Using Expedite/Direct

advantis

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NOTE: Before using this information and the product it supports, be sure to read the general information under "Notices" on page vii.

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Contents

Notices vii
Trademarks and service marks 1-vii

To the reader ix
Who should read this book 1-ix
What this book covers 1-ix
How to use this book 1-x
How to type commands and parameters 1-xi
Related books 1-xii

Introducing Expedite/Direct 1
What is Expedite/Direct? 1-1
What is Information Exchange? 1-1
What is Remote Job Entry (RJE)? 1-2
How Expedite/Direct works—an overview 1-2
Sending and receiving multiple data sets 1-4
Recovering a session 1-4
Accessing Expedite/Direct through the network gateway 1-5
Specifying transparency 1-6
For more information 1-6

Logging on to the IBM Global Network through BSC 1
Identifying your RJE workstation to the network gateway 2-1
Indicating a buffer size to the network gateway 2-2
Logging on to Expedite/Direct through the network gateway 2-3
Logging on to the IBM Global Network 2-5
Using the batch logon record 2-5

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Logging on to the IBM Global Network through SDLC 1
Identifying your SDLC workstation to the network gateway 3-1
Logging on to Expedite/Direct through the network gateway 3-2
Logging on to the IBM Global Network 3-3
Using the batch logon record 3-3

Logging on to Information Exchange 1
Using the IELOGON command 4-2
Looking at examples of the IELOGON command 4-10
Adding comments 4-11

Defining temporary nicknames and lists 1
Using the DEFINE command 5-2
Defining a nickname 5-2
Defining a list 5-3
Looking at examples of the DEFINE command 5-5

Sending a message 1
Sending free-format data 6-2
Using the SEND command 6-3
Specifying the message class for free-format data 6-8
Sending EDI-formatted data 6-9
Sending EDI-formatted data with no command 6-11
Sending EDI-formatted data with the SENDEDI command 6-11
Specifying the message class for EDI-formatted data 6-15
Resolving the Destination and Message Class 6-16
Sending X12-formatted data 6-16
Sending UCS-formatted data 6-18
Sending UN/TDI-formatted data 6-19
Sending EDIFACT-formatted data 6-20

Receiving a message 1
Using the RECEIVE command 7-1
Looking at examples of messages received from a nickname or a list 7-6
Specifying the message class for free-format data 7-6
Specifying the message class for EDI-formatted data 7-8
Looking at examples of the RECEIVE command 7-9
Receiving error messages 7-10

Receiving audit records 7-10
Receiving a session log 7-10
A sample Expedite/Direct session log 7-11

Requesting an audit trail 1
Using the AUDIT command 8-1
Identifying the sender of the audit trail 8-5
Audit record format 8-5

Querying a message 1

Logging off the IBM Global Network 1

Looking at the IBM Global Network logon flow 1
Logging on and waiting for the "Welcome" message A-2
Logging on without waiting for the "Welcome" message A-4
Logging on through SDLC A-5

Looking at an Expedite/Direct session 1
A sample Expedite/Direct BSC RJE session design B-1
Understanding the structure of an Expedite/Direct BSC RJE session B-2
An emulator that waits for the "Welcome" message B-3
An emulator that does not wait for the "Welcome" message B-8
An error condition B-12
Understanding the structure of an Expedite/Direct SDLC session B-13
Establishing an SNA/RJE session B-15
Establishing a non-RJE SNA session B-18
Session examples B-19

Sample Expedite/Direct tests 1
Using Expedite/Direct with a single data set C-1
Input data set 1 . . . . . C-2
Output data sets 1, 2, 3 . . . . . C-2
Using Expedite/Direct with multiple data sets C-2
Input data set 1 . . . . . C-3
Output data set 1 . . . . . C-3

Input data set 2 ..... C-3
Output data sets 2, 3, 4, and 5 ..... C-3
Using comments C-4
Input data set 1 ..... C-4
Output data set 1 ..... C-4
Input data set 2 ..... C-4
Output data sets 2, 3 ..... C-5

Handling errors 1
Handling Expedite/Direct errors D-1
Identifying the error code D-2
Identifying the error message text D-3
Identifying the error input text D-3
Identifying the error type D-4
Handling Expedite/Direct abend errors D-20
Handling IBM Global Network logon errors D-21
Parsing errors D-21
Logon errors D-22
Handling Information Exchange system errors D-24

Glossary 1

Index 5

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To the reader

Who should read this book

This book is for systems programmers and other data processing professionals who are responsible for creating the programs that allow Remote Job Entry (RJE) users to use Information Exchange. This book describes how to use Expedite/Direct, a service designed to help simplify the process of creating those programs. General RJE users who have Information Exchange accounts can also use this book to learn how Expedite/Direct can connect RJE workstations to Information Exchange and to determine the meaning of a particular error message.

What this book covers

This book explains where Expedite/Direct fits within a session between an RJE workstation and Information Exchange and it describes the Expedite/Direct commands. It also explains how to:

- Access the network gateway
- Log on to the network
- Log on to Information Exchange
- Define one or more users with whom you can share Information Exchange messages
- Send Information Exchange messages
- Receive Information Exchange messages
- Request an audit trail of messages
- Log off the network
- Structure a session with Expedite/Direct
- Handle errors
- Query an Information Exchange mailbox

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How to use this book

This book tells you how you can start and complete a successful Information Exchange session with Expedite/Direct. Each chapter explains how Expedite/Direct works with Information Exchange and how you can use the Expedite/Direct commands.

- Chapter 1, "Introducing Expedite/Direct," acquaints you with Information Exchange, Remote Job Entry, and Expedite/Direct. It explains what your RJE workstation must include if you want to use Expedite/Direct and describes how Expedite/Direct works.
- Chapter 2, "Logging on to the IBM Global Network through BSC," explains how to log on to the IBM Global Network through a binary synchronous connection (BSC).
- Chapter 3, "Logging on to the IBM Global Network through SDLC," explains how to log on to the IBM Global Network through a Synchronous Data Link Control (SDLC) connection.
- Chapters 4 through 9 explain the seven Expedite/Direct commands: IELOGON, DEFINE, SEND, SENDEDI, RECEIVE, AUDIT and MSGQUERY. These chapters explain the parameters for each command and show examples of how you can use them.
- Chapter 10, "Logging off the IBM Global Network," tells you how to log off when your session is completed.
- Appendix A, "Looking at the IBM Global Network logon flow," shows the IBM Global Network logon flow for users who are writing interfaces to communicate with Expedite/Direct.
- Appendix B, "Looking at an Expedite/Direct session," describes an Expedite/Direct session by showing the structures of some typical Expedite/Direct sessions and samples of Expedite/Direct input and output.
- Appendix C, "Sample Expedite/Direct tests," shows sample Expedite/Direct commands that you can use to test your interface.
- Appendix D, "Handling errors," describes the Expedite/Direct, IBM Global Network, and Information Exchange error messages and explains how to handle errors that may occur during your sessions.
- This book also includes a glossary and an index.

The chapters are organized to help you find the information that you need quickly and easily. Look for the task that you want to accomplish in the chapter titles listed in the main table of contents. For example, if you want to send a message, you can find that information in Chapter 6, "Sending a message."

How to type commands and parameters

In examples and syntaxes in this book, commands and parameters are shown in uppercase letters. For example:

RECEIVE CLASS(X12);

It is important that you spell these correctly, but it does not matter whether you use uppercase or lowercase letters.

Expedite/Direct commands may consist of the following:

- The command name (for example, SEND)
- Required parameters (for example, the ACCOUNT and USERID parameters for the IELOGON command)
- Optional parameters (for example, the CHARGE parameter for the IELOGON command)

In the syntax diagrams in this book, the required portions of each command (the command name and the required parameters) appear in boldface.

When a syntax diagram shows a word in lowercase italics, you should replace the word. The text that follows the diagram explains what you can replace the word with. For example:

DEFINE NICKNAME(*nickname*) ACCOUNT(*account*) USERID(*userid*);

Replace *nickname* with the nickname that you want to assign to another Information Exchange user. Replace *account* with an account ID. Replace *userid* with a user ID.

A blank must follow the command name. Blanks are allowed between each of the parameters. Blanks are not allowed between the beginning of a parameter and the closing right parenthesis that follows the parameter value.

When a statement or a command is shown with spaces or punctuation, you should type the command exactly as it is shown. For example:

RECEIVE ACCOUNT(ACCT) USERID(USER01);

In this example, type the parentheses and the semicolon in addition to the text. Do not leave any blank spaces inside the parentheses that enclose your parameter values. All Expedite/Direct commands must end with a semicolon.

When parameters are enclosed in braces ({ }) and separated by vertical bars (|), you should use only one of the parameters. When a command name or parameter appears in boldface, you must include the name or the parameter as part of the command. When an option of a parameter is underlined, the system uses it as the default. For example:

SEND

{ **ACCOUNT**(*account*) **USERID**(*userid*) AT(at) } |

{ **LIST**(*listname*) } |

{ **NICKNAME**(*name*) NICKTBL(*nicktbl*) }

CLASS(*class*) CHARGE(*charge*) DLM(*dlm*) ACK(*ack*)

CRLF(NO|YES)

MSGNAME(*msgname*) MSGSEQNO(*msgseqno*)

RETAIN(*retain*);

In this example:

- You must include the command name SEND.
- The boldfaced parameters enclosed in braces and separated by vertical bars indicate that the SEND command must include one—but only one—of the following:
  - An ACCOUNT parameter and a USERID parameter
  - A LIST parameter
  - A NICKNAME parameter

  If the parameters enclosed in braces are not boldfaced, this means the command may include one—but only one—of the parameters separated by vertical bars.
- All the other parameters (CLASS, CHARGE, DLM, ACK, CRLF, MSGNAME, MSGSEQNO, NICKTBL, and RETAIN) are optional.
- You must include a semicolon at the end of the command.

Related books

- *Application Systems/400 Communications Programmer's Guide*, SC21-9590
- *Application Systems/400 Communications User's Guide*, SC21-9601
- *Application Systems/400 SNA Upline Facility Programmer's Guide*, SC21-9594
- *Component Information for the IBM 3780 Data Communication Terminal*, GA27-3063

- *IBM 2780 Data Transmission Terminal Component Description*, GC27-3005
- *Information Exchange Interface Programming Guide*, GC34-2222
- *Introducing Information Exchange*, GC34-2211
- *Understanding Information Exchange Message Charges,* GX66-0653
- *Using Information Exchange Administration Services*, GC34-2221
- *Using Remote Job Entry on the IBM Information Network*, GC34-2219
- *Network User's Guide,* GC34-2284

Chapter 1

Introducing Expedite/Direct

This chapter introduces Expedite/Direct and explains how it interfaces to Information Exchange.

What is Expedite/Direct?

Expedite/Direct is a service that you can use to connect your RJE workstation to Information Exchange. RJE workstations can also be connected to Information Exchange by way of the Batch Data Interface (BDI). Expedite/Direct was designed as an alternative to BDI. To get started using Expedite/Direct, you do not need MVS Job Control Language (JCL) or any Information Exchange commands.

With Expedite/Direct commands, you can send and receive data and define nicknames and lists for your trading partners.

Expedite/Direct supports both free-format data and Electronic Data Interchange (EDI) formatted data. For sending and receiving EDI-formatted data, Expedite/Direct supports the following formats:

- ANSI X12
- UCS
- EDIFACT
- UN/TDI

What is Information Exchange?

Information Exchange is a part of Electronic Data Interchange (EDI) Services—a messaging service of the IBM Global Network—that allows you to send and receive information electronically. You can use EDI services to communicate electronically with business associates in other companies and within your own company.

Information Exchange acts as an electronic mailbox for the IBM Global Network. You send information to Information Exchange, and your business associates (trading partners) can receive it at their convenience. They can send information to you, and you can retrieve it from your Information Exchange mailbox.

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What is Remote Job Entry (RJE)?

You can use the Information Exchange mailbox capabilities when you are establishing a data link from your Remote Job Entry (RJE) workstation to the IBM Global Network.

With your RJE workstation, you can send and receive data to and from Information Exchange through Expedite/Direct. You can also have an audit trail of messages you exchange placed in your mailbox. An RJE workstation generally consists of the following devices:

This device:	Does this:
reader	Submits data streams, in the form of fixed-length records, to an IBM Global Network application, such as Information Exchange. These records contain necessary logon information and data for the application.
printer	Produces paper output. This is where you typically receive session logs from your Expedite/Direct sessions.
punch	Produces output in the form of punched cards. Typically, you will define this as the device where you receive data that is sent to your Information Exchange account.

How Expedite/Direct works–an overview

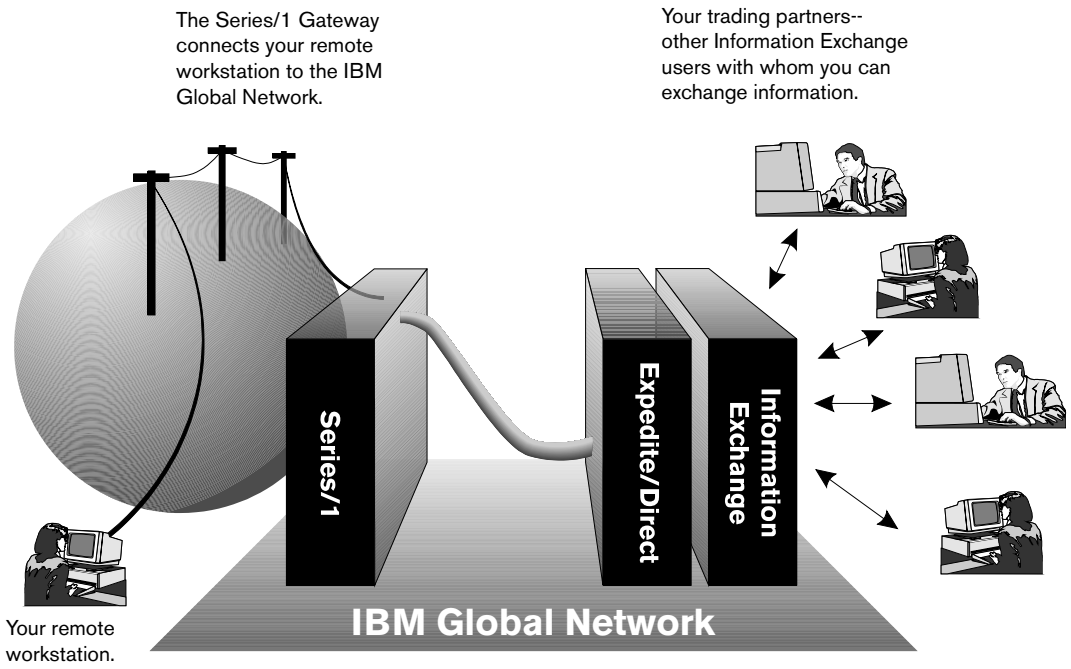
You can use Expedite/Direct to connect your workstation with Information Exchange if:

- Your RJE workstation uses a binary synchronous (BSC) connection and is one of the following devices:
  - An IBM 2770 terminal
  - An IBM 2780 terminal
  - An IBM 3780 terminal
  - A device that emulates one of these terminals
- Your remote workstation uses a synchronous data link control (SDLC) connection and is an IBM 3790 terminal

For information about your RJE workstation requirements, see *Using Remote Job Entry on the IBM Global Network*.

For information about SDLC requirements, see "Logging on to the IBM Global Network through SDLC" on page 3-1.

The following figure shows where Expedite/Direct fits in the connection between your workstation and Information Exchange:



Expedite/Direct receives input from your remote workstation and generates the appropriate Information Exchange commands.

Your RJE workstation connects to the IBM Global Network through a network gateway. Expedite/Direct receives the input that you send from your workstation and generates the Information Exchange commands that allow you to exchange information with other Information Exchange users.

To use Expedite/Direct, you must structure your input in a way that will properly establish the connection between your RJE workstation and Information Exchange. Your input for a typical Expedite/Direct session should include the following components:

- A terminal ID that identifies your RJE workstation to the network gateway
- A batch logon record that logs you on to the IBM Global Network
- An Expedite/Direct IELOGON command that logs you on to Information Exchange

- One or more Expedite/Direct commands

  With the Expedite/Direct AUDIT command, you can request that the Information Exchange system place in your mailbox an audit trail of messages that you exchange with a trading partner.

  With the Expedite/Direct DEFINE command, you can define nicknames and lists for other Information Exchange users with whom you want to exchange information.

  With the Expedite/Direct MSGQUERY command, you can request a list of messages that are in your Information Exchange mailbox.

  With the Expedite/Direct RECEIVE command, you can receive data that other Information Exchange users send to you.

  With the Expedite/Direct SEND command, you can send free-format data to other Information Exchange users.

  With the Expedite/Direct SENDEDI command, you can send EDI-formatted data to other Information Exchange users.

- An IBM Global Network /*LOGOFF or /*SIGNOFF command

NOTE: You may also end your Expedite/Direct session by issuing the RECEIVE CLASS (EDILOG) command. This is the recommended method for ending your session. (Refer to "Receiving a session log" for more information.

For more information about the structure of a typical Expedite/Direct session, see Appendix B, "Looking at an Expedite/Direct session."

Sending and receiving multiple data sets

You can use Expedite/Direct to send or receive more than one data set in a single session. For example, you can use one session to send several sets of EDI-formatted data as well as several more free-format messages.

You can specify the number of data sets that you receive in a session. If you specify that you want to receive all your messages at once (for example, if you do not specify a particular message class), Expedite/Direct sends them to you as one data set. Otherwise, Expedite/Direct sends the messages to you as one data set for each message class that you specify. For more information about specifying how you want to receive messages, see Chapter 7, "Receiving a message."

Recovering a session

Expedite/Direct supports session level and stream level recovery. For session level recovery, if there is an error in one or more of the data sets that make up your session

input, Expedite/Direct rejects the entire session. For stream level recovery, input messages are committed when Information Exchange receives the ENDDATA message indicating the end of the input. Output messages are committed when a session ends normally or another input message request (SEND) is processed. For each data set that you send, Expedite/Direct sends a data set status message to your RJE workstation if requested.

Expedite/Direct sends the data set status message as one data set. You can specify the output device with the DEVICE parameter of the IELOGON command or the RECEIVE command. For more information, see "Using the IELOGON command" on page 4-2 or "Using the RECEIVE command" on page 7-1.

Accessing Expedite/Direct through the network gateway

Expedite/Direct functions under the same conditions as those that apply to all users with RJE workstations that are connected through a network gateway.

The following limitations apply when RJE workstations connect through the network gateway.

- The network gateway requires that records from an RJE workstation must not exceed 80 bytes.
- Multileaving is not supported.

  You cannot transmit and receive data simultaneously between your RJE workstation and Expedite/Direct.

  NOTE: Terminal emulator programs (such as the System/36 Multiple Session Remote Job Entry program) that use multileaving in their BSC implementations are not supported through the network gateway. Before you use Expedite/Direct with a terminal emulator, you should make sure that your emulator package does not use multileaving.

- Console or terminal interrupt (Attention) capability is not supported.

  Your RJE workstation operator cannot signal the host application when the workstation terminal is ready to transmit data.

- Compression and decompression are not supported.
- Input/output devices are limited to readers, punches, and printers.

  The network gateway translates header data that is required to direct output and input to your reader, punch, or printer. Your RJE workstation requires this information to determine which device is being used for each operation.

- The buffer size (BUFSIZE) in your remote definition defaults to 256.

Specifying transparency

Transparency is a BSC mode of communicating that allows you to receive data that contains characters that could be misinterpreted as BSC control characters. This includes any characters less than hex 40. The network gateway supports transparency in both directions: from your RJE workstation to the network gateway and from the network gateway to your RJE workstation.

If you want to receive data in transparency mode, your RJE workstation must be able to support transparency. You can specify whether you want transparency with the TRANSP parameter of the IELOGON command or the RECEIVE command. For more information, see "Using the IELOGON command" on page 4-2 or "Using the RECEIVE command" on page 7-1.

For more information

For information about connecting to the network gateway, see "Identifying your RJE workstation to the network gateway" on page 2-1 and Chapter 3, "Logging on to the IBM Global Network through SDLC."

For more information about connecting your RJE workstation to the IBM Global Network, see *Using Remote Job Entry on the IBM Global Network*. This document includes information about the following:

- IBM Global Network security procedures
- Information Exchange security procedures
- Device type identification

If you are writing your own RJE emulation package, you may find the following manuals helpful:

- *Component Information for the IBM 3780 Data Communication Terminal*
- *IBM 2780 Data Transmission Terminal Component Description*

Chapter 2

Logging on to the IBM Global Network through BSC

This chapter explains how to log on to the IBM Global Network through a BSC connection.

Before you can log on to Information Exchange through a BSC connection, you must do the following:

1. Identify your RJE workstation and specify the buffer size for the network gateway.
2. Log on to the IBM Global Network, identify yourself, and select Expedite/Direct.

For information about logging on to Information Exchange, see Chapter 4, "Logging on to Information Exchange."

For information about logging on to Information Exchange through a Synchronous Data Link Control (SDLC) connection, see Chapter 3, "Logging on to the IBM Global Network through SDLC."

Identifying your RJE workstation to the network gateway

All the supported RJE workstations may use the same physical port on the network gateway. But since the workstations do not all behave the same way, you must specify what type of workstation you are using with the network gateway before you can begin to use Expedite/Direct.

You can identify your workstation by transmitting a terminal ID after you establish your dial connection. If you are using an emulator, you can transmit a terminal ID with your emulator definition.

The network gateway communicates with your workstation, depending on the terminal ID that you send.

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Your terminal emulator must send the following communication parameters.

For this terminal:	Transmit this ID:
IBM 2770	IBM 2770 SYN SYN R R ENQ PAD Use R R as your 2-character terminal ID. The IBM 2770 terminal also has a security feature with a five-character ID. For this, you can transmit PAD SYN SYN R R ? ? ? ENQ PAD. In this case, use R R as your terminal ID and replace ? ? ? with your security ID. Your security ID is a 3-character code that you create.
IBM2780	SYN SYN S S ENQ PAD Use S S as your 2-character terminal ID.
IBM 3780	SYN SYN T T ? ? ? ENQ PAD Use T T as your 2-character terminal ID. Replace ? ? ? with your security ID. Your security ID is a three-character code that you create. This is the default.
An emulator	Your emulator ID is the same as the terminal ID of the terminal you are emulating. For example, an IBM 2770 terminal emulator uses the same ID as the IBM 2770 terminal described above.

Indicating a buffer size to the network gateway

The network gateway always uses a default buffer size of 256 bytes when it sends data to your RJE workstation (the buffer size is the maximum amount of data that is sent in a block between the network gateway and an RJE workstation).

You are not required to specify a buffer size, but you may specify any buffer size up to 512 bytes from your RJE workstation. The network gateway supports any buffer size up to 512 bytes.

Logging on to Expedite/Direct through the network gateway

NOTE: If you are an IBM customer who is writing a program interface to Expedite/Direct, read this section of the book carefully. You will also find useful information in Appendix A, "Looking at the IBM Global Network logon flow."

If you do not need to know how your RJE workstation communicates with Expedite/Direct through the network gateway, skip this section and proceed to "Logging on to the IBM Global Network" on page 2-5.

If you are using a terminal emulator as part of your RJE workstation, note that Expedite/Direct supports the following types of terminal emulators:

- Emulators that wait to receive the IBM Global Network "Welcome" message before attempting to log on to the network
- Emulators that send IBM Global Network logon information before receiving a "Welcome" message

If your emulator is designed to wait for the IBM Global Network "Welcome" message, your logon through the network gateway should consist of the following steps:

1. Dial the network gateway and identify your workstation with a terminal ID.
2. The IBM Global Network sends a "Welcome" message.

   The format of the message is in Appendix A, "Looking at the IBM Global Network logon flow."
3. Send an IBM Global Network batch logon record.

   This is the record that you use to log on to the network. For more information, see "Using the batch logon record" on page 2-5.
4. Expedite/Direct sends a message telling you that your workstation is now in session with Expedite/Direct.

   You must wait for this message before you can proceed.
5. Send your Expedite/Direct commands and data by way of the reader in your workstation.

   The IELOGON command must precede all data or other Expedite/Direct commands.
6. Receive any data that you requested from other Information Exchange users.

7 Send the /*LOGOFF or /*SIGNOFF record.

NOTE: You may also end your Expedite/Direct session by issuing the RECEIVE CLASS (EDILOG) command. This is the recommended method for ending your session. (Refer to "Receiving a session log" for more information.

The session ends and your dial connection is disconnected.

To see a detailed diagram of this logon flow, see Appendix A, "Looking at the IBM Global Network logon flow."

If your emulator is designed to send the batch logon record without waiting for the IBM Global Network "Welcome" message, your logon through the network gateway should consist of the following steps:

1 Dial the network gateway and identify your workstation with a terminal ID.

2 Send an IBM Global Network batch logon record.

This is the record that you use to log on to the network. For more information, see "Using the batch logon record" on page 2-5.

3 The network gateway sends a wait signal (RVI) to your workstation.

4 Expedite/Direct sends a message telling you that your workstation is now in session with Expedite/Direct.

You must wait for this message before you can proceed.

5 Send your Expedite/Direct commands and data by way of the reader in your workstation.

The IELOGON command must precede all data or other Expedite/Direct commands.

6 Receive any data that you requested from other Information Exchange users.

7 Send the /*LOGOFF or /*SIGNOFF record.

NOTE: You may also end your Expedite/Direct session by issuing the RECEIVE CLASS (EDILOG) command. This is the recommended method for ending your session. (Refer to "Receiving a session log" for more information.)

The session ends and your dial connection is disconnected.

To see a detailed diagram of this logon flow, see Appendix A, "Looking at the IBM Global Network logon flow."

Logging on to the IBM Global Network

When you see the IBM Global Network "Welcome" message, use a batch logon record to log on to the IBM Global Network. The batch logon record contains an IBM Global Network /*LOGON command that provides the following information to the network:

- Your IBM Global Network account ID
- Your IBM Global Network user ID
- Your IBM Global Network password
- A new IBM Global Network password and IBM Global Network password verification

NOTE: When you registered on the IBM Global Network, you were assigned an IBM Global Network password. The first time that you log on to the network, you are required to change this password.

In the batch logon record, combine the /*LOGON command with the following IBM Global Network commands:

- a /*SELECT command that selects EDIRECT, which specifies Expedite/Direct
- a /*USERDATA command that includes the value BSCEDI

After you send the batch logon record, you will not receive confirmation from the IBM Global Network that you are logged on. If your IBM Global Network logon is successful, you will receive the Expedite/Direct "Welcome" message.

If your logon is unsuccessful, you will receive a logon error message. For more information about these error messages, see Appendix D, "Handling errors."

Using the batch logon record

In the batch logon record, your /*LOGON command must precede all other commands and data.

Here is the complete format for the batch logon record.

NOTE: You must include all this information in one record.

/*LOGON *account, userid, password/newpass/vpass*
/*SELECT EDIRECT/*USERDATA BSCEDI

Replace this:	With this value:
account	Your IBM Global Network account ID. This is required. An account ID must consist of 1 to 8 alphanumeric characters.
userid	Your IBM Global Network user ID. This is required. A user ID must consist of 1 to 8 alphanumeric characters.
password	Your IBM Global Network password. This is required.
newpass	A new IBM Global Network password that you want to replace your current IBM Global Network password. This is optional unless you are logging on to the IBM Global Network for the first time or you are replacing a password about to expire. Your new IBM Global Network password: • Cannot be the same as the Information Exchange user ID • Must contain 5 to 8 characters • Must contain 3 different characters • Cannot be the same as the previous password • Must begin with an alphabetic character • Can contain only alphanumeric characters, plus the national characters @, # and $ • Must be verified with the *vpass* parameter.
vpass	A new IBM Global Network password that you specified with *newpass*. Use *vpass* to make sure that you typed your new password correctly. This is required when you use the *newpass* parameter.

For example, if you want to log on to the IBM Global Network and you have the following information:

- Your IBM Global Network account ID is ACCT.
- Your IBM Global Network user ID is USER01.
- Your current IBM Global Network password is SECRET.

Your batch logon record will look like this:

```
/*LOGON ACCT,USER01,SECRET/*SELECT EDIRECT/*USERDATA BSCEDI
```

If you have the same information, and you also want to change your IBM Global Network password to FURTIVE, your batch logon record will look like this:

```
/*LOGON ACCT,USER01,SECRET/FURTIVE/FURTIVE/*SELECT EDIRECT/
*USERDATA BSCEDI
```

You can also abbreviate the IBM Global Network command names in your batch logon record so that the record from the previous example will look like this:

```
/*L ACCT,USER01,SECRET/FURTIVE/FURTIVE/*S EDIRECT/*U BSCEDI
```

NOTE: If an error is encountered while processing your batch logon record (before processing your IELOGON command), the error message will be sent to your punch device. After you log on, to change the device and transparency mode, see "Using the IELOGON command" on page 4-2.

Chapter 3

Logging on to the IBM Global Network through SDLC

This chapter explains how to log on to the IBM Global Network through an SDLC connection.

Before you can log on to Information Exchange through an SDLC connection, you must do the following:

1. Identify your SDLC workstation to the network gateway.
2. Log on to the IBM Global Network, identify yourself, and select Expedite/Direct.

The SDLC connection to Expedite/Direct can be made only with workstations that do not require the secondary logical unit (SLU) to be able to send end brackets. Some workstations require SLU end brackets and, therefore, cannot be used for making an SDLC connection through Expedite/Direct.

Expedite/Direct supports SDLC with the AS/400 SNA Upline Facility (SNUF) (IBM 3790 terminal).

For more information about this workstation, see the following books:

- *Application Systems/400 Communications Programmer's Guide*
- *Application Systems/400 Communications User's Guide*
- *Applications Systems/400 SNA Upline Facility Programmer's Guide*

When you enter the IELOGON command or the RECEIVE command, do not enter the transparency (TRANSP) parameter. The default is "No."

NOTE: For NCP connectivity, contact your software vendor for support and set up information.

Identifying your SDLC workstation to the network gateway

All the supported SDLC workstations may use the same physical port on the network gateway, but since the workstations do not all behave the same way, you must specify

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what type of workstation you are using with the network gateway before you can begin to use Expedite/Direct.

You can identify your workstation by transmitting an SNA exchange ID (XID) after you establish your dial connection. The network gateway communicates with your workstation, depending on the XID that you send.

Specify an XID for your workstation as follows:

For this description:	Type this:
terminal type	AS/400 SNUF
XID	05600000
block id	056
local address	08
logical unit type	0

When you connect to SDLC, the network gateway issues an XID with an all-stations broadcast address. You respond with a valid XID. The network gateway extracts the station address from the XID to determine which logical configuration to activate for you. The network gateway then generates the appropriate flows to activate the devices attached to the terminal.

Logging on to Expedite/Direct through the network gateway

Send the batch logon record without waiting for the IBM Global Network "Welcome" message. Your logon through the network gateway should consist of the following steps:

1. Dial the network gateway.
2. Identify your workstation with an SNA XID.
3. Send an IBM Global Network batch logon record.

   This is the record that you use to log on to the network. For more information, see "Using the batch logon record" on page 3-3.
4. The network gateway sends an end bracket indicator (EBI) to your workstation.
5. Expedite/Direct sends a message telling you that your workstation is now in session with Expedite/Direct.

You must wait for this message before you can proceed.

6 Send your Expedite/Direct commands and data.

The IELOGON command must precede all data or other Expedite/Direct commands.

7 Receive any data that you requested from other Information Exchange users.

8 Send the /*LOGOFF or /*SIGNOFF record.

The session ends and your dial connection is disconnected.

Logging on to the IBM Global Network

Use a batch logon record to log on to the IBM Global Network. The batch logon record contains an IBM Global Network /*LOGON command that provides the following information to the network:

- Your IBM Global Network account ID
- Your IBM Global Network user ID
- Your IBM Global Network password
- A new IBM Global Network password and IBM Global Network password verification

NOTE: When you registered on the IBM Global Network, you were assigned an IBM Global Network password. The first time that you log on to the network, you are required to change this password.

In the batch logon record, combine the /*LOGON command with the following IBM Global Network commands:

- a /*SELECT command that selects EDIRECTS, which specifies Expedite/Direct
- a /*USERDATA command that includes the value SNAEDI

If your IBM Global Network logon is successful, you will receive the Expedite/Direct "Welcome" message; otherwise, you will receive a logon error message. For more information about these error messages, see Appendix D, "Handling errors."

Using the batch logon record

In the batch logon record, your /*LOGON command must precede all other commands and data.

The following diagram shows the syntax of the batch logon record.

NOTE: You must include all this information in one record.

/*LOGON *account,userid,password/newpass/vpass*
/*SELECT EDIRECTS/*USERDATA SNAEDI

Replace this:	**With this value:**
account	Your IBM Global Network account ID. This is required. An account ID must consist of 1 to 8 alphanumeric characters.
userid	Your IBM Global Network user ID. This is required. A user ID must consist of 1 to 8 alphanumeric characters.
password	Your IBM Global Network password. This is required.
newpass	A new IBM Global Network password that you want to replace your current IBM Global Network password. This is optional unless you are logging on to the IBM Global Network for the first time or you are replacing a password that is about to expire. Your IBM Global Network password: • Cannot be the same as the Information Exchange user ID • Must contain 5 to 8 characters • Must contain 3 different characters • Cannot be the same as the previous password • Must begin with an alphabetic character • Can contain only alphanumeric characters, plus the national characters @, # and $ • Must be verified with the *vpass* parameter.
vpass	A new IBM Global Network password that you specified with *newpass*. Use *vpass* to make sure that you typed your new password correctly. This is required when you use the *newpass* parameter.

For example, suppose that you want to log on to the IBM Global Network and that you have the following information:

- Your IBM Global Network account ID is ACCT.
- Your IBM Global Network user ID is USER01.
- Your current IBM Global Network password is SECRET.

Your batch logon record will look like this:

```
/*LOGON ACCT,USER01,SECRET/*SELECT EDIRECTS/*USERDATA
SNAEDI
```

If you have the same information, and you also want to change your IBM Global Network password to FURTIVE, your batch logon record will look like this:

```
/*LOGON ACCT,USER01,SECRET/FURTIVE/FURTIVE/*SELECT EDIRECTS/
*USERDATA SNAEDI
```

You can also abbreviate the IBM Global Network command names in your batch logon record so that the record from the previous example will look like this:

```
/*L ACCT,USER01,SECRET/FURTIVE/FURTIVE/*S EDIRECTS/*U SNAEDI
```

NOTE: If an error is encountered while processing your batch logon record (before processing your IELOGON command), the error message will be sent to your punch device. After you log on, for information about changing the device, see "Using the IELOGON command" on page 4-2.

Chapter 4

Logging on to Information Exchange

After you are connected to the IBM Global Network, you can log on to Information Exchange and use Expedite/Direct. This chapter explains:

- How to log on to Information Exchange
- How to use the parameters of the IELOGON command
- How to insert comments in your Expedite/Direct session input

To log on to Information Exchange, follow your IBM Global Network batch logon record with an Expedite/Direct IELOGON command. The IELOGON command provides the following information to Information Exchange:

- Your Information Exchange account ID
- Your Information Exchange user ID
- Your Information Exchange password

You can also use the IELOGON command to provide the following optional information to Information Exchange:

- A new Information Exchange password
- How you want to be charged for the messages that you send and receive during this session
- Your time zone
- The type of acknowledgment that you want to receive for the messages that you send during this session
- The delimiter that you want to appear at the end of this session
- A unique code to identify this session for the session log
- The format that you want for system error messages
- The output device for this session
- Whether you want to receive data in transparency mode
- The number of days you want the message retained in the destination mailbox

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Using the IELOGON command

Here is the complete format of the IELOGON command:

IELOGON ACCOUNT(*account*) **USERID**(*userid*) **PASSWORD**(*password*)

NEWPASS(*newpass*) CHARGE(*charge*) ACK(*ack*) DLM(*dlm*)SESSID(*sessid*)

EMSG(*emsg*) TIMEZONE(*timezone*) TRANSP(NO|YES)

DEVICE(PUNCH|PRINTER) PNICK(NO|YES|ALL) RETAIN(*retain*)

DATAONLY(NO|YES)

DISONERR(NO|YES) RECLEVEL(SESSION|STREAM)

DELBLANK(NO|YES);

After the command name, IELOGON, you can enter the parameters in any order that you like. A blank must follow the command name. Blanks are allowed between each of the parameters but are not allowed between a parameter and the closing right parenthesis following the parameter value.

Include a semicolon at the end of the command.

Replace this:	With this value:
account	Your Information Exchange account ID. This is required. An account ID must consist of 1 to 8 alphanumeric characters.
userid	Your Information Exchange user ID. This is required. A user ID must consist of 1 to 8 alphanumeric characters.
password	Your Information Exchange password. This is required.
newpass	A new Information Exchange password that you want to replace your current Information Exchange password. This is optional. If you are registered as an extended security option (ESO) user, your Information Exchange password: • Cannot be the same as the network user ID • Must contain 5 to 8 characters • Must contain 3 different characters • Cannot be the same as the previous password • Must begin with an alphabetic character • Can contain only alphanumeric characters, plus the national characters @, # and $
charge	How you want to be charged for the messages that you send during this session. This is optional.

NOTE: You cannot use the CHARGE parameter to override the payment level value you set in your Information Exchange profile. Specifying a different charging method with the CHARGE parameter can cause a system error message. For more information about your profile, see your service administrator.

Because you and your trading partners specify charge information independently, there may be times when your parameter is not compatible with that of your trading partner.

For more information about message charges, see *Understanding Information Exchange Message Charges*.

You can specify one of the following values.

This parameter:	Specifies this:
CHARGE(1)	The receiver pays all charges for the messages.
CHARGE(2)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and receiver split the charges.
CHARGE(3)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.
CHARGE(4)	The sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.

	CHARGE(5)	The sender and the receiver split all charges.
	CHARGE(6)	The sender pays all charges.

The default is **CHARGE(3)**.

ack The type of acknowledgment that you want for your data transmission. This is optional.

Specify one of the following values.

This parameter:	**Specifies this:**
ACK(R)	A receipt acknowledgment when Information Exchange receives the message that you are sending.
ACK(D)	A delivery acknowledgment when Information Exchange delivers the message that you are sending.
ACK(B)	Both a receipt acknowledgment and a delivery acknowledgment.
ACK(A)	A purge acknowledgment if your message reaches the storage limit and Information Exchange deletes it from the receiver's queue.
ACK(C)	Both a receipt acknowledgment and a purge acknowledgment.
ACK(E)	Either a purge acknowledgment or a delivery acknowledgment.
ACK(F)	A receipt acknowledgment and either a purge acknowledgment or a delivery acknowledgment.
ACK(N)	No acknowledgment for the message that you are sending. The default is no acknowledgment.

dlm The characters that you want Expedite/Direct to send to you (as the last data set) to indicate a normal session end. This is optional.

Specify from 1 to 40 alphanumeric characters; do not specify parentheses or blanks as delimiter characters. If you want a blank delimiter, specify DLM(BLANKS); this generates a delimiter that consists of 40 blank spaces.

The default delimiter is "EXPEDITE/DIRECT -- SESSION END".

sessid

The unique code that you want to assign to this session. This is optional.

The code that you specify appears in the session log. You can use it to track errors and other problems that occurred in a session. Specify from 1 to 4 alphanumeric characters; do not specify parentheses as session ID characters.

The default is a blank session ID.

emsg

The data format that you want for Expedite/Direct error messages and Information Exchange system messages. This is optional.

You can specify one of the following values.

This parameter:	Specifies this:
EMSG(X12)	Expedite/Direct error messages appear as X12-formatted data.
EMSG(UCS)	Expedite/Direct error messages appear as UCS-formatted data.
EMSG(EDIFACT)	Expedite/Direct error messages appear as EDIFACT-formatted data.
EMSG(UNTDI)	Expedite/Direct error messages appear as UN/TDI-formatted data.
EMSG(FREEFMT)	Expedite/Direct error messages appear as free-format data.

The default is **EMSG(FREEFMT)**.

timezone

Your time zone.

This parameter will accept any of the standard three-letter abbreviations for time zones. The following table shows valid TIMEZONE parameters for time zones in the continental U.S., plus Universal Coordinated Time, formerly known as Greenwich mean time.

This parameter:	Specifies this:
TIMEZONE(EST)	Eastern standard time.
TIMEZONE (EDT)	Eastern daylight time.
TIMEZONE(CST)	Central standard time.
TIMEZONE(CDT)	Central daylight time.
TIMEZONE(MST)	Mountain standard time.
TIMEZONE(MDT)	Mountain daylight time.
TIMEZONE(PST)	Pacific standard time.
TIMEZONE(PDT)	Pacific daylight time.

TIMEZONE(GMT) Universal Coordinated Time (Greenwich mean time).

The default is TIMEZONE(GMT). This means that if you do not specify a time zone, the dates and times on all your messages will appear in Greenwich mean time.

You can also use the TIMEZONE parameter to specify the hours and minutes that your time zone is located, east or west of the Greenwich meridian. The following examples show how to do this.

This parameter:	Specifies this:
TIMEZONE(W0400)	A time zone that is four hours and no minutes west of the Greenwich meridian. (This is equivalent to Eastern daylight time).
TIMEZONE(E1130)	A time zone that is 11 hours and 30 minutes east of the Greenwich meridian.

transp The transparency mode for the data and messages that you receive for this session. This is optional.

This parameter:	Specifies this:
TRANSP(YES)	Receive data and messages in transparency mode. You must specify TRANSP(YES) if you plan to receive data that contains characters that might be misinterpreted as BSC control characters. (This includes any characters less than hex 40.) If you specify TRANSP(YES), you cannot specify DEVICE(PRINTER). You can override a TRANSP parameter in your IELOGON command by specifying a TRANSP parameter for a specific RECEIVE command. For more information, see Chapter 7, "Receiving a message."

The default is **TRANSP(NO)**.

device The output device for this session. This is optional.

Specify either DEVICE(PUNCH) or DEVICE(PRINTER).

You can override a DEVICE parameter in your IELOGON command by specifying a DEVICE parameter for a specific RECEIVE command. For more information, see Chapter 7, "Receiving a message."

The default is **DEVICE(PUNCH)**.

pnick When sending EDI-formatted data, Expedite/Direct uses this parameter to resolve the destination. If you do not define the nickname using the DEFINE command and PNICK is set to YES, Expedite/Direct assumes you want to use a system default global alias table name when resolving the destination while sending EDI-formatted data. The parameter value of ALL allows the global alias tables to be used even for destinations with "ZZ" EDI interchange qualifiers.

This parameter:	Specifies this:
PNICK(NO)	The Information Exchange global alias tables are not to be searched when resolving the destination for EDI-formatted data. This assumes that all nicknames are defined in the current session or that only actual account and userids are used as interchange ID's with "ZZ" as the interchange ID qualifier.
PNICK(YES)	If the nickname used as the interchange ID has not been defined in the current session, the Information Exchange global alias tables should be searched to resolve the nickname. All interchange ID's with interchange ID qualifiers of "ZZ" are assumed to be actual Information Exchange account and userids.

	PNICK(ALL)	If the nickname used as the interchange ID has not been defined in the current session, the Information Exchange global alias tables should be searched to resolve the nickname. Expedite/Direct will attempt to resolve all nicknames including those with interchange ID qualifiers of "ZZ" in the Information Exchange global alias tables. If a nickname with a "ZZ" qualifier is not found in the global alias table, it is assumed to be an actual Information Exchange account and userid.

The default is **PNICK(NO)**.

retain The number of days (3 numeric characters between 0 and 180) the message is to be retained in the destination mailbox. The default is **30**.

dataonly Whether the Expedite/Direct data set status messages indicating the status and sequence of the data set within the data stream should be sent to the user. With the DATAONLY parameter, the data may be received without these data set status messages. If DATAONLY(YES) is specified, then report status messages for the MESSAGE QUEUE QUERY command response are also suppressed.

This parameter:	**Specifies this:**
DATAONLY(NO)	All data set status messages will be received with the data.
DATAONLY(YES)	No data set status messages will be received with the data. The Expedite/Direct "WELCOME" message and "SESSION ENDED" messages will still be received.

The default is **DATAONLY(NO).**

disonerr Whether the Expedite/Direct communication session should be terminated when an application error is encountered. The communication level processing remains in sync with the application level processing and "dump and run" emulators to know that an error has occurred.

This parameter:	**Specifies this:**

	DISONERR(NO)	Expedite/Direct will return an error message and continue normal processing when an error is encountered.
	DISONERR(YES)	Expedite/Direct will terminate the communication session immediately when an error is encountered. It is possible that no error message will be returned when using this option.

The default is **DISONERR(NO)**.

reclevel Specifies which level of recovery is desired for the Information Exchange session.

This parameter:	**Specifies this:**
RECLEVEL(SESSION)	Session level recovery should be used. With session level recovery, messages are committed at the normal end of an Information Exchange session. You must receive the message indicating that your session has ended successfully in order to be certain that all messages have been committed.
RECLEVEL(STREAM)	Stream level recovery should be used. With stream level recovery, input messages are committed when Information Exchange receives the ENDDATA message indicating the end of the input. Output messages are committed when a session ends normally or another input message request (SEND) is processed.

The default is **RECLEVEL(SESSION)**.

delblank Whether blanks following the end of an EDI trailer should be deleted before an input message is forwarded to Information Exchange.

This parameter:	**Specifies this:**
DELBLANK(NO)	Any trailing blanks should be retained and the message should be forwarded to Information Exchange unchanged.
DELBLANK(YES)	Any blanks following the trailer in an EDI message should be stripped before the message is forwarded to Information Exchange.

The default is **DELBLANK(NO)**.

Looking at examples of the IELOGON command

Suppose that you have the following information:

- Your Information Exchange account ID is ACCT.
- Your Information Exchange user ID is USER02.
- Your Information Exchange password is SECRET.

This is the simplest version of the IELOGON command that you can use to log on to Information Exchange:

```
IELOGON ACCOUNT(ACCT) USERID(USER02) PASSWORD(SECRET);
```

This command contains the three values that must appear in every IELOGON command. Note the semicolon that ends the command.

As another example, suppose that you have the information from the previous example and that you want Expedite/Direct to do the following:

- Change your Information Exchange password to ARCANE.
- Charge the sender for all the message charges.
- Specify your time zone as Eastern daylight time.
- Request a receipt acknowledgment for each data transmission.
- Display the characters **** at the end of the session.
- Assign the unique code S001 to this session.
- Display any system error messages in X12 format.
- Use your punch as the output device.
- Receive data and messages in transparency mode.
- Keep the message in the destination mailbox no longer than five days.
- Use the default alias tables stored in Information Exchange for all EDI-formatted data, including data with "ZZ" qualifiers, if the destination ID cannot be resolved by Expedite/Direct.
- Suppress data set status messages.
- Use stream level recovery.

You can use the following IELOGON command:

```
IELOGON ACCOUNT(ACCT) USERID(USER02) PASSWORD(SECRET)
NEWPASS(ARCANE) CHARGE(6) TIMEZONE(EDT) ACK(R)

(****) SESSID(S001) EMSG(X12) DEVICE(PUNCH) TRANSP(YES)
RETAIN(05) PNICK(ALL) DATAONLY(YES) RECLEVEL(STREAM);
```

Adding comments

You can add comments to your input wherever a blank space is permitted:

- Between commands
- Between the parameters of a command
- Between commands and data

NOTE:

1. Do not leave blank spaces inside the parentheses that enclose parameter values unless embedded blanks are specifically allowed for the parameter value.
2. If you are using a SEND command to send a free-format message, do not place a comment between the semicolon that ends the SEND command and the delimiter at the end of the free-format message text. Expedite/Direct will not recognize the comment and will send the comment as part of the message text. For more information, see "Sending free-format data" on page 6-2.

A comment must have the following format:

```
/* comment text... */
```

The comment text can include any valid extended binary-coded decimal interchange code (EBCDIC) characters and can be any length.

Do not use the characters */ together within the text of a comment. Expedite/Direct interprets */ as the end of a comment.

If you want to use the word LOGOFF (or SIGNOFF) as the first word in a comment, be sure to leave at least one blank space between the opening characters /* and the word LOGOFF (or SIGNOFF). Otherwise, Expedite/Direct may treat the comment as a /*LOGOFF (or /*SIGNOFF) command.

Here is an example of a comment located between two commands:

```
IELOGON ACCOUNT(ACCT) USERID(USER01) PASSWORD(SECRET)
ACK(R) EMSG(FREEFMT);
/*Set up nickname for dept. manager*/
DEFINE NICKNAME(MARK) ACCOUNT(ACT3) USERID(USER03);
```

Here is an example of a comment located between the parameters of an IELOGON command:

```
IELOGON ACCOUNT(ACCT) USERID(USER01) PASSWORD(SECRET)
/*Requesting receipt acknowledgment*/ ACK(R) EMSG(FREEFMT);
```

Chapter 5

Defining temporary nicknames and lists

This chapter explains how to use the DEFINE command to define a temporary nickname or list.

The nicknames and lists that you define are valid only for the session in which you define them. When you log off, the definitions are not saved. You can, however, refer to a permanent alias table that resides on the Information Exchange system. See *Using Information Exchange Administration Services* for information.

Nicknames and lists are useful when you are using a session to:

- Send several messages to the same Information Exchange user
- Receive several messages from the same Information Exchange user
- Send the same message to several different Information Exchange users
- Receive messages from several different Information Exchange users

The DEFINE command can save you from typing the same account IDs and user IDs several times in the same session.

When you define a:	Expedite/Direct does this:
nickname	Assigns a name that you specify to a particular Information Exchange account ID and user ID. When you want to send a message to that recipient, use the nickname in the SEND command. When you want to receive messages from that user, use the nickname in the RECEIVE command. When you want to request an audit trail of messages exchanged with a particular user, choose the nickname of that user in the AUDIT command.

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list	Assigns a name that you specify to a group of Information Exchange users. When you want to send a message to all of those recipients, use the list name in the SEND command. When you want to receive messages that may have been sent from those users, choose the list name in the RECEIVE command.

Using the DEFINE command

The DEFINE command must precede any SEND, SENDEDI, RECEIVE, or AUDIT commands that use the defined nicknames or lists.

When you use the DEFINE command, you must specify whether you are defining a nickname or a list.

You can use a single DEFINE command for several nicknames, lists, or a combination of nicknames and lists.

Defining a nickname

Use the NICKNAME parameter of the DEFINE command to assign a nickname to one Information Exchange user. To assign a name to more than one Information Exchange user, choose the LIST parameter described in "Defining a list" on page 5-3.

Here is the format of the DEFINE command that you use to define a nickname:

DEFINE

NICKNAME(*nickname*)

ACCOUNT(*account*) **USERID**(*userid*) AT(*at*);

Replace this:	**With this value:**
nickname	The nickname that you want to assign to the Information Exchange user. The nickname can contain from 1 to 20 alphanumeric characters, including embedded blanks; do not specify parentheses as nickname characters.
account	The account ID for the Information Exchange user. An account ID must consist of 1 to 8 alphanumeric characters.
userid	The user ID for the Information Exchange user. A user ID must consist of 1 to 8 alphanumeric characters.

at	The remote Information Exchange system ID consisting of 3 alphanumeric characters. This parameter is optional if you and your trading partner are on the same Information Exchange system.

Include both an account ID and a user ID.

For example, if you want to assign the nickname "Fred" to an Information Exchange user with the following information:

- The account ID is ACCT.
- The user ID is USER01.

Your DEFINE command will look like this:

```
DEFINE NICKNAME(FRED) ACCOUNT(ACCT) USERID(USER01);
```

Remember that all Expedite/Direct commands must end with a semicolon.

Defining a list

Use the LIST parameter of the DEFINE command to assign a single name to a group of Information Exchange users. You can assign a list name to as many Information Exchange users as you need—there is no limit.

Here is the format of the DEFINE command that you use to define a list:

DEFINE

LIST(*listname*)

ACCOUNT(*account1*) USERID(*userid1*) AT(*at*) | ...

ACCOUNT(*account2*) USERID2(*userid*) AT(*at*) | ...

ALIAS(alias) ...;

Replace this:	**With this value:**
listname	The name that you want to assign to this list. The list name can contain from 1 to 8 alphanumeric characters; do not specify blanks or parentheses as list name characters.
account1	The account ID for the first Information Exchange user. An account ID must consist of 1 to 8 alphanumeric characters.
userid1	The user ID for that user. A user ID must consist of 1 to 8 alphanumeric characters.
account2	The account ID for the second Information Exchange user.
userid2	The user ID for that user.

at The remote Information Exchange system ID consisting of 3 alphanumeric characters. This parameter is optional if you and your trading partner are on the same Information Exchange system.

alias The name of the alias table, consisting of 20 alphanumeric characters, on the Information Exchange system. The first character must be **G**, **O** , or **P**. Characters 2-4 contain the alias table name. Characters 3-20 contain the entry name.

This character:	**Specifies this:**
G	A global alias table
O	An organization name
P	A private alias table

... Other account IDs, user IDs, and aliases that you want to include in the list.

You must include an account ID and a user ID for each Information Exchange user in the list. When you type the DEFINE command for a list, be sure to type each account ID and its corresponding user ID next to each other in the command. Otherwise, Expedite/Direct cannot tell which account ID goes with which user ID.

You can include as many account IDs, user IDs, and aliases as you want in the DEFINE command.

You cannot use a nickname within a list definition.

For example, to assign the name "Dept" to the following list of Information Exchange users:

- The Information Exchange user with account ID ACC1 and user ID USER01
- The Information Exchange user with account ID ACC1 and user ID USER04
- The Information Exchange user with account ID ACC2 and user ID USER25 on a remote system with the system ID of EUR

You can use the following DEFINE command:

```
DEFINE LIST(DEPT) ACCOUNT(ACC1) USERID(USER01)
ACCOUNT(ACC1) USERID(USER04) ACCOUNT(ACC2)
USERID(USER25) AT(EUR);
```

Looking at examples of the DEFINE command

Here is a DEFINE command that defines several nicknames:

```
DEFINE NICKNAME(JERRY) ACCOUNT(ACC3) USERID(USER03)
NICKNAME(MONA) ACCOUNT(ACC5) USERID(USER05)
NICKNAME(ED) ACCOUNT(ACC1) USERID(USER11);
```

Here is a DEFINE command that defines several lists:

```
DEFINE LIST(MKTG) ACCOUNT(ACC7) USERID(USER07)
ACCOUNT(ACC3) USERID(USER23) LIST(ADMIN) ACCOUNT(ACC7)
USERID(USER07) ACCOUNT(ACC9) USERID(USER09)
ACCOUNT(ACC4) USERID(USER44);
```

Here is a DEFINE command that defines a combination of nicknames and lists:

```
DEFINE NICKNAME(JOAN OF ARC) ACCOUNT(ACC5) USERID(USER15)
NICKNAME(HOWARD) ACCOUNT(ACC8) USERID(USER28)
LIST(GROUP) ACCOUNT(ACC2) USERID(USER32) ACCOUNT(ACC1)
USERID(USER50) ACCOUNT(ACC3) USERID(USER08);
```

Chapter 6

Sending a message

This chapter explains how to use the SEND command to send formatted or free-format data.

With Expedite/Direct, you can send the following types of data from your RJE workstation to other Information Exchange users:

- Free-format data
- Electronic Data Interchange (EDI) formatted data. Expedite/Direct supports the following EDI formats:
  - ANSI X12
  - UCS
  - EDIFACT
  - UN/TDI

To send free-format data, use the Expedite/Direct SEND command. If you want to send EDI-formatted data, use the SENDEDI command. You can also send EDI-formatted data without using any command.

This chapter describes how to:

- Send free-format data.
- Use the SEND command.
- Send EDI-formatted data without using a command.
- Use the SENDEDI command.

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Sending free-format data

Use the SEND command to send free-format data. Enter the free-format data immediately after the semicolon that ends the SEND command.

Expedite/Direct sends the data exactly as you enter it. For example, if you leave blank spaces between the semicolon that ends the SEND command and the first character of data, those spaces will appear in the data when it is received. If you enter a comment between the semicolon that ends the SEND command and the delimiter that ends the free-format data, Expedite/Direct will not recognize the comment and will send the comment as part of the message text. For more information, see "Adding comments" on page 4-11.

As an example, if you want to send a free-format message to the following Information Exchange user:

- The Information Exchange account ID is ACC3.
- The Information Exchange user ID is USER03.
- The user is located on a system with the system ID of EUR.

And the message text is the following:

Dear Kurtz. Expect 3 purchase orders. Regards, Marlow

You can use the following SEND command:

```
SEND ACCOUNT(ACC3) USERID(USER03) AT(EUR);  Dear Kurtz.
Expect 3 purchase orders. Regards, Marlow@@@
```

NOTE: Expedite/Direct assumes the message begins immediately after the semicolon, including any spaces or other characters. In this example, the blank spaces between the semicolon and the word "Dear" will appear in front of the message text when the message is received.

If you want to send the same message to the same user but you want a delivery acknowledgment for the message and ***** as the delimiter, use the following SEND command:

```
SEND ACCOUNT(ACC3) USERID(USER03) AT(EUR) ACK(D)
DLM(*****);Dear Kurtz. Expect 3 purchase orders. Regards,
Marlow*****
```

In this case, no blanks will appear before the message text when the message is received.

Using the SEND command

Using the SEND command, specify the Information Exchange users to whom you want to send data. Also specify the following optional information:

- A message class for the data that you want to send
- How you want to be charged for the data that you send
- The type of acknowledgment that you want
- The delimiter that you want to indicate the end of the data
- Whether you want Expedite/Direct to insert carriage-return line-feed (CRLF) characters in the data that you are sending
- The name of the message sent by the SEND command
- The sequence number of the message sent by the SEND command
- The number of days you want this message stored in the destination mailbox
- Whether you want to force the receiver to use specific selection criteria to retrieve a sent message
- A filename to be stored in the CDH
- A file description to be stored in the CDH
- The name of the software package used for compressing the data
- The version of the software package used for compressing the data
- The length of the data after the compression has been applied
- The name of the file where you want the compressed data stored

The following diagram shows the syntax of the SEND command:

SEND

{**ACCOUNT**(*account*) **USERID**(*userid*) AT(*at*)} |

{**LIST**(*listname*)} |

{**NICKNAME**(*name*) NICKTBL(*nicktbl*) }

CLASS(*class*) CHARGE(*charge*) ACK(*ack*) DLM(*dlm*)

CRLF(NO|YES|INC)

MSGNAME(*msgname*) MSGSEQNO(*msgseqno*)

RETAIN(*retain*)

FORCE(NO|YES) FILENAME(*filename*) DESCRIBE(*description*)

COMPSOFT(*software*) COMPSVER(*software version*)

COMPDLEN(*length*) COMFNAME(*filename*);

The boldfaced parameters enclosed in braces and separated by a vertical bar **|** indicate that a SEND command must include one—but only one—of the following:

- An account ID and user ID
- A list
- A nickname

After the command name, SEND, type the SEND parameters in any order. A blank must follow the command name. Blanks are allowed between each of the parameters, but blanks are not allowed between a parameter and the closing right parenthesis following the parameter value.

Replace this:	**With this value:**
account	The Information Exchange account ID of the user to whom you want to send the data. An account ID must consist of 1 to 8 alphanumeric characters.
userid	The Information Exchange user ID of the user to whom you want to send the data. A user ID must consist of 1 to 8 alphanumeric characters.
at	The remote Information Exchange ID, consisting of 3 alphanumeric characters. This parameter is optional if you and your trading partner are on the same Information Exchange system.
listname	The name of a list that you defined with the DEFINE command or the list that was defined as a permanent list on the Information Exchange system.
nickname	Either a nickname you defined with the DEFINE command or characters 1-16 of the entry in the alias table residing in the Information Exchange system. The nickname can contain from 1 to 20 alphanumeric characters, including embedded blanks; do not specify parentheses as nickname characters.
nicktbl	The name of the permanent alias table on the Information Exchange system where the permanent nickname is stored. This name can be up to 4 characters long. The first character must be **G**, **O**, or **P**. **This character:** — **Specifies this:** **G** — A global alias table **O** — An organization name **P** — A private alias table Do not use this parameter, if you use a temporary nickname. This parameter must be predefined in the Information Exchange system.

class

The message class for your data. A message class name can contain from 1 to 8 alphanumeric characters; do not specify blanks or parentheses as message class name characters.

For more information about specifying a message class, see the sections "Specifying the message class for free-format data" on page 6-8 and "Specifying the message class for EDI-formatted data" on page 6-15.

The default message class is **'FFMSG001'**, which specifies free-format data.

charge

How you want to be charged for the messages that you send during this session. This is optional.

You can specify one of the following values.

This parameter:	**Specifies this:**
CHARGE(1)	The receiver pays all charges for the messages.
CHARGE(2)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and receiver split the charges.
CHARGE(3)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.
CHARGE(4)	The sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.
CHARGE(5)	The sender and the receiver split all of the charges.
CHARGE(6)	The sender pays all charges.

The default is whatever you specified with the CHARGE parameter in your IELOGON command. If you have not already specified a charge, the default is CHARGE(3).

NOTE: The payment level value you set in your Information Exchange profile indicates whether you are willing to pay for sending and receiving messages. The value you specify for the CHARGE parameter cannot conflict with the payment level value. Specifying a conflicting value can cause a system error message. For more information about your profile, see your service administrator.

Because you and your trading partners specify charge information independently, there may be times when your parameter is not compatible with that of your trading partner.

For more information about message charges, see *Understanding Information Exchange Message Charges*.

ack

The type of acknowledgment that you want for the message that you are sending. This is optional.

You can specify one of the following values.

This parameter:	Specifies this:
ACK(R)	A receipt acknowledgment when Information Exchange receives the message that you are sending.
ACK(D)	A delivery acknowledgment when Information Exchange delivers the message that you are sending.
ACK(B)	Both a receipt acknowledgment and a delivery acknowledgment.
ACK(A)	A purge acknowledgment if your message reaches the storage limit and Information Exchange deletes it from the receiver's queue.
ACK(C)	Both a receipt acknowledgment and a purge acknowledgment.
ACK(E)	Either a purge acknowledgment or a delivery acknowledgment.
ACK(F)	A receipt acknowledgment and either a purge acknowledgment or a delivery acknowledgment.
ACK(N)	No acknowledgment for the message that you are sending with this SEND command. Specify ACK(N) when you want to override a value for ACK that you specified with the IELOGON command.

The default is whatever you specified with the ACK parameter in your IELOGON command. If you have not already specified an acknowledgment, the default is no acknowledgment, or ACK(N).

dlm

The characters that you want Expedite/Direct to use to determine the end of the data that you are sending with this SEND command.

If you want to include a delimiter, specify from 1 to 8 alphanumeric characters; do not specify parentheses or blanks as delimiter characters. If you want a blank delimiter, specify DLM(BLANKS); this generates a delimiter that consists of 8 blank spaces.

Be sure to include the delimiter at the end of the free-format data that you send. The delimiter will not appear as part of the data text when the data is received.

The default is **DLM(@@@)**.

crlf

Whether you want Expedite/Direct to insert CRLF characters (X'0D0A') after every 80 characters in your data. An end-of-file (EOF) character (X'1A') will also be inserted at the end of the data. This parameter is optional.

This parameter:	**Specifies this:**
CRLF(INC)	CRLF characters are included as delimiters in the data. There is no restriction regarding the placement of these characters every 80 bytes for this option.
CRLF(YES)	Expedite/Direct should insert CRLF characters. For example, you can enter CRLF(YES) when your trading partner is using a personal computer to work with Information Exchange. When you enter CRLF(YES), Expedite/Direct also inserts an end-of-file (EOF) character (X'1A') at the end of your data.

The default is **CRLF(NO)**.

msgname

A name consisting of 1 to 8 alphanumeric characters that you assign to a message for easy identification by the receiver.

msgseqno

A number consisting of 1 to 5 characters that you specify that pertains to the sequence of the message.

retain The number of days (3 numeric characters between 0 and 180) the message is to be retained in the destination mailbox.

The default is whatever you specified with the RETAIN parameter in your IELOGON command. If you have not already specified this value, the default is **30** days.

force Whether you want to force the receiver to use specific criteria to select a sent message for retrieval.

This parameter:	**Specifies this:**
FORCE(NO)	The sender is not requesting that the receiver of the data be forced to select the sent message for retrieval using specific selection criteria.
FORCE(YES)	The receiver must use specific selection criteria to retrieve the sent data. The receiver must select the data marked as "force selective receive" by specifying the source account/userid or alias, the user message class, or the message key of the data.

The default is **NO**.

filename A filename that is stored in the CDH. This field contains a 1-54 byte alphanumeric value.

describe A file description that is stored in the CDH. This field contains a 1-79 byte alphanumeric value.

compsoft The name of the software package that was used to compress the data. This field contains a 10 byte alphanumeric value.

compsver The version of the software package that was used to compress the data. This field contains a 5 byte alphanumeric value.

compdlen The length of the data after the compression has been applied. This field is in EBCDIC numeric character representation. For example, X'F1F2' represents a field length of 12.

comfname The name of the file where the compressed data has been stored. This field contains a 54 byte alphanumeric value.

Include a semicolon after the last parameter in the SEND command. Immediately after the semicolon, enter the data that you want to send.

Specifying the message class for free-format data

You are not required to specify a message class for free-format data. The default message class is **'FFMSG001'**, which indicates free-format data.

You can, however, use the CLASS parameter of the SEND command to identify a message by a particular class name. This is useful when you and your trading partners send and receive many messages and you want to classify those messages by prearranged class names.

For the CLASS parameter, enclose the message class in single quotation marks. A message class name can contain from 1 to 8 alphanumeric characters; do not specify parentheses or blanks as message class name characters.

For example, suppose that you and another Information Exchange user on a remote system have arranged that all messages pertaining to purchase orders will have the class name SALES and that you use the following SEND command to send him a message:

```
SEND ACCOUNT(ACC3) USERID(USER03) AT(EUR) CLASS('SALES');
Dear Kurtz. Expect 3 purchase orders. Regards, Marlow@@@
```

When the other Information Exchange user is ready to receive all messages that pertain to purchase orders, specify the message class 'SALES' to enable receipt.

Sending EDI-formatted data

Use the SENDEDI command to send EDI-formatted data and override any of the system defaults Expedite/Direct retrieves from your data.

With the SENDEDI command, you can specify the following parameters: CLASS, CHARGE, ACK, NICKTBL, MSGNAME, MSGSEQNO, RETAIN, FORCE, and COMFNAME. For more information about the SENDEDI command, see “Sending EDI-formatted data with the SENDEDI command” on page 6-11.

If the system defaults retrieved from your data are correct and you do not want to override any of them, send the data without the SENDEDI command (See “Sending EDI-formatted data with no command” on page 6-11).

When you insert EDI-formatted data into your data stream, Expedite/Direct removes blanks between EDI segments.

Expedite/Direct recognizes the format from the first characters of the data. You must have the correct characters at the beginning of your data.

This type of data:	Must begin with these characters:
X12	ISA
UCS	BG
EDIFACT	UNA or UNB
UNTDI	SCH or STX

If your data does not have these characters at the beginning, it is free-format data and you must send it using the SEND command.

If your data has these characters at the beginning, it is EDI-formatted data and you can send it using the SENDEDI command or with no command.

You can send more than one type of EDI-formatted data in a single session.

If your data type allows you to define the delimiters for your data, do not use blanks (hexadecimal character '40') or NULL characters (hexadecimal character '00') as delimiters.

Expedite/Direct looks at your data to determine:

- Who should receive the data

  Expedite/Direct looks for one of the following:

  - An account ID and user ID
  - A nickname (defined in this session by a DEFINE command or stored in Information Exchange)

  If Expedite/Direct cannot find the receiver, you will get an error message.
- The message class of the data

  This is also known as the user class.
- The name of the message
- The sequence number of the message

Sending EDI-formatted data with no command

If the system defaults retrieved from your data are satisfactory and override is not needed, you can send the data "as is" with no command. (See "Resolving the Destination and Message Class" on page 6-16 to see how Expedite/Direct determines the receiver ID and user message class.)

Sending EDI-formatted data with the SENDEDI command

Use the SENDEDI command to specify parameters that are different from those in your data stream. Specify the following optional information with the SENDEDI command:

- A message class for the data that you want to send
- How you want to be charged for the data that you send
- The type of acknowledgment that you want
- The message name you are sending
- The sequence number of the message you are sending
- The Information Exchange alias table name and the remote system ID you want
- The number of days you want the message to remain in the destination mailbox

The following diagram shows the format of the SENDEDI command.

SENDEDI

NICKTBL(*nicktbl*)

CLASS(*class*) CHARGE(*charge*) ACK(*ack*)

MSGNAME(*msgname*) MSGSEQNO(*msgseqno*)

RETAIN(*retain*)

FORCE(NO|YES) FILENAME(*filename*) DESCRIBE (*description*)

COMPSOFT(*software*) COMPSVER(*software version*)

COMPDLEN(*length*) COMFNAME(*filename*)

DELBLANK(NO|YES);

After the command name, SENDEDI, type the SENDEDI parameters in any order that you like. A blank must follow the command name. Blanks are allowed between each of the parameters but are not allowed between a parameter and the closing right parenthesis following the parameter value unless specifically noted.

Replace this:	With this value:
nicktbl	The name of the alias table on the Information Exchange system where the permanent nickname is stored or the remote system ID. This name can be up to 4 characters long. The first character must be one of the following: **I**, **G**, **O**, or **P**.

This character:	Specifies this:
I	A remote Information Exchange system
G	A global alias table
O	An organization name
P	A private alias table

class

The message class for your data. A message class name can contain from 1 to 8 alphanumeric characters; do not specify blanks or parentheses as message class name characters.

For more information about specifying a message class, see "Specifying the message class for free-format data" on page 6-8 and "Specifying the message class for EDI-formatted data" on page 6-15.

The default message class is determined by the EDI-formatted data.

charge

How you want to be charged for the messages that you send during this session. This is optional.

You can specify one of the following values.

This parameter:	Specifies this:
CHARGE(1)	The receiver pays all charges for the messages.
CHARGE(2)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and receiver split the charges.
CHARGE(3)	The receiver pays all charges. If the receiver does not agree to pay all charges, the sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.
CHARGE(4)	The sender and the receiver split the charges. If the receiver does not agree to split the charges, the sender pays all charges.

CHARGE(5)	The sender and the receiver split all charges.
CHARGE(6)	The sender pays all of the charges.

The default is whatever you specified with the CHARGE parameter in your IELOGON command. If you have not already specified a charge, the default is CHARGE(3).

NOTE: The payment level value you set in your Information Exchange profile indicates whether you are willing to pay for sending and receiving messages. The value you specify for the CHARGE parameter cannot conflict with the payment level value. Specifying a conflicting value can cause a system error message. For more information about your profile, see your service administrator.

Because you and your trading partners specify charge information independently, there may be times when your parameter is not compatible with that of your trading partner.

For more information about message charges, see *Using Information Exchange Message Charges*.

ack

The type of acknowledgment that you want for the message that you are sending. This is optional.

You can specify one of the following values.

This parameter:	**Specifies this:**
ACK(R)	A receipt acknowledgment when Information Exchange receives the message that you are sending.
ACK(D)	A delivery acknowledgment when Information Exchange delivers the message that you are sending.
ACK(B)	Both a receipt acknowledgment and a delivery acknowledgment.
ACK(A)	A purge acknowledgment if your message reaches the storage limit and Information Exchange deletes it from the receiver's queue.
ACK(C)	Both a receipt acknowledgment and a purge acknowledgment.
ACK(E)	Either a purge acknowledgment or a delivery acknowledgment.

	ACK(F)	A receipt acknowledgment and either a purge acknowledgment or a delivery acknowledgment.
	ACK(N)	No acknowledgment for the message that you are sending with this SENDEDI command. Specify ACK(N) when you want to override a value for ACK that you specified with the IELOGON command.

The default is whatever you specified with the ACK parameter in your IELOGON command. If you have not already specified an acknowledgment, the default is no acknowledgment, or ACK(N).

msgname A name consisting of 1 to 8 alphanumeric characters that you assign to a message for easy identification by the receiver.

msgseqno A number consisting of 1 to 5 characters that you specify that pertains to the sequence of the message.

retain The number of days (3 numeric characters between 0 and 180) the message is to be kept in the destination mailbox.

The default is whatever you specified with the RETAIN parameter in your IELOGON command. If you have not already specified this value, the default is **30** days.

force Whether the sender wants to force the receiver to use specific criteria to select a sent message for retrieval.

This parameter:	**Specifies this:**
FORCE(NO)	The sender is not requesting that the receiver of the data be forced to select the sent message for retrieval using specific selection criteria.
FORCE(YES)	The receiver must use specific selection criteria to retrieve the sent data. The data cannot be received using a generic or blanket receive that receives all mail in the Information Exchange mailbox. The receiver must select the data marked as "force selective receive" by specifying the source account/userid or alias, the user message class, or the message key of the data.

The default is **NO**.

filename A filename that is stored in the CDH. This field contains a 1-54 byte alphanumeric value.

describe A file description that is stored in the CDH. This field contains a 1-79 byte alphanumeric value.

compsoft The name of the software package that was used to compress the data. This field contains a 10-byte alphanumeric value.

compsver The version of the software package that was used to compress the data. This field contains a 5-byte alphanumeric value.

compdlen The length of the data after the compression has been applied. This field is in EBCDIC numeric character representation. For example X'F1F2' represents a field length of 12.

comfname The name of the file where the compressed data has been stored. This field contains a 54-byte alphanumeric value.

delblank Specifies whether or not blanks following the end of an EDI trailer should be deleted before an input message is forwarded to Information Exchange.

This parameter:	**Specifies this:**
DELBLANK(NO)	Any trailing blanks should be retained and the message should be forwarded to Information Exchange unchanged.
DELBLANK(YES)	Any blanks following the trailer in an EDI message should be stripped before the message is forwarded to Information Exchange.

The default is **DELBLANK(NO)**.

Include a semicolon after the last parameter in your SENDEDI command. Your EDI-formatted data follows this command. You can send multiple types of EDI-formatted data with one SENDEDI command. The values you specify in the SENDEDI command remain in effect for all EDI-formatted data that follows until the next command or the end of the session.

Specifying the message class for EDI-formatted data

Use the CLASS parameter of the SENDEDI command to identify a message by a particular class name. This is useful when you and your trading partners send and receive many messages and you want to classify those messages by prearranged class names.

For the CLASS parameter, enclose the message class in single quotation marks. A message class name can contain from 1 to 8 alphanumeric characters; do not specify parentheses or blanks as message class name characters.

Expedite/Direct has certain reserved words that you can use with the CLASS parameter. Expedite/Direct translates these words into the following message classes.

This reserved word:	Translates to this message class
X12	#E2
UCS	#EC
EDIFACT	#EE
UNTDI	#EU

You can also use the translated versions of the reserved words with the CLASS parameter, but you must enclose them in single quotation marks.

The following list shows the reserved words (and their translated versions) that you can use with the CLASS parameter.

This parameter:	Specifies this:
CLASS(X12)	Send X12-formatted data.
CLASS('#E2')	Send X12-formatted data. #E2 is the translated version of X12.
CLASS(UCS)	Send UCS-formatted data.
CLASS('#EC')	Send UCS-formatted data. #EC is the translated version of UCS.
CLASS(EDIFACT)	Send EDIFACT-formatted data.
CLASS('#EE')	Send EDIFACT-formatted data. #EE is the translated version of EDIFACT.
CLASS(UNTDI)	Send UN/TDI-formatted data.
CLASS('#EU')	Send UN/TDI-formatted data. #EU is the translated version of UNTDI.

Resolving the Destination and Message Class

Sending X12-formatted data

When you send X12-formatted data, Expedite/Direct finds the receiver by looking at:

1. The ISA segment

   Element ISA08 of the ISA segment contains the interchange receiver ID. If the contents of this field have been defined as a nickname, Expedite/Direct sends the data to that Information Exchange user. If the receiver has not been defined in this session as a nickname, Expedite/Direct goes to Step 2.

2. The NICKTBL parameter in the SENDEDI command

   If NICKTBL is not included in the SENDEDI command or the EDI data is sent without using a command, Expedite/Direct goes to Step 3.

   - If the first character of the NICKTBL parameter is **I** and the qualifier is **ZZ**, you are explicitly specifying a remote Information Exchange system name, a true account name, and a true user ID, not a nickname. In this case, Expedite/Direct:
     - Reads the first 7 characters as the receiver's account ID
     - Inserts a blank for the eighth character of the account ID
     - Reads the last 8 characters as the receiver's user ID
   - If the first character of the NICKTBL parameter is **G,** you are indicating a global alias table. If PNICK(ALL) is specified, the global alias table will be used even if the qualifier is **ZZ**. If PNICK(ALL) is not specified, and the qualifier is **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.
   - If the first character of the NICKTBL parameter is **O,** you are indicating an organizational alias table. If PNICK(ALL) is specified, the organizational alias table will be used even if the qualifier is **ZZ**. If PNICK(ALL) is not specified, and the qualifier is **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.
   - If the first character of the NICKTBL parameter is **P,** you are indicating a private alias table. If PNICK(ALL) is specified, the private alias table will be used even if the qualifier is **ZZ**. If PNICK(ALL) is not specified, and the qualifier is **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.

   If Expedite/Direct does not find the receiver here, it sends an error message.

3. The PNICK parameter in the IELOGON command

   If PNICK is “YES” or “ALL,” no NICKTBL parameter is specified and no nickname is defined, Expedite/Direct uses the global alias table according to the

qualifier as shown in the table here.

If the qualifier is this:	The name of the system default global alias table is this:
01	X01
02	X02
03	X03
04	X04
08	X08
09	X09
11	X11
12	X12
13	X13
NR	XNR

If the qualifier is ZZ and PNICK(ALL) is specified, Expedite/Direct determines the receiver by looking at the global alias table, XZZ. If Expedite/Direct fails to find the nickname in the global alias table, it assumes the receiver ID is a true account name and true user ID and goes to Step 4.

4 If the qualifier is ZZ, you are explicitly specifying a true account name and a true user ID, not a nickname. Expedite/Direct:

- Reads the first 7 characters as the receiver's account ID
- Inserts a blank for the eighth character of the account ID
- Reads the last 8 characters as the receiver's user ID

If Expedite/Direct fails to resolve the receiver ID, an error message appears.

If you do not specify a message class in the SENDEDI command, the default is #E2.

Sending UCS-formatted data

When you send UCS-formatted data, Expedite/Direct finds the receiver by looking at:

1 The BG segment

Element BG04 contains the application receiver's code. If the contents of this field have been defined as a nickname, Expedite/Direct sends the data to that Infor-

mation Exchange user.

If the receiver has not been defined in this session as a nickname, Expedite/Direct goes to Step 2.

2 The NICKTBL parameter in the SENDEDI command

If NICKTBL is not included in the SENDEDI command, or the EDI data is sent without using a command, Expedite/Direct goes to Step 3.

- If the first character of the NICKTBL parameter is **G**, you are indicating the global alias table.
- If the first character of the NICKTBL parameter is **O**, you are indicating an organization alias table.
- If the first character of the NICKTBL parameter is **P**, you are indicating a private alias table.

If Expedite/Direct does not find the receiver ID here, it sends an error message.

3 The PNICK parameter in the IELOGON command

If PNICK is "YES" or "ALL," no NICKTBL parameter is specified and no nickname is defined, Expedite/Direct uses the global alias table UCS.

If Expedite/Direct fails to resolve the receiver ID, an error message appears.

If you do not specify a message class in the SENDEDI command, the default message class is #EC.

Sending UN/TDI-formatted data

When you send UN/TDI-formatted data, Expedite/Direct finds the receiver by looking at:

1 The STX segment

Element UNTO contains the transmission recipient. If UNTO:1, the code address, is not blank, Expedite/Direct reads it as a nickname. If you have not defined the nickname in this session, Expedite/Direct goes to Step 2.

If UNTO:1 is blank, Expedite/Direct reads UNTO:2, the clear address, as the account ID and user ID separated by:

- A period (.)
- A slash (/)
- One or more blanks

If the account ID or the user ID is blank, Expedite/Direct sends an error message. If Expedite/Direct does not find the receiver ID here, it goes to Step 2.

2 The NICKTBL parameter in the SENDEDI command

If NICKTBL is not included in the SENDEDI command, or the EDI data is sent without using a command, Expedite/Direct goes to Step 3.

- If the first character of the NICKTBL parameter is **G**, you are indicating the global alias table.
- If the first character of the NICKTBL parameter is **O**, you are indicating an organization alias table.
- If the first character of the NICKTBL parameter is **P**, you are indicating a private alias table.

If Expedite/Direct does not find the receiver ID here, an error message appears.

3 The PNICK parameter in the IELOGON command

If PNICK is "YES" or "ALL," no NICKTBL parameter is specified and no nickname is defined, Expedite/Direct uses the global alias table UTD.

If Expedite/Direct fails to resolve the receiver ID, an error message appears.

If you do not specify a message class in the SENDEDI command, the default message class is #EU.

Sending EDIFACT-formatted data

When you send EDIFACT-formatted data, Expedite/Direct finds the receiver by looking at:

1 The UNB segment

Element UNTO contains the Recipient address. If the contents of this field have been defined as a nickname, Expedite/Direct sends the data to that Information Exchange user. If the receiver has not been defined in this session as a nickname, Expedite/Direct goes to Step 2.

2 The NICKTBL parameter of the SENDEDI command

If NICKTBL is not included in the SENDEDI command, or the EDI data is sent without using a command, Expedite/Direct goes to Step 3.

- If the first character of the NICKTBL parameter is **I** and the qualifier is **ZZ**, you are explicitly specifying a remote Information Exchange system name, a true account name, and a true user ID, not a nickname.

  Expedite/Direct reads the recipient code, UNTO:1, as the account ID and user ID, separated by:

  - a period (.)
  - a slash (/)

- one or more blanks

If the account ID or user ID is blank, Expedite/Direct sends an error message.

- If the first character of the NICKTBL parameter is **G,** you are indicating a global alias table. If PNICK(ALL) is specified, the global alias table will be used even if the first two non-blank characters of the qualifier, UNTO:2, are **ZZ**. If PNICK(ALL) is not specified, and the first two non-blank characters of the qualifier are **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.
- If the first character of the NICKTBL parameter is **O,** you are indicating an organizational alias table. If PNICK(ALL) is specified, the organizational alias table will be used even if the first two non-blank characters of the qualifier are **ZZ**. If PNICK(ALL) is not specified, and the first two non-blank characters of the qualifier are **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.
- If the first character of the NICKTBL parameter is **P,** you are indicating a private alias table. If PNICK(ALL) is specified, the private alias table will be used even if the first two non-blank characters of the qualifier are **ZZ**. If PNICK(ALL) is not specified, and the first two non-blank characters of the qualifier are **ZZ**, the NICKTBL parameter is ignored, and Expedite/Direct goes to Step 4.

If Expedite/Direct does not find the receiver ID here, it sends an error message.

3 The PNICK parameter in the IELOGON command

If PNICK is "YES" or "ALL," no NICKTBL parameter is specified and no nickname is defined, Expedite/Direct uses the global alias table according to the qualifier as shown in the table here:

If the qualifier is this:	The name of the system default global alias table is this:
01	E01
02	E02
03	E03
04	E04
05	E05
07	E07
09	E09

If the qualifier is this:	The name of the system default global alias table is this:
10	E10
11	E11
12	E12
13	E13
14	E14
15	E15
16	E16
17	E17
18	E18
19	E19
20	E20
21	E21
22	E22
30	E30

If the first two non-blank characters of the qualifier are ZZ and PNICK(ALL) is specified, Expedite/Direct determines the receiver by looking at the global alias table, EZZ. If Expedite/Direct fails to find the nickname in the global alias table, it assumes the receiver ID is a true account name and true user id and goes to Step 4.

4 If the first two non-blank characters of the qualifier are ZZ, you are explicitly specifying a true account name and a true user ID, not a nickname. Expedite/Direct reads the recipient code, UNTO:1, as the account ID and user ID, separated by:

- a period (.)
- a slash (/)
- one or more blanks

If Expedite/Direct fails to resolve the receiver ID, an error message appears.

If you do not specify a message class in the SENDEDI command, Expedite/Direct reads the first eight characters of the application reference element (APRF) in the

UNB segment as the message class. If Expedite/Direct cannot find the APRF element, or if the APRF is blank, the message class is #EE.

Chapter 7

Receiving a message

This chapter explains how to use the RECEIVE command to receive messages without any required parameters.

By using the parameters of the RECEIVE command, you can receive:

- All the messages sent to your Information Exchange user ID
- Selected messages sent to your Information Exchange user ID
- All the messages sent to your Information Exchange user ID from a specific Information Exchange user
- Selected messages sent to your Information Exchange user ID from a specific Information Exchange user
- All the messages sent to your Information Exchange user ID that have a specific message class
- System error messages
- A session log for the current session
- An audit trail of messages exchanged between you and a trading partner sent to your mailbox by the Information Exchange system
- A message that has a specific message key

Using the RECEIVE command

Use the RECEIVE command to receive messages. You can use RECEIVE without any parameters:

```
RECEIVE;
```

In this case, you will receive all the messages that have been sent to your Information Exchange user ID that have not been marked to force a selective receive.

You can also use the optional parameters of the RECEIVE command to specify:

- Particular Information Exchange users from whom you want to receive messages

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- Particular classes of messages that you want to receive
- The characters that you want to appear at the end of free-format messages that you receive
- Whether you want Expedite/Direct to remove CRLF characters that may exist in the data you are receiving
- The output device for the messages that you receive
- Whether you want to receive data and messages in transparency mode
- The length of the message you receive
- That each segment begin at the first byte of the record
- Whether you want to include a value that will be returned as the first record of received data
- Whether you want to identify the specific message to be received
- Whether you want to ensure that all messages received are placed in the Information Exchange short-term archive

You can use the RECEIVE command to receive both free-format messages and EDI-formatted data.

The following diagram shows the format of the RECEIVE command.

RECEIVE

{ACCOUNT(*account*) USERID(*userid*) AT(*at*)} |

{LIST(*listname*)} |

{NICKNAME(*nickname*) NICKTBL(*nicktbl*) }

CLASS(class1,class2,...,class9) DLM(*dlm*)

CRLF(NO|YES)

DEVICE(PUNCH|PRINTER)

TRANSP(NO|YES)

LENGTH(*length*) UNWRAP(NO|YES)

ADDCARD(*addcard*)

MSGKEY(*msgkey*) ARCHIVID(*archivid*)

EDIRCV(BOTH|NO|YES);

The optional parameters enclosed in braces and separated by vertical bars | indicate that a single RECEIVE command may include only one of the following:

- An account ID, user ID, and system ID
- A nickname

- A list name

After the command name, RECEIVE, you can enter the RECEIVE parameters in any order. A blank must follow the command name. Blanks are allowed between each of the parameters but are not allowed between a parameter and the closing right parenthesis following the parameter value.

Replace this:	With this value:
account	The Information Exchange account ID for the account from which you want to receive messages. Specify an Information Exchange user ID when you specify an Information Exchange account ID. An account ID must consist of 1 to 8 alphanumeric characters.
userid	The Information Exchange user ID for the user from whom you want to receive messages. You must specify an Information Exchange account ID when you specify an Information Exchange user ID. A user ID must consist of 1 to 8 alphanumeric characters.
at	The remote Information Exchange ID, consisting of 3 alphanumeric characters. This parameter is optional if you and your trading partner are on the same Information Exchange system.
list	A list that was defined with the DEFINE command or a permanent list name on the Information Exchange system. Either a nickname you defined with the DEFINE command or characters 1 to 16 of the entry in the alias table residing in the Information Exchange system. The nickname can contain from 1 to 20 alphanumeric characters, including embedded blanks; do not specifiy parentheses as nickname characters.
nicktbl	The name of the permanent alias table on the Information Exchange system where the permanent nickname is stored. This name can be up to 4 characters long. The first character must be **G**, **O**, or **P**.

This character:	Specifies this:
G	A global alias table
O	An organization name
P	A private alias table

If you use a temporary nickname, do not use this parameter. This parameter must be predefined in the Information Exchange system.

For more information about using RECEIVE with a nickname or a list, see "Looking at examples of messages received from a nickname or a list" on page 7-6.

class1 The message class of the messages that you want to receive. Include up to nine different message classes in a single CLASS parameter.

To receive EDI-formatted data, specify the appropriate message class. You can also receive free-format messages that have been given specific class names. For more information about specifying the message class, see "Specifying the message class for free-format data" on page 7-6 and "Specifying the message class for EDI-formatted data" on page 7-8.

class2,...,class9 The message classes of any other messages that you want to receive in this session. Use commas to separate the message classes that you specify.

dlm The characters that you want Expedite/Direct to insert at the end of all free-format messages that you receive with this RECEIVE command. Expedite/Direct ignores this parameter when it is specified for EDI-formatted data. The delimiter is not inserted at the end of EDI-formatted data.

The delimiter is actually an 80 byte record that Expedite/Direct appends to the end of free-format data that you receive. Expedite/Direct adds the appropriate number of blank spaces to whatever characters you specify in order to make the delimiter 80 bytes.

Specify from 1 to 8 alphanumeric characters; do not specify parentheses or blanks as delimiter characters. If you want a blank delimiter, specify DLM(BLANKS).

The default is **DLM**(@@@).

crlf Whether you want Expedite/Direct to remove CRLF characters (X'0D0A') that may exist in the free-format data that you will be receiving. An end-of-file (EOF) character will also be removed from the end of the data.

Enter CRLF(YES) if you want Expedite/Direct to remove CRLF characters in free-format data. For example, you may need to enter CRLF(YES) when your trading partner is using a personal computer to work with Information Exchange. When you enter CRLF(YES), Expedite/Direct also removes the end-of-file (EOF) character (X'1A') from the end of the data.

The default is **CRLF(NO)**.

device The output device for the messages that you are receiving. You can specify either DEVICE(PUNCH) or DEVICE(PRINTER).

The default is **DEVICE(PUNCH)**.

transp The transparency mode for the data that you want to receive.

Enter TRANSP(YES) to receive data and messages in transparency mode; for example, you must specify TRANSP(YES) if you plan to receive data that contains characters that might be misinterpreted as BSC control characters. This includes any characters less than hex 40. If you specify TRANSP(YES), you cannot specify DEVICE(PRINTER).

The default is **TRANSP(NO)** unless you specified YES on the IELOGON command.

length The length of the output record. This value can be from 001-080 if the device is a punch or 001-250 if the device is a printer. The default is **80**.

unwrap Expedite/Direct inserts blanks after each segment to ensure that each segment begins at the first byte of the record. The default is **NO**. This will only affect EDI-formatted data.

addcard A value that will be returned as the first record of received data. The parameter value specified will be returned exactly as provided by the user. This parameter value must be 1 to 80 characters. Embedded blanks are allowed.

msgkey The specific message to be received. The Message Queue Query command should be issued first to obtain the message key value to be used in this field. This field contains a 20 byte alphanumeric value.

archivid Messages this command receives are to be placed in the Information Exchange short-term archive identified with this reference ID. This field contains an 8 byte alphanumeric value.

edircv Whether you want to receive EDI messages, non-EDI messages or both EDI and non-EDI messages.

This parameter:	Specifies this:
EDIRCV(ANY)	Both EDI and non-EDI messages should be received.
EDIRCV(NO)	Only non-EDI messages should be received.
EDIRCV(YES)	Only EDI-formatted messages should be received. Only those messages identified in the DFORMAT field in the CDH as having one of the EDI formats are sent to your system if this field contains a YES.

The default is **EDIRCV(ANY)**.

Looking at examples of messages received from a nickname or a list

Use RECEIVE to receive messages from a nickname or a list that you defined with the DEFINE command or from a permanent nickname or list residing on the Information Exchange system.

For example, if you want to receive all the messages that were sent from an Information Exchange account that has the nickname "Fred" and that you want Expedite/Direct to insert the delimiter ***** at the end of the free-format messages. You can use the following RECEIVE command:

```
RECEIVE NICKNAME(FRED) DLM(*****);
```

As another example, if you want to receive all the messages from a group of Information Exchange accounts that have been defined as a list named "Sales" and you know that some of the messages contain transparent data. You can use the following RECEIVE command:

```
RECEIVE LIST(SALES) DEVICE(PUNCH) TRANSP(YES);
```

As a third example, if you want to receive all the messages from a user whose nickname on the ABC global alias table is FRED, you can use this command:

```
RECEIVE NICKNAME(FRED) NICKTBL(GABC);
```

Specifying the message class for free-format data

You are not required to specify a message class to receive free-format data. If your RECEIVE command does not include a CLASS parameter, you will receive all the messages sent by the Information Exchange user you specified with the other parameters of the command.

You can, however, use the message class to identify particular messages. This is useful when you and your Information Exchange trading partners send and receive many messages and you want to categorize those messages by prearranged class names.

To specify these class names with the CLASS parameter, enclose each class name in single quotation marks.

For example, if you and your Information Exchange trading partners have decided to arrange all your messages by using the message class names SALES, ORDERS, and DEPT and you only want to receive the SALES and DEPT messages, you can use the following RECEIVE command:

```
RECEIVE CLASS('SALES','DEPT');
```

You can also use certain reserved words with the CLASS parameter to receive system error messages or a session log.

Use this parameter:	To receive:
CLASS(SYSMSG)	Any system error messages from Information Exchange. For more information about receiving system error messages, see "Receiving error messages" on page 7-10.
CLASS(EDILOG)	A session log for the current session. The record length is always 80 bytes. For more information about receiving a session log, see "Receiving a session log" on page 7-10.
CLASS(AUDIT)	All audit records from your mailbox.

Specifying the message class for EDI-formatted data

Expedite/Direct has certain reserved words that you can use to specify the message class for EDI-formatted data that you receive. Expedite/Direct translates these words into the following values.

This reserved word:	Translates to this message class:
X12	#E2
UCS	#EC
EDIFACT	#EE
UNTDI	#EU

To use the translated versions of the reserved words with the CLASS parameter, enclose them in single quotation marks. You can also use a question mark as a "wildcard" character to specify all messages with class names that begin or end with certain characters.

The following table shows examples of how to specify the message class for EDI-formatted data. The data in your mailbox must have one of these classes.

This parameter:	Specifies this:
CLASS(X12)	Receive X12-formatted data.
CLASS('#E2')	Receive X12-formatted data. #E2 is the translated version of X12.
CLASS(UCS)	Receive UCS-formatted data.
CLASS('#EC')	Receive UCS-formatted data. #EC is the translated version of UCS.
CLASS(EDIFACT)	Receive EDIFACT-formatted data.
CLASS('#EE')	Receive EDIFACT-formatted data. #EE is the translated version of EDIFACT.
CLASS(UNTDI)	Receive UN/TDI-formatted data.
CLASS('#EU')	Receive UN/TDI-formatted data. #EU is the translated version of UNTDI.
CLASS('#E?')	Receive all messages with a class name beginning with #E (for example, #E2, #EC, #EU, #EE).

This parameter:	Specifies this:
CLASS('E2?')	Receive all messages with a class name beginning with #E2 (for example, #E2, #E2850, #E2810).
CLASS('?850')	Receive all messages with a class name ending with 850 (for example, 850, #E2850, #EC850, ABC850).

NOTE: If you receive EDI-formatted data with a message class other than #E2, #EC, #EE, or #EU, and UNWRAP (NO) is specified, Expedite/Direct will treat the data like free-format data; in other words, Expedite/Direct will insert the receive delimiter at the end of the data, and the free-format counter will be incremented. If unwrap is specified, Expedite/Direct reads the data to determine the data type and increments the appropriate counter.

Looking at examples of the RECEIVE command

To receive all the data that was sent from the following Information Exchange user:

- The Information Exchange account ID is ACCT.
- The Information Exchange user ID is U0001.

You can use the following RECEIVE command:

```
RECEIVE ACCOUNT(ACCT) USERID(U0001);
```

To receive data that was sent from the Information Exchange account in the previous example, but limited to X12-formatted and UCS-formatted data with the message classes #E2 and #EC, use the following RECEIVE command:

```
RECEIVE ACCOUNT(ACCT) USERID(U0001) CLASS('#E2','#EC');
```

If you want a RECEIVE command that tells Expedite/Direct to do the following:

- Receive data from "Frank," a nickname that you defined with the DEFINE command
- Receive data that has the class name MKTG or ADMIN
- Use your punch as the output device
- Receive transparency data
- Remove any carriage-return line-feeds that may exist in the data
- Archive the received messages in IE with an identifier of FRANK001

You can use the following RECEIVE command:

```
RECEIVE NICKNAME(FRANK) CLASS('MKTG','ADMIN')
DEVICE(PUNCH) TRANSP(YES) CRLF(YES) ARCHIVID(FRANK001);
```

If you want a RECEIVE command that tells Expedite/Direct to do the following:

- Receive all of the EDI data in your mailbox
- Return the following card preceding the first block of received data
- Start each EDI segment in the first byte of each record

Receiving error messages

After the logon process, you can receive two types of error messages:

- Expedite/Direct error messages
- Information Exchange system error messages

Expedite/Direct generates Expedite/Direct errors and returns them to you immediately. If you have specified DISONERR(YES), Expedite/Direct may not return an error message prior to terminating the communication session. After you successfully log on to Expedite/Direct, any Expedite/Direct errors that may occur are recorded in your session log. For information about how you can receive a session log, see "Receiving a session log" on page 7-10.

You can specify the format that you want for Expedite/Direct errors with the EMSG parameter of the IELOGON command. For more information, see "Using the IELOGON command" on page 4-2.

Information Exchange generates system errors. You can use the following RECEIVE command to receive a list of Information Exchange system errors that occurred during a previous session.

```
RECEIVE CLASS(SYSMSG);
```

When Information Exchange sends the system error messages to your workstation, the account ID is *SYSTEM* and the user ID is *ERRMSG*. For information about the format of Information Exchange system error messages, see *Using Information Exchange Administration Services*.

For more information about error messages, see Appendix D, "Handling errors."

Receiving audit records

You can receive audit records that you requested to be placed in your mailbox. For more information about audit records and audit trails, see Chapter 8, "Requesting an audit trail."

Receiving a session log

You can receive an Expedite/Direct session log for the current session. A session log

contains all Expedite/Direct error codes and other session activity information for the current session. The format of a session log is always free-format and the record length is always 80 bytes.

For information about the meaning of an Expedite/Direct error code, see Appendix D, "Handling errors."

Use the following RECEIVE command to receive a session log:

```
RECEIVE CLASS(EDILOG);
```

Because this RECEIVE command automatically ends the session, it should be in the last data set in your session.

NOTE: The maximum character count for a message in the session log is 9,999,999. If a message is larger than this, the value in the session log will be truncated; however, the data itself will be complete.

A sample Expedite/Direct session log

The following sample session log shows the significant actions that occurred during an Expedite/Direct session. The data in a session log is always free-format.

```
*** EXPEDITE/DIRECT SESSION LOG ***
EXPEDITE/DIRECT SESSION(S001) STARTED AT 10:07:42
IELOGON ACCOUNT(ACCT)     USERID(U0001)
SENDFREE FMT: CHARS(0000107) CLASS(FFMSG001) TO ACCT(ACCT)    UID(U0002)
SEND EDIFACT: CHARS(0000350) CLASS(#EE)      TO ACCT(ACCT)    UID(U0003)
SEND EDIFACT: CHARS(0000200) CLASS(INVOICE)  TO ACCT(ACCT)    UID(U0004)
SEND EDIFACT: CHARS(0000300) CLASS(#EE)      TO ACCT(ACCT)    UID(U0003)
SEND X12:     CHARS(0000325) CLASS(#E2)      TO ACCT(ACCT3)   UID(USER01)
SEND UCS:     CHARS(0000450) CLASS(#EC)      TO ACCT(ACCT)    UID(U0029)
SEND UCS:     CHARS(0000350) CLASS(#EC)      TO ACCT(ACCT)    UID(U0029)
SEND UN/TDI:  CHARS(0000450) CLASS(INVOICE)  TO ACCT(ACCT)    UID(U0002)
SEND X12:     CHARS(0001280) CLASS(PO850)    TO ACCT(ACCT)    UID(U0004)
               AT(EUR) MSGNAME(8BYTEICN) MSGSEQNO(1BYTEICN)
SENDFREE FMT: CHARS(0000080) CLASS(FFMSG001) TO ACCT(abcd) UID(ACCT)
               AT(EUR)
SENDFREE FMT: CHARS(0000080) CLASS(FFMSG001) TO ACCT(ACCT) UID(U99)
               AT(EUR) MSGNAME(MSGTOU99) MSGSEQNO(00001)
SENDFREE FMT: CHARS(0000080) CLASS(FFMSG001) TO NICK(GUCSALIAS)
RECEIVE MESSAGES: CLASS(#EU)      FROM ACCT(ACCT)     UID(OWN001)
RECEIVE MESSAGES: CLASS(#E2)      FROM LIST(DEPT)
RECEIVE MESSAGES: CLASS(PO850)    FROM ACCT(ACCT) UID(U0030) AT(EUR)
RECEIVE MESSAGES: ALL CLASSES     FROM ALL USERS
AUDIT RETRIEVE: CLASS(          )  FROM(    ABCD    ABCD) TYPE(B) CODE(00)
MESSAGE RECEIVED FROM ACCT(ACCT)     UID(U0055)    DATE(09/01/88) TIME(08:25:23)
        CHARS(0000850) CLASS(#EE) MSGNAME(EDIFIL01) MSGSEQNO(RCRF1)
MESSAGE RECEIVED FROM ACCT(ACCT)     UID(U0055) DATE(09/01/88) TIME(08:59:15)
        CHARS(0001015) CLASS(#EE) MSGNAME(EDIFIL01) MSGSEQNO(RCRF2)
MESSAGE RECEIVED FROM ACCT(ACCT)     UID(U0055) DATE(09/01/88) TIME(09:28:47)
        CHARS(0000825) CLASS(#EE) MSGNAME(EDIFIL01) MSGSEQNO(RCRF3)
MESSAGE RECEIVED FROM ACCT(ACCT)     UID(U0036) DATE(09/01/88) TIME(09:38:03)
        CHARS(0002047) CLASS(#E2) MSGNAME(00002580) MSGSEQNO(00232)
MESSAGE RECEIVED FROM ACCT(ACCT)     UID(U0057) DATE(09/01/88) TIME(10:03)
        CHARS(0000160) CLASS(SALES) MSGNAME(         ) MSGSEQNO(     )
        AT(EUR)
MESSAGE RECEIVED FROM ACCT(*SYSTEM*) UID(*AUDITS*)  DATE/TIME(
CHARS(         ) CLASS(#SAUDIT) MSGNAME(         ) MSGSEQNO(
EXPEDITE/DIRECT SESSION ENDED AT 10:15:21 RESPONSE(00000)
SENDTOTALS:     X12(0001) UCS(0002) EDIFACT(0003) UN/TDI(0001) FFMT (0001)
RECEIVE TOTALS:  X12(0001) UCS(0000) EDIFACT(0003) UN/TDI(0000) FFMT (0001)
```

Chapter 8

Requesting an audit trail

This chapter explains how to use the AUDIT command to ask the Information Exchange system to place in your mailbox an audit trail of your messages sent and received in prior sessions. Once the audit trail is in your mailbox, you can use the RECEIVE command to retrieve it to your workstation. You can ask that messages be placed in your mailbox as follows:

- Messages to and from a particular trading partner
- Messages of a particular class
- Messages sent or received within a certain time range
- All undelivered messages
- All delivered messages
- All purged messages

If you are an authorized service administrator, you can also request message audit trail of:

- Other users in your account
- Other users in the account for which you are responsible
- Other users for whom you are responsible

Using the AUDIT command

The AUDIT command must precede any RECEIVE command requesting an audit trail from your mailbox.

Here is the format of the AUDIT command that you use to request that Information Exchange place an audit trail in your mailbox.

AUDIT

{ACCOUNT(*account*) USERID(*userid*) AT(*at*) |

NICKNAME(*nickname*) NICKTBL(*nicktbl*)}

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ALTACCT (*altaccount*) ALTUSER(*altuser*)

MSGTYPE(*msgtype*) CLASS(*class*)

START(*startdate*) END(*enddate*) STATUS(*status*)

TIMEZONE(*timezone*) LEVEL (*level*);

All the parameters for this command are optional. If you use the AUDIT command with no parameters, Information Exchange provides audits of all your messages.

Replace this:	With this value:
account	The Information Exchange account ID of the trading partner for whom you want audit records of messages. If you do not want to select records for a specific trading partner, omit this parameter. An account ID must contain 1 to 8 alphanumeric characters.
userid	The Information Exchange user ID of the trading partner for whom you want audit records of messages. If you do not want to select records for a specific trading partner, omit this parameter. To extract audit records for all trading partners within an account, enter a question mark (**?**). A user ID must contain 1 to 8 alphanumeric characters.
at	The system ID of the remote Information Exchange trading partner for whom you want audit records of messages. This parameter must contain 3 alphanumeric characters and is optional if you and your trading partner are on the same Information Exchange system.
nickname	Either a nickname you defined for this session or characters 1 to 16 of the entry in the alias table residing in the Information Exchange system. The nickname can contain from 1 to 20 alphanumeric characters, including embedded blanks; do not specify parentheses as nickname characters.
nicktbl	The name of the permanent alias table on the Information Exchange system where the permanent nickname resides. This parameter can contain 1 to 4 alphanumeric characters. The first character must be **G**, **O**, or **P**.

This character:	Specifies this:
G	A global alias table
O	An organization name
P	A private alias table

altacct This parameter allows you to request audit records for an account/user ID other than your own. You must have service or user administrator authority to view audit records for the alternate account/user ID. If this parameter is omitted, audit records for your own account are returned. If this parameter is present, then you must also specify *altuser*. An account ID must contain 1 to 8 alphanumeric characters.

altuser This parameter, together with *altacct*, allows you to request audit records for an account/user ID other than your own. You must have service or user administrator authority to view audit records for the alternate account/user ID. If this parameter is omitted, audit records for your own account are returned. *Altuser* must be specified if *altacct* is specified.

To retrieve an audit trail for all users in the specified *altacct*, enter a question mark (**?**) in this parameter.

msgtype The type of audit trail you request. This parameter can be **S**, **R**,or **B**.

This character:	**Specifies this:**
S	An audit trail of all messages you sent.
R	An audit trail of all messages that have been sent to you (messages that have been in your mailbox).
B	An audit trail of all messages you sent and received.

The default is **B**.

class The message class of the audit records you want to retrieve. The class name must be 1 to 8 alphanumeric characters, with no blanks or parentheses. For more information about specifying a message class, see "Specifying the message class for free-format data" on page 7-6 and "Specifying the message class for EDI-formatted data" on page 7-8.

startdate The start date of a time range of the messages for which you want an audit trail.

The format is CYYMMDD, where C is the century (0=1900, 1=2000). If you enter a year prior to 1950, a warning message appears and the default is used.

Refer to the Information Exchange default.

enddate The end date of a time range of the messages for which you want an audit trail.

The format is CYYMMDD.

Refer to the Information Exchange default.

status The status of the messages for which you want an audit trail. This parameter can be **U**, **D**, **P**, or it can be **blank**.

This character:	Specifies this:
U	An audit trail of only undelivered messages.
D	An audit trail of only delivered messages (messages you have requested to receive from your mailbox).
P	An audit trail of only purged messages.
blank	An audit trail of all messages, regardless of status.

The default is **blank**.

timezone The type of date and time in the START and END parameters. This parameter can be **G** or **L**.

This parameter:	Specifies this:
G	Greenwich mean time (GMT)
L	user's local time

The default is **L**.

level This field contains the Information Exchange expansion-level indicator.

This parameter:	Specifies this:
Blank or 1	Does not include extended timings fields or EDI interchange control number in the audit record.
2	Include extended timing fields in the audit record.
3	Include extended timing fields and the EDI interchange control number in the audit record. When expansion level 3 is specified, you can request audits for an account ID and user ID other than your own.

Invalid values default to **blank** or **1**.

For example, if you want an audit trail of all messages you received from your mailbox, from a user whose nickname is defined in the permanent global alias table ABC on the Information Exchange system as "Fred," between February 1, 1996 and May 31, 1997, in your local time zone, the AUDIT command would be as follows:

```
AUDIT NICKNAME(FRED) NICKTBL(GABC)
START(0960201) END(0970531) STATUS(D)
TIMEZONE(L) MSGTYPE(R);
```

To receive an audit trail of all messages you have sent and received and to include the EDI interchange control number, the AUDIT command would be as follows:

```
AUDIT LEVEL(3);
```

Identifying the sender of the audit trail

When Information Exchange sends the audit trail to your mailbox, the sender's account ID is *SYSTEM* and the user ID is *AUDITS*. Use the RECEIVE command to get the audit trail from your mailbox to your workstation. For more information about the RECEIVE command, see Chapter 7, "Receiving a message."

Audit record format

The format of the audit record(s) returned in response to an AUDIT command is given in the "Information Exchange Interface Programming Guide" and the manual number is **GC34-2222.**

Chapter 9

Querying a message

This chapter explains how to use the MSGQUERY command to view the contents of your Information Exchange mailbox. You can then decide what action you want to take on these messages. Messages in the process of being received are not returned. There are no parameters for this command. The complete format is as follows:

MSGQUERY;

```
      MESSAGE ID              SENDER          CLASS      SIZE      DATE    TIME
--------------------  --------------------  --------  ---------- -------- ------
D0AEAB868BE80A81F4F4      *SYSTEM**ERRMSG*            0000000136 19970517 031159
D0AEAD7A71231784F4F4      *SYSTEM**ERRMSG*            0000000192 19970518 162828
FFAE96EEA98DD62EF4F4      ATAP    SENDER1   FFMSG001  0000000365 19970430 180558
FFAE9D533D24B1BCF4F4      ATAP    SENDER1   #E2       0000000349 19970505 200753
FFAE9D98F69E28A7F4F4      ATAP    SENDER1   #E2       0000000348 19970506 011950
FFAEAB45E4340474F4F4      ATAP    SENDER1   ACCTINFO  0000000079 19970516 222243
FFAEADC9A33B8B4DF4F4      ATAP    SENDER1   PAYROLL   0000003764 19970518 222247
FFAEADCB828946F2F4F4      ATAP    SENDER1   ORDERS    0000001233 19970518 223110
FFAEADCEC99DE075F4F4      ATAP    SENDER1   ORDERS    0000000764 19970518 224550
FFAEADD94F026533F4F4      ATAP    SENDER1   RPTDATA   0000000362 19970518 233254
FFAEADDE8D23477EF4F4      ATAP    USERID1   TESTONE   0000000144 19970518 235621
FFAEADE234944C3FF4F4      ATAP    USERID1   TESTTWO   0000000214 19970519 001242
```

message id This field contains a message identifier that Information Exchange assigned. It is the hexadecimal representation of the message delivery class and a unique identiifier. This value may be used in the MSGKEY parameter of the RECEIVE command to selectively receive a specific message from your mailbox.

sender This field contains the sender's identification. If the sender is on a different system, the first character is an I and the following three characters are the system identifier; if the sender is on the same system that you are on, the first four characters are blank. This is followed by the account ID (8 characters) and the user ID (8 characters) of the message sender.

class This field contains the user message class that the sender assigns.

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size	This field contains the total text size, exclusive of any Information Exchange headers or common data header.
date	This field contains the date the message is available for receipt (in your local time zone), as set in your IELOGON command. The format is YYYYMMDD.
time	This field contains the time the message is available for receipt (in your local time zone), as set in your IELOGON command. The format is HHMMSS.

If you have specified DATAONLY(YES) in your IELOGON command, the two report header lines (the first two lines in the example) will not be included in the response.

Chapter 10

Logging off the IBM Global Network

This chapter explains how to log off the IBM Global Network.

When you have finished your session, use the following command:

/*LOGOFF

You can also use the /*SIGNOFF command. All other session input, including comments, data, and Expedite/Direct commands, must precede the /*LOGOFF or the /*SIGNOFF command. After receiving a /*LOGOFF or a /*SIGNOFF command, Expedite/Direct does not process any other commands or data from your RJE workstation.

NOTE: If you have requested a session log, Expedite/Direct returns the session log and the session status message, ends the session, and disconnects. A /*LOGOFF or a /*SIGNOFF is not required.

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Appendix A

Looking at the IBM Global Network logon flow

NOTE: Before reading this appendix, BSC users should become familiar with the information on identifying your RJE workstation to the network gateway in Chapter 2, "Logging on to the IBM Global Network through BSC."

SDLC users should become familiar with the information on identifying your workstation in Chapter 3, "Logging on to the IBM Global Network through SDLC."

The diagrams in this appendix show the flow of data between a BSC RJE workstation that uses a terminal emulator and the network gateway. Expedite/Direct supports the following types of terminal emulators:

- Emulators that wait to receive the IBM Global Network "Welcome" message before attempting to log on to the network
- Emulators that send IBM Global Network logon information before receiving a "Welcome" message

If you are using a terminal emulator as part of your RJE workstation, your logon data flow will depend on your type of emulator.

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Logging on and waiting for the “Welcome” message

Here is the logon flow of data when the RJE workstation waits for the “Welcome” message before sending the IBM Global Network batch logon record. The arrows indicate the direction of commands and data.

RJE Workstation	Direction	Network Gateway
ID ENQ	→	
	←	ACK
EOT	→	
	←	ENQ
ACK	→	
	←	“Welcome” message (from the IBM Global Network)
ACK	→	
	←	EOT
ENQ	→	
	←	ACK
IBM Global Network batch logon	→	
	←	ACK
EOT	→	
	←	ENQ
ACK	→	
	←	“Welcome” message (from Expedite/Direct)
ACK	→	
	←	EOT
ENQ	→	
	←	ACK
Expedite/Direct commands and data	→	
Expedite/Direct session begins...		

After you specify your terminal ID to the network gateway, you will receive the IBM Global Network "Welcome" message.

The IBM Global Network "Welcome" message has the following format. (The hexadecimal characters in this diagram will not appear as part of the message; they are shown here for the benefit of users who may need to write a program interface.)

```
X'0212154026'
X'0212154026'
X'021215'WELCOME TO THE IBM Global Network'26'X
X'021215'TERMID: XXXXXXXX  YY-MM-DD HH:MM:SS'26'X
X'021215'CUSTOMER ASSISTANCE: xxxxxxxxxxxxx'26'X
X'0212154026'
X'021215'ENTER "HELP" FOR ASSISTANCE.'26'X
X'0212154026'
X'021215'ENTER USERID ACCOUNT'26'X
X'021215'===>'4003'X

   X'02': STX X'12': D2 (PUNCH) X'26': ETB
   X'03': ETX X'15': NL X'40': BLANK
```

The message text is preceded by a start of text character (STX), device character (D2), and the new line character (NL). In addition, each block of text except the last is immediately followed by an end of transmission block character (ETB). The last block of text in a message is immediately followed by an end of text character (ETX).

After receiving the "Welcome" message, your RJE workstation should send your batch logon record to log on to the IBM Global Network.

Logging on without waiting for the “Welcome” message

Here is the logon flow of data when the RJE workstation does not wait for a “Welcome” message from the IBM Global Network before sending the IBM Global Network batch logon record. The arrows indicate the direction of commands and data.

RJE Workstation	Direction	Network Gateway
ID ENQ	→	
	←	ACK
IBM Global Network batch logon	→	
	←	RVI
EOT	→	
	←	“Welcome” message (from Expedite/Direct)
ACK	→	
	←	EOT
ENQ	→	
	←	ACK
Expedite/Direct commands and data	→	
Expedite/Direct session begins...		

Logging on through SDLC

Here is the logon flow of data when you log on to the IBM Global Network through SDLC. The arrows indicate the direction of commands and data.

Remote Workstation	Direction	Network Gateway
CONNECT	→	
	←	XID
XID	→	
	←	SNRM
+ RSP	→	
	←	ACTPU
+ RSP	→	
	←	ACTLU
+ RSP	→	
LOGON DATA (/*L ACCT,USERID,PWD/*S EDIRECTS/*U SNAEDI)		
	←	+ RSP
+ RSP	→	
	←	EDIRECT BIND
+ RSP	→	
	←	WELCOME TO IBM IN EXPEDITE/DIRECT YYMMDDHHMMSS IE
+ RSP	→	
	←	CDI

Appendix B

Looking at an Expedite/Direct session

This appendix contains the following:

- A sample Expedite/Direct session design
- Charts that show the structures of some typical Expedite/Direct sessions
- Information on establishing an SDLC session and session examples

A sample Expedite/Direct BSC RJE session design

The following Expedite/Direct session design briefly describes the interaction between an RJE workstation and Expedite/Direct during a typical session. In this example, "send" means that the RJE workstation requests the communication line, waits for an acknowledgment, and then sends data. "Receive" means Expedite/Direct requests the communication line; the RJE workstation returns an acknowledgment and is then ready to receive data.

1. The RJE workstation goes into receive mode.

   Expedite/Direct sends a "Welcome" message to the RJE workstation in response to a valid RJE workstation number and password.

2. The RJE workstation sends a data set to Expedite/Direct.

   The IELOGON command must precede all other commands or data. Expedite/Direct uses the IELOGON information to establish a session with Information Exchange for the RJE workstation.

3. The RJE workstation goes into receive mode.

   Whenever Expedite/Direct successfully sends data from an RJE workstation to Information Exchange, the RJE workstation receives a data set completion status. If there are any Information Exchange messages to be received, Expedite/Direct will send them to the RJE workstation after an input data set status message.

4. The RJE workstation sends a /*LOGOFF or /*SIGNOFF record.

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5. Expedite/Direct disconnects the communication line after returning a session termination status message.

   If the RJE user has requested a session log, Expedite/Direct returns the session status message, terminates the session, and disconnects. A /*LOGOFF or /*SIGNOFF is not required.

During a session with Expedite/Direct, your RJE workstation should be prepared to send data first, then receive a response, and then end the session.

Understanding the structure of an Expedite/Direct BSC RJE session

The charts in this section show three typical sessions where messages are sent and received. These sessions include:

- A session where an emulator waits to receive the IBM Global Network "Welcome" message before attempting to log on to the network
- A session where an emulator sends IBM Global Network logon information before receiving a "Welcome" message
- A session where the input data contains a syntax error

These charts show how your RJE workstation and the network gateway work together. Each session consists of four parts:

1. Logging on to the IBM Global Network and selecting Expedite/Direct
2. Transmitting data to Information Exchange

   This includes starting the Information Exchange session, sending messages and data to Information Exchange, and requesting any waiting messages.
3. Receiving data from Information Exchange

   This includes receiving any waiting messages along with any formatted data and any system messages.
4. Logging off the IBM Global Network

   This is when you will receive a session log if you requested it.

In these charts, the arrows indicate the direction of the flow of information. These charts use the following control characters:

These characters:	Mean this:
ACK	Acknowledge (ACK0 is X'1070', ACK1 is X'1061').
d1	Printer.
d2	Punch.
DISC	Disconnect.
eb	End of transmission block (ETB).
ENQ	Enquire.
EOT	End of transmission.
ex	End of text (ETX).
ir	Inter-record separator (IRS).
RVI	Wait signal.
sx	Start of text (STX).

An emulator that waits for the "Welcome" message

This sample session shows an emulator that waits to receive the IBM Global Network "Welcome" message before attempting to log on to the network. The BSC flow between the RJE workstation and the network gateway consists of the following steps:

(a) Receive IBM Global Network LOGO
(b) Send batch logon record
(c) Receive Expedite/Direct "Welcome" message
(d) Send IELOGON (No receive messages command)
(e) Receive Expedite/Direct OK signal (Data set 0001)
(f) Send X12 data and Receive message request
(g) Receive Expedite/Direct OK signal (Data set 0002)
(h) Receive all messages in the mailbox
(i) Send Logoff card
(j) Receive Expedite/Direct OK signal (Data set 0003)
(k) Receive session end delimiter
(l) Disconnect

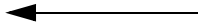
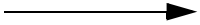
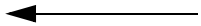
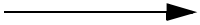
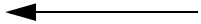
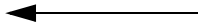
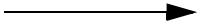
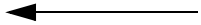
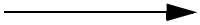
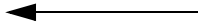
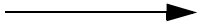
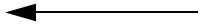
The letters in parentheses correspond to letters on the far right side of the chart.

1. Logging on to the IBM Global Network

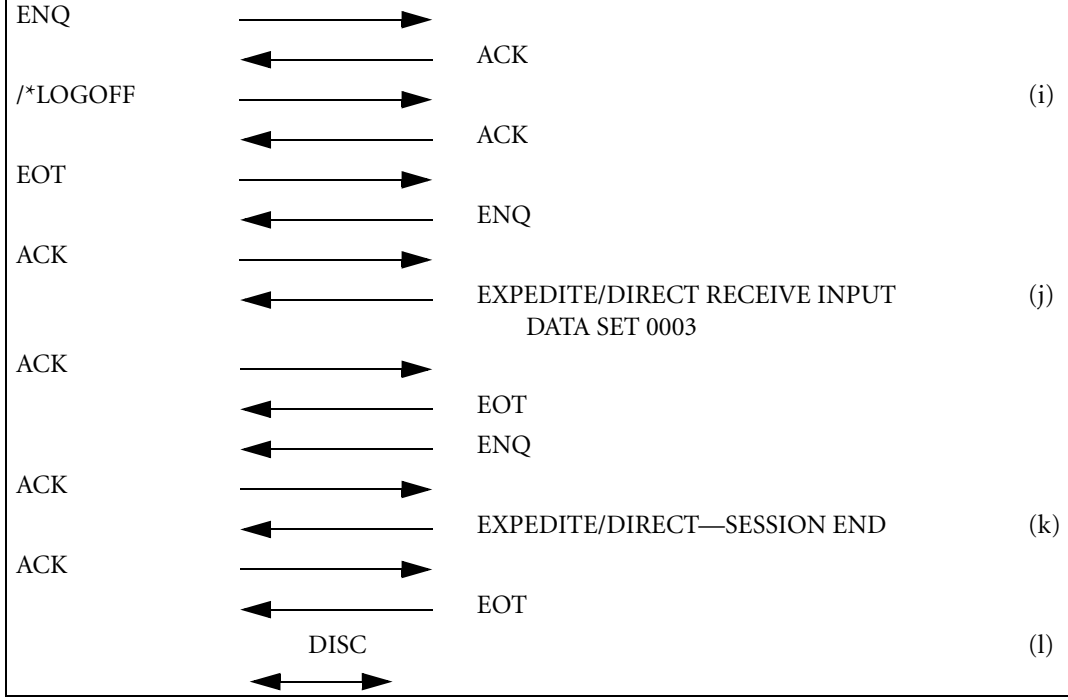
Remote Workstation	Direction	Network Gateway	
ID ENQ	→		
	←	ACK	
EOT	→		
	←	ENQ	
ACK	→		
	←	LOGO (IBM Global Network)	(a)
ACK	→		
	←	EOT	
ENQ	→		
	←	ACK	
/*LOGON..	→		(b)
	←	ACK	
EOT	→		
	←	ENQ	
ACK	→		
	←	WELCOME TO IBM IN EXPEDITE/DIRECT YYMMDDHHMMSS	(c)
ACK	→		
	←	EOT	

2. Sending data to Information Exchange

Remote Workstation	Direction	Network Gateway	
ENQ	→		
	←	ACK	
IELOGON ACCOUNT...	→		(d)
	←	ACK	
EOT	→		
	←	ENQ	
ACK	→		
	←	EXPEDITE/DIRECT RECEIVE INPUT: DATA SET 0001	(e)
ACK	→		
	←	EOT	
ENQ	→		
	←	ACK	
ISA.....IEA..	→		(f)
	←	ACK	
RECEIVE; ...	→		
	←	ACK	
EOT	→		

3. Receiving data from Information Exchange			
Remote Workstation	**Direction**	**Network Gateway**	
		ENQ	
ACK			
		EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0002	(g)
ACK			
		EOT	
		ENQ	
ACK			
		ALL MESSAGES IN YOUR MAILBOX...	(h)
ACK			
		... MESSAGES.....	
ACK			
		EOT	

4. Logging off the IBM Global Network



An emulator that does not wait for the “Welcome” message

This sample session shows an emulator that sends IBM Global Network logon information before receiving a “Welcome” message. The BSC flow between the RJE workstation and the network gateway consists of the following steps:

- **(a)** Send batch logon record
- **(b)** Receive Expedite/Direct “Welcome” message
- **(c)** Send IELOGON, X12 data
- **(d)** Receive Expedite/Direct OK signal (Data set 0001)
- **(e)** Send Receive message request, receive messages 'ABC' and 'DEF'
- **(f)** Receive Expedite/Direct OK signal (Data set 0002)
- **(g)** Receive message with class name 'ABC'
- **(h)** Receive message with class name 'DEF'
- **(i)** Send receive Expedite/Direct session log request
- **(j)** Receive Expedite/Direct OK signal (data set 0003)
- **(k)** Receive session log
- **(l)** Receive session end delimiter
- **(m)** Disconnect

The letters in parentheses correspond to letters on the far right side of the chart.

1. Logging on to the IBM Global Network

Remote Workstation		**Network Gateway**	
ID ENQ	→		
	←	ACK	
/*LOGON..		→	(a)
	←	RVI	
EOT	→		
	←	ENQ	
ACK	→		
	←	WELCOME TO IBM IN EXPEDITE/DIRECT YYMMDDHHMMSS	(b)
ACK	→		
	←	EOT	

2. Sending data to Information Exchange

Remote Workstation	Direction	Network Gateway	
ENQ	→		
	←	ACK	
IELOGON ACCOUNT...	→	..DEVICE(PRINTER)..;	(c)
	←	ACK	
ISA.....		→	
	←	ACK	
.....IEA...		→	
	←	ACK	
SEND ACCOUNT (ABCD)...;	→		
	←	ACK	
EOT	→		
	←	ENQ	
ACK	→		
	←	EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0001	(d)
ACK	→		
	←	EOT	
ENQ	→		
	←	ACK	
RECEIVE CLASS ('ABC', 'DEF');	→		(e)

Note: Although only one RECEIVE command is specified, the command contains two receive requests (one for each message class). Therefore, the RJE workstation should expect to receive two data sets.

	←	ACK	
EOT	→		

3. Receiving data from Information Exchange

Remote Workstation		Network Gateway	
	←	ENQ	
ACK	→		
	←	EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0002	(f)
ACK	→		
	←	EOT	
	←	ENQ	
ACK	→		
	←	MESSAGES WITH CLASS NAME ABC	(g)
ACK	→		
	←	EOT	
	←	ENQ	
ACK	→		
	←	MESSAGES WITH CLASS NAME DEF	(h)
ACK	→		
	←	EOT	

4. Logging off the IBM Global Network

Remote Workstation	Network Gateway	
ENQ →		
	← ACK	
RECEIVE CLASS (EDILOG); →		(i)
	← ACK	
EOT →		
	← ENQ	
ACK →		
	← EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0003	(j)
ACK →		
	← EOT	
	← ENQ	
ACK →		
	← EXPEDITE/DIRECT SESSION LOG	(k)
ACK →		
	← EOT	
	← ENQ	
ACK →		
	← EXPEDITE/DIRECT—SESSION END	(l)
ACK →		
	← EOT	
ENQ →		
	← ACK	
/*LOGOFF →		
	← ACK	
EOT →		
	DISC ↔	(m)

An error condition

This sample session shows what happens when the input contains a syntax error; in this case, a misspelled parameter name. This session is terminated before it can progress past the second part (sending data to Information Exchange).

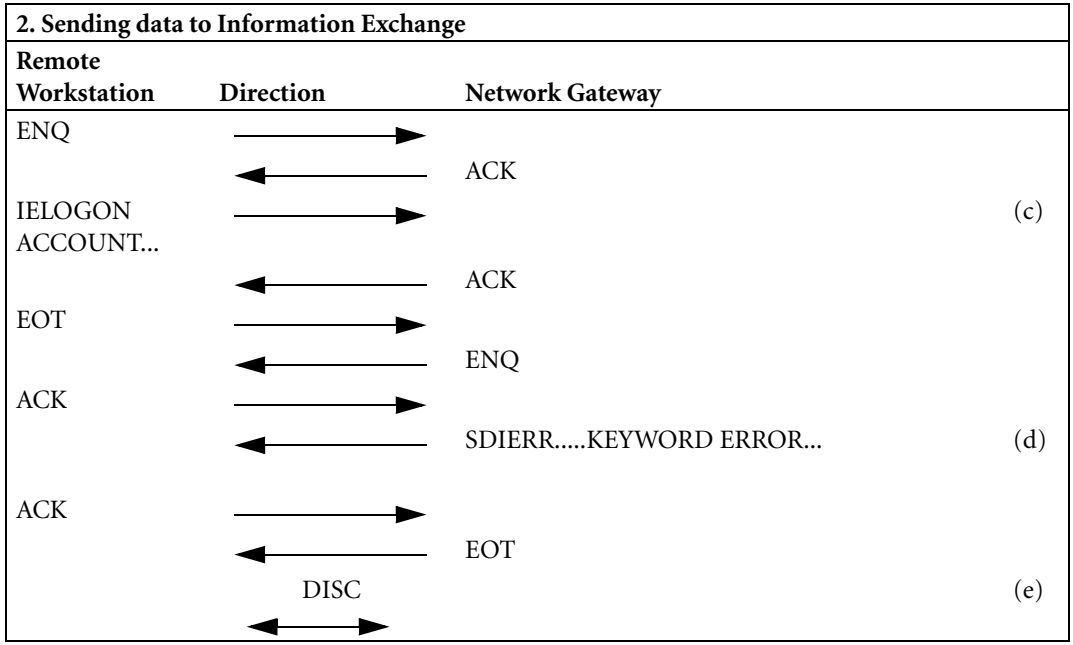
The BSC flow between the RJE workstation and the network gateway consists of the following steps:

- **(a)** Send batch logon record
- **(b)** Receive Expedite/Direct "Welcome" message
- **(c)** Send IELOGON with misspelled parameter name (ACCT instead of ACCOUNT)
- **(d)** Receive Expedite/Direct error message
- **(e)** Disconnect

The letters in parentheses correspond to letters on the far right side of the chart.

1. Logging on to the IBM Global Network

Remote Workstation		Network Gateway	
ID ENQ	→		
	←	ACK	
/*LOGON..	→		(a)
	←	RVI	
EOT	→		
	←	ENQ	
ACK	→		
	←	WELCOME TO IBM IN EXPEDITE/DIRECT YYMMDDHHMMSS	(b)
ACK	→		
	←	EOT	



Understanding the structure of an Expedite/Direct SDLC session

The charts in this section show typical sessions where messages are sent and received.

These charts show how your RJE workstation and the network gateway work together. Each session consists of four parts:

1. Logging on to the IBM Global Network and selecting Expedite/Direct
2. Transmitting data to Information Exchange

   This includes starting the Information Exchange session, sending messages and data to Information Exchange, and requesting any waiting messages.
3. Receiving data from Information Exchange

   This includes receiving any waiting messages along with any formatted data and any system messages.
4. Logging off the IBM Global Network

   This is when you will receive a session log if you requested it.

In these charts, when you connect to SDLC, the network gateway issues an XID with an all stations broadcast address. You respond with a valid XID. The network gateway extracts the station address from the XID to determine which logical configuration to activate for you. The network gateway then generates the appropriate flows. The arrows indicate the direction of the flow of information. These charts use the following control characters:

These characters:	Mean this:
Bind	Request to activate a session between two logical units
Unbind/hold	Request to deactivate a session between two logical units, keeping open the possibility of activating another session
RSP	Response
SDT	Start data traffic
BBI	Begin bracket indicator
CDI	Change direction indicator
EBI	End bracket indicator
SNRM	Set normal response mode
ACTPU	Activate physical unit
ACTLU	Activate logical unit

Establishing an SNA/RJE session

The flow between the Remote workstation and the network gateway consists of the following steps:

- **(a)** Send batch logon record
- **(b)** Receive Expedite/Direct “Welcome” message
- **(c)** Send IELOGON
- **(d)** Receive Expedite/Direct OK signal (Data set 0001)
- **(e)** Send Receive message request, receive messages 'ABC' and 'DEF'
- **(f)** Receive Expedite/Direct OK signal (Data set 0002)
- **(g)** Receive message with class name 'ABC'
- **(h)** Receive message with class name 'DEF'
- **(i)** Send receive Expedite/Direct session log request
- **(j)** Receive Expedite/Direct OK signal (data set 0003)
- **(k)** Receive session log
- **(l)** Receive session end delimiter
- **(m)** Disconnect

The letters in parentheses correspond to letters on the far right side of the chart. RJE devices that do not support unbind/hold establish a session according to the following example.

1. Logging on to the IBM Global Network

Remote Workstation	Direction	Network Gateway	
CONNECT	→		
	←	XID	
XID	→		
	←	SNRM	
+ RSP	→		
	←	ACTPU	
+ RSP	→		
	←	ACTLU	
+ RSP	→		
LOGON DATA (/*L ACCT,USERID,PWD/*S EDIRECTS/*U SNAEDI)			(a)
	←	+ RSP	
	←	EDIRECT BIND	
+ RSP	→		
	←	SDT	
+ RSP	→		
	←	BID	
+ RSP	→		
	←	WELCOME TO IBM IN EXPEDITE/DIRECT YYMMDDHHMMSS	(b)
+ RSP	→		
	←	CDI	
+ RSP	→		

2. Sending data to Information Exchange			
Remote Workstation	**Direction**	**Network Gateway**	
IELOGON ACCOUNT( ) USERID( )...;	→		(c)
	←	+ RSP	
SEND ACCOUNT( ) USERID( )...;	→		
	←	+ RSP	
...'data'... 000	→		
	←	+ RSP	
CDI	→		
	←	+ RSP	
	←	"Expedite/Direct receive input data set 0001"	(d)
+ RSP	→		
	←	CDI	
+ RSP	→		
RECEIVE CLASS ('ABC', 'DEF');	→		(e)
	←	+ RSP	
CDI	→		
	←	+ RSP	

3. Receiving data from Information Exchange			
Remote Workstation	**Direction**	**Network Gateway**	
	←	"Expedite/Direct receive input data set 0002"	(f)
+ RSP	→		
	←	Messages with class name ABC	(g)
+ RSP	→		
	←	Messages with class name DEF	(h)
+ RSP	→		
	←	CDI	

+ RSP	→	

4. Logging off the IBM Global Network			
Remote Workstation	**Direction**	**Network Gateway**	
RECEIVE CLASS (EDILOG);	→		(i)
	←	+ RSP	
CDI	→		
	←	+ RSP	
	←	"Expedite/Direct receive input data set 0003"	(j)
+ RSP	→		
	←	"Expedite/Direct —Session Log"	(k)
+ RSP	→		
	←	"Expedite/Direct —Session End"	(l)
+ RSP	→		
	←	EBI	
+ RSP	→		
	←	Disconnect Sequence →	(m)

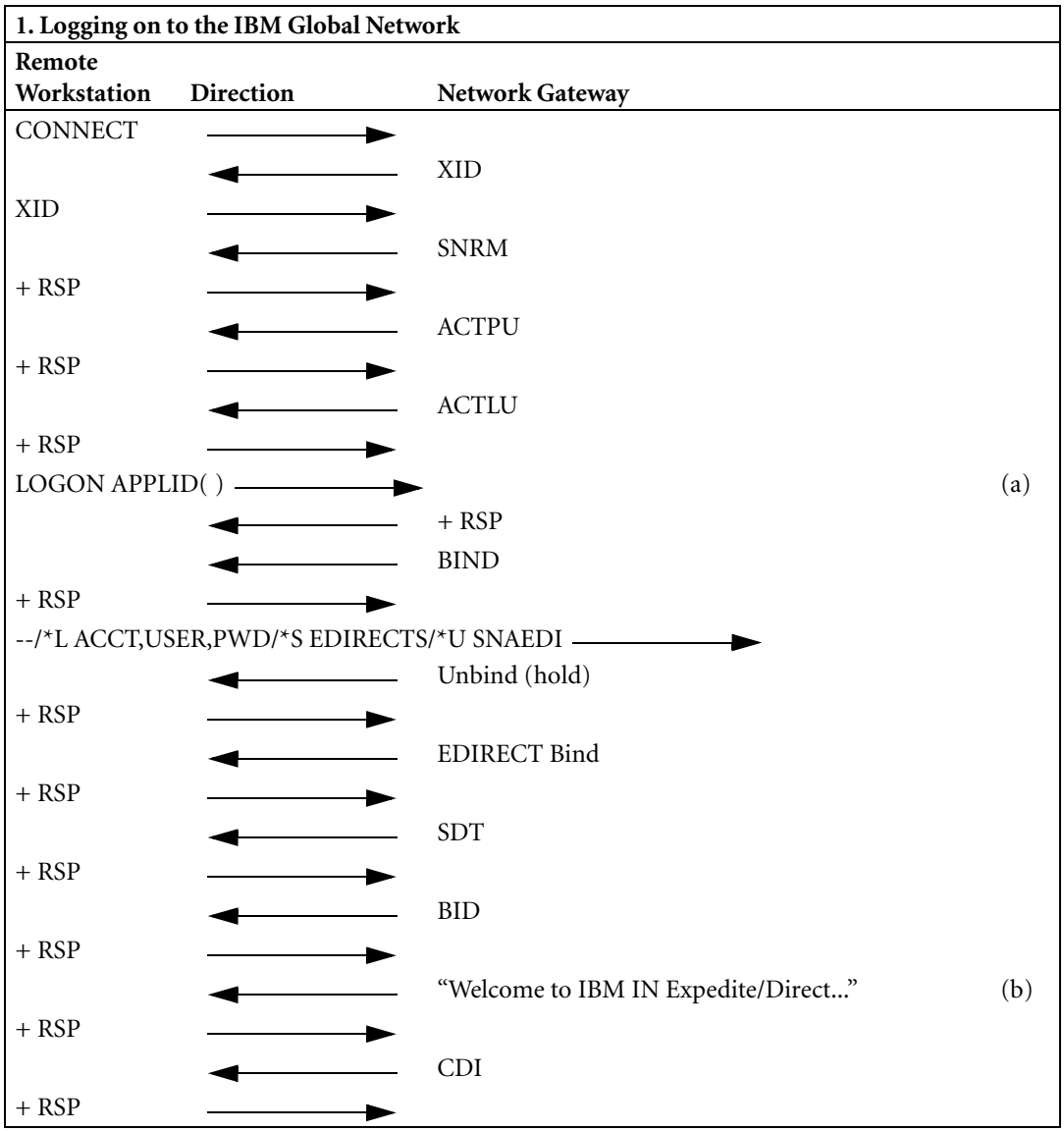
Establishing a non-RJE SNA session

The flow between the Remote workstation and the network gateway consists of the following steps:

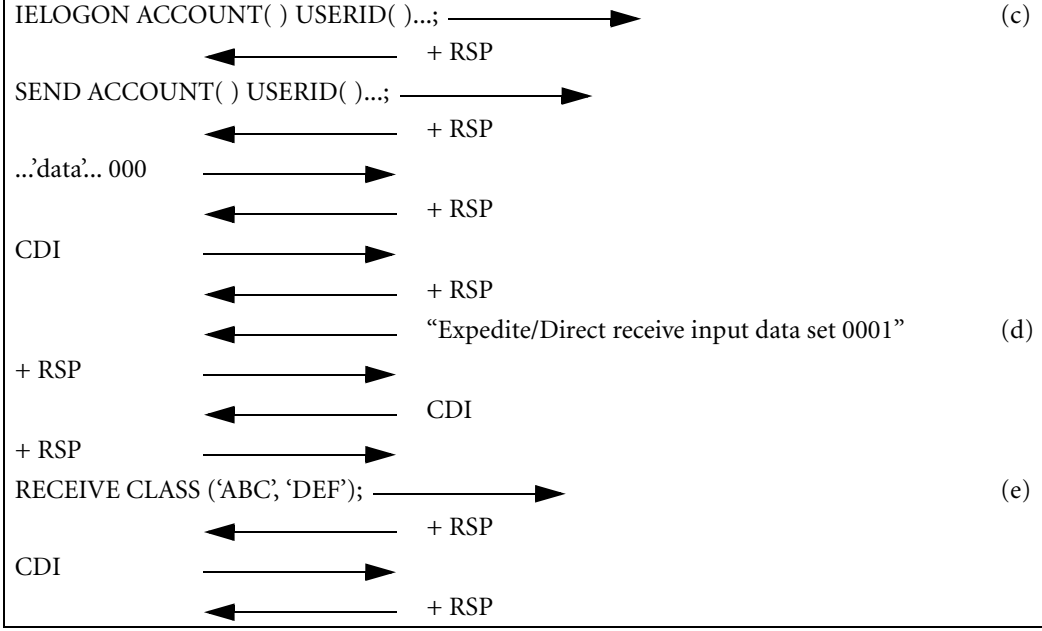
- **(a)** Send batch logon record
- **(b)** Receive Expedite/Direct "Welcome" message
- **(c)** Send IELOGON
- **(d)** Receive Expedite/Direct OK signal (Data set 0001)
- **(e)** Send Receive message request, receive messages 'ABC' and 'DEF'
- **(f)** Receive Expedite/Direct OK signal (Data set 0002)
- **(g)** Receive message with class name 'ABC'
- **(h)** Receive message with class name 'DEF'
- **(i)** Send receive Expedite/Direct session log request
- **(j)** Receive Expedite/Direct OK signal (data set 0003)
- **(k)** Receive session log
- **(l)** Receive session end delimiter
- **(m)** Disconnect

The letters in parentheses correspond to letters on the far right side of the chart.

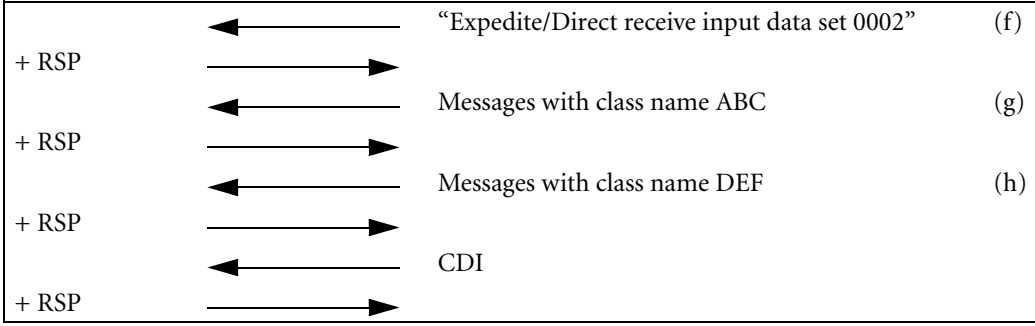
Session examples



2. Sending data to Information Exchange



3. Receiving data from Information Exchange



4. Logging off the IBM Global Network

Remote Workstation	Direction	Network Gateway	
RECEIVE CLASS (EDILOG);	→		(i)
	←	+ RSP	
CDI	→		
	←	+ RSP	
	←	"Expedite/Direct receive input data set 0003"	(j)
+ RSP	→		
	←	"Expedite/Direct —Session Log"	(k)
+ RSP	→		
	←	"Expedite/Direct —Session End"	(l)
+ RSP	→		
	←	EBI	
+ RSP	→		
	←	Disconnect Sequence →	(m)

Appendix C

Sample Expedite/Direct tests

This appendix contains sample commands and data that you can use to test Expedite/Direct. If you are designing a terminal emulator program, these tests are useful for locating and fixing problems. You should be familiar with the batch logon process and the Expedite/Direct commands to understand all these examples.

During the network testing process, you will be able to use special test account and user IDs that will be furnished by the network. For more details on establishing a test, contact your IBM Global Network representative.

The sample tests in this appendix use TERM as the account ID and DT002 as the user ID. If you already have your assigned account IDs, user IDs, and passwords, you should use them in these examples.

Using Expedite/Direct with a single data set

Use the following sample to send a single data set with Expedite/Direct.

Use the following batch logon record to log on to the IBM Global Network:

```
/*LOGON TERM,DT002,xxxxxxxx /*SELECT EDIRECT/*USERDATA
BSCEDI
```

Replace *xxxxxxxx* with an IBM Global Network password.

You will receive the following Expedite/Direct "Welcome" message at your workstation:

```
WELCOME TO EXPEDITE/DIRECT   YYMMDDHHMMSS
```

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Input data set 1

Send the following Expedite/Direct commands:

```
IELOGON ACCOUNT(xxxx) USERID(DT002) PASSWORD(xxxxxxxx);
DEFINE NICKNAME(ABC) ACCOUNT(TEST) USERID(DT003);
SEND NICKNAME(ABC) DLM(ENDSEND);
THIS IS A TEST ENDSEND RECEIVE CLASS(X12);
/*SIGNOFF
```

Replace *xxxx* with an Information Exchange account ID. Replace *xxxxxxxx* with an Information Exchange password.

Output data sets 1, 2, 3

You will receive three data sets from Expedite/Direct:

Output data set 1: EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0001
Output data set 2: ISA* ..... IEA* ..... ISA* ..... IEA* ....

The second data set is in response to the RECEIVE command.
Output data set 3: EXPEDITE/DIRECT -- SESSION END

Using Expedite/Direct with multiple data sets

Use the following sample to send multiple data sets with Expedite/Direct.

Use the following batch logon record to log on to the IBM Global Network:

```
/*LOGON TERM,DT002,xxxxxxxx/*SELECT EDIRECT/*USERDATA
BSCEDI
```

Replace *xxxxxxxx* with an IBM Global Network password.

You will receive the following Expedite/Direct "Welcome" message at your workstation:

```
WELCOME TO EXPEDITE/DIRECT   YYMMDDHHMMSS
```

Input data set 1

Send the following Expedite/Direct commands and EDI-formatted data:

```
IELOGON ACCOUNT(xxxx) USERID(DT002) PASSWORD(xxxxxxxx);
DEFINE NICKNAME(ABC) ACCOUNT(TEST) USERID(DT003);
ISA* ... ABC ..... ;IEA*            ;
BG* ..... EG* .....
```

Replace *xxxx* with an Information Exchange account ID. Replace *xxxxxxxx* with an Information Exchange password.

Include two EDI-formatted data sets in your session input.

Output data set 1

You will receive the following data set from Expedite/Direct:

Output data set 1: EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0001

Input data set 2

Send the following Expedite/Direct commands and EDI-formatted data:

```
ISA* ..... IEA* .....
SEND NICKNAME(ABC); TWO ANSI X12 DATA AND ONE UCS DATA.
THANKS@@@
ISA* ..*ACCT     UID     *...;ST*850*.... IEA* .....
SEND ACCOUNT(ACCT) USERID(UID); ONE X12850 DATA.
THANKS@@@
RECEIVE;
RECEIVE CLASS(EDILOG);
/*LOGOFF
```

Output data sets 2, 3, 4, and 5

You will receive four data sets from Expedite/Direct:

Output data set 2: EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0002

Output data set 3: MESSAGES IN THE ASSOCIATED IE MAILBOX

Output data set 4: EXPEDITE/DIRECT SESSION LOG

Output data set 5: EXPEDITE/DIRECT -- SESSION END

Using comments

You can use the following sample to include comments in your session input.

Use the following batch logon record to log on to the IBM Global Network:

/*LOGON TERM,DT002,*xxxxxxxx*/*SELECT EDIRECT/*USERDATA BSCEDI

Replace *xxxxxxxx* with an IBM Global Network password.

You will receive the following Expedite/Direct "Welcome" message at your workstation:

WELCOME TO EXPEDITE/DIRECT YYMMDDHHMMSS

Input data set 1

Send the following Expedite/Direct commands:

IELOGON ACCOUNT(*xxxx*) USERID(DT002) PASSWORD(*xxxxxxxx*);
/* DEFINE NICKNAME FOR DT003 */
DEFINE NICKNAME(ABC) ACCOUNT(TEST) USERID(DT003);
/* SEND X12 DATA TO DT003 */
ISA* ... ABC ..... ;IEA* ;
/*SEND UCS DATA TO DT003 */
BG* ... ABC ... EG* .....

Replace *xxxx* with an Information Exchange account ID. Replace *xxxxxxxx* with an Information Exchange password.

Include two EDI-formatted data sets in your session input.

Output data set 1

You will receive the following data set from Expedite/Direct:

Output data set 1: EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0001

Input data set 2

Send the following /*LOGOFF record:

/*LOGOFF

Output data sets 2, 3

You will receive the following session end status from Expedite/Direct:

Output data set 2: EXPEDITE/DIRECT RECEIVE INPUT DATA SET 0002

Output data set 3: EXPEDITE/DIRECT -- SESSION END

Appendix D

Handling errors

If there is an error during your session, you will receive one of the following error messages. These are the types of error messages that you can receive:

- Expedite/Direct error messages
- Expedite/Direct abend errors
- IBM Global Network logon error messages
- Information Exchange system error messages

For some errors, you need to contact IBM Global Network Customer Assistance. To find out how to do this, see the *Network User's Guide*.

Handling Expedite/Direct errors

When an Expedite/Direct error occurs in your session, Expedite/Direct terminates the session, sends an error message to your workstation immediately, and disconnects. The error message has the following format:

- The error type is SDIERR
- The error code is a 10 character field
- The error message text is a 68 character field that describes the error
- The error input text is a 30 character field that identifies the error

Expedite/Direct error codes appear in your session log. You can use the EMSG parameter of the IELOGON command to specify the format in which you want to receive Expedite/Direct error messages. For more information about the IELOGON command, see "Using the IELOGON command" on page 4-2.

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Identifying the error code

Each Expedite/Direct error code has the following format:

pppmmmeees

This code:	Identifies this:
ppp	The product that you were using when the error occurred. For Expedite/Direct errors, this code is IED.
mmm	The module (that is, the part of the Expedite/Direct program) that detected the error. If you contact IBM Global Network Customer Assistance about the error, this information may help them determine what caused the error.
eee	The type of error. This is the code that you look at to identify the specific error that occurred. For more information about error types, see "Identifying the error type" on page D-4.
s	The severity of the error. These are the error severity codes:

This code:	Means this level of severity:
0	No error; your session completed normally.
I	Information only.
W	Warning.
E	Error.
S	Severe/Terminating.

Identifying the error message text

Expedite/Direct error messages include the description of the error in a 68 character field.

Identifying the error input text

Expedite/Direct error messages also include a text field that displays up to 30 characters from the part of your input data that caused the error. If the error is caused by an invalid Expedite/Direct command, this field has the following format:

- Characters 1 to 10 display the name of the command where the error occurred.
- Characters 11 to 30 display up to 20 characters of the parameters, parameter values, or data from the command where the error occurred.

For example, if your input contained a SEND command without a delimiter, the text field for the error message might look like this:

```
SEND Hi Joe. Please send
```

If the error is caused by an EDI-formatted data transmission, the text field has the following format:

- Characters 1 to 10 display the counter value for that particular data type where the error occurred.
- Characters 11 to 30 display up to 20 characters of the EDI-formatted data.

For example, if your input contained three sets of X12-formatted data, and the third set contained an error, the text field for the error message might look like this:

```
0000000003isa*zz*ccccccccc*zz
```

For any other types of errors (for example, invalid input types or comment errors), the text field has the following format:

Characters 1 to 30 display the beginning (up to 30 characters) of the data where the error occurred.

For example, if your input contained a comment without a delimiter, the text field for the error message might look like this:

```
/* The next RECEIVE is to rece
```

Identifying the error type

You can identify the type of error that occurred by the third code in the error message:

*pppmmm*eee*s*

In the following list of error types, the three-digit message number is the error type.

---

200 INVALID INPUT TYPE WAS SPECIFIED

Explanation: Expedite/Direct cannot identify the input data as a valid command or as valid EDI-formatted data.

User Response: Check the input data, correct the error, and retransmit.

---

205 UNABLE TO FIND DELIMITER FOR EDI DATA

Explanation: Expedite/Direct was unable to determine the EDI data delimiters or was unable to find a segment terminator when expected. This is usually caused by invalid EDI data.

User Response: Check the input EDI data, correct the error, and retransmit.

---

210 UNABLE TO FIND TRAILER FOR EDI DATA; INPUT DATA REJECTED

Explanation: An EDI header segment was found without a corresponding EDI trailer segment.

User Response: Check the input data, correct the error, and retransmit.

---

215 END OF FREE FORMAT DATA WAS NOT FOUND

Explanation: Expedite/Direct was unable to locate the end of the free format text. This error is usually caused by a missing or invalid free-format delimiter.

User Response: Check the input data, correct the error, and retransmit.

---

220 UNABLE TO DETERMINE IDENTIFICATION OF RECEIVER FROM THE EDI DATA

Explanation: Expedite/Direct was unable to locate the receiver's ID in the EDI data or the receiver's ID was not in the correct format.

User Response: Check the input data, correct the error, and retransmit.

---

225 INVALID RESERVED MESSAGE CLASS WAS SPECIFIED

Explanation: An invalid reserved message class was specified or single quotation marks were omitted.

User Response: See "Specifying the message class for EDI-formatted data" on page 7-8 for valid reserved message class values, correct the error, and retransmit.

230 NO EDI DATA FOUND AFTER SENDEDI COMMAND

Explanation: There must be at least one EDI transmission set after the SENDEDI command.

User Response: Correct the error and retransmit.

236 SXS - SXE SEGMENT MISMATCH OCCURRED. INPUT DATA REJECTED

Explanation: X12 security segment trailer S1E must follow security segment S1S. S2E must follow S2S.

User Response: Correct the error and retransmit.

237 INVALID LENGTH IN LENGTH ELEMENT

Explanation: There was an invalid length specified.

User Response: Correct the error and retransmit.

238 INTERCHANGE CONTROL NUMBER MISMATCH

Explanation: The interchange control number specified in the transmission header segment does not match the control number specified in the transmission trailer.

User Response: Correct the error and retransmit.

300 MULTIPLE IELOGON COMMANDS WERE SPECIFIED

Explanation: There were multiple IELOGON commands specified; only one IELOGON command may be specified in the input data.

User Response: Check the input data, correct the error, and retransmit.

305 NO IELOGON COMMAND WAS SPECIFIED

Explanation: Expedite/Direct was unable to locate an IELOGON command. The IELOGON command must be the first command, after the /*LOGON record, in the input data.

User Response: Check the input data, correct the error, and retransmit.

310 COMMAND DELIMITER WAS NOT FOUND

Explanation: Expedite/Direct was unable to locate a command delimiter in the input data.

User Response: Check the input data, correct the error, and retransmit.

315 END OF COMMENT TEXT WAS NOT FOUND

Explanation: Expedite/Direct could not detect the end of comment text delimiter.

User Response: Check the input data, correct the error, and retransmit.

400 INVALID PASSWORD WAS SPECIFIED; SESSION REJECTED

Explanation: An invalid password has been specified in the IELOGON command.

User Response: Check the input data, correct the error, and retransmit. If the problem persists, contact IBM Global Network Customer Assistance.

405 INVALID ACCOUNT/USERID WAS SPECIFIED; SESSION REJECTED

Explanation: An invalid account and/or user ID has been specified in the IELOGON command.

User Response: Check the input data, correct the error, and retransmit. If the problem persists, contact IBM Global Network Customer Assistance.

410 INVALID NEW PASSWORD WAS SPECIFIED; SESSION REJECTED

Explanation: The new password specified in the IELOGON command is invalid.

User Response: See *Using Information Exchange Administration Services* for password restrictions, correct the error, and retransmit. If the problem persists, contact IBM Global Network Customer Assistance.

415 INCORRECT PASSWORD SPECIFIED FOR ESO USER; USERID HAS BEEN REVOKED

Explanation: An invalid password has been specified in the IELOGON command for an ESO user and the user ID has been revoked.

User Response: Contact IBM Global Network Customer Assistance.

420 REQUIRED NEW PASSWORD NOT SPECIFIED FOR ESO USER; SESSION REJECTED

Explanation: A required new password for an ESO user has not been specified in the IELOGON command.

User Response: Check the input data, correct the error, and retransmit.

425 INVALID NEW PASSWORD SPECIFIED FOR ESO USER; SESSION REJECTED

Explanation: The new password specified in the IELOGON command is invalid for an ESO user.

User Response: See *Using Information Exchange Administration Services* for password restrictions, correct the error, and retransmit. If the problem persists, contact IBM Global Network Customer Assistance .

600 INVALID COMMAND PARAMETER WAS SPECIFIED

Explanation: The command parameter specified is invalid.

User Response: Check the syntax of this command, correct the error, and retransmit.

601 INVALID COMMAND PARAMETER VALUE WAS SPECIFIED

Explanation: The command parameter value specified is invalid.

User Response: Check the syntax of this command, correct the error, and retransmit.

602 INVALID LENGTH OR NUMBER OF COMMAND PARAMETER VALUES WAS SPECIFIED

Explanation: The length of the parameter value or the number of parameter values specified for this parameter is incorrect.

User Response: Check the syntax of this parameter, correct the error, and retransmit.

603 THE NUMBER OF ACCOUNT AND USERID PARAMETERS WAS NOT EQUAL

Explanation: In one of your DEFINE commands, the number of ACCOUNT parameters is not equal to the number of USERID parameters, or you have not specified all the ACCOUNT and USERID parameters in pairs.

User Response: Correct the error and retransmit.

604 CONFLICTING DEVICE AND TRANSP PARAMETER VALUES WERE SPECIFIED

Explanation: The values for the DEVICE and TRANSP parameters conflict. When the TRANSP value is YES, the DEVICE value must be PUNCH.

User Response: Correct the error and retransmit.

605 MULTIPLE DESTINATIONS WERE SPECIFIED

Explanation: Only one destination can be specified (only one ACCOUNT/USERID, LIST, or NICKNAME).

User Response: Correct the error and retransmit.

606 UNDEFINED LIST OR NICKNAME WAS SPECIFIED

Explanation: The LIST or NICKNAME specified has not been previously defined.

User Response: Correct the error and retransmit.

607 INVALID DESTINATION ACCOUNT AND/OR USERID WAS SPECIFIED

Explanation: The ACCOUNT/USERID fields are either missing or invalid.

User Response: Correct the error and retransmit.

608 REQUIRED DESTINATION INFORMATION WAS MISSING

Explanation: No destination was specified (ACCOUNT/USERID, LIST, or NICKNAME).

User Response: Correct the error and retransmit.

609 EXISTING LIST OR NICKNAME WAS SPECIFIED

Explanation: The specified nickname or list name already exists. List names and nicknames must be unique.

User Response: Correct the error and retransmit.

610 NO LIST OR NICKNAME ENTRIES WERE SPECIFIED

Explanation: No account ID or user ID was specified for a defined list or nickname.

User Response: Correct the error and retransmit.

611 MESSAGE CONTAINS DATA THAT REQUIRES TRANSPARENCY MODE

Explanation: You attempted to receive data that contains transparent data less than X'40' without specifying a TRANSP(YES) parameter.

User Response: Correct the error and retransmit.

612 OUTPUT RECORD LENGTH IN RECEIVE COMMAND IS NOT VALID

Explanation: This value can be from 001-080 if the device is a punch, or it can be 001-250 if the device is a printer.

User Response: Correct the error and retransmit.

613 INVALID MESSAGE RETENTION PERIOD WAS SPECIFIED

Explanation: You specified a message retention period greater than 30.

User Response: Correct the error and retransmit.

614 INVALID PNICK VALUE SPECIFIED IN IELOGON COMMAND

Explanation: You specified a PNICK value other than Yes or No.

User Response: Correct the error and retransmit.

616 INVALID SYSTEM NAME SPECIFIED IN AT KEYWORD

Explanation: You specified a system name greater than three characters.

User Response: Correct the error and retransmit.

617 INVALID MESSAGE NAME SPECIFIED IN MSGNAME KEYWORD

Explanation: You specified a message name greater than eight characters.

User Response: Correct the error and retransmit.

618 INVALID MESSAGE SEQUENCE NUMBER IN MSGSEQNO KEYWORD

Explanation: You specified a message sequence number of greater than five characters.

User Response: Correct the error and retransmit.

619 INVALID NICK TABLE VALUE SPECIFIED IN NICKTBL KEYWORD

Explanation: An alias table name must have four characters. The first character must be **G**, **O**, **P**,or **I**.

User Response: Correct the error and retransmit.

620 INVALID UNWRAP KEYWORD VALUE SPECIFIED IN UNWRAP KEYWORD

Explanation: You specified an UNWRAP keyword other than Yes or No.

User Response: Correct the error and retransmit.

622 ALTACCT NOT VALID WITH SPECIFIED LEVEL VALUE

Explanation: *Altacct* is only valid with LEVEL(3)

User Response: Correct the error and retransmit.

623 ALTUSER MUST NOT BE BLANK WHEN ALTACCT IS SPECIFIED

Explanation: *Altacct* and *altuser* defines the user for whom you wish to retrieve the message audit records. Both fields must be present.

User Response: Correct the error and retransmit.

624 INVALID DATAONLY VALUE SPECIFIED IN IELOGON

Explanation: An invalid DATAONLY value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are NO and YES.

625 INVALID DISONERR VALUE SPECIFIED IN IELOGON

Explanation: An invalid DISONERR value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are NO and YES.

626 INVALID RECLEVEL VALUE SPECIFIED IN IELOGON

Explanation: An invalid RECLEVEL value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are SESSION and STREAM.

627 INVALID DELBLANK VALUE SPECIFIED IN IELOGON

Explanation: An invalid DELBLANK value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are NO and YES.

628 INVALID FORCE VALUE WAS SPECIFIED

Explanation: An invalid FORCE value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are NO and YES.

629 INVALID EDIRCV VALUE WAS SPECIFIED

Explanation: An invalid EDIRCV value was specified.

User Response: Correct the parameter value and resubmit the command. Valid values are ANY, NO, and YES.

640 REQUIRED ACCOUNT INFORMATION WAS MISSING

Explanation: The ACCOUNT parameter is required for this command or USERID was specified without an associated ACCOUNT value.

User Response: Correct the error and retransmit.

641 REQUIRED USERID INFORMATION WAS MISSING

Explanation: The USERID parameter is a required parameter for this command.

User Response: Correct the error and retransmit.

642 REQUIRED PASSWORD INFORMATION WAS MISSING

Explanation: The PASSWORD parameter is a required parameter for this command.

User Response: Correct the error and retransmit.

660 MULTIPLE ACCOUNT PARAMETERS WERE SPECIFIED

Explanation: There may only be one ACCOUNT parameter specified in this command.

User Response: Correct the error and retransmit.

661 MULTIPLE USERID PARAMETERS WERE SPECIFIED

Explanation: There may only be one USERID parameter specified in this command.

User Response: Correct the error and retransmit.

662 MULTIPLE PASSWORD PARAMETERS WERE SPECIFIED

Explanation: There may only be one PASSWORD parameter specified in this command.

User Response: Correct the error and retransmit.

663 MULTIPLE NEWPASS PARAMETERS WERE SPECIFIED

Explanation: There may only be one NEWPASS parameter specified in this command.

User Response: Correct the error and retransmit.

664 MULTIPLE CHARGE PARAMETERS WERE SPECIFIED

Explanation: There may only be one CHARGE parameter specified in this command.

User Response: Correct the error and retransmit.

665 MULTIPLE ACK PARAMETERS WERE SPECIFIED

Explanation: There may only be one ACK parameter specified in this command.

User Response: Correct the error and retransmit.

666 MULTIPLE DLM PARAMETERS WERE SPECIFIED

Explanation: There may only be one DLM parameter specified in this command.

User Response: Correct the error and retransmit.

667 MULTIPLE SESSID PARAMETERS WERE SPECIFIED

Explanation: There may only be one SESSID parameter specified in this command.

User Response: Correct the error and retransmit.

668 MULTIPLE EMSG PARAMETERS WERE SPECIFIED

Explanation: There may only be one EMSG parameter specified in this command.

User Response: Correct the error and retransmit.

669 MULTIPLE DEVICE PARAMETERS WERE SPECIFIED

Explanation: There may only be one DEVICE parameter specified in this command.

User Response: Correct the error and retransmit.

670 MULTIPLE TRANSP PARAMETERS WERE SPECIFIED

Explanation: There may only be one TRANSP parameter specified in this command.

User Response: Correct the error and retransmit.

671 MULTIPLE LIST PARAMETERS WERE SPECIFIED

Explanation: There may only be one LIST parameter specified in this command.

User Response: Correct the error and retransmit.

672 MULTIPLE NICKNAME PARAMETERS WERE SPECIFIED

Explanation: There may only be one NICKNAME parameter specified in this command.

User Response: Correct the error and retransmit.

673 MULTIPLE CLASS PARAMETERS WERE SPECIFIED

Explanation: There may only be one CLASS parameter specified in this command.

User Response: Correct the error and retransmit.

674 MULTIPLE TIMEZONE PARAMETERS WERE SPECIFIED

Explanation: There may only be one TIMEZONE parameter specified in this command.

User Response: Correct the error and retransmit.

675 MULTIPLE CRLF PARAMETERS WERE SPECIFIED

Explanation: There may only be one CRLF parameter specified in this command.

User Response: Correct the error and retransmit.

676 MULTIPLE LENGTH PARAMETERS WERE SPECIFIED

Explanation: There may only be one LENGTH parameter specified in this command.

User Response: Correct the error and retransmit.

677 MULTIPLE RETAIN PARAMETERS WERE SPECIFIED

Explanation: There may only be one RETAIN parameter specified in this command.

User Response: Correct the error and retransmit.

678 MULTIPLE PNICK PARAMETERS WERE SPECIFIED

Explanation: There may only be one PNICK parameter specified in this command.

User Response: Correct the error and retransmit.

680 MULTIPLE AT PARAMETERS WERE SPECIFIED

Explanation: There may only be one AT parameter specified in this command.

User Response: Correct the error and retransmit.

681 MULTIPLE MSGNAME PARAMETERS WERE SPECIFIED

Explanation: There may only be one MSGNAME parameter specified in this command.

User Response: Correct the error and retransmit.

682 MULTIPLE MSGSEQNO PARAMETERS WERE SPECIFIED

Explanation: There may only be one MSGSEQNO parameter specified in this command.

User Response: Correct the error and retransmit.

683 MULTIPLE NICKTBL PARAMETERS WERE SPECIFIED

Explanation: There may only be one NICKTBL parameter specified in this command.

User Response: Correct the error and retransmit.

684 MULTIPLE UNWRAP PARAMETERS WERE SPECIFIED

Explanation: There may only be one UNWRAP parameter specified in this command.

User Response: Correct the error and retransmit.

685 MULTIPLE ALTUSER PARAMETERS WERE SPECIFIED

Explanation: There may only be one ALTUSER parameter specified in this command.

User Response: Correct the error and retransmit.

686 MULTIPLE MSGTYPE PARAMETERS WERE SPECIFIED

Explanation: There may only be one MSGTYPE parameter specified in this command.

User Response: Correct the error and retransmit.

687 MULTIPLE STARTDATE PARAMETERS WERE SPECIFIED

Explanation: There may only be one STARTDATE parameter specified in this command.

User Response: Correct the error and retransmit.

688 MULTIPLE ENDDATE PARAMETERS WERE SPECIFIED

Explanation: There may only be one ENDDATE parameter specified in this command.

User Response: Correct the error and retransmit.

689 MULTIPLE STATUS PARAMETERS WERE SPECIFIED

Explanation: There may only be one STATUS parameter specified in this command.

User Response: Correct the error and retransmit.

690 MULTIPLE LEVEL PARAMETERS WERE SPECIFIED

Explanation: There may be only one LEVEL parameter specified in this command.

User Response: Correct the error and retransmit.

691 MULTIPLE ALTACCT PARAMETERS WERE SPECIFIED

Explanation: There may be only one ALTACCT parameter specified in this command.

User Response: Correct the error and retransmit.

692 MULTIPLE DATAONLY PARAMETERS WERE SPECIFIED

Explanation: There may be only one DATAONLY value specified in this command.

User Response: Correct the error and retransmit.

693 MULTIPLE ADDCARD PARAMETERS WERE SPECIFIED

Explanation: There may be only one ADDCARD value specified in this command.

User Response: Correct the error and retransmit.

696 MULTIPLE DISONERR PARAMETERS WERE SPECIFIED

Explanation: There may be only one DISONERR value specified in this command.

User Response: Correct the error and retransmit.

697 MULTIPLE RECLEVEL PARAMETERS WERE SPECIFIED

Explanation: There may be only one RECLEVEL value specified in this command.

User Response: Correct the error and retransmit.

698 MULTIPLE DELBLANK PARAMETERS WERE SPECIFIED

Explanation: There may be only one DELBLANK value specified in this command.

User Response: Correct the error and retransmit.

699 MULTIPLE FILENAME PARAMETERS WERE SPECIFIED

Explanation: There may be only one FILENAME value specified in this command.

User Response: Correct the error and retransmit.

700 MULTIPLE DESCRIBE PARAMETERS WERE SPECIFIED

Explanation: There may be only one DESCRIBE value specified in this command.

User Response: Correct the error and retransmit.

701 MULTIPLE COMPSOFT PARAMETERS WERE SPECIFIED

Explanation: There may be only one COMPSOFT value specified in this command.

User Response: Correct the error and retransmit.

702 MULTIPLE COMPSVER PARAMETERS WERE SPECIFIED

Explanation: There may be only one COMPSVER value specified in this command.

User Response: Correct the error and retransmit.

703 MULTIPLE COMPDLEN PARAMETERS WERE SPECIFIED

Explanation: There may be only one COMPDLEN value specified in this command.

User Response: Correct the error and retransmit.

704 MULTIPLE COMFNAME PARAMETERS WERE SPECIFIED

Explanation: There may be only one COMFNAME value specified in this command.

User Response: Correct the error and retransmit.

705 MULTIPLE MSGKEY PARAMETERS WERE SPECIFIED

Explanation: There may be only one MSGKEY value specified in this command.

User Response: Correct the error and retransmit.

706 MULTIPLE ARCHIVID PARAMETERS WERE SPECIFIED

Explanation: There may be only one ARCHIVID value specified in this command.

User Response: Correct the error and retransmit.

707 MULTIPLE EDIRCV PARAMETERS WERE SPECIFIED

Explanation: There may be only one EDIRCV value specified in this command.

User Response: Correct the error and retransmit.

708 MULTIPLE FORCE PARAMETERS WERE SPECIFIED

Explanation: There may be only one FORCE value specified in this command.

User Response: Correct the error and retransmit.

800 THE REMOTE DEVICE DISCONNECTED THE SESSION

Explanation: The remote device disconnected the session before a normal session end was processed.

User Response: Restart the session.

900 RECEIVE CHECKPOINT RECOVERY ERROR; SESSION REJECTED

Explanation: The default value for the receive checkpoint number is invalid.

User Response: Contact IBM Global Network Customer Assistance.

905 SEND CHECKPOINT RECOVERY ERROR; SESSION REJECTED

Explanation: The default value for the send checkpoint number is invalid.

User Response: Contact IBM Global Network Customer Assistance.

910 RESTART RECOVERY LEVEL MISMATCH; SESSION REJECTED

Explanation: The restart recovery level differs from the original level.

User Response: Contact IBM Global Network Customer Assistance.

915 RESTART RECOVERY LEVEL INVALID; SESSION REJECTED

Explanation: The default restart recovery level is invalid.

User Response: Contact IBM Global Network Customer Assistance.

920 COMMAND RESPONSE MISMATCH; SESSION REJECTED

Explanation: The session start response command code is not the value specified in the Information Exchange session start response command name field.

User Response: Contact IBM Global Network Customer Assistance.

925 ABNORMAL SESSION END SPECIFIED; RESTART SESSION

Explanation: Expedite/Direct requested an abnormal termination of the session.

User Response: Contact IBM Global Network Customer Assistance.

930 ABNORMAL SESSION END SPECIFIED; WAITING FOR PACE RESPONSE

Explanation: The session was waiting for a commit or pace response when the Information Exchange session end command was received.

User Response: Contact IBM Global Network Customer Assistance.

935 ABNORMAL SESSION END SPECIFIED; END DATA MISSING

Explanation: One or more RECEIVE commands had not ended when the Information Exchange session end command was received.

User Response: Contact IBM Global Network Customer Assistance.

940 ABNORMAL SESSION END SPECIFIED; INCOMPLETE MESSAGE GROUP

Explanation: An incomplete group of messages or uncommitted messages was sent to Information Exchange.

User Response: Contact IBM Global Network Customer Assistance.

945 ABNORMAL SESSION END SPECIFIED; INCORRECT ACCESS KEY

Explanation: The access key is invalid. The Information Exchange Session End command generated by Expedite/Direct did not contain the access key assigned to the session when it was started.

User Response: Contact IBM Global Network Customer Assistance.

950 ABNORMAL SESSION END SPECIFIED; NO SESSION IN PROGRESS

Explanation: There was not a session in progress when the Information Exchange session end command was received.

User Response: Contact IBM Global Network Customer Assistance.

955 SESSION END COMMAND RESPONSE MISMATCH OCCURRED; SESSION REJECTED

Explanation: The session end response command code is not the value specified in the Information Exchange session end response command code field.

User Response: Contact IBM Global Network Customer Assistance.

960 ALIAS INQUIRY COMMAND RESPONSE MISMATCH OCCURRED

Explanation: The alias inquiry response command code is not the value specified in the Information Exchange alias inquiry response command name field.

User Response: Contact IBM Global Network Customer Assistance.

965 MESSAGE QUERY COMMAND RESPONSE MISMATCH OCCURRED

Explanation: The message queue query response command code is not the value specified in the Information Exchange message queue query response command name field.

User Response: Contact IBM Global Network Customer Assistance.

990 INFORMATION EXCHANGE UNABLE TO PROCESS COMMAND

Explanation: Information Exchange was not able to process a command because Expedite/Direct sent an invalid command to Information Exchange or the session was interrupted.

User Response: Restart the session. If the problem persists, contact IBM Global Network Customer Assistance.

995 INFORMATION EXCHANGE IS NOT AVAILABLE; TRY AGAIN LATER

Explanation: Information Exchange is temporarily unavailable.

User Response: Contact IBM Global Network Customer Assistance.

999 EXPEDITE/DIRECT INTERNAL PROCESSING ERROR

Explanation: An internal processing error has occurred.

User Response: Contact IBM Global Network Customer Assistance.

Handling Expedite/Direct abend errors

If Expedite/Direct is unable to return an error message (for example, when sending data to the remote workstation), Expedite/Direct will return an abend code. The following are the abend codes.

DI01

Explanation: Information Exchange was not able to process a command because Expedite/Direct sent an invalid command or the session was interrupted.

User Response: Restart the session. If the problem persists, contact IBM Global Network Customer Assistance.

DI02

Explanation: You attempted to receive data that contains transparent data without specifying a TRANSP(YES) parameter.

User Response: Correct the error and retransmit.

AKCT

Explanation: A timeout occurred because Expedite/Direct was expecting input from the remote workstation.

User Response: Correct the error and retransmit.

ASP3

Explanation: Information Exchange processing error.

User Response: Contact IBM Global Network Customer Assistance.

Handling IBM Global Network logon errors

When the IBM Global Network processes your batch logon record, two types of errors can occur:

- Parsing errors

  An example of a parsing error is a missing IBM Global Network user ID. The parser does not continue to read your batch logon record after encountering the first error.

- Logon errors

  An example of a logon error is an attempt to log on to the network when your user ID is already logged on.

When either type of error occurs, you will lose your connection to the IBM Global Network. You will also receive one of the following messages.

Parsing errors

SVM00811 INVALID REQUEST

Explanation: The first characters of your batch logon record were not /*LOGON or /*LOGOFF.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00821 ACCOUNT NUMBER MISSING OR INVALID

Explanation: There was no non-blank data following the /*LOGON and before the first comma, or the length of the data following the /*LOGON and before the end of the data or the first comma was not between 1 and 8 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00823 USERID MISSING OR INVALID

Explanation: There was no non-blank data between the account and the next comma, or the length of the data between the account and the end of the data or the next comma was not between 1 and 7 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00824 PASSWORD MISSING OR INVALID

Explanation: There was no non-blank data between the user ID and the next slash (/), or the length of the data between the user ID and the end of the data or the next slash was not between 1 and 8 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00825 NEW PASSWORD INVALID

Explanation: The length of the data between the password and the next slash (/) was greater than 8 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00826 PRODUCT MISSING OR INVALID

Explanation: The /*SELECT keyword was not found after the password or new password parameter, or the /*SELECT keyword was found but the length of the data following the /*SELECT keyword and the end of the data or the next slash (/) was not between 1 and 8 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00827 VERIFY PASSWORD INVALID

Explanation: The length of the data between the new password and the next slash (/) was greater than 8 characters.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00828 NEW/VERIFY PASSWORDS NOT EQUAL

Explanation: The data in the new password field does not equal the data in the verify password field.

User Response: Check your batch logon record, correct the error, and retransmit.

Logon errors

SVM00803 REQUESTED APPLICATION IS NOT AVAILABLE

Explanation: The application that you selected with the /*SELECT command did not accept your request to establish a session.

User Response: Check your batch logon record to make sure you typed the application name ID correctly. If your batch logon record is correct, contact IBM Global Network Customer Assistance.

SVM00831 PROFILE NOT FOUND

Explanation: The profile for the account and user ID on the batch logon record could not be located in the IBM Global Network Profile database.

User Response: Check your batch logon record to make sure you typed your account and user ID correctly. If your batch logon record is correct, contact IBM Global Network Customer Assistance.

SVM00836 PRODUCT NOT ON PROFILE

Explanation: The product that you requested with your batch logon record is not on the profile for the account and user ID that you entered.

User Response: Check your batch logon record to make sure you typed your account and user ID correctly. If your batch logon record is correct, contact IBM Global Network Customer Assistance.

SVM00841 USERID ALREADY LOGGED ON

Explanation: There is already a user logged on to the IBM Global Network for the account and user ID on your batch logon record.

User Response: Check your batch logon record to make sure you typed your account and user ID correctly. If your batch logon record is correct, contact IBM Global Network Customer Assistance.

SVM00852 PASSWORD NOT AUTHORIZED

Explanation: The password on your batch logon record is not the correct password.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00853 PASSWORD EXPIRED

Explanation: The password on your batch logon record has expired and no new password has been specified.

User Response: Specify a new password. You can do this with the batch logon record. For more information, see Chapter 2, "Logging on to the IBM Global Network through BSC."

SVM00854 NEW PASSWORD INVALID

Explanation: The new password that you specified is invalid. Your new password must be 5 to 8 characters in length, begin with a letter, contain at least 3 different characters, and differ from the last 3 passwords that you have used.

User Response: Check your batch logon record, correct the error, and retransmit.

SVM00855 USER ACCESS REVOKED

Explanation: The user ID on your batch logon record has been revoked because you have tried to log on too many times with an invalid password.

User Response: Contact IBM Global Network Customer Assistance.

SVM00862 PRODUCT ACCESS DENIED

Explanation: The product owner has revoked the access ability to the requested product for the account and user ID on your batch logon record.

User Response: Check your batch logon record to make sure you typed your account and user ID correctly. If your batch logon record is correct, contact IBM Global Network Customer Assistance.

SVM00863 EDIRECT IS NOT AVAILABLE

Explanation: The application that you selected with the /*SELECT command is not currently available.

User Response: Try the application again later. If the problem persists, contact IBM Global Network Customer Assistance.

Handling Information Exchange system errors

For a complete list of Information Exchange errors and information about how you should handle them, see the *Information Exchange Interface Programming Guide*.

To see the Information Exchange system errors from a previous session (if there were any), include the following RECEIVE command in your input for the current session:

```
RECEIVE CLASS(SYSMSG);
```

When Information Exchange sends system error messages to your mailbox:

- The account ID is *SYSTEM*
- The user ID is *ERRMSG*

The format of Information Exchange system error messages is described in the *Information Exchange Interface Programming Guide*.

Glossary

This glossary defines words as they are used in this book. It includes term and definitions from *Dictionary of Computing*, SC20-1699. If you are looking for a term and cannot find it here, see this book for additional definitions.

account. A set of users who all work in a related area of a company.

account ID. A name that identifies an account to Information Exchange.

account profile. A list of the characteristics of an account, such as whether account members are authorized to communicate with each other.

ACTLU. Activate logical unit.

ACTPU. Activate physical unit.

address. A user's account name and user identification (ID); used by Information Exchange to route messages.

American National Standard Code for Information Interchange (ASCII). The standard code, using a coded character set consisting of 7-bit coded characters (8 bits include parity check), used for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphic characters.

American National Standards Institute (ANSI). An organization for the purpose of establishing voluntary industry standards.

ANSI. American National Standards Institute.

ANSI X12. A data standard used by many industries for electronic data interchange and supported by IBM's EDI services.

ASCII. American National Standard Code for Information Interchange.

asynchronous. A protocol that allows a communication device to operate in an unsynchronized manner much like a human conversation; used for modems and low-speed ASCII terminals (PCs); *see* **protocol**.

audit trail. A way of tracking and verifying basic information about the status of messages.

authorization level. A security measure; involves levels of password protection.

Batch Data Interface (BDI). A product on the Information Network that allows users to communicate with Information Exchange if they have a remote job entry processor or terminal.

BDI. Batch Data Interface.

binary synchronous (bisynchronous). A protocol that allows a communication device to operate in a synchronized and predictable manner; used for high-speed computer-to-computer communication and for mainframe computer to dumb terminal communication; *see* **protocol**.

command line. The line on an Information

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Exchange Administration Services or interface panel where the user types commands.

command processor. A system that processes a set of commands from a queue.

destination list. A list of the addresses of users with whom a certain user communicates; used to send messages to several people without having to type their addresses.

distribution list. A list of the addresses of users with whom a certain user communicates; used to send messages to several people without having to type their addresses.

EBCDIC. Extended binary-coded decimal interchange code. A coded character set consisting of 8-bit coded characters.

EDIFACT. An electronic data interchange standard, developed by the United Nations Economic Commission for Europe, for administration, commerce, and transportation fields.

electronic data interchange (EDI). The process of sending specially formatted business documents directly from one computer to another electronically.

electronic mail. The process of sending free-formatted messages and formatted files from one computer to another.

extended security users. Users with stricter security requirements who can communicate only with other extended security users.

IBM Expedite/36. An interface available to System/36 users who are connected to the Information Network.

IBM Expedite/CICS. An interface available to CICS users who are connected to the Information Network.

IBM Expedite/Direct. An interface available to remote workstations that are connected to the Information Network.

IBM Expedite/PC. An interface available to personal computer users who are connected to the Information Network.

Information Exchange (IE). A communication service that allows users to send and receive information electronically.

Information Exchange Administration Services (IE/SERV). An online, panel-driven product that the Information Exchange Service Administrator uses to perform administrative tasks for Information Exchange.

Information Exchange Service Administrator. The person who coordinates the use of Information Exchange in a company.

IBM Information Network. The IBM nationwide network that provides products and services to IBM customers.

IE. Information Exchange.

intermediate destination. A user who accepts delivery of mail sent to another user and who is responsible for sending it on to the other user.

intersecting groups. Groups whose members are authorized to communicate with each other.

JCL. Job control language.

JES. Job entry subsystem.

message. Any piece of data that users send or receive.

message acknowledgments. Response from IE that lets users know whether their messages were delivered, received, or purged.

message class. A category used to group mail; agreed on among trading partners.

message group. A way to organize messages to send them; also called user class.

message header. The beginning of a message; contains the addresses of both the sender and

receiver.

message labels. Short descriptions of messages.

message sequence. The order of messages within a group of messages.

Multiple VirtuaL Storage (MVS). An operating system environment.

MVS. Multiple Virtual Storage.

Notify. An online service for reporting problems to IBM.

password. A "word" that users type to sign on to the Information Network and get access to their interface.

profile type. A category of users who all have the same level of authority for using Information Exchange functions.

program function (PF) key. A key on a terminal keyboard that gives the system a signal to perform a particular command.

protocol. A prearranged procedure for communication.

receive side charges. The charges that users incur when they receive messages through Information Exchange.

remote job entry (RJE). To submit a series of commands through a terminal or processor that has access to a computer through a data link.

RJE. Remote Job Entry.

send side charges. The charges that users incur when they send messages through Information Exchange.

SNRM. Set normal response mode

Synchronous Data Link Control (SDLC). A way to manage the synchronous, code-transparent, serial-to-bit transfer of information over a link connection.

trading partner list. A list of business associates to whom users can send and receive information using Information Exchange.

trading partner profile. A list that defines which trading partner pays to send or receive messages.

trading partners. The business associates with whom users exchange information electronically.

UCS. Uniform Communication Standard.

Uniform Communication Standard (UCS). A standard EDI format used in the grocery industry.

UN/TDI. An electronic data interchange standard for administration, commerce, and transportation fields developed by the United Nations Economic Commission for Europe.

user group. A set of users within an account who can communicate with one another.

user identification (user ID). A name that identifies a user to Information Exchange.

user message class. A category used to group mail; agreed on among trading partners.

user profile. A list of the characteristics of how a user works with Information Exchange.

X12. *See* **ANSI X12.**

Index

Symbols

/ 2-5
/*LOGON command 2-5
/*SELECT command 2-5
/*USERDATA 3-3

Numerics

2770 terminal
    BSC RJE workstation 1-2
    terminal 2-2
    terminal ID 2-2
2780 terminal
    BSC RJE workstation 1-2
    terminal ID 2-2
3780 terminal
    BSC RJE workstation 1-2
    terminal ID 2-2
3790 terminal
    SDLC workstation 3-1

A

account ID (Information Exchange) 4-2
ACCOUNT parameter
    for AUDIT 8-2
    for IELOGON 4-2
    for MSGQUERY 9-1
    for RECEIVE 7-3
    for SEND 6-4
ACK parameter
    for IELOGON 4-4
    for SEND 6-6
    for SENDEDI 6-13
adding comments 4-11, C-4
alias table
    EDIFACT 6-20
    NICKTBL 6-17
    UCS 6-19
    UTD 6-20
    X12 6-16
ALTUSERID parameter 8-3
AS/400 SNA Upline Facility 3-1
AS/400, specifying an XID 3-2
AT parameter
    for AUDIT 8-2
    for RECEIVE 7-3
    for SEND 6-4
AUDIT command
    format of 8-1
    identifying sender of audit trail 8-5
    when to use 8-1
audit trail
    requesting 8-1
    sender 8-5
    using nickname with 5-1
    using RECEIVE 7-1

B

Batch Data Interface 1-1
batch logon record 2-5
BDI 1-1
BG segment 6-18
bind B-14

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BSC
batch logon record 2-5
buffer size 2-2
emulators 2-3
logging on 2-1
terminal ID 2-1
BSCEDI 2-5
buffer size (BUFSIZE) 1-5

C

carriage-return line-feed 6-3, 6-7, 7-2, 7-9
changing a password (Information Exchange) 4-10
CHARGE parameter
for IELOGON 4-3
for SEND 6-5
for SENDEDI 6-12
charging method 4-3
CLASS parameter
for RECEIVE 7-4, 7-6
for SEND 6-5
for SENDEDI 6-12
comments 4-11, C-4
compression 1-5
console interrupt 1-5
CRLF parameter
for RECEIVE 7-5
for SEND 6-7

D

decompression 1-5
DEFINE command, format of
with list 5-2
with nickname 5-2
defining
a list 5-3
a nickname 5-2
delimiter 4-4, 4-11
DEVICE parameter
for IELOGON 4-7
for RECEIVE 7-5
DLM parameter
for IELOGON 4-4
for RECEIVE 7-4
for SEND 6-7

E

EDI 1-1
EDI formats 6-1
EDIFACT
for error messages 4-5
with RECEIVE 7-8
with SENDEDI 6-16
EDILOG 7-11
EDIRECTS 3-3
Electronic Data Interchange 1-1
end brackets 3-1
ENDDATE parameter 8-4
error messages
Expedite/Direct D-1
IBM Global Network logon D-21
Information Exchange system 7-10, D-24
receiving 7-10
Expedite/Direct
error messages D-1
part of Information Exchange 1-1
sample tests C-1
structuring a session B-2
using with Information Exchange 1-1

F

FREEFMT 4-5
free-format messages 6-8

H

Handling D-1
handling errors
Expedite/Direct errors D-1
header data 1-5

I

IBM Global Network 2-5
    logging on 2-5, 3-3
    logon errors D-21
    Welcome message A-1
identifying your RJE workstation 2-1
IELOGON command
    description 4-1
    parameters 4-2
Information Exchange
    logging on 4-1
    using with RJE 1-2

L

LENGTH parameter
    for RECEIVE 7-5
lists
    defining 5-3
    receiving data from 7-10
log, session 7-10, 7-11
logging on
    BSC RJE logon 2-1
    error messages D-21
    logon flow A-1
    SDLC logon 3-2
    to Information Exchange 4-1
    to the network gateway 2-3
Logging on to the IBM Global Network
    through SDLC 3-1
logging on to the IBM Global Network
    through BSC 2-1

M

message class
    EDI-formatted data 6-9
    for free-format data 6-8
messages, error 7-10, D-1
MSGNAME parameter
    for SEND 6-7
    for SENDEDI 6-14
MSGSEQNO parameter
    for SEND 6-7
    for SENDEDI 6-14
MSGTYPE parameter 8-3
multileaving 1-5
multiple data sets 1-4, C-2

N

network gateway 1-5
    BSC RJE logon 2-1
    buffer size 2-1
    RJE workstation 2-1
NEWPASS (IELOGON) 4-2
NICKNAME parameter
    for AUDIT 8-2
    for DEFINE 5-2
    for RECEIVE 7-3
    for SEND 6-4
nicknames
    defining 5-2
    receiving data from 7-6
NICKTBL parameter
    for AUDIT 8-2
    for RECEIVE 7-3
    for SEND 6-4
    for SENDEDI 6-12

P

password
    Information Exchange 4-2
    verification 2-5
PNICK parameter
    for IELOGON 4-7
printer (RJE workstation) 1-2
punch (RJE workstation) 1-2

R

RECEIVE command
    description 7-1
    parameters 7-1
receiving data

error messages 7-10
session log 7-10
with a list 7-10
with a nickname 7-6
Remote Job Entry (RJE) 1-2
RETAIN parameter
for IELOGON 4-8
for SEND 6-8
for SENDEDI 6-14
retaining message 4-8
RJE workstation 1-2
BSC RJE logon 2-1
devices 1-2
identifying 2-1
network gateway A-1
SDLC logon 3-1
terminal ID 2-1

S

SCH 6-10
SDLC
bind B-14
logging on to Expedite/Direct 3-1
unbind hold B-14
workstation 3-1
XID 3-2
secondary logical unit 3-1
SEND command
parameters 6-3
with free-format data 6-1
SENDEDI command
format of 6-9
parameters 6-9
when to use 6-9
sending data
EDI-formatted data 6-9
free-format data 6-2
SESSID (IELOGON) 4-5
session
comments 4-11
error messages 7-10, D-1
recovery 1-4
sending data 6-2
session ID 4-5
session log
receiving 7-10
sample 7-11
SLU end brackets 3-1
SNAEDI 3-3
specifying a time zone 4-5
STARTDATE parameter 8-3
STATUS parameter 8-4
structuring a session B-2
STX segment 6-19
SYSMSG 7-7

T

terminal ID 2-1
terminal interrupt 1-5
tests (Expedite/Direct) C-1
TIMEZONE parameter
for AUDIT 8-4
for IELOGON 4-5
trading partners 1-1
TRANSP parameter
for IELOGON 4-6
for RECEIVE 7-5
transparency 1-6

U

UC 6-16
UCS data 4-5
for error messages 6-16, 6-18
for SENDEDI 6-16
with RECEIVE 7-8
UNA 6-10
UNB 6-10
unbind hold B-14
UNTDI data
for error messages 4-5
for SENDEDI 6-16
with RECEIVE 7-8
UNWRAP parameter

for RECEIVE 7-5
USERID parameter
for AUDIT 8-2
for IELOGON 4-2
for RECEIVE 7-3
for SEND 6-4

V

verifying a password 2-5

X

X12 data
for error messages 4-5
supported by Expedite/Direct 1-1
with RECEIVE 7-8
with SENDEDI 6-16
X12data
beginning characters 6-10
XID 3-2