SYBASE®

Reference Guide

EC Gateway™

Version 4.2

[Windows]

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Contents

About This Book

Audience

Map developers are targeted as the primary users of this book. The map developer who uses this book to manage EC Gateway™ must also be familiar with the contents of the installation guide.

How to use this book

This document describes how to use EC Gateway for Windows NT/2000 and is organized into the following chapters:

- "About This Book" provides a brief introduction to EC Gateway, a list of available documentation, and technical support information.
- Chapter 1, "Accessing EC Gateway" provides information on how to run and exit EC Gateway.
- Chapter 2, "Configuring EC Gateway" provides information on how to configure trade partners, channels, and mailboxes.
- Chapter 3, "Communications" describes how to set up FTP and communication channels to transfer EDI files.
- Chapter 4, "Run Map" describes how to run inbound and outbound maps.
- Chapter 5, "Process Management" describes how to set up processes such as verify X12 compliance, execute commands, pass faxes to fax processing systems, and so forth.
- Chapter 6, "Scheduling" describes how to run unattended jobs.
- Chapter 7, "Administrative Processing" describes administrative functions such as viewing the log file, using the reporting module, and applying the archive/restore functionality.

EC Gateway Documentation Set

This section describes the available documentation.

Cross-Platform Documentation The EC Gateway documentation set includes:

- *Installation Guide*
- *Reference Guide*
- *Feature Guide*

- *Release Bulletin*

Related Documentation Other related documentation is available from New Era of Networks, Sybase, and IBM. Refer to other documentation from each of these companies for more detail about use of applications relevant to this product.

Other sources of information

Use the Sybase Getting Started CD, the SyBooks Bookshelf CD, and the Sybase Product Manuals web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks Bookshelf CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.
- The SyBooks Bookshelf CD is included with your software. It contains product manuals in a platform-independent bookshelf that contains fully searchable, HTML-based documentation.

  Some documentation is provided in PDF format, which you can access through the PDF directory on the SyBooks Bookshelf CD. To view the PDF files, you need Adobe Acrobat Reader.

  Refer to the *README.txt* file on the SyBooks Bookshelf CD for instructions on installing and starting SyBooks.
- The Sybase Product Manuals Web site is the online version of the SyBooks Bookshelf CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

  To access the Product Manuals Web site, go to Product Manuals at http://www.sybase.com/support/manuals/.

Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ **Finding the latest information on product certifications**

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Select Products from the navigation bar on the left.

3 Select a product name from the product list and click Go.

4 Select the Certification Report filter, specify a time frame, and click Go.

5 Click a Certification Report title to display the report.

❖ **Creating a personalized view of the Sybase Web site (including support pages)**

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Click MySybase and create a MySybase profile.

Sybase EBFs and software maintenance

❖ **Finding the latest information on EBFs and software maintenance**

1 Point your Web browser to the Sybase Support Page at http://www.sybase.com/support.

2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.

3 Select a product.

4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the "Technical Support Contact" role to your MySybase profile.

5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

Conventions

The following document conventions are used in this guide.

Text	Convention	Example
code	courier	<user ID> <password>
command line display	courier	The message successfully parsed.
command line entry	courier bold	NNFAD-t
command line prompt	courier	Enter the input file name:

If you need help

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you cannot resolve a problem using the manuals or online help, please have the designated person contact Sybase Technical Support or the Sybase subsidiary in your area.

For more information on Support Services, education, and consulting services, refer to the *Customer Services Reference Guide*.

CHAPTER 1

Accessing EC Gateway

This chapter describes electronic data interchange (EDI) and how to start and stop EC Gateway.

EC Gateway provides the tools that let you send and receive electronic messages quickly, safely, and automatically.

What is EDI?

Electronic data interchange (EDI) is the computer-to-computer exchange of business documents in a structured, predefined standard format. The main purpose of EDI is to avoid and prevent additional human intervention of reading and processing information between trading partners by establishing a standard data format. As a result, traditional processing delays and errors due to document transfers and data reentry can be eliminated.

EDI can be used to transmit documents such as invoices, purchase orders, health care claims, remittance advice, status inquiries, receipts, shipping documents, and other standard business correspondence between organizations. EDI can also be used to transmit financial information and payment in electronic forms, generally referred to as electronic funds transfer. Because of this, the presence of EDI becomes more and more widespread in today's market, especially with the growth of electronic commerce across the Internet. It is important to understand EDI and how it improves the traditional way of exchanging information between trading partners so that productivity and efficiency can be increased.

There are numerous benefits to utilizing EDI: increased productivity and efficiency, eliminated or reduced manual processing and data entry, reduction in lost paperwork, and improved accuracy and flow of information. Using EC Gateway saves money, reduces overhead costs, and eliminates costly errors. The EC Gateway provides lights-out, unattended processing for your entire message management environment.

What is EC Gateway?

EC Gateway is an enterprise-wide message management software, designed specifically to support inter- and intra-company electronic messages. It offers an intuitive, easy-to-use graphical interface that leads you through the process for setting up your system configuration. The EC Gateway has three main functions: process management, communications, and scheduling. In addition, the product also includes reporting, a trading partner interface, a single ODBC-compliant log database, and archive/restore functionality.

When used with ECRTP, the runtime data transformation engine, EC Gateway provides a seamless, fully automated system that can send or receive EDI messages and transform (map) them into or from any application-specific data format. Using asynchronous or FTP communication protocols, ODBC integration provides the ability to directly send data to or receive data from any ODBC-compliant database.

EC Gateway's intelligent routing facility enables organizations to use the product as network management and/or message routing software, significantly improving the throughput of message processing.

EC Gateway provides a wide variety of automated tools, including:

- A host or client communications functionality that provides for both asynchronous and FTP communications. The asynchronous communications facility provides support for direct communications with trading partners, value-added networks (VANs) and tools for custom script development. The Internet FTP function also supports automated script recording, which ensures correct script creation.
- A process module that is the heart of the EC Gateway application. All actions to be performed by EC Gateway are defined as processes, using a graphical user interface and easy point-and-click mouse commands. Processes can be invoked directly by the Scheduler. EC Gateway also allows you to integrate your processes directly into your application.
- A Scheduler program that is a feature-rich, automated job scheduling component that allows development of processes executing event- or time-driven jobs.
- A Trading Partner module that provides a full array of administration services that allow you to add, modify, or delete trading partners, as well as define which maps are linked to those trading partners through trade agreements.
- A uniform log which keeps a record of system activities: translation, communications, and processes.

Accessing EC Gateway

To access EC Gateway:

1 Click the Start button, and then point to Programs.

2 Click on the EC Gateway program icon. The Login window displays.

3 Type the User Name admin and press Tab. Type the password eeserver, and click OK. The EC Gateway main window displays.

From the main window, you can access all of the EC Gateway modules.

User names, passwords, and privileges

Any user can modify his or her own EC Gateway password.

❖ **Modifying your existing password**

1 From the File menu on the EC Gateway main window, select Change Password.

Use the Properties button to change the properties of an existing user. Select a user and left-click Properties to display a window showing the user's name. The Password, New Password, and Confirmation fields are blank.

2 Type your old password in the Old Password field.

3 Type your new password in the New Password field.

4 Confirm your new password in the Confirmation field.

5 Click OK.

Modifying user privileges

The administrator can modify any user's privileges. The User Administration window is used for this function. The administrator is cautioned to avoid changing his or her own password with this window until the System Privileges window has been used. A similar caution applies to changing other users' passwords as well.

❖ **Modifying user privileges**

1 Log in as the admin user.

2 From the File menu on the EC Gateway desktop, select User Administration. The User Administration window displays.

3 Select a user by highlighting their name from the displayed list of authorized users.

4 From the Users tab, click Properties. The attributes that were configured according to the user login profile are displayed at the Login tab. The Login tab allows you to modify an existing user name and password.

5 The Authorization tab allows you to select the privileges you want available to this user. You must authorize one or more of these functions:

- System
- Comm Channel
- MailBox
- Trading Partner
- Company ID
- Scheduler
- Process
- Run Map
- Log
- Report
- Archive
- Restore

6 Click OK.

To modify the systems that this user can access, see "Adding or removing a user's system privileges."

Adding a new user

You can add new users from the User Administration window.

❖ **Adding a new user**

1 Log in as the admin user.

2 From the File menu on the EC Gateway desktop, select User Administration. The User Administration window displays.

3 The Login tab allows you to assign a new user name and password while the Authorization tab allows you to select the functional privileges you want available to this user.

4 From the Users tab, click New.

5 When you are finished, click OK.

6 Go to the Adding or Removing System Privileges from a User window to enter the systems authorized for this new user. See “Adding or removing a user’s system privileges” on page 6.

Deleting a user

You can delete an existing user from the User Administration window.

❖ **Deleting an existing user**

1 Log in as the admin user.

2 From the File menu on the EC Gateway desktop, select User Administration. The User Administration window displays.

3 Select the user to delete, and click Delete.

4 When you are finished, click OK.

5 Go to the Adding or Removing System Privileges from a User window section below to delete the systems authorized for this user

Adding or removing a user’s system privileges

The System Privileges window authorizes users to access specific systems served by the EC Gateway. This authorization is established for individual users restricting the systems they can access. This differentiation is by system database. In addition, local administrators who administer individual systems are authorized on this window. This allows several administrators to control their own local zones. The values for this window are entered by an administrator who has authority to administer all of the systems.

❖ **Adding or removing a user’s system privileges**

1 Log in as the admin user.

2 Click the System icon.

3 Highlight a listed system you want to authorize a user to access.

4 From the File menu on the EC Gateway desktop, select System Privileges. The System Privileges window displays.

5 Use the New button to add new users at the system level. Left clicking the New button displays the New User window. Enter the User Name, Password, and Password Confirmation information.

6 Delete a user using Delete. Select a user to be deleted and then click Delete. If you attempt to delete the Admin user, an error box appears.

7 Use the Properties button to change the properties of an existing user. Select a user and left click the Properties button to bring up a window showing the user's name. The Password, New Password, and Confirmation fields are blank.

Exiting EC Gateway

❖ **Exiting EC Gateway**

1 Select File from the EC Gateway main window.

2 Select Exit or click the Close button

CHAPTER 2

Configuring EC Gateway

This chapter describes how to to set up and configure EC Gateway.

Configuring systems

The EC Gateway's desktop's graphical interface allows you to configure multiple execution environments (for example, test and production environments). Some EC Gateway implementations include system definitions for each trading partner, or group of trading partners. The main purpose of configuring a system is to establish connectivity to the configuration, trading partner, and log databases.

The first step in setting up your EC Gateway is to configure your system. This allows you to define the servers, server directories, and server databases involved in your system. Left-click the System icon within the EC Gateway desktop to display the system configuration menus.

Note EC Gateway provides support for several systems. Sybase recommends that you configure one system at a time.

Configuring a new system

You can configure a new system using the General, Setting, ODBC, and Executables tabs of the System window.

❖ **Displaying the New System window**

1 Click the system icon.

2 Right-click with the cursor in the right pane of the EC Gateway desktop.

3 Select New.

The System window displays. From this window, you can access these tabs: General, Setting, ODBC, and Executables.

Note Right-click a defined configuration and select Properties to edit the properties of that configuration. Select Delete to delete the highlighted configuration.

System configuration – the General tab

The General tab defines the name of the system, the Map directory, and certain high-level path information associated with the system.

Table 2-1describes the fields in the General tab.

Table 2-1: fField descriptions for the General tab

Field	Description
System Name	A unique name for the system.
Map Directory	The directory containing the maps.
Archive Source	The name of the directory containing files to be archived. This field is a parameter for the Archive command.
Archive Destination	The name of the directory where the archived files are to be stored. This field is a parameter for the Archive command.
System PostOffice	The name of the directory where mailboxes for this system are created. Subdirectories within the System PostOffice are IN, OUT, GOOD, BAD, and OTHER.

Note You can override the Map Directory, Archive Source, Archive Destination, and System PostOffice default entries later within processes.

System configuration – the Setting tab

The Setting tab allows you to configure the system to your unique specifications. This is a user interface for one computer controlling execution on either itself or on another machine. It is understood that the user knows the Source and Destination IP Addresses as well as the Port Numbers for the process-running machines.

Enter these fields in the Settings tab:

1 In the Data Source Name field, enter the name of the database that will store the configuration information that you are entering for this new system. You can use an existing database or create a new database by clicking the ODBC Configure button. For information about configuring an ODBC database, see “Configuring ODBC for a new system” on page 14. For example, if you are storing the information in an Oracle database, you can enter “Oracle.”

Note Do not use spaces when entering a database name.

2 Enter the connection string. The connection string contains the Data Source Name. For example, DSN=Oracle. The connection string contains initialization properties needed to connect to a data source and enables you to easily store connection information within your application or pass it between applications. Without a connection string, you would be required to store or pass a complex array of structures to access data. The basic format of a connection string is based on the ODBC connection string. The string contains a series of keyword/value pairs separated by semicolons. The equal sign (=) separates each keyword and its value.

3 You are finished with this filling out this window. Fill out the Archive parameters only when you want to archive files from one EC Gateway computer to another EC Gateway computer by referencing the IP addresses or drive letters of the source and destination computers. For this to work correctly you also have to use EC Gateway Remote on the destination computer to “listen”. If you specify drive letters, you need not specify any IP address, nor do you have to use EC Gateway Remote. Complete these fields:

   a For the Source IP Address, enter the IP address for the server that the data to be archived resides on. For more information about IP addresses, see “About IP addresses” on page 13.

   b For the Port Number, enter the pathway to the server that the data to be archived resides on. The port number is the port EC Gateway Remote is configured to use. The port number is found in the c:\ecedigs\generic.ini as well as some of the EC Gateway Remote commands in a EC Gateway process, for example the “EXECUTEREMOTEPROCESS” command. For more information about Port Numbers, see “About port numbers” on page 13.

   c For the Destination IP Address, enter the IP address for the server on which the archived data will reside.

d For the Port Number, enter the pathway to the server on which the archived data will reside.

About IP addresses

An IP address has two parts: the identifier of a particular network on the Internet and an identifier of the particular device (which can be a server, a workstation, or a printer) within that network.

In addition to the network address or number, information is needed about which specific machine or host in a network is sending or receiving a message. So the IP address needs both the unique network number and a host number (which is unique within the network). The host number is sometimes called a local or machine address.

There are four different address formats or classes that identify a network based on its size. The first few bits of each IP address indicate which of the address class formats it is using. The IP address is usually expressed as four decimal numbers, each representing eight bits, separated by periods. This is sometimes known as the dot address and, more technically, as dotted quad notation.

About port numbers

A port is a “logical connection place” and specifically, using the Internet’s protocol, TCP/IP, the way a client program specifies a particular server program on a computer in a network. When a server program initially is started, it is said to bind to a designated port number. As any client program wants to use that server, it also must request to bind to a designated port number. A port number is a way to identify a specific process to which an Internet or other network message is to be forwarded when it arrives at a server.

Filling out the ODBC tab

The ODBC tab allows you to define the Trading Partner and System Log databases, both of which can be stored in any ODBC-compliant database.

To fill out the ODBC tab, follow these steps:

1 In the Trading Partner area, for the Data Source Name, enter the name of the database that stores the Trading Partner information. Enter an existing database or create a new database by clicking on the ODBC Configure... button. See “Configuring ODBC for a new system” on page 14.

2 In the Trading Partner area, for the Connection String, insert the string version of the initialization properties specified when the Data Source Name was defined. For more information about connection strings, see step 2 on “System configuration – the Setting tab” on page 11.

3 In the System Log, fill out the Data Source Name and Connection string for the database to store the log messages for this new system.

Configuring ODBC for a new system

When you create a Data Source Name (DSN) from the User DSN tab, it is created under a particular account, which is not accessible from other accounts. In other words, if you are logged in as Administrator and you create a DSN called Sample_DB then only processes running under the Administrator account can access Sample_DB.

Click Configure… to open the ODBC Data Source Administrator window. From here, you can configure the data sources to fit your unique specifications.

The System DSN tab allows the user to add, to delete, or to configure data sources with system DSNs. These data sources are local to a computer, rather than dedicated to a user. The system, or any user having privileges, can use a data source set up with a system DSN.

Table 2-2 describes the fields in the System DSN tab.

Table 2-2: The fields of the System DSN tab

Field or button	Description
System Data Sources List	A list of all system DSNs that includes the name of each DSN and the driver associated with the DSN. Double-clicking a system DSN displays the driver-specific data source setup dialog box.
Add	Adds a new system data source. If you choose this button, the Create New Data Source dialog box is displayed with a list of drivers. Choose the driver for which you are adding a system data source. After you choose Finish, a driver-specific setup dialog box is displayed.
Remove	Removes an existing system data source. You must select the name of the system data source you want to remove from the list before choosing the Remove button.
Configure...	Displays the driver-specific data source setup dialog box that enables you to change the configuration of an existing system data source. You must select the name of a system data source from the list before choosing the Configure… button.

The File DSN tab allows the user to add, delete, or configure data sources with file DSNs. These are file-based data sources that may be shared between all users that have the same drivers installed. These data sources need not be dedicated to a user or local to a computer.

Table 2-3 describes the fields in the File DSN tab.

Table 2-3: Fields of the File DSN tab

Field or Button	Description
File Data Source list	Displays all file DSNs and subdirectories contained within the directory displayed in the Look In box. Double-clicking a File DSN displays the driver-specific data source setup dialog box.
Look In	Displays the current directory for which the subdirectories and file DSNs are displayed in the window below. Left-clicking the down arrow to the right of the text box displays the entire path to that directory. The default directory that is initially displayed when the ODBC Administrator is first executed is contained in the system information, but can be changed with the Set Directory button.
Add	Adds a new file data source. If you choose this button, the Create New Data Source dialog box is displayed with a list of drivers. Choose the driver for which you are adding a file DSN. After you choose Next, you may specify the keywords for the file DSN.
Remove	Removes an existing file data source. You must select the file data source you want to remove from the list before choosing the Remove button.
Configure...	Displays the driver-specific data source setup dialog box that enables you to change the configuration of an existing file data source. You must select the name of a file data source from the list before choosing the Configure… button.
Set Directory	Establishes the displayed directory as the default directory to be displayed when the ODBC Administrator is executed.
Up (up folder icon)	Changes the directory displayed in the Look In box to be the directory directly above the current directory.

The Drivers tab displays information about the installed ODBC drivers. The ODBC Drivers list shows you which drivers are already installed on your computer. The ODBC Drivers tab lists the Name, Version, Company, File name and file creation Date of each ODBC driver installed on the computer.

Table 2-4 describes the fields of the Tracing tab.

Table 2-4: Fields of the Tracing tab

Field or Button	Description
When to trace	Enables tracing and determines when tracing is initiated. These controls can only be set while there is no connection. If Don’t trace is selected, tracing is disabled. If is selected, tracing is automatically performed at all times, for all connections on the machine. If is selected, tracing is performed only for the next connection, and is disabled after that connection is disconnected.

Field or Button	Description
Start Tracing Now	Enables dynamic tracing that is performed as long as the dialog box is displayed. Dynamic tracing can be enabled whether a connection has been made or not. After it is clicked, the button is toggled to a button. When the button is clicked, or the dialog box is closed, dynamic tracing is disabled.
Log file Path	This field displays the path and file name for the file that the tracing information will be stored in. The default path and file name (sql.log) are taken from the system information, but a new file can be specified by either entering a new path and file name, or choosing the button and selecting a directory and file.
Browse	Allows you to select the path and file name for the log file by browsing the computer's directories.
Custom Trace DLL	This control allows the user to select a trace DLL other than odbctrac.dll to perform tracing. The odbctgrac.dll file that is shipped with the ODBC Software Developer Kit (SDK) can be replaced by a custom DLL of the user's choice. Enter the path and file name of the custom DLL, or left-click the button to browse the directories for the custom DLL.
Select DLL	Allows the user to browse the directory structure for a custom trace DLL. When a DLL has been chosen, the path and file name of the DLL are entered in the Custom Trace DLL text box.

The Connection Pooling tab allows the application to reuse open connection handles.

From the About tab, you can view the information About the ODBC core components. You can view the Description, Version and File information concerning the Administrator, the Control Panel Device, the Control Panel Startup, the Cursor Library, the Driver Manager, and the Localized Resource DLL.

Filling out the Executables tab

The Executables tab allows you to define the e-mail, fax, encryption, and decryption programs that are available to use with your system.

Complete the fields on the Executables tab:

- Encrypt – enter the name of the encryption program. Encryption is the conversion of data into a form, called a cipher, that cannot be easily intercepted by unauthorized people.

- Decrypt – enter the name of the decryption program. Decryption is the process of converting encrypted data back into its original form, so it can be understood. To recover the contents of an encrypted message, the correct decryption key is required. The key is an algorithm that translates the work of the encryption algorithm. The more complex the encryption algorithm, the more difficult it becomes to eavesdrop on the communications without access to the decryption key.

Communications channel configuration

A communications channel is an object describing how data is transferred from one location to another or simply held at one of the locations. The system can use one or more channels for communication with other computers. Each channel's attributes include the information about where data currently sits, where it is going, and how it is to get it there.

The EDI translation process converts application data to and from communications-ready EDI data. The communications service, however, is not part of the translation process. EDI standards do not specify how EDI data is to be transmitted to a trading partner. Currently, bulk file transfer protocols (for example, FTP and asynchronous dial-up connections) are used to convey the majority of EDI traffic. This version of EC Gateway also supports message receipt and delivery through MQSeries Integrator queues.

EDI trading partners can communicate directly, but many use the services of a third party value-added networks (VAN). EDI VAN's provide a communications network to connect trading partners, regardless of individual hardware platforms or communications protocols. Each partner connects to the VAN, and the VAN manages the connections to all the trading partners.

VAN's also serve as document clearinghouses, either providing mailbox service to store received messages until a trading partner is ready to download them, or proactively delivering messages to a user. The proactive delivery service can be immediate (messages are delivered as soon as they are received) or scheduled (messages are delivered at a specific time of day). Additionally, the proactive delivery service can be specified by document type or trading partner.

After defining the EC/EDI system using the System icon, the next step in EC Gateway configuration is to configure the individual communications channels within your EDI environment. To access the communications channel configuration menus, left-click the Comm Channel icon in the EC Gateway main window.

Communications channels are the pathways that your data follow on the way to and from your trading partners. The system can be configured to have one communications channel handle all of your inbound and outbound data, or your system can be configured such that each individual trading partner, direction, or message has its own channel, all according to your specific requirements.

Communication channel configuration with MQSeries Integrator

MQSeries Integrator operates in a serverless environment. No central authority controls how the entire system works. Each application connecting to MQSeries Integrator contains information necessary to make that connection. Each computer connecting to an MQSeries Integrator network (or framework) has a Queue Manager (QM) that has some default queues, so you do not necessarily have to create any queues. The queues are defined for each QM if needed and a main attribute of a queue is its name. A Queue Manager can have multiple queues.

Below is a list of commands you can use to send and receive messages to and from the MQSeries Integrator product. For each command, you can request to receive a reply. Some of the commands below refer to a “unit of work”. A unit of work is a group of commands or instructions that must be executed together. If one or more commands fail, all of them fail. Messages that are received within a unit of work are committed or backed out together. The commands are:

- GetMessage – gets a copy of the first message in the Get Channel queue. Note that it does not actually delete the message, as it did in release 2.8.3.
- GetMessagePutReply – places a response to the message received from the queue.
- PutMessage – places a message on a queue for an application to pick up. This command supports the integration of EC Gateway with other electronic commerce applications.
- PutMessageGet Reply – sends a message to a message queue and waits for a reply.

- RemoveMessage – removes all messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands.
- RestoreMessage – restores all the messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands such that subsequent GetMessage commands will be able to reread the same messages.

These commands are described in more detail in Chapter 5, “Process Management.”

To simplify the configuration of the MQSeries Integrator setup, the concept of a communications channel was applied to the message queues. The communications channel combines a queue manager and a queue into a single entity. This is because they are both required to send or receive a message.

If more than one queue manager is required in a particular environment, use the RemoveMessage or command to properly terminate a unit of work. The reason for this caution is that a queue manager acts as a transaction resource manager and a unit of work is maintained within a connection to one queue manager. If you switch from one queue manager to another, you terminate the unit of work.

If the unit of work is not properly terminated with the RemoveMessage or RestoreMessage commands, the script interpreter uses fixed logic to resolve the situation and it backs out the last unit of work before disconnecting. After the unit of work is backed out, a warning message is written to the log. The same applies to the condition when the script ends without explicit termination of the unit of work.

When you write a script, commit the messages after they are (successfully) processed unless several messages constitute a single unit of work. Here is an example of a script committing two messages with one commit statement:

```
Get Message 1
<process message>
If successful -
     Get Message 2
     <process message>
     If successful, - commit – both messages are removed from the queue.
   Else, back out – both messages are restored on the queue even though the
first one was successfully processed.
```

In this example, if processing of Message 2 fails, Message 1 is processed again the next time the script is run. Unless there is a valid reason why both messages have to be processed within a single unit of work, the script should commit Message 1, once it is successfully processed.

Messages and other datatypes

A new type of the script variable is introduced to work with message queues: Message. There are ten messages available to the user; the range is from Message-1 to Message-10. Using the Assign command, you can manipulate messages and copy a message body to and from other script variables, or shared memory. Because message data is contained in memory and it disappears once the script is terminated, be sure to save messages to a file for audit purposes.

When copying messages to the script variable of the type “parameter”, remember that messages may not necessarily contain only text data. For example, messages with the MQRFH header (MQSI messages) usually contain binary data. Copying binary message to the text variable may lead to unpredictable results.

Creating a new communications channel

Note The ftp communication channel displays the FTP channels for the current system. If you add a new channel, only an FTP channel is added. In earlier versions, if you displayed all of the channels for a data source, EC Gateway would add any type of channel.

To create a new communications channel, follow these steps:

1 Select the Comm Channel icon.

2 Right-click on the area on the right side of the EC Gateway main window.

3 Select New from the menu that is displayed.

Note If you click on a defined communications channel, you can select Properties to edit the properties of that channel, or you can select Delete to delete that channel.

Defining a new communications channel

After selecting New, the Communications Channel window displays. From this window, you can access four tabs:

- General
- MailBox
- Script
- Host

Filling in the General tab fields

The General tab defines the name of the channel and the communications type associated with the channel.

To fill in the fields for the General tab:

1 In the Channel Name field, enter a unique name that reflects the direction of the data. For example: QMgr_in, QMgr_Out.

2 In the Comm Type field, select one of the following protocols:

Comm Type	Description
Asynchronous	The integrated asynchronous communication program.
Asynchronous-Other	Third-party asynchronous software.
File Transfer Protocol (FTP)	Standard Internet File Transfer Protocol
MQSeries Integrator Queue	IBM message queue protocol.

3 If you are using a generic script for communications, for example communication to a VAN, select the Template Script Available check box.

4 (Optional) Enter a description of the purpose of this channel. For example, “This channel sends data to MQSeries.”

Filling in the Mailbox tab fields

The MailBox tab is automatically populated with information from the previous communication window – General tab. The Name and Folder must each be given a unique name. By default, the EC Gateway creates a mailbox with the same name as the channel, and it is recommended that these settings be kept. IN and OUT directories are created under the mailbox directory. Data is picked up and delivered (uploaded and downloaded) from these directories during a communications session.

The Name and Folder fields are already filled in by the fields in the General Tab. It is recommended to use the defaults. The Folder field is populated with the PostOffice path and the unique MailBox name assigned under the General tab. The System PostOffice folder defined during system setup is the first part of this path. This folder is where the runtime system (ECRTP) places EDI data produced by outbound maps and compliance runs and places inbound EDI data being received. You can change this name by typing a different name into the field, or using the Browse button to select a pre-existing MailBox. It is recommended that you use the default entry generated by the system.

Filling in the Script tab fields

The Script tab configures the script to be attached to the direction of file transfer, as well as which file will be sent and received. This tab is displayed differently depending on your communications type. The Production Script File is the script that will be played back when this channel is called from the process management module, and is saved with a .scr extension. The .tpl extension is used for template scripts. A script contains communications commands that are executed each time the communications channel is invoked. For the client mode, you create a script using asynchronous transmission script commands, but there is no script for the host mode, since the host computer simply waits for commands from the client PC.

To fill in the Script fields:

1 In the Direction field, specify the direction of the data. Select Send for uploads to another PC. Select Receive for downloads from another PC. Select Both to enable both uploads and downloads.

2 In the Production Script File field, specify the script to process the data. For convenience, a Browse button is provided so you can locate a previously recorded script file and edit it.

3 If you checked the Template Script check box on the General tab, the Template Script File field appears. Enter the full pathname of the script file that you are copying.

4 If you checked the Template Script check box on the General tab, the Create Script File field appears. After you have entered information in all three text boxes, click this button to copy the Template Script File to the Production Script File. EC Gateway will prompt you for the needed information.

Editing script template files

If you are using a template file for your communications channel, you can enter and edit the values for each of the parameters in your supplied template file.

A template script is a generic script with parameters for site-specific fields such as communications port, user ID, password, and so on.

❖ **Creating a production file from the template**

1 After clicking the Browse button to select the template file you want to use with your communications channel, click Create Script File.

2 The Script File Name window displays. Click OK.

3 The Create Parameter Values window displays. This window can only be accessed if you have checked the Template Script check box on the General tab of the Communications Channel – New window.

4 Select the parameter you want to enter, and click Add Value.

5 A window displays, enter a value for the highlighted parameter and click OK.

6 The new value displays in the right column: Values in Production File.

7 Repeat steps 4 through 6 for each of the parameters in the template file.

8 When finished, click OK on the Create Parameter Values window.

Note You can edit a value on the window using the same process. In this situation, the Add Value button becomes the Edit Value button. The Create Script File button becomes the Edit Script File button. The Create Parameter Values window becomes the Edit Parameter Values window.

Using a VAN script template

This section describes how to apply value-added network (VAN) templates to an EC Gateway communications channel.

Each VAN is a commercial network that provides store and forward service for specific types of EDI messages between established trading partners. The VAN scripts allow EC Gateway communications protocols to automatically access an established VAN account and to communicate automatically with your trading partners.

❖ **Applying VAN templates to a communications channel**

1 Select the Comm Channel icon.

2 Use the pop-up menu to display the Communications Channel – New or the Communications Channel – Properties window.

3 Select the Template Script check box.

4 At the Script tab, use the Browse button to find the template that you want to use. The installation wizard placed the VAN templates in the default directory *\ECEDIGS\VAN Templates*. In this directory there is a folder for each set of VAN templates: ATT, Harbinger, GES, IBM, and Sterling. Each VAN template name includes a three-character VAN name, an abbreviation for send (*snd*), receive (*rcv*), or both (*rs*) and the *.tpl* extension.

5 The name of the selected template appears in the Template Script File entry box.

6 Click Create Script File. The Script File Name window displays with a default name for this production script displayed.

7 Click OK. The Create Parameter Values window displays.

8 Highlight a template parameter on the list on the left. Click the Add Value button. The Add Value window displays.

9 Enter a value for the parameter and click OK. The value displays in the list on the right. Repeat Add Value for each parameter listed in the template file.

10 When you are finished using the Create Parameter Values window, click OK. The Communications Channel window displays.

11 Click OK.

Supported VAN templates

The default location for the VAN templates is c:\ecedigs\VAN Templates. This directory contains a folder for each supported VAN: ATT, Harbinger, GES, IBM, and Sterling. . Each template supports asynchronous communication. Table 2-5lists the contents of each VAN folder.

Table 2-5: VAN folders

VAN folder name	Contents of folder
ATT	ATT_RCV.TPL
	ATT_TS.TPL
	ATT_SND.TPL
GES	GES_RCV.TPL
	GES_RS.TPL
	GES_SND.TPL
Harbinger	HRB_RCV.TPL
	HRB_RS.TPL
	HRB_SND.TPL
IBM	IBM_RCV.TPL
	IBM_RS.TPL
	IBM_SND.TPL
Sterling A Network	STA_RCV.TPL
	STA_RS.TPL
	STA_SND.TPL
Sterling B Network	STB_RCV.TPL
	STB_RS.TPL
	STB_SND.TPL

Note Use the templates beginning with STA for the Sterling A Network. Use the templates beginning with STB for the Sterling B Network. Both networks use the ASCII transfer protocol.

Filling in the Host tab fields

The Host tab allows configuration of the communication host defined within this communication channel. This tab is specific to the type of communications media used within this channel, and allows entry of different parameters for Asynchronous and FTP. Only a host requires information on the Host tab.

Note The Host tab window differs depending on the type of communications media used for this channel.

To fill in the Host fields:

1 For the FTP Server Name field, enter the IP address or domain name to use in the connection to the FTP server that will receive the data from your server. This is the name that identifies the FTP server to all other PCs.

2 In the User ID field, enter the user name that will be used to log into the remote server.

3 (Usually left blank) In the User Account field, enter the account name for the channel on the FTP Server. Most FTP servers do not require a user account, and this entry box is usually left blank.

4 In the Password field, enter the password that corresponds with the User ID in step 2.

5 (Usually left blank) Enter the port number used for FTP communications if you want to override what EC Gateway will choose.

6 If a firewall server is on your network, enter the IP address or domain name of the server in the Firewall Server Name field.

7 (Usually left blank) Enter the port number used for FTP communications to the firewall server if you want to override what EC Gateway will choose. Most firewall servers do not require a port and automatically use a default port during communications sessions.

8 In the Passive field, check this field to make the server listens and wait for the connection when a data transfer request comes in. The default value is active where the server sets up a connection when a data transfer request comes in.

Editing the Host fields for asynchronous communication

When any of the Asynchronous or Bisynchronous options are selected as the communications channel media, the Host tab is displayed with different parameters. The User ID and Password options are used only when defining Host mode. These are used when the Asynchronous Host mode is run to verify users for their mailbox.

Table 2-6 describes the Host tab fields.

Table 2-6: Fields of the Host tab

Field Name	Description
User ID	User ID used to establish communications within this channel.
Password	Password corresponding to the user ID for this channel

Editing the Direction tab field when MQSeries is selected

The Direction tab replaces the Script tab when a type of message queuing is specified as the communications type (General tab). MQSeries message queuing is supported by EC Gateway. The Direction tab indicates if the particular queue can be used to send, receive or send and receive messages. Message queuing supports the integration of EC Gateway with other electronic commerce applications.

For the Direction field, enter the Direction that the messages are sent between applications: Receive, Send, Both.

Editing the Host tab fields When MQSeries is selected

The Host tab displays as shown below when a type of message queuing is specified as the communications type (General tab). MQSeries Queue message queuing is supported by EC Gateway. The Direction tab indicates the direction of the messages. Message queuing supports the integration of EC Gateway with other electronic commerce applications.

From the *Host* tab, define these fields.

1 In the Queue Manager Name field, enter the name of the service providing queueing to applications.

2 In the Queue Name field, enter the name of the queue used to send or receive messages.

3 (Optional) In the User ID field, enter the name of the person accessing the queue.

4 (Optional) In the Password field, enter the password authorizing access to the queue.

5 Mark this check box if you plan to deliver or receive MQRFH (MQSeries Rules and Formatter) headers to/from MQSI v.2.0. If this box is not checked, version 1.1 of MQSI is used.

Mailbox configuration

Selecting the Mailbox icon allows you to view and configure all mailboxes installed within the EC Gateway application. Each mailbox is represented on the right side of the EC Gateway window. MailBox is a very generic term defining groups of messages. This term describes the mechanism at work that holds the messages during message transformation and routing. MailBoxes are contained in a PostOffice. All MailBoxes are subdirectories beneath the PostOffice directory.

MailBox directories are used for communications, routing, data validations, and other functions. There are some general MailBox rules:

1 Every Communications Channel must have its own mailbox.

2 Every Trading Partner must be linked to a mailbox.

3 Every Trade Agreement (Trade Status Record) can override the mailbox of the trading partner.

4 Mailboxes can exist without being associated with either a Channel or a Trading Partner.

To configure mailboxes (general procedure), follow these steps:

1 Click the MailBox icon on the left side of the desktop.

2 Select a mailbox listed on the area on the right side of the desktop.

3 Right-click to display a menu.

From the menu that is displayed, you can add a new mailbox by clicking New. You can delete the selected mailbox by left-clicking Delete. You can edit the name and directory location of the mailbox by left-clicking Properties. By clicking View, you can view the files, communications channels, trading partners, or trading agreements associated with the mailbox. Details of these actions are presented below.

❖ **Creating a new mailbox**

1 Select New.

The MailBox Definition window displays.

2 Enter the name of your new mailbox in the Name text box. The name of your mailbox must be unique.

3 The Folder text box is automatically populated with the default directory path defined during the initial configuration. You can change the destination directory and create a new folder for your mailboxes by changing the directory specified in the Folder field.

4 Click OK. The new mailbox is created with five default folders. The default folders created are IN, OUT, GOOD, BAD, and OTHER.

Folder name	Description
IN	The communication script places incoming files into the IN box for the Mailbox.
OUT	Transactions, which are to be transmitted, would be placed in the OUT mailbox.
GOOD	The transactions that pass the optional compliance checking routine would be placed in the GOOD mailbox.
BAD	The transactions that failed the optional compliance checking routine would be placed in the BAD mailbox.
OTHER	Generic folder used by EC Gateway for processing.

❖ **Modifying an existing mailbox**

1 Select the mailbox on the area of the desktop.

2 Right-click to display the menu.

3 Select the Properties option.

4 The MailBox – Properties window displays with the name of the mailbox presented in the title bar.

5 The name of this existing mailbox is automatically entered in the Name text box.

6 The pathname for the folder is automatically entered in the Folder text box. You can change this pathname.

7 Click OK.

❖ **Deleting an existing mailbox**

1 Select the mailbox on the area of the desktop.

2 Right-click and the menu displays.

3 Select Delete. A confirmation dialog box displays.

4 Click Yes. A second confirmation dialog box displays if the mailbox folder exists.

5 Click Yes. An ECEDIGS dialog box displays.

6 Click OK. The mailbox and its subdirectories and files are deleted.

Note Click Yes on both confirmation dialog boxes to delete both the mailbox and its subdirectories and files.

Note You cannot delete a mailbox that is used by a trading partner.

❖ **Viewing mailbox items**

1 Select the mailbox on the area of the desktop.

2 Right-click to display the menu.

3 Select the View option.

4 Select one of the four options—Channels, Asynchronous, Tranding Partner, or Trade Agreement—in the submenu. Each option displays a set of objects that are related to this mailbox.

Configuring a trading partner

After defining the communications channel using the Comm Channel icon, the next step in EC Gateway configuration is to configure the individual trading partners within your EC/EDI system. Click the Trade Partner icon in the EC Gateway main window to display a list of the trading partners configured in EC Gateway.

Trading partners are the vendors or customers with whom you exchange EDI data. The system can be configured to have one "master" trading partner record (i.e., *ALL*) or it can be configured to have individual trading partner-specific records.

To create a new trading partner, follow these steps:

1 Right-click on the area on the right side of the EC Gateway main window. A menu is displayed allowing you to add a new trading partner, delete an existing trading partner, or view and/or modify the properties of an existing trading partner.

After selecting New, the Trading Partner – New window is displayed. This window includes four tabs: General, Contacts, Envelope/Lookup, and Delimiter.

Trading Partner – General tab

The General tab describes the identification/EDI envelope information for the trading partner you are viewing.

From the General tab, the following data elements can be viewed:

Field	Description
Internal ID	The unique internal customer or supplier number your company uses for this trading partner. This number links the EDI envelopes to the application information.
Name	The name of the Trading Partner. It is mostly informational and it is not used by EC Gateway.
Mailbox Name	The name of the mailbox associated with this trading partner.
Mailbox Folder	The name of the folder for your mailbox.
View/Modify Interchange Control Number IN	The last interchange control number received.
View/Modify Interchange Control Number OUT	The next interchange control number to be sent.
Copy this Trading Partner's data when "Copy Tables" utility is used.	Check this check box to select this record for copying using the Copy Trading Partner Tables window. This Copy Trading Partner Tables utility allows you to copy the tables. When you use this utility, you are given the option to copy all records or only those records that have this check box selected.

Note The Back and Next buttons are used to navigate within this set of tabs for the trading partner.

Trading Partner – Contacts tab

The Contacts tab contains demographic information concerning the trading partner. The fields on the Contact tab will be automatically populated by the fields you filled in for the General tab. The Contact tab's purpose is much the same as an address book. This is the location of the contact's name, address, and shipping information.

Note You can view and select a qualifier from a list of available parameters by right-clicking in the first Ship To and Bill To fields.

Trading Partner – Envelope/Lookup tab

The Envelope/Lookup Tab allows you to specify envelope values for the EDI transactions. Both inbound lookup values and outbound envelope values may be entered.

From the Envelope/Lookup tab, you can view the following data elements:

Field name	Description
Outbound Receiver … Interchange Code and Qualifier	The Interchange code and qualifier are used on EDI interchange-level outer envelopes - as the default receiver code and qualifier on outbound messages. (You can obtain a qualifier from a list of available parameters by right-clicking on this field).
Outbound Receiver … Interchange Description	The description of the code (optional).
Outbound Receiver … Interchange Code	Used only on the UNB segment of EDIFACT messages.
Outbound Receiver … Interchange Internal Sub-ID (EDIFACT Only)	Used only on the UNB segment of EDIFACT messages.
Outbound Receiver … Group ID Code and Qualifier	The *Group* code and qualifier are used on EDI group-level inner envelopes - as the default receiver code on outbound messages.
Outbound Receiver … Group ID Description	Description for the group-level inner EDI envelope identification for the Trading Partner.
Outbound Receiver … Authorization Qualifier and Code	The Authorization code and qualifier are used for authentication purposes, such as user IDs. (You can obtain qualifiers from a window by right-clicking on this field).
Outbound Receiver … Authorization Description	The description of code type used (based upon the Authorization Qualifier).
Outbound Receiver … Security Qualifier and Code	The Security code and qualifier are used for additional authentication purposes, such as passwords (You can obtain a qualifier from the Security Selection window by right-clicking on this field)..
Outbound Receiver … Security Description	The description of code type used (based upon the Security Qualifier).
Outbound Sender … Interchange Qualifier	The Interchange Qualifier parameter that overrides the Interchange Qualifier defined in the Company ID Interchange Qualifier field (You can obtain a qualifier from a list of available parameters by right-clicking on this field).
Outbound Sender … Interchange Description	The description of the code used that overrides the Interchange Description defined in the Company ID Interchange Description field (based upon the Interchange Qualifier).
Outbound Sender … Interchange Code	The value of the Interchange Code that overrides the Interchange Code defined in the Company ID Interchange Code field.
Outbound Sender … Interchange Internal ID (EDIFACT Only)	Used only on the UNB segment of EDIFACT messages

Field name	Description
Outbound Sender … Interchange Internal Sub-ID (EDIFACT Only)	Used only on the UNB segment of EDIFACT messages.
Outbound Sender … Group Qualifier	Qualifier for the group-level inner EDI envelope identification for the Trading Partner (You can obtain qualifiers from a window by right-clicking on this field)..
Outbound Sender … Group Description	Description for the group-level inner EDI envelope identification for the Trading Partner.
Outbound Sender … Interchange Internal ID (EDIFACT Only)	These codes are used only on EDIFACT messages only
Outbound Sender … Group Code	Code for the group-level inner EDI envelope identification for the Trading Partner.

Trading Partner – Delimiter/Terminator tab

A delimiter is a character that identifies the beginning or the end of a character string. The delimiting character is not part of the character string. The program interpreting the character string knows what the delimiters are. In the EDI language a delimiter is also known as a Data Element Separator. The Delimiter/Terminator tab is used to override the default X12, UN/EDIFACT, and/or HL7-unique delimiters.

You can view and select values for each of these fields from the full list of ASCII codes by right-clicking in the appropriate field. The Decimal Indicator menu provides a choice of a comma or period to represent a decimal point. From the Packed Decimal Character drop-down list, select the character that will indicate that a signed packed decimal is positive. The legal values include *B*, *C*, and *D*. (When you specify that a field is a “Packed Decimal” field type on the *New Field* or *Field Properties* window of ECMap, you enter information that tells the program whether or not the field is signed, as well as the number of non-decimal and decimal numbers the field contains.) When the program encounters a “Packed Decimal” field that is signed, it looks at the value selected from this drop-down list to determine whether the number in the field is positive.

Trade Agreements window

Trade agreements indicate to the system the transaction sets (message types) and maps which are to be associated with trading partners. Each trading partner with outbound transactions should have a Trading Status associating that trading partner with that outbound transaction, test or production status designation, and EDI version. Trading partners need not be linked with the trade status of the individual transactions. Instead, the trade partner ALL can become the “master” for the transaction/trade partner status with a list containing each inbound transaction and its status. Within the trade agreements window you can determine whether or not inbound data is to be mapped or passed through. You can also override the output file selection and the trade partner mailbox on outbound data so that for this trading partner, data can be sent to a different file rather than the one specified in the command line.

To fill out the Trade Agreements window, follow these steps:

1 Click the Trade Partner icon.

2 Select a listed trading partner.

3 Right-click in the area on the right side of the window.

4 The pop-up menu displays.

5 Select Trade Agreement.

6 The Trade Agreements with Trading Partner window displays.

From this window, the following elements are displayed:

Field	Description
Tran	The list of defined transaction names for this trading partner.
ST03 (X12)	The alphanumeric field for the Implementation Convention Reference. (optional)
Purpose	The purpose of this map (in, out, cmp, prt).
Status	The transaction status – Test or Production - of this map.
Version	The version number of the map.
Map	The name for this transaction (alpha characters must be capitalized).
GS Control	The last GS Control number sent or received.
ISA	The ISA type for this transaction.
Mailbox	The destination folder for this transaction and trade partner.

Trade agreement update

You can add, modify, or delete a trade agreement by following the steps in the sections below.

Adding a trade agreement

To add a trade agreement, follow these steps:

1 Right-click on the area of the Trade Agreements With Trading Partner window.

2 A pop-up menu displays.

3 Select New.

4 The Trade Agreement window displays.

5 Use this window as described below to create a new trade agreement.

Modifying an existing trade agreement

To modify an existing trade agreement, follow these steps:

1 Select a listed trade agreement from the Trade Agreements With Trading Partner window.

2 Right-click to display a pop-up menu.

3 Select Properties. The Trade Agreement window displays.

4 Use this window as described below to modify the trade agreement.

Deleting an existing trade agreement

To delete an existing trade agreement, follow these steps:

1 Select a listed trade agreement from the Trade Agreements With Trading Partner window.

2 Right-click to display a pop-up menu.

3 Select Delete.

4 A Confirm Delete dialog box displays.

5 Click Yes.

Trade Agreement window – General Status tab

If you have chosen to add a new trade agreement or modify a current trade agreement record for this trading partner, the Trade Agreement window is displayed, with the General tab selected.

From the General tab, the following data elements can be defined:

Field	Description
Standard Used for Map	X12, EDIFACT or HL7. You have to select one of the standards to enter map information. In addition, different information is required for each of the standards.
Trade Partner Internal ID	Your internal customer or supplier number for this trading partner is displayed.
Trade Partner Name	The Trade Partner's name (35 characters allowed).
Map Name	The Map to be used for this agreement.
Map Type	The direction the data is going (In or Out). **Note** *PRT and CMP are Print and Compliance* maps. A pull-down list displays the list of valid codes.

Note The Back and Next buttons provide navigation through this set of tabs.

The General tab of the Trade Agreements window contains information about the trading partner and the map that are linked by this trade agreement. The fields that appear on the tab differ, depending on the selection you make in the Standard Used for Map field.

This table lists the fields that display for the X12 standard:

Field	Description
Test Indicator	Value of the ISA test indicator can be P(production), T (test) or I (information). For X12 maps that use version 4020 and later, the choices for Test Indicator include *T*, *P*, and *I*. For X12 maps prior to version 4020, the choices include only *T* and *P*.
Version/Release/IndustryIdentifier Code	Version of X12 used in the map linked with this trade agreement.
Transaction set identifier code	Identifier for the X12 transaction set used in the map.
Implementation convention reference	Optional element that was added in version 4030. When a value is entered here, the RTP uses *ST03* as part of the trading partner lookup for X12 maps. The default is not to use *ST03*.

This table lists the fields that display for the HL7 standard:

Field	Description
Message Version/Release Number	Version of HL7 used in the map linked with this trade agreement. Currently supported version is 2.3
Message Type	Identifier for the HL7 message used in the map.
Test indicator	Indicates whether this map is used for test or production. Can be P, T or D.

Trade Agreement window – Overrides tab

After configuring the General tab, select the Overrides tab. The fields on the Overrides tab depend on a standard and map type selected (there are different overrides for inbound and outbound maps and for different standards).

Use this window to override values that were established for the given Trading Partner.

Field	Description
Name	A string identifying the mailbox.
Folder	Directory of the physical location.
File Name	The name of an Any-to-Any, EDIFACT, HL7, or X12 file for routed data. This file name is used in the *IN*, *OUT*, *GOOD*, *BAD*, and *OTHER* mailboxes.
Interchange Qualifier	Overrides the value of the TP Interchange Qualifier field. You can obtain a qualifier from a list of available parameters by right-clicking on this field.
Interchange Description	Overrides the value of the TP Interchange Description field (based upon the Interchange Qualifier).
Interchange Code	Overrides the value of the TP Interchange Code field.
Group Code	Overrides the value of the Group level code entered on a TP General tab.

These fields provide the override information for X12:

Field	Description
Name	A string identifying the mailbox.
Folder	Directory of the physical location.
File Name	The name of an Any-to-Any, EDIFACT, HL7, or X12 file for routed data. This filename is used in the *IN*, *OUT*, *GOOD*, *BAD*, and *OTHER* mailboxes.
Map and route inbound EDI to Trade Agreement Mailbox	This check box allows both the pass-through (routing) of data and the running of maps if it is checked. This must be checked if you want to generate bad EDI and place it in the trading partner's *BAD* folder. This is always used when running compliance maps.

These fields provide the override information for EDIFACT:

Field	Description
Name	A string identifying the mailbox.
Folder	Directory of the physical location.
File Name	The name of an EDIFACT output file for routed data. This filename is used in the I*N*, *OUT*, *GOOD*, *BAD*, and *OTHER* mailboxes.
Interchange Qualifier	The Interchange Qualifier parameter that overrides the Interchange Qualifier defined in the Company Interchange Qualifier field. You can obtain a qualifier from a list of available parameters by right-clicking on this field.
Interchange Description	The description of the code used that overrides the Interchange Description defined in the Company Interchange Description field (based upon the Interchange Qualifier).
Interchange Code	The value of the Interchange Code that overrides the Interchange Code defined in the Company Interchange Code field.
Interchange Internal ID	Used only on the UNB segment of EDIFACT messages.
Interchange Internal Sub-ID	Used only on the UNB segment of EDIFACT messages (syntax 4 only).
Group Qualifier	Qualifier for the group-level inner EDI envelope identification for the Trading Partner. (You can obtain a qualifier from a list of available parameters by right-clicking on this field).
Group Description	Description for the group-level inner EDI envelope identification for the Trading Partner.
Group Code	Code for the group-level inner EDI envelope identification for the Trading Partner.

Trade Agreement window – X12 tab

The X12 tab allows you to specify information for X12 parameters.

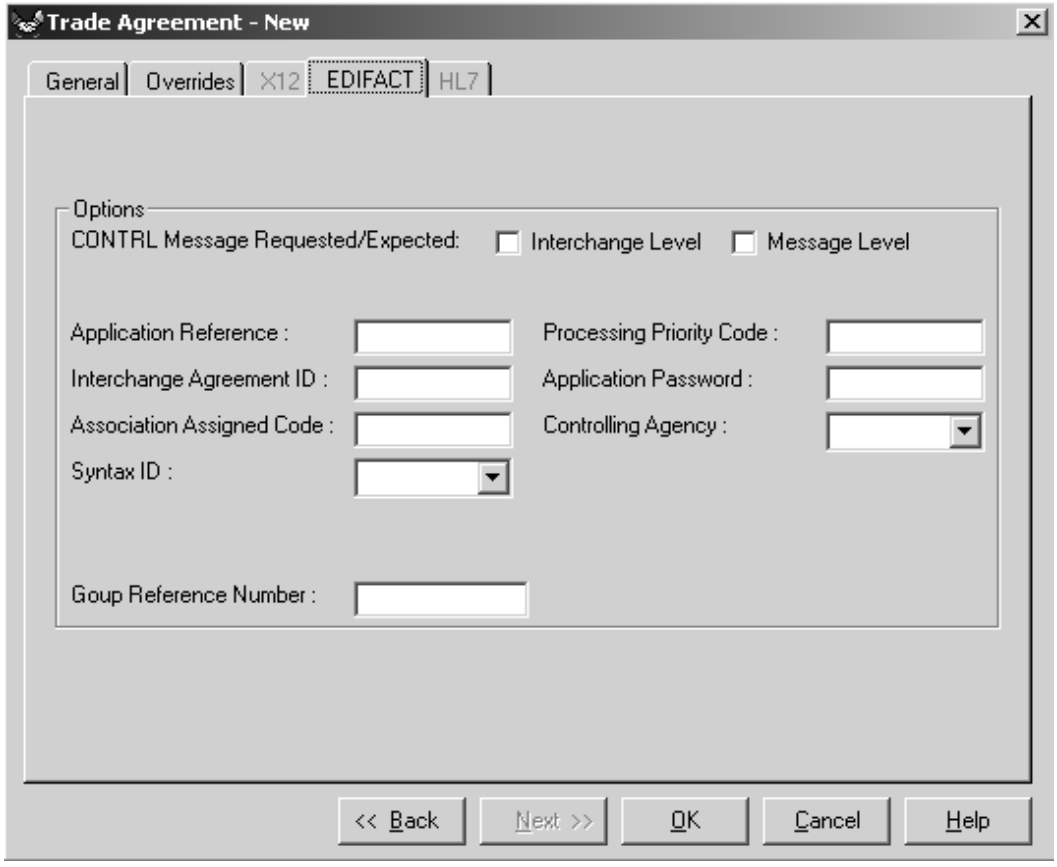
Field	Description
Interchange Control Version Number	Version of the X12 standard used in the map. This value is used to populate ISA 12.
Group Control Number	This field allows overriding the group count that is automatically incremented each time the transaction is run. Ordinarily, you would not change this number.
Expect FA 997	Used to indicate whether the sender of this transaction expects a functional acknowledgement.

These fields appear on the X12 tab of the Trade Agreement window:

Field	Description
Interchange Control Version Number	Version of the X12 standard used in the map. This value is used to populate ISA 12.
Group Control Number	This field allows overriding the group count that is automatically incremented each time the transaction is run. Ordinarily, you would not change this number.
Request TA1	Used to indicate whether there is an agreement between the sender and receiver that the receiver of this EDI message will send a response back to the sender affirming that the ISA envelope was received. If so, the system should expect to receive this acknowledgement.
Expect FA 997	Used to indicate whether the sender of this transaction expects a functional acknowledgement
Consider unacknowledged…	In the two text boxes following "Consider unacknowledged if not received after," the user enters values that tell the program the period of time in which you expect to receive a functional acknowledgement. If an acknowledgement is received after this period, it is considered overdue. (Allows Gateway to report on overdue acknowledgements.) • Time Units specifies the unit of measure (DAYS, HOURS, MINUTES, or SECONDS) for the period during which an acknowledgement to your outgoing message must be received. In the text box following Time Units, you select the actual number of units of time after which an acknowledgement is considered overdue. (The drop-down list includes the valid values 1 – 99.)

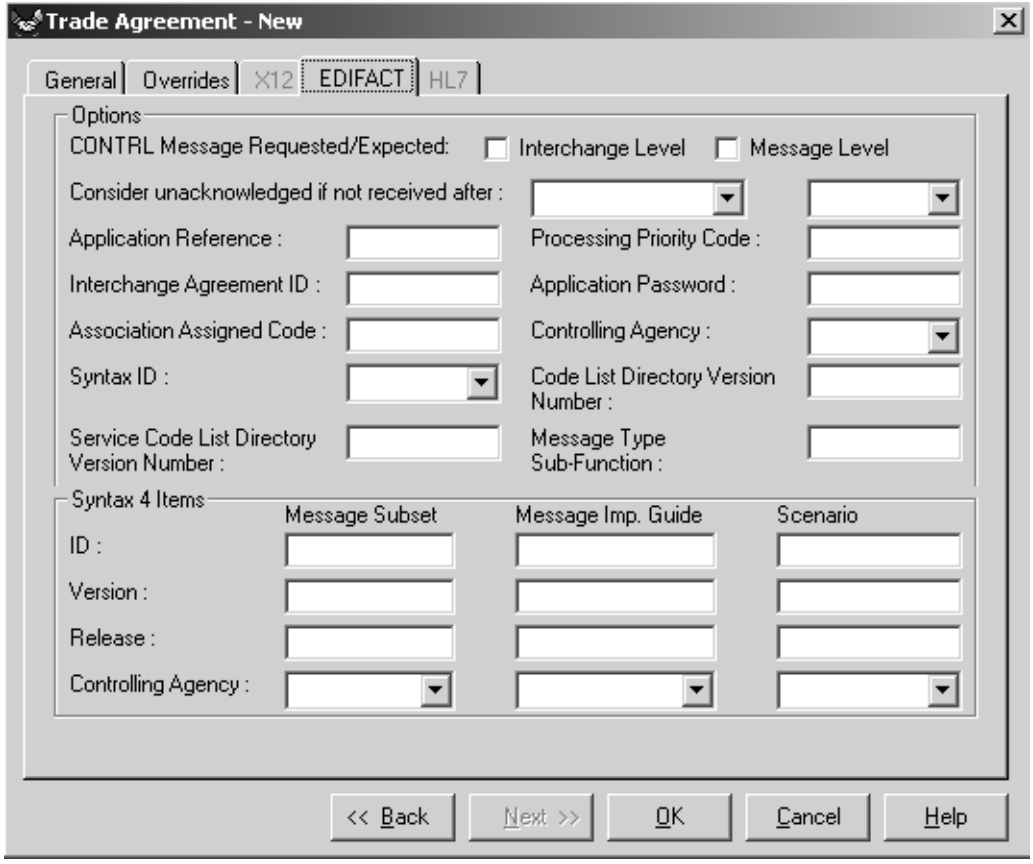
Trade Agreement window – EDIFACT tab

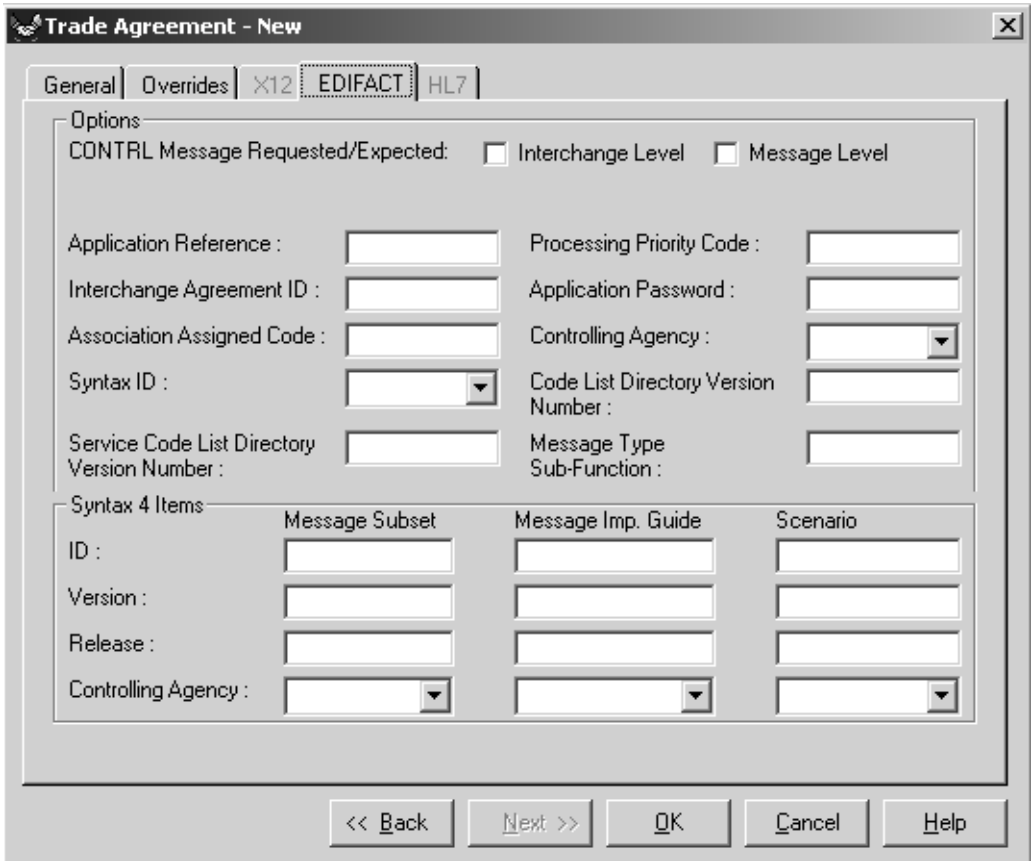
These are the fields that appear on the EDIFACT tab of the Trade Agreement window:


Trade Agreement - New
General
Overrides
X12
EDIFACT
HL7
Options
CONTRL Message Requested/Expected:
Interchange Level
Message Level
Application Reference :
Processing Priority Code :
Interchange Agreement ID :
Application Password :
Association Assigned Code :
Controlling Agency :
Syntax ID :
Goup Reference Number :
<< Back
Next >>
OK
Cancel
Help

Field	Description
CONTRL Message Requested/Expected	Indicates whether a CONTRL message is expected back from the receiver of this message. If a CONTRL message is expected, the program writes certain information to the log during mapping that will enable it to process the CONTRL message. You should choose: • Interchange Level if you and your trading partner have agreed in an Implementation Agreement that the receiver of an EDIFACT message will return a CONTRL message containing a UCI segment indicating whether the interchange-level UNB segment was received and whether it was syntactically acceptable. • Message Level if you and your trading partner have agreed in an Implementation Agreement that the receiver of an EDIFACT message will return a CONTRL message containing a UCM segment indicating whether a message-level UNH segment was received and whether it was syntactically acceptable.
Consider unacknowledged if not received after	In the two text boxes following Consider unacknowledged if not received after, the user enters values that tell the period of time in which you expect to receive a CONTRL message. If the CONTRL message is received after this period, it is considered overdue. (This allows EC Gateway to report on overdue acknowledgements.) • First specifies the unit of measure (DAYS, HOURS, MINUTES, or SECONDS) for the period during which an acknowledgement to your outgoing message must be received. • In the text box following Time Units, you select the actual number of units of time after which an acknowledgement is considered overdue. (The drop-down list includes the valid values 1 – 99.)
Application Reference	Used to populate the S005 0026 field on the UNB segment. This is the name of the EDI message that will be contained in the UNB envelope (for example, "PAYMUL").
Processing priority code	Used to populate the S005 0029 field on the UNB segment.
Interchange Agreement ID	Used to populate the S005 0032 field on the UNB segment.
Application password	Used to populate the S008 0058 field on the UNG segment.
Association Assigned Code	Used to populate the S008 0057 field on the UNG segment and on the S009 0057 field on the UNH segment.
Controlling Agency	Used to populate the S004 0051 field on the UNG segment and the S009 0051 field on the UNH segment.
Syntax ID	Used to populate the S001 0001 field on the UNB segment.
Group Reference Number	Used to populate the S004 0048 field on the UNG segment.

The data is the same as above with the exception of the unacknowledged window (not relevant for the inbound documents).





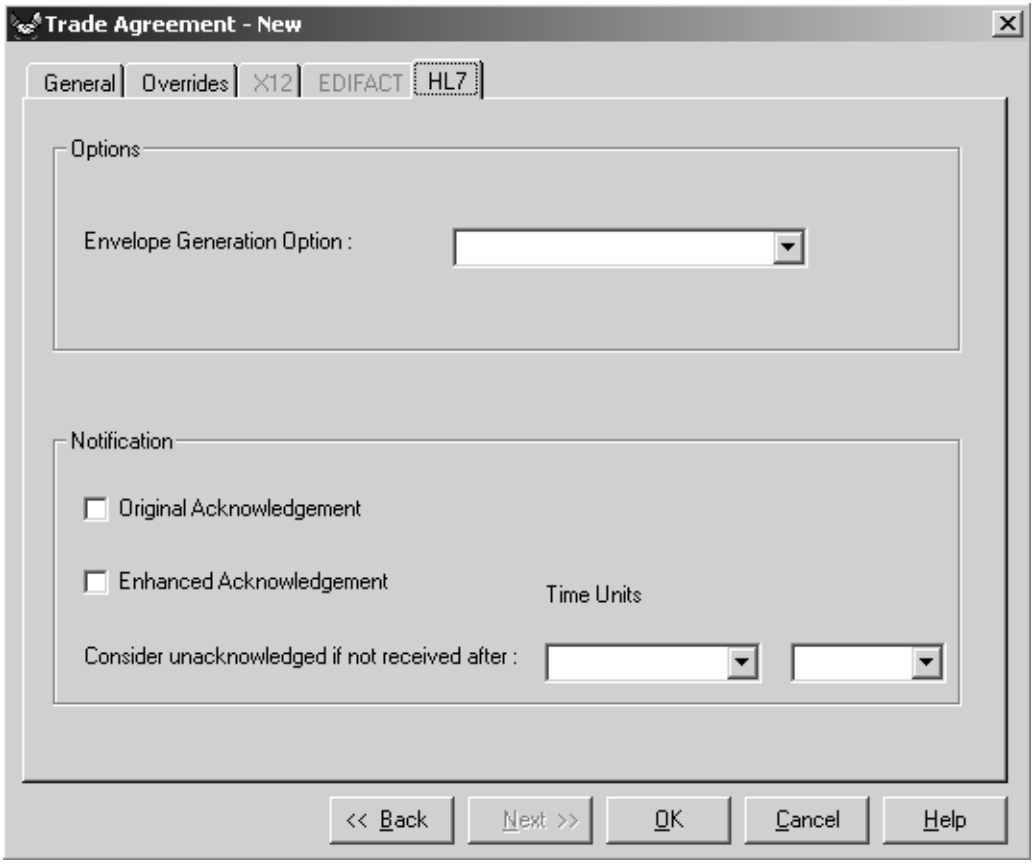
Field	Description
CONTRL Message Requested/Expected	Indicates whether a CONTRL message is expected back from the receiver of this message. If a CONTRL message is expected, the program writes certain information to the log during mapping that will enable it to process the CONTRL message. You should choose: • Interchange Level if you and your trading partner have agreed in an Implementation Agreement that the receiver of an EDIFACT message will return a CONTRL message containing a UCI segment indicating whether the interchange-level UNB segment was received and whether it was syntactically acceptable. • Message Level if you and your trading partner have agreed in an Implementation Agreement that the receiver of an EDIFACT message will return a CONTRL message containing a UCM segment indicating whether a message-level UNH segment was received and whether it was syntactically acceptable.

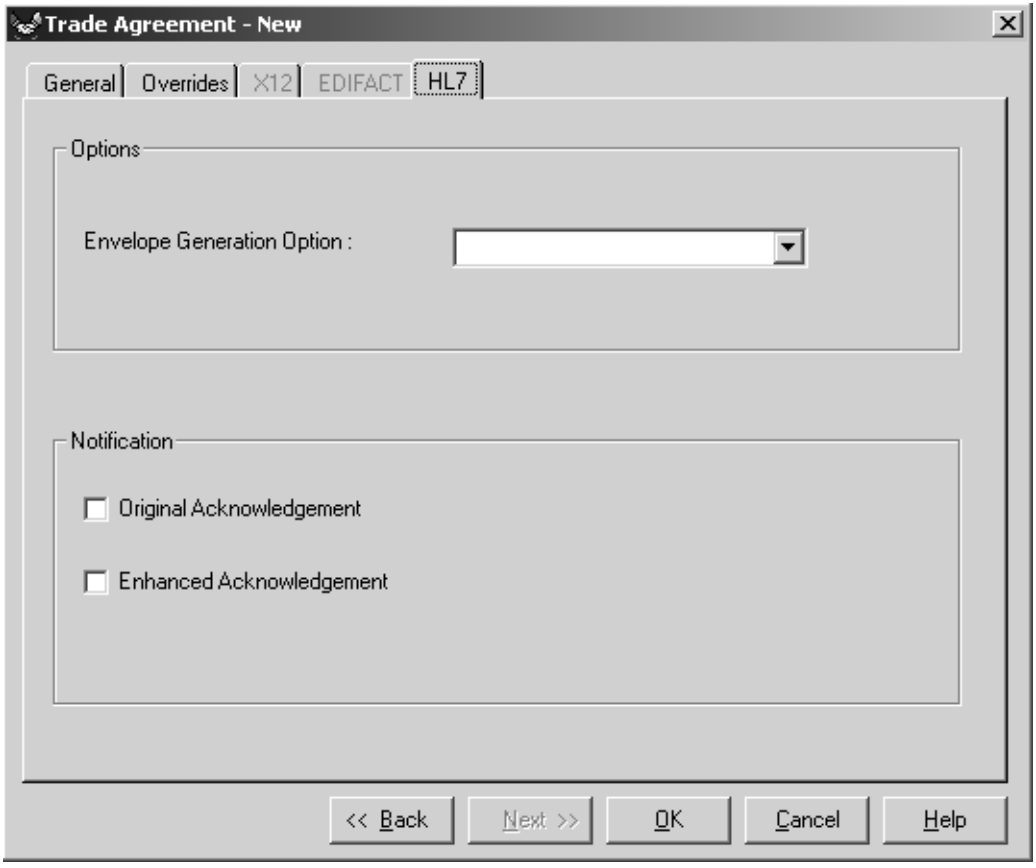
Field	Description
Consider unacknowledged if not received after	In the two text boxes following "Consider unacknowledged if not received after," the user enters values that tell the period of time in which you expect to receive a CONTRL message. If the CONTRL message is received after this period, it is considered overdue. (This allows EC Gateway to report on overdue acknowledgements.) • First specifies the unit of measure (DAYS, HOURS, MINUTES, or SECONDS) for the period during which an acknowledgement to your outgoing message must be received. • In the text box following Time Units, you select the actual number of units of time after which an acknowledgement is considered overdue. (The drop-down list includes the valid values 1 – 99.)
Application Reference	Used to populate the S005 0026 field on the UNB segment. This is the name of the EDI message that will be contained in the UNB envelope (for example, "PAYMUL").
Processing priority code	Used to populate the S005 0029 field on the UNB segment.
Interchange Agreement ID	Used to populate the S005 0032 field on the UNB segment.
Application password	Used to populate the S008 0058 field on the UNG segment.
Association Assigned Code	Used to populate the S008 0057 field on the UNG segment and on the S009 0057 field on the UNH segment.
Controlling Agency	Used to populate the S004 0051 field on the UNG segment and the S009 0051 field on the UNH segment.
Syntax ID	Used to populate the S001 0001 field on the UNB segment.
Group Reference Number	Used to populate the S004 0048 field on the UNG segment.
Code List Directory Version Number	Used to populate the S009 0110 field on the UNH segment.
Service Code List Directory Version Number	Used to populate the S001 0080 field on the UNB segment.
Message Type Sub Function	Used to populate the S009 0113 field on the UNH segment.
Message Subset	Under Message Subset: • The information entered in the ID is used to populate the S016 0115 field on the UNH segment. • The information entered in the Version is used to populate the S016 0116 field on the UNH segment. • The information entered in the Release is used to populate the S016 0118 field on the UNH segment. • The information entered in the Controlling Agency is used to populate the S016 0051 field on the UNH segment.

Field	Description
Message Imp(lementation) Guide	Under Message Imp Guide: • The information entered in the ID is used to populate the S017 0121 field on the UNH segment. • The information entered in the Version is used to populate the S017 0122 field on the UNH segment. • The information entered in the Release is used to populate the S017 0124 field on the UNH segment. The information entered in the Controlling Agency is used to populate the S017 0051 field on the UNH segment.
Scenario	Under Scenario: • The information entered in the ID is used to populate the S018 0127 field on the UNH segment. • The information entered in the Version is used to populate the S018 0128 field on the UNH segment. • The information entered in the Release is used to populate the S018 0130 field on the UNH segment. The information entered in the Controlling Agency is used to populate the S018 0051 field on the UNH segment.

The data is the same as above with the exception of the unacknowledged window (not relevant for the inbound documents).

Trade Agreement window - HL7 tab





Field	Description
Envelope Generation Option	There are two choices on the drop-down list:0072 – FHS, BHS 0073 – MSH Only
Original Acknowledgement	Used to indicate whether there is an agreement between the sender and receiver that the receiver of this EDI message will send a response back to the sender, acknowledging receipt of the message. If so, the system should expect to receive this acknowledgement.
Enhanced Acknowledgement	Used to indicate whether there is an agreement between the sender and receiver that the receiver of this EDI message will send an enhanced response back to the sender, acknowledging receipt of the message. If so, the system should expect to receive this acknowledgement.

Field	Description
Consider unacknowledged…	In the two text boxes following Consider unacknowledged if not received after, the user enters values that tell the program the period of time in which you expect to receive a functional acknowledgement. If an acknowledgement is received after this period, it is considered overdue. (This allows Gateway to report on overdue acknowledgements.) • Time Units specifies the unit of measure (DAYS, HOURS, MINUTES, or SECONDS) for the period during which an acknowledgement to your outgoing message must be received. • In the text box following Time Units, you select the actual number of units of time after which an acknowledgement is considered overdue. (The drop-down list includes the valid values 1 – 99.).

Note absence of the "Consider unacknowledged…" fields that do not make sense for an inbound document.

Copy Trading Partner Tables window

The Copy Trading Partner Tables window allows the user to copy trade partner tables from one database to another database. To copy a trade partner table, follow these steps:

1 Click the Trade Partner icon and go to the menu bar.

2 Click to display the Utility menu.

3 Select Copy Tables.

4 The Copy Trading Partner Tables window appears.

5 The Source Trading Partner ODBC Connection field is automatically populated with the Data Source Name given during the system configuration.

6 Enter the destination database data source name in the Destination Trading Partner ODBC Connection field. You can optionally use the Browse button to locate the destination database. A user identifier (uid) and password (pwd) may be required as shown.

7 Check the Copy Exported Records Only check box if you want to copy only exported records rather than all records. The items flagged for export in the Trading Partner window will be copied.

8 Check the Remove Old Records check box to optionally remove all records that exist in the destination TP table.

9 Click OK.

Note An ODBC Configure button is provided so that the user can define a new ODBC data source name.

Company ID configuration

Another step in EC Gateway configuration is populating the Company Identification window. This window defines data concerning your company, including fields required for successful EDI message management.

Note The Company ID identifies who you are when configuring the envelope. You can use additional IDs for other departments or divisions in your company.

Defining a company ID record

To define a new Company ID record, follow these steps:

1 Click on the Company ID icon.

2 Right-click on the area on the right side of the EC Gateway main window. A pop-up menu displays.

3 Select New. The Company – New window displays.

4 Enter the appropriate values.

Modifying a company ID record

To modify an existing Company ID record, follow these steps:

1 Click on the Company ID icon.

2 Select a listed company ID.

3 Right-click. A pop-up menu displays.

4 Select Properties. The Company – Properties window displays.

5 Modify the entries as appropriate.

After selecting New, the Company – New window is displayed.

On the Company ID – New window, you enter the information that is used to create your company's electronic address on the envelopes that enclose your EDI messages. The codes and qualifiers that you enter on this window are those that you and your trading partner have agreed will be used for the interchange and group level addresses for the messages you are exchanging. They are usually explicitly specified in an Implementation Guide.

- The Profile Number is a unique user-assigned code that allows multiple profiles to be created for the same company. Since the requirements of trading partners vary greatly, this feature enables one company to be recognized as different "senders" by different trading partners.
- The Name is the name of your company.

In the Outbound Sender Default Envelope Values section, enter information that identifies your company as the sender of outbound messages and information used for authorization and security. When the program creates the outbound envelopes for your messages, it uses some or all of this information (depending on the EDI standard being used) on the interchange and group envelopes. You enter qualifiers and codes; the program automatically enters the description associated with the qualifier you select. The qualifier defines the type of code that is used as an identifier. Qualifiers can be values such as telephone numbers or Dun & Bradstreet numbers. Possible qualifiers are found in the code lists associated with each standard. There is a more detailed explanation of qualifiers on the next page, following the instructions for entering information in the text boxes on the Company ID – New window.

- The Interchange code and qualifier are used on EDI interchange-level outer envelopes - as the default sender code and qualifier on outbound messages. (They can be overridden by entries in the O/B Sender Override > Interchange > Code/Qualifier text boxes on the Envelope/Lookup tab of the Trading Partner window.) For outbound X12 messages, the code and qualifier are the Interchange Sender Code/Qualifier on the ISA segment. For outbound EDIFACT messages, the code is the Interchange Sender Identification on the UNB address. For outbound HL7 messages, the code is the Sending Facility on the MSH segment, the File Sending Facility on the FHS segment, or the Batch Sending Facility on the BHS segment.
- The Interchange Internal ID and Interchange Internal Sub-ID codes are used only on EDIFACT messages.

- The Group code and qualifier are used on EDI group-level inner envelopes - as the default sender code on outbound messages. (They can be overridden by entries in the O/B Sender Override > Group > Code/Qualifier text boxes on the Envelope/Lookup tab of the Trading Partner window.) For outbound X12 messages, this is the Application Sender code on the GS segment. For outbound EDIFACT messages, this is the Application Sender Identification on the UNG segment. For outbound HL7, it is the Sending Application on the MSH segment, the File Sending Application on the FHS segment, or the Batch Sending Application on the BHS segment.
- The Authorization code and qualifier are used for authentication purposes, such as user IDs. (They can be overridden by entries in the O/B Sender Override > Authorization > Code/ Qualifier text boxes on the Envelope/Lookup tab of the Trading Partner window.) For outbound X12 messages, the code and qualifier are the Authorization Information and Authorization Information Qualifier on the ISA segment. For outbound EDIFACT messages, the code is the Application Password on the UNG segment. These values are not used on HL7 messages.
- The Security code and qualifier are used for additional authentication purposes, such as passwords. (They can be overridden by entries in the O/B Sender Override > Security > Code/Qualifier text boxes on the Envelope/Lookup tab of the Trading Partner window.) For outbound X12 messages, the code and qualifier are the Security Information and Security Information Qualifier on the ISA segment. For outbound EDIFACT messages, they are the Recipient Reference/Password and Recipient Reference/Password Qualifier on the UNB segment. For outbound HL7 messages, they are the Security on the MSH segment, the File Security on the FHS segment, or the Batch Security on the BHS segment.

  Interchange, Authorization, and Security each have a Qualifier, Description, and Code. The Qualifier identifies what type of Code is used, the Description is a short textual explanation for that type of code, and the Code is the actual code. In X12, for example, a qualifier of *01* is described as D-U-N-S Number, Dun & Bradstreet. The code is the actual Dun & Bradstreet number. If this were chosen as the type of interchange code, the company's Dun & Bradstreet number would be entered in the Code field. Each set of standards that uses qualifiers has a list of available qualifiers and their associated descriptions.

  - Right-click the Interchange Qualifier text box, and the INTERCHANGE SELECTION window displays, listing all the possible interchange qualifiers.

- Right-click the Authorization Qualifier text box, and an AUTHORITY SELECTION window displays, listing all the possible authorization qualifiers.
- Right-click the Security Qualifier text box, and a SECURITY SELECTION window displays, with two (2) options:
  - 00 No Security Information Present
  - 01 Present

You can scroll down the list on the INTERCHANGE SELECTION (or AUTHORITY SELECTION) window and select the qualifier you want to use by double-clicking it or by highlighting the selection and clicking OK.

When you have entered all the required information on all the tabs of the Company ID – New window, click OK. Exit all open windows to return to main ECMap window.

Modifying an existing company profile

To modify an existing company profile, highlight the company profile that you want to change and choose Properties from the Edit menu on the Company ID window. The Company ID – Properties: <company profile> window displays. The company profile is identified by the record number of the selected company identifier.

On the Company ID – Properties: <company profile> window, you can modify all of the information that you entered on the Company ID – New window.

Deleting an existing company profile

To delete an existing company profile, highlight the company profile that you want to remove and choose Delete from the Edit menu on the Company ID window.

You are asked to confirm that you want to delete the company profile record before it is permanently removed.

To copy a trading partner, highlight the trading partner and choose Copy from the Edit menu on the Trading Partner window. The Trading Partner – Copy window displays.

The Trading Partner – Copy window has the same four tabs as the Trading Partner – New window. A few text boxes on the tabs are blank, but the other text boxes contain the information for the trading partner being copied. Use the Back and Next buttons at the bottom of the window to move from tab to tab.

Enter the following information for the new trading partner (to be created by the copy process):

On the General tab:

- Internal ID – the internal application number you use for the trading partner.
- Name – the internal name you use for the trading partner.
- Copy this Trading Partner's data when 'Copy Tables' utility is used check box.

On the Envelope/Lookup tab:

- Group in the Outbound Receiver Default Envelope Values and Inbound Sender Lookup Values section – the part of the trading partner's electronic address that is used on the group-level EDI inner envelope.

Copying the trading partner database tables

ECMap allows you to copy all or selected tables in the trading partner database. (The trading partner database includes the company, trading partner, and trade agreement tables.) To copy one or more tables, choose Copy Tables from the Utility menu on the Trading Partners window.

The Copy Trading Partners Tables window displays.

There must be an ODBC connection to the trading partner databases in order to use this copy function. If you are using Dbase or Paradox tables, you may not have a DSN that points to the database and must create one. Since both DBase and Paradox are ODBC-compliant, you can click the ODBC Configure button and use Microsoft Access to set up a DSN.

The following information must be entered on the Copy Trading Partner Tables window:

- Source Trading Partner ODBC Connection is the DSN pointing to the database being copied.
- Destination Trading Partner ODBC Connection is the DSN pointing to the database that is being created by the copy process.

- When the Copy Exported Records Only check box is selected, the program copies records only for those trading partners that had the Export button checked on the General tab of the Trading Partners window when they were set up. When this button is not checked, the program copies all of the tables in the trading partner database (wixset.mdb, tp.mdb, and tradstat.m db) for all trading partners.
- When Remove Old Records is checked, the program deletes existing records in the destination database and copies the records from the source database to the destination database. When Remove Old Records is not checked and the program finds existing records in the destination database, the copy process is not executed. You do not receive a message.

CHAPTER 3

Communications

This chapter describes setup and configuration for communications.

Introduction

In Chapter 2, you learned how to set up a system including the basic steps to set up communications. In Chapter 3, you will learn the additional steps to set up and implement communications. EC Gateway supports two types of communication: asynchronous and FTP. Each communication type has its own set of rules that govern how a file is transmitted from one computer to another.

- *Asynchronous* transmission is a form of data transmission in which data is sent intermittently, one character at a time, rather than in a steady stream with characters separated by fixed time intervals. Asynchronous transmission relies on the use of a start bit and stop bits, in addition to the bits representing the character (and an optional parity bit), to distinguish separate characters.
- *File Transfer Protocol (FTP)* is the protocol used for transferring files over a TCP/IP network (Internet, UNIX, and so on). FTP handles binary files directly and enables different types of computers to communicate for functions such as logging on to a network, listing directories, and copying files.

The first step in setting up communications is to define the communications channels that will be used with a system. This is the step you took in Chapter 1. In EC Gateway, each system may have one or more communications channels linked to it. Each communications channel is associated with one specific type of communications. When you set up a communications channel, you select the communications type that will regulate the transmission of data for that channel. The two most commonly used communications types in EC Gateway are asynchronous communication (pfs/Async) and FTP.

In this chapter, you enter any additional information that EC Gateway needs to use the communications type that you selected. The last step in setting up communications is to record the transmission scripts that will be executed during a communications session. In a later chapter, you will learn how to create processes and set up the scheduler to implement hands-off, unattended transfer and processing of your data.

Entering additional setup information

On the General tab of the Communications Channel – New window, you selected a communication type—usually pfs/Async or FTP. On the Host tab, you entered login information for that communications type—information such as user ID, password, server name, user account, and port. Now, you must enter the remaining information that EC Gateway needs to communicate using the communication type that you selected. You will be asked to enter different information for pfs/Async and FTP.

Entering setup information for pfs/Async

Asynchronous is a form of data transmission in which individual characters are sent one at a time, delineated by a start bit and a stop bit. Using the client-server model, the client is the requesting program or user and the server (host) is the program or user that handles these requests from the clients.

EC Gateway supports different types of asynchronous communications:

- pfs/Async
- Other, third-party asynchronous communication programs

The communication product, pfs/Async, supports asynchronous protocols and uses a modem and a dial-up telephone line. pfs/Async can be used in the host or the client mode. For both modes, you first define a communications channel as described in Chapter 1, “Accessing EC Gateway.”

pfs/Async Comm Channel menus

To enter setup information for pfs/Async, select a system and click the Comm Channel icon. Choose Asynchronous from the Tools menu at the top of the main EC Gateway window.

The main asynchronous communications window is displayed, with the pfs/Async Modem Settings window superimposed over it. When you set up a new asynchronous communications channel, EC Gateway automatically opens the windows on which you enter port settings, modem settings, and terminal settings. You can also access these windows from the Setup menu, as well as a Button Definition window that allows you to customize up to ten “shortcut” buttons on the bottom of the main asynchronous communications window.

These settings are written to the *pfsasync.ini* file.

Table 3-1describes the Comm Channel menus you use when setting up pfs/Async:

Table 3-1: Comm Channel menus

Menu name	Description
File	Begin or end the process that saves the data during the communication session.
Edit	Retrieve and paste data from the Windows clipboard into the current location.
Setup	Enter information about the port, modem, and terminal, and configure shortcut buttons.
TradingPartners	Maintain a directory of telephone numbers for all of the trading partners.
Communications	Open host mode, open a port, hang up, or clear the window.
File Transfer	Control the transfer of data in the communication session.
Scripts	Record, edit, and play the automated scripts that will be used during the communications session.
Options	Turn the ODBC log and the Trace file on and off.
Help	Display the online help system.

Setup menu for the Communications Channel – Port settings

To access the pfs/Async Setup window, display the Setup menu and select the Port option. Enter information about your Port settings on the pfs/Async Setup window.

Table 3-2: FIeld descriptions of the pfs/Async Setup window

Field Name	Description
Com Port	Choose a communications port from the drop-down list of ports (1–16), based on the physical connection your modem is plugged into.
Baud Rate	Choose the Baud rate of your modem from the drop-down list—2400, 4800, 9600, 19200, 38400, 57600, 115200, or 230400.
Data bits	Choose 5, 6, 7, or 8 from the drop-down list. The most common choice is 8.
Parity	Choose None, Odd, Even, Mark, or Space. The most common choice is None.
Stop bits	Choose 1, 1.5, or 2. The most common choice is 1.
Hardware (RTS/CTS)	Check the Hardware (RTS/CTS) check box to enable RTS (Request To Send) and CTS (Clear To Send). If you select this option, the Set RTS line high option is also automatically selected. RTS and CTS are the hardware flow control lines in a serial port connection and are part of the RS-232 standard. When RTS is “ON”, the COM port is ready to send data; when RTS is “OFF”, the COM port is not ready to send. When CTS is “ON”, the modem is ready to send data; if CTS is “OFF”, the buffer is full and the computer/terminal must wait.

Field Name	Description
Software (XON/XOFF)	Use the Software (XON/XOFF) check box if you are using software flow control to stop and start data transmission.
Set DTR line high	Check Set DTR line high to indicate the computer is ready for the modem to make a connection to another modem, according to the RS-232 standard. If DTR (Data Terminal Ready) is enabled, dropping DTR causes the modem to hang up. If DTR is disabled, you need to use software commands to make the modem hang up.
Set RTS line high	If you checked Hardware (RTS/CTS), the Set RTS line high option is checked and grayed out. Otherwise, you can either check this option or leave it blank.

After you have entered all of the required information, click OK to exit the pfs/Async Setup window.

Modems

pfs/Async supports Hayes-compatible modems. In many cases, your modem appears on a predefined list used during setup that provides a number of parameters needed to control your modem. If your modem does not appear, you can define a new modem to pfs/Async with its own setup parameters.

pfs/Async does not work with all modems. In particular, software modems, sometimes called winmodems, do not work with pfs/Async. Also, some internal hardware modems have wider variations than external hardware modems, and may not work, even if advertised as Hayes-compatible.

Access the pfs/Async Modem Settings window by displaying the Setup menu and selecting the Modem option. On the pfs/Async Modem Settings window, specify the Make and Model of your modem by highlighting the modem Make and then highlighting the modem Model from the list on the right. This allows pfs/Async to use the correct modem-dependent setup strings, answer commands, etc. The Comm Port you selected and defined previously displays in the small text box at the bottom of the window and cannot be changed on this window.

In addition to selecting the correct modem, you can make selections from the Utilities menu on the pfs/Async Modem Settings window. From the Utilities menu, you can add a new modem, delete an existing modem, or edit the settings for a modem. There is also an option called Pack Database that allows you to restructure the *modem.dat* file that contains a list of modems and their settings.

Modem settings Utility menu – Add Modem

When you select Add Modem from the Utilities menu, a Modem Strings window displays. This window allows you to add a new modem to your list.

Table 3-3 describes the fields in the Modem Strings window.

Table 3-3: Field descriptions of the Modem Strings window

Field Name	Description
Make	The manufacturer of your modem.
Model	The model of your modem.
Highest Baud	The highest baud rate at which your modem can communicate
Initialization	The code string that initializes your modem
Attention	The code string that dials your modem.
Busy	The code string that is used when your modem receives a busy signal.
Hang Up	The code string that hangs up your modem.
Connect	The code string that connects your modem to a line.
Reset	The code string that resets your modem.
Answer	The code string that tells your modem to answer a call for a connection.
Dial Prefix	The code to tell the modem to dial.

Editing settings

Select Edit Settings from the Utilities menu to modify the settings—see Table 3-3—for a modem selected from the existing list.

Note The settings for each modem are prepopulated with the default values for that particular modem. Sybase recommends that you do not change these settings without referring to your modem's documentation.

Deleting a modem

To delete a modem, highlight a modem on the list and select Delete Modem from the Utilities menu. EC Gateway removes the modem.

Warning! The Delete Modem function does not ask you to confirm or allow you to undo a deletion. Make sure you select the correct modem to delete before selecting this function.

Packing a database

When you pack a database, you restructure the modems.dat file that contains a list of your current modems and their settings. This function is optional and infrequently used since changes are tracked without using this function.

To pack a database, display the Utilities menu and select Pack Database.

Once you have selected the make and model of your modem and performed any additional activities, click OK to exit the pfs/Async Modem Settings window. The pfs/Async Terminal Settings window is displayed automatically if you are initially setting up an asynchronous communications channel.

You can also access the pfs/Async Terminal Settings window by selecting Terminal from the Setup menu on the main asynchronous communications window. The main communications window now has the caption <comm port>: <baud rate>,<parity>,<data bits>,<stop bits>, reflecting the choices you made about your modem.

Terminal settings

Select the Setup menu and then select the Terminal option. The pfs/Async Terminal Settings window displays. Enter information about terminal settings such as emulation, terminal window colors, window size, and cursor type as described in Table 3-4.

Table 3-4: Field descriptions for the phs/Async Terminal Settings window

Field Name	Description
Emulation	Select the appropriate terminal emulation for your hardware from the drop-down list of available emulation types - TTY, ANSI-BBS, VT-52, and VT-100. Your choice is related to the hardware you are calling. TTY and VT-100 are usually used for UNIX terminals, while ANSI-BBS is generally used for PC to PC communication.
Backspace Destructive	When this check box is checked, the backspace key deletes the previous character. When it is unchecked, the backspace key backs up one space without deleting the character.
Echo keypresses to terminal	When this check box is checked, typed characters are echoed (appear twice) on the display. This option is intended for half duplex terminals. In some terminals, typed characters are not displayed at all unless you select this option. On other terminals, this option will make the characters appear twice.
Foreground	Foreground color. Click the button to display a palette of colors and select a color from the palette.
Background	Background color. Click the button to display a palette of colors and select a color from the palette.

Field Name	Description
Screen Filter	Select a window filter option - Color, Gray scale, and Monochrome. Do not select Gray scale if you are setting up a color display.
Rows	Number of rows displayed on the window.
Columns	Number of columns displayed on the window.
Scrollback Rows	Number of rows that the user can return to. This can be more than one window.
Sample	A window displaying the selected font. The name of the currently selected font is presented at the top of the window.
Select Font	This button displays the Font window to allow selection of a font for the displayed. characters. Refer to the illustration below.
Vertical Bar	Check-box selection of a vertical bar form for the cursor. This is a radio button alternative to Block.
Block	Check-box selection of a block form for the cursor. This is a radio button alternative to Vertical Bar.

The Select Font button on the pfs/Async Terminal Settings window displays the Font window.

After you have selected a font, click OK to redisplay the pfs/Async Terminal Settings window.

When you have entered all of the required information, click OK to return to the main asynchronous communications window.

Button definitions

At the bottom of the main asynchronous communications window are ten blank buttons. You can customize these buttons to create “shortcuts” to frequently used asynchronous commands. However, these buttons are available only on this window and are not accessible within the normal lights-out-processing mode of EC Gateway.

To customize these buttons, select Buttons from the Setup menu on the main communications window to display the Button Definitions window.

Table 3-5: Field descriptions of the Button Definitions window

Field name	Description
Button	Select a button number (1 – 10) from the drop-down list. Each number is a location of a button at the bottom of the main asynchronous window. Refer to the example below.
Caption	Type the caption that you want to appear on the button. Enter any short string of characters. This should be a short, easy-to-understand description of the action caused by clicking the button. In this example, button 10 was entered as a caption. After you enter the caption, the string is listed in the Button entry box and on the button itself.

Field name	Description
Text	The asynchronous communications command that is given when the user selects this button. **Note** The system does not check the validity of the command you enter.
Add Cr Lf	Click this check box to add a carriage return/line feed at the end of the command line.
Quit	Select the *Quit* button to finish your specification of this button.

When you have finished customizing the buttons, click Quit to return to the main asynchronous communications window. pfs/Async is configured and ready to use.

Using script files

A script file is a set of commands that controls the asynchronous interface. Only the client uses a script file. Each communications channel has a unique script file associated with it. You identified the name and location (full directory path) of this script file on the Script tab of the Communications Channel – New window, which is described in Chapter 2, “Configuring EC Gateway.” You also indicated on the Host tab of that window whether this script would be used when sending a transmission, receiving a transmission, or both. You can have different scripts for sending and receiving transmissions, but you need to set up a different communications channel for each.

Comm Channel Scripts menu

Use the options on the Scripts menu to record, edit, and play scripts.

Record Script

This option records actions and saves them to a script file for easy retrieval and play back. When you select Record Script from the Scripts menu, the Record Script File window is displayed. On this window, you select the directory and script file name. The file type should be Script Files. After you have chosen the script file, the system records (saves to the script file) certain menu choices you select or any manual entries of asynchronous script commands you make. See“Other Communications Channel menus” on page 68 for a list of available menu choices.

Play Script

The Play Script option retrieves the actions you saved in a script file (opens the script file) when you recorded the script and plays them back (executes the commands in the script file). When you select Play Script from the Scripts menu, the Play Script File window displays. On this window, you select the location (full directory path) and filename of the script file that you want to play. The file type should be Script Files.

Edit Script

This option lets you modify a script file that you have recorded. When you select Edit Script from the Scripts menu, the Edit Script File window is displayed. On this window, you select the location (full directory path) and filename of the script file that you want to edit. The file type is Script Files.

Select a script file to modify and click Open. Notepad displays the text of the recorded script file. Edit the file and choose Save from the File menu to save the changes. Choose Exit from the File menu to return to the main asynchronous communications window.

Asynchronous communication script commands

Table 3-6 describes the communication script commands that you can enter manually and use in your scripts. Use these commands to build script files that automate your communications activities. Script files are text files containing script commands that perform communications tasks. You can create scripts that call a host system, read mail, transfer files, and so on.

Table 3-6: Asynchronous communication script commands

Script command	Description
CAPTURE	Opens a specified capture file and logs all received data to that file. Syntax: <CAPTURE filename> Example: CAPTURE “C:\CSERVE.TXT”
CLOSECAPTURE	Closes a capture file opened previously with a CAPTURE command. Syntax: <CLOSECAPTURE>

Script command	Description
DIAL	Dials a phone number and connects to a host modem. Example: DIAL “555-1212”, 10 WAITFOR “Press Enter to Continue” SEND “^M” This example dials 555-1212. The second argument (10) specifies the number of retries if the line is busy. After a connection is made, it waits to receive “Press Enter to Continue” and then sends a carriage return (^M).
DOWNLOAD	Downloads (receives) a file. Syntax: <DOWNLOAD [filename]> Example: PROTOCOL “XMODEM-CRC” DOWNLOAD “C:\MYPROG\ZIPFILE.ZIP” This example receives the file C:\MYPROG\ZIPFILE.ZIP via Xmodem-CRC. Example: PROTOCOL “ZMODEM” This example receives a file via ZMODEM. **Note** With the ZMODEM, YMODEM, and YMODEM–G protocols, the filename is not specified because the remote side of a ZMODEM transfer session does not require a file name.
END	Ends the script, but does not close the communications port. Syntax: <END>
HANGUP	Hangs up the phone (disconnects the modem), but does not close communications port.
INPUT	Prompts the user for a string and stores the inputted data string in a specified variable. Syntax: <INPUT MsgStr, VariableName> Example: INPUT “Enter Your Password”, PassWord SEND PassWord SEND “^M” This example displays an input dialog box with the message, “Enter Your Password” and stores the entered text in a variable named PassWord. The stored text in PassWord is sent out the communications port followed by a carriage return (^M).
: (LABEL)	Specifies a label. Like batch files, any word that starts with a colon is treated as a label. Syntax: <:label> Example: :JumpHere

Script command	Description
ON TIMEOUT GOTO	Tells the script to jump to a specified label when a timeout occurs. A timeout can be caused by a busy signal on the other end of the line, accessing an inactive modem, etc. Syntax: <ON_TIMEOUT_GOTO: label> Example: ON_TIMEOUT_GOTO :JumpHere
PAUSE	Pauses for a specified number of seconds. Syntax: <PAUSE n> Example: PAUSE 1 This example causes the program to wait one second. **Note** Sometimes a pause is required to smooth out the communications process, such as in between a WAITFOR and a SEND command. This may require experimentation.
PORT	Specifies which port to use and opens the port. If no port is specified, scripts use the current port with its current settings. Syntax: <PORT n> Example: PORT 2 This example causes COM2 to be used as the port and opened.
PROTOCOL	Sets the file transfer protocol. Syntax: <PROTOCOL protocol> Example: PROTOCOL “ZMODEM” Protocol is one of the following string identifiers: XMODEM YMODEM-G XMODEM-CRC ZMODEM XMODEM-1 KKERMIT YMODEM COMPUSERVE **Note** You must issue this command to set the protocol before a DOWNLOAD command or an UPLOAD command. If you do not, the script uses the current protocol setting for the PDQComm control.

Script command	Description
SEND	Sends a string out of the communications port. The Send command treats an unquoted string as a variable, sending the text in the variable. You can embed control codes in the text. These are defined in ASCII as ^A through ^Z corresponding to ASCII values 1 through 31 respectively. Thus ^G is a beep, ^M is a carriage return, ^J is a linefeed, etc. Example: SEND “Hello Over There^M” This example sends the string followed by a carriage return. Example: INPUT “Enter Your Name”, UserName SEND UserName SEND “^M^J” This example asks the user for his/her name, and sends it followed by a Carriage Return (^M)/Line Feed (^J) (CR/LF).
SETTINGS	Specifies the baud rate, parity, data bits, and stop bits. By default, scripts use the current port with its current settings if the communications port is opened. Syntax: <SETTINGS string> Example: SETTINGS “9600,N,8,1” **Note** The setting string is composed of four settings and has the following format: “BBBBB,P,D,S” (BBBBB is the baud rate, P is the parity, D is the number of data bits, and S is the number of stop bits.)
STOP	Stops program execution. Use this command to debug your scripts. When a script encounters the STOP command, pfs/Async stops program execution.Syntax: <STOP>
TIMEOUT	Specifies the number of seconds that WAITFOR waits before timing out. Syntax: <TIMEOUT n%> Example: TIMEOUT 30 This example waits 30 seconds before timing out.

Script command	Description
UPLOAD	Uploads (transmits) a file. Syntax: <UPLOAD [filename]> Example: PROTOCOL “ZMODEM” UPLOAD “C:\MYPROG\ZIPFILE.ZIP” This example sends the file C:\MYPROG\ZIPFILE.ZIP via Zmodem. Example:PROTOCOL “ZMODEM” UPLOAD “*.*” This example sends a file via Zmodem. Example:PROTOCOL “COMPUSERVE” UPLOAD This example sends a file via Compuserve B+. **Note** With the CompuServe protocol, the file name is not sent. This is because the remote side of a CompuServe transfer session does not require a file name.
WAITFOR	Waits to receive a string over the communications port. Syntax: <WAITFOR string> Example:TIMEOUT 30 DIAL “555-1212” WAITFOR “What Is Your Name?” SEND “ModemWare^M” This example dials 555-1212 and waits up to 30 seconds (specified by TIMEOUT) after connecting to receive “What Is Your Name?” from the host system, and sends ModemWare followed by a carriage return (^M). If there is timeout or any other error in the WAITFOR script command, the script status is set to FAILURE until the next successful file transfer.

Other Communications Channel menus

The asynchronous communications window provides several menus for controlling a communications session. Some, but not all, of the menu options can be recorded in scripts.

The menus are:

- Communications Channel File menu – see Table 3-7
- Communications Channel Edit menu
- Communications Channel Communications menu
- Options menu
- Trading Partner menu
- File Transfer menu

The options for each of these menus are described below. (Menu options that can be recorded are indicated in the Recordable column.)

Table 3-7: Field descriptions for the Communications Channel File menu

Menu Item	Description	Recordable?
Open Capture File	This option opens a capture file that saves all data within the asynchronous session.	Yes
Close Capture File	This option closes the open capture file when communication is complete.	Yes
Exit	This option closes the Asynchronous Communication module and returns to the main EC Gateway window	No

Table 3-8: Field descriptions for the Communications Channel Edit menu

Menu Item	Description	Recordable?
Paste	This option retrieves and pastes data from the Windows clipboard into the current location.	Yes

Table 3-9: Field descriptions for the Communications Channel Communications menu

Menu Item	Description	Recordable?
Host Mode	This option selects or deselects the Host Mode.	No
Port Open	This option opens or closes the communication port.	No
Hang up	This option disconnects the modem and ends the communications session.	Yes
Clear the Screen	This option clears the window on the terminal.	No
Time-Out	This option lets you set the number of minutes that the connection can remain inactive before the host ends the communication session and restarts. A window displays requesting the number of minutes for time-out:	No

Menu item	Description	Recordable?
ODBC Log Off	When ODBC Log Off is unchecked, information is recorded in the ODBC log database.	Yes
Trace On	When Trace On is checked, information is entered in the trace log.	Yes

Communications Channel Trading Partners menu

The Trading Partners option on the main asynchronous communications window allows you to set up a dialing directory. When you choose Trading Partners, the Trading Partners window is displayed. From this window, you can add, delete, or modify communications with your trading partners, or you can dial a trading partner.

When you choose Add New to add communications for a new trading partner or Edit to modify a trading partner in the Entries list, the Edit Trading Partner window is displayed. When you choose to Delete a trading partner from the Entries list, you are asked to confirm the deletion before the communications information for the highlighted trading partner is permanently removed. When you choose Dial, the program automatically dials the telephone number for the trading partner highlighted in the Entries list.

Enter the following information on the Edit Trading Partner window:

1 Enter the Name of the trading partner.

2 Enter the telephone Number to dial for this trading partner.

3 Browse for or enter the Script File that will be executed when communicating with this trading partner.

4 Click Port Settings to enter the port settings for this trading partner. The Phone Book Port Setup window is displayed. It is identical to the pfs/Async Setup window presented earlier in this chapter.

5 Click Terminal Settings to enter the terminal settings for this trading partner. The Terminal Settings window is displayed

6 Click OK to exit from the Edit Trading Partner window and return to the Trading Partners window.

7 Click Cancel to exit from the Trading Partners window and return to the main communications window.

Communications Channel File Transfer menu

Transfer Options

When you choose Transfer Options from the File Transfer menu, the Client Transfer Options window is displayed.

Enter the following information on the Client Transfer Options window:

Field name	Description
Download Directory	Location of the default directory to receive the files.
Upload Directory	Default directory location of the files to be uploaded.
Zmodem Options	
Auto Resume	Automatically resumes transmission if transfer is interrupted.
Skip	Skips this file during transfer it if already exists.
Rename	Automatically renames a file during transfer if the file already exists.
Overwrite	Overwrites a file during transfer if the file already exists.
Append	Transfers will append to the file if it already exists.
Other Protocol Options	
Cancel	Cancels the transfer if the file already exists.
Rename	Automatically renames a file during transfer if the file already exists.
Overwrite	Overwrites a file during transfer if the file already exists.
Append	Appends (or adds) a file.

The Download option begins the download process. (PgDn is the keystroke alternative.) When you choose Download from the File Transfer menu, the Receive File window is displayed.

Enter the following information on the Receive File window.

Field name	Description
Filename	Browse for or type the name of the file to be downloaded (not applicable for Ymodem, Ymodem-G, or Zmodem).
Protocol	Select the appropriate protocol from drop-down list - Xmodem-CRC, Xmodem-1K, Ymodem, Ymodem-G, Zmodem, Kermit, CompuServe B+, and ASCII. When the protocol has been selected, the Filename text box is activated for all protocols except Zmodem, Y modem, and Ymodem-G.

The Upload option begins the upload process. (PgUp is the keystroke alternative.) When you choose Upload from the File Transfer menu, the Send File window is displayed.

Enter the following information on the Send File window:

Field name	Description
Filename	Browse for or type the name of the file to be uploaded (not applicable for Compuserve B+).

Field name	Description
Protocol	Select the appropriate protocol from drop-down list - Xmodem-CRC, Xmodem-1K, Ymodem, Ymodem-G, Zmodem, Kermit, CompuServe B+, and ASCII. When the protocol has been selected, the Filename text box is activated for all protocols except Zmodem, Y modem, and Ymodem-G.

Auto Zmodem

This option toggles Zmodem on or off. When Auto Zmodem is on, pfs/Async automatically initiates Zmodem uploads and downloads without user intervention. Click to add or remove the ÷ and turn Auto Zmodem on or off. (The ÷ means Zmodem is turned on and its absence means Zmodem is turned off.)

Asynchronous host vs. asynchronous client

Asynchronous host

In asynchronous communication, a host computer is synonymous with the server in a client/server relationship. The host accepts requests for data or services from one or more client PCs/workstations. The host computer controls access by requiring the client PC to supply a valid user ID and password and by specifying which direction communications may flow between the host/server and the client.

To set up a pfs/Async communications host, you must perform the following steps:

1 Define the communications channel, choosing pfs/Async as the communications type. You must provide the user ID and password information on the Host tab of the Comm Channel – New window. These are the values that will be used by asynchronous communications clients when they log onto the asynchronous communications host.

2 Enter setup information for the pfs/Async communications type. If the asynchronous communications host will allow data only to be sent and not to be received, the direction must be Receive. If the asynchronous communications host will allow data only to be received and not to be sent, the direction must be Send. If the asynchronous communications host will allow data to be both sent and received, the direction is Both.

3 Start pfs/Async using the DOS command line. Command line entries and switches can be entered manually or stored in a batch file. Generally, pfs/Async is invoked with a command line batch file that is automatically run at startup. After it is started, pfs/Async runs in the background, listening for asynchronous communications clients to call in.

4 Use a text editor to replace the default messages in the following text files with customized messages - welcome.txt, goodbye.txt, nomailbox.txt, and nodir.txt. These text files are displayed on the window of an asynchronous communications client that logs onto an asynchronous communications host. The welcome.txt message (welcome window) appears just after the opening pfs/Async window when a user logs onto the host from a client. The goodbye.txt window appears when a user logs off the welcome window (by choosing Goodbye (G)). If a user logs on to the host from a client and the mailbox is set up incorrectly, the nomailbox.txt window appears and terminates the communication session. (The user is logged off because an incorrectly configured mailbox will cause the system to malfunction.) The nodir.txt message displays if the directory does not exist.

Asynchronous client

In asynchronous communication, a client computer logs into a host/server and makes requests for services or data from the host computer. A client PC/workstation normally must provide a valid user ID and a password to log onto a host computer/server.

To set up a pfs/Async communications client computer, you must perform the following steps:

1 Define the communications channel, choosing Asynchronous as the communications type. You do not need to enter a user ID and password on the Host tab of the Comm Channel – New window. You do, however, have to know the user ID and password for the host PC which you will be logging on to when reading an asynchronous communications script.

2 Enter setup information for the pfs/Async communications type. If the asynchronous communications client will only send data and not receive, the direction must be Send. If the asynchronous communications client will only receive data and not send, the direction must be Receive. If the asynchronous communications client will both send and receive data, the direction is Both. However, the direction chosen on the host PC will override the direction chosen on the client PC. For example, if a client PC attempts to send data to a host PC that is not set to receive, the transmission will not take place.

3 Record the script (save the script file) that tells the asynchronous communications client to dial into and communicate with the asynchronous communications host.

4 Often, pfs/Async is set to start on a time- or event-driven basis on an asynchronous communications client. Upon either occurrence, the client dials into the asynchronous communications host and executes the commands in the appropriate script file.

Command line entries and switches

Starting pfs/Async in the Host Mode from the DOS Command Line

Format	Example	Purpose
<drive>:<directory where pfsasync resides>\pfsasync dsn=<name of log database>	c:\ecedigs\pfsasync dsn=log.	Starts pfs/Async from a DOS prompt

The table below shows general switches.

Switch	Example	Purpose
-s dsn=<name of system database>	c:\ecedigs\pfsasync dsn=log -s dsn=ecedigs.	Specifies the Data Source Name of the system database tablet
-t <trace directory >	c:\ecedigs\pfsasync dsn=ecedigs -t c:\trace	Turns trace on and specifies the trace directory (full path)
-r <runid>	c:\ecedigs\pfsasync dsn=ecedigs -r 128	Specifies a run ID number to be used with session (overrides automatic run ID)
-f <name of script file>	c:\ecedigs\pfsasync dsn=ecedigs -f sendfile.scr	Invokes an existing script file when pfs/Async is started.

Switch	Example	Purpose
-p <[pager access phone number],pager phone number,message >	c:\ecedigs\pfsasync dsn=ecedigs -p 9,18887631403,7608943	Initiates sending a page to a pager device and specifies a message to be left (generally, a return phone number to be called).

The table below shows host switches.

Switch	Example	Purpose
--h	c:\ecedigs\pfsasync dsn=ecedigs -h.	Places pfs/Async in host mode and waits for dialup from client(s). (Once host mode is specified, pfs/Async is automatically reset to host mode after each session. The first time that the host mode is used, the system prompts the user to enter an archive directory. Thereafter, files retrieved from the OUT mailbox are automatically archived to the archive directory.)
-n <name of host site or operation>	c:\ecedigs\pfsasync dsn=ecedigs -n Computer Wizards -h	Specifies the name of the host, as it appears on the client window when the client dials into the host. (For example, “Welcome to Computer Wizards”.)
-o <number of minutes>	c:\ecedigs\pfsasync dsn=ecedigs -o 30 -h	Defines the number of minutes which a connected modem can remain inactive before pfs/Async resets the modem. This allows the host to open lines that are connected but not being used and saves the cost of toll charges for idle.

File Transfer Protocol (FTP)

FTP (File Transfer Protocol) is a protocol used on the Internet to transfer files from one computer to another. The e-FTP module is called by EC Gateway and provides a means of transferring files using FTP protocols. You can create script files for this communication. The e-FTP module also maintains a transfer log, which tracks the progress of the upload or download process.

FTP overview

The File Transfer Protocol is part of the TCP/IP protocol suite. It is the protocol that enables files to be transferred between computers. File Transfer Protocol works on the client/server basis. A client program enables the user to interact with a server in order to access information and services on the server computer.

Sent files are stored on FTP servers. To access these files, an FTP client program is used. This is an interface that allows you to locate the file(s) to be transferred and initiate the transfer process. Files being transferred can be sent as ASCII or binary mode, FTP does not require that files be in any particular format for transfer.

Files on FTP servers are often compressed. Compression decreases file size enabling more files to be stored on the server and makes file transfer times shorter.

To access this module, select Tools, then select FTP. The e-FTP window displays.

Use the Directory menu to create a new directory on the local drive, rename the selected directory, or delete the selected directory.

Use the File menu to rename the file selected on the local system or delete the file selected.

With the Remote menu, you can use the Directory menu to rename the selected directory on the remote drive, delete the selected directory, or refresh the directory display.

Use the File menu to rename the file selected on the remote drive, delete the file selected on the remote drive, or refresh the directory display.

Note Use caution when using any of these commands; there are no confirmation messages.

Use the FTP Command to execute FTP commands on the communications channel.

FTP tabs

The e-FTP window has three tabs: Methods, Comm Channels, and Transfer Logs. The following briefly describes each tab.

Methods tab

The Methods tab is used to either send a file from your local site to a remote FTP site, or download files from a remote FTP site to your local site. Your local site can be your computer's hard drive, or any network drive that you can access from your computer. You can also record and play scripts. Scripts are a series of recorded keystrokes that are saved and played back on request. You will find this useful for automating steps that you repeat frequently, or if you want these steps started automatically. The Methods window is divided into two panes. The left pane reflects your local drive, displaying its directories and files. The right pane reflects the remote FTP site, displaying its directories and files. The currently selected FTP site is displayed in the upper right text box

Below is a table showing the Method Tab Parameters.

Method tab parameter	Description
Current FTP Site (upper right text box)	Displays the currently selected FTP site. Use the scroll bars to scroll through the FTP sites available:
Local	Displays the directories and files. Change location by using the drop down arrows in the Local text box.
Remote	Displays the directories and files of the remote computer. Change the location by clicking, or at the top of the Remote Directory listing. This will take you directly to the root, or take you back one level, respectively.
Files Receive/Send	Get receives the selected file from the remote system, and places it in the currently selected directory on the local system.Mget receives all the files in the selected directory from the remote system and places it in the currently selected directory on the local system.Put sends the selected file from the local system and places it in the currently selected directory on the remote system.Mput sends all the files in the selected directory from the local system and places it in the currently selected directory on the remote system
Script	You can Record, Play, or Edit script files (see the previous section on scripts).3
Events	Displays all communications activity.
Clear Button	Clears the contents of the Events box (you can cut information out of this box if you need to paste it to another application).
Login/Logout Button	Performs the login process for the selected FTP site. This is a toggle button.

❖ **Connecting to an FTP site**

1 Select the site you want to connect to by scrolling through the Current FTP Site text box (to create a new site see the next section).

2 Click Login. If you are connected to your Internet Service Provider (ISP), your connection will begin automatically, assuming you have loaded your connection hardware and software. If you do not have access to your ISP, then you cannot use e-FTP to transfer files.

❖ **Uploading file to an FTP site**

1 Select the file to be sent from the local system or select the directory from the local system to send all the files in the selected directory.

2 Select the directory on the remote system where the file (or directory of files) is to be placed.

3 To send the selected file, click Put or to send the entire directory, click Mput.

❖ **Uploading files using the drag-and-drop method**

1 Double-click the directory on the remote system where the file is to be placed.

2 Click on the file to be sent from the local system.

3 Hold down the mouse button and drag the file from the left file pane (your local system) to the right pane (the remote system).

❖ **Downloading files from an FTP site**

- Downloading files works just the same as uploading files. You should set your source and destination directories and then use the Get option to download one file. Use the Mget option to download all files in the selected directory. You can also drag and drop a file from the remote system to the local file list.

Comm Channels tab

The Comm Channels tab displays a table that tracks the channels you plan to access. The selected site is displayed in the current channel text box (upper right corner).

From within e-FTP, you can add new communications channels, delete existing communications channels, or modify the properties of existing channels. For information about communications channel configuration, see Communications Channel Configuration, Chapter 3.

Transfer Logs tab

This log is a list of files that were transferred to or from your site. This log is only updated when scripts are played. This log allows you to verify that the files were moved in the event that a script was executed outside of your presence.

The table below describes transfer log parameters.

Field name	Description
Message Number	Number of the log message.
Message Text	Log message text.
Date/Time	Displays the date and time of the activity.
Filename	Displays the file name associated with the log message

The two buttons at the bottom of the log window, Refresh Log and Clear Log, can be used to refresh and clear the log file.

Explanation of an FTP server

File Transfer Protocol (FTP) is a method of transferring files over the Internet. FTP is part of the TCP/IP protocol suite.

FTP works on the client/server principle. A client program interacts with a server in order to access information and services on the server computer. An FTP server acts as a host for FTP clients and supports a repository of files.

Configuring EC Gateway as an FTP server

You can configure your EC Gateway to function as an FTP server. It is important to note that prior to the configuration of your system to act as an FTP Server, the Distinct Run Time must be installed and your system must have an IP address. If the Distinct Run Time installation step was skipped during the initial installation of the EC Gateway, follow the steps that are outlined in the *EC Gateway Installation Guide*.

To access the FTP Server window:

1 Click the Communications Channel icon.

2 Select Tools from the menu bar. The Tools menu displays

3 Click the FTP Server option. The FTP Server window appears.

4 There are two menu choices available on the menu bar of the FTP Server window. Select Action.

The options available on the Action menu are described in the following table.

Field name	Description
Listen	Activates the FTP Server.
Stop Listening	Terminates the listening action of the FTP Server.
User Profile	Configures the profile for the user utilizing the FTP Server..
Update Login Status	Refreshes the login status.
Exit	Stops the action being performed and exits the FTP server.

5 Click User Profile to open the User Profile window.

The following table explains each field on the User Profile window.

Field name	Description
User Name	This is the name to be used by the FTP client.
Password	This is the FTP client's password that is used to gain access to the server and its directories.
Default Directory	This is the default directory to which the FTP client has access. The client will not see this name. An alias can be set up in the Export Name field.
Export Name	The alias name for the Default Directory can be specified in this field. This is the name that will be seen by the client..
Directory	This is the location the FTP client is able to pull files from.

Field name	Description
Permissions	It is this location where you can set the permission rights for access to the directory. The List option is a browse utility.

To add a new user, follow these steps:

1 Enter the user name that will be used for access to the FTP server. (If there is an existing user listed, it will look as if you are deleting that user, but that is not the case.)

2 Enter the password that will give the user access to the FTP server.

3 Click Add User. A verification window appears.

4 Reenter the password for verification and click OK.

The new user is now configured for access to the server. Use the procedure below to specify the directories and other information required for the user.

To define the directories, export name, and permissions, follow these steps:

1 Enter the full path of the directory to be accessed in the Directory field.

Note This directory must exist. Any typing error will cause your entire entry to be deleted. This deletion can be avoided using the Copy and Paste feature.

2 Enter the alias for the directory name in the Export Name field. This name must be preceded by a forward slash. It is recommended to use the names /DROPOFF for the inbound folder and /PICKUP for the outbound folder.

3 Enable the Permissions by checking the permissions to be enabled.

4 Click Add Directory.

5 You may repeat steps 1 through 4 to add additional directories and export names. (It will look as if you are deleting the existing directory and export name, but that is not the case.)

6 After you have finished adding all of the directories, enter the Default Directory path. Enter one of the already defined export names. This step is optional.

Note If this field is left blank, the user will see all the directories that he has access to when he logs on to the server

7 If you are finished adding users, click Close. Otherwise, follow the procedure below.

To add additional users, follow these steps:

1 Enter the user name in the User Name field.

2 Enter the user's password in the Password field.

3 Click Add User.

4 A verification window appears. Reenter the password for verification and click OK.

5 The user's name disappears. Use the drop-down arrow on the User Name field to retrieve it.

6 Enter the directories and the export names for the user. Follow the procedure described above.

7 When you are finished adding users, click Close.

To delete a user, follow these steps:

1 Highlight the User Name to be deleted from the pull down window beside the field.

2 The corresponding Password is placed in the field. However, asterisks hide the password as a security measure.

3 Click Delete User.

4 A window pops up asking for verification. Click Yes.

Using the Options menu

Selecting Options from the menu bar of the FTP Server window displays two additional options: System Configuration and Activity Log.

Option	Description
System Configuration	The FTP Server configuration is specified using this window. There are three aspects of the system. The first is Idle Timeout (0 to disable), 15 is the default setting. The second is Concurrent Sessions; 8 is the default setting. The final is Send and Receive Buffer; 16384 is the default setting.
Activity Log	The user can specify whether all activities will be captured in a log file. The Log all activities check box is unmarked by default. The File Name to be used to capture all activities is called FTP-SRVR.LOG by default.

To start the FTP server, follow these steps:

1 Pull down the Action menu from the FTP Server menu bar.

2 Click the Listen option.

3 The FTP server begins accepting connections and the FTP Server window displays the message “FTP Server Ready”.

e-FTP script commands

This section describes the communication script commands.

Communication Script Commands. Use these commands to build script files that automate your communications activities. Script files are text files containing script commands that perform a communications task. You can create scripts that call a host system, read mail, transfer files, etc.

Command	Description	Syntax and example
DirRemoteChange	Allows you to change to another working directory on a remote machine	Syntax: DirRemoteChange <path and name of new directory> Example – DirRemoteChange /home/usr
RemoteParentDir	Shows files in the Parent directory on a remote machine.	Syntax: RemoteParentDir
DirRemoteDelete	Allows you to delete a directory on a remote machine.	Syntax: DirRemoteDelete <name of directory to be deleted> For example – DirRemoteDelete home/trading partner

Command	Description	Syntax and example
DirRemoteRename	Allows you to rename a directory on a remote machine.	Syntax: DirRemoteRename <original directory name | new directory name> For example – DirRemoteRename home/trading partner | home/tp
FilesRemoteDelete	You can delete files from a remote machine.	Syntax: FilesRemoteDelete <name of file> For example – FilesRemoteDelete whatsnew.txt
FilesRemoteRefresh	Refresh file listing	Syntax: FilesRemoteRefresh <drive:\ or drive:\filename> For example – FilesRemoteRefresh c:\
FilesRemoteAllDelete	Delete all files from remote machine.	Syntax: FilesRemoteAllDelete
DirLocalDelete	Delete specified directory located on local machine	Syntax: FilesLocalDelete <local drive:\dir name> For example – FilesLocalDelete c:\TradingPartner
DirLocalRename	Rename specified directory on local machine.	Syntax: DirLocalRename <local drive:\filename | local drive:\new filename> For example – DirLocalRename c:\TradingPartner | c:\TP
FilesLocalDelete	Delete specified files from local machine.	Syntax: FilesLocalDelete <drive:\filename> For example – FilesLocalDelete c:\error_log.log
FilesLocalMkDir	Creates a directory on the local drive	Syntax: FilesLocalMkDir <drive:\new directory name> For example – FilesLocalMkDir c:\TradingPartners
FilesLocalRename	Rename files located on local machine.	Syntax: FilesLocalRename <drive:\old file name | drive:\new file name> For example – FilesLocalRename c:\error_log.log | c:\error_table.log

Command	Description	Syntax and example
Put	Will transfer a file from the local system to the remote system.	Syntax: put <filename> For example – put index.html
Get	To copy one file from the remote machine to the local machine.	Syntax: get <filename> For example – get mmconv.html
Wildcard	User can specify the wildcard that will be used	Syntax: WILDCARD <user-specified wildcard> For example – WILDCARD #
ODBCLogOn	Enables writing to a log using ODBC	Syntax:ODBCLOGON
ODBCLogOff	Turns “off” writing to a log using ODBC	Syntax: ODBCLOGOFF
TraceOn	“Turns on” the tracing functionality	Syntax: TraceOn
TraceOff	“Turns off” the tracing functionality	Syntax: TraceOff
ASCIIMode	To set the mode of file transfer to ASCII	Syntax: ascii For example – ftp>ascii **Note** Computer responds: 200 type set to A. (Note the A, which signifies ASCII mode.)
BinaryMode	to set the mode of file transfer to binary.	Syntax: binary For example – ftp>binary **Note** Computer responds: 200 Type set to I. (Set to Image format, for pure binary transfers.)

To create a directory on a remote host, follow these steps:

1 Ensure you are on the appropriate level on the remote host for directory insertion.

2 Select Remote from the command menu and choose FTP Cmd (Ctrl + G).

3 The FTP window opens and prompts the user to Enter FTP Command To Execute. Type in mkd <directory name>.

4 Click OK.

5 Look in the Events box. If command was executed successfully it will say 257 MKD command successful.

CHAPTER 4

Run Map

This chapter describes how to run predefined maps.

Overview

This chapter describes how to use the data translation engine that is an optional component in the EC Gateway. It describes how to use predefined generated maps with the data translation module known as Run Map.

Mapping

Mapping is the process of translating one data format to another data format. The most common mapping process is to import ANSI X12 data to a relational SQL database or to export SQL data into an ANSI X12 ASCII data file. However, many other transformations with different data formats are also used

A map is a file with a set of instructions that transforms multiple source data into multiple target data formats. The map file is generated by ECMap. Once the map is generated, it is placed in a file directory defined under the System module properties. Typically, the map file is stored in a directory called *drive:\ecedigs\map*.

Run Map

There are two translators to process the maps and the data within the EC Gateway Run Map module:

- Run Inbound Map – is the translation tool used to process incoming /received data (typically X12 data format) from a trading partner. It uses a map designed for incoming data traffic.
- Run Outbound Map – is the translation tool used to process outgoing/sending data (typically from within the company's database) to a data file (typically an X12 standard formatted data file) to be picked up or delivered to the company's trading partner. It uses a map designed for outgoing data traffic.

Note All Any-to-Any maps (regardless of direction) use the Run Outbound Map translator.

Run Inbound Map

To run an inbound map with incoming data, follow these steps:

1 Click the Run Map icon to open the Run Map module.

2 From the menu that is displayed, select Run Inbound Map. The Run Inbound Map window is opened with default showing the Required tab window.

3 In the Required tab window, insert the appropriate values as listed in this table:

Field	Description
Inbound EDI File	The path and file name of the EDI data file to be translated by the map. The full directory path, file name, and file extension are required. Use the Browse button for convenience to locate and insert the file.
Map Directory	The full directory path of the generated map file. Use the Browse button for convenience to locate and insert the directory where the map file is located. By default, the field is populated with the defined map directory listed under System module properties. The typical input is <drive>:\ECEDIGS\Map
Log Type	While the translator is processing, it will place information into a log file. Select the type of file the log will be written to. The choice of selection is (1) ODBC Log (written to the ODBC connection listed under the System module, ODBC tab, System Log), (2) Text Log (a text file), (3) Expanded Text Log (a text file) or (4) No Log (for a log not to be recorded).
Compliance Check	When checked, the translator will perform a compliance check. The map must be generated as a compliance map. Compliance checking is the comparison of EDI data being sent or received with the applicable EDI standard. The purpose of the map must be set as CMP within the Trade Status tab of the Trade Agreement window
PrintEDI	When checked, the translator will process the map as a print map. The purpose of the map must be set as PRT within the Trade Status tab of the Trade Agreement window
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the tables named as TP, TRADSTAT, and WIXSET. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables named as customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat
Trading Partner Directory	If not using an ODBC Trading Partner database and Non ODBC Trading Partner is checked, insert the directory path that contains the Trade Partner files
Store RunTimeTrade Partner Data	If not using an ODBC Trading Partner, this button allows the user the option to store the Trade Partner files in the Trading Partner directory above. The Trading Partner directory path is required
Retrieve RunTime Trade Partner Data	If not using an ODBC Trading Partner database to store your trading partner files, this button allows the user the option to retrieve trading partner files from the Trading Partner directory. The Trading Partner directory path is required

4 In the Option 1 tab window, insert the appropriate values as listed in this table:

Field	Description
All Trading Partner Default	When checked, the ALL trading partner and trade agreement will be utilized.
Ignore Trading Partner Mailbox	This check box should be checked because you are explicitly defining the file in the Inbound EDI File text box (Required tab).
ST03 (X12)	Enables the use of the Implementation Convention Reference. This is an optional element of X12 Standard beginning with version 4030.
Overwrite Output User Files	When this is checked, the output overwrites any existing user files. If this is not checked, the output is appended to any existing user files.
Ignore TradeStat Mailbox	This check box should be checked.
Validate Control Number Sequence	Tells ECRTP to check the received control numbers. This check confirms that the numbers have been incremented by one from the previous number received.
Trace Type	Short Trace, Long Trace, or No Trace.Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation
Run Inbound Map	Enter the file name of the map here without the .map extension to run this specific map. Although you are still required to enter a Trading Partner Directory on the Required tab and Company Identification on this tab, neither trading partner or company information is referenced when the map is run. The system will automatically run this map and not do a trading partner lookup to find a map.
Company Identification	This item allows a specific company profile to be associated with this map. Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking the Browse button without specifying an Inbound EDI file (under the Required tab) will result in an error message, Inbound EDI File is required! Clicking the Browse button after specifying an Inbound EDI file will take the user to the Company Identification window.
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to this number
Create Batch File	An option to create a batch command file to automatically run with your switch and options settings. After specifying Inbound EDI and Company Identification file, a pop-up menu appears for Batch File Name. (This option is not normally used.)

Field	Description
Archive Trans Log	Clicking this button will take the user to the Archive window. From the Archive window, clicking the Browse button will take the user to the Select a Directory window. (This does not apply to the ODBC log.)
Delete Trans Log	Allows you to delete the transaction log. (This does not apply to the ODBC log.)

5 In the Option 2 tab window, insert the appropriate values as listed in this table

Field	Description
Zero Fill EDI Non-Null Numbers	Zero-fill inbound numeric elements that are not blank. (-z switch in a batch file).
Output the Elapsed Time	The check box is blank by default. Outputs the elapsed time of the run into a trace file. (Usually used with short trace.).
Create Bad Transaction Log	Creates a Bad Transaction log that contains incoming transactions that cannot be processed. (Utilized with compliance maps.).

Field	Description
Trading Partner Search Option	How the EC Gateway looks up Trade Partner data. The following are options for this field: • Group Sender – default – routing to mailboxes based on the department-level sender's identification • Group Receiver – routing to mailboxes based on the department-level receiver's identification • Group Sender and Receiver – routing to mailboxes based on the department-level sender and receiver's identification • Full Interchange – Sender – map selection and routing to mailboxes based on the company and department-level sender's identificationFull Interchange – Sender and Receiver – map selection and routing to mailboxes based on the company and . • department-level sender and receiver's identification • Full Interchange – Receiver - map selection and routing to mailboxes based on the company and department-level receiver's identification • Outer Interchange – Sender Only – map selection and routing to mailboxes based on the company-level sender's identification. • Outer Envelope – Receiver – map selection and routing to mailboxes based on the company-level receiver's identification • Outer Envelope – Sender/Receiver – map selection and routing to mailboxes based on the company-level identification for sender and receiver • Reverse – Outer Envelope – Sender/Receiver – compliance checking of outbound EDI using sending and receiving company-level identification for map selection • Reverse – Full Interchange – Sender/Receiver - compliance checking of outbound EDI using sending and receiving company and department-level identification for map selection • Reverse – Receiver Against Main – compliance checking of outbound EDI using company-level receiver's identification for map selection • Reverse – Outer Sender Against Override – compliance checking of outbound EDI using company-level sender's identification for map selection • Reverse – All Sender Against Override – compliance checking of outbound EDI using company-level and department-level sender's identification for map selectionReverse – All Receiver Against Main – compliance checking of outbound EDI using company-level and department-level receiver's identification for map selection
Substitute Output Filename	Overrides the name of the output application file. This should not be used if you are creating multiple output files.
Substitute User File Directory	Changes the name and location of the user file directory. This overrides the location of the output files. This option may be used for creating multiple output files.

Field	Description
Substitute Map and TP Directory	Changes the names and location of the map and the Trading Partner directory. This provides a single location for the trading partner files and map files and overwrites the map and trading partner directories specified on the Required tab
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory. This allows you to specify the location of the temporary split files that are created when the Multiple Files option is selected.
Start Processsing at Byte Count	Begins processing the incoming file at a specific character (byte).
End Processsing at Byte Count	Ends processing the incoming file at a specific character (byte)..

6 (Optional) Select File Alias tab.

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button displays a window allowing the choice of a file. This defines the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that will be used by the map at runtime. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens.

7 (Optional) Select ODBC Alias tab.

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that will be used by the map at runtime. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button displays a window allowing entry of a string. This defines the entry placed in the destination panel.

Field	Description
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

8 (Optional) Select Parameters tab.

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. Clicking the arrow button will cause a window to open. Enter a parameter value. This defines the entry placed in the destination panel.
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter value.

Run Outbound Map

To run an outbound map with outgoing data, follow these steps:

1 Click the Run Map icon to open the Run Map module.

2 From the menu that is displayed, select Run Outbound Map. The Run Outbound Map window is opened with default showing the Required tab window.

3 From the Required tab window, insert the appropriate values as listed in the table below.

Field	Description
Map Name	The name of the map to be run.
Transaction Name	The name of the transaction (for example, 810, 837, 850, and so on).
Code	The functional identifier code (for example, IN, HC, PO, and so on).
Output EDI File	The name of the outgoing EDI file. This is a full path name. Clicking the Browse button will take the user to the Output EDI File window.
Map Directory	The full directory path of the generated map (.map file). Use the Browse button for convenience to locate and insert the directory where the map file is located. By default, the field is populated with the defined map directory listed under System module properties. The typical input is <drive>:\ECEDIGS\Map.

Field	Description
Log Type	While the translator is processing, it will place information into a log file. Select the type of file the log will be written to. The choice of selection is (1) ODBC Log (written to the ODBC connection listed under the System module, System Log ODBC tab), (2) Text Log (a text file), (3) Expanded Text Log (a text file) or (4) No Log (for a log not to be recorded).
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the tables named as TP, TRADSTAT, and WIXSET. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables named as customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	If not using an ODBC Trading Partner database and Non ODBC Trading Partner is checked, insert the directory path that contains the Trade Partner files. This option is grayed out if you specified an ODBC-compliant database.
Store RunTime Trade Partner Data	If not using an ODBC Trading Partner, this button allows the user the option to store the Trade Partner files in the Trading Partner directory above. The Trading Partner directory path is required.
Retrieve RunTime Trade Partner Data	If not using an ODBC Trading Partner database to store your trading partner files, this button allows the user the option to retrieve trading partner files from the Trading Partner directory. The Trading Partner directory path is required.

4 In the Option 1 tab window, insert the appropriate values as listed in this table

Field	Description
No Trading Partner	Used for running an Any-to-Any map without a Trade Partner. Clicking this option will run the map as a map that does not require trading partner records.
All Trading Partner Default	This uses the ALL default trading partner and any trade agreements associated with it for this map run.
Ignore Trading Partner MailBox	This check box should be checked because you are explicitly defining the file in the Inbound EDI File text box (Required tab)..
No EDI File	Used for running an Any-to-Any map.
Update All Trading Partner Record	When getting control numbers during concurrent runs. Only updates the ALL Trading Partner control number.
Ignore Tradstat MailBox	This overrides the mailbox specified in the trade partner database.
Trace Type	Short Trace, Long Trace, or No Trace.Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run..

Field	Description
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation.
Company Identification	This text box allows you to associate a specific company profile with this map. Enter a record number or browse the company ID table to select the record number for the company ID record for this run..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to this number.
Create Batch File	Allows you to create a batch command file to automatically run with your switch and options settings.
Archive Trans Log	Clicking this button will take the user to the Archive window. From the Archive window, clicking the Browse button will take the user to the Select a Directory window. (This does not apply to the ODBC log.)
Delete Trans Log	Allows you to delete the transaction log. (This does not apply to the ODBC log.)

5 In the Option 2 tab window, insert the appropriate values as listed in the table below.

Field	Description
No UNG, UNE Segments	Prevents map from generating optional data segments for EDIFACT transactions..
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file.
Map Numeric Zero	Zero-fill outgoing numeric fields that are not blank. (-z switch in batch file.).
Split Multiple Files Once	If you select this check box, whole physical files will be split by record type into separate logical files once. If it is not selected, the files will be split each time a read is encountered.
Substitute Company Directory	Used to change the directory location of the company information when not an ODBC Trading Partner.
Substitute Input Filename	Used to change the name of the input file when only one input file is defined. Allows you to override the name of the input file that contains the field designated as the trading partner ID..
Substitute User File Directory	Used to change the location of the files when multiple files are used. Overrides the directory location of the input file.
Substitute Map and TP Directory	Used to set a single location for both the Trade Partner files and the map files.

Field	Description
Temporary Files Directory	This is the directory where temporary files are located by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory. Allows you to specify the location when temporary split files are created...
ST03 (X12)	This is an alphanumeric field for the Implementation Convention Reference. The user may enter up to 35 characters. This is an optional element of the X12 Standard beginning with version 4030.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to this number.
Create Batch File	Allows you to create a batch command file to automatically run with your switch and options settings.
Archive Trans Log	Clicking this button will take the user to the Archive window. From the Archive window, clicking the Browse button will take the user to the Select a Directory window. (This does not apply to the ODBC log.)
Delete Trans Log	Allows you to delete the transaction log. (This does not apply to the ODBC log.)

6 (Optional) Select File Alias tab.

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button displays a window allowing the choice of a file. This defines the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens.

7 (Optional) Select ODBC Alias tab.

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button displays a window allowing entry of a string. This defines the entry placed in the destination panel.
Destination (Files during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

8 (Optional) Select Parameters tab.

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. Clicking the arrow button will cause a window to open. Enter a parameter value. This defines the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination pane has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter value.

Running the maps

To run a map, follow these steps:

1 Once the parameters have been input as required or as needed into either the Run Inbound Map windows or the Run Outbound Map window, the user must select the Run Map button that is found on the bottom of the window.

2 After you have clicked the Run Map button, the translator starts its process. Once the processing is completed, a pop-up window appears to show the return code, which is either a success or failure. See the Return Value Error Codes table below for a listing of return code values.

3 After clicking OK on the pop-up return code window, you can click the remaining buttons on the Run Inbound Map or Run Outbound Map windows.

- The View Trace button allows the user to review the events that were taken place and as written in the trace file. The type of trace is also dependent on what option was selected in the Trace Type selection in the Option 1 tab window.
- The View Trans Log button allows the user to review the information placed in the log. The type of log is also dependent on what option was selected in the Log Type selection in the Required tab window.
- The View EDI File button initiates the EDI Viewer with EDI file being processed. This allows the user to edit the EDI data as required if errors occur and corrections need to be made.
- The Cancel button exits the windows.
- The Help button allows the user to review the help documentation for Run Map.

Error code	Definition
Return Value: 0	No errors..
Return Value: 1 W##-##	Errors but no transaction skipped.
Return Value: 2 BADTRAN W##	Transactions skipped with ## errors
Return Value: 3 UABORT W##	User Abort Rule and ## errors
Return Value: 4 USTOP W##	User Stop Rule and ## errors
Return Value: 5 EFATAL W##	Fatal error stop and ## errors

Note A value of zero or one indicates a successful map run.

CHAPTER 5

Process Management

This chapter describes process management in EC Gateway.

Overview

Process management is the heart of the EC Gateway application. All actions performed within EC Gateway are processes. These processes contain commands, and can be configured to get files, verify X12 compliance, execute commands, pass faxes to fax processing systems, and many other operations essential to EDI message management.

Process management provides the ability to link all of EC Gateway's capabilities into an operational system. This allows you to set up EC Gateway to carry out transactions 24-hours a day, seven days a week.

EC Gateway's process management module:

- Integrates and runs many of the EC Gateway's functions
- Allows for backup and archival
- Integrates all reporting procedures necessary for operating the EDI program
- Allows for management reporting
- Logs all processes to a log file ensuring that all processes are monitored and reported

The following are generic examples of processes.

1 Processing inbound transactions

   - Receives data from the communications channels or acts upon receiving data
   - Archives data
   - Runs a compliance check
   - Runs an inbound map
   - Sends application data to communications channels
   - Processes files
   - Generates outbound functional acknowledgement (997) transactions

2 Processing outbound transactions

   - Processes files (runs application programs
   - Gets data from communications channels
   - Acts upon receiving data

- Runs outbound maps
- Runs a compliance check
- Archives data
- Runs encryptions
- Sends data to communications channels
- Generates reports

3 Inbound routing scripts

- Gets data from communications channels
- Acts upon receiving data
- Archives data
- Runs compliance checks
- Sends data to communications channels
- Generates functional acknowledgement (997) transactions
- Generates reports

4 Outbound routing scripts

- Processes files (runs application programs)
- Gets data from communications channels
- Acts upon receiving data
- Runs compliance checks
- Archives data
- Runs encryptions
- Sends data to communications channels
- Generates reports

5 Daily processes

- Consolidates data files and archives them daily (Daily archive)
- Releases discrete archive process data files
- Runs Daily Operations Report
- Runs Daily Summary of Transactions Report

- Runs EDI Error Log Report
- Runs Data Comm Error Log Report
- Runs Schedule Exceptions Report
- Runs Log File Daily archive process

6 Weekly processes

- Consolidates Daily archives to Weekly archive
- Releases Daily archive process data files
- Runs Weekly Summary of Transactions Report
- Runs Log File Weekly archive process

7 Monthly processes

- Consolidates Weekly archives to Monthly archive
- Releases Weekly archive process data files
- Runs Monthly Summary of Transactions Report
- Runs Log File Monthly archive process

This chapter details the EC Gateway process management module, and describes each script command.

The Process window

To access the process management menus, select a system and then click the Process icon in the EC Gateway main window. This presents a list of all available communications processes in EC Gateway.

❖ **Creating a new process**

1 Right-click in the right pane of the EC Gateway window.

2 Select New from the drop-down menu.

3 Highlight a currently defined process and select:

- New – creates a new process
- Run – performs the selected process
- Delete – removes the process

- Copy Process – copies the process
- Properties – edits the commands within the process

Creating new processes

Click New to display the Process – New window.

Table 5-1 describes the fields for the Process – New window.

Table 5-1: Field descriptions for the Process – New window

Field name	Description
Process Name	Unique name of the process to be created.
Save to Folder	Folder where the process scripting files are to be stored. The default folder is *C:\ECEDIGS*.
Target Platform	Choose the target platform: • NT EC Gateway – provides access to all process commands. • NT EC Gateway Remote – provides access to a subset of process commands. • UNIX EC Gateway Remote – provides access to a subset of process commands.
Description	Description of the process. This entry is optional.

Enter information in the Process – New window and click Next to continue defining the process in the NT Gateway Process – *process_name* window.

Note The Process Definition window uses the Process Name defined in the Process – New window.

You can add commands to the named process in the NT Gateway Process window.

❖ **Adding commands to a process**

1 Right-click in the NT Gateway Process window to display a pop-up window.

2 Click New to display the *process_name* – New window.

3 Select a command from the list of available commands in the drop-down menu. The window expands so that you can add additional information relevant to the selected command.

4 Enter a string that branching logic can use to go to the selected command in the Options: Label field. This is an optional field.

5 Click in the Options: Disable Command check box to disable the selected command for testing.

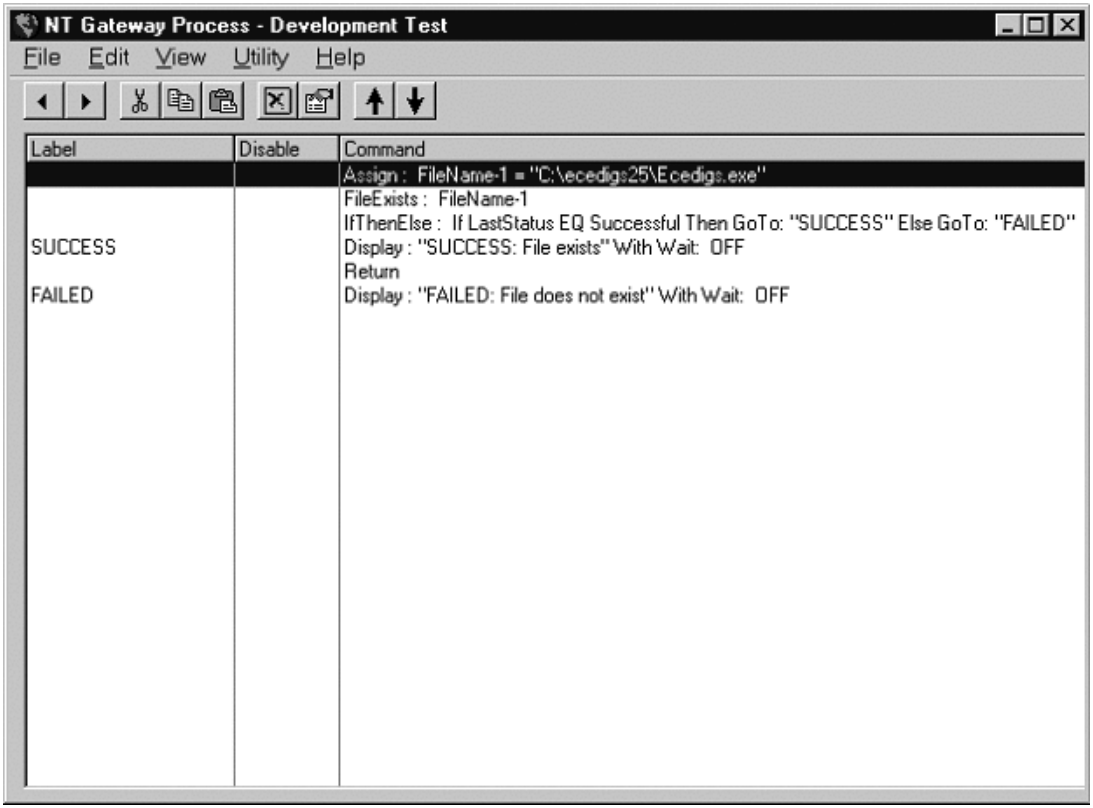
6 Click OK to display the command in the Process Definition window.

7 To add additional commands to the process, right click in the NT Gateway Process window and select Insert Before or Insert After. The Insert Before or Insert After window displays.

8 Select another command and enter information in the window. Click Apply to add the command to the process and retain the Insert After or Insert Before window so you can add another command.

Details of an example process with several commands

A useful process consists of several commands included to provide a specific function. Some processes are quite complex with numerous commands.



This example process tests for the existence of the file *C:\ecedigs25\ecedigs.exe*. If the file exists, the process branches to a message reporting that the file exists. If the file does not exist, the process displays a failure message. This process uses six commands. The Assign command places the full path name of the file in the variable FileName-1. The FileExists command tests for the existence of the file named in a FileName variable. The IfThenElse command provides the branching with a success result branching to the SUCCESS display. A failure branches to the FAILED display. The two labels, SUCCESS and FAILURE, are needed for the branching logic. The Return command prevents the display of a FAILED message after a SUCCESS message by forcing termination of the process execution.

Available variables for storage

EC Gateway provides these generic variable names for programming processes: *Parameter* – x, *FileName* – x, *Count* – x, *Message* – x, and *Resource* –x. The character x represents a number that further differentiates the variable. A range of numbers is available for each variable:

- Parameter 1– 20, example: Parameter-19. Parameter variables hold alphanumeric fields. Use Parameters to hold alphanumeric data such as file name hold area, text hold area, etc.
- FileName 1 – 10, example: FileName-6. Filename variables hold alphanumeric fields. Use Filename variables to hold path and file name structures.
- Count 1 – 10, example: Count-8. Count variables hold numeric fields. Use Count variables to store and manipulate numeric data. Use Count variables for loop counters, file size, and Run IDs.
- Resource 1– 10, example: Resource-3. Use Resource variables as system global variables. You can use Resource variables to control whether a process runs concurrently with other processes or exclusively within EC Gateway. Examples of exclusive processes are system backups, archiving of a directory, locking of a modem just before it is to be used, etc.
- Message 1 – 10, for example: Message-3. Messages usually contain buffer addresses for data of any datatype.

Keep careful track of these variables when you are developing a process. In addition, remember that a limited number of variables (50) can be in use at any one time. However, you can reassign and reuse variables at different points within the process.

Note Use the up and down arrow buttons to move a highlighted command up and down in the list of commands.

Creating a script file

Create a script file after you have added all commands to the process. To create a script file:

1 Right-click on the window and select the Create Script File option. A dialog box displays.

2 Select the OK button to save the script file.

Viewing a saved script file

To view a saved script file:

1 Right click to display the pop-up menu.

2 Select the View Script File option. A Notepad window displays the contents of the script file.

Copying a process

You can copy a process so that he or she can then modify the process without changing the original process. To copy a process, follow these steps:

1 Highlight a process name and then right click on the NT Gateway Process window. A pop-up menu displays.

2 Select Copy Process.

The Process – Copy window displays.

3 Enter the name of a process to copy and other information as needed. Click OK.

A dialog box displays asking if you want the new process saved to disk.

4 Select Yes.

Select OK when a message box reports that the copy was successful.

The new process is added to the list of processes.XXXXXXXXXX

Adding changes to an existing process

Any process can be modified or enhanced as the user decides to do so. This involves making changes to commands, adding commands, and removing commands. Adding commands is presented above.

To add changes to an existing process, follow these steps:

1 Select a system and then select the Process icon.

2 Select the process on the main window and right click. A pop-up menu displays.

3 Select the Properties option, and the Process – Properties window displays.

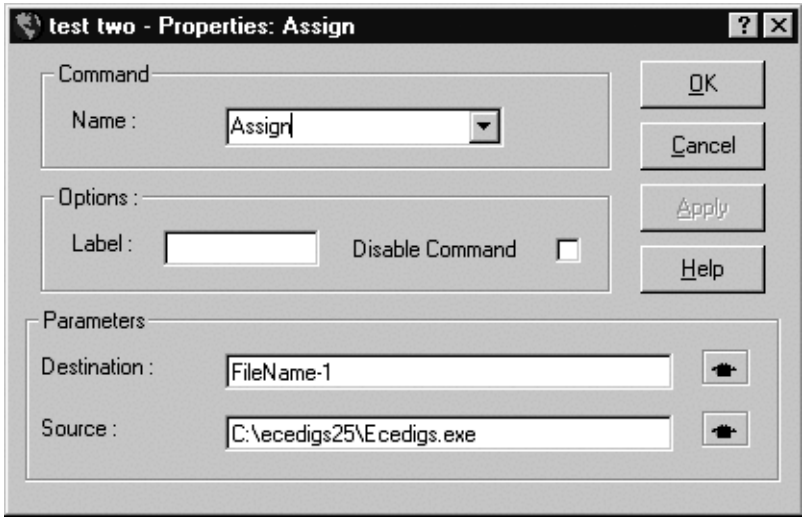
4 Select Next to display the Process Definition window with the process listed. The process is a set of commands. You can modify, add, or delete any of these listed commands.

5 Select the command that you want to modify and right-click in the window.

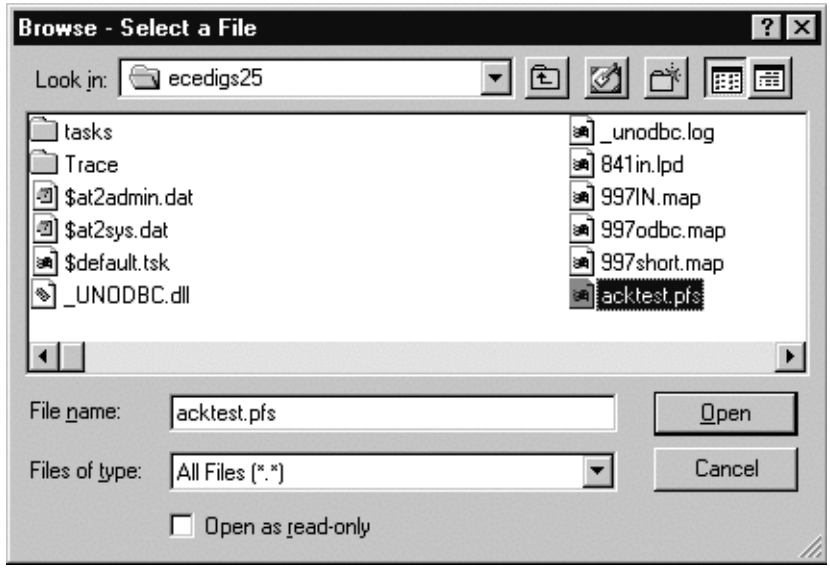
In this example, the Assign command is being modified. A pop-up menu of options displays.

6 Select the Properties option.

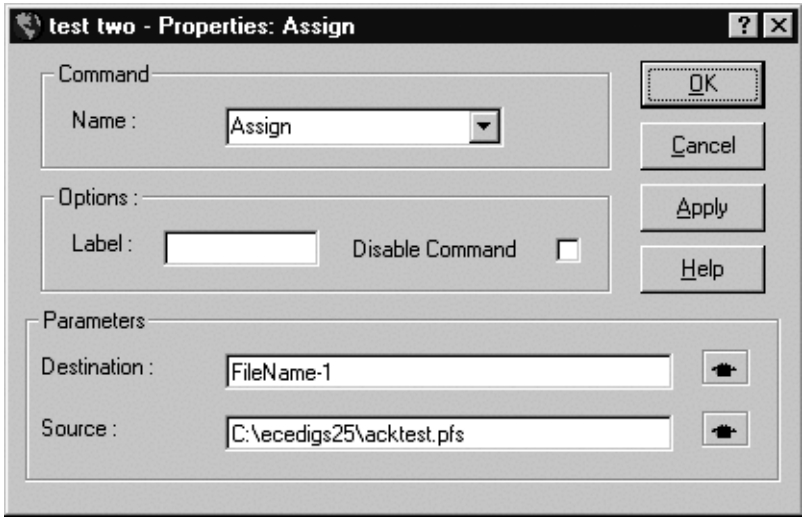
The <process name> – Properties window displays that allows you to modify the selected command. The name of the command being modified is included in the title bar .



In this example, the source file name being assigned by the command is being changed. The user accesses the Source entry box and selects the Constant option to obtain a new file. The Browse – Select a File window displays and the user selects a listed file.



The user selects the Open button and the Source file name on the <process name> – Properties window changes.



You can click OK and the Assign command on the Process Definition window is changed. Right clicks the window to bring up the pop-up menu. At this point, you can save the changes with the Modify Script File option. After the changes are saved, you can select the Run option to run the modified process.

A message box displays reporting the successful change of the file. Click OK; the modification of the command is completed.

If you want to delete a command, highlight the command and then right-click on the window. Select the Delete option. The command is deleted from the process. You can delete more than one command in this manner.

Note In addition, commands can be cut and pasted elsewhere in the process. Similarly, commands can be copied and pasted.

A message box displays requesting confirmation of the deletion.

Click Yes.

A message box displays reporting the successful change of the file. Click OK; the removal of the selected command or commands is completed.

You can add commands to an existing process by using the procedure described in the previous section of this document.

Deleting an existing process

To delete an entire process, follow these steps:

1 Select a system and then select the Process icon.

2 To delete a process, first select the process on the main window and then right click.

3 Select the Delete option from the pop-up menu. A delete confirmation dialog box displays.

4 Click Yes.

A second dialog box displays asking you to confirm the deletion from the disk.

5 Click Yes again. The deletion of the process is complete.

Copying processes to another database

Use this procedure to copy a complete process to another database.

1 Click the Process icon.

2 Select Utility from the main menu.

3 If at least one process exists, the choice Copy Processes is available.

4 Select Copy Processes to display the Copy Processes window.

5 The Source Process ODBC Connection field is automatically populated with the Data Source Name given during system configuration.

6 Enter the destination database data source name in the Destination Process ODBC Connection field. You can optionally use the Browse button to locate the destination database. A user identifier (uid) and password (pwd) may be required as shown.

7 Check the Remove All Processes in the Destination check box to delete all the processes currently stored in the destination database before copying the processes.

8 Check the Overwrite Processes in the Destination check box to overwrite individual processes in the destination database while you are copying these processes. Processes with the same name as incoming processes are overwritten.

9 Click OK.

Running processes

After your process is defined and you are ready to test it, you can run it directly from EC Gateway.

To run a process, follow these steps:

1 While in the Process mode, highlight a process from the list and select Run from the File menu at the top of the EC Gateway main window. The Run Process window is displayed.

Note Alternatively, you can highlight a process, right-click, and select Run from the pop-up menu.

2 From the Run Process window, optionally define the full directory path and file name to the process file you want to run. If you highlighted a process before displaying this window, the Process text box is already filled in.

3 Select one of the following:

- No Wait – runs the process immediately.
- Wait Infinitely – waits for any currently running process to finish before running the new process.
- Wait (Seconds) – waits for the number of seconds specified in the entry field before running the new process.

4 When you are ready to run your process, click OK.

Running a process from the Process Definition window

You can run a process from its Process Definition window. To run a process from its Process Definition window, follow these steps:

1 Right-click in the window.

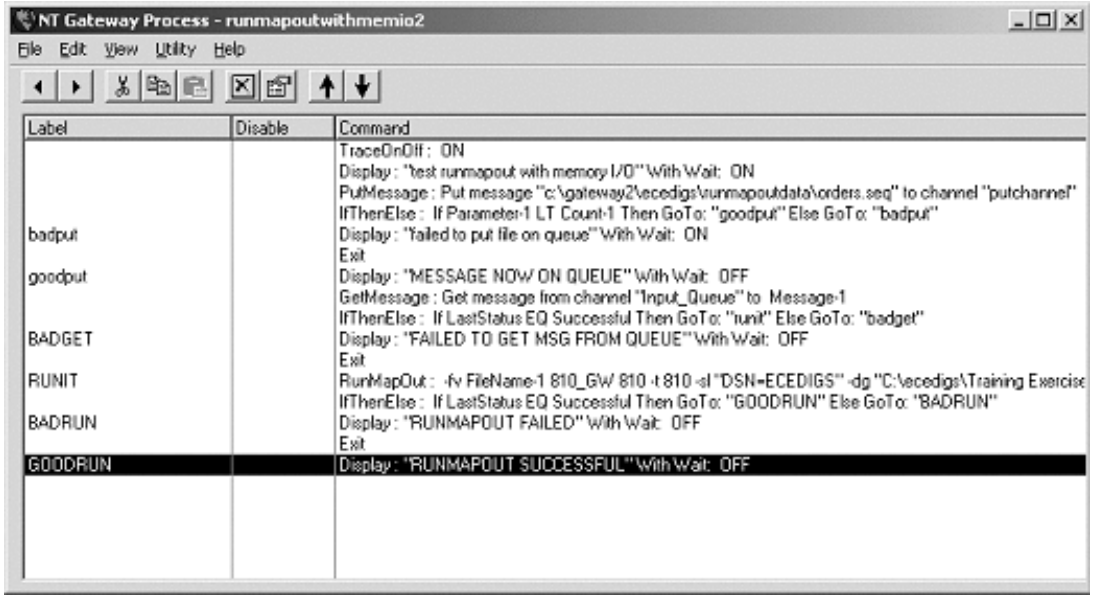
2 Select Run from the pop-up menu.

The Run Process window displays with the Process pathname already filled in.

3 Use this window as described above to run the process. If you have just modified this process, select Modify Script File before you run the process. Otherwise, your new changes will not be included in the process that is run.

Example of a process using queues

Below is an example of another process that uses queues



After you select View Script, a Notepad window displays containing the contents of the script file.

Process command reference

This section describes the commands available in the Command field drop down menu on the Process – New window.

The table below contains a brief description of each command; you can find detailed information for each individual command in the remainder of this chapter.

Command	Summary description
Archive	Moves files to a destination folder. This command copies the file to archive and puts a timestamp in the file name.
Arithmetic	Performs mathematical calculations within a process.
Assign	Assigns a value to a variable within a process.

Command	Summary description
BuildAcknowledgement	Builds a functional acknowledgement transaction. This transaction can be sent using other process commands.
Comment	This command is used to comment code that may be ambiguous. Comments are not part of executable code and therefore will not affect the running of the script file.
ComplianceCheck	Initiates an X.12 compliance check on the transaction currently being processed.
CreateDirectory	This option allows the user to create a directory and location that fits their specifications.
Decrypt	Decrypts and interprets encrypted messages. This command is used in conjunction with the Encrypt command.
Display	Allows you to display a message to the window during execution of a process.
Do	Enables you to run processes within other processes. Control of the process is handed to the nested process when it is invoked by this command.
DoNothing	This command is inserted into the script file for use when testing a condition. It functions as a pause while the execution control is passed to a testing module of the script file.
DoWhile	Extends the capabilities of the Do command, enabling you to specify conditional running of processes.
Email	Generates an e-mail message that can include an attached file. This e-mail message can transmit a user-specified file to a user-specified e-mail address.
Encrypt	Enables you to send securely encrypted EDI communications. This command is used in conjunction with the Decrypt command.
ExecuteRemoteProcess	Allows users to run a process on a remote machine.
Exit	Forces the process to end.
Fax	Passes a facsimile message containing user-specific files to a fax management engine.
FileCommand	Performs file manipulation commands within a process.
FileExists	Tests for the existence of files.
FileNotLocked	Tests to see if a file is locked before accessing the specified file.
FileSize	Checks the size of a file.
GetFile	Opens a communications channel and retrieves a file by playing back the script associated with that channel.
GetMessage	The GetMessage command gets a copy of the first message in the Get Channel queue. Note that it does not actually delete the message, as it did in release 2.8.3. Instead, the user's script has to manage the deletion of the message, by using either the RemoveMessage command or manage the restoration of the message, by using the RestoreMessage command.
GetMessagePutReply	The GetMessagePutReply command places a response to the message received from the queue.
GetNextFile	Obtains next sequential file in the queue.

Command	Summary description
GoTo	Allows branching of process execution. Any label within a process can be referenced by this command.
IfThenElse	Provides support for conditional branching of sub-processes and process execution. You can set a condition, with results for both true and false testing of the condition, and optionally include an else statement.
LoadMemory	Allocates memory and loads an input file into the shared memory or a Messages variable.
Log	Enables the EC Gateway to write a message to its log file.
NumericType	Examines an input string and determines if it is numeric or non-numeric.
Page	Generates a pager message for external notification of events.
PrintEDI	A shortcut for the RunMapIn command with the Print only option. Executes a print map.
PutMessage	The PutMessage command places a message on a queue for an application to pick up. This command supports the integration of EC Gateway with other electronic commerce applications.
PutMessageGetReply	The PutMessageGetReply command sends a message to a message queue and waits for a reply.
RemoveMessage	The RemoveMessage command removes all messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands.
Report	Supports runtime execution of any of the reports contained within the EC Gateway application.
Resource	Allows you to run multiple processes simultaneously. This command inquires about other processes that could be running and locks or releases resources for allocation to individual processes.
RestoreMessage	This command restores all the messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands such that subsequent GetMessage commands will be able to reread the same messages.
RestoreProcessVariables	Restores all the process variables from a file.
Return	Forces the currently executed process to terminate.
RouteEDI	Calls the ECMap engine and executes the inbound map corresponding to the communications channel and system you are currently using.
Run	Calls executable programs from within the EC Gateway application.
RunAdapter	Calls the specified NNSYadapter. The NNSYadapter reads the configuration file that you specify on this window.
RunMapIn	Calls the ECMap engine and executes the inbound map corresponding to the communications channel and system you are currently using.
RunMapOut	Calls the ECMap engine and executes the outbound map corresponding to the communications channel and system you are currently using.

Command	Summary description
RunThread	Forks a specified thread to run simultaneously.
RunWait	Calls executable programs from within the EC Gateway application, and waits for the execution to finish.
SaveMemory	Specifies the object to be saved to memory.
SaveProcessVariables	Saves all the process variables into a file.
SendFile	Opens a communications channel and plays back the script associated with that channel.
StartLocalProcessServer	Starts the socket server, configures the ports to be used and what type of data to expect on those ports.
StopProcessServer	Stops the socket server from processing data.
StringCaseConvert	Converts all of the characters in an input string into upper or lower case.
StringConcatenate	Concatenates strings while processing transactions. This command permits the concatenation of up to four strings at a time.
StringFind	Searches for a specified string within an input string.
StringLength	Returns the length of a specified string.
StringReplace	Finds and replaces a specified string of characters with the input string.
StringTrim	Removes any leading and trailing blank characters from the input string.
Substring	Parses the input string allowing the specified string to be used during the running of a process.
SystemCommand	Sends commands directly to the shell process that is controlling the EC Gateway.
TimeDelay	Inserts a delay into a process execution.
TraceOnOff	Writes a tracked line to an ASCII file for each command in the script.
WhileDo	The WhileDo command embeds processes within other processes.

Differences between commands in EC Gateway for UNIX and NT

The following EC Gateway for NT commands are not available in EC Gateway for UNIX:

- Decrypt
- Encrypt
- GetFile
- SendFile

The following EC Gateway for NT commands are not valid in NT enviroement for EC Gateway for UNIX

- Archive

- BuildAcknowledgement
- ComplianceCheck
- PrintEDI
- RouteEDI
- RunMapIn
- RunMapOut

The following commands are valid only in NT environment for EC Gateway for UNIX:

- Fax
- Report

Note that the Page command and Email command are available in EC Gateway for NT. The Page command is called PageViaEmail in EC Gateway for UNIX, which has same window as Email command.

The Archive command

The Process Management module moves files to a destination folder using the Archive command. This command appends a date and timestamp to the file name, but keeps the original name, path, and date of the file.

From this window the following archive-unique parameters can be defined.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Source Directory	Directory where the file to be archived is located. Clicking on the arrow icon beside the field will present to the user two choices: Parameters or Directory, will open the Select a Directory window.
Source File	File name of the file to be archived. Clicking on the arrow icon beside the field will present to the user two choices: FileName, or Constant will open the Enter File Name window.
Archive Directory	Folder (directory) where the archive will be created. Clicking on the arrow icon beside the field will present to the user two choices: Parameters or Directory will open the Select a Directory window.

Field	Description
Archive File	Name of the file that has been archived. Clicking on the arrow icon beside the field will present to the user two choices: FileName or Constant will open the Enter File Name window.
Delete Source File	The user specifies whether the source file, once it has been archived, can be deleted. The choices are Yes or No.

The Arithmetic command

The Arithmetic command is used for performing mathematical calculations. The format of the command is
<<destination>>equals<<left>><<operation>><<right>>

Example: NumberOfDaysInAMonth equals 7 days times 4 weeks

The mathematical expression (above) can be defined as follows:

NumberOfDaysInAMonth = <<destination>>

7 = <<left>>,

times (multiplied by) = <<operation>>

4 = <<right>>

From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	Variable to store the result of the arithmetic operation. You can view and select a Count variable from a list of available variables by clicking in this field.
Left	You can view and select a variable from a list of available Count variables by clicking in this field.
Operator	Arithmetic operation to be performed. You can view and select a variable from a list of available variables by clicking in this field. The choices include: +, --, *, and /.
Right	You can view and select a variable from a list of available variables by clicking in this field. There are two choices: Count, or Constant… will open the Constant Value window. The user is asked to enter the constant numeric value.

The Assign command

The Assign command is used to assign a value to a variable or the contents of shared memory to a Messages variable. With the Assign command, you can assign:

- The contents of shared memory to a Messages variable.
- The contents of a Parameters variable to a Messages variable.
- A string in the script file to a Messages variable.
- To a given shared memory the contents of a Messages variable.
- A given shared memory the contents of a Parameters variable.
- To a given shared memory a character string in the script file.

From this window, you can define the following parameters:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	Operator to be initialized. You can view and select from different values by clicking on the arrow icon beside this field. There are several choices available from the arrow icon: • Shared Memory, where you can select a Parameter or select Constant. • Message, • FileName, • Parameters, • Count, or • Resource.

Field	Description
Source	Value to be assigned to a variable. You can view and select from different variables by clicking on the arrow icon beside this field. For the arrow icon, a set of options displays depending on your choice of the Destination: • For Shared Memory as the Destination, you can choose Message, Parameters, or Constant. If you select Shared Memory, the name in the Source field is opened as shared memory by that name. • For Message as the Destination, you can choose Parameter, Shared Memory, or Constant. • For FileName as the Destination, you can choose FileName, Parameters, or Constant. • For Parameter as the Destination, you can choose: RunID, Timestamp, SystemJulianDate, Message, FileName, Parameters, Count, or Constant. The Timestamp is printed as Parameter in the form of mm/dd/yyyy_hr:min:sec:mil. • For Count as the Destination, you can choose: FileSize, RunID, SystemJulianDate, Parameters, Count, or Constant. • For Resource as the Destination, you can choose: Constant. The SystemJulianDate is the number of elapsed days since the beginning of a particular year. For example, in this usage, the Julian date for the calendar date of 2002-02-28 would be day 59.

The BuildAcknowledgement command

This command will build an X12 functional acknowledgement (997) transaction. This transaction can be sent using other process commands.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command line switches. You can define your switches by clicking on the arrow icon beside this field. This displays the BuildAcknowledgement window with the Required tab active.

Field	Description
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map run. Choose a variable name for this result in the Count variable. The values are: • 0 – no errors • 1 – errors but no transaction skipped • 2 – transactions skipped with ## errors • 3 – user Abort Rule and ## errors • 4 – user Stop Rule and ## errors • 5 – fatal error stop and ## errors

From the Required tab, you can define the following parameters:

Field	Description
Map Name	The name of the map to be run.
Transaction Name	The name of the transaction. For ANSI X.12 this should always be 997. For EDIFACT, this value should be CONTRL.
Code	The EDI file code. For ANSI X.12 this should be FA.
Output EDI File	The name of the outgoing EDI file. Click the File Type button to display the choices: Constant, FileName, or Parameter.
Map Directory	The full directory path of the file which contains the generated map. You can search for the directory by clicking Browse, you are then taken to the Select a Directory window. This is automatically populated by the system. Use the Browse if you want to change the directory.
Log Type	The type of log you want to generate. By clicking on the arrow icon beside the field, the user can choose from Text Log, No Log, or Expanded Text Log.
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files. Clicking Browse will take the user to the Select a Directory window.
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant that displays the ODBC Data Source Name window and Parameter that presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking Browse will take the user to the ODBC Data Source Name window.

The Option 1 tab includes these parameters:

Field	Description
No Trading Partner	Used for running an Any-to-Any map because there is no Trade Partner in this case.

Field	Description
All Trading Partner Default	This uses the ALL default trading partner and any trade agreements associated with it for this map run.
Ignore Trading Partner Mailbox	When this is checked, outbound EDI files are not placed in the directory specified by the trading partner record in the Trading Partner database. The output EDI file is placed in the file specified by the Output EDI File text box in the Required tab.
No EDI File	Used for running an Any-to-Any map.
Update All Trading Partner Record	Updates the ALL Trading Partner control number.
Ignore Tradstat MailBox	Leave this button checked because you have explicitly defined the file.
Trace Type	Short Trace, Long Trace, or No Trace. Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run.
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking Browse will take the user to the Company Identification window. This window displays the information for Record Number, Company Name, and Trade Partner Group..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of the maps.

Use the Option 2 tab to set these parameters:

Field	Description
No UNG, UNE Segments	Used in EDIFACT transactions.
Map Numeric Zero	Zero-fill outgoing numeric fields that are not blank (-z switch in batch file).
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file..
Substitute Company Directory	Used to change the directory location of the company information when not an ODBC Trading Partner. Clicking on the Browse button will take the user to the Select a Directory… window. This allows the user to override the input file that the system is looking for.
Substitute Input Filename	Used to change the name of the input file when only one input file is defined. Clicking on the Browse button will take the user to the Input File window. This allows the user to override the input file that the system is looking for.

Field	Description
Substitute User File Directory	Used to change the location of the files when multiple files are used. Clicking on the Browse button will take the user to the Select a Directory… window. This overrides the directory where the system is looking for inputs.
Substitute Map and TP Directory	Used to set a single location for both the Trade Partner files and the map files. Clicking on the Browse button will take the user to the Select a Directory… window.
ST03 (X.12)	This is an alphanumeric field for the Implementation Convention Reference. The user may enter up to 35 characters. This is an optional element of the X.12 Standard beginning with version 4030..

The File Alias tab alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the *Add* button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the *Delete* button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens..

The parameters on the ODBC Alias tab include:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

These are the fields on the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

These are the parameters on the Memory I/O tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter.The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

This command works in conjunction with the RunMapOut command. For more information about the RunMapOut command, see “The RunMapOut command” on page 175.

The Comment command

Comments are an important part when building a process. The Comment command is used to explain any line(s) of code that appear to be ambiguous. Comments should be used to make the process statements easier to understand. Comments are not executable instructions or displayed during execution. The goal of comments is to aid readability of the process statements.

Enter the text of the comment in the Parameters Comment entry box.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Comment	Specify how the code operates here.

The ComplianceCheck command

This command initiates an X12 compliance check upon the transaction currently being processed. From this window, the following parameters can be accessed:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window..
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command line switches. You can define your switches by clicking on the arrow icon beside this field. This displays the ComplianceCheck window with the Required tab active.
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map run. Choose a Count variable. The values are: 0 – No errors 1 – Errors but no transaction skipped 2 – Transactions skipped with ## errors 3 – User Abort Rule and ## errors 4 – User Stop Rule and ## errors 5 – Fatal error stop and ## errors

These are the parameters on the Required tab:

Field	Description
Inbound EDI File Type	Clicking on the arrow icon will present to the user several choices for File Type. The three choices are input FileName (default), MailBox, and Variable. The Mailbox option results in the system looking in the input folder of the mailbox and running the file through the map. The Variable option is a variable representing a filename..

Field	Description
Inbound EDI File	You will be prompted at the Browse window with a choice based on your response to the Inbound EDI File Type above.
Map Directory	The full directory which contains the generated map. You can search for the directory path by clicking the Browse button. By default, the text field is populated with C:\ECEDIGS\Map. Clicking on the Browse button will take the user to the Select a Directory… window. The default drive is C: and the default folder is ECEDIGS\Map.
Log Type	The type of log you want to generate. Clicking the arrow button will present to the user four options. The choices include ODBC Log, Text Log, No Log, and Expanded Text Log.
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files, if you are not using an ODBC database to store your trading partner files. Clicking the Browse button will open the Select a Directory… window.
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant or Parameter. Constant displays the ODBC Data Source Name window and Parameter presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking the Browse button will open the ODBC Data Source Name window.

These are the parameters on the Option 1 tab:

Field	Description
All Trading Partner Default	This option uses the ALL trading partner and trade agreements associated with it for map execution..
Ignore Trading Partner MailBox	Always leave this check box unchecked for a compliance map.
ST03 (X.12)	Enables the use of the Implementation Convention Reference. This is an optional element of the X.12 Standard beginning with version 4030.
Overwrite Output User Files	When this is checked, the output overwrites any existing user files. If this is not checked, the output is appended to any existing user files.
Ignore Tradstat MailBox	Always check this check box for a compliance map.
Validate Control Number Sequence	Tells ECRTP to check the received control numbers. This check confirms that the numbers have been incremented by one from the previous number received..
Trace Type	Short Trace, Long Trace, or No Trace. Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run..

Field	Description
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation.
Run Inbound Map	Enter the file name of the map here without the .map extension to make the inbound program automatically run the map without doing trade partner lookups to find a different map.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking Browse will take the user to the Company Identification window. This window displays the information for Record Number, Company Name, and Trade Partner Group..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of the maps.

These are the parameters on the Option 2 tab:

Field	Description
Output the Elapsed Time	This option uses the ALL trading partner and trade agreements associated with it for map execution..
Create Bad Transaction Log	Always check this check box for a compliance map..

Field	Description
Trading Partner Search Option	How the EC Gateway looks up Trade Partner data. The following are options for this field: • Group Sender – default – routing to mailboxes based on the department-level sender's identification • Group Receiver – routing to mailboxes based on the department-level receiver's identification • Group Sender and Receiver – routing to mailboxes based on the department-level sender and receiver's identification • Full Interchange – Sender – map selection and routing to mailboxes based on the company and department-level sender's identification • Full Interchange – Sender and Receiver – map selection and routing to mailboxes based on the company and department-level sender and receiver's identification • Full Interchange – Receiver - map selection and routing to mailboxes based on the company and department-level receiver's identification • Outer Interchange – Sender Only – map selection and routing to mailboxes based on the company-level sender's identification. • Outer Envelope – Receiver – map selection and routing to mailboxes based on the company-level receiver's identification • Outer Envelope – Sender/Receiver – map selection and routing to mailboxes based on the company-level identification for sender and receiver • Reverse – Outer Envelope – Sender/Receiver – compliance checking of outbound EDI using sending and receiving company-level identification for map selection • Reverse – Full Interchange – Sender/Receiver - compliance checking of outbound EDI using sending and receiving company and department-level identification for map selection • Reverse – Receiver Against Main – compliance checking of outbound EDI using company-level receiver's identification for map selection • Reverse – Outer Sender Against Override – compliance checking of outbound EDI using company-level sender's identification for map selection • Reverse – All Sender Against Override – compliance checking of outbound EDI using company-level and department-level sender's identification for map selection • Reverse – All Receiver Against Main – compliance checking of outbound EDI using company-level and department-level receiver's identification for map selection.
Substitute Output Filename	Changes the name of the output file..
Substitute User File Directory	Changes the name and location of the user file directory.

Field	Description
Substitute Map and TP Directory	Changes the names and location of the map and the Trading Partner directory.
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory.
Start Processing at Byte Count	Begins processing the incoming file at a specific character (byte).
End Processing at Byte Count	Ends processing the incoming file at a specific character (byte).

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the parameters on the File Alias tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens..

These are the parameters on the ODBC Alias tab:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

You can set these parameters using the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

The fields on the Memory I/O tab include:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter.The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

This command works in conjunction with the RunMapIn command. For more information about the RunMapIn command, see The RunMapIn command.

The CreateDirectory command

This option allows the user to create a directory and location that fits their specifications.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

Field	Description
Directory	Clicking on the arrow icon beside the field will list the two choices available. The selections include Parameters and Directory.

The Decrypt command

Used in conjunction with the Encrypt command, the Decrypt command decrypts/interprets encrypted messages, enabling users to send secure encrypted EDI communications.

From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window..
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Input File	Name of file to be decrypted. You can view and select your input file and its parameters by clicking on the arrow icon beside this field. There are two choices available FileName and Constant…, will open the Browse – Select a File window where the user can browse for the desired folder.
Output file	Name of file within which output should be written. You can view and select your output file and its parameters by clicking on the arrow icon beside this field. There are two choices available: FileName or Constant… will open the Constant Value window.
Decrypt Key	Key value to be used in encryption/decryption process.

The Display command

The Display command allows users to display a message to the window during execution of a process. From this window, you can define the following parameters:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

Field	Description
Message	Textual message to be displayed to the user. You can define your message and its parameters by clicking on the arrow icon beside this field. There are two choices: Parameter and Constant… will open the Constant Value window.
Wait	There are two choices: On or Off.These choices determine whether the message is to remain on the window until the user confirms the message. You can select On or Off by clicking and selecting from the choices available when you click the arrow icon beside this field. For Windows NT/2000, the message will always display regardless of whether you select On or Off.

The Do command

The Do command allows you to run processes within other processes. Control of the process is handed off to the nested process when it is invoked via the Do command. From this window, the following parameter can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Process	Name of the Process to be embedded. You can view and select a defined process from a list of available processes by clicking on the arrow icon beside the field causing the Select a Process window to be opened. Highlight a process and click the Select option on the File menu Alternatively, you can double click on a listed process.

The DoNothing command

This command is inserted into the process statements for use when testing a condition. It functions as a pause while the execution control is passed to a testing module of the process statements.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.

Field	Description
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

The DoWhile command

The Do command enables you to run processes within other processes. The DoWhile command extends the capabilities of the Do command, enabling you to specify conditional repeated running of processes. Control of the process is handed off to the nested process when it is invoked via the DoWhile command, until the specified condition is met.

The DoWhile command executes a process, then tests for the condition. The DoWhile command always tests for the condition prior to executing the process. From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Do Process	Unique name of the Process to be embedded. You can view and select a process from a list of available processes by clicking on the arrow icon beside the field. The Select a Process window is opened and lists the processes available to the user. Highlight a process and click the Select option on the File menu. Alternatively, double click on a listed process.
While Left	Operand number 1 within the execution condition. You can define an operator by clicking the arrow icon beside this field. There are four choices. Choosing the first choice, LastStatus, will populate the field with LastStatus. The second choice, FileSize, will populate the field with FileSize. The third choice is Parameters, and the final choice is Count.

Field	Description
Operator	Operator to be used when testing execution condition. You can define an operator by clicking on the arrow icon beside this field. The choices include some or all of the following depending on your choice for the While Left parameter: • EQ (equals) • NE (not equal to) • LT (less than) • GT (greater than) • LE (less than or equal to), and • GE (greater than or equal to)
Right	When the user clicks on the arrow icon beside this field, the following options display based on the parameters previously chosen. The options are Parameters, Count, Constant, Successful and Failed. Successful and Failed define the result of the condition.

The Email command

The Email command generates an email message. This email message can optionally include an attached file. From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Message to Send	The content to be transmitted via e-mail. Click on the arrow icon beside the field. A menu with two options displays: File and Message. If you select File, the contents of the file are copied into the body of the email and not sent as an attachment. (If you want to send an attachment, see the Other Options text box below.) Click on Message and select between Parameter, or Constant which displays the Email window. If you select the Constant option enter the text of the message to be sent by the email command. **Note** If you specify a text string using the Email window, enter the –uuencode option in the Other Options text box.
Subject:	The subject of the message is entered in this field.

Field	Description
To: Address:	Electronic mail (e-mail) accounts reside on your computer. Each account, or "address," has its own naming protocol that includes the account holder's user ID, followed by the "@" sign, and the particular Domain Name of the person's e-mail account. **Note** This is a required entry.
CC: Address:	This field is used for the address to send the message to someone who has interest in the subject of the message but may not be directly involved in the subject.
From Address:	This field is used for your e-mail address.
SMTP Server:	Domain name of the Simple Mail Transport Protocol server. **Note** This is a required entry.
Other Options:	Other parameters that can be used with the executable mail program. The available parameters are: • -o organization • -q suppresses all output • -noh suppresses display of the Blat utility homepage by X-Mailer • -noh2 suppresses display of the X-Mailer header • -p <profile file> sends email message with Simple Mail Transport Protocol (SMTP) server, user, and port defined in the file <profile file> • -server <add> specifies the address of the SMTP server to be used. Note: A port number may be added separated from the address by a colon. <addr:port> • -port <port identifier value> specifies the port to be used on the server. Default value is 25 for SMTP. • -hostname <host name string> specifies the host name used to send this message • -mime uses MIME Quoted Printable Content Transfer Encoding • -uuencode sends message in UUEncoded file (MIME) • -base64 send message in base64 encoded attachment (MIME) • -try <number of times> attempts to send the message specified number of times. A value of INFINITE may be used as well. To send an attachment with an email message use one of the following options: • -attach <file name> attach the binary file to this message • -attach <file name> attach the text file to this message

The Encrypt command

Used in conjunction with the Decrypt command, the Encrypt command enables users to send securely encrypted EDI communications. From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Input File	Name of file to be encrypted. There are two choices available when clicking on the arrow icon beside the field: FileName, and Constant… will cause the Browse – Select a File window to be opened.
Output File	Name of file within which output should be written. There are two choices available when clicking on the arrow icon beside the field: FileName or Constant…, will open the Constant Value window, and the user is prompted to enter the constant value.
Encrypt Key	Key value to be used in encryption/decryption process.

The ExecuteRemoteProcess command

The ExecuteRemoteProcess command allows users to run a process on a remote machine. This command invokes an EC Gateway Remote application that is listening on a remote machine. See the *EC Gateway Remote Reference Guide* for additional information.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Process Name	The user-specified name for the process to be run. There are two choices available when clicking on the arrow icon beside the field: FileName, and Constant…, will open the Constant Value window. The user is prompted to enter the constant value.
Host Address	The IP address.
Port Number	The Port Number on the remote host.

The Exit command

Choosing the Exit command forces termination of the process execution.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Return Code	If wsproces is called by another program or a batch file, this exit code can be analyzed to determine the condition of the script termination. The Count variable containing the code value returned to report the result of the exit. The return code is optional. The value to be stored in this variable is defined by the user. The value is returned and it is also stored in the trace file.

The Fax command

The Fax command passes a facsimile message containing a user-specified file to a fax management engine. From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
To	The name of the person to whom the fax message will be sent.
Fax Number	The telephone number for fax transmission, including the appropriate prefix and access codes.
File To Send	File name of the file to be transmitted as a facsimile. When the user clicks on the arrow icon beside the field, two choices appear: FileName or Constant, the Browse – Select a File window opens. The user can then choose the file they desire to send.
From	The name of the person from whom the fax message was sent.
Comments	This field contains the body of the message to be faxed.
Retry, Interval	If the receiving fax machine is busy, the sender enters the interval in seconds for the sending fax machine to wait before trying to re-send the message. If the field is empty, retry is not attempted
Ports Not to Use	The user can specify in this field which ports are not to be used.

The FileCommand command

The FileCommand command allows users to perform rudimentary file manipulation commands within a process. From this window, you can define the following parameters:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Action	File command to be performed. You can view and select a command from a list of available commands by clicking on the arrow icon beside this field. There are four choices available. Selecting the first choice, Copy, will copy the source file. Selecting the second choice, Copy Append, will append data to a copy of the source file. The third choice, Delete, will delete the source file. The final choice, Rename, when chosen, will change the name of the source file.
Source	Source file name. You can select the source file name from a list of file names by clicking on the arrow icon beside this field. There are three choices available to the user: FileName…, Process Variable, itself has two choices: FileName and Parameters. The third choice, Directory… will open the Select a Directory… window and the user can choose the appropriate source file name.
Destination	Destination file name. You can select the destination file name from a list of file names by clicking on the arrow icon beside this field. There are three choices available for this option: FileName… will open the Browse – Select a File window, Process Variable itself has two choices: FileName and Parameters. The third choice, Directory… will open the Select a Directory… window and the user can choose the appropriate destination file name.

The FileExists command

The FileExists command allows users to test for existence of files. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

Field	Description
File Name	Name of the file to be tested. This command sets the Last Success variable depending on the existence of the file. You can select a file to be tested from a list of file names by clicking on the arrow icon beside this field. There are two choices available for this parameter. The first choice is a FileName variable. The second choice, Constant…, will open the Browse – Select a File window.

The FileNotLocked command

The FileNotLocked command checks to see if a file is locked before running EC Gateway or wsproces.exe on that file. From this window, the following parameters can be defined:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
File Name	Name of the file to check. You can either specify a filename or one of the ten Constant variables that holds the desired filename.
Retry	Number of times to keep checking to see if the file is still locked. You can either specify one of the ten Count variables that holds the number or type a number in the Constant field.
Interval (Seconds)	Amount of time between each verification of the filename. You can either specify a one of the ten Count variables that holds that value or type a number in the Constant field.

The FileSize command

The FileSize command allows the user to check the size of a file if the file is less than 2,147,483,647 bytes. If the file size is larger than 2,147,483,647 bytes, than the FileSize command returns a -2. If a -1 is returned, the file does not exist. If a 0 is returned, the file has zero bytes.

You can use this command to determine when a file has been completely transferred to another server. To determine when a file (less than 2,147,483,647 bytes) has completed transferred, use these steps to write a script:

1 Store the return value in a Count variable such as Count-1.

2 Wait a period of time.

3 Check the file size again.

4 Store that returned value in another Count variable such as Count-2.

5 Compare Count-1 and Count-2.

6 If Count-1 does not equal Count-2 then the file is still in the process of being transferred. If Count-1 does equal Count-2 then the file has finished being transferred.

The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
File Name	Name of the file to be tested. You can select a file from a list of files by clicking the arrow icon beside this field. There are two choices: FileName, and Constant… will open the Browse – Select a File window.

The GetFile command

The GetFile command opens a communications channel and retrieves a file to be processed by the EC Gateway. This command invokes the communications software and executes the communications script for the channel. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

Field	Description
Comm Channel	Unique name of the Comm Channel to be opened. You can select a communications channel from a list of available channels including the Channel Name, Channel Type, and Description by clicking on the arrow icon beside this field. This will open the Communications Channel window. Double click a listed channel.

The GetMessage command

The GetMessage command gets a copy of the first message in the Get Channel queue. Note that it does not actually delete the message, as it did in release 2.8.3. Instead, the user's script has to manage the deletion of the message, by using either the RemoveMessage command or manage the restoration of the message, by using the RestoreMessage command. You can define the following parameters from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Get Channel	Name of the communications channel where the message will be read. Click the arrow icon and the Communications Channel window displays. Double-click on a channel to select it. This channel can have a receive (inbound) direction or can send and receive.
Get Data	Specifies where the message will be placed for further processing. There are two choices available when clicking on the arrow icon beside the field: Message and FileName.
Overwrite/Append	Specifies whether the newly read message should overwrite or be appended to the previous message in Get Data. There are two choices available: Overwrite and Append.
Message Type	User-defined message type found in the incoming message header. The message type will be stored in the Parameter.
Timeout [ms]	Period of time to wait for the message. There are two choices available when clicking on the arrow icon beside the field: Count and Constant where you can display a window so that you can enter a numeric value for the time period in milliseconds. On Timeout condition, an error is written to the log, and an error status is returned.

The GetMessagePutReply command

The GetMessagePutReply command places a response to the message received from the queue. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Put Channel (Optional)	This Put Channel parameter specifies the queue to which the Reply will be sent. This parameter is optional and if blank, the Reply will be sent to the Return Queue specified in the header of the incoming message. Note that if a Return Queue is specified in both the Put Channel parameter and the message header, then the Put Channel Return Queue overrides the one in the message header. If both fields are blank, it is an error.
Put Data	Specifies the Message variable or memory in which the Reply data will be found.
Get Channel	Name of the channel on which you want to receive a Request message.
Get Data	Specifies in which Message, Memory, or Filename the input message will be placed after being read from the queue.
Overwrite/Append	Overwrite or append the earlier response.
Time Out (ms)	Specifies the number of milliseconds the *GetMessage* command should wait for a message before returning a timeout. This quantity may be specified in the Count variable or Constant. On Time Out condition, an error is written to the log file and the status returned indicates an error.
Process Mode	Choose either Asynchronous or Synchronous. Choose Asynchronous for handling multiple messages simultaneously by creating a child wsproces, in a separate thread to handle the development and queuing of the response. Choose Synchronous for handling messages one at a time developing and queuing the response without starting a child process.

Field	Description

End Label	This label marks the last line +1 of the script-fragment that builds the reply to the input message. When the End Label is reached, the Reply found in Put Data, is written out. For example:
	`GetMessagePutReply`
	`...`
	... (Build the Reply and store in Put Data by additional commands (such as RunMapIN, RunMapOUT, PutMessageGetReply)
	…
	End Label: Comment (At this point the Reply is expected to be in Put Data and will be written to the Put Channel.)
	Note that asynchronous mode just executes the GetMessagePutReply section. Synchronous mode executes both the GetMesasgePutReply and End Label sections. If you are in Asynchronous mode, the command at the end is not executed by the child wsproces and is executed by the parent wsproces. When a child or parent process sees the end label, a Put Data is written to the Put Channel. If Synchronous, the End Label can be an If-Then-Else statement that checks to see if the response was put on the Put Channel.
	All code needed for building the reply should be physically between the GetMessagePutReply command and the End Label as in the above example.

If this database installation is new, then the run ID will be 1, for example, *tr1.dat*. When you run wsproces on an existing database, the trace file will start at multiples of 100, for example, tr1.dat becomes *tr101.dat then tr201.dat*.

If a database is being upgraded, the run ID will take whatever value the last run ID was, and increment it by 100. So, if the last tracefile before the upgrade was "tr12345.dat", the next one would be "tr12445.dat", "tr12545.dat", etc.

Numbers 2-99 are trace files that are generated by wsproces running as a thread such as tr99.dat, tr199.dat.

The GetNextFile command

The GetNextFile command obtains the next sequential file in the directory provided. These files are either accessed alphabetically or by time or they are not sorted. The following parameters described in the table below can be defined from the process command window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	Destination for the selected files. Clicking on the arrow icon beside the field will show that there are two variable choices for this parameter: FileName or Parameter.
Directory	Source directory containing the files. Clicking on the arrow icon beside the field will show that there are two variable choices for this parameter: Parameters or Constant… will open Select a Directory… window.
Wildcard	There are two valid wildcards. The ? is used for a single character. The * is used for any characters.
Sort Order	Clicking on the arrow icon beside the field will show that there are three choices for this parameter: Alphabetical, Time, or No Sort. If you select Time, the time is based on the creation date and not the modified date displayed in Windows Explorer. This means that the oldest file is retrieved first. You can see the time when a file was created by running Windows Explorer and right-clicking a file and then selecting Properties from the pop-up menu.
Unlocked File Only	Choose *Yes* to open files that are not locked. Choose No to open locked or unlocked files.

The GoTo command

The GoTo command permits unconditional branching of process execution. Any label within a process can be referenced by the GoTo command. This facilitates looping and branching of processes. The following parameter must be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Label (Parameters Panel)	Unique label of the process command where the action of the GoTo will branch.

The IfThenElse command

The IfThenElse command is used to provide conditional branching of sub-processes and processes within EC Gateway process execution.

The FileSize command determines if the file size is greater than zero.

A condition can be set, with resultant actions defined for both true and false testing of the condition, with the else statement being optional. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Left	Conditional operand number 1. You can select an operand by clicking on the arrow icon beside this field. There are four variable choices for this parameter. Clicking on the first choice, LastStatus will populate the field with this option. Clicking on the second choice, *FileSize* will populate the field with this option. The third choice is Parameters and the final choice is Count.
Operator	A mathematical operation to be performed between the two conditional operators. You can select an operation to be performed by clicking on the arrow icon beside this field. The choices include some or all of the following depending on your choice for the Left parameter: • EQ (equals) • NE (not equal to) • LT (less than) • GT (greater than) • LE (less than or equal to) • GE (greater than or equal to)
Right	When the user clicks on the arrow icon beside this field, several options display based on the parameters previously chosen. The options are Parameters, Count, Constant, Successful and Failed. Successful and Failed define the result of the condition.
If True	Process to be executed if the condition is true (mandatory). You can select a process by clicking on the arrow icon beside this field. There are four variable choices available for this parameter. Clicking on the first choice, Do Process… will cause the Select a Process window to open. Clicking on the second choice, GoTo… will cause the Select the Label for GoTo Command window to open. The user is prompted to enter the label name. Clicking on the third choice, Return, will populate the field with this choice. Clicking on the final choice, Exit will populate the field with this choice.

Field	Description
Else	Process to be executed if the condition is false (optional). You can select a process by clicking on the arrow icon beside this field. There are four variable choices available for this parameter. Clicking on the first choice, Do Process… will cause the Select a Process window to open. Clicking on the second choice, GoTo… will cause the Select the Label for GoTo Command window to open. The user is prompted to enter the label name. Clicking on the third choice, Return, will populate the field with this choice. Clicking on the final choice, Exit will populate the field with this choice.

The LoadMemory command

Use the LoadMemory command (called LoadSharedMemory in Release 2.8.3) to store a filename in either shared memory or a Messages variable. The following parameters can be defined from this window. Note that before the shared memory can be used again with new data, the SaveMemory command has to be executed first. This command is backwards compatible with LoadSharedMemory.

With the LoadMemory command, you can load:

- A Message from a file name specified in a Filename variable.
- A Message from a file name specified as a string in a script file.
- Shared memory, whose name is specified in a Parameter, from a file named in a Filename variable.
- Shared memory, whose name is specified in a Parameter, from a file name specified by a string in the script file.
- Shared memory, whose name is specified as a string in the script, from a file name specified by a string in the script file.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

Field	Description
Load from File	The input file or constant to be loaded into memory. Select from the options: FileName or Constant. **Note** Input and output files that are to be accessed from memory by *RunMapIn* or *RunMapOut* must have the shared memory created for them even if the output file does not exist. **Note** File names are limited to 256 characters.
Memory	Memory is the name of the shared memory to be created. If FileName or Constant is selected for the previous field, then you can choose either: Shared Memory or Message. If you select Shared Memory, you can select either Parameter or Constant. The input file content is stored in this memory. Select from the options: Parameters or Constant. Constant displays the Constant Value window for entering a constant value. **Note** Shared memory names are limited to 256 characters.

The Log command

The Log command enables EC Gateway to write a message to its log file. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Message	Text to be written into the log file. You can define the log file parameters by clicking the arrow icon beside this field. There are two variable choices for this parameter: Parameters or Constant… will open the Constant Value window. The user is prompted for the constant value.
Message ID	The user assigns this ID. If the message is the same as the standard message, then you should use the standard ID number for this message.
File Name	Log file name. By clicking on the arrow icon beside the field, the user will see that two choices are available: FileName or Constant… will open the Browse – Select a File window.

The NumericType command

The NumericType command examines an input string and determines if it is numeric or non-numeric. If the string is numeric, a code of 221 is returned. If the string is not numeric, a code of 220 is returned. A string that is a mix of numeric and non-numeric characters is considered non-numeric. The parameters described in the table below can be defined from the process command window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	A variable containing the numerical value indicating the string is numeric or non-numeric. This value is stored in a Count variable.
Source	A variable containing the input string to be examined. This variable is a FileName or a Parameter.

The Page command

EC Gateway permits external notification of events through the Page and Email commands. Within a process, the Page command can be used to generate a pager message. This command invokes the asynchronous communications software. Using the default pfs/Async profile from this window, the following parameters can be defined.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Pager Number	Phone number for pager access, including appropriate prefixes and dialing codes.
Message	Numeric message to be broadcast to the pager. **Note** This is usually a telephone number for the recipient to respond to.

The PrintEDI command

This command is a shortcut for the RunMapIn command with the Print only option. During execution of a process, EC Gateway can be configured to print the EDI messages it is currently processing. The following parameters can be accessed from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command-line switches to be passed to the Print function. You can define your switches by clicking on the arrow icon beside this field. This displays the Print EDI window with the Required tab active.
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map run. Choose a Count variable name. The values are: • 0 – No errors • 1 – Errors but no transaction skipped • 2 – Transactions skipped with ## errors • 3 – User Abort Rule and ## errors • 4 – User Stop Rule and ## errors • 5 – Fatal error stop and ## errors

Note You can access the RunMapIn command window by clicking in the PrintEDI command window.

These are the parameters on the Required tab:

Field	Description
Inbound EDI File Type	Clicking on the arrow icon will present to the user several choices for File Type. The choices are input FileName (default), Variable, MailBox, Mailbox – IN Only, Mailbox – Good Only.
Inbound EDI File	The prompt displayed by the Browse button depends on the option you selected for Inbound EDI File Type. This is the location of the file containing the EDI data to be translated by the map

Field	Description
Map Directory	The full directory path of the file which contains the generated map (.map file). You can search for the directory path by clicking the Browse button. As default, the text field is populated with C:\ECEDIGS\Map. Clicking on the Browse button will take the user to the Select a Directory… window. The default drive is C: and the default folder is ECEDIGS\Map.
Log Type	The type of log you want to generate. Clicking the Browse button will present to the user four options. The choices include ODBC Log, Text Log, No Log, and Expanded Text Log
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files, if you are not using an ODBC database to store your trading partner files.
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant or Parameter. Constant displays the ODBC Data Source Name window and Parameter presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking the Browse button will open the ODBC Data Source Name window. You can use the connection string specified under the System-ODBC TP Data Source Name tab.

These are the parameters on the Option 1 tab:

Field	Description
All Trading Partner Default	This option uses the ALL trading partner and trade agreements associated with it for map execution.
Ignore Trading Partner MailBox	This check box should be checked.
ST03 (X.12)	Enables the use of the Implementation Convention Reference. This is an optional element of the X.12 Standard beginning with version 4030.
Overwrite Output User Files	When this is checked, the output overwrites any existing user files. If this is not checked, the output is appended to any existing user files. It is recommended against checking this check box to prevent overwriting of needed data.
Ignore Tradstat MailBox	This check box should be checked.
Validate Control Number Sequence	Tells ECRTP to check the received control numbers. This check confirms that the numbers have been incremented by one from the previous number received.

Field	Description
Trace Type	Short Trace, Long Trace, or No Trace.Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run.
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation.
Run Inbound Map	Enter the file name of the map here without the .map extension. This makes the inbound program automatically run the map without doing trade partner lookups to find a different map.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. This allows you to associate a specific company profile with this map. Clicking the Browse button will take the user to the Company Identification window. The Record Number, Company Name, and Trade Partner Group are listed.
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of maps.

These are the parameters on the Option 2 tab:

Field	Description
Zero Fill EDI Non-Null Numbers	Zero-fill incoming numeric elements that are not blank (-z switch in a batch file).
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file..
Create Bad Transaction Log	Creates a Bad Transaction log that tracks incoming transactions that cannot be processed.

Field	Description
Trading Partner Search Option	How the EC Gateway looks up Trade Partner data. The following are options for this field: • Group Sender – default – routing to mailboxes based on the department-level sender's identification • Group Receiver – routing to mailboxes based on the department-level receiver's identification • Group Sender and Receiver – routing to mailboxes based on the department-level sender and receiver's identification • Full Interchange – Sender – map selection and routing to mailboxes based on the company and department-level sender's identification • Full Interchange – Sender and Receiver – map selection and routing to mailboxes based on the company and department-level sender and receiver's identification • Full Interchange – Receiver - map selection and routing to mailboxes based on the company and department-level receiver's identification • Outer Interchange – Sender Only – map selection and routing to mailboxes based on the company-level sender's identification. • Outer Envelope – Receiver – map selection and routing to mailboxes based on the company-level receiver's identification • Outer Envelope – Sender/Receiver – map selection and routing to mailboxes based on the company-level identification for sender and receiver • Reverse – Outer Envelope – Sender/Receiver – compliance checking of outbound EDI using sending and receiving company-level identification for map selection • Reverse – Full Interchange – Sender/Receiver - compliance checking of outbound EDI using sending and receiving company and department-level identification for map selection • Reverse – Receiver Against Main – compliance checking of outbound EDI using company-level receiver's identification for map selection • Reverse – Outer Sender Against Override – compliance checking of outbound EDI using company-level sender's identification for map selection • Reverse – All Sender Against Override – compliance checking of outbound EDI using company-level and department-level sender's identification for map selection • Reverse – All Receiver Against Main – compliance checking of outbound EDI using company-level and department-level receiver's identification for map selection
Substitute Output Filename	Changes the name of the output file.

Field	Description
Substitute User File Directory	Changes the name and location of the user file directory.
Substitute Map and TP Directory	Changes the names and location of the map and the Trading Partner directory.
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory.
Start Processing at Byte Count	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory.
Start Processing at Byte Count	Begins processing the incoming file at a specific character (byte)..
End Processing at Byte Coun	Ends processing the incoming file at a specific character (byte).

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the parameters on the File Alias tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens..

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the parameters on the ODBC Alias tab:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

These are the parameters on the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

These are the parameters on the Memory I/O tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter.The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

The PutMessage command

The PutMessage command places a message on a queue for an application to pick up. This command supports the integration of EC Gateway with other electronic commerce applications. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Put Channel	Specifies the channel to which the message will be written. The queue should be Send only, or both Send and Receive.
Put Data	Specifies where the message is that will be written to the Put Channel. There are four choices available when clicking on the arrow icon beside the field: Message, FileName, Parameters, or Constant. Constant displays a window so that you can enter a value to be sent as a message to the queue.
Message Type	This is a user defined message type that is placed in the message header of the message being sent. It needs to be one word (no spaces).. There are two choices available: Parameters or Constant. Constant displays a window so that you can enter a value of message type.

Note The Message parameter applies to data in a memory buffer. The FileName parameter applies to data in disk files. Parameter applies to a string stored in the variable.

The PutMessageGetReply command

The PutMessageGetReply command sends a message to a message queue and waits for a reply. This command supports the integration of EC Gateway with other electronic commerce applications. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.

Field	Description
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Put Channel	Communications channel to which a message will be posted. Click the arrow icon and the Communications Channel window displays. Double click a channel to select it.
Put Data	This parameter specifies where the input message will be stored once it is read off the queue. There are four choices available, when clicking on the arrow icon beside the field: Message, FileName, Parameters, and Constant, displays a window so that you can enter a constant value string to be sent as a message to the queue.
Message Type (Optional)	A user-defined message type that is put in the message header of the message being sent. It needs to be one word (no spaces). It may be specified via the two choices available: Parameters or Constant. Constant displays a window so that you can enter a value of message type.
Get Channel	Communications channel from which the input message is read. Click the arrow icon and the Communications Channel window displays. Double click a channel to select it.
Get Data	Specifies where the input message will be placed for further processing. There are two choices available: Message or FileName.
Overwrite/Append	Specifies whether the input message will overwrite the previous message or be appended to it. There are two choices available: Overwrite and Append.
Message Type (Optional)	Destination for the user-defined message type found in the message header of the message being received. If the message type is expected, select a Parameter variable.
Timeout [ms]	Time period to wait for the reply. There are two choices available when clicking on the arrow icon beside the field: Count or Constant. Constant displays a window so that you can enter a numeric value of the time period.

Note The Message parameter applies to data in memory. The FileName parameter applies to data in disk files. Parameter applies to a string stored in the variable.

The RemoveMessage command

The RemoveMessage command removes all messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands. This command is intended to enhance robustness of the scripts by giving the user control over the actual removal of messages from the Input Channel until they have been completely processed and been passed on to the next step. Note that it is your responsibility to insert the RemoveMessage command after messages are processed successfully. Any messages not removed by command are automatically removed when the script terminates.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Remove Channel	Specifies the channel from which the received messages should be removed.

The Report command

The EC Gateway process management module supports run-time execution of any of the reports contained within the EC Gateway application. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Report Name	Name of the report to be executed. You can browse for a report by clicking in this field to display the Browse – Select Crystal Report window.
From Date	Beginning date for report execution, if required. You can define the beginning date by clicking on the arrow icon beside this field. The Fixed Date option displays the Select a Date window that allows the user to chose a month, day, and year. The Today – Days option displays two options: Count and Constant.

Field	Description
To Date	The ending date for report execution, if required. You can define the ending date by clicking on the arrow icon beside this field. The Fixed Date option displays the Select a Date window that allows the user to chose a month, day, and year. The Today – Days option displays two options: Count and Constant.
Destination	Destination for report output. You can define the destination by clicking in this field. The Disk File option displays the Destination Disk File window. Select a format and enter a disk file name. The E-Mail option displays the Destination e-Mail window. Select a format and enter an email address. The FAX option displays the Destination – FAX window. Select a format and enter a FAX telephone number.

The Resource command

You can select a resource from a list of resources by clicking on the arrow icon beside this field.

The EC Gateway has the capability to run multiple processes simultaneously. The Resource command inquires, locks, and releases resources for allocation to specific processes. A named window can be created. The Inquire action will return a status, and the Release action will remove it. The following parameters can be defined from this window

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Resource	The named window in question. You can select a Resource from a list of resources by clicking on the arrow icon beside this field.
Action	Action to be performed. You can select an action by clicking on the arrow icon beside the field. The choices include Create, Inquire, and Release.

To use the Resource command, follow these steps:

1 Choose a variable from Resource-1 to Resource-10.

2 Use the Resource Inquire command to determine if another process is locking the resource. If another process is locking the resource, the Inquire command will return a failure message in the LastStatus field. If there is not another process locking the resource, the Inquire command will return a success message in the LastStatus field.

3 Use the Resource Lock command to place a mutex lock using the alphanumeric string assigned to the Resource-N variable. This command waits indefinitely until the resource is free and can be locked.

4 Use the Resource Release command to release a lock previously set by the Resource Lock command.

Note Processes should not perform an Inquire after a successful lock. The Resource commands do not display any windows, so in order to test resource commands you must develop a process script using the resource commands, run the script from two different DOS windows, and observe the interaction of the two scripts

Setting Mutex Lock for file locking

Mutex stands for mutually exclusive. This means that a computer resource can be made available to one user at a time. It can best be explained by this simple example. Person A wants to run a process script and does not want the file to be accessed by anyone else during the run time of the script. The user therefore locks the file. Once the process script has completed running, the computer resource can be unlocked and then becomes available for others to access.

To lock resources on a file during parallel processing, follow these steps:

1 Assign a constant name to a resource variable (unique in the server as a Mutex).

2 Create the resource by using the Resource command and click on Action set to Create.

3 Before processing the file, run the Resource command with Action set to Require.

4 After processing the file, run the Resource command with Action set to Release.

In this setting, if two processes try to access a file concurrently, one will wait until the other finishes.

The RestoreMessage command

This command restores all the messages received in this script from any queue since the first GetMessage command, or from the previous RemoveMessage or RestoreMessage commands such that subsequent GetMessage commands will be able to reread the same messages. This command is intended to enhance robustness of the scripts by giving the user control over restoring messages to the Input Channel if they have not been completely processed successfully. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Restore Channel	Specifies the channel from which the received messages should be restored.

The RestoreProcessVariables command

The RestoreProcessVariables command restores all the process variable values from a file. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Restore from File	Identify the file containing the variable values. There are three choices for this parameter: FileName, Parameters, or the Constant option displays the Browse – Select a File window

The Return command

Choosing the Return command forces termination of the process execution. Control passes back to the calling procedure or the user, based upon how the returning process was initiated.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).

The RouteEDI command

The RouteEDI command calls the ECMap engine and executes the inbound map corresponding to the communications channel and system you are currently using. (This command calls to the Run Map window.) The following parameters can be accessed from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command line switches to be passed to the ECMap engine. You can define your switches by clicking on the arrow icon beside this field. This displays the Route EDI window with the Required tab active.
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map run. Choose a Count variable name for this result. The values are: • 0 – no errors • 1 – errors but no transaction skipped • 2 – transactions skipped with ## errors • 3 – user Abort Rule and ## errors • 4 – user Stop Rule and ## errors • 5 – fatal error stop and ## errors

These are the parameters available from the Required tab:

Field	Description
Inbound EDI File Type	Clicking on the arrow icon presents to the user several choices for File Type. The three choices are input FileName (default), MailBox, and Variable. The Mailbox option results in the system looking in the input folder of the mailbox and running the file through the map. The Variable option is a variable representing a filename..
Inbound EDI File	You will be prompted at the Browse with a choice based on your response to the Inbound EDI File Type above.
Map Directory	The full directory which contains the generated map. You can search for the directory path by clicking the Browse button. By default, the text field is populated with C:\ECEDIGS\Map. Clicking on the Browse button will take the user to the Select a Directory… window. The default drive is C: and the default folder is ECEDIGS\Map.
Log Type	The type of log you want to generate. Clicking the arrow button will present to the user four options. The choices include ODBC Log, Text Log, No Log, and Expanded Text Log.
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files, if you are not using an ODBC database to store your trading partner files. Clicking the Browse button will open the Select a Directory… window.
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant or Parameter. Constant displays the ODBC Data Source Name window and Parameter presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking the Browse button will open the ODBC Data Source Name window.

These are the parameters available from the Option 1 tab:

Field	Description
All Trading Partner Default	This uses the ALL default trading partner and any trade agreements associated with it for this map run.
Ignore Trading Partner MailBox	When this is checked, outbound EDI files are not placed in the directory specified by the trading partner record in the Trading Partner database. If this is set and a tradstat mailbox does not exist or Ignore tradstat is set, the output is in the original outbound X.12 file from the Required tab.
ST03 (X.12)	Enables the use of the Implementation Convention Reference. This is an optional element of the X.12 Standard beginning with version 4030.
Overwrite Output User Files	When this is checked, the output overwrites any existing user files. If this is not checked, the output is appended to any existing user files.
Ignore Tradstat MailBox	This overrides the Trade Agreement (Status) destination field..

Field	Description
Validate Control Number Sequence	Tells ECRTP to check the received control numbers. This check confirms that the numbers have been incremented by one from the previous number received.
Trace Type	Short Trace, Long Trace, or No Trace. Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run.
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation.
Run Inbound Map	Enter the file name of the map here without the .map extension to make the inbound program automatically run the map without doing trade partner lookups to find a different map.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking Browse will take the user to the Company Identification window. This window displays the information for Record Number, Company Name, and Trade Partner Group..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of the maps.

These are the parameters available from the Option 2 tab:

Field	Description
Zero Fill EDI Non-Null Numbers	Zero-fill incoming numeric elements that are not blank (-z switch in a batch file).
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file..
Create Bad Transaction Log	Creates a Bad Transaction log that tracks incoming transactions that cannot be processed.

Field	Description
Trading Partner Search Option	How the EC Gateway looks up Trade Partner data. The following are options for this field: • Group Sender – default – routing to mailboxes based on the department-level sender's identification • Group Receiver – routing to mailboxes based on the department-level receiver's identification • Group Sender and Receiver – routing to mailboxes based on the department-level sender and receiver's identification • Full Interchange – Sender – map selection and routing to mailboxes based on the company and department-level sender's identification • Full Interchange – Sender and Receiver – map selection and routing to mailboxes based on the company and department-level sender and receiver's identification • Full Interchange – Receiver - map selection and routing to mailboxes based on the company and department-level receiver's identification • Outer Interchange – Sender Only – map selection and routing to mailboxes based on the company-level sender's identification. • Outer Envelope – Receiver – map selection and routing to mailboxes based on the company-level receiver's identification • Outer Envelope – Sender/Receiver – map selection and routing to mailboxes based on the company-level identification for sender and receiver • Reverse – Outer Envelope – Sender/Receiver – compliance checking of outbound EDI using sending and receiving company-level identification for map selection • Reverse – Full Interchange – Sender/Receiver - compliance checking of outbound EDI using sending and receiving company and department-level identification for map selection • Reverse – Receiver Against Main – compliance checking of outbound EDI using company-level receiver's identification for map selection • Reverse – Outer Sender Against Override – compliance checking of outbound EDI using company-level sender's identification for map selection • Reverse – All Sender Against Override – compliance checking of outbound EDI using company-level and department-level sender's identification for map selection • Reverse – All Receiver Against Main – compliance checking of outbound EDI using company-level and department-level receiver's identification for map selection
Substitute Output Filename	Changes the name of the output file. This overrides the name of the output application file.
Substitute User File Directory	Changes the name of the output file.

Field	Description
Substitute Map and TP Directory	Changes the name and location of the user file directory.
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory
Start Processing at Byte Count	Begins processing the incoming file at a specific character (byte).
End Processing at Byte Coun	Ends processing the incoming file at a specific character (byte).

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the parameters available from the File Alias tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens.

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the parameters available from the ODBC Alias tab:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.

Field	Description
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

These are the options available from the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

These are the options available from the Memory I/O tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter. The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

The Run command

The Run command allows users to call executable programs from within the EC Gateway application, with no waiting. You can set both command line switches and a starting directory. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Executable Name	Name of the file to be executed, including full path information. You can specify a FileName variable or you can browse for the name of an executable file to run by clicking on the Constant option. The Browse – Select an Executable window opens.
Working Directory	Default directory for executable program operation. You can select a Parameter variable or an appropriate directory by clicking on the Constant option. The Select a Directory… window opens.
Arguments	Command line switches to be passed to the executable program, if required. Use the Parameters option or the Constant option to display the Constant Value window.

The RunAdapter command

The RunAdapter command calls the specified NNSYadapter. The NNSYadapter reads the configuration file that you specify on this window. The following parameters can be accessed from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Path for Adapter	Location of the NNSYAdapterXX.exe where XX is version number. You can browse for the directory by clicking on the arrow icon. The Select a Directory window opens.
Version	Choose the ADK version: 3.1, 3.2, 3.3, or 3.8.
Configuration file	Location and name of the adapter configuration file. For more information about adapter configuration files, see the ECRTP Reference Guide.
Trace	Choices are ON or OFF.

The RunMapIn command

The RunMapIn command calls the ECRTP engine and executes the inbound map corresponding to the communications channel and system you are currently using. The following parameters can be accessed from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command line switches to be passed to the ECMap engine. You can define your switches by clicking on the arrow icon beside this field. This displays the Run Inbound Map window with the Required tab active. If you are obtaining a message from a queue, for the Inbound EDI File Type field, select Variable. Then select Messages or FileName for the Inbound EDI File field.
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map runs. Choose a Count variable name for this result. The values are: • 0 – No errors • 1 – Errors but no transaction skipped • 2 – Transactions skipped with ## errors • 3 – User Abort Rule and ## errors • 4 – User Stop Rule and ## errors • 5 – Fatal error stop and ## errors

These are the options that are available from the Required tab:

Field	Description
Inbound EDI File Type	Clicking on the arrow icon will present to the user several choices for File Type. The three choices are input FileName (default), MailBox, and Variable. The Mailbox option results in the system looking in the input folder of the mailbox and running the file through the map. The Variable option is a variable representing a filename..
Inbound EDI File	The Browse button displays different options based upon your selection for Inbound EDI File Type. This is the location of the file containing the EDI data to be translated by the map.
Map Directory	The full directory which contains the generated map. You can search for the directory path by clicking the Browse button. By default, the text field is populated with C:\ECEDIGS\Map. Clicking on the Browse button will take the user to the Select a Directory… window. The default drive is C: and the default folder is ECEDIGS\Map.

Field	Description
Log Type	The type of log you want to generate. Clicking the arrow button will present to the user four options. The choices include ODBC Log, Text Log, No Log, and Expanded Text Log.
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files, if you are not using an ODBC database to store your trading partner files. Clicking the Browse button will open the Select a Directory… window.
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant or Parameter. Constant displays the ODBC Data Source Name window and Parameter presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking the Browse button will open the ODBC Data Source Name window.

These are the options that are available on the Option 1 tab:

Field	Description
All Trading Partner Default	This option uses the ALL trading partner and trade agreements associated with it for map execution..
Ignore Trading Partner MailBox	Leave this check box unchecked if you are not doing routing..
ST03 (X.12)	Enables the use of the Implementation Convention Reference. This is an optional element of the X.12 Standard beginning with version 4030.
Overwrite Output User Files	When this is checked, the output overwrites any existing user files. If this is not checked, the output is appended to any existing user files. Usually do not check this check box.
Ignore Tradestat MailBox	This check box is usually left unchecked if you are not doing routing.
Validate Control Number Sequence	Tells ECRTP to check the received control numbers. This check confirms that the numbers have been incremented by one from the previous number received..
Trace Type	Short Trace, Long Trace, or No Trace.Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run.
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation. This field is grayed out unless the Ignore Trading Partner Mailbox check box is not checked.

Field	Description
Run Inbound Map	Enter the file name of the map here without the .map extension. This makes the inbound program automatically run the map without doing trade partner lookups to find a different map.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking Browse will take the user to the Company Identification window. This window displays the information for Record Number, Company Name, and Trade Partner Group..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of the maps.

These are the options that are available from the Option 2 tab:

Field	Description
Zero Fill EDI Non-Null Numbers	Zero-fill incoming numeric elements that are not blank (-z switch in a batch file).
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file.
Create Bad Transaction Log	Creates a Bad Transaction log that tracks incoming transactions that cannot be processed..

Field	Description
Trading Partner Search Option	How the EC Gateway looks up Trade Partner data. The following are options for this field: • Group Sender – default – routing to mailboxes based on the department-level sender's identification • Group Receiver – routing to mailboxes based on the department-level receiver's identification • Group Sender and Receiver – routing to mailboxes based on the department-level sender and receiver's identification • Full Interchange – Sender – map selection and routing to mailboxes based on the company and department-level sender's identification • Full Interchange – Receiver - map selection and routing to mailboxes based on the company and department-level receiver's identification • Full Interchange – Sender and Receiver – map selection and routing to mailboxes based on the company and department-level sender and receiver's identification • Outer Interchange – Sender Only – map selection and routing to mailboxes based on the company-level sender's identification. • Outer Envelope – Receiver – map selection and routing to mailboxes based on the company-level receiver's identification • Outer Envelope – Sender/Receiver – map selection and routing to mailboxes based on the company-level identification for sender and receiver • Reverse – Outer Envelope – Sender/Receiver – compliance checking of outbound EDI using sending and receiving company-level identification for map selection • Reverse – Full Interchange – Sender/Receiver - compliance checking of outbound EDI using sending and receiving company and department-level identification for map selection • Reverse – Receiver Against Main – compliance checking of outbound EDI using company-level receiver's identification for map selection • Reverse – Outer Sender Against Override – compliance checking of outbound EDI using company-level sender's identification for map selection • Reverse – All Sender Against Override – compliance checking of outbound EDI using company-level and department-level sender's identification for map selectionReverse – All Receiver Against Main – compliance checking of outbound EDI using company-level and department-level receiver's identification for map selection.
Substitute Output Filename	Changes the name of the output file..
Substitute User File Directory	Changes the name and location of the user file directory.

Field	Description
Substitute Map and TP Directory	Changes the names and location of the map and the Trading Partner directory.
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory.
Start Processing at Byte Count	Begins processing the incoming file at a specific character (byte).
End Processing at Byte Count	Ends processing the incoming file at a specific character (byte).

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the options that are avaialable from the File Alias tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens..

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the options that are available from the ODBC Alias tab:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.

Field	Description
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

These are the parameters that are available from the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

These are the parameters that are available from the Memory I/O tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter. The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

The RunMapOut command

The RunMapOut command calls the ECMap engine and executes the outbound map corresponding to the communications channel and system you are currently using. (This command calls the Run Map window.) From this window, the following parameters can be accessed:

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Switches	Command line switches to be passed to the ECMap engine. You can define your switches by clicking on the arrow icon beside this field. This displays the Run Outbound Map window with the Required tab active.
Return Code	A numerical code with a value of 0 to 5 reporting the result of the map runs. Choose a Count variable name for this result. The values are: • 0 – no errors • 1 – errors but no transaction skipped • 2 – transactions skipped with ## errors • 3 – user Abort Rule and ## errors • 4 – user Stop Rule and ## errors • 5 – fatal error stop and ## errors

These are the parameters that are available from the Required tab:

Field	Description
Map Name	Name of the map to be processed.
Transaction Name	Displays the transaction set number for the current map..
Code	Refers to the type of EDI being processed. An example of this would be Health Care claim = HC. A complete list of codes can be found in the standards manual.
Ouput EDI File	If ignoring the Trade Partner mailbox, enter the full directory, file name and file extension for the file that will contain the EDI data, otherwise, this is the Trade Partner mailbox directory.
Map Directory	The full directory path containing the generated map (.map file)..
Log Type	The type of log you want to generate. Clicking the arrow button will present to the user four options. The choices include ODBC Log, Text Log, No Log, and Expanded Text Log.
Non ODBC Trading Partner	This option is left blank by default. This means the user will be using an ODBC Trading Partner and will access the TP, TRADSTAT, and WIXSET tables. When checked, the user will be using a non-ODBC Trading Partner and will be using the tables customer.dbf and tradstat.dbf, as well as the flat-file wixset.dat.
Trading Partner Directory	The directory that contains the Trade Partner files, if you are not using an ODBC database to store your trading partner files. Clicking the Browse button will open the Select a Directory… window.

Field	Description
Trading Partner Connection	Clicking ODBC Type gives the user the choice of Constant or Parameter. Constant displays the ODBC Data Source Name window and Parameter presents a list of standardized parameter names. These names are the current process parameter variables.
Log Connection	Clicking the Browse button will open the ODBC Data Source Name window.

These are the parameters that are available from the Option 1 tab:

Field	Description
No Trading Partner	Used for running an Any-to-Any map without a Trade Partner.
All Trading Partner Default	This option uses the ALL trading partner and trade agreements associated with it for map execution..
Ignore Trading Partner MailBox	When this is checked, outbound EDI files are placed in the directory specified by the Output EDI File field on the Required tab. .
No EDI File	Used for running an Any-to-Any map.
Update All Trading Partner Record	When getting control numbers during concurrent runs. Only updates the ALL Trading Partner control number.
Ignore Tradstat MailBox	This overrides the Trade Status destination field.
Trace Type	Short Trace, Long Trace, or No Trace.Long Trace provides a complete map trace. This is recommended for development. Once a mapping process has migrated to production, Short Trace should be selected. Short Trace only writes errors into the trace file. No Trace provides no diagnostic information from the map run.
Route EDI Type	Options include No Routing, Route In, Route Out, Route Good, Route Bad, and Route Other. Routing allows you to pass the EDI transactions directly into the Trade Partner mailboxes without performing actual translation. This field is grayed out unless the Ignore Trading Partner Mailbox check box is not checked.
Company Identification	Enter a record number or browse the company ID table to select the record number for the company ID record for this run. Clicking Browse will take the user to the Company Identification window. This window displays the information for Record Number, Company Name, and Trade Partner Group..
Max Memory Cross Reference	The maximum allowable cross-reference table entries for memory lookups. If tables exceed the size of this parameter, then the table lookups will go to disk. The default size is 10,000 entries.
Number of Maps in Memory	Enter the number of maps in memory. The default value is 0. There is no fixed upper limit to the number of the maps.

These are the options that are available from the Option 2 tab:

Field	Description
No UNG, UNE Segments	Used in EDIFACT transactions.
Map Numeric Zero	Zero-fill outgoing numeric fields that are not blank (-z switch in batch file).

Field	Description
Output the Elapsed Time	Outputs the elapsed time of the run into the short trace file.
Split Multiple Files Once	If you select this check box, whole physical files will be split by record type into separate logical files once. If it is not selected, the files will be split each time a read is encountered.
Substitute Company Directory	Used to change the directory location of the company information when not an ODBC Trading Partner. This allows the user to override the input file that the system is looking for.
Substiute Input Filename	Used to change the name of the input file when only one input file is defined. This allows the user to override the input file that the system is looking for.
Substitute User File Directory	Used to change the location of the files when multiple files are used. This overrides the directory where the system is looking for inputs..
Substitute Map and TP Directory	Used to set a single location for both the Trade Partner files and the map files.
Temporary Files Directory	This is the directory where temporary files are placed by ECRTP. The default is the root directory of the drive where ECRTP is located. The user should have file write access to the root directory.
ST03 (X.12)	This is an alphanumeric field for the Implementation Convention Reference. The user may enter up to 35 characters. This is an optional element of the X.12 Standard beginning with version 4030

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map.

These are the options that are available from the File Alias tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Clicking the Add button will cause a window to appear. The user can then select the desired file. The Edit and Delete buttons are available once a source has been chosen. If the Edit button is chosen, a window appears with the field already populated. Clicking the Delete button will delete the highlighted file. The arrow button provides three options. If the Constant option is chosen, a window appears allowing the choice of a file. If the FileName option is chosen, a list of standardized filenames displays. If the Parameter option is chosen, a list of standardized parameter names displays. These three options define the entry placed in the destination panel.
Destination (Files during Run Time)	File name and location of the file that was called from the map. An Edit button is available if a source file has been added to the destination panel. When the Edit button is clicked, a window opens..

The alias allows the user to change directories and file names. This allows the user to adapt the map between machines and different platforms without recompiling the map

These are the options that are available from the ODBC Alias tab:

Field	Description
Source (ODBC Connection Strings inside Map)	Connection string that is called from the map. Clicking the Add button will cause a window to open. Enter a string in the text box. If the Edit button is chosen, a window displays with the field already populated. Click the Delete button to delete the highlighted string. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel.
Destination (ODBC Connection Strings during Run Time)	Destination string that was called from the map. An Edit button is available if a destination string has been added to the destination panel. When the Edit button is clicked, a window opens. The field is populated with a current string from the destination panel..

These are the options that are available from the Parameters tab:

Field	Description
Parameter Names	Select the name of the parameter that is to be passed to ECRTP. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a string. If the Parameter option is chosen, a list of standardized parameter names displays. These two options define the entry placed in the destination panel..
Parameter Values Passed at Run Time	The value of the parameter that is to be passed to ECRTP. An Edit button is available if the destination panel has been populated with one or more strings. When the Edit button is clicked, a window opens. The user can enter a new value for the parameter. The Delete button can be used to delete a selected parameter.

These are the options that are available from the Memory I/O tab:

Field	Description
Source (Files inside Map)	File name and location that is called from the map. Use the Add button to select an option: Constant, FileName, or Parameter. The Edit button offers the same options for changing a highlighted file. The Delete button is used to remove a highlighted file. The arrow button provides two options. If the Constant option is chosen, a window appears allowing entry of a name of the shared memory during run time. These two options define the entry placed in the destination panel. Each entry in the destination panel corresponds to an entry in the source panel..
Destination (Names for Shared Memory at Run Time)	The name of the shared memory at run time. An Edit button is available if the destination panel has been populated with a string. When the Edit button is clicked, a window opens. The user can enter a new string value for the parameter. The Edit button is not available for parameter names.

The RunThread command

Use the RunThread command to access the value of a specified process while your main script is running. With this command, you can run a subscript concurrently with the main script. Running the subscript concurrently with the main script will not affect the processing of the main script or other subscripts created by this command. (Note that the subscript does not have a name.)

An example of using the RunThread command is in the pfsAsync host mode. When multiple files are downloaded, currently only one file at one time is processed by wsproces. With RunThread, you can process more than one file at a time.

You have the option to decide which process values need to pass into the subscript. For Parameter, Message, Filename, or Resource, you can select to pass all, none, or some of the values. For example, a menu with three choices (All, None, Selection) is provided for the Parameter variable. If you select All (represented by 1), this means that all 20 parameters will pass into the subscript. If you select None (represented by 0), this means none of values need to pass into the subscript. If you select Selection, a small window will pop up for you to select Parameter-1 to Parameter-20 and a string of 20 “1”s or “0”s will represent the selection.

The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Process	Displays the Select a Process window where you can select the process that has the value you want to retrieve.
Parameter Variable	Select one, all or none of the Parameters for the specified process to pass to the subscript. (Also see the second paragraph on the previous page.)
Message Variable	Select one, all or none of the Messages for the specified process to pass to the subscript. (Also see the second paragraph on the previous page.)
FileName Variable	Select one, all, or none of the FileNames for the specified process to pass to the subscript. (Also see the second paragraph on the previous page.)
Resource Variable	Select one, all, or none of the Resources for the specified process to pass to the subscript. (Also see the second paragraph on the previous page.)

The RunWait command

The RunWait command allows users to call executable programs from within EC Gateway, and wait until the execution is finished. You can set both command line switches and a starting directory. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Executable Name	Name of the file to be executed, including full path information as a FileName variable. You can browse for the executable file to run by clicking the Constant option. The Browse – Select an Executable window opens.
Working Directory	Default directory for executable program operation stored in the Parameter variable or the Constant option.
Arguments	Command line switches to be passed to the executable program, if required. Select either Parameter or Constant.
Exit Code	Select a Count variable.

The SaveMemory command

The SaveMemory command (formerly *SaveSharedMemory* in Release 2.8.3) enables EC Gateway to save the contents of the shared memory to a file. This command is backwards compatible with *SaveSharedMemory*.

With this command, you can append or overwrite the destination file:

- that is specified in a Filename variable with the buffer contents of a Message variable, and to indicate that the buffer should be released.
- that is specified as a string in the script file with the buffer contents in a Message variables to indicate that the buffer should be released.
- that is specified in a Filename variable with the shared memory's buffer contents specified in a Parameter variable to indicate that the shared memory and the buffer are to be released.
- that is specified in a Filename variable with the shared memory's buffer contents specified by a string in the script file, and to indicate that the shared memory and the buffer are to be released.

- that is specified as a string in the script file with the shared memory's buffer contents specified by a string in the script file, and to indicate that the shared memory, and the buffer are to be released.

You can also generate a script file containing the old save shared memory command, and run the script file against the new wsproces to ensure backwards capability. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Save to File	Specify the destination file that the shared memory will be saved to. Select from the options: FileName or Constant. Constant allows you to select a file name string.
Memory	Specify the name of the Shared Memory or Message variable to be saved. From Shared Memory, select from the options: Parameters or Constant
Overwrite/Append	Overwrite the contents of the destination file or Append to the contents of the destination file.
Release Memory	Select *Yes* or *No* to release memory from the buffer.

The SaveProcessVariables command

The SaveProcessVariables command allows the user to save all the existing process variable values to a file. This includes all of the 20 process parameter values, 10 file values, and 10 counter values. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Save to File	Identify the file to receive the variables. There are three choices for this parameter: FileName, Parameters, and Constant option displays the Browse – Select a File window.

The SendFile command

The SendFile command opens a communications channel and transmits a file to be processed by EC Gateway. This command calls an executable script associated with a communications channel. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Comm Channel	Unique name of the Comm Channel to be opened. You can select a communications channel from a list of available channels by clicking on the arrow icon beside this field. This action displays the Communications Channel window. Double click one of the displayed channels.

The StartLocalProcessServer command

The StartLocalProcessServer command starts the socket server.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Port Numbers	Enter the port number.

The StopProcessServer command

The StopProcessServer command allows the user to stop a process from being run on a host machine.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.

Field	Description
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Host Address	The IP address of the host machine on which the process is being run.
Port Numbers	Enter the port number or numbers.

The StringCaseConvert command

The StringCaseConvert command converts all of the characters in an input string into upper or lower case. The parameters described in the table below can be defined from the process command window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	The variable that receives the converted string. This can be a FileName variable or Parameter variable.
Source	The variable that contains the string to be converted. This can be a FileName variable or a Parameter variable.
Conversion	The conversion to be performed – to upper or lower case. All of the characters in the input string are converted.

The StringConcatenate command

EC Gateway allows users to concatenate strings while processing EDI transactions. The StringConcatenate command permits the concatenation of up to four strings at a time. The following parameters can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.

Field	Description
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	Unique name of the variable to contain the resultant concatenation. You can select a Parameter variable.
String 1...4	The string variables or values to be concatenated. Select the Parameter option or the Constant option to display the Constant Value window.

The StringFind command

The StringFind command searches for a specified string within an input string. The command reports the position where the specified string is found. This search is case sensitive. The parameters described in the table below can be defined from the process command window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Position	Position of the Nth occurrence of the string. This position is the location of the first character of the substring starting at zero. A value of –1 indicates that the desired occurrence of the string was not found. This variable is a Count variable.
String	The variable that contains the input string. This variable can be a FileName or Parameter.
Find	The string that is to be found within the input string. This variable is a constant value that you input, such as a FileName or a Parameter.
Occurrence	The number of the occurrence that is to be found. This value is placed in a Count variable or you can specify a Constant value for this.

The StringLength command

The StringLength command returns the length of a specified string. This length is expressed in the number of characters and its value is output to a variable. The parameters described in the table below can be defined from the process command window. Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window. The Disable Command check box allows the individual line in a process to be enabled or disabled for testing and debugging.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Length	A Count variable containing the output number of characters in the input string.
String	A FileName or Parameter variable containing the input string to be measured.

The StringReplace command

The StringReplace command finds and replaces a specified string within the input string. The parameters described in the table below can be defined from the process command window. Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window. The Disable Command check box allows the individual line in a process to be enabled or disabled for testing and debugging.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	The FileName or Parameter variable that receives the modified string.
Source	The FileName or Parameter variable that contains the string to be modified.
Replace	The FileName or Parameter variable that contains the section of the input string that is to be replaced.

Field	Description
With	The FileName or Parameter variable that contains the replacement string.

The StringTrim command

The StringTrim command removes any leading or trailing blank characters. The parameters described in the table below can be defined from the process command window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination	The output is placed in the FileName or Parameter variable.
Source	The input string to be trimmed is received in this variable. This variable can be a FileName or Parameter.

The Substring command

The Substring command allows the user to parse a string into a smaller string.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Destination String	The user can specify the Parameter of the substring.
Source String	The user can specify the location of the Source String as a FileName or Parameter.
Substring Start	There are three choices available upon clicking on the arrow icon beside the field: Count, Delimiter…. opens the Delimiter Selection window. If you select a delimiter, a second window displays prompting you for the start number for the delimiter. The third choice is Constant…. Clicking on this option will open the Constant Start Position window. Use this window to enter the start position of the substring.

Field	Description
Substring Length	The user determines the length of the substring desired. There are three choices available upon clicking on the arrow icon beside the field: Count, and Delimiter…. that opens the Delimiter Selection window. If you select a delimiter, a second window displays prompting you for the length of the delimiter. The third choice is Constant…. Clicking on this option will open the Constant length window.

The SystemCommand command

The SystemCommand command enables users to send commands directly to the shell process that is controlling EC Gateway. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Command Line	System command to be executed, including path information and appropriate command line switches.

The TimeDelay command

The TimeDelay command inserts a delay into process execution. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
Seconds	Number of seconds to suspend process execution.

The TraceOnOff command

The TraceOnOff command writes a tracked line to an ASCII file for each command in the script. The ASCII file name (tr <run id>.dat) includes the run number so that each file is unique. The TraceOnOff command also enables or disables verbose reporting of command execution to the EC Gateway log file. When On is selected all commands are written to the log file. The following parameter can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
On/Off	Desired operational state of the verbose log tracing function. You can select ON or OFF from the menu displayed after clicking on the arrow icon beside this field.

The WhileDo command

The Do command enables users to embed processes within other processes. Similar to the DoWhile command, the WhileDo command extends the capabilities of the Do command, enabling users to specify conditional running of processes. Control of the process is handed off to the nested process, and if the condition is met, it is invoked via the WhileDo command. Where the DoWhile command executes a process, then tests for the condition, the WhileDo command always tests for the condition prior to executing the process. The parameters described below can be defined from this window.

Field	Description
Label	Specifies the unique label of this process command. This label allows other commands to branch to this command. The label that you type here appears in the Label column on the EC Gateway Process Window.
Disable command	Disabling the command will allow temporary modification of the process statements. This allows for testing of the statements for error-free robustness. The command that has been disabled will not show in the script file (.pfs file).
While Left	Operand number 1 within execution condition. You can define it by clicking on the arrow icon beside this field. There are four variable choices for this parameter. Clicking on the first choice, LastStatus will populate the field with this option. Clicking on the second choice, FileSize will populate the field with this option. Or you can click on Parameters or Count .

Field	Description
Operator	A mathematical operation to be performed between the two conditional operators. You can select an operation to be performed by clicking on the arrow icon beside this field. The choices include some or all of the following depending on your choice for the While Left parameter: • EQ (equals) • NE (not equal to) • LT (less than) • GT (greater than) • LE (less than or equal to) • GE (greater than or equal to)
Right	Value to be assigned to a variable. You can view and select from different variables by clicking on the arrow icon beside this field. A set of options displays depending on your choice in the While Left field: Successful, Failed, Parameters, Constant, and Count.
Do Process	Unique name of the Process to be embedded. You can select a process from a list of processes by clicking on the arrow icon beside this field. The Select a Process window opens. Double click a listed process.

CHAPTER 6

Scheduling

This chapter describes how to schedule processes in EC Gateway.

The Scheduler application provides functionality to run unattended jobs. It also allows automatic rescheduling, remote access, conditional triggers, and Dynamic Data Exchange (DDE) commands. You can use Scheduler to launch processes or applications such as communications modules, file uploads, and file downloads.

This Scheduler capability is important for electronic commerce because most of the transactions are complex interactions that are conducted automatically in off-hours communications sessions.

The Scheduler consists of two executables:

- autotask.exe – scheduling system
- scheduler.exe – user interface

The Scheduler window

To access this module, click the Scheduler icon. The Scheduler window displays.

From this window, you can create or edit scheduled tasks, add actions to tasks or delete actions from tasks, manually launch tasks, and set system options to automatically launch scheduled tasks. Each task is a sequence of actions that the Scheduler can carry out automatically.

This window lists each currently defined task.

- The Description column presents the name and description of each task.
- The Frequency column presents the configured frequency for executing the task.
- The Next Scheduled column presents the time scheduled for the task.
- The Status column specifies whether the task is enabled or disabled.

Scheduler menus

The Scheduler includes these menus:

- File
- Scheduler
- Task
- View
- Help

File menu

The File menu presents options for managing files and exiting the Scheduler.

Menu item	Description
Open LPD File	Load a selected old Scheduler format (LPD) file and do the following actions: • Converts the file into tasks in the new Scheduler format. • Displays the tasks. • Writes the directory of the LPD file into the file named $taskdir.dat. • Updates the task list in the Scheduler engine. • Stops the Scheduler engine. **Note** When a user changes a task, the task will be saved to the directory in $taskdir.dat. Start the Scheduler engine to run tasks. Set Workdays and Holidays from the Scheduler Properties window.
Save Tasks	Save these tasks into the directory where the LPD file is located.
Save Tasks to	Save these tasks into a directory selected by the user.
Load Tasks from	Load tasks from a selected directory and do the following actions: • Update the display. • Update the task list. • Update the directory in $taskdir.dat • Start the Scheduler engine (if it is not operating).
Exit	Exit the Scheduler application.

Note The default task directory is the subdirectory “tasks” of the directory where autotask.exe is located. If the current task directory is this default directory and any task file in the directory is changed, Scheduler will reload the tasks to update the changes. If the current task directory is not the default directory, the file changes will not impact the display and the schedule.

Scheduler menu

The Scheduler menu presents starting, and stopping.

Menu item	Description
Start Scheduler Service	Start the Scheduler. This option is available if the Scheduler is stopped. Refer to the Status bar at the bottom of the window for this information.
Stop Scheduler Service	Stop the Scheduler. This option is available if the Scheduler is running. Refer to the Status bar at the bottom of the window for this information.

Menu item	Description
Cancel Startup Delay	Override the startup delay that has been configured into the Scheduler. This delay allows the user to block the execution of individual tasks while the Scheduler is starting up.
Options	Displays the Scheduler Properties window that establishes parameters for the Scheduler itself. This window is described in detail later in this chapter.
Exit	Exit the Scheduler application.

Task menu

The Task menu allows the user to control tasks and to add, modify, and delete tasks. Each task is a sequence of actions that the Scheduler can automatically carry out.

Menu item	Description
Add	Add a new task to the list of tasks.
Edit	Edit an existing task on the list of tasks.
Copy	Copy an existing task. **Note** This option is used to create a new task that is a modification of an existing task
Delete	Delete a highlighted task..
Enable Task	Enable the highlighted task so that the Scheduler can run it. Alternatively, disable an enabled task. This option toggles the task between enabled and disabled.
Information	Highlight a task and click the Information option. The Information window displays. This window presents the scheduled times and frequency for the task.
Set Task Defaults	Displays the Default Task window for the selected task. This window is the same as the Add Task and Edit Task windows.
Run Task Now	Run the task now ignoring whatever was scheduled. This option runs the task from the scheduling engine.
Reschedule	Schedules the task to run at the current date and time..
Reset	Reset

View menu

The View menu determines how information is presented on the Administrator window.

Menu item	Description
Tool Bar	Toggle to display or suppress the Tool Bar.
Status Bar	Toggle to display or suppress the Status Bar at the bottom of the Administrator window.
Sort by Description	Sort the displayed tasks by their descriptions.
Sort by Frequency	Sort the displayed tasks by their frequency.
Sort by Schedule	Sort the listed tasks by their next scheduled execution..
View Log File	Display a file of logged events..
View Error Log File	Display a file of errors..

Adding a new task

To add a new task to the scheduler, follow these steps:

1 Click the Scheduler icon.

2 The Scheduler Administrator window displays.

3 Pull down the Task menu.

4 Select the Add option.

5 The Add Task window displays with the Task tab active.

6 Enter a name for the new task in the Name entry box.

7 Click the Add button.

8 The Select Command Type window displays.

9 On the left panel, select a category for the first command to be entered in the new task.

10 On the right panel, select an available command.

Note Each command specifies an action.

11 Click the Next button at the bottom of the Select Command Type window.

12 For some commands, an additional window displays. Fill in the needed information and click the OK button.

Note Each of these windows is described later in this chapter.

13 The command is displayed in the Commands panel of the Add Task window.

Note You can optionally test an individual listed command by highlighting it and clicking the Test Line button.

14 Repeat steps 7 through 12 to add additional commands to the new task.

Note Most practical tasks require several commands.

15 Click the Schedule tab on the Add Task window.

16 Select a frequency for your event from the Frequency pull down list.

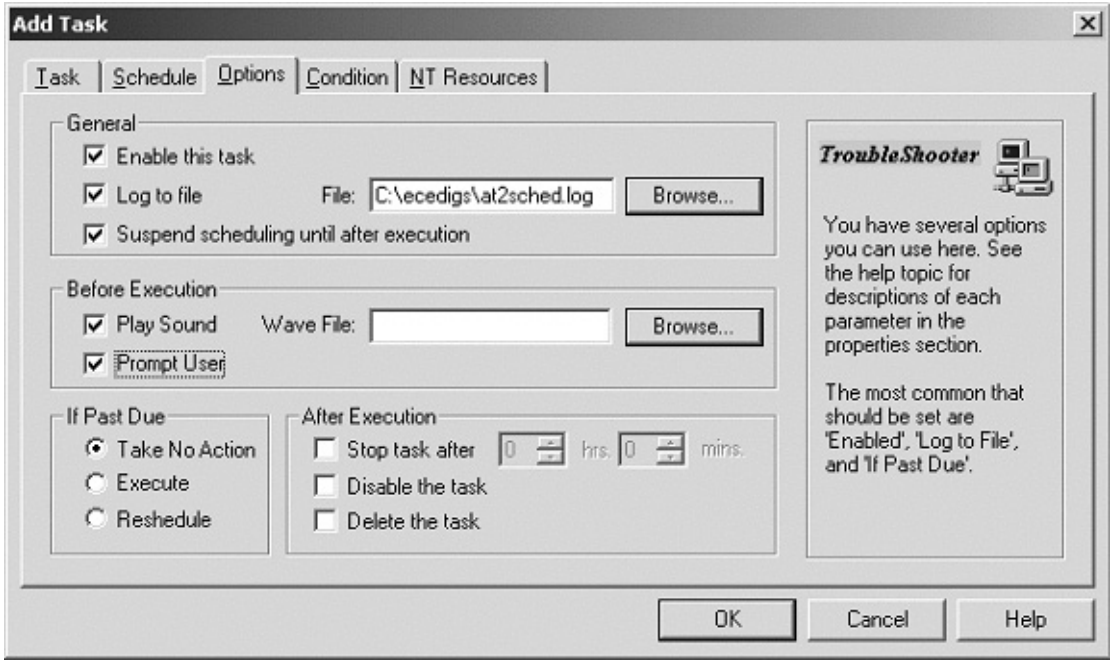
- One time
- Daily
- Weekly
- Monthly
- Holidays
- On Condition

Note The contents of the Properties panel changes based on this choice.

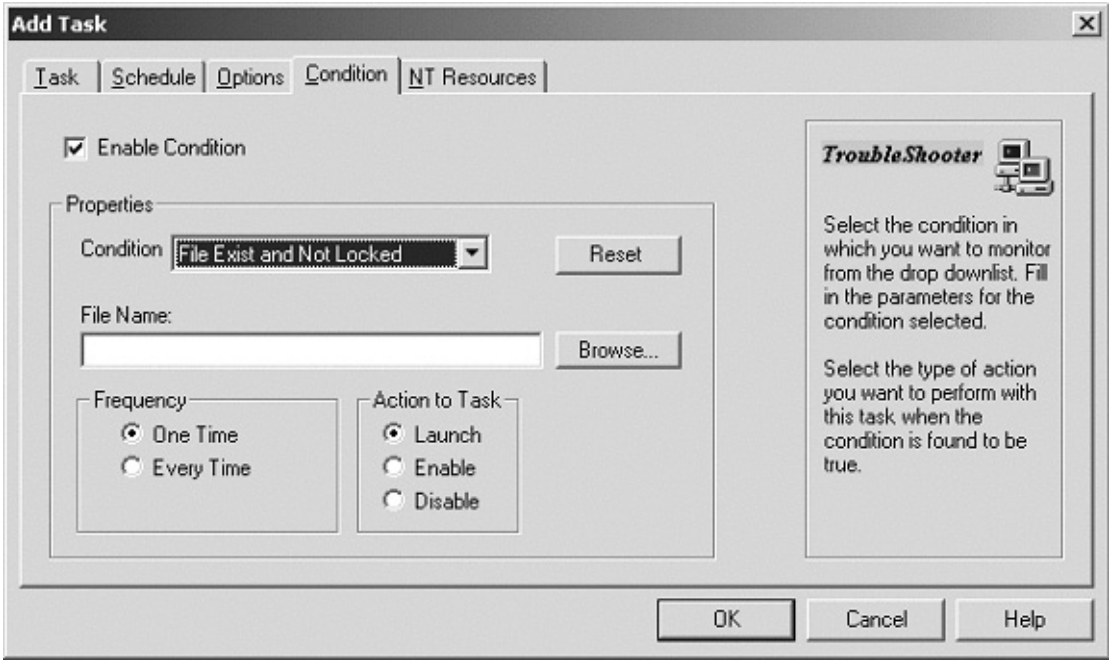
17 Enter the Next Scheduled date and time.

18 Enter the choices in the Properties in the Properties panel. Note that you can refine these choices with the Advance Scheduling button. The Now button sets the date and time to the current date and time.

19 Enter choices in the display for the Options tab.



20 If you are scheduling a task based on a condition, enter choices on the Condition tab.



Note Optionally test your new task by returning to the Task tab and clicking the Test Task button.

21 To set user name and password for Windows NT/2000, click on the NT Resources tab.

22 Use the Owner panel to select the origin of a task launch. Choose Run as system or Run as User. If you select Run as User, provide the user name and password.

Note If the user login is from a domain server, add the domain server name before the user's log in name using the syntax domainname\username.

23 Selct "Allow program to interact with Desktop" to allow the task to display information to the window.

24 Click OK. The new task is created and it is added to the list of tasks on the Administrator window.

Schedule tab properties

The Schedule tab presents different choices of properties depending on the frequency that is chosen. These choices are available in the Properties panel. A frequency of One Time, Holidays, or On Condition has no properties. A frequency of Daily presents a Properties choice of Schedule Every n days.

The Advance Scheduling button allows a frequency to be established within the daily frequency that is already defined. You can schedule the task on an hour or minute basis within the eligible days. Periods of time for the operation of the task can be specified.

A Weekly frequency presents a variety of options within the Properties panel. These properties control the days for the task within the weekly frequency. Use the Advance Scheduling button to refine these options such as adding intervals for running the task within the frequency of days specifie.

The Monthly frequency provides scheduling linked to the end or beginning of the month. In addition, you can schedule for days of the week within the month or workdays within the month. Specific months can be included or excluded using the Select Months button.

Editing an existing task

The procedure for editing an existing task is quite similar to the procedure for creating a new task. The basic difference is that you highlight a listed task and proceed to edit that task.

1 Click the Scheduler icon.

2 Highlight a listed task.

3 Pull down the Task menu.

4 Select the Edit option.

5 The Edit Task window displays. This window is similar to the Add Task window.

6 You have a variety of choices within this window:

- Click the Add button to add a command to the list of commands for this task.
- Highlight a command and click the Edit button to edit the individual command. A dialog box related to the selected command displays.
- Highlight a command and click the Delete button to remove an individual command from the task.
- Highlight a command and use the Move Up and Move Down buttons to move the command up and down the list of commands.
- Highlight a command and use the Test Line button to test the operation of that single command.

7 When you are finished making your changes, click the OK button on the Edit Task window.

Scheduler commands

The available commands for scheduler tasks are the following. These commands can be combined to form a script that directs the operation of the task.

Command	Description
RunProgram	Run a program
RunDosCommand	Execute a Disk Operating System (DOS) command.
DisplayMessage	Display a preset message box on the video screen. This box can be programmed to automatically disappear after a set number of seconds.
SendKeys	Send keystrokes to a program that is already running. One or more characters define each keystroke.
QuitProgram	Shut down a running program. This command can optionally present a list of running programs to the user for selection and shut down.
SetActiveWindow	Shut down a running program. This command can optionally present a list of running programs to the user for selection and shut down.
CloseWindow	Close a selected window.
RestoreWindow	Restore a selected window to its normal size (normal view state).
MaximizeWindow	Increase the size of a selected window to fill the video screen.
MinimizeWindow	Reduce the selected window to an icon on the task bar.

Command	Description
Delay	Delays the operation of the task for a specified amount of time.
WaitForProgram	Stop task script after starting program. Resume task when program is finished.
Shutdown	Shut Down window.
LogOff	Log off user and shut down running applications.
Reboot	Reboot Windows.
DDECommand	Send a DDE command to a server application. Many applications support these commands.
DDEScripts	Send a list of DDE commands to a server application. The DDE commands are stored in a text file
Comment	Insert a non-executing comment into the list of commands for a task.

Defining scheduler commands

This section presents the windows used to define individual Scheduler commands. These windows are accessed from the Add Task and Edit Task windows. One of these windows displays when you add or edit a command.

Run a Program command

Field	Description
Command Line	File name for the program. Include the drive name and the path as well. The Browse button can be used to browse for the program in the Open window.
Working Directory	Directory containing associated programs. This is not required for most programs. The Browse button displays the Browse for Folder window.
Run Style	A pull down menu controlling the display of the program's window: • Normal – the program's normal window displays • Minimized – the program is run in icon state • Maximized – the program uses a full window • Hidden – the program operates in a hidden window in the background
Wait for program to quit before continuing	Select this check box to stop the progress of the task until this program has finished running.

RunDosCommand command

Field	Description
Command Line	Enter a Disk Operating System command line.
Working Directory	Directory where you want the command to be issued from. The Browse button displays the Browse for Folder window.
Run Style	A pull down menu controlling the display of the program's window: • Normal – the program's normal window displays • Minimized – the program is run in icon state • Maximized – the program uses a full window • Hidden – the program operates in a hidden window in the background
Wait for program to quit before continuing	Select this check box to stop the progress of the task until this program has finished running.

DisplayMessage command

Field	Description
Message	Enter a message to be displayed in a message box. This message can be up to 512 K bytes in size. Shorter messages are recommended.
Time Out Seconds	Number of seconds before the message box disappears. A value of 0 displays the message box until the user clicks the OK button.

SendKeys command

This window supports the specification of keystroke sequences that can be sent to an application. Every keystroke that a user can send can be duplicated through this window. A set of codes and functions is provided for this purpose.

Field	Description
Keys to send	Enter the keyboard characters, SendKey codes, and SendKey functions needed to specify a string of keystrokes sent to an application. Enter keyboard characters literally as they are to be sent. The codes and functions are defined in the tables below.

In the table below, keyboard keys are presented with the code that should be entered in the SendKeys window. To repeat keys, add a number of repeats to the key code as follows: {LEFT 42} or {h 10}.

Key	Code
Shift	+ **Note** To specify that shift should be held down while some other keys are being pressed, enclose the keys in parentheses. Example: +(AV).
Control	^ **Note** To specify that the control key should be held down while some other keys are being pressed, enclose the keys in parentheses. Example: ^(AV)
Alt	% **Note** To specify that the alt key should be held down while some other keys are being pressed, enclose the keys in parentheses. Example: %(AV)
Backspace	{BKSP}
Break	{BREAK}
Caps Lock	{CAPSLOCK}
Clear	{CLEAR}
Del	{DELETE}
Down Arrow	{DOWN}
End	{END}
Enter	{ENTER} or -
ESC	{ESC}
Help	{HELP}
Home	{HOME}
Ins	{INSERT}
Left Arrow	{LEFT}
Num Lock	{NUMLOCK}
Page Down	{PGDN}
Page Up	{PGUP}
Print Screen	{PRTSC}
Right Arrow	{RIGHT}
Scroll Lock	{SCROLLLOCK}
Tab	{TAB}
Up Arrow	{UP}

Key	Code
+	{add}
.	{decimal}
/	{divide}
*	{multiple}
-	{subtract}
F1	{F1}
F2	{F2}
F3	{F3}
F4	{F4}
F5	{F5}
F6	{F6}
F7	{F7}
F8	{F8}
F9	{F9}
F10	{F10}
F11	{F11}
F12	{F12}
0	(numpad0}
1	(numpad1}
2	(numpad2}
3	(numpad3}
4	(numpad4}
5	(numpad5}
6	(numpad6}
7	(numpad7}
8	(numpad8}
9	(numpad9}

The table below presents the syntax of each SendKeys function with a description of the use of the function.

Function	Description
{Activate "<window name>"}	Selects a window and makes it active. The window is displayed on top. Enclose the exact name of the window in quotation marks. Subsequent keystrokes are entered into this window.
{Delay n}	Time in milliseconds before sending the next keystroke. Example: {Delay 500}. This example results in a half second delay.

Function	Description
{Date}	Send the current date. You may optionally specify an offset date by adding a numeric parameter. Examples: {Date 1} is tomorrow's date. {Date –1} is yesterday's date.
{Time}	Send the current time. You may optionally specify an offset time in seconds. Examples: {Time 30} is the current time plus 30 seconds. {Time –30} is the current time minus 30 seconds.
{Day}	Send the current day of the month (numeric value). You may optionally specify an offset day. Examples: {Day 1} is one plus the current day of the month. {Day –2} is two subtracted from the current day of the month.
{Month}	Send the numeric value of this month. You may optionally send an offset month. Examples: {Month 3} is the month after next. {Month –1} is last month.
{Year}	Send the numeric value of this year. You may optionally send an offset year. Examples: {Year 1} is next year. {Year –1} is the previous year.
{Hour}	Send the numeric value of the current hour. You may optionally send an offset hour. Examples: {Hour 1} is one hour added to the current hour. {Hour –1} is one hour subtracted from the current hour.
{Minute}	Send the numeric value of the current minute. You may optionally send an offset minute. Examples: {Minute 2} is two minutes added to the current minute. {Minute –2} is two minutes subtracted from the current minute.
{Second}	Send the numeric value of the current second. You may optionally send an offset second. Examples: {Second 5} is five seconds added to the current second. {Second –5} is five seconds subtracted from the current second.
{fdate}	Send a formatted date string. Multiple parameters can be specified. Refer to the table below for the available fdate parameters. Example: {fdate %m%d%y}

This table lists the parameters that can be used with the SendKeys fdate function.

Parameter	Description and example
%a	Weekday name abbreviation. Example: Mon.
%A	Weekday full name. Example: Monday
%b	Abbreviated month name. Example: Feb
%B	Full month name. Example: February
%c	Date and time representation. Example: 04/10/99 19:42:35
%d	Day of the month as a decimal number in the range 01 through 31. Example: 11
%H	Hour in 24-hour format. Example: 22
%I	Hour in 12-hour format. Example: 06
%j	Day of the year as a decimal number in the range 001 through 366. Example: 050.
%m	Month as a decimal number in the range 01 through 12. Example: 09.

Parameter	Description and example
%M	Minute as a decimal number in the range 00 through 59. Example: 06
%p	Local time AM PM indicator. Example: PM
%S	Second as a decimal number in the range 00 through 59. Example: 52
%U	Week of the year as a decimal number in the range 00 through 51 with Sunday as the first day of the week. Example: 30
%w	Weekday as a decimal number in the range of 0 through 6. Sunday has a value of 0. Example: 3
%W	Week of the year as a decimal number in the range 00 through 51 with Monday as the first day of the week. Example: 25
%x	Current date. Example: 02/14/98
%X	Current time. Example: 18:33:36
%y	Year without the century represented as a decimal number in the range 00 through 99. Example: 96
%Y	Year with the century as a decimal number. Example: 1999
%z	Time zone abbreviation.
%Z	Time zone name. Example: Pacific

QuitProgram command

Field	Description
Window Title	Window title of the program to be closed. Type in the name of the program to be closed or click on the Window or Task buttons to select the program.
Window	Displays a list of currently running programs. Select a program to be closed.
Task	Displays a list of all running processes (that may or may not have a window). Select a program to be closed.

SetActiveWindow command

Field	Description
Window Title	Window title of the window to be made active and brought to the front.
List	Displays a list of currently active windows. Select a window.

CloseWindow command

Field	Description
Window Title	Window title of the window to be closed.
List	Displays a list of currently active windows. Select a window.

RestoreWindow command

Field	Description
Window Title	Window title of the window to be restored to its normal size display.
List	Displays a list of currently active windows. Select a window.

MaximizeWindow command

Field	Command
Window Title	Window title of the window to be maximized to fill the video screen.
List	Displays a list of currently active windows. Select a window.

MinimizeWindow command

Field	Description
Window Title	Window title of the window to be reduced to an icon.
List	Displays a list of currently active windows. Select a window.

Delay command

This command delays the operation of the task for a fixed period of time.

Field	Description
Numeric field	Use the pull-down list to select the number of time units for the task to delay before continuing. **Note** The three radio buttons set the unit of time used.
Milliseconds	Check this radio button to set the delay in milliseconds.
Seconds	Check this radio button to set the delay in seconds.
Minutes	Check this radio button to set the delay in minutes.

Shutdown command

This command shuts down Windows.

Field	Description
Force running programs to shutdown	(Option) Mark this check box to force programs to close without saving data. If you do not mark this check box, the user will be required to provide confirmation before each program exits. This option allows the user to make sure that changes have been saved.

LogOff command

This command logs off the current user and closes all running applications.

Field	Description
Force running programs to shutdown	(Optional) Mark this check box to force programs to close without saving. If you do not mark this check box, the user will be required to provide confirmation before each program exits. This option allows the user to make sure that changes have been saved.

Reboot command

This command shuts down and then restarts Windows.

Field	Description
Force running programs to shutdown	(Optional) Mark this check box to force programs to close without saving. If you do not mark this check box, the user will be required to provide confirmation before each program exits. This option allows the user to make sure that changes have been saved.

DDECommand command

This command sends a Microsoft Dynamic Data Exchange (DDE) command from the client to the server. These commands allow the remote operation of specific applications in a Windows environment.

Field	Description
DDE Command	String containing command(s) recognized by the application on the server. This string must be enclosed in square brackets. For many applications, the DDE command is a statement or function in the applications macro language. **Note** Many of the DDE commands require arguments enclosed in quotation marks. Because quotation marks indicate the beginning and end of a string, in some applications you may have to use Chr$(34) to represent a quotation mark in a command string.
Application	Name of the application that will receive the DDE command.
Topic	Context within the application. If this topic name is a document name, the document must be open.

DDEScript command

This command sends a script of Microsoft Dynamic Data Exchange (DDE) commands from the client to the server. These commands allow the remote operation of specific applications in a Windows environment.

Field	Command
DDE Command	Name and path of the file that contains the DDE commands. Optionally use the Browse button to open the Open window to locate the file.
Application	Name of the application that will receive the DDE commands.
Topic	Context within the application. If this topic name is a document name, the document must be open.

Comment command

Field	Command
Comment	Enter the text of a comment to be inserted into the list of commands for this task. Use of numerous comments is recommended to assist future work on this task by other staff members.

Scheduler properties

The Scheduler Properties window presents options for the general operation of the Scheduler application.

Field	Command
Schedule Resolution	Period of time (seconds) between visits to the listed tasks checking for tasks to be run.
Startup Delay	Period of time (seconds) between the start up of scheduler and the time when the tasks are run. This allows the user to shut off specific tasks.
Send Key Delay	Period of time (milliseconds) between keystrokes sent to applications or operating systems accessed by a task. This allows sufficient time for the software to accept the input.
Work Days	Defines the days of the week that are considered to be workdays.
Holidays	Displays the Holidays window for the definition of holidays. To add a holiday, click the Add button and the Holiday Selection window displays.
Display Errors	Display error messages to the user of the Administrator window.
Log Errors	Save error messages to a log file.
Error Log File	Full path name of the error log file. Use the button to display the Open window for selecting the path name.

Conversion from an old schedule to a new schedule

When an old schedule file is opened, the old schedules will be automatically converted by one of the following procedures:

Old schedule field	Changes in the new schedule
ONETIME	Same
HOURLY	Use: • Daily with Advance Scheduling • Repeat Intervals with 1 hour frequency • Reschedule from scheduled time • Holidays included Do not use: • Run only between
DAILY	Use: • Daily with Properties of Schedule Every 1 day • Advance Scheduling with Holidays included Do not use: • Repeat Intervals

Old schedule field	Changes in the new schedule
WEEKLY	Use: • Daily with Properties of Schedule Every 1 day • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
WEEKDAYS	Use: • Weekly with Properties of Schedule Every 1 week • Monday through Friday check boxes selected • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
WEEKENDS	Use: • Weekly with Properties of Schedule Every 1 week • Schedule for Work Days Only • Saturday and Sunday check boxes selected • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
WORKDAYS	Use: • Weekly with Properties of Schedule Every 1 week • Schedule for Work Days Only • Workdays selected on Scheduler Properties window (Scheduler menu - Options choice) • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
DAYSOFWEEK	Use: • Weekly with Properties of Schedule Every 1 week • Schedule for all days of the week • Check boxes for individual weekdays selected • Advance Scheduling with Holidays included Do not use: • Repeat Intervals

Old schedule field	Changes in the new schedule
NONWORKDAYS	Use: • Weekly with Properties of Schedule Every 1 week • Schedule for Work Days Only • Workdays selected on Scheduler Properties window (Scheduler menu - Options choice) • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
MONTHLY	Use: • Monthly set to run each month • All months selected via Select Months popup • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
DAYOFMONTH	Use: • Monthly set to run on specified day of the month • All months selected via Select Months popup • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
WORKDAYOFMONTH	Use: • Monthly set to run on specified work day of the month • All months selected via Select Months popup • Advance Scheduling with Holidays excluded Do not use: • Repeat Intervals
LASTDAYOFMONTH	Use: • Monthly set to run on last day of the month • All months selected via Select Months popup • Advance Scheduling with Holidays included Do not use: • Repeat Intervals

Old schedule field	Changes in the new schedule
YEARLY	Use: • Monthly set to run each month • Only this month selected via Select Months popup • Advance Scheduling with Holidays included Do not use: • Repeat Intervals
INTERVAL	Use: • Weekly scheduled for all days of the week • Schedule for every 1 week • Advance Scheduling with a frequency of minutes or hours • For days, an Advance Scheduling frequency of 24 hours and do not use Run Only Between. If the interval is minutes or hours, use the same interval as the original for minutes or hours in Advance Scheduling.
HOLIDAYS	Same
CONDITION	Same except FileAccessed is replaced by FileChange.

CHAPTER 7

Administrative Processing

This chapter describes processes used to administer EC Gateway.

EC Gateway supports several administrative functions. These include viewing the log file, using the reporting module, and applying the archive/restore functionality.

The Log icon

To access the EC Gateway log, click the Log icon from the EC Gateway Selection menu to display the Log Display Setting window for the selected row in the Log Display.

From the Log Display Setting window you can specify the length of the log by a date range. You can also set the defaults for whether this window appears in the future and if you want the setting you entered to be the default for future logs. By specifying a date boundary, you decrease the loading time of the log for future viewings.

Click OK to display the EDI Log window as defined in the system configuration.

The Log window displays the events in descending order, with the most recent event shown at the top of the list.

Note Scroll horizontally to see additional data columns.

To search for specific items within the log file, click the Search icon.

Searching for logs

EC Gateway allows you to search for logs that contain specific information.

❖ **Searching logs for specific information**

1 While in the Log mode, select Find from the Edit menu at the top of the EC Gateway desktop. The Find Records… window displays.

2 Specify the criteria that describe the type of log records you want to search for using the Define More Criteria panel. When you are finished, click Add to List to add your new criteria to your search list.

3 You can narrow your search by defining additional specific fields, conditions, and values that are included in the records you want to search for. Do this by repeating step 2 to create each row of criteria. Click Remove to delete a highlighted row of criteria from your search list.

4 When you are ready to perform the search, click Find Now. You may then add other criteria, using the Define More Criteria panel.

5 To define a new search, click New Search.

The Report icon

EC Gateway supports four main types of reports—activity reports, exception reports, management reports, and user-defined reports. To access the reporting module, click the Report icon within the EC Gateway selection window. The reports are then presented on the right side of the desktop in a Windows Explorer folder/file format. Once the required report is found, you can select it by double-clicking on its name. After you enter pertinent selection criteria, the report is presented, and can be directed to any Windows printer. You can also export Reports in the reporting module to an e-mail address, save them to disk, or sent them to the printer—all in several different file formats.

The Export icon

The Export icon is located under the main menu of the EC Gateway desktop. This icon allows you to export a chosen report to a chosen destination. Destination choices include Disk file, Exchange Folder, Lotus Notes Database, and Microsoft Mail (MAPI).

You can export the report in a variety of formats. Formats supported by Crystal Reports RunTime are:

- Character-separated values
- Comma-separated values (CSV)
- Crystal Reports (RPT)
- Data Interchange Format (DIF)
- Excel 2.1 (XLS)
- Excel 3.0 (XLS)
- Excel 4.0 (XLS)
- Excel 5.0 (XLS) Tabular
- HTML 3.0 (Draft Standard)
- HTML 3.2 (Extended)
- HTML 3.2 (Standard)
- Lotus 1-2-3 (WK1)
- Lotus 1-2-3 (WK2)
- Lotus 1-2-3 (WK3)

- ODBC – dBASE Files
- ODBC – dmrdef
- ODBC – ecedigs
- ODBC – Excel Files
- ODBC – FoxPro Files
- Paginated Text
- Record Style (columns of values)
- Report Definition
- Rich Text Format
- Tab-separated text
- Tab-separated values
- Text
- Word for Windows Document

Types of reports are:

- Activity reports – provide information about the daily activity of EDI through EC Gateway
- Exception reports – provide information about both operational and EDI errors
- Management reports – provide information about managing your EDI program, activity with trading partners, and variances
- User-defined reports – run ODBC reports that are already defined by the user.

Activity reports

Activity reports provide statistics across all portions of the EC Gateway covering the EDI activity on a daily basis.

Types of reports are:

- By Transaction – provides an overview of EC Gateway activity broken down by:
  - Test/Production Count

    - Monthly Summary by Trading Partner
    - Summary By Trading Partner
    - Summary By Trading Partner in Table Format
- By Trading Partner – generated on-demand and includes a line for each log record.
    - Daily Summary by Transactions
    - Monthly Transactions and Bytes
    - Annual Transactions
    - Summary by Transaction
    - Transaction Log

Exception reports

Exception reports are set up to be generated daily. All exception reports can be initiated on demand. The default value provides the data for the prior 24 hours.

These are the exception reports:

- Transaction Not Acknowledged – shows for interchanges/functional groups sent.
- Error Log – shows EDI standards compliance, table, and mapping errors.

Management reports

Management reports provide statistics to the business covering the EDI activity between the business applications and the trading partners. The reports break down into Daily, Weekly, Monthly, and Year to Date (YTD).

These are the reports:

- System Information
- Comm Channel Information
- MailBox Listing
- Trade Partner Detail
- Process Listing

User-defined reports

EC Gateway supports running user-defined reports. These reports are useful for special purposes that are defined by the user. These reports must be ODBC reports.

❖ **Displaying your own reports**

1 Click the Report icon.

The list of available reports displays.

2 Click the New icon on the Menu bar.

The Report window displays. The General tab is active.

3 Enter information as shown in Table 7-1.

Table 7-1: Fields in the General tab

Field	Description
Report File	Enter the full path of the report file. Alternatively, you can use the *Browse* button to locate the report.
Title	Enter a title for this report.
Number of Tables	Select the number of tables included in your report. It should be the same as the number of tables already used in your report.
Number of Parameters	(Optional) Select the number of parameters used in your report.

4 Click the Tables tab. The Tables tab displays.

5 Click Add.

6 The User Report Table window displays.

7 Enter the information in the entry boxes and then click OK. Repeat this step for each table that exists in your report. The tables must be defined in the same order as they are used in your report. See Table 7-2.

Note You cannot add more tables than the number you chose on the General tab of the Report window.

Table 7-2: Field descriptions for the User Report Table window

Field	Description
Data Source Name	Enter the data source name (DSN) for the table that will provide the information for your report. Alternatively, you can use the Browse button to locate your DSN.
User ID	Enter the user id that is needed to access the database.
Password	Enter the password (if required) to access the database.
Table Name	Enter the name of the table in the database that will be accessed for the information.

8 When you have finished Step 7, the Tables tab display of the Report window is filled with the information that you entered using the User Report Table window.

9 If you want a table without user-controlled parameters, click OK at the bottom of the Report window to end your report definition. Otherwise, go to the next step.

10 Click the Parameters tab. The Report – Parameters tab window displays.

11 Click Add.

12 A window displays prompting for a parameter name. Enter a parameter name and click OK. This parameter must already exist. Each reader of your report will be able to insert specific values into this parameter to set the scope of the report.

13 Repeat steps 11 through 13 for each parameter that you want to add to your report. The parameter names must be defined in the same order used in the report.

Note You cannot add more parameters than the number of parameters that you chose on the General tab of the Report window.

14 When you finish adding parameters, click OK at the bottom of the Report window.

15 Your report is added to the list of reports that EC Gateway displays.

You can access your report at any time by double-clicking its name. A window displays asking for the value or values for the parameters you established for your report.

❖ **Displaying a report**

1 Double-click the title of a report on the listing of reports.

A Parameters window displays.

A user-defined report prompts for the values of a starting date and an ending date. Enter the desired values in the format YYYY/MM/DD and click OK. The report displays covering the range entered for the parameters. The parameters used are not restricted to starting and ending dates.

Note If no parameters are defined here, but your report uses parameters, the report asks for parameter values.

2 Enter a value for each parameter. Click OK.

The selected report displays; its scope is set by the values entered.

The Archive icon

EC Gateway supports the archiving of all files that are used within the system. To access the archive function, click the Archive icon in the EC Gateway selection window. The Archive window displays. Table 7-3 describes the fields in the Archive window.

Table 7-3: Archive window fields

Fields	Description
Source Directory	The directory of the file to be archived. The Browse button displays the Select a Directory window.
Source File Name	Name of the file to be archived. The Browse button displays the Select a File window.
Destination Directory	Name of the directory where the archive file should be stored. The Browse button displays the Select a Directory window.
Destination File Name	Name of the file for the resultant archive file, without its path.
Run Locally	Local archiving.
Delete Source File	When checked, the source file being archived is deleted after the successful conclusion of the archive operation.

What is archiving?

Archiving is the storing of records or files for purposes of security, back up, and auditing. Archiving is the grouping of related data into a collection. This archive is given a unique collective identity that can be used to retrieve the data at a later time without knowledge of the original locations of the data being retrieved.

Use the EC Gateway Restore icon to restore files.

The Restore icon

EC Gateway supports archiving of any and all files used within the system. After files are archived, clicking the Restore icon within the EC Gateway selection window displays a menu that provides Extract and Restore buttons. They are described in Table 7-4.

Table 7-4: Extract and Restore fields

Fields	Description
Extract	If you want to extract a file, left-click on the Extract option.
Restore	To restore a file that has been previously archived, left-click on the Restore option.

If you click the Restore option, the Restore window displays. The restore function restores the entire file exactly as it was before it was archived. Each archive, which has been processed within the EC Gateway application, is listed in the Restore window, with file name, archive date and time (24-hour clock), and the archive directory. The columns can be sorted by clicking their headings. Click OK to restore the selected file or Delete Record to delete the selected archive.

If you check the Delete Source File check box and then click OK, the archived file and the archived record will be deleted after it is restored. If you do not check the Delete Source File check box, the archived file continues to exist after you have restored the file.

If you select Extract, the Archive Extraction – Log window displays. This window allows you to find processed EDI files by means of information in the log database. You can extract specific sections from the located file.

Enter the DSN, User Name, and Password for the Log ODBC connection in the upper-left corner of the window. Enter the search criteria in the fields in the lower left of the window. Include the start date, end date, transaction name, trading partner name, and the direction type. Use of the search criteria is optional. Select the Get Log button.

The transaction header records that satisfy the search criteria display in the right side of the window. Highlight a record and select the Get Archive button. The Archive Extraction – Extract window displays.

The Log Record section at the top of the window identifies the record that you selected. The middle part of the window displays the archived files that were obtained in your previous search. This list of files is limited to the first 200 files archived within 24 hours of the transaction processing.

The Extract section at the bottom of the window allows you to define the extraction. The Extract Interchange check box extracts the whole interchange section in the processed EDI file that the selected transaction belongs to. This includes data for the interchange and group. The Extract Transaction check box extracts the selected transaction section in the EDI file along with the related data for the interchange and group. The Directory field specifies the directory used to store the extracted item. Its default is the subdirectory retrieve of the working directory. The File Name field is the name of the new file containing the extracted information. Its default is the archived file name plus the interchange number or transaction number. Specify the Directory and File Name that you want and select the Extract button.

Click the View EDI File button to display the extracted EDI file contents.

If the archived file is on the remote machine, define in the system the destination address and port number for the archive and the wsocksvr running on the remote machine. When you click Extract, the archived file is copied to a temporary file in the Temp subdirectory of the working directory on the local machine. After extraction this temporary file is deleted.

APPENDIX A

Functional Acknowledgements

A transaction set (997) transmitted by the receiver of an EDI transmission to the sender, indicates receipt and syntactical acceptability of data transmitted according to the ASC X12 standards. The functional acknowledgement allows the receiving party to report back to the sending party problems encountered by the syntax analyzer as the data are interpreted. It is not intended to serve as an acknowledgement of data content. The sender keeps track of the sent transactions, and upon receipt of the functional acknowledgement, flags the sent messages as received.

The vast majority of 997s you receive will read “Group Accepted,” which means your document successfully reached your trading partner with no difficulties or errors. A 997 that reads “Group Accepted, But Errors were Noted” indicates that your trading partner has accepted your document even though minor errors were found. A 997 that reads “Group Rejected” means that your trading partner cannot successfully process your document. If no 997 is returned, you can assume that your document was not received by your trading partner.

Each time you receive a one-to-one EDI transaction from a trading partner, EC Gateway can create a 997 on your behalf, if it is configured to do so.

Note EC Gateway does not keep track of or report on sent transactions. Tracking and reporting for information sent and received is up to you.

How do functional acknowledgements work?

Functional acknowledgement (997) transactions are generated based on the receipt of incoming transactions. This is based on the *translog.in* file map that is generated by an inbound run.

The following are the types of 997 maps:

- If a trading partner is present:
  - short 997 – group only
  - full 997
- If no trading partner is present (envelope information is generated from the log itself):
  - full 997

How do functional acknowledgements work with EC Gateway?

For functional acknowledgements to work with EC Gateway:

1 The trading partner must indicate what kind of 997 they want (short, full, or none).

2 The trading partner must specify whether they expect to receive functional acknowledgements.

3 The translog records are posted to a database, not a sequential file. This information specifies whether 997 transactions are expected.

APPENDIX B

Trading Partner Databases and File Information

The trading partner database (see Table B-1) consists of three tables that contain information about the company, its trading partners, and the trade agreements that have been set up between them. In the non-ODBC version, the company information is stored in an ASCII flat file, and the trading partner and trade agreement information is stored in Access tables and dBase III tables. (For map development, the program uses the data in Access tables, but at runtime, the program uses the data in dBase III tables.) In the ODBC version, the three tables can be stored in any ODBC-compliant database. The user must assign a data source name (DSN) that points to the trading partner database and use the appropriate ODBC driver.

Table B-1: Trading partner database table descriptions

Table	Description
wixset.dat	Contains company information for non-ODBC databases
wixset	Contains company information for ODBC databases
customer.dbf/.mdb	Contains trading partner information for non-ODBC databases
tp	Contains trading partner information for ODBC databases
tradstat.dbf/.mdb	Contains trade agreement information for non-ODBC databases
tradstat	Contains trade agreement information for ODBC databases

See the *ECMap Reference Guide* for additional information about these fields.

Company identification (*wixset.dat*)

The wixset.dat table is a fixed-length sequential file that contains one record. It is created from the internal wixset table (which the program creates from the entries on the Company ID screen) when the map is run. The default is for wixset.dat to be located in the trading partner directory, but for outbound processing you can override this directory location at runtime using the -dw <directory> switch.

Table B-2: wixset.dat table

Field name	Type	Width	Notes
wix_company_name	Character	35	Internal name for the company.
<filler>	Character	12	Not used
wix_gsid	Character	35	Code used to identify the company at the functional group level – as the sender on outbound maps and the receiver on inbound maps. This field is used only if the SND_GSID field in the trading partner table or file is blank.
wix_idqual	Character	4	Qualifier that specifies the type of code used to identify the company at the interchange level – as the sender on outbound maps and the receiver on inbound maps. This field is used only if the SND_IDQUAL field in the trading partner table or file is blank.
wix_idcode	Character	35	Code used to identify the company at the interchange level – as the sender on outbound maps and the receiver on inbound maps. This field is used only if the SND_IDCODE field in the trading partner table or file is blank.
wix_auth_qual	Character	2	Qualifier that specifies the type of code used to authenticate the company at the interchange level.
wix_auth_code	Character	10	Code used to authenticate the company at the interchange level.
wix_secu_qual	Character	2	Qualifier that specifies the type of code used to grant the company security clearance at the interchange level.
wix_secu_code	Character	10	Code used to grant the company security clearance as the receiver at the interchange level.

Company identification (wixset)

The wixset table is created from the entries on the Company ID window and can contain multiple company profiles.

Table B-3: wixset table

Field name	Type	Precision	Notes
RECORD_NO	SQL_SMALLINT	4	Unique identifier used to create multiple profiles for the company.
GSID	SQL_VARCHAR	35	Code used to identify the company at the group level - as the sender on outbound maps and the receiver on inbound maps. Used only if the SND_GSID field in the trading partner table or file is blank.
NAME	SQL_VARCHAR	35	Internal name for the company.
IDQUAL	SQL_VARCHAR	4	Qualifier that specifies the type of code used to identify the company at the interchange level – as the sender on outbound maps and the receiver on inbound maps. This field is used only if the SND_IDQUAL field in the trading partner table or file is blank.
IDCODE	SQL_VARCHAR	35	Code used to identify the company at the interchange level—as the sender on outbound maps and the receiver on inbound maps. This field is used only if the SND_IDCODE field in the trading partner table or file is blank.
AUTH_QUAL	SQL_VARCHAR	2	Qualifier that specifies the type of code used to authenticate the company at the interchange level.
AUTH_CODE	SQL_VARCHAR	10	Code used to authenticate the company at the interchange level.
SECU_QUAL	SQL_VARCHAR	2	Qualifier that specifies the type of code used to grant the company security clearance at the interchange level.
SECU_CODE	SQL_VARCHAR	10	Code used to grant the company security clearance as the receiver at the interchange level

The customer.dbf file

Table B-4 describes the information included in customer.dbf.

Table B-4: customer.dbf table

Field name	Type	Width	Notes
CUST NO	Character	35	Internal identifier for the trading partner.
<filler>	Numeric	1	Not used
NAME	Character	35	Internal name for the trading partner.

Field name	Type	Width	Notes
IDQUAL	Character	4	Qualifier that specifies the type of code used to identify the trading partner at the interchange level—as receiver on outbound maps and sender on inbound maps..
IDCODE	Character	35	Code used to identify the trading partner at the interchange level—as the receiver on outbound maps and the sender on inbound maps..
AUTH_QUAL	Character	2	Qualifier that specifies the type of code used to authenticate the trading partner at the interchange level.
AUTH_CODE	Character	10	Code used to authenticate the trading partner at the interchange level.
SECU_QUAL	Character	2	Qualifier that specifies the type of code used to grant security clearance to the trading partner at the interchange level..
SECU_CODE	Character	10	Code used to grant security clearance to the trading partner at the interchange level.
GSID	Character	35	Code used to identify the trading partner at the functional group level—as the receiver on outbound maps and as the sender on inbound maps.
SHIPQUAL	Character	2	Qualifier that specifies Ship To identification code of the trading partner.
SHIPIDEN	Character	15	Ship To identification code of the trading partner.
BILLQUAL	Character	2	Qualifier that specifies Bill To identification code of the trading partner.
BILLIDEN	Character	15	Bill To identification code of the trading partner.
ADDR1	Character	35	Street address at which the trading partner is located.
ADDR2	Character	35	Additional street address at which the trading partner is located.
CITY	Character	19	City in which the trading partner is located.
STATE	Character	15	State in which the trading partner is located.
COUNTRY	Character	25	Country in which the trading partner is located.
ZIP	Character	9	Zip code at which the trading partner is located.
CONTACT1	Character	35	Name of the trading partner contact.
TELEPHONE1	Character	22	Telephone number of the trading partner contact.
CONTACT2	Character	35	Name of an additional trading partner contact.
TELEPHONE2	Character	22	Telephone number of an additional trading partner contact.
ISA_IN_NO	Character	9	Interchange-level control reference number for inbound processing
ISA_OUT_NO	Character	9	Interchange-level control reference number for outbound processing.
SND_GSID	Character	35	Code used to identify the company at the functional group level – as the sender on outbound maps and as the receiver on inbound maps
SND_IDQUAL	Character	4	Qualifier that specifies the type of code used to identify the trading partner at the interchange level—as the sender on outbound maps and as the receiver on inbound maps.

Field name	Type	Width	Notes
SND_IDCODE	Character	35	Code used to identify the trading partner at the interchange level—as the sender on outbound maps and as the receiver on inbound maps.
SUB_DELIMT	Character	3	Special character used by the trading partner to override the default X.12 sub-element delimiter.
ELE_DELIMT	Character	3	Special character used by the trading partner to override the default X.12 element delimiter.
SEG_DELIMT	Character	3	Special character used by the trading partner to override the default X.12 segment delimiter.
RELEASE_CH	Character	3	Special character used by the trading partner to override the default X.12 release character.
X12 REPEAT	Character	3	Special character used by the trading partner to override the default X.12 repeat character.
<filler>	Character	1	Not used. (former delete flag for DOS maps)
EDIF_SUBDL	Character	3	Special character used by the trading partner to override the default EDIFACT sub-element delimiter.
EDIF_ELEDL	Character	3	Special character used by the trading partner to override the default EDIFACT element delimiter.
EDIF_SEGDL	Character	3	Special character used by the trading partner to override the default EDIFACT segment delimiter.
EDIF_RELCH	Character	3	Special character used by the trading partner to override the default EDIFACT release character.
EDIF_REPEA	Character	3	Special character used by the trading partner to override the default EDIFACT repeat character.
HL7_SEGDL	Character	3	Special character used by the trading partner to override the default HL7 segment delimiter.
HL7_ELEDL	Character	3	Special character used by the trading partner to override the default HL7 element delimiter.
HL7_SUBDL	Character	3	Special character used by the trading partner to override the default HL7 sub-element delimiter.
HL7_SUBSUB	Character	3	Special character used by the trading partner to override the default HL7 component delimiter.
HL7_RELCH	Character	3	Special character used by the trading partner to override the default HL7 release character.
HL7_REPEAT	Character	3	Special character used by the trading partner to override the default HL7 repeat character.
EXPORT_FLG	Character	1	Special character used to designate that flagged trading partner records be moved from one database to another.
MBOX_NAME	Character	35	Internal name of the trading partner mailbox (used only as a label on screens or reports).
MAILBOX	Character	100	Full-path name of the trading partner mailbox folder, or directory.

Field name	Type	Width	Notes
CURR_FMT	Character	1	Character used to indicate whether a period or comma is used as the decimal character.Decimal (D) or Comma (C) format
POS_LTR	Character	1	Reserved for future use with packed decimal.
TPKEY	Numeric	10	Unique auto-increment field

The tp file

Table B-5 describes the information included in the tp table. This table is in an ODBC database.

Table B-5: tp table

Field name	Type	Precision	Notes
CUST NO	SQL_VARCHAR	35	Internal identifier for the trading partner.
<filler>		1	Not used
NAME	SQL_VARCHAR	35	Internal name for the trading partner.
IDQUAL	SQL_VARCHAR	4	Qualifier that specifies the type of code used to identify the trading partner at the interchange level—as receiver on outbound maps and sender on inbound maps..
IDCODE	SQL_VARCHAR	35	Code used to identify the trading partner at the interchange level—as the receiver on outbound maps and the sender on inbound maps..
AUTH_QUAL	SQL_VARCHAR	2	Qualifier that specifies the type of code used to authenticate the trading partner at the interchange level.
AUTH_CODE	SQL_VARCHAR	10	Code used to authenticate the trading partner at the interchange level.
SECU_QUAL	SQL_VARCHAR	2	Qualifier that specifies the type of code used to grant security clearance to the trading partner at the interchange level..
SECU_CODE	SQL_VARCHAR	10	Code used to grant security clearance to the trading partner at the interchange level.
GSID	SQL_VARCHAR	35	Code used to identify the trading partner at the functional group level—as the receiver on outbound maps and as the sender on inbound maps.
SHIPQUAL	SQL_VARCHAR	2	Qualifier that specifies ship-to identification code of the trading partner.
SHIPIDEN	SQL_VARCHAR	15	Ship-to identification code of the trading partner.
BILLQUAL	SQL_VARCHAR	2	Qualifier that specifies bill-to identification code of the trading partner.

Field name	Type	Precision	Notes
BILLIDEN	SQL_VARCHAR	15	Bill-to identification code of the trading partner.
ADDR1	SQL_VARCHAR	35	Street address at which the trading partner is located.
ADDR2	SQL_VARCHAR	35	Additional street address at which the trading partner is located.
CITY	SQL_VARCHAR	19	City in which the trading partner is located.
STATE	SQL_VARCHAR	15	State in which the trading partner is located.
COUNTRY	SQL_VARCHAR	25	Country in which the trading partner is located.
ZIP	SQL_VARCHAR	9	Zip code at which the trading partner is located.
CONTACT1	SQL_VARCHAR	35	Name of the trading partner contact.
TELEPHONE1	SQL_VARCHAR	22	Telephone number of the trading partner contact.
CONTACT2	SQL_VARCHAR	35	Name of an additional trading partner contact.
TELEPHONE2	SQL_VARCHAR	22	Telephone number of an additional trading partner contact.
ISA_IN_NO	SQL_VARCHAR	9	Interchange-level control reference number for inbound processing
ISA_OUT_NO	SQL_VARCHAR	9	Interchange-level control reference number for outbound processing.
SND_GSID	SQL_VARCHAR	35	Code used to identify the company at the functional group level—as the sender on outbound maps and as the receiver on inbound maps
SND_IDQUAL	SQL_VARCHAR	4	Qualifier that specifies the type of code used to identify the trading partner at the interchange level—as the sender on outbound maps and as the receiver on inbound maps.
SND_IDCODE	SQL_VARCHAR	35	Code used to identify the trading partner at the interchange level—as the sender on outbound maps and as the receiver on inbound maps.
SUB_DELIMT	SQL_VARCHAR	3	Special character used by the trading partner to override the default X.12 subelement delimiter.
ELE_DELIMT	SQL_VARCHAR	3	Special character used by the trading partner to override the default X.12 element delimiter.
SEG_DELIMT	SQL_VARCHAR	3	Special character used by the trading partner to override the default X.12 segment delimiter.
RELEASE_CH	SQL_VARCHAR	3	Special character used by the trading partner to override the default X.12 release character.
X12_REPEAT	SQL_VARCHAR	3	Special character used by the trading partner to override the default X.12 repeat character.
<filler>	SQL_VARCHAR	1	Not used. (former delete flag for DOS maps)
EDIF_SUBDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default EDIFACT subelement delimiter.

Field name	Type	Precision	Notes
EDIF_ELEDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default EDIFACT element delimiter.
EDIF_SEGDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default EDIFACT segment delimiter.
EDIF_RELCH	SQL_VARCHAR	3	Special character used by the trading partner to override the default EDIFACT release character.
EDIF_REPEA	SQL_VARCHAR	3	Special character used by the trading partner to override the default EDIFACT repeat character.
HL7_SEGDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 segment delimiter.
HL7_ELEDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 element delimiter.
HL7_SUBDL	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 subelement delimiter.
HL7_SUBSUB	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 component delimiter.
HL7_RELCH	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 release character.
HL7_REPEAT	SQL_VARCHAR	3	Special character used by the trading partner to override the default HL7 repeat character.
EXPORT_FLG	SQL_VARCHAR	1	Special character used to designate that flagged trading partner records be moved from one database to another.
MBOX_NAME	SQL_VARCHAR	35	Internal name of the trading partner mailbox (used only as a label on screens or reports).
MAILBOX	SQL_VARCHAR	100	Full-path name of the trading partner mailbox folder, or directory.
CURR_FMT	SQL_VARCHAR	1	Character used to indicate whether a period (D) or comma (C) is used as the decimal character.
POS_LTR	SQL_VARCHAR	1	Reserved for future use with packed decimal.
TPKEY	Numeric	10	Unique auto-increment field

The tradstat.dbf file

Table B-6 describes the fields in the *tradstat.dbf* file.

Table B-6: tradstat.dbf

Field name	Type	Width	Notes
CUSTNO	Character	35	Internal identification number for the trading partner

Field name	Type	Width	Notes
MAP_TRAN	Character	6	EDI transaction (message) identifier.
ST03	Character	35	Value to be used as the third element in the transaction on outbound X.12 processing..
DIR	Character	3	Direction or purpose of maps: IN or OUT Direction of transaction map: PRT Print map: CMP Compliance map
STAT	Character	1	Transaction mode: Test (T) or Production (P)
VERS	Character	12	Version of the EDI Standard used in the map.
TBCODE	Character	60	Code used to authenticate the company at the interchange level.
MBOX NAME	Character	35	Qualifier that specifies the type of code used to grant the company security clearance at the interchange level.
DEST	Character	100	Code used to grant the company security clearance as the receiver at the interchange level.
FILE	Character	30	File name of the trading partner mailbox that is used.
GS_NO	Character	9	Unique functional group control number used with TPKEY in outbound maps to quickly retrieve trade agreement records once they have been found.
ISA_TYPE	Character	5	EDI standard used by this trading partner in this transaction/message.
<filler>	Character	1	No longer used (former delete flag used for DOS maps).
RCV_GSID	Character	35	Override code used to identify the trading partner as the receiver at the group level.
RCV_IDQUAL	Character	4	Override qualifier that specifies the type of code used to identify the trading partner as the receiver at the interchange level.
RCV_IDCODE	Character	35	Override code used to identify the trading partner as the receiver at the interchange level.
ACK_RQSTD	Character	1	Flag that specifies whether a TA1 interchange-level acknowledgement is expected on outbound X.12 maps.
ACK_RQSTD2	Character	1	Flag that specifies whether a group-level functional acknowledgement is expected, only on outbound X.12 maps.
EDI_OUT	Character	1	Flag that specifies if inbound EDI data is to be passed through to a mailbox, only on inbound maps.
DAYS	Character	2	“Days” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
HOURS	Character	2	“Hours” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.

Field name	Type	Width	Notes
MINUTES	Character	2	“Minutes” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
SECONDS	Character	2	“Seconds” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
APPL_REF	Character	14	Name of the application messages contained in the EDIFACT UNB envelope.
ACK_MSG	Character	1	Flag that specifies whether a message-level CONTRL segment (UCM) is generated in response to inbound EDIFACT messages.
ACK_INTCH	Character	1	Flag that specifies whether an interchange-level CONTRL segment (UCI) is generated in response to inbound EDIFACT messages.
TRADEKEY	Numeric	10	Unique auto-increment field.

The tradstat table

Table B-7 describes the information in the tradstat table in an ODBC database.

Table B-7: tradstat table

Field name	Type	Precision	Notes
CUSTNO	SQL_VARCHAR	35	Internal identification number for the trading partner
MAP_TRAN	SQL_VARCHAR	6	EDI transaction (message) identifier.
ST03	SQL_VARCHAR	35	Value to be used as the third element in the transaction on outbound X.12 processing..
DIR	SQL_VARCHAR	3	Direction or purpose of maps: IN or OUT Direction of transaction map: PRT Print map: CMP Compliance map
STAT	SQL_VARCHAR	1	Transaction mode: Test (T) or Production (P)
VERS	SQL_VARCHAR	12	Version of the EDI Standard used in the map.
TBCODE	SQL_VARCHAR	60	Name of the map.
MBOX_NAME	SQL_VARCHAR	35	Name of the trading partner mailbox (used only as a label on screens and reports).
DEST	SQL_VARCHAR	100	Folder/directory name (full-path) used to override the trading partner mailbox folder/ directory name (full-path).

Field name	Type	Precision	Notes
FILE	SQL_VARCHAR		File name of the trading partner mailbox that is used, if EDI Out is checked and only for this trade agreement.
GS_NO	SQL_VARCHAR	9	Unique functional group control number used with TPKEY in outbound maps to quickly retrieve trade agreement records once they have been found.
ISA_TYPE	SQL_VARCHAR	5	EDI standard used by this trading partner in this transaction/message.
<filler>	SQL_VARCHAR	1	No longer used (former delete flag used for DOS maps).
RCV_GSID	Character	35	Override code used to identify the trading partner as the receiver at the group level.
RCV_IDQUAL	Character	4	Override qualifier that specifies the type of code used to identify the trading partner as the receiver at the interchange level.
RCV_IDCODE	Character	35	Override code used to identify the trading partner as the receiver at the interchange level.
ACK_RQSTD	Character	1	Flag that specifies whether a TA1 interchange-level acknowledgement is expected on outbound X.12 maps.
ACK_RQSTD2	Character	1	Flag that specifies whether a group-level functional acknowledgement is expected, only on outbound X12 maps.
EDI_OUT	Character	1	Flag that specifies if inbound EDI data is to be passed through to a mailbox, only on inbound maps.
DAYS	Character	2	“Days” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
HOURS	Character	2	“Hours” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
MINUTES	Character	2	“Minutes” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
SECONDS	Character	2	“Seconds” portion of the time period within which the trading partner expects to receive an interchange-level acknowledgement.
APPL_REF	Character	14	Name of the application messages contained in the EDIFACT UNB envelope.

Field name	Type	Precision	Notes
ACK_MSG	Character	1	Flag that specifies whether a message-level CONTRL segment (UCM) is generated in response to inbound EDIFACT messages.
ACK_INTCH	Character	1	Flag that specifies whether an interchange-level CONTRL segment (UCI) is generated in response to inbound EDIFACT messages.
TRADEKEY	Numeric	10	Unique auto-increment field.

APPENDIX C

Error Codes

The tables in this appendix specify error codes and explanations. The error codes are those that a user can encounter during the File Transfer Protocol (FTP) process, the Asynchronous process, the Process command process, and the execution of the pfs/FAX command.

These symbols and abbreviations are used in the tables:

- The %d symbol represents an integer.
- The %ld symbol represents a long integer.
- The %s symbol represents a character string.
- The abbreviation RC located in ER_1030 stands for Return Code.

The error codes as represented in Table C-1 are those that a user can receive during the FTP process.

Table C-1: Error codes encountered during FTP

Error codes	Explanation
7050	Trace: Start Eftp Successful
7051	Fatal: Start Eftp Failed
7052	Fatal: Load Admin Failed
7053	Trace: Exit Eftp Successful
7054	Error: Delete TRLOG Record(s)
7055	Error: Exit Eftp Failed
7056	Error: Refresh TPLOG Records Failed
7057	Fatal: Failed To Open Script File
7058	Error: Data1 Reposition Failed
7059	Error: Change Local Driver Or Local Directory Failed
7060	Error: Form Resize Failed
7061	Fatal: Set Firewall Server Port Error
7062	Fatal: Set FTP Server Port Error
7063	Error: Change Remote Directory Failed
7064	Error: Change To Long Listing Failed
7065	Error: Failed To Delete Remote Directory
7066	Error: Failed To Change To Parent Directory
7067	Error: Failed To Rename Remote Directory
7068	Error: Failed To Create Local Directory
7069	Error: Failed To Delete Local Directory
7070	Error: Failed To Rename Local Directory
7071	Error: Failed To Delete Local File
7072	Error: Failed To Rename Local File
7073	Fatal: Failed To Log On To:
7074	Trace: Log On To:
7075	Error: Failed To Log Off
7076	Trace: Log Off
7077	Trace: Succeeded To Get File
7078	Fatal: Failed To Get File
7079	Trace: Succeeded To Put File
7080	Fatal: Failed To Put File
7081	Trace: Succeeded To Append File
7082	Fatal: Failed To Append File
7083	Error: Failed To Delete Remote File
7084	Error: Failed To Rename Remote File
7085	Error: Transfer type cannot be changed during a file transfer

Error codes	Explanation
7086	Error: Transfer mode cannot be changed during a file transfer
7087	Error: List type cannot be changed while listing a directory
7088	Fatal: Remote port cannot be changed while connected
7089	Fatal: Port must be defined before connecting
7090	Fatal: Host must be defined before connecting
7091	Error: Transfer still in progress
7092	Fatal: Unable to connect to server
7093	Fatal: Account required to complete login
7094	Fatal: Unable to log into server
7095	Fatal: Must be connected to perform this operation
7096	Error: Another action is already in progress
7097	Error: No target directory specified
7098	Error: No new directory name specified
7099	Error: No target file specified
7100	Error: No new file name specified
7101	Fatal: Remote file is not defined
7102	Fatal: Local file is not defined
7103	Fatal: Unable to open local file
7104	Fatal: Firewall server must be specified before connecting
7105	Fatal: Unknown error occurred:
7106	Error: Set ASCII Transfer Mode Failed
7107	Error: Set Binary Transfer Mode Failed

The error codes as represented by Table C-2 are those that a user can receive during the Asynchronous process.

Table C-2: Error codes encountered during the Asynchronous process

Error codes	Explanation
8050	Trace: Start pfsAsync Successful
8051	Fatal: Start pfsAsync Failed
8052	Trace: Call Page Successful
8053	Error: There is no answer
8054	Error: No Dial Tone
8055	Error: The Line is Busy
8056	Fatal: Port Cannot Be Accessed
8057	Error: Cannot Open Port
8058	Error: Port Number Is Not Provided
8059	Error: Invalid Settings
8060	Error: Port Is Not Open
8061	Error: Capture File Is Missing
8062	Error: Bad Input Command
8063	Error: Bad WaitFor Command
8064	Error: Time Out
8065	Fatal: Script File Cannot Be Opened
8066	Error: WaitFor Command Failed
8067	Error: Hang Up Command Failed
8068	Error: Unknown Protocol
8069	Fatal: Invalid File
8070	Fatal: Cancelled Command
8071	Error: Protocol Is Not Set
8072	Trace: Upload File Successful
8073	Error: Upload File Failed:
8074	Trace: Download File Successful:
8075	Error: Download File Failed
8076	Error: Unknown String In Return Command
8077	Error: Unknown Command
8078	Error: Port Is Not Set Or Pfsasync.ini Is Missing
8079	Error: Modem Is Not Set Or Pfsasynch.ini Is Missing
8080	Error: Modem Is Not Connected
8081	Trace: User Logged on:
8082	Trace: User Logged off:
8083	Error: User Failed LogOn due to Invalid UserID or Password
8084	Error: Invalid upload directory in UPLOADDIR command
8085	Error: Invalid download directory in DOWNLOADDIR command

Error codes	Explanation
8086	Error: Invalid download directory in DOWNLOAD command
8087	Error: Invalid upload directory in UPLOAD command
8088	Error: Unable to append files during download
8089	Error: Invalid transfer option specified:
8090	Error: Framing Error Occurred
8091	Error: Break Detected
8092	Error: CTS Timeout
8093	Error: DSR Timeout
8094	Error: Input Timeout
8095	Error: Overrun Error
8096	Error: Carrier Detected a Timeout
8097	Error: Receive Overflow
8098	Error: Transmit Buffer Overflow
8099	Error: Lost Carrier

The error codes as represented by Table C-3 are those that a user can receive during the running of the Process command.

Table C-3: Error codes encountered during the Process command

Error codes	Explanation
ER_0100	Error: Wrong number of operands given! (should be 4, 5 or 6)
ER_0101	Error: Mandatory Destination Type not found!
ER_0102	Error: Mandatory Source Type not found
ER_0103	Error: Mandatory Operator not found!
ER_0104	Error: Mandatory Source Constant Count not found!
ER_0105	Error: Invalid Destination type!
ER_0106	Error: Invalid Source type!
ER_0107	Error: Invalid Arithmetic operator!
ER_0200	Error: Wrong number of operands given! (should be 2 or 3)
ER_0201	Error: Mandatory Destination Type not found!
ER_0202	Error: Mandatory Source Type not found!
ER_0203	Warning: Source and Destination are the same
ER_0204	Error: Mandatory Destination Constant String not found!
ER_0205	Error: Mandatory Source Constant Count not found
ER_0206	Error: Invalid Destination type!
ER_0207	Error: Invalid Source type!
ER_0600	Error: Wrong number of operands given! (should be 1 or 2)
ER_0601	Error: Mandatory String Parameter not found!
ER_0602	Error: Mandatory String Constant not found!
ER_0603	Error: Invalid String Parameter!
ER_0700	Error: Wrong number of operands given! (should be 2)
ER_0701	Error: Script Line number out-of-range!
ER_0800	Error: Wrong number of operands given (should be 5, 6, or 7)
ER_0801	Error: Script Line number out-of-range!
ER_0802	Error: Mandatory Operand not found!
ER_0803	Error: Mandatory Relational Operator not found!
ER_0804	Error: Mandatory Constant Count Operand not found!
ER_0806	Error: Invalid Operand type!
ER_0807	Error: Invalid Relational Operator!
ER_1020	(1020) Fatal: can’t create %s
ER_1021	(1021) Fatal: Connection to %-30.3-s failed.
ER_1030	(1030) Fatal: %s: RC = %d Error: (%s) [%ld]
ER_1031	(1031) Fatal: memory allocation; loading database- %s
ER_1100	Error: Wrong number of operands given! (s. b. none)
ER_1300	Error: Wrong number of operands given! (s. b. 2 or 3)
ER_1301	Error: Mandatory File Action not found!

Error codes	Explanation
ER_1302	Error: Mandatory Source Parameter not found!
ER_1303	Error: Mandatory Destination Parameter not found!
ER_1304	Error: Unable to delete file named: %s
ER_1305	Error: Unable to combine files in: %s
ER_1306	Error: Invalid File Action!:
ER_1307	Error: Unable to open source file: %s
ER_1308	Error: Unable to open destination file: %s
ER_1400	Error: Wrong number of operands given! (should be 1 or 2)
ER_1401	Error: Mandatory Filename Parameter not found!
ER_1402	Error: Mandatory Filename Constant not found!
ER_1403	Error: Invalid Filename Parameter!
ER_1404	Error: Unable to open file named: %s
ER_1500	Error: Wrong number of operands given! (should be 1 or 2)
ER_1501	Error: Mandatory Filename Parameter not found!
ER_1502	Error: Mandatory Filename Constant not found!
ER_1503	Error: Invalid Filename Parameter!
ER_1504	Error: Unable to open file named: %s
ER_1600	Error: Wrong number of operands given! (should be 2)
ER_1601	Error: Mandatory Channel Type not found!
ER_1602	Error: Invalid Channel Type Parameter!
ER_1603	Error: %ld invoking child process!
ER_1604	Error: Unable to open file: %s!
ER_1605	Error: Unable to read form file: %s!
ER_1606	Error: Result file contained failure.
ER_1700	Error: Wrong number of operands given! (should be 1 or 2)
ER_1701	Error: Line number parameter %d has no matching label!
ER_1702	Error: Label [%s] not found in lookup table!
ER_1703	Error: Label [%s] not in current sub-process!
ER_1800	Error: Wrong number of operands given! (should be between 5 and 8)
ER_1801	Error: Mandatory Operand not found!
ER_1802	Error: Mandatory Constant Count Operand not found!
ER_1803	Error: Mandatory Relational Operator not found!
ER_1804	Error: Invalid Operand type!
ER_1805	Error: Mandatory THEN command not found!
ER_1806	Error: Mandatory THEN label not found!
ER_1807	Error: No label entry found in lookup table!

Error codes	Explanation
ER_1808	Error: Invalid THEN command!
ER_1809	Error: Mandatory ELSE command not found!
ER_1810	Error: Mandatory ELSE label not found!
ER_1811	Error: No label entry found in lookup table!
ER_1812	Error: Invalid ELSE command!
ER_1813	Error: Invalid Relational Operator!
ER_1900	Error: Wrong number of operands given! (should be 1 or 2)
ER_1901	Error: Mandatory String Parameter not found!
ER_1902	Error: Mandatory String Constant not found!
ER_1903	Error: Invalid String Parameter!
ER_2200	Error: Wrong number of operands given! (should be 4 or 5)
ER_2201	Error: Mandatory Report Type not found!
ER_2202	Error: Invalid Report Type!
ER_2203	Error: Mandatory Report Name not found!
ER_2204	Error: Mandatory From Date not found!
ER_2205	Error: Mandatory To Date not found!
ER_2206	Error: Mandatory Destination not found!
ER_2207	Error: Mandatory file type not found!
ER_2208	Error: Invalid File Type!
ER_2209	Info: Returned %d from Crystal Reports Library.
ER_2300	Error: Wrong number of operands given! (should be 2)
ER_2301	Error: Mandatory Resource ID not found!
ER_2302	Error: Invalid Resource ID!
ER_2303	Error: Mandatory Resource Action not found!
ER_2304	Error: Invalid Resource Action!
ER_2305	Error: (Create) Resource %s has already been created!
ER_2306	Error: (Create) INTERNAL ERROR %ld trying to create Resource %s!
ER_2310	Error: (Inquire) Resource %s has not been created!
ER_2311	Error: (Inquire) INTERNAL ERROR %ld checking signal for Resource %s!
ER_2312	Error: (Inquire) Resource %d has not been assigned a Name string!
ER_2313	Error: (Inquire) %ld Resource %s has not been created!
ER_2320	Error: (Release) %ld Resource %s has not been created!
ER_2321	Error: (Release) INTERNAL ERROR %ld trying to release Resource %s!
ER_2400	Error: Wrong number of operands given! (should be none)

Error codes	Explanation
ER_2600	Error: Wrong number of operands given! (should be 1 or more)
ER_2601	Error: Mandatory Command String not found!
ER_2602	Error: Incorrect argument count compared to NumParams!
ER_2603	Error: %ld invoking child process!
ER_2700	Error: Wrong number of operands given! (should be 1)
ER_2701	Error: Mandatory Command String not found!
ER_2702	Error: Conversion failed due to previous errors!
ER_2703	Info: Returned %d from INBOUNDRunCmd
ER_2800	Error: Wrong number of operands given! (should be 1)
ER_2801	Error: Mandatory Command String not found!
ER_2802	Info: Returned %d from OUTBOUNDRunCmd
ER_3100	Error: Wrong number of operands given! (should be 1 – 9)
ER_3101	Error: Mandatory Destination String not found!
ER_3102	Error: Mandatory Source Constant String not found!
ER_3103	Error: Invalid Source type!
ER_3104	Error: Invalid Destination type!
ER_3105	Error: Concatenation OVERFLOW!
ER_3200	Error: Wrong number of operands given! (should be 1)
ER_3201	Error: Mandatory Command String not found!
ER_3210	Error: Wrong number of operands given! (should be 1)
ER_3210A	\nARCHIVE STATUS: Mandatory Source IP Address not given!
ER_3210B	\nARCHIVE STATUS: Mandatory Source Port number not given!
ER_3210C	\nARCHIVE STATUS: Mandatory Source Directory type not given!
ER_3210D	\nARCHIVE STATUS: Mandatory Source Directory not given!
ER_3210E	\nARCHIVE STATUS: Mandatory Source File Type not given!
ER_3210F	\nARCHIVE STATUS: Mandatory Source File Name not given!
ER_3210G	\nARCHIVE STATUS: Mandatory Archive IP Address not given!
ER_3210H	\nARCHIVE STATUS: Mandatory Archive port number not given!
ER_3210I	\nARCHIVE STATUS: Mandatory Archive Directory type not given!
ER_3210J	\nARCHIVE STATUS: Mandatory Archive not given!
ER_3210K	\nARCHIVE STATUS: Mandatory Archive File Type not given!
ER_3210L	\nARCHIVE STATUS: Mandatory Archive File Name not given!
ER_3210M	\nARCHIVE STATUS: WSPROCES unable to obtain its IP Address!

Error codes	Explanation
ER_3210N	\nARCHIVE STATUS: WSPROCES UNABLE to initialize winsock library!
ER_3210P	\nARCHIVE STATUS: Delete flag not supplied – must be 220 or 221
ER_3211	\nARCHIVE STATUS: Mandatory Command String not found!
ER_3221	\nARCHIVE STATUS: Invalid file type!
ER_3231	\nARCHIVE STATUS: Invalid directory!
ER_3241	\nARCHIVE STATUS: Fail to insert archive information into ECEDIGS database!
ER_3251	\nARCHIVE STATUS: Fail to insert archive information into TRLOG database!
ER_3300	Error: Wrong number of operands given! (should be 1)
ER_3301	Error: Mandatory Interval value not found!
ER_3400	Error: Wrong number of operands given! (should be 1)
ER_3401	Error: Mandatory Toggle ID not found!
ER_3402	Error: Invalid Toggle ID!
ER_4000	Error: Invalid Toggle ID!
ER_4001	Error: PEOpenPrintJob().
ER_4002	Error: PEGetNParamsFields().
ER_4003	Error: PEGetNthParametrField().
ER_4004	Error: PESetNthParameterField().
ER_4005	Error: PESetPrintDate().
ER_4006	Error: PEHasSavedData().
ER_4007	Error: PEDiscardSavedData().
ER_4008	Error: PESetNthTableLogOnInfo().
ER_4009	Error: PEOutputToPrinter().
ER_4010	Error: PEExportTo().
ER_4011	Error: rpt_type is not found.
ER_4012	Error: PEStartPrintJob().
ER_4013	Error: PEClosePrintJob().
ER_4100	Error: Wrong number of operands given! (should be 4 to 8)
ER_4101	Error: Destination parameter not found.
ER_4102	Error: Invalid destination parameter.
ER_4103	Error: Source parameter not found.
ER_4104	Error: Invalid source parameter.
ER_4105	Error: Sub-string start parameter not found
ER_4106	Error: Invalid occurrence of start delimiter

Error codes	Explanation
ER_4107	Error: Invalid sub-string start parameter.
ER_4108	Error: Invalid start position of sub-string.
ER_4109	Error: Sub-string length parameter not found.
ER_4110	Error: Invalid occurrence of end delimiter.
ER_4111	Error: Invalid sub-string end parameter.
ER_4112	Error: Invalid sub-string requested.
ER_6600	Error: No files match wildcard source %s
ER_6601	Error: Wrong number of operands given!
ER_9000	Error: Unable to open directory!
ER_9001	Error: Unable to open source file: %s
ER_9002	Error: Unable to close directory!

The error codes as represented by Table C-4 are those that a user can receive during the execution of pfsFAX command.

Table C-4: Error codes encountered during the pfsFAX command

Error codes	Explanation
ER_7200	Trace: An error occurred during faxing
ER_7201	Trace: The faxing process is OK
ER_7202	Trace: The faxmodem is being initialized with the Init string!
ER_7204	Trace: Initializing a send operation!
ER_7205	Trace: Dialing the destination fax
ER_7206	Trace: Done dialing, waiting for answer
ER_7207	Trace: Connected to remote fax
ER_7209	Trace: Received destination’s identification string
ER_7213	Trace: We have successfully negotiated faxing parameters
ER_7214	Trace: Actually sending fax data
ER_7215	Trace: Reached end of page
ER_7216	Trace: The faxmodem port is closed
ER_7217	Trace: The fax was aborted, probably due to a cancellation
ER_7218	Trace: The fax is completed
ER_7250	Fatal: Unsupported Action property setting
ER_7251	Fatal: Error Scheduling Fax
ER_7252	Fatal: Unable to register application with FaxMan Server
ER_7253	Fatal: Error canceling Fax
ER_7254	Fatal: Error creating Fax File
ER_7255	Fatal: Internal Error - Bad internal pointer
ER_7256	Fatal: Set Server Configuration failed

Error codes	Explanation
ER_7257	Fatal: Error attempting to shutdown server
ER_7258	Fatal: No Option name set when setting ServerOptionSetting
ER_7260	Fatal: No Command Acknowledgement from Modem
ER_7261	Fatal: Unsupported FaxModem!
ER_7262	Fatal: Error Initializing Modem
ER_7263	Fatal: Bad FDIS Settings
ER_7264	Fatal: Error Setting Local ID
ER_7265	Fatal: Error Dialing
ER_7266	Fatal: Error connecting to Remote fax.
ER_7267	Fatal: Bad FCSI string
ER_7268	Fatal: Error receiving negotiated FDIS
ER_7269	Fatal: Internal State Error
ER_7270	Fatal: Line Busy
ER_7271	Fatal: No Dial Tone
ER_7272	Fatal: Didn't get Connect message
ER_7273	Fatal: User Cancelled!
ER_7274	Fatal: Bad or missing FPTS
ER_7275	Fatal: Bad or missing FHNG
ER_7276	Fatal: FDCS not found:
ER_7277	Fatal: General Modem Error
ER_7278	Fatal: Invalid Fax Files
ER_7279	Fatal: Incompatible DLL/Server releases
ER_7290	Trace: File Was Successfully Faxed
ER_7291	Fatal: Fax Number Is Missing
ER_7292	Fatal: Take More Than 2 Minutes to Configure Devices, Time Out
ER_7293	Fatal: Both Comments and Fax File Is Missing
ER_7294	Fatal: File To Fax Does Not Exits
ER_7295	Fatal: Faxman32.exe is missing or not in the path, or some related DLL or OCX is not correctly installed
ER_7296	Fatal: Time out. Fax took longer than 20 minutes!

APPENDIX D

Data Dictionary

This appendix describes the fields in your log files. A data dictionary is a collection of descriptions of the data objects or items in a data model. You can consult a data dictionary to understand where a data item fits in the structure and what values it can contain.

Table D-20 shows the fields in the ARCHFILE log file.

Table D-1: Field descriptions for the ARCHFILE file

Field	Datatype	Width	Description
T_STAMP	Text	50	Timestamp, the date and time for archiving and put at the end of the archived file
FILENAME	Text	100	Name of the archived file
FOLDERNAME	Text	200	Directory where the archived file is located
EXPIREDATE	Text	50	Reserved for future use
STORDATE	Date/Time	--	The date of archiving
STORETIME	Date/Time	--	The time of archiving
ORIGFOLDER	Text	200	Directory where the file to be archived will be located
ORIGFILE	Text	100	The file to be archived
ARCHIVEEXE	Text	255	Executable name for archive, currently is FileCopy or empty
RESTOREEXE	Text	255	Executable name for restore, currently is FileCopy or empty
S_D_ORDER	Text	1	Reserved for future use
LONGFILE	Text	1	Reserved for future use
R_DEST	Text	1	Reserved for future use
OPERATOR	Text	50	Reserved for future use
RUN_LOCAL	Text	1	Indicator if archive is in the local machine, even if there are remote Source or Destination IP and port provided

Table D-2 shows the fields in the COMMCH log file.

Table D-2: Field descriptions for the COMMCH file

Field	Datatype	Width	Description
CH_NAME	Text	50	The name for Communication Channel
CH_TYPE	Text	50	Communication Channel Type: FTP, and so on
TEMPSCRIPT	Text	1	If this channel uses template script file, Y: Yes, N: No

Field	Datatype	Width	Description
DESCRIPT	Text	255	Description for this channel
MBOXNAME	Date/Time	50	MailBox name for this channel
MBOXFOLDER	Date/Time	200	MailBox folder for this channel
DIRECTION	Text	10	Direction of this channel: send, receive, or both
INPUTFILE	Text	255	The template script file name
RECVFILE	Text	255	Name of the file to be received
SENDFILE	Text	255	Name of the file to be sent
SCRIPTFILE	Text	255	Script file name
COMMEXE	Text	255	Communication executable name for channel type Async-Other
USERID	Text	50	User ID
USRACCOUNT	Text	50	User account
USERPWD	Text	30	User password
HOSTID	Text	100	Server name for FTP server
PHONENO	Text	20	Reserved for future use
PORT	Text	5	Port number for FTP server
FWSERVER	Text	100	Firewall Server name for FTP
FWPORT	Text	5	Port number for firewall FTP server
PASSIVE	Text	1	FTP server transfer file in passive mode
PAR0NAME	Text	50	The first parameter name in the template script file
PAR0VALUE	Text	200	The value for the first parameter
PAR1NAME	Text	50	The second parameter name in the template script file
PAR1VALUE	Text	200	The value for the second parameter
PAR2NAME	Text	50	The third parameter name in the template script file
PAR2VALUE	Text	200	The value for the third parameter
PAR3NAME	Text	50	The fourth parameter name in the template script file
PAR3VALUE	Text	200	The value for the fourth parameter
PAR4NAME	Text	50	The fifth parameter name in the template script file
PAR4VALUE	Text	200	The value for the fifth parameter
PAR5NAME	Text	50	The sixth parameter name in the template script file
PAR5VALUE	Text	200	The value for the sixth parameter
PAR6NAME	Text	50	The seventh parameter name in the template script file
PAR6VALUE	Text	200	The value for the seventh parameter
PAR7NAME	Text	50	The eighth parameter name in the template script file
PAR7VALUE	Text	200	The value for the eighth parameter
PAR8NAME	Text	50	The ninth parameter name in the template script file
PAR8VALUE	Text	200	The value for the ninth parameter
PAR9NAME	Text	50	The tenth parameter name in the template script file

Field	Datatype	Width	Description
PAR9VALUE	Text	200	The value for the tenth parameter
PAR10NAME	Text	50	The eleventh parameter name in the template script file
PAR10VALUE	Text	200	The value for the eleventh parameter
PAR11NAME	Text	50	The twelfth parameter name in the template script file
PAR11VALUE	Text	200	The value for the twelfth parameter
PAR12NAME	Text	50	The thirteenth parameter name in the template script file
PAR12VALUE	Text	200	The value for the thirteenth parameter
PAR13NAME	Text	50	The fourteenth parameter name in the template script file
PAR13VALUE	Text	200	The value for the fourteenth parameter
PAR14NAME	Text	50	The twelfth parameter name in the template script file
PAR14VALUE	Text	200	The value for the twelfth parameter
PAR14NAME	Text	50	The fifteenth parameter name in the template script file
PAR15VALUE	Text	200	The value for the sixteenth parameter
PAR16NAME	Text	50	The seventeenth parameter name in the template script filee
PAR16VALUE	Text	200	The value for the seventeenth parameter
PAR17NAME	Text	50	The eighteenth parameter name in the template script file
PAR17VALUE	Text	200	The value for the eighteenth parameter
PAR18NAME	Text	50	The nineteenth parameter name in the template script file
PAR18VALUE	Text	200	The value for the nineteenth parameter
PAR19NAME	Text	50	The twentieth parameter name in the template script file
PAR19VALUE	Text	200	The value for the twentieth parameter

Table D-3 shows the fields in the ERROR log file.

Table D-3: Field descriptions for the ERROR file

Field	Datatype	Width	Description
RUN_ID	Number	9	Run ID
ISA_SEND	Text	35	ISA Send
ISA_RECV	Text	35	ISA Receiver
GS_SEND	Text	35	Group Start Send
GS_RECV	Text	35	Group Start Receive
GS_NUMBER	Text	35	Group Start Segment Number
ST_NUMBER	Text	35	Transaction Start Number
TRANS_NAME	Text	3	Transaction Name
SEGMENT	Text	3	Segment
SEG_NUMBER	Text	10	Segment Number
SEG_ERROR	Text	50	Segment Error

Field	Datatype	Width	Description
ELEM_NO	Text	2	Element Number
SUBELEM_NO	Text	2	Sub-element Number
ELEM_ERROR	Text	50	Element Error

Table D-4 shows the fields in the ISSERV log file.

Table D-4: Field descriptions for the ISSERV file

Field	Datatype	Width
IS_KEY	AutoNumber	Long Integer
IS_SYSTEM	Text	50
IS_NAME	Text	1
IS_TYPE	Text	100
IS_P_STR	Date/Time	120
IS_INDIR	Date/Time	250
IS_C_STR	Text	250
IS_C_STR2	Text	250
IS_OUTDIR	Text	120
IS_R_IP	Text	15
IS_R_PORT	Number	Long Integer
IS_ENABLE	Text	1
IDENTITY	Text	12
CODE	Text	12
DESC	Text	55
DISPLAYED	Text	100

Table D-5 shows the fields in the LOOKUP log file.

Table D-5: Field descriptions for the LOOKUP file

Field	Datatype	Width	Description
IDENTITY	Text	12	The name for the entity to look up
CODE	Text	12	Code value for this entity
DESC	Text	55	Description for this entity
DISPLAYED	Text	100	The information which is displayed on the screen for this entity

Table D-6 shows the fields in the MBOX log file.

Table D-6: Field descriptions for the MBOX file

Field	Datatype	Width	Description
MBOXNAME	Text	50	MailBox name

Field	Datatype	Width	Description
MBOXFOLDER	Text	200	MailBox folder
USERTYPE	Text	20	Reserved for future use

Table D-7 shows the fields in the PASSWORD log file.

Table D-7: Field descriptions for the PASSWORD file

Field	Datatype	Width	Description
USERNAME	Text	50	User name for EC Gateway
USERPASSWORD	Text	50	User password
SYSTEMRIGHT	Text	Yes/No	If user has right to use System
CHANNELRIGHT	Yes/No	Yes/No	If user has right to use Channel
MAILBOXRIGHT	Yes/No	Yes/No	If user has right to use Mailbox
TPRIGHT	Yes/No	Yes/No	If user has right to use TradePartner
COMPANYRIGHT	Yes/No	Yes/No	If user has right to use Company ID
SCHEDULERIGHT	Yes/No	Yes/No	If user has right to use Scheduler
PROCESSRIGHT	Yes/No	Yes/No	If user has right to use Process
RUNMAPRIGHT	Yes/No	Yes/No	If user has right to use Run Map
LOGRIGHT	Yes/No	Yes/No	If user has right to use Log
REPORTRIGHT	Yes/No	Yes/No	If user has right to use Report
ARCHIVERIGHT	Yes/No	Yes/No	If user has right to use Archive
RESTORERIGHT	Yes/No	Yes/No	If user has right to use Restore

Table D-8 shows fields of the PROCFILE file.

Table D-8: Field descriptions for the PROCFILE

Field	Datatype	Width	Description
P_NAME	Text	50	Process name
P_ORDER	Number	200	Directory where the process is located
P_LABEL	Text	50	For future use
DISABLED	Text	255	Description for the process
CMDNAME	Number	Double	For future use
CMDNUMBER	Number	Long Integer	The number for this command used by the program
CMDTEXT	Text	255	Command text displayed on screen
OPERAND1	Text	255	Info displayed in the first text box on the command screen
OPERAND2	Text	255	Info displayed in the second text box on the command screen
OPERAND3	Text	255	Info displayed in the third text box on the command screen
OPERAND4	Text	255	Info displayed in the fourth text box on the command screen
OPERAND5	Text	255	Info displayed in the fifth text box on the command screen

Field	Datatype	Width	Description
OPERAND6	Text	255	Info displayed in the sixth text box on the command screen
OPERAND7	Text	255	Info displayed in the seventh text box on the command screen
OPERAND8	Text	255	Internal Use
OPERAND9	Text	255	Internal Use
OPERAND10	Text	255	Internal Use
OPERAND11	Memo	--	For info longer than 256 characters
PARAMCODE1	Number	Long Integer	Internal Use
PARAMCODE2	Number	Long Integer	Internal Use
PARAMCODE3	Number	Long Integer	Internal Use
PARAMCODE4	Number	Long Integer	Internal Use
PARAMCODE5	Number	Long Integer	Internal Use
PARAMCODE6	Number	Long Integer	Internal Use
PARAMCODE7	Number	Long Integer	Internal Use

Table D-9 shows the PROCNAME file.

Table D-9: Field descriptions for the PROCNAME file

Field	Datatype	Width	Description
P_NAME	Text	50	Process name
P_FOLDER	Text	200	Directory where the process is located
P_TYPE	Text	50	For future use
DESCRIPT	Text	255	Description for the process
PARAMNO	Number	Double	For future use

Table D-10 shows the RUN_ID file.

Table D-10: Field descriptions for the RUN_ID file

Field	Datatype	Width	Description
RUN_NO	Number	Single	Run ID, every time a process, map, e-ftp, or pfs/async is run, this number is increased by one and used as the indicator of this processing in the log table

Table D-11 shows the fields in the SMON log file.

Table D-11: Fields descriptions for the SMON file

Field	Datatype	Width	This table is for Interactive Gateway only
SM_SYSTEM	Number	50	
SM_IP	Text	50	

Field	Datatype	Width	This table is for Interactive Gateway only
SM_PORT	Number	Long Integer	
SM_MINS	Number	Longer Integer	

Table D-12 shows the fields in the SPORT log file.

Table D-12: Fields descriptions for the SPORT file

Field	Datatype	Width	This table is for Interactive Gateway only
SM_SYSTEM	Text	50	
SM_NAME	Text	50	
SM_PORT	Number	Long Integer	
SM_PTYPE	Number	Longer Integer	

Table D-13 shows the fields in the SSERV log file.

Table D-13: Fields descriptions for the SSERV file

Field	Datatype	Width	This table is for Interactive Gateway only
SS_SYSTEM	Text	50	
SM_NAME	Text	50	
SS_IP	Text	50	
SM_PORT	Number	Longer Integer	
SM_NPORT	Number	Longer Integer	
SS_MPORT	Number	Longer Integer	

Table D-14 shows the fields in the SYSTEM log file.

Table D-14: Field descriptions for the SYSTEM file

Field	Datatype	Width	This table is for Interactive Gateway only
SYSTEMNAME	Text	50	The system name
TPDSN	Text	50	ODBC Data Source Name for Trading Partner database
LOGDSN	Text	50	ODBC Data Source Name for Log database
TPCON	Text	250	ODBC Connection String for Trading Partner database
LOGCON	Text	250	ODBC Connection String for Log database
ARCHIVEDIR	Text	200	Directory for Archive destination
MAPDIR	Text	200	Map directory
MBOXDIR	Text	200	Main MailBox directory
EMAILEXE	Text	255	E-mail executable name
FAXEXE	Text	255	FAX executable name

Field	Datatype	Width	This table is for Interactive Gateway only
ENCRYPTEXE	Text	255	Encrypt executable name
DECRYPTEXE	Text	255	Decrypt executable name
SYSTEMDSN	Text	50	ODBC Data Source Name for System database
SYSTEMCON	Text	250	ODBC Connection String for System database
SYSTEMHOST	Text	100	Reserved for future use
SOURCEIP	Text	50	Source machine IP address for Archive
SOURCEPORT	Text	10	Source machine port number for Archive
SOURCEDIR	Text	200	Directory for Archive source
ARCHIVEIP	Text	50	Destination machine IP address for Archive
ARCH_PORT	Text	10	Destination machine port number for Archive
RUNUNIX	Text	1	If this system is for UNIX there is a different Scheduler functionality

Table D-15 shows the fields in the SYSUSER log file.

Table D-15: Field descriptions for the SYSUSER file

Field	Datatype	Width	This table is for Interactive Gateway only
USERNAME	Text	50	User name for the systems, which uses this database as their system database, systems are database-based. If different systems use the same database, all the system tables are shared.
USERPWD	Text	10	Password
CREATOR	Text	50	Reserved for future use

Table D-16 shows the fields in the TEMPPROC log file.

Table D-16: Field descriptions for the TEMPPROC file

Field	Datatype	Width	This table is for Interactive Gateway only
SCRIPTLINE	Number	Long Integer	For internal use only. For temporary storage during creation process.
P_NAME	Text	50	
OPERAND1	Text	255	
OPERAND2	Text	255	
OPERAND3	Text	255	
OPERAND4	Text	255	
OPERAND5	Text	255	
OPERAND6	Text	255	
OPERAND7	Text	255	
OPERAND8	Text	255	

Field	Datatype	Width	This table is for Interactive Gateway only
OPERAND9	Text	255	
OPERAND10	Text	255	
OPERAND11	Text	255	
OPERAND12	Text	255	
OPERAND13	Text	255	
OPERAND14	Text	255	
OPERAND15	Text	255	
OPERAND16	Text	255	
OPERAND17	Text	255	
OPERAND18	Text	255	
OPERAND19	Text	255	
OPERAND20	Text	255	
OPERAND21	Memo	--	

Table D-17 shows the fields in the TP DATABASE log file.

Table D-17: Field descriptions for the TP DATABASE file

Field	Datatype	Width	Description
CUST NO	Text	35	Trading Partner ID
<filer>	Text	1	Not Used
NAME	Text	35	Internal name of trading partner
IDQUAL	Text	4	ID Qualifier (interchange level)
IDCODE	Text	35	ID Code (interchange level)
AUTH_QUAL	Text	2	Authentication Qualifier (interchange level)
AUTH_CODE	Text	10	Authentication Code (interchange level)
SECU_QUAL	Text	2	Security Qualifier (interchange level)
SECU_CODE	Text	10	Security Code (interchange level)
GSID	Text	35	Group ID – trading partner functional group level
SHIPQUAL	Text	2	Ship To Qualifier
SHIPIDEN	Text	15	Ship To Identifier Code
BILLQUAL	Text	2	Bill To Qualifier
BILLIDEN	Text	15	Bill To Identifier Code
ADDR1	Text	35	Street Address 1
ADDR2	Text	35	Street Address 2 (additional address)
CITY	Text	19	City
STATE	Text	15	State
COUNTRY	Text	25	Country

Field	Datatype	Width	Description
ZIP	Text	9	Zip code
CONTACT1	Text	35	Name of Trading Partner Contact 1
TELEPHONE1	Text	22	Telephone Number of Contact 1
CONTACT2	Text	35	Name of Trading Partner Contact 2
TELEPHONE2	Text	22	Telephone Number of Contact 2
ISA_IN_NO	Text	9	Interchange-level control number inbound
ISA_OUT_NO	Text	9	Interchange-level control number outbound.
SND_GSID	Text	35	Company ID – group level
SND_IDQUALText	Text	4	TP Qualifier – interchange level.
SND_IDCODE	Text	35	TP Identifier Code – interchange level.
SUB_DELIMT	Text	3	X.12 Sub-element Delimiter override character.
ELE_DELIMT	Text	3	X.12 Element Delimiter override character
SEG_DELIMT	Text	3	X.12 Segment Delimiter override character
RELEASE_CH	Text	3	X.12 Release Character override Text.
X12 REPEAT	Text	3	X.12 Repetition Character override character.
<filler>	Text	1	Not used
EDIF_SUBDL	Text	3	EDIFACT Sub-element delimiter override character
EDIF_ELEDL	Text	3	EDIFACT Element Delimiter override character
EDIF_SEGDL	Text	3	EDIFACT Segment Delimiter override character.
EDIF_RELCH	Text	3	EDIFACT Release Character override characterer.
EDIF_REPEA	Text	3	EDIFACT Repeat Character override character.
HL7_SEGDL	Text	3	HL7 Segment Delimiter override character.
HL7_ELEDL	Text	3	HL7 Element Delimiter override character.
HL7_SUBDL	Text	3	HL7 Sub-element Delimiter override character.
HL7_SUBSUB	Text	3	HL7 Component Delimiter override character.
HL7_RELCH	Text	3	HL7 Release Character override character.
HL7_REPEAT	Text	3	HL7 Repeat Character override character.
EXPORT_FLG	Text	1	Export Flag for records to be moved.
MBOX_NAME	Text	35	Internal mailbox Name.
MAILBOX	Text	100	Full path location (directory) of Mailbox.
CURR_FMT	Text	1	Decimal Character: Decimal (D) or Comma (C)
POS_LTR		1	Reserved for future use.
TPKEY	Numeric	10	Unique auto-increment field

Table D-18 shows the fields in the TRADSTAT log file.

Table D-18: Field descriptions for the TRADSTAT file

Field name	Type	Width	Notes
CUSTNO	Text	35	Trading Partner Internal ID
MAP_TRAN	Text	6	Transaction Identifier.
ST03	Text	35	Implementation Convention Reference.
DIR	Text	3	Direction/Purpose of Maps
STAT	Text	1	Status (Test or Production)
VERS	Text	12	Version of EDI Standard
TBCODE	Text	60	Map Name.
MBOX_NAME	Text	35	Trading Partner Internal Mailbox Name.
DEST	Text	100	Override Path to Mailbox
FILE	Text	30	File Name TP Mailbox
GS_NO	Text	9	Group Number
ISA_TYPE	Text	5	EDI Standard.
<filler>	Text	1	Not Used
RCV_GSID	Text	35	Receiver Trading Partner Group ID Code
RCV_IDQUAL	Text	4	Receiver TP ID Qualifier (Interchange Level)
RCV_IDCODE	Text	35	Receiver TP ID Code (Interchange Level)
ACK_RQSTD	Text	1	Acknowledgement Expected (Interchange Lvl.)
ACK_RQSTD2	Text	1	Acknowledgement Expected (Group Level)
EDI_OUT	Text	1	Inbound EDI Output to Mailbox
DAYS	Text	2	Number of Days to Receive Acknowledgement
HOURS	Text	2	Number of Hours to Receive Acknowlegement
MINUTES	Text	2	Number of Minutes to Receive Acknowlegement
SECONDS	Text	2	Number of Seconds to Receive Acknowlegement
APPL_REF	Text	14	Name of Application References
ACK_MSG	Text	1	EDIFACT acknowledge at message level
ACK_INTCH	Text	1	EDIFACT acknowledge at interchange level
TRADEKEY	Integer	10	Auto-increment field

Table D-19 shows the fields in the TRLOG DATABASE log file.

Table D-19: Field descriptions for the TRLOG DATABASE fil

Field name	Type	Width	Notes
AFLD	Auto Number	Long Integer	Auto increment field
RUN_ID	Number	Single	Runtime ID.
TYP	Text	1	Type Flag.
RUN_DATE	Date/Time	--	Runtime Date
ACKBY_DATE	Date/Time	--	Acknowledgement by Date

Field name	Type	Width	Notes
TRANS_CODE	Text	2	Transaction Code
TRANS_NAME	Text	6	Transaction Name
TPTNER_ID	Text	35	Trade Partner ID
VERSION	Text	12	Version Number
ISA_TYPE	Text	5	ISA Type
INTERCHANG	Text	35	Interchange Code
GROUP_NO	Text	35	Group Number.
TRANS_NO	Text	35	Transaction Number
APP_RCV_CD	Text	35	Application Receiver Code
APP_SND_CD	Text	35	Application Sender Code
RECV_CODE	Text	35	Receiver Code
SEND_CODE	Text	35	Sender Code
RECV_QUAL	Text	35	Receiver Qualifier
SEND_QUAL	Text	4	Sender Qualifier
ERRORS	Number	Single	Total Errors
STAT	Text	1	Status Code
BYTE_COUNT	Number	Single	Difference in Number of Bytes between ST and SE
DIR	Text	3	Direction of Transaction
FLOW_LEVEL	Text	5	Level of Segment in Flow
RECORD_NAM	Text	10	Record Name
RECORD_NO	Text	6	Field Name
FIELD_NAME	Text	15	Field Name
SEGMENT	Text	3	Segment
SEG_COUNT	Number	Long Integer	Segment Count
ELEMENT	Text	2	Element
SUBELEM	Text	2	Sub-element
SEV_CODE	Text	2	Severity Code
MSG_NO	Text	5	Message Number
MSG_TEXT	Text	100	Message Text

Field name	Type	Width	Notes
FILENAME	Text	160	For ST segments: • Outbound – FILENAME contains the current EDI outbound filename (can change based on tradstat and tp mailbox entries) • Inbound – the inbound EDI filename (always the same) For SE segments and inboundtransactions: • FILENAME contains the current file name of any EDI OUT filenames (can change based on tradstat, tp mailboxes and tradstat EDI OUT field) • File name consists of both complete path and file name
FIELDVAL	Text	30	Field value
USER_IDENT	Text	35	User ID
ACK_EXPECT	Text	1	Acknowledgement Expected
TR_ACK_TYP	Text	1	Transaction Acknowledgement Type (1 indicates user wants an acknowledgement)
T_P_IND	Text	1	TEST_PRODUCTION Indicator (P or blank for production, T for test)
TRANS_CNT	Number	Long Integer	Transaction Count
FILEOFFSET	Number	Single	Number of Bytes File Offset
RCOUNT	Number	Integer	Field for Record Manipulation

Table D-20 shows the fields in the WIXSET log file.

Table D-20: Field descriptions in the WIXSET file

Field name	Type	Precision	Notes
RECORD_NO	Number	4	Record Number
GSID	Text	35	Group ID
NAME	Text	35	Name
IDQUAL	Text	4	ID Qualifier
IDCODE	Text	35	ID Code
AUTH_QUAL	Text	2	Authentication Qualifier
AUTH_CODE	Text	10	Authentication Code
SECU_QUAL	Text	2	Security Qualifier.
SECU_CODE	Text	10	Security Code

APPENDIX E

Reports

Reports are a vital part of the EDI process. They can be helpful in tracking problematic messages and repeating problems. Reports are also important in reflecting which transactions have not been acknowledged or the errors generated by an incorrect EDI message.

There are numerous status reports available that display database information for the sender or receiver in either summary or detailed format. EC Gateway supports these kinds of reports: activity reports, exception reports, managements reports, and other reports.

Activity reports

Activity reports can be viewed By Transaction or By Trading Partner.

- Activity Reports / By Transaction / Test/Production Count
- Activity Reports / By Transaction / Monthly Summary By Trading Partner
- Activity Reports / By Transaction / Summary By Trading Partner
- Activity Reports / By Transaction / Summary By Trading Partner in Table Format
- Activity Reports / By Trading Partner / Daily Summary By Transactions
- Activity Reports / By Trading Partner / Monthly Transactions and Bytes
- Activity Reports / By Trading Partner / Annual Transactions
- Activity Reports / By Trading Partner / Summary By Transaction
- Activity Reports / By Trading Partner / Transaction Log

Exception reports

The exception reports are:

- Exception Reports / Transaction Not Acknowledged
- Exception Reports / Error Log

Management reports

The management reports are:

- Management Reports / System Information
- Management Reports / Comm Channel Information
- Management Reports / MailBox Listing Information
- Management Reports / Trade Partner Detail
- Management Reports / Process Listing

Other reports

Other reports are defined by the user.

Index

D

E

F

G

H

I

L

M

N

O

P

Q

R

S

T

U

V

W

X

Z