.

Result
Messages received with a file name of Invoice.txt are sent to the Invoice recipient mailbox.

Processing Business Rules

Introduction

The sequential order of business rules defined for a source mailbox is important. When the Business Rules Engine receives information from a data source (message) or an external ODBC trigger (EAITrigger Program), the Business Rules Engine searches all predefined business rules for that source mailbox in the sequential order defined in the Business Rule Editor. The Business Rules Engine then applies the first business rule with criteria matching that information.

The match criteria includes:

◗   Sender E-mail Address

◗   Content Type/Sub Type

◗   Subject

◗   Filename

Note
Only one rule is applied to information being processed.

If no criteria matches the data, the Business Rules Engine searches Global business rules. If Global business rules do not contain criteria that match the data, the data is sent to the Business Rules Engine Purge Queue, and an error message indicating that the data failed to send is sent back to the source mailbox.

Processing diagram

This illustration is an example of business rules processing. The numbers listed in this diagram correspond with the stages listed on the Processing Stages table.
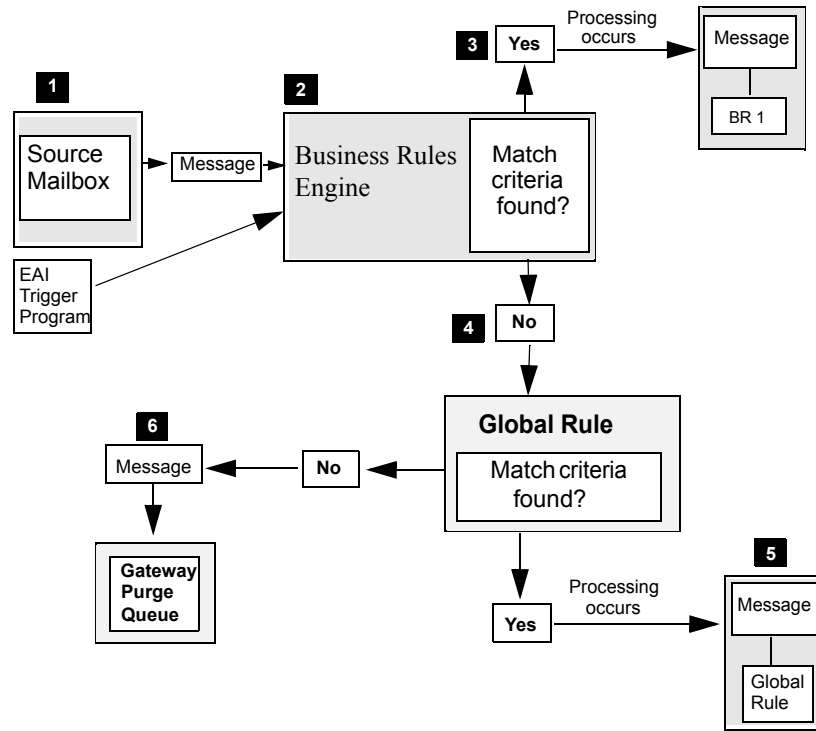
Processing stages

This table describes how business rules are used to process information. The stage numbers listed on this table correspond with the numbers shown in the Processing diagram.

Stage	Description
1	Business Rules are defined for the source mailbox in the Business Rule Editor.
2	When data is passed to the Business Rules Engine, the Business Rules Engine looks at the defined source mailbox business rules in the order in which they are listed. **Note** If the EAI Trigger is used, the Business Rule Mailbox is considered the source mailbox. Thus, the Business Rules Engine searches business rules defined for the Business Rule Mailbox.
3	The Business Rules Engine applies the first business rule with criteria that matches the data. The business rule that is applied determines how the message is processed in the system. *(Continued on next page)*

(Contd) Stage	Description
4	If no business rule contains criteria that matches the data, the Business Rules Engine searches Global business rules.
5	If the Global business rule contains criteria that matches the data, the data is processed using that Global business rule.
6	If the Global business rule does not contains criteria that matches the data, the data is moved to the Business Rules Engine Purge Queue.

Properties

Business Rules Engine Mailbox Properties

Introduction
A business rule is the criteria that determines whether data sent through the Mailbox Server Manager is translated, and to which recipients the data is sent. Business rules are linked to a specific mailbox, and a Business Rules Engine mailbox is a mailbox to which business rules are attached.

You must create a Business Rules Engine Mailbox before you create business rules. When you create this mailbox, you can configure the Business Rules Engine to send attachments to recipients in the following ways:

◗ retain the content type of the original attachment

◗ use the file extension to determine the MIME content type registered in the operating system for each attachment. If the file extension is not a registered MIME type, the system uses "Application" as the content type and the file extension as the content subtype.

◗ use the Business Rule content type entered on the Edit Business Rule Recipient dialog box for each attachment

◗ assign the content type you specify on the Business Rules Engine Mailbox Properties (Content Types tab)

For the content type of messages, the Business Rules Engine can use the:

◗ content type from the original message

◗ content type of the first attachment for each message

◗ Business Rule content type entered on the Edit Business Rule Recipient dialog box for each message

◗ value you specified for the content type on the Business Rules Engine Mailbox Properties (Content Types tab) for all messages the mailbox handles

Why use business rules?
Business rules enable you to route and translate messages based on the attributes of message attachments. The system uses the translation object specified in the business rules. The criteria the system uses to find a matching rule includes the:

◗ attachment content type

◗ attachment's subcontent type

◗ subject

◗ mailbox alias

◗ file name

◗ intended recipient

| **Relationship to Business Rules Engine** | Business Rules Engine mailbox stores the messages that are sent to and from the Business Rules Engine. The Business Rules Engine is the engine that evaluates business rules. The Business Rule Engine is: |

- ◗ where data is transformed based on business rules

- ◗ designed to operate in the background

- ◗ configured only at the mailbox level (no gateway properties)

- ◗ included with your Gentran EAI Server product

You must configure all mailboxes that use business rules to use the Business Rules Engine.

Caution
When you create a Business Rules Engine mailbox, the mailbox settings you choose apply to the entire Business Rules Engine. If you require different settings, you must configure more than one Business Rules Engine Mailbox.

Business Rules Engine Mailbox parts

All mailboxes are composed of three parts. This table describes the parts of a Business Rules Engine mailbox and their functions.

Part	Function
Inbox	Stores messages entering the Mailbox Server Manager from the Business Rules Engine.
Outbox	Stores messages entering the Business Rules Engine from the Mailbox Server Manager.
Trash	Stores messages that are ready to be removed from the system.

Note
Gentran EAI Server creates these queues automatically.

Mailbox configuration

When you configure a mailbox for the Business Rules Engine, you define:

- ◗ the mailbox type (Business Rules Engine),

- ◗ what to do with the translation output, and

- ◗ what are the message and attachment content type and subcontent types (what they look like when forwarded to recipients).

Mailbox recipients

The recipients are designated in the business rule.

Reference
See *How to Create a Business Rule* on page 4 - 25 for information about business rule recipients.

Business Rules Engine Mailbox Properties dialog tabs

The Business Rules Engine Mailbox Properties dialog box consists of two tabs:

◗ General

◗ Content Type

General tab diagram

This diagram illustrates the General tab of the Business Rules Engine Mailbox Properties dialog box.
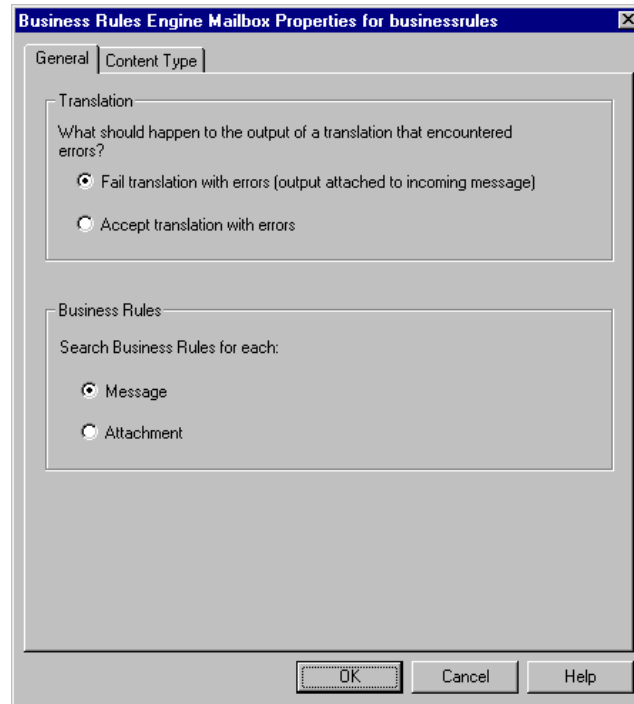
General tab parts and functions

This table describes the parts of the General tab and their functions.

Part	Function
Fail translation with errors	Causes the system to reject translation with errors.
Accept translation with errors	Causes the system to accept translation with errors.
Message	Instructs the system to search business rules for each message.
Attachment	Instructs the system to search business rules for each attachment.
OK	Saves changes to this dialog box.
Cancel	Cancels changes to this dialog box.
Help	Displays online Help for this dialog box.

Content Type tab diagram

This diagram illustrates the Content Type tab of the Business Rules Engine Mailbox Properties dialog box.
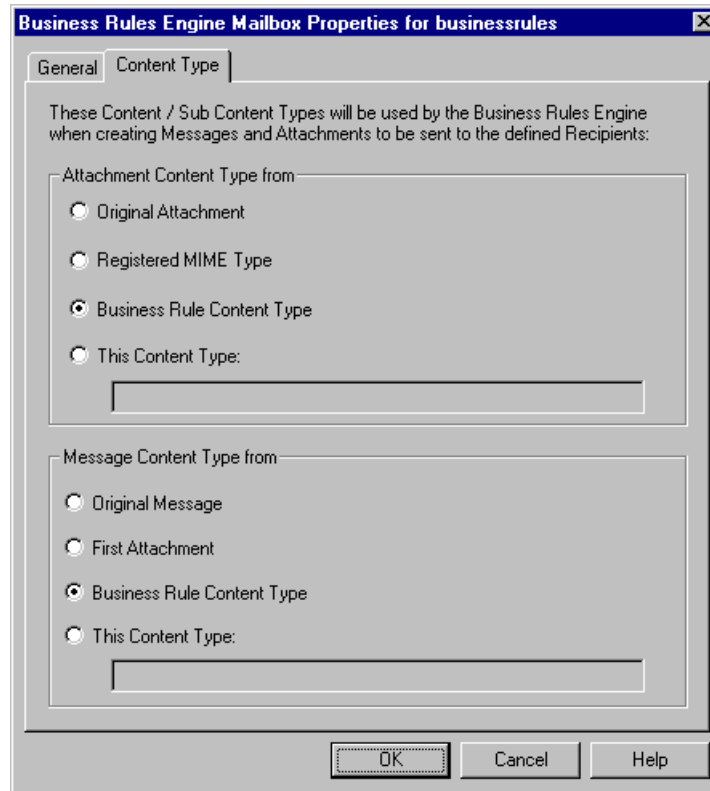
Content Type tab parts and functions

This table describes the parts of the Content Type tab and their functions.

Part	Function
Original Attachment	Derives the content type for attachments from the content type of the original attachment.
Registered MIME Type	Derives the content type for attachments from the registered MIME type for the file extension.
Business Rule Content Type	Uses the content type set in the business rule for attachments.
This Content Type	Uses the specified content type for attachments.
Original Message	Derives the content type for messages from the content type of the original message.
First Attachment	Derives the content type for messages from the content type of the first attachment.
	(Continued on next page)

(Contd) Part	Function
Business Rule Content Type	Uses the content type set in the business rule for messages.
This Content Type	Uses the specified content type for messages.
OK	Saves changes to this dialog box.
Cancel	Cancels changes to this dialog box.
Help	Displays online Help for this dialog box.

Business Rule Editor

Introduction   This section describes the parts and functions of the Business Rule Editor.

Business Rule Editor   This is an illustration of the Business Rule Editor.

Parts and functions   This table describes the parts of the Business Rule Editor dialog box and their functions.

Part	Function
Mailbox	Displays business rules for a selected mailbox, all mailboxes <All>, or a global mailbox <Global>.
Source	Specifies the mailbox to which the business rule applies.
Rule Name	Specifies the business rule name.
Sender Email Address	A user-defined, external reference that is used as business rule match criteria. You define this information on either the New or Edit Business Rule dialog box. **Note** Wildcard characters are valid options. **Example** newmail@*

(Contd) Part	**Function**
Content Type/ Subtype	Indicates a user-defined or Multipurpose Internet Mail Extension (MIME) type of the information being transmitted. The content type determines which mechanism to use to display the data. You define this information on either the New or Edit Business Rule dialog box. **Note** Wildcard characters are valid options. **Example** app/*
Subject	Specifies additional descriptive information that is used as business rule match criteria. You define this information on either the New or Edit Business Rule dialog box. **Note** Wildcard characters are valid options. **Example** INV*
Filename	Specifies a file name or type that is used as business rule match criteria. You define this information on either the New or Edit Business Rule dialog box. **Note** Wildcard characters are valid options. **Example** *.txt
Translation Object	Specifies the translation object associated with the business rule.
New	Enables you to create a new business rule.
Edit	Enables you to edit a selected business rule.
Remove	Removes a selected business rule.
Move Up	Moves a selected business rule up one position in the processing order.
Move Down	Moves a selected business rule down one position in the processing order.
Recipients	Displays the recipients for a selected business rule.
Print	Enables you to select mailboxes that you want to include on the Business Rule Editor report. *(Continued on next page)*

(Contd) Part	Function
Export	Enables you to export business rules for use on another machine.
Import	Enables you to import business rules that you previously defined.
Apply	Applies and saves changes to a business rule; does not exit the Business Rule Editor.
OK	Saves and applies changes; exits the Business Rule Editor.
Cancel	Cancels unsaved changes; exits the Business Rule Editor.
Help	Launches the online Help system.

New Business Rule dialog box

This is an illustration of the New Business Rule dialog box.

Parts and functions

This table describes the parts of the New Business Rule dialog box and their functions.

Part	Function
Source Mailbox	Specifies the mailbox where data originates. **Example** In the Mailbox Server Manager, you set up a mailbox called SAPMailbox to send and receive SAP data. You want to specify the criteria by which SAP data is translated. To do this, you create a new business rule in the Business Rule Editor and list SAPMailbox as the source mailbox.
Rule Name	Defines the name of the business rule.
Sender Email Address	A user-defined, external reference used as business rule match criteria. **Note** Wildcard characters are valid options. **Example** newmail@*
Content Type/ Subtype	Indicates the user defined or Multipurpose Internet Mail Extension (MIME) type of the information being transmitted. The content type determines which mechanism to use to display the data. These are determined by default as Application/file extension. **Note** Wildcard characters are valid options. **Example** app/*
Subject	Specifies additional descriptive information that is used as business rule match criteria. **Note** Wildcard characters are valid options. **Example** INV*
Filename	Specifies a filename that is used as business rule match criteria. **Note** Wildcard characters are valid options. **Example** *.txt

(Contd) Part	Function
Translation Object	Enables you to select a valid translation object at the business rule level. **Note** If you specify a translation object at both the business rule and the recipient level, the translation object specified at the recipient level overrides the one specified at the business rule level.
OK	Saves changes; launches the New Business Rule Recipient dialog box.
Cancel	Cancels changes; returns to the Business Rule Editor dialog box.
Help	Launches the online Help system.

New Business Rule Recipient dialog box

This is an illustration of the New Business Rule Recipient dialog box.

Parts and functions

This table describes the parts of the New Business Rule Recipient dialog box and their functions.

Part	Function
Mailbox/Rule (appears dimmed)	Defines the name of the Mailbox and the rule to which you want to assign a recipient.
Recipient Mailbox	Defines the mailbox to which the message is being sent. Valid options are configured mailboxes and: ◗ $CONTENT$ - recipients are dynamically selected based on incoming message Content Type values. ◗ $FILE1$ - recipients are dynamically selected based on incoming message Filename value. ◗ MSG_HEADER - recipients are dynamically selected based on incoming message Subject value. ◗ $EMAIL_ADDRESS$ - recipients are dynamically selected based on incoming message E-mail Address values. ◗ $SUBCONTENT$ - recipients are dynamically selected based on incoming message Sub Content Type value.
Address Type	Defines the recipient address type. Valid options are: ◗ TO - send the message and attachments to the recipient. ◗ CC - send a carbon copy of the message and attachments to the recipient. ◗ BCC - send a blind carbon copy of the message and attachments to the recipient.
Recipient Email Address	Defines an Email Address value at the recipient level.
Translation Object	Defines the translation object at the recipient level. **Reference** See *Using the Map Manager*, chapter 3, for more information on defining and using translation objects.
Audit Message	Specifies an audit message number. When a message containing an audit message number is sent to the recipient, the Business Rules Engine writes an audit message. This allows an operator to be notified using the Audit/Notification server. **Reference** See the "Error Messages" appendix of the *Administration Guide* for more information on defining and using translation objects. (Continued on next page)

(Contd) Part	Function
Override Values for Recipient	Enables you to define recipient message values that are different from those in the original message. Override options are: ◗ Content Type/Subtype ◗ Subject ◗ Filename Each override field can use the following key words: ◗ $FILE$ - specifies the complete source filename ◗ $FILE1$ - specifies the first node of the source filename **Example** If the source filename is Invoice.txt, $FILE1$ would designate Invoice as the filename. **Note** You cannot use the characters \ / : * ? " < > | when setting up your filename key word. ◗ $DATE$ - specifies the system date (based on your Windows Date/Time settings) ◗ $TIME$ - specifies the system time (based on your Windows Date/Time settings) ◗ $EMAIL_ADDRESS$ - specifies the E-mail Address of the source message ◗ $CONTENT$ - specifies the Content Type of the source message ◗ $SUBCONTENT$ - specifies the Sub Content Type of the source message ◗ MSG_HEADER - specifies the Subject of the source message **Note** You can use a combination of key words in the Override Values for Recipient field. **Example** If you want to use Date and Time key words, you could enter $File1$_$Date$_$Time$ as the filename override value.
OK	Saves changes; displays a prompt asking whether you want to add another recipient for this business rule.
Cancel	Cancels changes; returns to the Business Rule Editor dialog box.
Help	Launches the online Help system.

Edit Business Rule dialog box

This is an illustration of the Edit Business Rule dialog box.


Parts and functions

This table describes the parts of the Edit Business Rule dialog box and their functions.

Part	Function
Source Mailbox (appears dimmed)	Identifies the mailbox to which the business rule applies.
Rule Name (appears dimmed)	Identifies the business rule name.
Match Criteria	Identifies business rule match criteria available for edit. That criteria includes: ▶ Sender Email Address ▶ Content Type/Subtype ▶ Subject ▶ Filename **Note** Wildcard characters are valid for all match criteria fields. **Example** *.txt (Continued on next page)

(Contd) Part	Function
Translation Object	Enables you associate a valid translation object. **Reference** See Using the Map Manager, chapter 3, for more information on defining and using translation objects.
OK	Applies and saves changes; returns to the Business Rule Editor dialog box.
Cancel	Cancels unsaved changes; returns to the Business Rule Editor dialog box.
Help	Launches the online Help system.

Business Rule Editor Recipients dialog box

This is an illustration of the Business Rule Editor - Recipients dialog box.
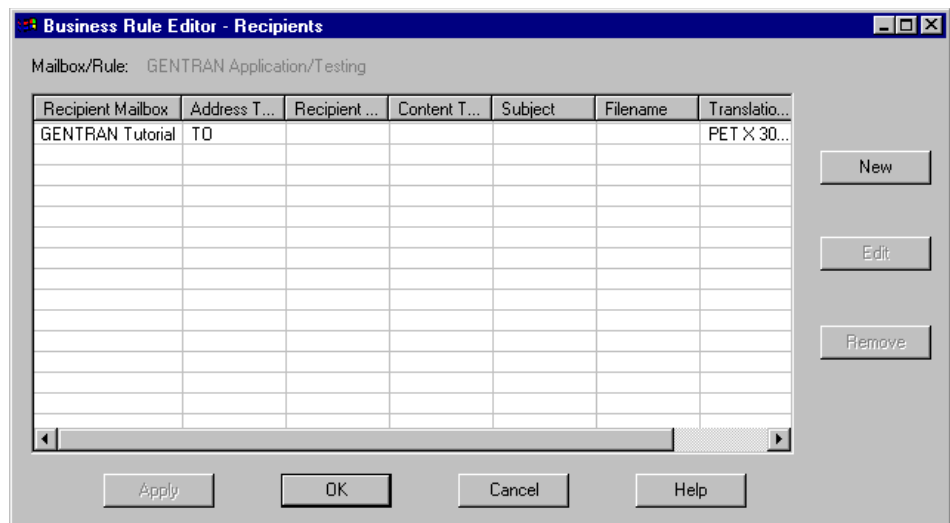
Parts and functions

This table describes the parts of the Business Rule Editor - Recipients dialog box and their functions. The values on this dialog box represent those defined on the New or Edit Business Rule - Recipients dialog box.

Part	Function
Mailbox/Rule: (appears dimmed)	Describes the mailbox and business rule name associated with the recipient.
Recipient Mailbox	Identifies the name of the business rule recipient.

(Contd) Part	Function
Address Type	Identifies the recipient address type. Valid options are: ▶ TO - send the message and attachments to the recipient. ▶ CC - send a carbon copy of the message and attachments to the recipient. ▶ BCC - send a blind carbon copy of the message and attachments to the recipient.
Recipient Email Address	Identifies an override E-mail Address value.
Content Type/ Subtype	Identifies an override content type and sub-content type value.
Subject	Identifies an override Subject value.
Filename	Identifies an override Filename value.
Translation Object	Identifies the translation object defined at the recipient level. **Reference** See Using the Map Manager, chapter 3, for more information about defining and using translation objects.
Audit Message	Identifies a four-digit code that the user defines in the Audit system. The code that is entered in the Audit Message field identifies a message to be written to the Audit system, which notifies the user when a message is sent to this recipient. **Reference** See the "Error Messages" appendix of the *Administration Guide* for more information about defining and using translation objects.
New	Enables you to add a new recipient using the New Business Rule Recipient dialog box.
Edit	Enables you to edit the properties of a selected recipient.
Remove	Removes a selected business rule recipient.
Apply	Applies and saves changes made to business rule recipients; does not exit the Edit Business Rule - Recipient dialog box.
OK	Saves and applies changes; returns to the Business Rule Editor dialog box.
Cancel	Cancels unsaved changes; returns to the Business Rule Editor dialog box.
Help	Launches the online Help system.

Print Report dialog box

This is an illustration of the Print Report dialog box.
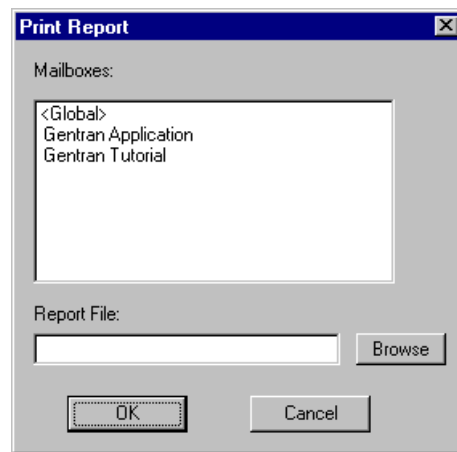
Parts and functions

This table describes the parts of the Print Report dialog box and their functions.

Part	Function
Mailboxes list	Displays a list of configured mailboxes.
Report File	Specifies the path and filename to which you want the Business Rule Editor report to print or click **Browse** to navigate to the location.
OK	Saves and applies changes; returns to the Business Rule Editor dialog box.
Cancel	Cancels unsaved changes; returns to the Business Rule Editor dialog box.

Procedures

How to Create a Business Rule

Introduction   This section describes how to create a business rule.

Before you begin   Before you begin this procedure, verify the following:

◗   The source mailbox has been accurately configured.

◗   The destination mailbox has been accurately configured.

◗   The maps or translation objects that you may want to use are complete, accurate, and registered.

Reference
See Using the Map Manager, chapter 3, for more information about defining and using translation objects.

Procedure   Use this procedure to create a business rule.

Step	Action
1	Start the Business Rule Editor.
2	Click **New**. **System Response** The system displays the New Business Rule dialog box.
3	Select the mailbox to which you want to apply the business rule from the **Source Mailbox** list. **Note** Mailbox selection is required.
4	Type the name of the business rule in the **Rule Name** box. **Note** The Rule Name is required.

(Contd) Step	Action
5	Under **Match Criteria**, type in the appropriate boxes the criteria by which you want the Business Rules Engine to match data. Valid match criteria includes: ◗ Sender Email Address ◗ Content Type/Subtype ◗ Subject ◗ Filename **Note** You can define more than one match criteria parameter. **Note** Wildcard characters are valid for all match criteria fields. **Example** (*.txt)

6	Do you want to associate a translation object at the mailbox level?
	
	◗ If *yes*, select a translation object from the **Translation Object** list. Continue with the next step.
	
	    Note
	    The translation object that you select will be applied to all files.
	
	    The translation object can be associated at the mailbox or recipient level. However, a translation object defined at the Recipient level overrides one defined at the Mailbox level.
	
	◗ If *no*, continue with the next step.
	
	Reference
	See Using the Map Manager, chapter 3, for more information about defining and using translation objects.

7	Click **OK** to save your changes. **System Response** The system displays the New Business Rule - Recipient dialog box. You use this dialog box to designate the data recipient.
8	Select the mailbox from the **Recipient Mailbox** list to which you want to send data. **Note** The Recipient Mailbox is required. You can select a configured mailbox or global mailbox recipient or the criteria for dynamic recipient selection. (Continued on next page)

(Contd) Step	Action
9	Select the Address Type from the **Address Type** list. **Note** The Address Type is required.
10	Do you want to specify an email value at the recipient level? ◗ If *yes*, type the email value in the **Recipient Email** box. Continue with the next step. ◗ If *no*, continue with the next step.
11	Do you want to associate a translation object at the recipient level? ◗ If *yes*, select a translation object from the **Translation Object** list. Continue with the next step. ◗ If *no*, continue with the next step.
12	Do you want the Business Rules Engine to write an audit message when the data is sent? ◗ If *yes*, type the audit message code in the **Audit Message** box. This value represents a 4-digit, numeric code that you pre-defined in the Audit Notification system. Continue with the next step. **Reference** See the "Error Messages" appendix in the *Administration Guide* for valid Audit Message codes. ◗ If *no*, continue with the next step.
13	Do you want the recipient message values to differ from that of the original message? ◗ If *yes*, under **Override values for Recipient**, type the values in the appropriate box. Continue with the next step. ◗ If *no*, continue with the next step.
14	Click **OK**. **System Response** The system displays a prompt asking whether you want to add another recipient for this business rule. *(Continued on next page)*

(Contd) Step	Action
15	Do you want to add other recipients? ◗ If *yes*, click **Yes** at the prompt. Repeat Steps 8 through 13 for each additional recipient. After you add the last recipient, click **No** at the prompt to exit the New Business Rule Recipient dialog box. ◗ If *no*, click **No**. **System Response** You return to Business Rule Editor. **Note** The Business Rule Editor displays each source mailbox in alphabetical order. A business rule displays beneath its associated source mailbox in the sequential order in which it is entered or moved.

How to Reorder, Modify, or Remove a Business Rule

Introduction   This section describes how to modify or how to remove a business rule.

How to change the order of business rules   Use this procedure to move a business rule up or down in the processing order.

Step	Action
1	Start the Business Rule Editor.
2	Select the business rule that you want to move up or down.
3	Click **Move Up** or **Move Down** depending on the order in which you want the Business Rules Engine to process business rules.
4	Repeat the Steps 2 and 3 until the business rule is in the correct processing order.
5	Click **Apply** to apply your changes.
6	Click **OK** to exit the Business Rule Editor.

How to modify a business rule   Use this procedure to modify a business rule.

Step	Action
1	Start the Business Rule Editor.
2	Select the business rule that you want to modify, and click **Edit**. **System Response** The system displays the Edit Business Rule dialog box.
3	Type your modifications in the appropriate box.
4	Click **OK**. **System Response** The system saves your changes and returns you to the Business Rule Editor.
5	Click **OK** to exit the Business Rule Editor.

How to remove a business rule

Use this procedure to remove a business rule.

Note
Before you can remove a business rule, you must first remove its associated recipients.

Step	Action
1	Start the Business Rule Editor.
2	Highlight the business rule that you want to remove.
3	Click **Recipients**. **System Response** The system displays the Business Rule Editor - Recipients dialog box.
4	Select all recipients associated with the business rule.
5	Click **Remove**. **System Response** The system displays a message asking whether you want to remove the selected recipients.
6	Click **Yes** to acknowledge the prompt. **System Response** The system removes the selected recipients.
7	Click **OK** to save your changes and to return to the Business Rule Editor.
8	Highlight the business rule that you want to remove.
9	Click **Remove**. **System Response** The system displays a message asking whether you are sure that you want to remove the selected item.
10	Click **Yes**. **System Response** The system removes the business rule from the Business Rule Editor.

How to remove multiple business rules

Use this procedure to remove multiple business rules.

Note
Before you can remove a business rule, you must first remove its associated recipients.

Step	Action
1	Start the Business Rule Editor.
2	Select the first business rule that you want to remove.
3	Click **Recipients**. **System Response** The system displays the Business Rule Editor - Recipients dialog box.
4	Select all recipients associated with the business rule.
5	Click **Remove**. **System Response** The system displays a message asking whether you want to remove the selected recipients.
6	Click **Yes** to acknowledge the prompt. **System Response** The system removes the selected recipients.
7	Click **OK** to save your changes and to return to the Business Rule Editor.
8	Repeat Steps 2 through 7 to remove recipients associated with each Business rule that you want to remove.
9	Press **Ctrl** while selecting each business rule that you want to remove.
10	Click **Remove**. **System Response** The system displays a message asking whether you are sure that you want to remove the selected items.
11	Click **Yes**. **System Response** The system removes the selected business rules from the Business Rule Editor.

How to Add, Modify, or Remove a Recipient

Introduction   This section describes how to add, modify or remove a business rule recipient.

How to add a recipient   Use this procedure to add a business rule recipient.

Step	Action
1	Start the Business Rule Editor.
2	Select the business rule to which you want to add a recipient, and click **Recipients**. **System Response** The system displays the Business Rule Editor - Recipients dialog box.
3	Click **New**. **System Response** The system displays the New Business Rule - Recipient dialog box.
4	Type the new recipient information.
5	Click **OK**. **System Response** You return to the Business Rule Editor - Recipients dialog box.
6	Click **OK**. **System Response** You return to the Business Rule Editor.
7	Click **OK** to exit the Business Rule Editor.

How to modify a recipient

Use this procedure to modify a business rule recipient.

Step	Action
1	Start the Business Rule Editor.
2	Select the business rule associated with the recipient that you want to modify, and click **Recipients**. **System Response** The system displays the Business Rule Editor - Recipients dialog box.
3	Select the business rule recipient that you want to modify, and click **Edit**. **System Response** The system displays the Edit Business Rule - Recipient dialog box with the selected recipient's current properties.
4	Type your modifications in the appropriate box.
5	Click **OK**. **System Response** The system saves your changes and returns you to the Business Rule Editor - Recipients dialog box.
6	Click **OK** to save the changes and to return to the Business Rule Editor.
7	Click **OK** to exit the Business Rule Editor.

How to remove a recipient

Use this procedure to remove a business rule recipient.

Step	Action
1	Start the Business Rule Editor.
2	Select the business rule for which you want to remove a recipient, and click **Recipients**. **System Response** The system displays the Business Rule Editor - Recipients dialog box.
3	Select the business rule recipient that you want to remove. **Note** To remove multiple recipients, press **Ctrl** and **click** the mouse to select each recipient that you want to remove. (Continued on next page)

(Contd) Step	Action
4	Click **Remove**. **System Response** The system displays a message asking whether you are sure that you want to remove the selected item.
5	Click **Yes**. **System Response** The system removes the business rule recipient.
6	Click **OK** to save the changes and to return to the Business Rule Editor.
7	Click **OK** to exit the Business Rule Editor.

How to Create a Business Rule Editor Report

Introduction

This section describes how to create a Business Rule Editor report.

Procedure

Use this procedure to create a Business Rule Editor report.

Step	Action
1	Start the Business Rule Editor.
2	Click **Print**. **System Response** The system displays the Print Report dialog box.
3	Select the mailbox for which you want to print a report. **Note** Press **Ctrl** while selecting multiple mailboxes.
4	Type the path and filename where you want the report to print.
5	Click **OK**.

Sample Business Rule Editor Report

This is an illustration of a Business Rule Editor report.

```
Business Rule Editor Report

Source Mailbox:

    <Global>
  Rule_Name
    Sender Email: Ruler
    Content Type: Cont
    Content SubType: Sub
        Subject: Test
        Filename: sample.dat
    Translation Object: Translate

    Recipients:
      Recipient Mailbox: SAP
      Address Type: To
      Recipient Email: Receiver Param
      Translation Object: Receiver Trans
      Audit: 10
      Content Type: Receiver Cont
      Content SubType: Receiver Sub
      Subject: Receiver Header
      Filename: Receiver filename
```

Parts and functions

This table describes the parts of the Business Rule Editor report and their functions.

Part	Function
Source Mailbox	Represents the source mailbox for which you want to print a report.
Rule_Name	Represents the first Business Rule listed in the Business Rule Editor for the associated source mailbox.
Sender Email	Represents E-mail Match Criteria for the associated business rule. This information is defined on the New or Edit Business Rule dialog box.
Content Type	Represents Content Type Match Criteria for the associated business rule. This information is defined on the New Business Rule dialog box.
Content Subtype	Represents Subtype Match Criteria for the associated business rule. This information is defined on the New Business Rule dialog box.
Subject	Represents Subject Match Criteria for the associated business rule. This information is defined on the New Business Rule dialog box.
Filename	Represents Filename Match Criteria for the associated business rule. This information is defined on the New Business Rule dialog box.
Translation Object	Represents the translation object for the associated business rule. This information is defined on the New Business Rule dialog box.
Recipient Mailbox	Represents the recipient mailbox associated with the selected business rule.
Address Type	Represents the Address Type defined on the New Business Rule - Recipients dialog box.
Recipient Email	Represents Email Override values for recipient defined on the New Business Rule - Recipients dialog box.
Translation Object	Represents the translation object for recipient defined on the New Business Rule - Recipients dialog box.
Audit	Represents Audit Message values defined at the recipient mailbox level.
Content Type	Represents Content Type Override values for recipient defined on the New Business Rule - Recipients dialog box.

(Continued on next page)

(Contd) Part	Function
Content Subtype	Represents Subtype Override values for recipient defined on the New Business Rule - Recipients dialog box.
Subject	Represents Subject Override values for recipient defined on the New Business Rule - Recipients dialog box.
Filename	Represents Filename Override values for recipient defined on the New Business Rule - Recipients dialog box.

How to Create a Business Rules Engine Mailbox

Introduction   This section describes how to create a Business Rules Engine Mailbox.

Procedure   Use this procedure to create a Business Rules Engine Mailbox.

Step	Action
1	Start the Mailbox Server Manager. **Reference** See the Gentran:Server Communications User's Guide for more information on using the Mailbox Server Manager. **System Response** The system displays the Mailbox Server Manager browser.
2	Select the Mailboxes folder icon.
3	Right-click and select **Create**. **System Response** The system displays Create Mailbox Wizard.
4	Type the name of the mailbox you are creating, and click **Next** twice. **System Response** The system displays a dialog box that asks you whether you want use the mailbox as a gateway.
5	Select **Yes, use this mailbox as a gateway**.
6	Select **Business Rules Engine** as the type of gateway to use with this mailbox, and click **Next**. **System Response** The system displays the Summary dialog box.
7	Is the information that you entered correct? ◗ If *yes*, click **Finish**. ◗ If *no*, click **Back** to correct the information. **System Response** The system displays the Business Rules Engine Mailbox Properties dialog box. (Continued on next page)

(Contd) Step	Action
8	On the General tab, select an option for the output of translation that has errors from the Translation section of the tab. **Reference** See *General tab parts and functions* on page 4 - 11 for more information.
9	From the Business Rules section of the tab, select either **Message** or **Attachment** as the method for searching business rules.
10	Select the Content Type tab. **System Response** The system displays the Content Type tab. **Reference** See *Content Type tab parts and functions* on page 4 - 12 for more information.
11	From the **Attachment Content Type from** section of the tab, select the method that determines the content type of attachments that the Business Rules Engine creates.
12	From the **Message Content Type from** section of the tab, select the method that determines the content type of messages that the Business Rules Engine creates.
13	Click **OK** to exit the dialog box. **Reference** See the *Gentran:Server Communications User's Guide* for more information on setting up general mailbox properties.

Tracking Messages

Overview

Introduction

In this chapter   This chapter describes how to track the status of messages that pass through the Mailbox Server Manager.

Key terms   This table lists the key terms used in this chapter.

Term	Description
attachment	An item, such as a document, attached to a message.
event	A set of actions that the Gentran:Server Process Control subsystem or unattended processor starts.
filter	The Gentran:Server feature that enables you to set criteria to limit the display of messages or other information.
message tracking	The process of identifying the stages and status of a message as it passes through the Mailbox Server Manager.

Message Tracking Process

Definition Message tracking is the process of identifying the stages and status of a message as it passes through the Mailbox Server Manager.

Purpose The Gentran EAI Server Message Tracking subsystem displays information that tells you what happened to a message as each part of the system processed it. This enables you to track the source of a problem to resolve message flow problems.

Levels of information The Message Tracking subsystem displays several levels of information. This table describes each level.

Level	Description
Series	Lists unique series IDs. Each series ID is a system-assigned value that represents the flow of a message through the system.
Messages	Displays the message IDs that resulted when various mailboxes processed a single series ID.
Attachments	Lists the document attached to a specific message ID.
Message History	Displays the chronological history for a specific message ID.
Content	Displays content information about a specific attached document.

Filter The Message Tracking subsystem has a filtering option. You use the filter to set criteria for the display at the series level.

The filter saves time because it limits the display to the series IDs that meet the criteria. You can set filter values to view only certain types of series IDs or those in a specific date range.

Message tracking stages This table presents the stages in using message tracking to resolve a message flow problem.

Stage	Description
1	The Gentran EAI Server system notifies you of a message flow error.
2	You access Gentran EAI Server Message Tracking. **Reference** See *How to Start Message Tracking* on page 5 - 21.

(Contd) Stage	Description
3	You locate the series ID that has the error on the Tracking dialog box. **Reference** See *How to View Series ID Information* on page 5 - 22.
4	You navigate to the message and attachment levels to see what caused the error. **References** ◗ See *How to View Message IDs for a Series* on page 5 - 25 for information about viewing message ID information for a series. ◗ See *How to List Message Attachments* on page 5 - 28 for information about viewing information about the attachment to a message ID.
5	You use the message history to see what action the system took with the error. **Reference** See *How to View Message History* on page 5 - 27 for instructions.
6	You determine what caused the problem.
7	You take the appropriate action to rectify the error.
8	You resend the message from the mailbox where the error originated. **Reference** See the *Communications User's Guide* for instructions.

Identifiers Used to Track Messages

Introduction   The system generates several types of identifiers as it processes a message. The Message Tracking subsystem stores these identifiers so that you can use them to trace what happened to a message.

Identifier table   This table describes the identifiers that the Message Tracking subsystem displays:

Identifier	Description
Series ID	The identifier that the Mailbox Server Manager assigns to a message when the message is first created. A message retains the same series ID throughout its life in the Mailbox Server Manager.
Event ID	The identifier that the system assigns to an even that the Gentran:Server Process Control subsystem or unattended processor starts.
Message ID	The identifier that the system assigns to a message at the mailbox level to signal that another mailbox processed the message.
Attachment ID	The identifier that designates an attachment to a message.

Series ID   When a message enters Gentran:Server, the Mailbox Server Manager assigns the message a unique *series ID*. The series ID stays with the message as it travels through the system.

Each gateway, delivery agent, or other module that handles the message writes processing information to the audit server. The series ID identifies the message at each step. This enables you to track the path of a message throughout the Gentran:Server system. You use the Message Tracking subsystem to view these audit entries.

The Tracking Dialog Box

Introduction   When you start the Message Tracking subsystem, Gentran EAI Server displays the Tracking dialog box. This dialog box displays a list of series IDs that the Mailbox Server Manager assigned to messages.

If you use the filter, the list contains only those series IDs that match the filter values. If you do not use the filter, the list contains all the series IDs in the session table.

Reference
See *The Filter Properties Dialog Box* on page 5 - 8 for details about the filter.

Tracking dialog box   This illustration shows the Tracking dialog box. Each row represents a unique series ID.
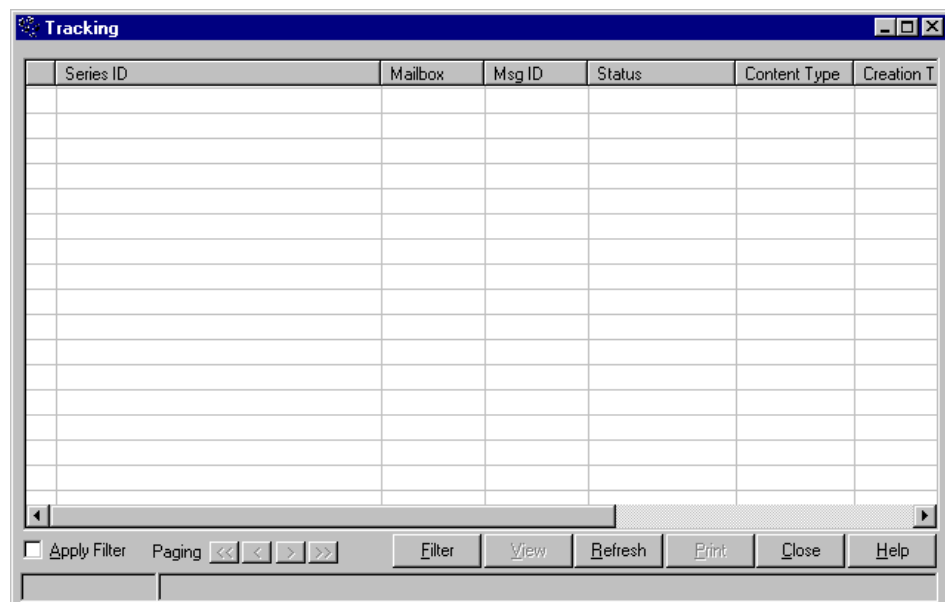
Parts and functions   This table describes the parts of the Tracking dialog box and their functions.

Part	Function
Indicator Icon	Indicates whether processing is completed or in progress. ◗ Green indicates that processing has completed successfully. ◗ Blue indicates that processing is in progress. ◗ Red indicates that processing failed.
Series ID	Displays the series ID of the message. *(Continued on next page)*

(Contd) Part	Function
Mailbox	Displays the name of the source mailbox.
Msg ID	Displays the message ID assigned at the source mailbox.
Status	Displays the status of the message at this point in the processing cycle. **Reference** See *Message Status* on page 5 - 18 and *Recipient Status* on page 5 - 20 for values and descriptions.
Content Type	Displays the content type.
Creation Time	Displays the time that the message was created in the source mailbox. The format is YYYY-MM-DD HH:MM:SS.
Subject	Displays the subject of the message.
Email Address	Displays the external identifier of the recipient.
Apply Filter	Determines whether or not the filter values are used to limit which series IDs the dialog box displays. **Note** This check box acts as a toggle switch to turn the filter on and off.
Paging	Enables you to page backward and forward through the rows listed on the Tracking dialog box.
Filter	Displays the Filter Properties dialog box. Use this dialog box to set values that limit which message information the system displays.
View	Displays the Tracking-Messages dialog box for the selected row.
Refresh	Updates the displayed information.
Print	Disabled in this release.
Close	Closes the Tracking dialog box.
Help	Launches the online Help system.

The Filter Properties Dialog Box

Introduction   The Filter Properties dialog box enables you to set the search criteria you want to use when you track messages. The values you set are saved on your client machine.

Purpose   The reason for setting search values on the Filter Properties dialog box is to limit the number of messages and attachments the system displays. This makes it easier to locate the messages you want to track.

Filter Properties dialog box   This illustration shows the Filter Properties dialog box.
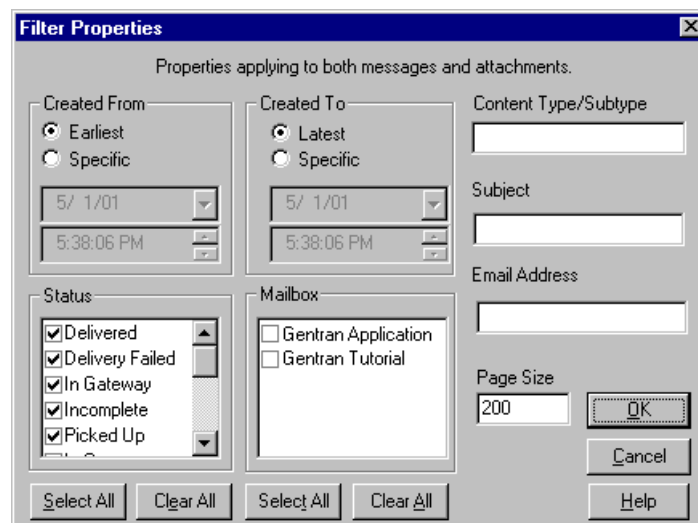
Parts and functions   This table describes the parts of the Filter Properties dialog box and their functions.

Part	Function
Created From	
Earliest	Instructs the filter to display data beginning with the earliest date and time values in the system.
Specific	Instructs the filter to display data for the date and time values you type in the date and time lists (or select from the calendars displayed when you click the list arrow).
Created To	
Latest	Instructs the filter to display data ending with the current date and time values in the system.
	(Continued on next page)

(Contd) Part	Function
Specific	Instructs the filter to display data for the date and time values you type in the date and time lists (or select from the calendars displayed when you click the list arrow)
Content Type/Subtype	Instructs the filter to display messages that have the specified content type and subtype.
Subject	Instructs the filter to display messages that have the specified subject (subject).
Email Address	Instructs the filter to display messages for recipients that have the specified email.
Page Size	Limits the number of rows displayed on the Tracking dialog box. **Note** You can use the Paging buttons on the Tracking dialog box to page backward and forward through the pages.
Status	Indicates (if selected or cleared) the status of the messages you want displayed. You can select more than one status value.
Select All	Selects all the status options.
Clear All	Clears all the status options.
Mailbox	Indicates (if selected or cleared) the names of the mailboxes that processed the message. You can select more than one name.
Select All	Selects all the mailbox check boxes.
Clear All	Clears all the mailbox check boxes.

The Tracking-Messages Dialog Box

Introduction   The Tracking-Messages dialog box displays message-level information about a row you selected on the Tracking dialog box.

Each row on the dialog box represents a tracking point of a message as it was processed for a particular session. The entries are grouped first by mailbox name and then by time. This gives you a chronological view to see everything that happened to the message as it was processed.

Tracking-Messages dialog box   This illustration shows the Tracking-Messages dialog box.
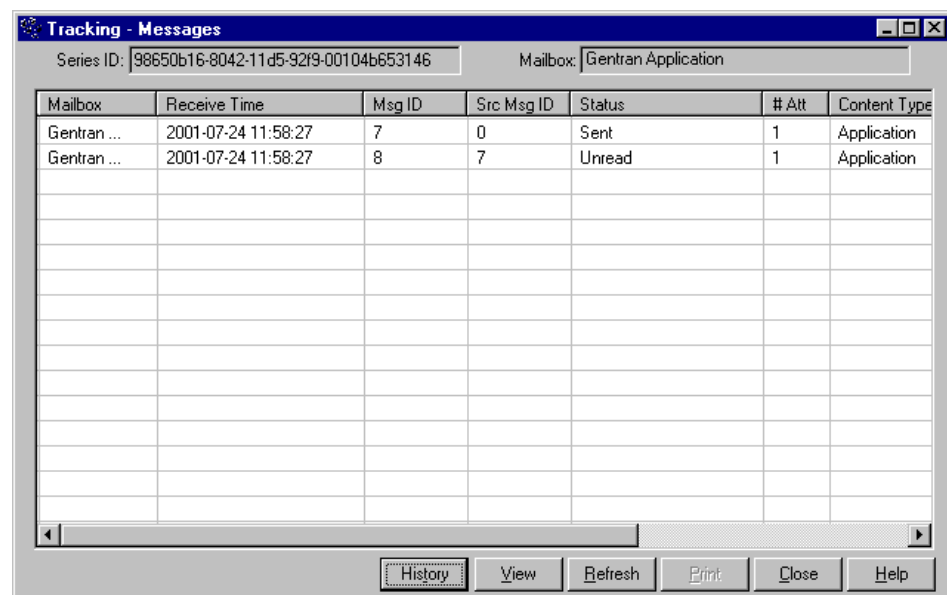
Parts and functions   This table describes the parts of the Tracking-Messages dialog box and their functions.

Part	Function
Series ID	Displays the series ID that the Mailbox Server Manager assigned to the message.
Mailbox (box)	Lists the source mailbox from which the message originated.
Mailbox (column)	Lists the name of the mailbox that processed the message.
Receive Time	Lists the date and time that the mailbox received the message. The format is YYYY-MM-DD HH:MM:SS.

(Continued on next page)

| (Contd) Part	Function
Msg ID	Lists the message ID assigned to the message when this mailbox received it.
Src Msg ID	Lists the message ID assigned in the mailbox that sent the message.
Status	Displays the message status at this point in the processing cycle. **Reference** See *Message Status* on page 5 - 18 and *Recipient Status* on page 5 - 20 for values and descriptions.
# Att	Displays the number of message attachments.
Content Type	Lists the type of content type of the message.
Subject	Displays the subject of the message.
Email Address	Displays the external identifier of the recipient.
History	Displays the Tracking-Message History dialog box.
View	Displays the Tracking-Attachments dialog box for the selected row.
Refresh	Updates the displayed information.
Print	Disabled in this release.
Close	Closes the Tracking-Messages dialog box.
Help	Launches the online Help system.

The Tracking-Message History Dialog Box

Introduction   The Tracking-Message History dialog box displays audit-level information about a row you selected on the Tracking-Messages dialog box.

Tracking-Message History dialog box   This illustration shows the Tracking-Message History dialog box.
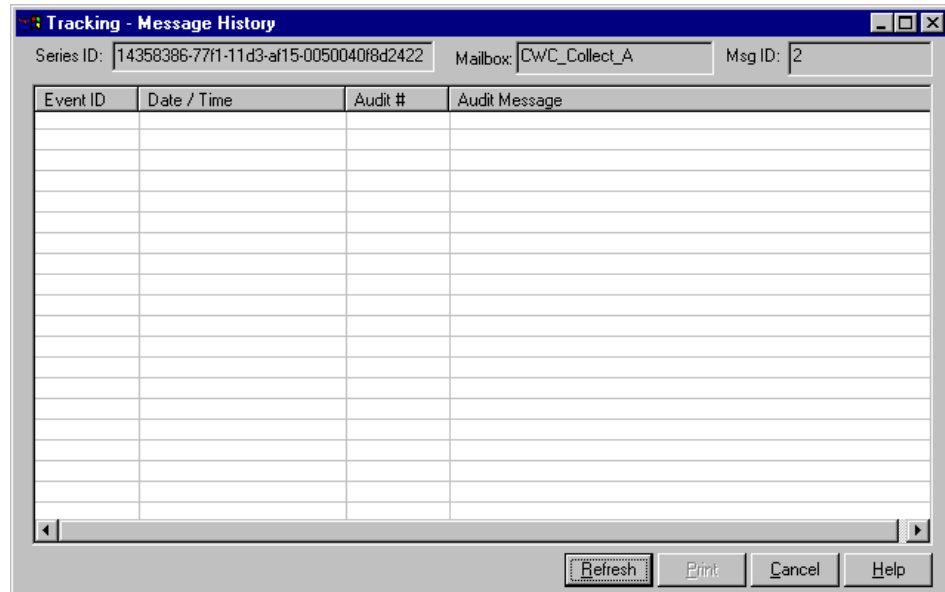
Parts and functions   This table describes the parts of the Tracking-Message History dialog box and their functions.

Part	Function
Series ID	Displays the series ID that the Mailbox Server Manager assigned to the message.
Mailbox	Displays the name of the mailbox that processed the message.
Msg ID	Lists the message ID that the system assigned to the message when it was created in this mailbox.
Event ID	Lists the event ID that the system assigned to the processing event.
Date/Time	Displays the date and time that the action happened. The format is YYYY-MM-DD HH:MM:SS.
Audit #	Displays the audit number that the system assigned to the action.

(Continued on next page)

(Contd) Part	Function
Audit Message	Displays text that describes the processing action.
Refresh	Updates the displayed information.
Print	Disabled in this release.
Close	Closes the Tracking-Message History dialog box.
Help	Launches the online Help system.

The Tracking-Attachments Dialog Box

Introduction

The Tracking-Attachments dialog box displays attachment-level information about a row you selected on the Tracking-Messages dialog box.

The Tracking-Attachments dialog box displays every attachment to the selected message. It also displays the source and destinations of each attachment.

Tracking-Attachments dialog box

This illustration shows the Tracking-Attachments dialog box.

Parts and functions

This table describes the parts of the Tracking-Attachments dialog box and their functions.

Part	Function
Series ID	Displays the series ID that the Mailbox Server Manager assigned to the message.
Mailbox	Displays the name of the mailbox that processed the message.
Msg ID	Lists the message ID that the system assigned to the message when it was created in this mailbox.
Att ID	Lists the attachment ID that the system assigned to this attachment.
Rec Time	Displays the time that the mailbox received the attachment. The format is YYYY-MM-DD HH:MM:SS.

(Continued on next page)

(Contd) Part	Function
Src Content/ SubType	Lists the original content type and subcontent type of the attachment.
File Name	Lists the name of the attachment.
Status	Displays the status of the attachment, if translation occurred
View	Displays the Tracking-Report Viewer dialog box for the selected row.
Refresh	Updates the displayed information.
Print	Disabled in this release.
Close	Closes the Tracking-Attachments dialog box.
Help	Launches the online Help system.

The Tracking-Report Viewer Dialog Box

Introduction   The Tracking-Report Viewer dialog box displays information about the contents of an attachment.

The dialog box has three panes:

◗   Input, which is a view of the source contents of the attachment

◗   Output, which is a view of the translated contents of the attachment, if the attachment was translated

◗   The translator report, which contains information about the translation, if the attachment was translated.

Note
If the attachment is not translated, the translator report and Output panes are empty.

Tracking-Report Viewer dialog box   This illustration shows the Tracking-Report Viewer dialog box.
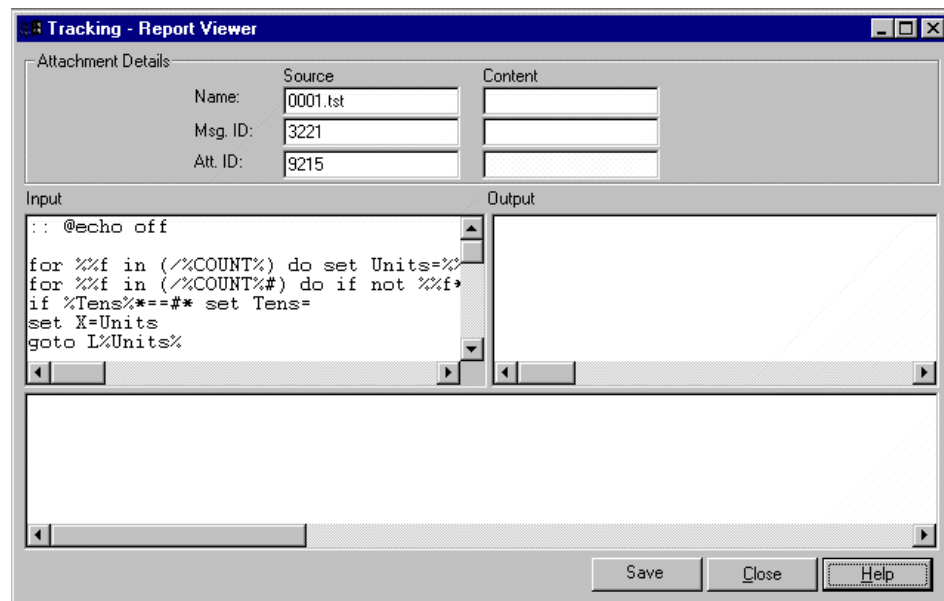
Parts and functions   This table describes the parts of the Tracking-Report Viewer dialog box and their functions.

Part	Function
Input	
Name	Displays the name of the original file name of the attachment.
	(Continued on next page)

(Contd) Part	Function
Msg ID	Displays the message ID that the system assigned to the message at the source mailbox.
Att ID	Displays the attachment ID that the system assigned to the attachment at the source mailbox.
Output	
Name	Displays the current file name of the attachment.
Msg. ID	Displays the message ID that the system assigned to the message when the current mailbox received it.
Att. ID	Displays the attachment ID that the system assigned to the attachment at the current mailbox.
Input	Displays the content of the attachment prior to translation.
Output	Displays the content of the attachment after it was translated. If translation did not occur, this pane is empty.
(translator pane—bottom of dialog box)	Displays the Translator report, if the attachment was translated. If translation did not occur, this pane is empty.
Save	Saves the information displayed on this dialog box.
Close	Closes the Tracking-Report Viewer dialog box.
Help	Launches the online Help system.

Message Status

Introduction   Gentran EAI Server assigns a status to each message at each major processing point.

Message and recipients   Gentran EAI Server tracks the status of the message and also provides the status of the recipients' processing of that message.

Note
The status of a message with multiple recipients can change over time as each of the recipients receive and process the messages.

Message status values   This table describes the typical status values that the system can assign to messages.

Status	Description	Usually used in the Mailbox Server Manager…
Incomplete	The message is not yet ready to be sent. The most likely cause is that no recipients have been specified.	Outbox
Queued	The message is waiting to be sent.	Outbox
Read	The message has been transferred to the recipient's mailbox. The owner of the mailbox has read the message.	Inbox
Ready_To_Send	The message is waiting to be queued.	Outbox
Send_Failed	The system made an attempt to transfer the message to the recipient; however that attempt was unsuccessful.	Outbox
Sending	The message is in the process of being transferred to the recipient. **Possible Recipient Status** ◗ In_Gateway	Outbox
	(Continued on next page)	

(Contd) Status	Description	Usually used in the Mailbox Server Manager…
Sent	The message has been transferred to the recipient's mailbox. **Possible Recipient Statuses** ◗ Delivered ◗ Delivery_Failed ◗ Picked_Up ◗ Send_Failed ◗ Sent ◗ Sent_Third_Party	Outbox
Unread	The system transferred the message to the recipient's mailbox; however, the owner of the mailbox has not read the message.	Inbox

Recipient Status

Introduction   The system assigns each message recipient a status as the recipient's system processes the messages.

Recipient statuses   This table describes the typical statuses that the system can assign to message recipients.

Status	Description
Delivered	The system transferred the message to the recipient, and the message was delivered to the application or transport connected to the gateway.
Delivery_Failed	The system made an attempt to transfer the message to the application or transport connected to the gateway; however that attempt was unsuccessful.
In_Gateway	The system is in the process of transmitting the message to the recipient.
Picked_Up	The system transferred the message to the recipient and the application has retrieved the message.
Send_Failed	The system made an attempt to transfer the message to the recipient and the attempt failed.
Sent	The system transferred the message to the recipient.
Sent_Third_Party	The system transferred the message to the recipient, using the File System Gateway.

Procedures

How to Start Message Tracking

Introduction   You can start message tracking from the Windows **Start** button.

Procedure   Use this procedure to start message tracking from the Windows **Start** button.

Step	Action
1	Click the Windows **Start** button, and then select **Programs**.
2	Point to the **Gentran Server** folder and select Message Tracking. **System Response** The system displays the Tracking dialog box.

How to View Series ID Information

Introduction   To start message tracking, you must identify the series ID that contains the message information you want to track.

When to use   Use this procedure whenever you want to:

◗   View high-level series ID information.

◗   Start detailed message tracking.

Procedure   Use this procedure to view series ID information.

Step	Action
1	Start the Message Tracking subsystem. **System Response** The system displays the Tracking dialog box.
2	Do you want to use the filter to limit the display? ◗ If *yes*, click the **Filter** button and set the properties. **Reference** See *How to Set the Filter Properties* on page 5 - 24 for instructions on setting filter values. ◗ If *no*, continue with Step 3.
3	Locate the series ID you want to track. (Continued on next page)
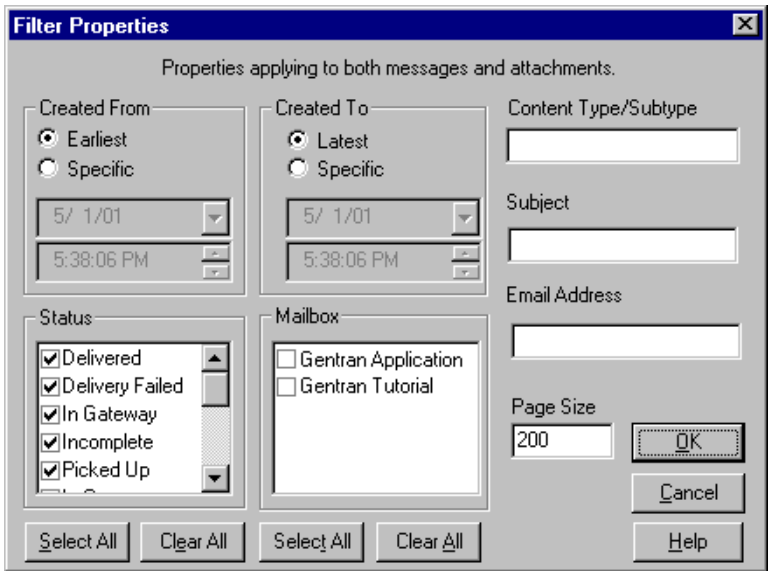
(Contd) Step	Action
4	Use this table to determine your next step.

IF you want to…	THEN…
view message level information for a row	select and double-click the row to display the Tracking-Messages dialog box. **Reference** See *The Tracking-Messages Dialog Box* on page 5 - 10 for information about using this dialog box to access more detailed information. **Note** If the message status for the message you are tracking is *Sending* (indicated by a blue icon), then you may need to wait a few minutes to make sure that the message has been transferred.
update the information	click **Refresh**.
exit the Tracker subsystem	click **Close**.

How to Set the Filter Properties

Introduction   This topic describes how to set values on the Filter Properties dialog box.

The system stores the values you set in the filter table of the database so that you can retrieve and apply them to the Tracking subsystem any time.

Procedure   Use this procedure to set values on the Filter Properties dialog box.

Step	Action
1	Start the Message Tracking subsystem to display the Tracking dialog box. **Reference** See *How to Start Message Tracking* on page 5 - 21.
2	Click the **Filter** button on the Tracking dialog box. **System Response** Gentran EAI Server displays the Filter Properties dialog box.
3	Specify the criteria for the series IDs you want to view.
4	Click **OK**. **System Response** Gentran EAI Server displays the Tracking dialog box.
5	Select the **Apply Filter** check box.
6	Click **Refresh** to update the display.

How to View Message IDs for a Series

Introduction   Each time a new mailbox receives a message, the system assigns a new message ID to the message. However, the message's series ID stays with the message as the message is passed through the system. You can view a list of the message IDs that resulted from a specific series ID.

When to use   Use this procedure when you want to view:

◗ a chronological list of the mailboxes that handled a message or

◗ the entry information the mailboxes logged to the series ID.

Procedure   Use this procedure to view message entries.

Step	Action
1	Start the Message Tracking subsystem. **System Response** The system displays the Tracking dialog box.
2	Select and double-click the row for which you want to display message entries. **System Response** The system displays the Tracking-Messages dialog box.
3	Use the scroll bars to locate the information you want to track. (Continued on next page)

(Contd) Step	Action

4	Use this table to determine your next step.

IF you want to…	THEN…
view the history of the action that the system performed on a message ID	select a message ID row and click **History** to display the Tracking-Message History dialog box for the message ID. **Reference** See *How to View Message History* on page 5 - 27 for instructions. **Note** If the message status for the message you are tracking is *Sending*, then you may need to wait a few minutes to make sure that the message has been transferred.
view a list of the attachment to a message ID	select the message ID row and click **View** to display the Tracking-Attachments dialog box for the message ID. **Reference** See *How to List Message Attachments* on page 5 - 28 for details.
update the information	click **Refresh**.
close the Tracking-Messages dialog box	click **Close**.

How to View Message History

Introduction   You can view audit-level information about a message ID row you select on the Tracking-Messages dialog box.

When to use   Use this procedure when you want to see the action the system took when it:

◗   processed a message

◗   encountered an error

Procedure   Use this procedure to view the audit history of a message ID.

Step	Action
1	Start the Message Tracking subsystem. **System Response** The system displays the Tracking dialog box.
2	Double-click the row for which you want to display message entries. **System Response** The system displays the Tracking-Messages dialog box.
3	Use the scroll bars to locate the information you want to track.
4	Select the row for which you want to view the message history.
5	Click **History**. **System Response** The system displays the Tracking-Message History dialog box.
6	Use this table to determine your next step.

IF you want to…	THEN…
update the information	click **Refresh**.
close the Message History dialog box	click **Close**.

How to List Message Attachments

When to use   Use this procedure when you want to view a list of attachment to a message.

Procedure   Use this procedure to view a list of attachments to a message.

Step	Action
1	Start the Message Tracking subsystem. **System Response** The system displays the Tracking dialog box.
2	Double-click the row for which you want to display message entries. **System Response** The system displays the Tracking-Messages dialog box.
3	Select the message for which you want to display attachments.
4	Click **View**. **System Response** The system displays the Tracking-Attachments dialog box.
5	Use this table to determine your next step. <table><tr><th>IF you want to…</th><th>THEN…</th></tr><tr><td>view detailed content information about one of the attachments</td><td>select the attachment and click **View** to display the Tracking-Report Viewer dialog box. **Reference** See *The Tracking-Report Viewer Dialog Box* on page 5 - 16 for details.</td></tr><tr><td>update the information</td><td>click **Refresh**.</td></tr><tr><td>exit the Tracking-Attachments dialog box</td><td>Click **Close**.</td></tr></table>

How to View Attachment Contents

Introduction   The Tracking subsystem's Report Viewer enables you to view the contents of an attachment. If the attachment was translated, the Report Viewer displays the translator report as well.

Procedure   Use this procedure to view the contents of an attachment.

Step	Action
1	Start the Message Tracking subsystem. **System Response** The system displays the Tracking dialog box.
2	Double-click the row for which you want to display message entries. **System Response** The system displays the Tracking-Messages dialog box.
3	Select and double-click the message for which you want to display attachments. **System Response** The system displays the Tracking-Attachments dialog box.
4	Select the attachment from the attachments list and click **View.** **System Response** The system displays the Tracking-Report Viewer dialog box.
5	Use this table to determine your next step.

IF you want to…	THEN…
save the information	click **Save**.
exit the Tracking-Report Viewer dialog box	click **Close**.

Gentran EAI Server Utilities

Contents

Overview

Introduction   This section describes the additional Gentran EAI Server utility programs, including:

◗   SPLITTER.EXE

◗   COMBFNAME.EXE

Reference
See the "Gentran:Server Utilities and Modules" appendix in the *Gentran:Server Administration Guide* for more information about other utility programs used in Gentran:Server.

COMBFNAME.EXE Utility

Introduction

The COMBFNAME.EXE utility is a program designed to read an input file (or a directory of files) and add the file name of the file to each record of the data. It may also, if configured, combine multiple files into a single file and embed a formatted timestamp (for example, a batch identifier) within each data record. The modified records are placed in a file (or files) in the output directory. After each input file is processed, it is moved to an archive (processed) directory.

Usage

`CombFname <arguments>`

Most control parameters may be read from a profile or the command line. Any parameters which are passed on via the command line will override the profile settings.

Command line arguments

This table lists the available command line arguments (bold typeface indicates the parameters are mandatory).

Parameter	Explanation
-P<profile path>	Full path to the AddFname profile
-I<Input file directory> or **-F**<Input file path>	Processed input files are deleted if -C is missing. A timestamp (YYYYMMDDHHMMSS) is appended to each file as a batch ID.
-C<Processed Input File Path>	Processed input files are moved to this directory.
-D<Output file directory path>.	If the –GC option is used, a single output file is created and this output path should include the output filename. If you embed %DATE% in the output filename, a timestamp (batch ID) is embedded in the output filename. The –L and –S parameters control the placement of the filename within the record. The filename may be substituted with a string by using the -S argument.
-L<Position>(:<string length>)	Pad filename string to specified length and insert at position in each record.
-S<string>	Use this string to insert into the records instead of the filename.
-J<output record length>	Pad each output record with spaces to specified length.
	(Continued on next page)

(Contd) Parameter	Explanation
-G<A|R|S|C>	Duplicate output file. Where: ◗ A —Append to end of existing output file ◗ R —Replace an existing output file ◗ S — Save with a sequence number Appended to output filename: ◗ C — Combine output into one file. Use -D for the output file path.
-R<V | F<output record length> >	Input record type Variable or Fixed. Where: ◗ -RV is a variable input record format (Terminates on newline). ◗ -RF80 is a fixed input record format (set to 80 characters). The timestamp is used as a batch ID. Each record will have the same timestamp.
-M<position>,<format>	Timestamp character position and format. Where: ◗ <position> is the location to insert the timestamp in output records. ◗ <format> is the timestamp format string in double quotes.
-X<command line to execute>	Executes after each input file. *(Continued on next page)*

(Contd) Parameter	Explanation
-T<command line to execute>	Executes at program termination. The timestamp embedded within each record may be formatted. **Time stamp formatting** ◗ YYYY or YY (year) ◗ MM (month - must be uppercase) ◗ DD (day) ◗ hh (hours in 24-hour format) ◗ mm (minutes - must be lowercase) ◗ ss (seconds) ◗ AM or PM (forces hours to 12-hour format, may be upper or lower case) ◗ T<TTT> (optional sequence number to make timestamps unique) **Examples** String must be inside double quotes ◗ "YYYYMMDD hhmmss" ◗ "MM/DD/YY hh:mm am" Any batch ID/ timestamp on filenames always follow the "YYYYMMDDHHMMSS" format and may not be modified.

**COMFBNAME
profile example**

```
CombFname.pro #-----------------------------------------------------
# Main Profile for CombFname
# This file contains the default settings. Command line arguments may
# override the settings in this file.
# Any KEYWORD with _PATH is a directory (which may be created with
# MAKEDIR)
# ALL KEYWORDS MUST BE IN UPPER CASE AND START IN COLUMN 1
#----------------------------------------------------------------------
#
# Enter the path to the directory containing the input files.
INPUT_DIR_PATH=C:\InputDirectory
# - OR -#
(Optional. Usually blank)
# To process only one input file, enter the full path to the file.
INPUT_FILE_PATH=
#
# Input files are deleted by default after processing. Leave blank to
# delete or enter a path to an output directory, in which to move the
# processed input files
SAVED_INPUT_PATH=C:\ProcessedInputFiles
#
# Enter the Record Format for the input files, Fixed or Variable
# Length.
INPUT_REC_TYPE=V #(F)ixed or (V)ariable (default=V)
#
# If the Input Record Format is Fixed, Enter the Record Length
(Default=0)
INPUT_REC_LEN=0 # Enter a number. 0 will terminate at C/R or End
# of File
#
#----------------------------------------------------------------------
# Multiple output files may be generated or a single output file.
# To generate a single output file, enter the full path and the output
# file-name on and Set DUP_FILES=C to combine the files.
#
# IF DUP_FILES is set to A,R or S multiple output files will be created
# in the OUTPUT_DIR_PATH directory.
#- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
#
# Enter the output directory path for the processed files.
OUTPUT_DIR_PATH=C:\OutputFiles\Output_%DATE%_vol1
#
# In the case of duplicate output file names, choose one option
# A = Append to existing file (default)
# R = Replace existing file
# S = Save file with an attached sequence number
# C = Combine all output to produce one output file
#----------------------------------------------------------------------
```

(Continued on next page)

**COMFBNAME
profile example
(contd.)**

```
# Main Profile for CombFname
# This file contains the default settings. Command line arguments may
# override the settings in this file.
# Any KEYWORD with _PATH is a directory (which may be created with
# MAKEDIR)
# ALL KEYWORDS MUST BE IN UPPER CASE AND START IN COLUMN 1
#------------------------------------------------------------------
#
# Enter the path to the directory containing the input files.
INPUT_DIR_PATH=C:\InputDirectory
# - OR -#
(Optional. Usually blank)
# To process only one input file, enter the full path to the file.
INPUT_FILE_PATH=
#
# Input files are deleted by default after processing. Leave blank to
# delete or enter a path to an output directory, in which to move the
# processed input files
SAVED_INPUT_PATH=C:\ProcessedInputFiles
#
# Enter the Record Format for the input files, Fixed or Variable
# Length.
INPUT_REC_TYPE=V #(F)ixed or (V)ariable (default=V)
#
# If the Input Record Format is Fixed, Enter the Record Length
(Default=0)
INPUT_REC_LEN=0 # Enter a number. 0 will terminate at C/R or End
# of File
#
#------------------------------------------------------------------
# Multiple output files may be generated or a single output file.
# To generate a single output file, enter the full path and the output
# file-name on and Set DUP_FILES=C to combine the files.
#
# IF DUP_FILES is set to A,R or S multiple output files will be created
# in the OUTPUT_DIR_PATH directory.
#- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
#
# Enter the output directory path for the processed files.
OUTPUT_DIR_PATH=C:\OutputFiles\Output_%DATE%_vol1
#
# In the case of duplicate output file names, choose one option
# A = Append to existing file (default)
# R = Replace existing file
# S = Save file with an attached sequence number
# C = Combine all output to produce one output file
continued
DUP_FILES=C # Enter A, R, S or C
#
```

**COMFBNAME
profile example
(contd.)**

```
#--------------------------------------------------------------------
# The string to insert into each record is by default the filename.
# To insert a string other than the filename, enter the string at
# the prompt.
INPUT_STRING=
#
# The filename string may be padded with spaces by entering the
# string length.
INPUT_STRING_LENGTH=10 # Enter number or 0 for no change.
#
# The filename string will be inserted at the end of each record by
# default. This string may be changed to a different location in
# the record by entering the character position.
POSITION=1
#
#--------------------------------------------------------------------
#
# Insert a Timestamp format. Example: "YYYYMMDD HHMMSS TTT"
# T will generate a sequence number to allow a unique timestamp.
TIMESTAMP=".YYYYMMDDhhmmss "
# Enter the Character position to insert the timestamp.
TIMESTAMP_POS=20
#
#--------------------------------------------------------------------
#
# The output records may be padded by entering the output record
# length.
OUTPUT_REC_LEN=
#
# A command string may be entered which will execute at the end of
# each file.
# (default=blank)
COMMAND_FILE=C:\EndOfEachFile.bat
#
# A command string may be entered which will execute at the end of
# the program
# (default=blank).
COMMAND_END=C:\EndOfCombFname.bat
```

SPLITTER.EXE Utility

Introduction   SPLITTER.EXE is a utility program to read an input file containing multiple documents from an application and separate each document into its own output file. A text string is passed to the splitter utility as a key to identify the beginning of each embedded document.

Usage   `splitter <arguments>`

Command line arguments   These are the command line arguments for the SPLITTER utility.

Command line argument	Explanation
-I<Input file path>	input file path
-O<Output file name>	output file name
-D<Output file directory>	output file directory
-E<Error directory>	error directory
-T<Temp file directory>	temporary file directory
-R	replace existing output files
-A	append to existing output file
-S<Search String:Character Position>	string search
-V<Variable input record format>	variable input record format (terminates on newline
-F:<recordlength>	fixed input record format

Notes

◗ -I must contain the full path and filename to the input file containing the multiple documents.

◗ Use –V for variable length or –F for fixed length to describe the input data format to the splitter utility. You must include the length of the input record for fixed format.

◗ -D contains the path to the output directory where the individual document files will be placed.

◗ -O contains the output file name to use. A sequence number will be added to this filename, so the resulting filenames will be similar to Outfile.001, Outfile.002, etc.

◗ For the -R and -A parameters, in the event that a duplicate filename is found in the output directory, -R will replace the existing output file with the new file. -A will append to the end of the existing file. To avoid this situation, your process should clear the output file directory after the splitter utility terminates.

◗ For the -E parameter, if the Search string is not found within an input record, and an output document file is not open, the input record will be placed in an error file in the error directory. This usually will occur at the beginning of record processing.

◗ Once the search string is found, an output file will be created, and any other record without the search string will be appended to the output file as data.

◗ -T is a temporary directory is used for processing. Please include a path to a temporary directory.