Connect:Express® z/OS

User Guide

Version 4.2.3

Connect:Express z/OS User Guide
Version 4.2.3
First Edition

This documentation was prepared to assist licensed users of the Connect:Express system ("Sterling Commerce Software"). The Sterling Commerce Software, the related documentation and the information and know-how it contains, is proprietary and confidential and constitutes valuable trade secrets of Sterling Commerce, Inc., its affiliated companies or its or their licensors (collectively "Sterling Commerce"), and may not be used for any unauthorized purpose or disclosed to others without the prior written permission of Sterling Commerce. The Sterling Commerce Software and the information and know-how it contains have been provided pursuant to a license agreement which contains prohibitions against and/or restrictions on its copying, modification and use. Duplication, in whole or in part, if and when permitted, shall bear this notice and the Sterling Commerce, Inc. copyright legend.

Where any of the Sterling Commerce Software or Third Party Software is used, duplicated or disclosed by or to the United States government or a government contractor or subcontractor, it is provided with RESTRICTED RIGHTS as defined in Title 48 CFR 52.227-19 and is subject to the following: Title 48 CFR 2.101, 12.212, 52.227-19, 227.7201 through 227.7202-4, FAR 52.227-14(g)(2)(6/87), and FAR 52.227-19(c)(2) and (6/87), and where applicable, the customary Sterling Commerce license, as described in Title 48 CFR 227-7202-3 with respect to commercial software and commercial software documentation including DFAR 252.227-7013(c) (1), 252.227-7015(b) and (2), DFAR 252.227-7015(b)(6/95), DFAR 227.7202-3(a), all as applicable.

The Sterling Commerce Software and the related documentation are licensed either "AS IS" or with a limited warranty, as described in the Sterling Commerce license agreement. Other than any limited warranties provided, NO OTHER WARRANTY IS EXPRESSED AND NONE SHALL BE IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE OR FOR A PARTICULAR PURPOSE. The applicable Sterling Commerce entity reserves the right to revise this publication from time to time and to make changes in the content hereof without the obligation to notify any person or entity of such revisions or changes.

References in this manual to Sterling Commerce products, programs, or services do not imply that Sterling Commerce intends to make these available in all countries in which Sterling Commerce operates.

Printed in the United States of America.

Copyright © 2003, 2009. Sterling Commerce, Inc. All rights reserved.

Connect:Express is a registered trademark of Sterling Commerce. All Third Party Software names are trademarks or registered trademarks of their respective companies. All other brand or product names are trademarks or registered trademarks of their respective companies.

Preface

Chapter 1   Introduction

Chapter 2   Directories

Chapter 3   Transfer Requests

Chapter 4   Monitor Management

Appendix A   Error Codes and Messages

Appendix B   Using Environment Variables

Glossary

Index

Preface

The *Connect:Express z/OS User Guide* is for users and system administrators of Connect:Express z/OS

This guide assumes some knowledge of the z/OS operating system, including its applications, network, and environment. If you are not familiar with the z/OS operating system, refer to the z/OS library of manuals.

Chapter Overview

The *Connect:Express z/OS User Guide* is organized into the following chapters and appendices:

Chapter/Appendix	Description
Chapter 1 Introduction	This chapter provides an overview of the features and capabilities of the Connect:Express family of products, and describes Connect:Express in the z/OS environment. This chapter also includes information about getting started with Connect:Express.
Chapter 2 Directories	This chapter discusses the Directories option in Connect:Express and includes information about maintaining Partners and Files directories.
Chapter 3 Transfer Requests	This chapter discusses the five types of TSO/ISPF transfer requests and batch requests.
Chapter 4 Monitor Management	This chapter describes how to monitor and control transfer activities in Connect:Express using the ISPF menus.
Chapter 5 Utilities	This chapter describes how to update and manage general tables with Connect:Express utilities.
Chapter 6 Application Programming Interface (API)	This chapter discusses the Application Program Interface which enables you to integrate file transfer operations with your application process.
Appendix A Error Codes and Messages	This appendix describes error codes and messages from the Connect:Express application.
Appendix B Using Environment Variables	This appendix describes how to define environment variables and how to use long names.

Connect:Express Documentation

Connect:Express documentation consists of the following manuals:

❖   The *Connect:Express z/OS 4.2.3 Release Notes* lists maintenance updates and any important notes.

❖   The *Connect:Express z/OS 4.2.3 Installation Guide* describes the planning and installation of Connect:Express.

❖   The *Connect:Express z/OS 4.2.3 User Guide* includes general information on using the TSO/ISPF interface, and serves as a reference of user and environment commands.

❖   The *Connect:Express z/OS 4.2.3 Utilities Guide* describes the optional Utilities package that you can integrate with Connect:Express.

❖   The *Connect:Express z/OS 4.2.3 FTP Guide* provides you with the information that you need to use Connect:Express with the FTP protocol.

❖   The *Connect:Express z/OS 4.2.3 Administration Guide* provides detailed information about transfer operations for system administrators and other advanced users of Connect:Express.

❖   The *Connect:Express z/OS 4.2.3 Options Guide* provides information about the CICS, IMS, and RJE interfaces available for Connect:Express.

❖   The *Connect:Express z/OS 4.2.3 PeSIT User Fields Guide* describes how you can exchange the PeSIT Pi37 and Pi99 fields with any PeSIT software.

❖   The *Connect:Express z/OS 4.2.3 Etebac3 User Guide* provides you with the information that you need to use Connect:Express with the Etebac3 protocol.

❖   The *Connect:Express HTTP Option Implementation Guide* provides you with the information that you need to implement HTTP access to the Connect:Express z/OS repository.

❖   The *Connect:Express z/OS 4.2.3 SSL Guide* includes general information on implementing secured file transfers

❖   The *Connect:Express z/OS 4.2.3 Sysplex Supervision Guide* includes general information on implementing a group of Connect:Express Plex managers under control of a Connect:Express Plex supervisor.

Getting Support for Sterling Commerce Products

Sterling Commerce provides intuitive technical products and superior Help and documentation to enable you to work independently. However, if you have a technical question regarding a Sterling Commerce product, use the Sterling Commerce Customer Support Web site.

The Sterling Commerce Customer Support Web site at *www.sterlingcommerce.com* is the doorway to Web support, information, and tools. This Web site contains several informative links, including a solutions database, an issue tracking system, fix information, documentation, workshop information, contact information, sunset and retirement schedules, and ordering information. Refer to the Customer Support Reference Guide at *www.sterlingcommerce.com/customer/tech_support.html* for specific information on getting support for Sterling Commerce products.

Conventions Used in This Guide

The *Connect:Express z/OS User Guide* uses certain notational conventions. This section describes the conventions used in this guide.

Convention	Description
UPPERCASE LETTERS	Uppercase letters in the command format indicate that you type in information as shown.
Lowercase letters	Lowercase letters or words in commands or syntax boxes require substitution by the user. For example, index1.index2.PARMLIB indicates that you must provide the first and second indexes of the string. "PARMLIB" is mandatory.
Bold Letters	Bold print in syntax boxes indicates Connect:Express commands and required parameters. For example, PLEX=N indicates that the parameter PLEX must be set to N.
Underlined Letters	Underlining indicates default values for parameters and subparameters. For example, PLEX=Y|<u>N</u> specifies that the default for PLEX is N.
Vertical Bars (|)	Vertical bars indicate that you can supply one of a series of values separated by the vertical bars. For example RUN=H|C specifies that H or C is valid.
`Monospaced characters` (characters of equal width)	`Monospaced characters` represent information for screens, commands, Processes, and reports.
Punctuation	Code all commas and parentheses as they appear.
£ or #	The Pound character (£) and the hash character (#) are equivalent.

Chapter 1

Introduction

This chapter provides an overview of the features and capabilities of the Connect:Express family of products, and describes Connect:Express in the z/OS environment. This chapter also includes information about getting started with Connect:Express.

About Connect:Express

Connect:Express™ enables the control, security, and automation of file transfers across multi-platform networks. It supports numerous operating systems and protocols, thus ensuring a long-term investment.

Connect:Express has the following features:

❖ High-performance file transfer

❖ Adaptability and integration into the existing operating environment and applications

❖ Secure data exchange and network access

❖ Automation of the exchange process

❖ Scalability according to your needs

❖ Interoperability and openness with different hardware, protocols, and links

❖ Support for ASCII/EBCDIC translation and transfer of encrypted data

With Connect:Express, you can transfer various file types including, text, binary data, and programs, to facilitate central site distribution of data and application libraries. You can also implement user exits or procedures to function at the beginning, during, and end of a transfer.

Interfaces

For each platform, several interfaces are available for administration and implementation of Connect:Express:

❖ Operator interface

❖ Batch utilities interface

❖ Application Programming Interface (API)

Management and Controls

Connect:Express enables transferring of all file types and includes the following facilities for improved control and management:

❖ Requester and server modes

❖ Independence between sites by using symbolic names and local parameters

❖ Compression for PeSIT (Horizontal/Vertical/Mixed) or ODETTE-FTP

❖ Automatic restart for failed connections

❖ Checkpoint/restart

❖ Management of multiple links

❖ Use of backup links in case of network problems

❖ Automatic or manual restart of interrupted transfers

❖ Management of external translation tables (ASCII/EBCDIC)

Connect:Express also has its own scheduling capability which is used for triggering connections to exchange Partners. Extensive exits are also available to further enable automation through event management.

Monitoring Tools

Connect:Express maintains a Files directory and a Partners directory, making it possible to take control of and monitor all data exchanges with external systems. All Connect:Express activities are monitored by extensive tracking tools, including:

❖ The transfer request table which enables an operator, batch job, or user program to review, activate, or delete events.

❖ The journal which enables an operator, batch job, or user program to view results and statistics.

❖ The SYSLOG file which provides a chronological view of all past events.

❖ The Application Program Interface (API) which enables completed event records to be filtered, processed individually, or reviewed later.

Security Features

Connect:Express ensures completely secure transfers at several levels, including:

❖ Control of requests issued by a known Partner or local originator

❖ Control of access to data

❖ Control of flows with specific protection, depending on the direction of the transfer

❖ Control of activities such as the limitation of the maximum number of simultaneous links between Partners and the activation/deactivation of Partners, Files, or transfers

❖ Privacy and data integrity through SSL communications

Connect:Express Functionality

Connect:Express works on different operating systems and can exchange data with any compatible software through SNA, X.25, and TCP/IP networks using public transfer protocols such as French PeSIT and ETEBAC protocols, and ODETTE-FTP. It can also support FTP transfers. Some functions, however, are only available in a Connect:Express environment with SNA 3270 and LU6.2 connections.

Connect:Express uses symbolic Partner and File names to enable communications with remote sites. The user online interface enables you to exchange and process user or application-specific information about Partners and Files.

This manual describes Connect:Express z/OS. However, the descriptions of the Connect:Express environment and design can apply to any operating system that implements Connect:Express.

Address Spaces for Connect:Express

Connect:Express z/OS uses six types of address spaces for the following jobs:

Job	Description
Transfer Operations Manager (TOM)	The monitor address space which manages all of file transfer operations, including the interfaces, the monitoring tools, and the security features.
Auxiliary Network Manager (ANM)	The network address space which handles X.25 CTCP (DATE and GATE), SNA PA-PA, SNA LU2, SNA LU6.2, and TCP/IP
Auxiliary Protocol Manager (APM)	The protocol address space which handles PeSIT, ODETTE, and ETEBAC3 protocols. This address space is connected to the application through user exits. One APM can process 1-16 transfers at the same time, and Connect:Express can manage 1 to 8 APMs. The supported transfer protocols are: PeSIT D and E (standard Connect:Express transfer protocol) ETEBAC3 ODETTE-FTP
Auxiliary FTP Manager (AFM)	The FTP monitor address space which handles FTP transfers.
Effector Address Space (EAS)	The FTP protocol address space which handles FTP transfers. This address space is connected to the application through user exits.
Auxiliary Trace Manager (ATM)	The trace address space which handles protocol traces.

How Connect:Express Works

Connect:Express prepares for data transfer by setting up a relationship between Partner computer systems and data. This relationship is setup by creating Partner definitions and File definitions. The relationship can be changed at any time without affecting transfer operations.

A Partner definition refers to the remote system with whom you are to establish communication. The Connect:Express system that resides on your host is also assigned a symbolic Partner name because you are seen as a Partner by other Connect:Express or compatible systems.

A File definition refers to the data that you want to transfer between two or more Partners. This includes the physical attributes, data presentation, and transfer handling information. Both the Partner definition and the File definition are assigned symbolic names. Symbolic names are used as opposed to physical names, which refer to devices.

Connect:Express accepts, executes, and monitors requests to transfer files to and from Partners. Before a transfer is accepted, Connect:Express verifies that symbolic names match for both Partners and Files, and that physical file attributes are consistent.

The following diagram illustrates how two Connect:Express systems communicate to negotiate file transfers. Each system is defined as a Partner, and each system has the same File profile definition. One symbolic Partner refers to a unique location. One symbolic File refers to a collection of data sets.
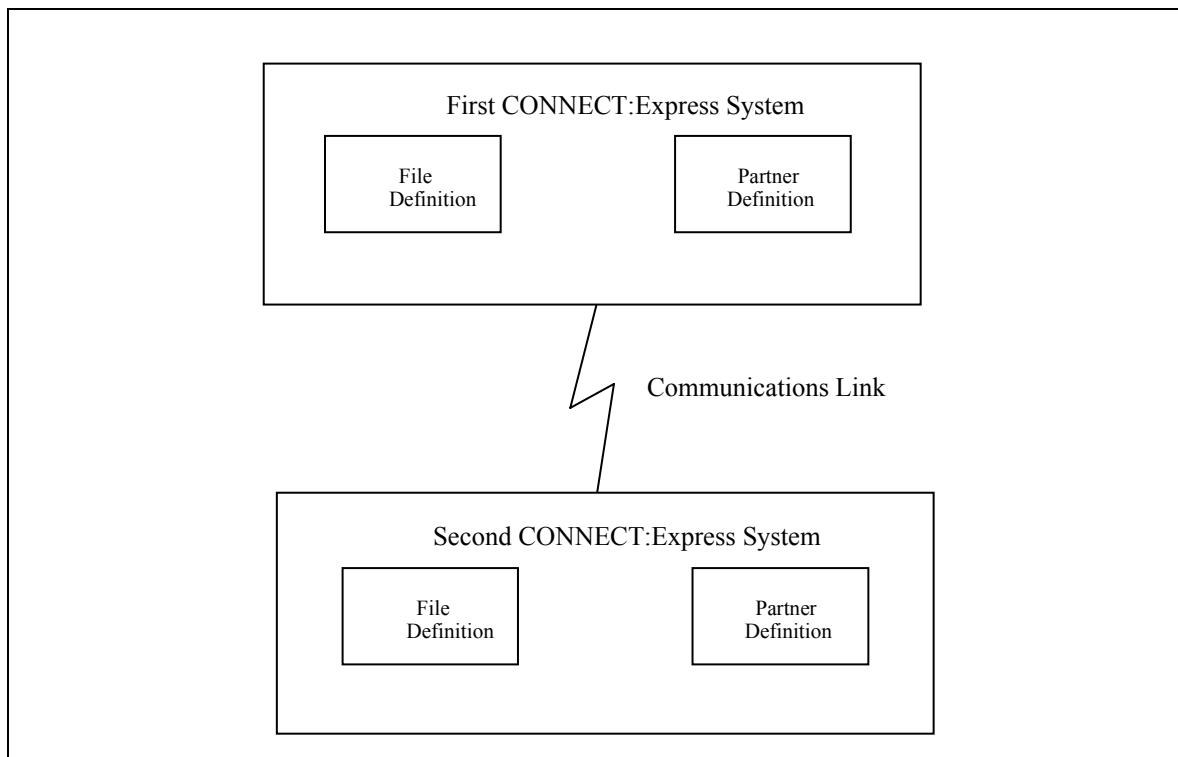
Note:　You can setup a Partner definition as a general Partner profile pointed to by a group of Partners, thus referring to no network identification in particular.

You can use a File definition as a specific file pointing to a unique physical data set name.

The following diagram illustrates two Connect:Express systems, SYSA and SYSZ, and FILE1, a payroll file.

```
+--------------------------------------------------------------------------+
|                                                                          |
|           +----------------------------------------------------+         |
|           |          CONNECT:Express System SYSA               |         |
|           |                                                    |         |
|           |  +---------------------+    +-------------------+   |         |
|           |  | FILE1 =Symbolic File|    | SYSZ =Symbolic    |   |         |
|           |  | definition name of  |    | Partner definition|   |         |
|           |  | actual data to be   |    | of C:X System     |   |         |
|           |  | transferred         |    |                   |   |         |
|           |  | or received         |    |                   |   |         |
|           |  +---------------------+    +-------------------+   |         |
|           |                                                    |         |
|           +----------------------------------------------------+         |
|                                      \                                   |
|                                       \    Communications Link           |
|                                       /    (SNA, X.25, TCP/IP)           |
|                                      /                                    |
|           +----------------------------------------------------+         |
|           |          CONNECT:Express System SYSZ               |         |
|           |                                                    |         |
|           |  +---------------------+    +-------------------+   |         |
|           |  | FILE1 =Symbolic File|    | SYSA =Symbolic    |   |         |
|           |  | definition name of  |    | Partner definition|   |         |
|           |  | actual data to be   |    | of C:X System     |   |         |
|           |  | transferred         |    |                   |   |         |
|           |  | or received         |    |                   |   |         |
|           |  +---------------------+    +-------------------+   |         |
|           |                                                    |         |
|           +----------------------------------------------------+         |
|                                                                          |
+--------------------------------------------------------------------------+
```
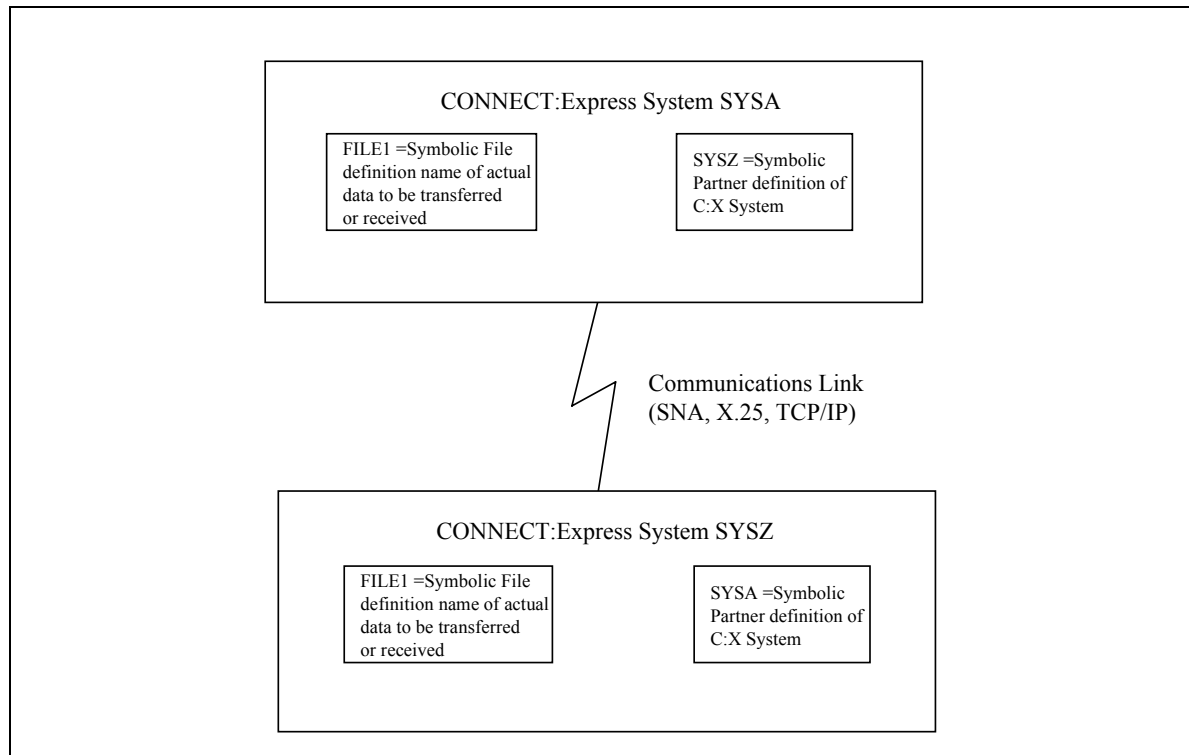
In the example above, the first Connect:Express system has a Partner name of SYSA. The other Connect:Express system has a Partner name of SYSZ. SYSA and its corresponding password is defined in SYSZ's Partners directory. Likewise, SYSZ is defined in SYSA's Partners directory. Each system must have the other system's Partner name in its directory for data transfer to occur.

A File profile with the symbolic name of FILE1 is defined on both Connect:Express systems. These definitions contain information such as rules about the local data set name to be transmitted or received, the Partner with which to transfer data, compression options, local record processing information, and actions to take place at the beginning and end of a transfer. Note that the symbolic names of the File are the same, FILE1, but the physical file attributes, processing, and transfer handling are local definitions. This is required for data transfer.

WARNING: Without these relationships, data transfer cannot take place between these Connect:Express systems.

Connect:Express in a z/OS Environment

In the z/OS environment, the Connect:Express monitor address space is an z/OS Subsystem, and the jobs or processes used by Connect:Express, such as the Auxiliary Protocol Manager (APM), are tasks. One environment handles PeSIT, ODETTE, and ETEBAC3 transfers over X25, SNA, and TCP/IP networks. This environment handles SSL communications. The other environment handles FTP transfers.

PeSIT, ODETTE, and ETEBAC3 Transfers

The Auxiliary Protocol Manager (APM) is a task started by Connect:Express and dedicated to handling PeSIT, ODETTE, and ETEBAC3 transfers. One APM can handle up to 16 simultaneous transfer servers for any network and transfer protocol. Connect:Express can manage the address spaces for up to 8 APMs.

The Auxiliary Network Manager (ANM) is another task started by Connect:Express that is dedicated to network handling, including SSL.

The following diagram shows the relationship between the APM(s) and the ANM. The TOM in this diagram is the Transfer Operations Manager which provides the user interface for Connect:Express.
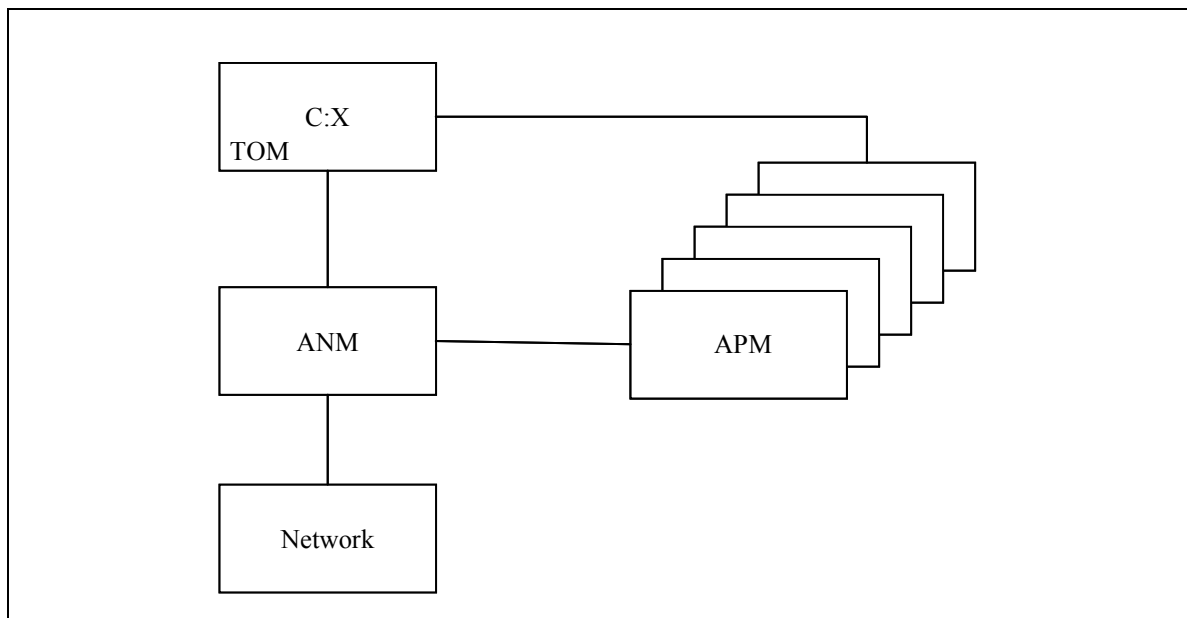
FTP Transfers

The Auxiliary FTP Manager (AFM) is a task started by Connect:Express that is dedicated to FTP transfer management. The Effector Address Space (EAS) is a task started by the AFM that is dedicated to handling the FTP transfers. Several FTP transfers can be handled by one EAS, and several EAS can be started by the AFM.

> **Note:** The management of FTP transfers is described in *Connect:Express z/OS FTP Guide*.

The following diagram shows the relationship between the Auxiliary FTP Manager (AFM), the EAS, and the Connect:Express user interface.
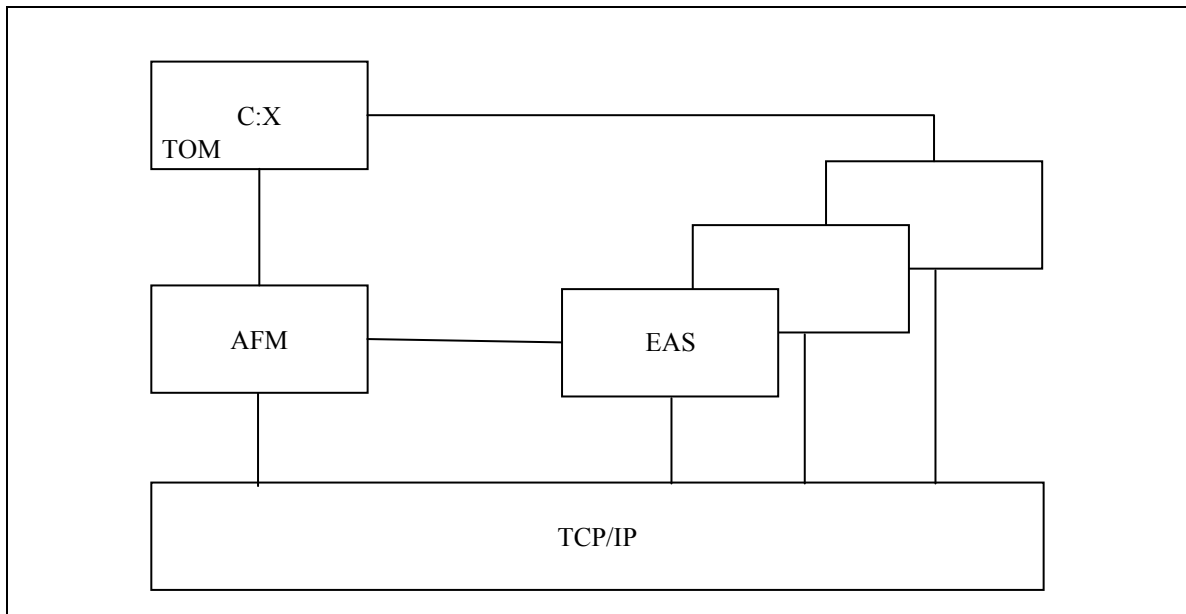
Trace Services

The Auxiliary Trace Manager (ATM) is a task started by Connect:Express that is dedicated to providing protocol traces.

Note: The trace utility is described in *Connect:Express z/OS Administration Guide*.

The following diagram shows the relationship between the Auxiliary Trace Manager (ATM) and other Connect:Express address spaces. For PeSIT, Etebac and Oftp, a trace file is built from TOM and APM address spaces information sent to ATM. For FTP, a trace file is built from AFM and EAS address spaces information sent to ATM.
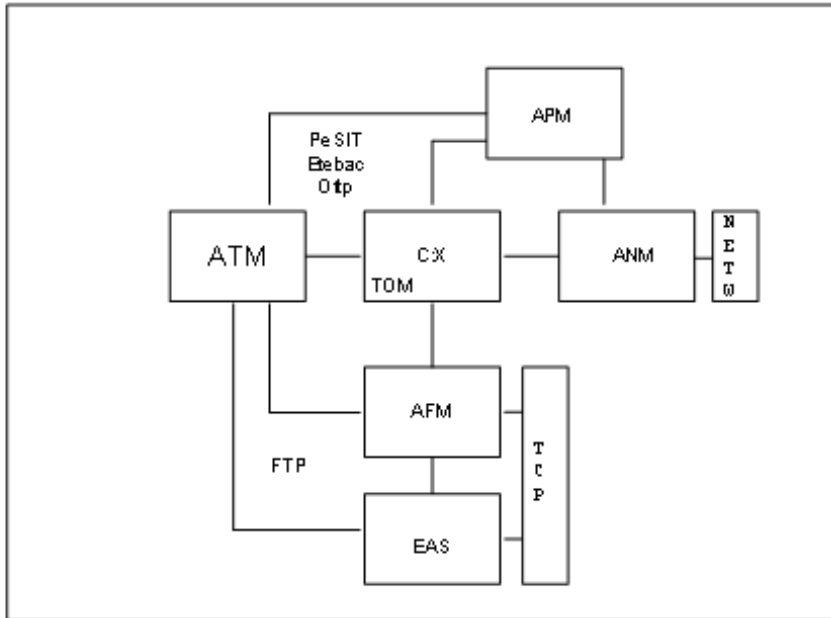
Resources, Interfaces and Parameters

Connect:Express provides resources, interfaces, and parameters that users can configure for transfers.

Resources are tools that you can enable or disable. Connect:Express resources include:

* ❖ Monitor
* ❖ Partners Control table
* ❖ Files Control table
* ❖ Requests Control table
* ❖ Transfer servers (APM)
* ❖ FTP services (AFM/EAS)
* ❖ Network handlers (ANM)
* ❖ Trace services (ATM)

Interfaces enable users to manage Connect:Express resources through the subsystem interface for organizing and managing transfers, and operations control. There are also interfaces that enable Connect:Express to communicate with other software for file transfer planning, security, statistics, and other user applications.

Parameters tell Connect:Express how to handle certain transfers. For example, you can specify how many interruptions are allowed during a transfer and have Connect:Express automatically restart the transfer. Or when a transfer is received, you could have an application start automatically.

How to Use Connect:Express

Connect:Express configuration depends on the way you want to implement and integrate it into your user environment. You can use Connect:Express as a file carrier or to integrate transfer requests within applications. If you implement Connect:Express as a file carrier, you would run Connect:Express for a system production environment. To integrate transfer requests within applications, you would need to configure an application environment. The system production environment manages transfer operations on behalf of the application with starts, stops, or restarts, while the application environment is used by the person who makes a transfer request. The system production environment typically uses a batch interface to work with Connect:Express resources while an application environment typically uses an Application Program Interface (API). The following diagram illustrates the relationship between Connect:Express and the user.

System-Production Environment

DISPLAY
ENABLE/DISABLE
START/STOP
RESTART

Application Environment

Interface with
the user application

CONNECT:Express Environment

PARTNERS
FILES
TRANSFERS
REQUESTS
NETWORK
SECURITY

Interface with the system production
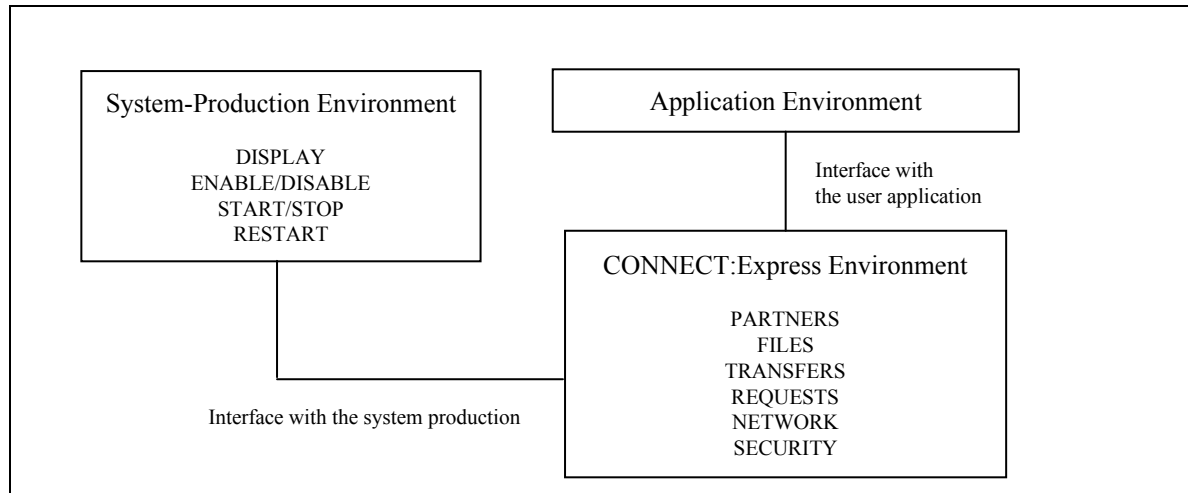
Transfer protocols enable applications to exchange specific information. Connect:Express provides transfer services through interfaces that establish communication between applications, as shown in the following illustration.
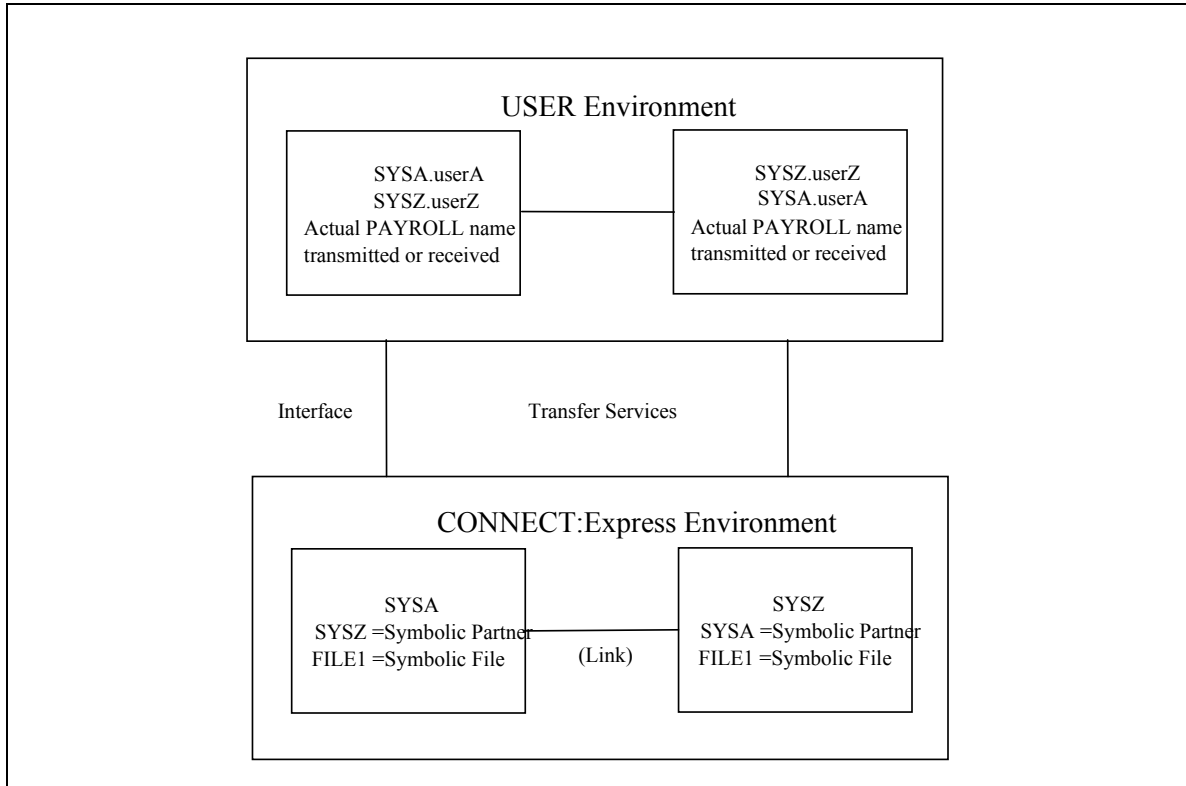
To transfer PAYROLL files between userA on SYSA and userZ on SYSZ, you must define SYSA and SYSZ as Partners and create the common FILE1 definition in Connect:Express directories. Connect:Express uses only the symbolic names when processing the transfer, and provides the interface through which user information is moved in both directions.

Connect:Express can be implemented as a system utility driven by the system production, or it can be application driven. Users can communicate with each other using Connect:Express on both ends or with Connect:Express at one end and with another application, such as FTP client, ETEBAC client, etc. at the other end. Some functions, however, are only available with Connect:Express on both ends.

System Utility (Production) Configuration

When communication is mainly handled by the System Production team on behalf of the application, then Connect:Express facilities manage the transfers. In this case, symbolic name conventions are sufficient to control the file transfer. This is called the system utility (production) configuration. The following diagram illustrates this configuration.

```
┌──────────────────┐            ┌──────────────────┐
│     SYSTEM       │            │   APPLICATION    │
│   PRODUCTION     │────────────│                  │
└──────────────────┘            └──────────────────┘
        │
┌──────────────────┐        Transfers are controlled and CONNECT:Express
│ CONNECT:Express  │        is managed by the SYSTEM-PRODUCTION teams.
└──────────────────┘
        │
┌──────────────────┐
│     Network      │
└──────────────────┘
```
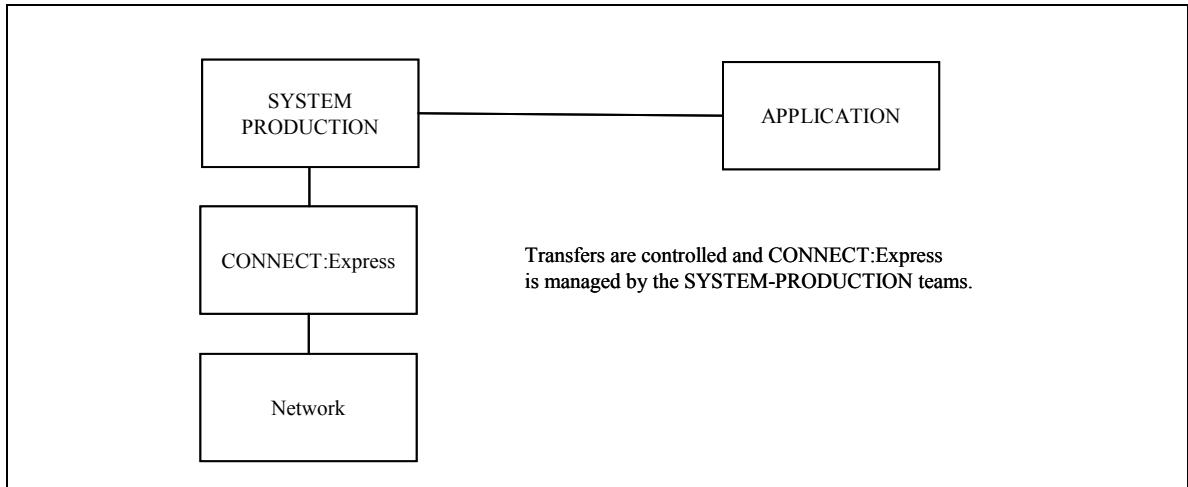
Application Configuration

Application-driven requirements are accomplished with the Application Program Interface (API) and with user exits. Some Connect:Express optional features act as Data Exchange Applications under the control of Connect:Express which executes the file transfers. This is called an Application Driven configuration. The following diagram shows an application driven configuration.

```
┌──────────────────┐
│   APPLICATION    │─────────────────┐
└──────────────────┘        ┌──────────────────┐
        │                   │     SYSTEM       │
                            │   PRODUCTION     │
┌──────────────────┐        └──────────────────┘
│ CONNECT:Express  │─────────────────┘
└──────────────────┘
        │               Transfers are controlled by the APPLICATION and
                        CONNECT:Express is managed by the SYSTEM-PRODUCTION teams.
┌──────────────────┐
│     Network      │
└──────────────────┘
```
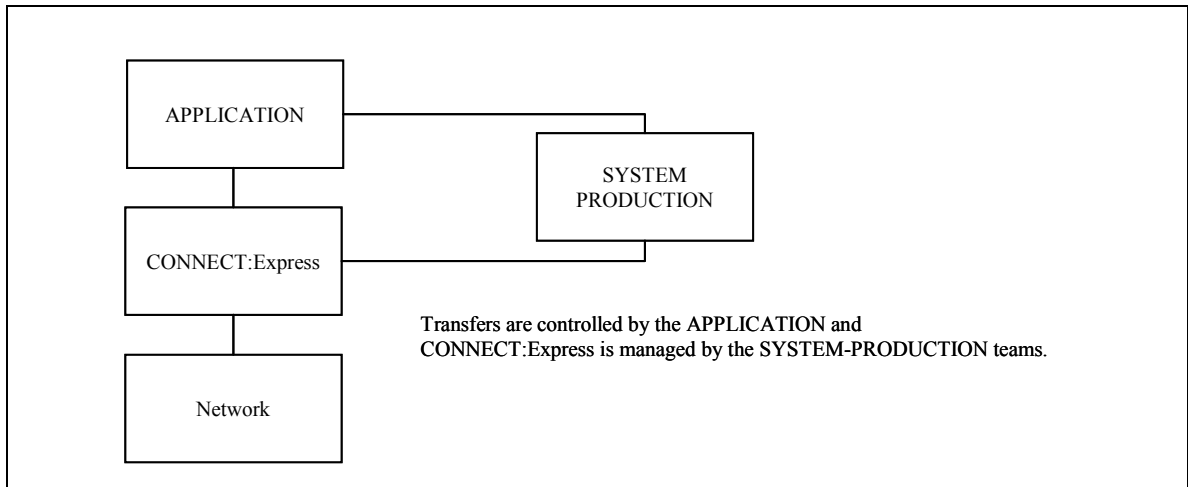
Getting Started with Connect:Express

When starting Connect:Express, the monitor address space initializes first. Then, the monitor (TOM) automatically starts the APM, ANM, and AFM address spaces. After the Connect:Express initialization is complete, you can access the TSO/ISPF user interface to display resources, enable or disable resources, start or stop components, and interrupt or restart file transfer. You can also perform enabling actions at the beginning or end of transfers.

Note: The batch interface and Application Program Interface can be implemented later.

Using the TSO/ISPF Interface

During installation, the TSO/ISPF interface was customized. Depending on your configuration, you may access the Connect:Express Main Menu using any of the following:

❖ Selection panel

❖ clist

❖ Macro

The following screen shows the Connect:Express ISPF Main Menu (Global):

```
 BB                       MAIN MENU
  OPTION ===>


                    XXXXXXX          XX     XX
                    XXXXXXXX    XX    XX   XX
                    XX          XX     XX XX
                    XX                  XXX
                    XX          XX     XX XX
                    XXXXXXXX    XX    XX   XX
                     XXXXXXX          XX    XX


          Connect:Express z/OS   (c) Sterling-Commerce, Inc.

  _  0   INIT          _  2   MONITOR      _  3   UTILITIES        _  4   REQUEST
                       _  2.1 MANAGEMENT   _  3.1 INIT PARAMETERS  _  4.1 NORMAL
  _  1   DIRECTORIES   _  2.2 LOG          _  3.2 DUMP TABLES      _  4.2 MEMBER
  _  1.1 PARTNERS      _  2.3 JOURNAL      _  3.3 UPDATE TABLES    _  4.3 SYSOUT
  _  1.2 FILES         _  2.4 ACTIVITY     _  3.4 UPDATE SYSEVT    _  4.4 INDEX
  _  1.3 FTP RIGHTS    _  2.5 APL          _  3.5 UPDATE SYSSNA    _  4.5 AD HOC
                       _  2.6 EXTRACT      _  3.6 UPDATE SYSX25    _  4.6 LIST
  _  9   OPTIONS       _  2.7 SYSPLEX      _  3.7 UPDATE SYSJCL
  _  M   MAINTENANCE   _  2.8 GLOBAL       _  3.8 UPDATE SYSTCP
```

The table below describes the main options on the Connect:Express menu:

Option	Description
0 Init	Initialize the ISPF session
1 Directories	Access Partners and Files directories
2 Monitor	Access control screens and transfer logs
3 Utilities	Access table management functions
4 Request	Create transfer requests
9 Options	Access management tools interface
M Maintenance	Reserved for future use

Navigating in Connect:Express

In Connect:Express, you can navigate between screens and menus using function keys, the main menu or jump commands. The standard function keys are:

- ❖ -<PF1>-Help
- ❖ -<PF3>-End
- ❖ -<PF7>-Up
- ❖ -<PF8>-Down
- ❖ -<PF10>-Left
- ❖ -<PF11>-Right

Using the Menu

Menu numbers display on the Main Menu. For example, 1.1 identifies the Partners directory. From the Main Menu, you can type **1.1** in the option field and press <Enter> to display the Partners directory. From any other screen in Connect:Express, you must type **=1.1** in the option field and press <Enter>. The = is required when you type a menu number from any screen except the main menu.

Using Jump Commands

Jump commands are abbreviations that you can type in the option field to quickly jump or move to another screen or command. For example, you can type **PAR** in the option field and press <Enter> to display the Partners directory. You can use jump commands on any screen in Connect:Express. The following table lists the jump commands available in Connect:Express:

Jump Command	Description
PAR	1.1 - PARTNERS
FIL	1.2 - FILES
ACT	2.1 - MANAGEMENT
TAB	3.3 - UPDATE TABLES
EVT	3.4 - UPDATE SYSEVT

Jump Command	Description
SNA	3.5 - UPDATE SYSSNA
X25	3.6 - UPDATE SYSX25
JCL	3.7 - UPDATE SYSJCL
TCP	3.8 - UPDATE SYSTCP
REQ1	4.1 - NORMAL (REQUEST)
REQ2	4.2 - MEMBER (REQUEST)
REQ3	4.3 - SYSOUT (REQUEST)
REQ4	4.4 - INDEX (REQUEST)
REQ5	4.5 - AD HOC (REQUEST)
REQ6	4.6 - LIST (REQUEST)
UE1	9.3.1.1 - Browse the SYSUE1 file

Getting Help

Connect:Express features a tutorial and online help. You can access general help topics, view field definitions for any screen, or access help when you receive error messages. To view help screens, do any of the following:

❖ To get general help, press <PF1> from the Main Menu.

❖ To view field definitions for a screen, press <PF1> on that screen.

❖ To get help with error messages, press <PF1> on the message screen, then press <PF1> again to view details of the error message.

The following table describes the general help topics available from the Main Menu:

Topic	Description
Abbreviated Commands	List of valid jump commands
News	Information about new features and enhancements to Connect:Express
Help Index	List or index of all help topics
Return Codes	List of return codes
Access Control (ACS)	Information about security features

Getting Help with Return Codes

The RC command displays help information about return codes for Connect:Express (TRC), protocol (PRC), system (SRC), or network (NRC). To view help information for return codes, type **RC** in the option field on any screen and press <Enter>.

Note: You can also use the 'TRC wxxx' or 'PRC yzzz' commands.

Using the Tutorial

The tutorial enables you to work with Connect:Express screens in a simulation environment. To access the tutorial, type T in the option field on the Main Menu and press <Enter>. The Monitor Simulation Tutorial screen is displayed.

```
BB--------- HELP : MAIN MENU (TOP) -----------------------------TOMP
 OPTION ===>                                               'INDEX'/'TOP'
 COMMANDS CAN BE CHAINED FROM PRIMARY PANEL, IE. : 1.1 / 3.T
 ABREVIATED COMMANDS ON ANY SCREEN AFTER INITIALIZATION:
 PAR,FIL,PID,FID,ACT,JNL,RQ1,RQ2,RQ3,RQ4,RQ5,RQ6,SNA,TAB,TCP,X25,UE1.
 N   : NEWS.
 PSR : ABOUT THIS SOFTWARE.
 SELECT ONE OF THE FOLLOWING, OR -PF1- FOR TUTORIAL SCROLL HELP.
 I   : HELP INDEX.
 RC  : RETURN CODES (TRC/PRC/SRC/NRC).     ACS : ACCES CONTROL.

 0   : INITIALIZE/CHECK THE NAMES (MONITOR/FILES) FOR YOUR SPF SESSION.
       SUPPLY THE SUBSYSTEM NAME ( TOM. ).
 1   : DIRECTORY MANAGEMENT.
       VIEW/UPDATE/ADD/DELETE PARTNERS/FILES.
 2   : MONITOR MANAGEMENT.
       VIEW/UPDATE FILE/PARTNER STATUS.
       VIEW/UPDATE/DELETE REQUESTS/TRANSFERS.
       INTERROGATE LOG OR JOURNAL FILES.
 3   : UTILITIES TO DISPLAY/MODIFY INTERNAL TOM PARAMETERS.
 4   : TRANSFER REQUEST.
```

Initializing the ISPF Session

The ISPF session is initialized the first time that you use Connect:Express. Usually, the system administrator does this during the installation process. You can display the initialization screen at any time to see which functions are enabled or to view CPU numbers.

1. From the Main Menu, type 0 (zero) in the option field and press <Enter>.

2. Type O in the option field and press <Enter> to display the available options.

```
TOM4230-------------- OPTIONS ---------------------- NAMES INITIALIZED    !
 OPTION ===> ?                                       X EXIT, -PF3- END

 MONITOR  => TOM4 / JOBTOM4   CSGB ACTIVE GLOBAL
          AP BROWSE ASSET-PROTECTION.      RACFCN= S ADHOCN= Y UPRFCT= Y
            0=OPTION NOT AUTHORIZED, CPUID=002294BA2064
 ACT      04 : 1      AUTHORIZATIONS FOR FTP-HTML.
 BSC      02 : 1      LINK VIA BSC (ETEBAC1/2).
 CICS     10 : 1      CICS INTERFACE.
 ETEBAC3  05 : 1      LINK VIA ETEBAC3.
 FTP      03 : 1      LINK VIA FTP.
 IMS      16 : 1      IMS INTERFACE.
 LOCAL    09 : 1      LOCAL MONITOR.
 LU6.2    06 : 1      LINK VIA LU6.2.
 MBO      12 : 1      MAILBOX OPTION.
 ODETTE   11 : 1      LINK VIA ODETTE.
 PAC      08 : 1      EXPLOITATION PACKAGE.
 PESIT    01 : 1      LINK VIA PESIT (FRENCH).
 SYSPLEX  19 : 1      SYSPLEX.
 TCP-IP   15 : 1      LINK VIA TCP-IP.
          14 : 0
 SSL      20 : ?      SSL INTERFACE.
```

> **Note:** A 0 in the third column indicates that the function is not authorized. In the example above, FTP is enabled.

3.   Press <PF3> to cancel back to the Main Menu.

Chapter 2

Directories

This chapter discusses the Directories option in Connect:Express and includes information about maintaining Partners and Files directories.

Overview

Connect:Express uses two directories, the Partners directory (SYSPAR) and the Files directory (SYSFIL). During initialization, two internal tables are built from these directories called the Partners Control Table (PCT) and the Files Control Table (FCT). You can update these directories through the TSO/ISPF interface.

The Partners directory defines the remote systems with which Connect:Express can negotiate transfers. The Files directory defines the data that is to be transferred between two or more Partners. A File definition includes physical attributes and transfer handling information. You can restrict directory access using the ACS facility (3.3.ACS).

The internal tables are updated at the same time as directories, on the condition that no transfer is attached to the Partner or File being updated. Partners and Files can be dynamically added to the internal tables according to the maximum number enabled by the Connect:Express SYSIN fields, PCTADD= and FCTADD=.

Note: Your local symbolic Partner name and Connect:Express password are defined in the initialization parameters of the SYSIN file during installation. This name (DPCSID) and password (DPCPSW) must be used by all remote Partners that communicate with you, however an Alias can be defined later and associated with one specific Partner or transfer.

The local symbolic name does not need to be defined in the directory unless the transfer protocol requires it. Partners must agree on a common symbolic file name to complete a file transfer. The corresponding Files directory entries are independent from one another and define the local characteristics of the transfer on one Partner side.

Partners Directory

A Partner can be any data processing equipment that is linked by media and has file transfer protocols supported by Connect:Express. A Partner is identified by a symbolic name chosen by the user. The symbolic name can have 1 to 8 alphanumeric characters.

The Partners directory file is initialized during installation by the P1B2P905 program, and accessed during the Connect:Express start-up by the DDNAME SYSPAR. It is a VSAM KSDS data set.

Initializing the Partners Directory Screen

1. From the Main Menu, type 1.1 in the option field and press <Enter>
   OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
   The Partners Directory 1/4 screen is displayed.

```
TOM4230--------------- PARTNERS DIRECTORY (1/4) -----------------------------
 OPTION ===> V
'Operator message if any from the Sysin file or a modify command'

             A    ADD
             D    DELETE
             L    LIST
             P    PRINT
             U    UPDATE
             V    VIEW
             ?    INIT NAMES

             PARTNER    ===> OS390    REPEAT  => NO    REFRESH => YES

             MONITOR    ===> TOM4       STATUS: SYSA  ACTIVE  GLOBAL

             DIRECTORY  ---> INDEX1.TOM4.SYSPAR
                                       CONTROL => NO
             SYSSNA     ---> INDEX1.TOM4.SYSPRM(LSNA)
             SYSX25     ---> INDEX1.TOM4.SYSPRM(LX25)
             SYSTCP     ---> INDEX1.TOM4.SYSPRM(LTCP)
             VARIABLES  ---> INDEX1.TOM4.PARMLIB(ENVVAR)

         X EXIT, -PF3- END
```

The table below describes the fields on the Partners directory 1/4 screen:

Field	Description
PARTNER	Partner symbolic name
MONITOR	Name of the local Connect:Express subsystem (TOMx)
DIRECTORY	Name of the directory file data set
SYSSNA	Name of the SYSSNA file data set, if used
SYSX25	Name of the SYSX25 file data set, if used
SYSTCP	Name of the SYSTCP file data set, if used
VARIABLES	Name of the ENVVAR file data set, if used

2. If you are using multiple monitors, you may need to initialize the names in the Partners directory. Type the monitor name, then type ? in the option field and press <Enter>. Connect:Express displays information in the Directory, SYSSNA, SYSX25, SYSTCP and VARIABLES fields.

Adding a Partner

1. From the Main Menu, type 1.1 in the option field and press <Enter>
   OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
   The Partners Directory 1/4 screen is displayed.

2. Enter the symbolic name of the Partner that you want to add.

WARNING: The following prefixes are reserved for SIT network use (special French Bank transfers):
I3X,C1X,C2X,I4X, O3X,O30,O31,O32, O4X,O40,O41,O42.

---

3. Type A in the option field and press <Enter>. The Partners Directory 2/4 screen is displayed.

```
 TOM4230     PARTNER OF TOM4 TO  VIEW        (2/4)
 OPTION ===>                        -ENTER- : GO ON, -PF3- : CANCEL   X : EXIT
 TYPE: TOM,PESIT-E
 MOD: USER1  00/03/14 09:24:28       1
 SYMBOLIC NAME         : OS390          DPCSID ALIAS        :
 TOM PASSWORD          : OS390          DPCPSW ALIAS        :
 INITIAL STATE         : E              APM RECEPTION CLASS : A
 RACF USER             : TOMUSR         RACF GROUP          : -

 PARTNER TYPE         : T
 SESSION PROT.NUM.-T.  : 5   : 2        SSL CONFIGURATION    : -
 AUTOMATIC RESTART    : YES             DN CONTROM MEMBER    : -

 LINK TYPES           : S   : -
 EFF. TOTAL/IN/OUT    : 050  : 025  : 025 FLOW CONTROL T.  SLD : -

 SNA: LUNAME  : ANM4AP01     LOGMODE   : -    LOGDATA  : -       DISC : N
 X25: MCHMSC  : -    REM.ADDR.  : -                LOC.ADDR. : -
     CUG     : -    UDF        : -                CHARGE    : -
     FACILITIES       : -
 IP : ADDR.   : -              PORT  : -    FTP PASV : - PROF.   : -
     HOST    : -                               'S': - RIGHTS  : -
 NOTE  : z/OS PARTNER VIA SNA
```

4. Enter Partner information as described in the following table:

Field	Length	Description
SYMBOLIC NAME	1 to 8 alphanum char.	This is a symbolic name identifying the Partner. The Partner name is sent by the Partner to control the beginning of session authorization. You must know the symbolic name of the Partner **before** initiating transfers. This name is the key to the Partners directory.
DPCSID ALIAS	1 to 8 alphanum char.	This is a symbolic name identifying the local Connect:Express system on the Partner side. The DPCSID is processed as local identification. If no ALIAS is given, the DPCSID sent is the general SYSIN parameter. It must be agreed upon with the Partner involved *before* running the transfers.
PASSWORD	1 to 8 alphanum char.	This is the password expected from this Partner.
DPCPSW ALIAS	1 to 8 alphanum char.	This is a symbolic password identifying the local Connect:Express system on the Partner side. If no ALIAS is given, the DPCPSW sent is the general SYSIN parameter. It must be agreed upon with the Partner involved **before** running the transfers.

Field	Length	Description
INITIAL STATE	E or H	The Partners directory indicates the status of each Partner. E – Enabled. This Partner must be enabled when initializing the Partner table (PCT). H – Disabled or Held. This Partner must be disabled when initializing the PCT. It must be enabled before a transfer can take place.
APM RECEPTION CLASS	1 alphanum char.	When called by a Partner, Connect:Express looks for a transfer resource in an APM serving this class. If no APM contains this class, the call is rejected and the Partner is requested to try again later. The TSO/ISPF Option for 2.1.T displays the transfer resources and their status. See Chapter 4 of this guide for information about this option.
RACF USER	1 to 8 alphanum char.	An RACF userid associated with this Partner is entered here, or the value from the RACFUD=xxxx field of the SYSIN file is used if the field is left blank. A Partner can ask to receive or send a File. When Connect:Express receives a request coming from this Partner, the monitor checks that the RACF user is authorized to read or write the file. If the RACF verification is not requested (RACFCN=N), or the RACF user default is used (RACFUD=xxxx), this parameter does not need to be coded. In case of an AD HOC request, the USER/PASSWORD/GROUP from the request is checked in place of this RACF USER NAME. If you enter the &ORG keyword in this field, it is replaced by the Origin of the transfer request. If you enter the &DST keyword in this field, it is replaced by the Destination of the transfer request.
RACF GROUP	1 to 8 alphanum char.	An RACF groupid that is associated with this Partner NAME is entered here. A Partner can ask to receive or send a File. When Connect:Express receives a request coming from this Partner, the monitor checks that the RACF user is authorized to receive or send the file. If the RACF verification is not requested (RACFCN=N), this parameter is not processed. In case of an AD HOC request, the USER/PASSWORD/GROUP from the request is checked in place of this RACF USER GROUP. If you enter the &ORG keyword in this field, it is replaced by the Origin of the transfer request. If you enter the &DST keyword in this field, it is replaced by the Destination of the transfer request.
PARTNER TYPE	1 alphanum char.	Determines how connection identifiers are processed, which facilities are activated, and how symbolic security works. Facilities such as transferring tape, PDS or VSAM files, are described in the Administration Guide. The following list identifies the possible values for the type of Partner. T – Connect:Express Partner: all facilities + symbolic security O – (OTHER) compatible Partner: no facility + symbolic security J – RJE equipment: symbolic security E – ETEBAC1-ETEBAC2 equipment (France only): symbolic security 3 – ETEBAC3 equipment (France only): symbolic security A – APPLICATION environment, no facility, no symbolic security
SESSION PROT. NUM.	1 numeric char.	Indicates the type of protocol to be used with this Partner. Protocols 1 and 4 are specific for France. Connect:Express is a subset of the PeSIT protocol, a non-proprietary protocol based on OSI standards. 1 – PeSIT (only used in France) 2 – ODETTE-FTP 3 – PeSIT-D 4 – ETEBAC 3 5 – PeSIT-E 6 – FTP

Field	Length	Description
SESSION PROT.NUM.-T.	1 numeric char.	The Protocol Table field contains the table number for a protocol (0->7 and 0->F for PeSIT protocol ['3' or '5']) and designates a T1B2PSxn load module name where *x* is the protocol number and *n* is the number of the session table. This table is used to set the parameter session conditions (message length, synchronization, CRC facility). The choices are as follows. **PeSIT** → T1B2PS10 to T1B2PS17 This is normally used in France. 　0 – This is used for the X.25 link (do not modify T1B2PS10). 　1 to 7 – This can be modified by the user. **ODETTE-FTP** → T1B2PS20 to T1B2PS27 　0 – This is used for the X.25 link (T1B2PS20). 　1 to 7 – This can be modified by the user. **PeSIT-D** → T1B2PS30 to T1B2PS3F This is normally used everywhere (See "PeSIT general description"). 　0 – This is used for links (T1B2PS30) with TED/PC level < 4.00. 　1 – This is used for a link with compatible products (T1B2PS31) - PeSIT. 　2 – This is used for a link between two Connect:Express systems. 　3 to F – This can be modified by the user. **ETEBAC3** → T1B2PS40 to T1B2PS47 This is normally used in France. **PeSIT-E** → T1B2PS50 to T1B2PS5F This is normally used everywhere on condition that Partner is PeSIT-E level. 　0 → 2 This is used for all Connect:Express links. 　3 → F This can be modified by the user. You can access the T1B2PS table with the TSO/ISPF option 3.3 Sxx, discussed in Chapter 5.
AUTOMATIC RESTART	YES or NO	This field enables automatic restarts of requests with a Partner. The T1B2PCOD table lists protocol return codes that a user wants to be followed by the automatic restart procedure. This table is accessed by the TSO/ISPF option 3.3 COD. See Chapter 5 for information about this option.
SSL CONFIGURATION	2 numeric char.	Indicates the SSL configuration file to be used. Refer to the SSL Guide for detailed information on how to use SSL profiles. SSL security is only available with PeSIT and ODETTE protocols. You can access SSLCFG files with the TSO/ISPF option 0, ANMSSL file.
DN CONTROL MEMBER	1 to 8 alphanum char.	Indicates the SSL DN control file to be used. Refer to the SSL Guide for detailed information on how to set up DN control. SSL security is only available with PeSIT and ODETTE protocols. You can access DN files with the TSO/ISPF option 0, ANMSSL file.
LINK TYPES	1 alpha char.	Identifies the type of link. Your choice in this field determines which of the following fields you need to complete. If you complete a field that does not apply to your link type, you cannot exit from this screen before deleting your entry. 　S – Link SNA in CROSS DOMAIN 　X – Link via X.25 network 　T – Link with TED-PC3270 systems 　O – Link with RJE equipment 　C – Link SNA LU6.2 　I – Link TCP/IP 　M – Mixed links For mixed link types (M), you must specify an ordered link types list, for example: ISX (TCP/IP, SNA, X25). Connect:Express automatically retries to connect to the Partner, and changes the link type when the current link is not available.

Field	Length	Description

EFF. TOTAL/IN/OUT	3 numeric char.	The EFFECTOR TOTAL/IN/OUT indicates the number of simultaneous transfers that Connect:Express can execute with this Partner, if all resources are available.
		    TOT – total of all incoming and outgoing sessions
		    INP – total of all incoming sessions
		    OUT – total of all outgoing sessions
		This value enables you to control transfer activity at a site. If you enter FFF in the total field, the number of links is unlimited and no link control is activated.

FLOW CONTROL T.	1 alpha char.	The FLOW CONTROL TABLE references an entry in table T1B2PSLD. This entry can be shared between several Partners and limits the number of incoming, outgoing and total sessions for a group of Partners. You can access the T1B2PSLD table with the TSO/ISPF option 3.3 SLD, discussed in Chapter 5.

SNA: LUNAME	1 to 8 alphanum char.	The LU name of the SNA Partner which can have the following Link Type values:
		    S – The Partner application name
		    T – The Partner 3270 LU name
		    C – The Partner APPC LU name
		The LUNAME is treated as a network physical address for SNA Partners or can be declared in the SYSSNA file. If any (*) is found in that field or in the SYSSNA file for this Partner, then SNA incoming calls control is disabled for this Partner.

SNA: LOGMODE	1 to 8 alphanum char.	SNA LOGMODE is the log mode which is used to call SNA (S,T,C) Partners.
SNA:DISC	Y or N	This option is valid for SNA LU6.2 links. It determines if disconnections are needed at the end of a session. The disconnection is requested when connecting to certain LU6.2 software.

SNA: LOGDATA	1 to 8 alphanum char.	The logon data to be specified for PC 3270 local non-SNA Partners or Partners using 3270 IBM or DIEGO cards. Valid LOGDATA values are:
		    LNS – 3270 local non-SNA (KORTEX type card)
		    X – 3270 other than local non-SNA (IBM/DIEGO card)
		    XLNS – 3270 local non-SNA (IBM/DIEGO card)

X25: MCHMSC	1 alpha char.	The optional MCHMSC multichannel selection code can contain a value from A to Z. It directs outgoing calls to the identified MCHs. See the MCHMSC= parameter in the MCH definition of the SYSIN file. If no MCHMSC is given, outgoing calls are directed to any MCH defined without MCHMSC parameters.
X25: REM. ADDRESS	1 to 15 numeric char.	The X.25 number is used to set X.25 called address fields in an outgoing X.25 call packet or can be declared in the SYSSNA file. This number can be used to control the caller address in the incoming X.25 call packet in association with SYSX25 definitions for this Partner. If set to (*) this entry is skipped over during the outgoing process and then Connect:Express looks for the next SYSX25 entry for the same Partner. If any (*) is found in that field or in the SYSX25 file for this Partner, then X.25 incoming calls control is disabled for this Partner.
X25: LOC. ADDRESS	1 to 15 numeric char.	The Partner local address is used to build X.25 caller address fields in an outgoing call packet. See the MCHXLA= parameter in the MCH definition of the SYSIN file. It is generally used with a leased DCE-DTE X.25 link.
X25: CUG	2 numeric char.	This value is the CLOSED USER GROUP reference number which is set in the facility field of the outgoing X.25 call packet.

Field	Length	Description
X25: UDF	1 to 16 hex char.	This value is set in the outgoing X.25 call packet. Each character is a hexadecimal value (0→9, A→F).
X25: CHARGE	1 numeric char.	This field is used for charge backs and has a value between 1 and 4. 1 – Billed to the caller 2 – Billed to the called 3 – Billed to Connect:Express (local host) 4 – Billed to the remote Partner
FACILITIES	1 to 12 hex char.	This value is set in the X.25 call packet. Each character is a hexadecimal value (0→9, A→F).
IP: ADDR.	15 numeric char.	This field is the IP address of the TCP/IP Partner (format: nnn.nnn.nnn.nnn). If this field has a value, the TCP HOST field is ignored.
IP: PORT	5 numeric char.	This field is the TCP/IP port number on which the remote Partner is listening for inbound TCP/IP connections.
IP: HOST	1 to 32 alphanum char.	This optional field is the TCP/IP Partner Host name. If the TCP ADDR field has a value, this field is ignored. You can use environment variables to extend this parameter up to 256 characters. See "Using Long Ip Host Names" on page 12.
FTP: PASV	1 alpha char.	FTP Partners only. The PASV options determine how FTP sessions are established with an FTP server. If PASV = N, then the data session is opened by the FTP Server on the port number indicated by the FTP client. If PASV = Y, then the data session is opened by the FTP Client on the port number indicated by the FTP server. Refer to the FTP Guide for more information.
FTP: RIGHTS	1 to 8 alphanumeric char.	HTTP Users only. This field contains a symbolic name. 'Rights' can be shared by several partners. See the HTTP Option Guide for more information about implementing http list rights. The Access Right screen is described in the following section.
FTP: PROFILE	1 to 8 alphanumeric char.	FTP Partner only. The PROFILE is the default file symbolic name used for FTP transfers with this Partner.

5. If you have selected protocol 1 PeSIT or 2 ODETTE-FTP, press <Enter> to display the Partners Directory 3/4 Protocol Extension screens. Enter the appropriate information as described in the following tables. There are 2 Protocol Extension screens for ODETTE-FTP.

```
TOM4230     PARTNER OF TOM4 TO UPDATE     (3/4)
 OPTION ===>

 SYMBOLIC NAME     : ODETTE              PROTOCOL  : ODETTE 2


   PESIT DATA :
   -------------------
 APPLICATION TYPE ...   :              1, 2, 3, 4
 APPLICATION NUMBER .   :              NUMERIC (00001:65535)




   ODETTE DATA :
   -------------------

 DETAIL (S) ----->    '' : 'Odette identification'



 OPTION   : VIEW                      UPD  :
 -ENTER-  : NEXT SCREEN               -PF3- : PREVIOUS SCREEN
```

6. If applicable, enter information in the Protocol Extension screen 1/1 as described in the following table:

Field	Length	Description
PESIT DATA		The PESIT DATA fields are enabled if the protocol number is 1.
ODETTE DATA DETAILS (S)	1 alphanumeric char.	The ODETTE DATA fields are enabled if the protocol number is 2. When selecting DETAIL, Connect:Express displays the FORMATTING ODETTE IDENTIFICATION screen.
	1 to 25 alphanum char.	The ODETTE DATA can be described in this 25-character field. This data is processed as is. This identification is sent in place of the symbolic name. If blank, the keyword $NONE is forced.

```
TOM4230     PARTNER OF TOM4 TO UPDATE    (3/4)
OPTION ===>

SYMBOLIC NAME     : ODETTE              PROTOCOL  : ODETTE 2


FORMATTING ODETTE IDENTIFICATION
-------------------------------


INTERNATIONAL CODE . ===> 0001         NUMERIC (0001:9999/NONE)
ORGANIZATION CODE .. ===> STERLING'''''  ALPHANUM
SUB ADDRESS  ....... ===> 000001        NUMERIC (000000:999999)






OPTION   : UPDATE                      MAJ   :
-ENTER-  : NEXT SCREEN                  -PF3- : PREVIOUS SCREEN
```

7. If applicable, enter information in the Protocol Extension screen 2/2 as described below. The Odette Identification is composed of three parts. The letter O is added automatically, and then followed by the three fields listed in the following table.

Field	Length	Description
INTERNATIONAL CODE	4 numeric char.	First part of the odette identification. If "NONE" is entered, the Odette identification results in blanks.
ORGANIZATION CODE	1 to 14 alphanum char.	The second part of the Odette identification.
SUB ADDRESS	6 numeric char.	The third part of the Odette identification.

8. If you entered a name in the Rights field and if you select the field, you can type information in the Access Rights screen as described below.

```
TOM4230     ACCES RIGHTS OF TOM4    TO UPDATE     (2/2)
 OPTION ===>                      -ENTER- : NEXT, -PF3- : CANCEL   X : EXIT

 MOD: P0B2DIR  04/04/07 03:44:02      14 LVL

 PARTNER          :
 ACCESS RIGHTS    : PROF7      (MYY) PROTOCOL : FTP ONLY.

 LIST OF OPTIONS   => MOD           ID/MOD/NOLIST

 FILES (FCT)       => Y         (Y/N)  REQUESTS (RCT)  => Y         (Y/N)


 PERMANENT TRANSFERS  (FILES MAILBOXES).
 -> PARTNER1,PARTNER2


 READ ONCE TRANSFERS  (REQUESTS MAILBOXES).
 -> PARTNER1,PARTNER4


 NOTE -> ''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
```

Refer to the *Connect:Express HTTP Option Implementation Guide* for more information about mailboxes and how to use access rights to give partners access to several mailboxes. This guide also describes why you may want to control the way the information is sent to the HTTP client. A user can access its own mailbox, defined by the symbolic name of the partner, or a group of mailboxes defined in a rights profile on the access rights screen. Each mailbox is made of two parts: permanent transfers (symbolic files definitions) and read once transfers (transfer requests).

The following table describes the fields in the Access Rights screen:

Field	Length	Description
Symbolic Name	8 char.	Specifies the name of the access rights profile to declare in the FTP: RIGHTS field of a partner definition
List Option	5 char.	Indicates how the information from mailboxes must be processed. **NOLIST** - no information is sent to users whose rights are PROF7. **MOD** - Connect:Express sends all the information, in one single list. The list is built from the information found in the user mailbox and the information found in the mailboxes defined in the PERMANENT TRANSFERS and the READ ONCE TRANSFERS fields. The HTTP user can select one of the mailboxes defined in the two fields. Connect:Express only sends the information found in this mailbox. **ID** - Connect:Express, by default, sends the information found in the user mailbox only. The HTTP user can select one of the mailboxes defined in the PERMANENT TRANSFERS and the READ ONCE TRANSFERS fields. Connect:Express sends the information found in this mailbox.
FCT	1 char.	Yes or No. Indicates if the permanent transfers of the user mailbox have to be included in the list.
RCT	1 char.	Yes or No. Indicates if the read once transfers of the partner mailbox have to be included in the list.

Field	Length	Description
Permanent Transfers	120 char.	Indicates which mailboxes are available for permanent transfers. In this example, all symbolic files definitions available for mailboxes PARTNER1 and PARTNER2 can be sent in the list.
Read Once Transfers	120 char.	Indicates which mailboxes are available for read once transfers. In this example, all transfer requests available for mailboxes PARTNER1 and PARTNER4 can be sent in the list.

In the preceding example, when the HTTP client PARTNER3 requests information without providing a mailbox name, PARTNER3 receives the following list:

```
LIST = MOD: all information will be sent in one list.
FCT=N, RCT=Y: only transfer requests for PARTNER3 are included.
PERMANENT TRANSFERS: symbolic files definitions available for PARTNER1 and PARTNER2
are included.
READ ONCE TRANSFERS: transfer requests available for PARTNER1 and PARTNER4 are
included.
```

9. Press <Enter> to display the Partner confirmation screen 4/4.

```
 TOM4230---------------- PARTNERS DIRECTORY (4/4) -----------------------------
 OPTION ===>


 ACTION    : UPDATE

 PARTNER   : PSRTOM4



 MONITOR   : TOM3

 DIRECTORY : index1.TOM3.SYSPAR


            X : EXIT, -ENTER- : CONFIRMATION, -PF3- : PREVIOUS SCREEN
```

10. Press <Enter> to confirm the update to the Partners directory.
    The ISPF message VSAM: OK TABLE: OK indicates that the modification is active in both the directory (file) and table (storage). If TABLE: NOK, then the modification is not active in the monitor until a new update is done, or Connect:Express is restarted.

Viewing Partner Information

1. From the Main Menu, type 1.1 in the option field and press <Enter>
    OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
    The Partners Directory 1/4 screen is displayed.

2. Enter the Partner symbolic name in the Partner field.

3.   Type V in the option field and press <Enter>. The Partners Directory screen 2/4 is displayed.

Note: V is the default entry in the option field.

---

4.   Press <Enter> to advance through the Partner definition screens. Refer to *Adding a Partner* for field descriptions.

Using Long Ip Host Names

You can use environment variables to extend the length of host names up to 256 characters. See Appendix B "*Using Environment Variables* " .The example below shows how you can define a long Host name in the definition of a TCP/IP partner: the field IP HOST dispalys MVS.<HOST> with the environment variable <HOST>, that is defined in the ENVVAR file.

```
   TOM4230     PARTNER OF TOM4 TO  VIEW       (2/4)
   OPTION ===>                        -ENTER- : GO ON, -PF3- : CANCEL   X : EXIT
   TYPE: TOM,PESIT-E
   MOD: USER1  00/03/14 09:24:28       1
   SYMBOLIC NAME          : OS390           DPCSID ALIAS         :
   TOM PASSWORD           : OS390           DPCPSW ALIAS         :
   INITIAL STATE          : E               APM RECEPTION CLASS    : A
   RACF USER              : TOMUSR          RACF GROUP             : -

   PARTNER TYPE           : T
   SESSION PROT.NUM.-T.   : 5    : 2        SSL CONFIGURATION      : -
   AUTOMATIC RESTART      : YES             DN CONTROM MEMBER      : -

   LINK TYPES             : I    : -
   EFF. TOTAL/IN/OUT      : 050  : 025  : 025 FLOW CONTROL T.   SLD  : -

   SNA: LUNAME  : -               LOGMODE    : -     LOGDATA   : -        DISC  : N
   X25: MCHMSC  : -      REM.ADDR.  : -              LOC.ADDR. : -
        CUG     : -      UDF        : -              CHARGE    : -
        FACILITIES       : -
   IP : ADDR.   : -                PORT   : 15200        FTP PASV  : - PROF.   : -
        HOST    : MVS.<HOST>                              'S': - RIGHTS  : -
   NOTE  : Long IP HOST NAME
```

The first screen of the Partners Directory Management shows the name of the ENVVAR file allocated to the monitor. You can change this name in the screen, for example if you want to retreive a variable definition from a previous environment.

The variable is processed while performing connection. The request table and the journal display the host name without resolution. Refer to paragraph *Extending the Long Names* in Chapter 4.

Use option VAR to display the extension of the variable.

```
   TOM4230     RESOLUTION OF ENVIRONMENT VARIABLES
   OPTION ===>                     -ENTER-PF3- END


      TOM3 JOBTOM3   CSGB   ACTIVE   GLOBAL      2009/04/01 09:08:24
      ENVVAR:  INDEX1.TOM4.PARMLIB(ENVVAR)
      ===============================================================
      MVS.<HOST>
       MVS.csggroup.developmentteam.stercomm.com
```

Updating a Partner Record

1. From the Main Menu, type 1.1 in the option field and press <Enter>
   OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
   The Partners Directory 1/4 screen is displayed.

2. Enter the Partner symbolic name in the Partner field.

3. Type U in the option field and press <Enter>.

4. Press <Enter> to advance through the Partner definition screens and make any necessary changes. Refer to *Adding a Partner* for field descriptions.

5. When the Partner confirmation screen 4/4 displays, press <Enter> to confirm the update.
   The ISPF message VSAM: OK TABLE: OK indicates that the modification is active in both the directory (file) and table (storage). If TABLE: NOK, then the modification is not active in the monitor until a new update is done, or Connect:Express is restarted.

Deleting a Partner Record

1. From the Main Menu, type 1.1 in the option field and press <Enter>
   OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
   The Partners Directory 1/4 screen is displayed.

2. Enter the Partner symbolic name in the Partner field.

3. Type D in the option field and press <Enter>. The Partners Directory 2/4 screen is displayed.

4. Press <Enter> to go to the next screen.

5. When the Partner Confirmation screen displays, press <Enter> to confirm the deletion.

Listing Partners

1. From the Main Menu, type 1.1 in the option field and press <Enter>
   OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
   The Partners Directory 1/4 screen is displayed.

2. Type L in the option field and press <Enter>. A list of Partners is displayed.

```
 TOM4230    LIST OF PARTNERS                               Row 1 of 506
 OPTION ===>                                               PAGE -> PAGE

 TOM4        ^-< 'COMMANDS'                      -PF3- END -PF7/8- SCROWL
 -------------< D/M/V                            01/11/22 04:02    USR0008
 ! PARTNER     TYPE   PROT. LINK     EFFECTORS   DATE
 V             1      2 3   4 5      6   7   8   9        10        11
 _ $$A         T      3 0   X -      004 000 000 00/03/14 09:24:28 USR0008
 _ AS400IP     T      5 2   M XCI    008 004 004
 _ CXNT        T      5 2   M XCI    006 003 003
 _ ODETTE      T      2 0   I -      002 001 001
 _ OS390       T      5 0   M IX     008 004 004
 _ UNIX        T      5 0   X -      010 005 005
 _ USRTOM      T      5 0   X -      010 005 005
 ***************************** Bottom of data ********************************
```

3. From this screen, you can enter any of the following commands on the line to the left of a Partner name:

    ❖   D to delete a Partner

    ❖   M to modify a Partner record

    ❖   V to view a Partner record

4. Press <PF3> to cancel back to the Main Menu.

Printing a Partners List

1. From the Main Menu, type 1.1 in the option field and press <Enter>
    OR type the jump command PAR in the option field on any screen in Connect:Express and press <Enter>.
    The Partners Directory 1/4 screen is displayed.

2. Type P in the option field and press <Enter>. A print file is displayed on screen.

Files Directory

A File contains the local rules for transferring a collection of data on a disk or tape. The data can be stored sequentially, partitioned, or VSAM organized. It is identified by a symbolic name with up to 8 alphanumeric characters. A File can point to a unique data set or be used as a general data set profile that applies to a group of data sets. The symbolic File name must be the same on both Connect:Express systems sending or receiving this data.

The program P1B2P904 initializes the Files directory during installation, then the Files directory is accessed by the DDNAME SYSFIL during start-up of Connect:Express. It is a VSAM KSDS data set.

Initializing the Files Directory Screen

1. From the Main Menu, type 1.2 in the option field and press <Enter>
    OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
    The File Attributes 1/5 screen is displayed.

```
 TOM4230---------------- FILES ATTRIBUTES (1/5) -------- NAMES INITIALIZED    !
OPTION ===> V

'Operator message if any from the Sysin file or a modify command'
            A    ADD
            D    DELETE
            L    LIST
            P    PRINT
            U    UPDATE
            V    VIEW
            ?    INIT NAMES

                 FILE       ===> FILE1      REPEAT => NO     REFRESH => YES

                 MONITOR    ===> TOM4       STATUS: SYSA ACTIVE GLOBAL

                 DIRECTORY  ---> INDEX1.TOM4.SYSFIL
                 PARAMETERS ---> INDEX1.TOM4.SYSPRM




            X EXIT, -PF3- END, -PF10/11- SCROLL

```

The following table describes the fields on the File Attributes 1/5 screen:

Option	Description
FILE	File symbolic name
MONITOR	Name of Connect:Express Subsystem (TOMx)
DIRECTORY	Name of directory File data set
PARAMETERS	Name of parameter data set (List of Partner #list, Unload/Reload members)

2. If you are using multiple monitors, you may need to initialize the names in the Files directory. Type the monitor name, then type ? in the option field and press <Enter>. Connect:Express displays information in the Directory and Parameters fields.

Adding a File Definition

1. From the Main Menu, type 1.2 in the option field and press <Enter>
    OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
    The File Attributes 1/5 screen is displayed.

2. Enter the symbolic name of the file that you want to add.

3. Type A in the option field and press <ENTER> to display the File Attributes 2/5 screen.

WARNING: The following prefix is reserved for SIT use (special French bank PeSIT transfers): SIT.

```
  TOM4230--------------- FILES ATTRIBUTES (2/5) -----------------------------
  OPTION ===>

  SYMBOLIC NAME           : FILE1     MODE: NORMAL

  INIT STATE ...........  : E         E: IN-SERVICE H: HOLD

  NOTIFICATION LEVEL.....  : 0         0:NO 1:START 2:END 3:START AND END
                                       4,5,6,7: SAME AS 0,1... AND ON ERROR
  DIRECTION ............  : T         T:TRANSMIT R:RECEIVE *:TRANS./REC.
  RECEIVING PARTNER .....  : USRTOM    'NAME', £LIST, */$$ALL$$ OR $$API$$
  SENDING PARTNER .......  :           'NAME', £LIST, */$$ALL$$ OR $$API$$

  PRIORITY .............. : 1         0:URGENT 1:FAST 2:NORMAL 3:SLOW
  DSN DEFINITION TYPE ... : F         D:DYNAMIC F:FIXED
  ALLOCATION RULE ....... : 1         1:PREALL. 2:TO CREATE 3:EXIT A:AP

  FILE TYPE ............. : S         S/H/M/P/PU/V/VU/UU/SU/TU/HU
  PRESENTATION PROTOCOL . : 04        COMPRESS.,DATA TYPE (01-16)
  UNLOAD/RELOAD MEMBER .. : -         OPTIONNAL
  SSL CONFIGURATION...... : -         OPTIONNAL

  OPTION  : VIEW                      UPDATE: 00/08/17 06:26 USR8
  -ENTER- : NEXT SCREEN               -PF3- : CANCEL
```

4. Enter File information as described in the following table:

Field	Length	Description
SYMBOLIC NAME	1 to 8 alphanum char.	This symbolic name identifies the File. It must be agreed upon with the Partners participating in the data exchange.
INITIALIZATION STATUS	E or H	This indicates the status of the File at initialization. E – The File definition will be Enabled. H – The File definition will be Held. (You must Enable the File definition before the associated file can be transferred.)

Field	Length	Description
LEVEL OF NOTIFICATION	0 to 7 alphanum char	This indicates the type of notification to implement. 0 – No notification 1) – Notification at initialization of transfer 2) – Notification at end of transfer 4) – Notification on error Any logical combination of 1, 2 and 4 as shown in the examples below: 3 – Notification at initialization and end of transfer (1+2) 6) – Notification at end of transfer and on error (2+4) 7) – Notification at initialization and end of transfer, and on error (1+2+4) Refer to the Notification Implementation Guide.
DIRECTION	T, R, or *	This field defines the transfer direction authorized for the File. T – Transmit R – Receive * – Transmit and Receive
RECEIVING PARTNER	1 to 8 alphanum char.	This field must be completed when DIRECTION is **T** or *****. It identifies the Partner(s) authorized to receive this File. The Receiving Partner can be one of the following: • Symbolic name of a Partner from the directory • Keyword $$ALL$$ or (*) any Partner from the directory is authorized • Keyword $$API$$ any Partner is authorized even if not in directory • Name of a member in the parameter library of Connect:Express (referenced by *SYSPRM*), which contains a maximum of 128 Partners from the directory. In this case, the name of this member must begin with the character £, for example, £PARRCVL. (The character £ is replaced by # on some systems.) When the Receiving Partner field is used in this way, a transmission request for a File generates as many requests as there are Partners in the list. • When the keyword ££API££ is indicated in this field, it is possible to declare a list of authorized names in a member of the *SYSPRM* library. These names do not have to be defined in the Partners directory. The API list member's name consists of the R symbol followed by the first 7 characters of the symbolic file name. For example, if the symbolic file name is FILEAPI, the member list name is RFILEAPI.
TRANSMITTING PARTNER	1 to 8 alphanum char.	This field must be completed when DIRECTION is **R** or *****. It identifies the Partner(s) authorized to transmit this File. The Transmitting Partner can be one of the following. • Symbolic name of a Partner from the directory • Keyword $$ALL$$ or (*) any Partner from the directory is authorized • Keyword $$API$$ any Partner is authorized even if not in directory • Name of a member of the parameter library of Connect:Express (referenced by SYSPRM), which contains a maximum of 128 Partners from the directory. In this case, the name of this member must begin with the character £, for example, £PAREMIL. Any Partner belonging to the list can ask to transmit the File. • When the keyword ££API££ is indicated in this field, it is possible to declare a list of authorized names in a member of the *SYSPRM* library. These names do not have to be defined in the Partners directory. The API list member's name consists of the T symbol followed by the first 7 characters of the symbolic file name. For example, if the symbolic file name is FILEAPI, the member list name is TFILEAPI.
PRIORITY	0, 1, 2, or 3	This field sets the priority for transfers and can be used to help queue transfers. Valid values include: 0 – Urgent 1 – Fast 2 – Normal 3 – Slow

Field	Length	Description
DEFINITION TYPE	F or D	Valid values are: F – Fixed, states that only the DSNAME defined in the directory is used for transfer operations (if over-ridden, the request is rejected). D – Dynamic, states that the file name (DSNAME) to be transmitted or received can be given at request time to override the one defined in the directory.
ALLOCATION RULE	0, 1, 2, 3 or A	The following choices are available. 0 – States that if the file exists on the receiver side, it is deleted, then Connect:Express goes to allocation rule 2. 1 – States that the data set is already allocated on the receiving/transmitting side. 2 – States that the receiving file should be allocated by Connect:Express (valid for the sequential or partitioned files which can be received). 3 – States that the monitor must not execute verifications or allocations on this file. These operations are handled by the user exit routine before and/or after transfers. When doing tape transmission, choose option 3 to invoke a Connect:Express beginning of transfer exit provided for tape transfer handling. A – States that the monitor must not execute verifications or allocations on this file. These operations are handled by a general user exit routine called at selection of transfers time and before and after transfers. When rule is A, neither start nor end exit in the File Attributes 4/5 screen is enabled since they are replaced by APM server.

Field	Length	Description
FILE TYPE	1 or 2 alpha char.	This indicates the kind of file involved.

This indicates the kind of file involved.

S – Sequential file (SEQ, BDAM)

P – Partitioned file PDS (direct transfer). If using allocation rule 1 on reception side, the file must be pre-allocated but empty.

V – VSAM file (direct transfer). On reception side, the file must be pre-allocated (allocation rule = 1) and empty.

M – Magnetic tape: The allocation rule must be 3. The exits are forced in the File Attributes 4/5 screen and the presentation protocol must be 07.

H – Hierarchical File System (HFS). Text or binary files stored in the UNIX environment. See *Managing HFS Files* on page 2-30.

PU – Partitioned file PDS (indirect transfer). A PU Transmit/Receive uses the member specified in the Unload/Reload member field of the *SYSPRM* data set to specify member selection. Connect:Express submits the job, JOBUNL1, out of *SYSJCL* library from the host doing the transmission to unload all/selected members. On the receiving host, Connect:Express submits the job, JOBREL1, to reload all/selected members into the defined PDS.
PU→ transmission: unload by IEBCOPY and transfer.
PU→ reception: transfer and reload by IEBCOPY.

VU – VSAM file (indirect transfer). A VU Transmit/Receive uses the member specified in the Unload/Reload member field from the *SYSPRM* data set which will perform the IDCAMS Define Cluster function when receiving the data set. It will execute a batch JOB submitted out of *SYSJCL* library, JOBUNL2, for unloading the VSAM data set before transmission and JOBREL2 when doing the receive function.
VU → transmission: unload by IDCAMS and transfer
VU → reception: transfer, perform *SYSPRM* define and reload by IDCAMS

UU – 'user' file (indirect transfer). A UU Transmit/Receive uses the ADRDSSU function when sending/receiving the data set. It will execute a batch JOB submitted out of *SYSJCL* library, JOBUNL3, for unloading the VSAM data set before transmission and JOBREL3 when doing the receive function.
Note: It is possible to unload/reload several files of different format (PDS/SEQ/...) and transfer them with only one request.
UU → transmission: unload by ADRDSSU and transfer
UU → reception: transfer and reload by ADRDSSU

SU – SYSOUT file (indirect transfer). An SU Transmit/Receive requires that the file name (DSNAME) is SYSOUT. Connect:Express submits the Job, JOBUNL4, from the *SYSJCL* library before transmission. It uses the member specified in the Unload/Reload member field from the *SYSPRM* data set which is used by the ISF function invoked by the job. It will execute a batch JOB submitted out of the *SYSJCL* library, JOBREL4 when doing the receive function.
SU → transmission: direct transfer or indirect by ISF.
SU → reception: transfer and reload on spool by IEBGENER+OUTPUT.

Note: The JOBUNL and JOBREL skeletons must be customized before you make indirect transfers. See Step 19 of the Installation procedure in the Installation Guide.

TU – Sequential file processed through the EDCICONV utility. See "Implementing the EDCICONV Utility" on page 34.

HU – HFS file processed through the EDCICONV utility. See "Implementing the EDCICONV Utility" on page 34.

Field	Length	Description
PRESENTATION PROTOCOL	2 numeric characters 01 to 24	Compression of data, translation of data and user exits during transfer are defined in the presentation tables. The tables numbered from 01 to 08 are reserved. They are given during installation and have the following meanings. (The Compression option is available for PeSIT protocol tables 3x and 5x.) 01 – No compression 02 – Horizontal compression 03 – Vertical compression 04 – Mixed compression (vertical and horizontal) 05 – Mixed compression and translation (EBCDIC to ASCII and ASCII to EBCDIC). 06 – Used for MBO option. 07 – Tape 08 – Used for DIFFUSION option 09 to 24 – available for user (start from 24 to 09) You can access the T1B2PPxx tables with the TSO/ISPF option 3.3 Pxx, discussed in Chapter 5.
UNLOAD/ RELOAD MEMBER	1 to 8 alphanum char.	The member for loading/unloading is an option for PARTITIONED (PU), VSAM (VU), USER (UU), SYSOUT (SU), or EDCICONV-processed (TU and HU) type files. It is the member name of the *SYSPRM* library which contains additional parameters for the utilities IEBCOPY (PDS members), IDCAMS reload (VSAM define), ADRDSSU reload, ISF unload (SYSOUT), or EDCICONV. These additional parameters are added to the standard parameters of these utilities. They are used by submitting an unloading job *before* transfer and a reloading job *after* transfer. Note: For indirect transfers, this field is related to the File Type field described above.
SSL CONFIGURATION	2 numeric char.	Indicates the SSL configuration file to be used. Refer to the SSL Guide for detailed information on how to use SSL profiles. SSL security is only available with PeSIT and ODETTE protocols. You can access SSLCFG files with the TSO/ISPF option 0, ANMSSL file.

5. Press <Enter> to display the File Attributes 3/5 screen.

```
   TOM4230---------------- FILES ATTRIBUTES (3/5) --------------------------------
   OPTION ===>

   SYMBOLIC NAME             : FILE1      DEF.: D   ALL.: 2   TYPE: S   DIR.: *
                               SDB=Y
   DSN LOCAL .............   : TOM4.FILE1.XMIT.TEST
   GDG NUMBER ............   : -            +XX OR -XX
   1 SYMBOLIC UNIT NAME ..   : -            'UNITNAME'
     VOLUME NAMES ........   : -        -         -          -         -
   2 SMS DATA-STOR-MGMT ..   : -                  -                    -
   DISPOSITION ...........   : SHR         SHR/OLD/NEW

   ALLOCATION TYPE .......   : -            CYL/TRK UB/KB/MB(?BYTES-SMSSDB)
   SPACE PRIM.-SEC. ......   : -     -      1 TO 4 NUMERIC CHARACTERS
   DIRECTORY BLOCKS .....    : -            IF PARTITIONED
   RECORD FORMAT .........   : -            F,FB,FBA,FBM,V,VB,VBA,VBM,VBS,VS,U
   LRECL-BLKSIZE .........   : -     -      1 TO 5 NUMERIC CHARACTERS
   RETENTION (EXPDT/RETPD)   : -            X'CCYYDDD',E'YYDDD'/R'NNNN'
   PERMISSION (HFS)         : - - -        User(1-7) Group(1-7) Other(1-7)
   Remote dsn/PI99   .....   : -
   TYPE/STRUCTURE/MODE FTP   : -   -   -    EN/AN/I,F/R,B/C/S
   UNIQUE .............FTP   : N            Y/N
   NOTE   : -
```

The File Attributes 3/5 screen has the allocation parameters for the file. These parameters are related to the Direction, the DSN Definition Type, and the Allocation Rule fields on the File Attributes 2/5 screen. For transmission, the File Name (DSNAME) and the Disposition fields are available. For reception, all fields are available, depending on the file and the protocol.

Note: Refer to *Managing HFS Files* on page 2-30 for specific rules that apply to UNIX files.

The DCB parameters are required when the transfer protocol does not provide this information. This is the case with ETEBAC3 and FTP. These parameters are also required when creating a PDS file type PU (Unload/Reload). Even if the protocol provides this information, it can be overridden on the File Attributes 3/5 screen. For example, a file with a fixed record format on the sender side can be written to a file with a variable record format on the receiver side.

Transferring a File With a List of Partners

You can use the fields RECEIVING PARTNER and SENDING PARTNER to specify which partner you want to transfer files with. You can specify any Partner, one Partner , or a Partner list. If you specify one Partner, that Partner must be defined in the Partners Directory. You can use the following keywords and syntaxes:

❖ $$ALL$$ or * (asterisk) means that you want to transfer with any Partner from the Partners directory.

❖ $$API$$ means that you will transfer with any Partner, including unknown Partners. This option can be used when the Partner name used for connection is different from the Partner name used for the file transfer. For example, when an incoming connection is accepted from the FTPBYPAS partner , the real FTP user name that Connect:Express receives in the FTP connection command is different from the FTPBYPAS partner that Connect:Express uses for processing the connection. See *Updating the SYSTCP File* on page 5-28.

❖   £listname means that you want to transfer with a list of Partners defined in the Partners directory. The names of these Partners are listed in a source file called "£listname" and placed in the *SYSPRM* library of Connect:Express.

❖   ££API££ means that you want to transfer with a list of Partners that are not defined in the Partners directory. The names of these users are listed in a source file called *Tfile* or *Rfile* and placed in the *SYSPRM* library of Connect:Express. The Tfile list is used for transmission and the Rfile list is used for reception. The *file* string is the current file symbolic name.

Note: The current file symbolic name cannot exceed 7 characters because the list file name is limited to 8 characters.

Defining the DCB for Reception

You define a DCB (Data Set Control Block) for files to receive from parameters like the record format, the record length, the blocksize and the file space. The way that you create the DCB, depends on if you are using SMS or not, and if the file transfer protocol provides allocation information or not.

You do not need to define the DCB in the File Attributes if they are provided by the transfer protocol. For example, giving the File Name (DSNAME) and setting the Disposition to New is sufficient for receiving a file with PESIT or ODETTE protocols.

The three fields (Record Format, Record Length, and Block Size) define the parameters RECFM, LRECL and BLKSIZE of the DCB respectively. The values in these three fields are used by Connect:Express for file reception with an allocation rule equal to **0** or **2**. They are passed to the user exit when the allocation rule is 3 or A. When coding for these fields, consider the following rules.

❖   Let SMS handle allocation as much as possible, although you are not obliged to use SMS.

❖   The Block Size is mandatory only if SMS is not used, SMSSDB=N defined in the SYSIN file.

❖ Record Format and Record Length can be optional or mandatory depending on the transfer protocol used.

❖ If the transfer protocol carries the Record Format and Record Length, they must match the values provided.

Note: It is possible to be more flexible. Record format and record length controls can be disabled by the RECFMT=N and/or LRECLT=N options declared in the SYSIN file. This makes it possible to write a fixed record length file into a variable record length file provided that the length of all the records received are equal to the length announced by the sender of the file and that the real record length of the file transferred is less than the maximum record length of the file allocated.

❖ ETEBAC3 and FTP do not provide such values.

❖ Each field can be filled in by an assigned value or by the variable *&x* (**for Connect:Express type Partners only**).

❖ If one of the three fields contains an assigned value, the two others must be filled in by a coherent value. For example, if SMSSDB=N, the BLOCK SIZE must be a multiple of the RECORD LENGTH for a fixed RECORD FORMAT.

❖ If one of the three fields contains the variable *&x*, each of the two others can be omitted or filled in by *&x*. *&x* is only available with the PeSIT protocol.

The Allocation parameters, Type, Primary, and Secondary, are managed in the same way. When provided by the protocol, the file space is given in Kbytes and Connect:Express optimizes the corresponding z/OS allocation parameters. The other parameters (Directory Blocks, Symbolic Unit Name, Volume Names, Retention, Permission) are local parameters with no corresponding protocol information.

In an SMS environment, Connect:Express can let SMS determine the DCB, and the file space can be allocated in bytes.

Allocating Files in an SMS Environment

For the files defined for reception with an allocation rule equal to 0 or 2, parameters tell Connect:Express how to create the reception file. The record length, the record format, and the file space can be coded using the File Attributes 3/5 screen. If they are coded, the coded values take priority and Connect:Express is responsible for allocating the file. If they are not coded, the reception file is created by Connect:Express or SMS with the size and format characteristics given by the transfer protocol fields.

In an SMS environment, you can let SMS handle file allocation, give Connect:Express full responsibility, or share responsibilities between SMS and Connect:Express. If you enter the record length, the record format, and the file space on the File Attributes 3/5 screen, then Connect:Express is responsible for allocating the file.

The following table describes the two options that you can use to direct how file allocation is performed in an SMS environment. The SMSSDB parameter is in the SYSIN file.

Field	Description
SMSSDB=Y	Indicates that SMS handles file allocation. The block size of the file is determined by SMS and the file space will be allocated in kilo or mega bytes from the number of kilobytes received by Connect:Express in the file transfer protocol fields. NOTE: SMSSDB=Y is the normal option, giving the File Name (DSNAME) and setting the Disposition to New.
	VOLUME NAME=SMS on the File Attributes 3/5 screen indicates that the SMS classes specified in the SMS DATA-STOR-MGMT fields are used.

Field	Description
SMSSDB=N	Indicates that Connect:Express is responsible for file allocation. In this case, if no parameters are specified in the File Attributes 3/5 screen, a temporary file will be allocated before allocating the new reception file. The temporary file characteristics are used to determine the blocksize and calculate the file size in blocks from the record length and record format provided by the transfer protocol fields. WRKUNT=SMS (SYSIN file) is the normal value and indicates that the unit name and volume-serial is provided by SMS. VOLUME NAME=SMS on the File Attributes 3/5 screen indicates that the SMS classes specified in the SMS DATA-STOR-MGMT fields are used.

Note: When using transfer protocols like ETEBAC3 and FTP, you must provide at least the record length, record format, and file space in the File Attributes 3/5 screen. In an SMS environment, the file space must be entered in bytes (unit, kilo, or mega).

WARNING: Never use the SMS RELEASE SPACE option for receiving files because a restart is not possible if the transfer is interrupted. Connect:Express releases the space automatically at the successful end of transfer.

6.   Enter file allocation parameters as described in the following three tables:

FIELD	LENGTH	DESCRIPTION
DSN LOCAL)	1 to 44 alphanum char.	This is the DSNAME of the data set to be transmitted. It can contain symbolic variables which are interpreted by the Monitor when processing the request. The symbolic variable can be Connect:Express specific or related to the file transfer protocol currently used. The list below identifies the symbolic variables for Connect:Express, PeSIT, ODETTE, FTP and SIT.

•   Connect:Express and other software:
&I → Index from the MAJIND= parameter of the SYSIN file
&FILENAM → Symbolic name for the File
&PARTNID → Symbolic name for the Partner
&REQDAT → Local date for the request in a yymmdd format
&REQTIM → Local hour for the request in a hhmmss format
&J → Current local day of month
&M → Current local month
&Y → Current local year; &C Current century
&QQ → Current local day of year
&REQNUMB → Request number generated by Connect:Express for the
              transfer

•   PeSIT Software:
&ORG → Name of the origin of the transfer (Pi3)
&DST → Name of the destination of the transfer (Pi4)
&EXTLAB → Label of the file (Pi37)
&PI99 → First 44 characters of the Pi99.

•   Connect:Express only: (PeSIT)
&EXTDSN → Name of the DSNAME transmitted from requesting
              Connect:Express system
&EXTDAT → Date of the request from requesting Connect:Express system
              in the form DYYMMDD.
&EXTNUMB → Request number generated from requesting
               Connect:Express system in the form Bxxxxxxx.
&MBR → PDS member extension
&USRVAR1 → Last index of the DSNAME being Transferred/ Received.
&USRVAR2 → Before last index of the DSNAME being Transferred/
              Received.

•   ODETTE software:
&EXTLAB → Odette file name (26 characters)

•   FTP software
&EXTDSN → from pathname
&USRVAR1 →from pathname
&USRVAR2 →from pathname

•   SIT only:
&ILOG → Logical identity of the File (Pi12), for example, 98765
&DESN → Addressee (application number), for example, 12345
&ORGN → Origin (application number), for example, 54321
&D → Addressee (application type), for example, ce, cr, ie, ir
&O →Origin (application type), for example, ce, cr, ie, ir

Note: Online help provides a list of available symbolic variables. Press <PF1> and enter option VS.

Note: Keywords &J, &D, &M, &Y, &QQ can be part of an index of the data set name. For example, "INDEX1.Z&QQ&Y.&PARTNID" results in "INDEX1.Z12602.partner." Be aware that the MVS rules apply. An index must start with a letter. For example, INDEX1.&J.INDEX3 becomes INDEX1.22.INDEX3 which causes an allocation error because index number two is numeric.

You can extract a string from any symbolic variable &VAR using "&offset:lengthVAR". For example, &5:12VAR reads: "skip five characters and take the next 12 characters." Syntax rules are described in the manual *Connect:Express z/OS PeSIT Fields Guide* in the section called "Keyword Syntax" and in the online help of the ISPF operator interface.

FIELD	LENGTH	DESCRIPTION
GDG NUMBER	3 num	This number must be supplied for GDG type files. It is the generation number used with the DSNAME abbreviated as +XX or -XX. The last one created can be accessed by coding +00 or -00. Connect:Express does not currently support the transmission of entire GDG or concatenated data sets.
SYMBOLIC UNIT NAME	1 to 8 alphanum char.	This is the symbolic name for a type of disk unit where the monitor can allocate files. If using SMS, leave this field blank.
VOLUME NAMES	6 alphanum char.	This identifies volumes where the monitor must allocate files. The first volume name can be replaced by keyword $RVOL$ or $MVOL$. If one of these fields is completed, the previous symbolic unit name must also be completed. If the first volume name is replaced by the keyword SMS, the allocation is done as described in the section Allocating Files in an SMS Environment on page 2-19. Single and multi-volume allocation are supported. Volume selection and rotation is provided. Multi-volume allocation is performed when $MVOL$ keyword is used.† Rotation is performed when keyword $RVOL$ is given. The list of volumes can be replaced by the name of an entry point in table T1B2PVOL in the form %xxxxxxx in the second volume field. This entry can define 1 to 32 volume names. You can access the T1B2PVOL table with the TSO/ISPF 3.3 VOL option, discussed in Chapter 5. Programming notes: If the specific volume is not mounted, Connect:Express makes no more 'MOUNT' request to z/OS. If only one volume is mentioned, the transfer will be refused. If several volumes are mentioned, the next volume will be used. $MVOL$ must be used only for very large files and $RVOL$ is advised with T1B2PVOL list. It is best to use the z/OS 'esoteric' unit name with no volume names, or 'blank' under SMS. User can give five volumes: Connect:Express chooses the first available volume (directory or space) $RVOL$ + four volumes The four volumes will be successively used and single volume allocation is processed. $MVOL$ + four volumes The four volumes will be successively used and multi-volume allocation is processed. † $RVOL$ + %XXXXXXX The 32 volumes will be successively used and single volume allocation is processed. $MVOL$ + %xxxxxxx The 32 volumes will be successively used and multi-volume allocation is processed. † If you need to rotate on more than four volumes, use volume table T1B2PVOL. See the "VOL" option from the LIST/UPDATE OF TABLES screen.
SMS classes	3*8 alpha char.	This is the optional symbolic names for SMS classes where the monitor can allocate files. It is advised only for special cases. The first volume name in the list must be 'SMS'.
DISPOSITION	3 alpha char.	This indicates how the file should be handled. OLD – allocate the file to be transmitted or received with option OLD. SHR – allocate the file to be transmitted or received with option SHR. NEW – create the reception file via the options described in this menu. This value is only valid if the File is defined for reception with an allocation rule equal to 0 or 2.
ALLOCATION TYPE†	3 alpha char.	Space units. Valid values include: CYL Cylinder TRK Track UB Bytes; KB Kilobytes; MB Megabytes
PRIMARY ALLOCATION†	1 to 4 numeric char.	Primary number of space units to allocate.

FIELD	LENGTH	DESCRIPTION
SECONDARY ALLOCATION[†]	1 to 4 numeric char.	Secondary number of space units to allocate.
DIRECTORY BLOCKS[†]	numeric characters	The number of directory blocks for a partitioned data set. Required when creating a PDS file of type UNLOAD/RELOAD.
RECORD FORMAT	1 to 3 alpha char.	Authorized values are F, FB, V, VB, VBS, and U. The variable *&x* enables the user to force the record format from the transmitting Connect:Express site (PeSIT only). When file types are VBS or U, set this field to &x.
RECORD LENGTH[†]	1 to 5 numeric char	The variable *&x* enables the user to force the length of the record from the transmitting site. When file types are VBS or U, set this field to &x.
BLOCK SIZE[†]	1 to 5 numeric char.	This field is required only if SMSSDB=N in the SYSISN file. When provided, the value must be coherent with the RECORD FORMAT and the RECORD LENGTH. The variable *&x* enables the user to force the size of block from the transmitting site. When file types are VBS or U, set this field to &x.
RETENTION (EXPDT /RETPD)[†]	5 or 6 char.	Expiration or retention date of the file. Beware that RETPD/EXPDT provoke a console 'REPLY' and TOM address space is blocked until an answer is given. E'YYDDDD' Expiration date = YYDDDD RNNNN Retention = RNNNN
PERMISSION (HFS)	3 numeric char.	Used for HFS files only. Specifies the HFS file permissions for a file being created. This subparameter is ignored if the file already exists. The first digit indicates the owner's file permissions, the second digit indicates the owner's group's file permissions, and the third digit indicates the file permissions for all others. The following lists shows acceptable permission values for each digit: 0 – No file access allowed 1 – Execute access allowed 2 – Write access allowed 3 – Write and Execute access allowed 4 – Read access allowed 5 – Read and Execute access allowed 6 – Read and Write access allowed 7 – Read, Write, and Execute access allowed For example, if permiss = **634** then the file owner has read and write permissions, the owner's group has write and execute permissions, and all others are allowed only read permission. Permiss = **751** indicates that the file owner has read, write, and execute permission, the owner's group has read and execute permission, and all others have execute permission.

FIELD	LENGTH	DESCRIPTION
Remote dsn/PI99	44 alphanumeric char.	Used for FTP, PeSIT, and ODETTE transfers. For ODETTE transmissions, this information is sent in the ODETTE file name which has 26 characters. For PeSIT transfers, this field is sent in the PeSit Pi99 field. For FTP transfers in Client mode, this field is sent with the store or retrieve commands. Keywords are available in this field. For example, &REQNUMB is replaced by the current request number. See the Administration Guide and the FTP Guide for more information. The following keywords are supported in this field: &FILENAM - Symbolic name for the File &PARTNID - Symbolic name for the Partner &REQDAT - Local date for the request in a yymmdd format &REQTIM - Local hour for the request in a hhmmss format &DS - Local data set name, without quotes &J - Current local day of month &M - Current local month &Y - Current local year; &C Current century &QQ - Current local day of year &REQNUMB - Request number generated by Connect:Express for the transfer The following keywords are supported with the PeSIT Software: &ORG . Name of the origin of the transfer (Pi3) &DST . Name of the destination of the transfer (Pi4) &EXTLAB . Label of the file (Pi37) Note: Using && makes Connect:Express send the keyword in the field. For example, REMOTE DSN/PI99 .... : &REQNUMB-&&REQNUMB is replaced by 'local request number'-&REQNUMB. You can extract a string from any symbolic variable &VAR using "&offset:lengthVAR". For example, &5:12VAR reads: "skip five characters and take the next 12 characters." Syntax rules are described in the manual *Connect:Express z/OS PeSIT Fields Guide* in the section titled "Keyword Syntax" and in the online help of the ISPF operator interface.
TYPE/STRUCTURE...	2,1,1 char.	The first field (TYPE) is used for HFS files. 'EN' or 'AN' are specified for an EBCIDC or ASCII TEXT file, 'I' is specified for a Binary file. The other two fields are used for FTP. Refer to the FTP Guide for more information.
UNIQUE	1 char.	Used for FTP transfers. Refer to the FTP Guide for more information.

†   See the IBM technical manual covering z/OS JCL

7. Press <Enter> to display the File Attributes 4/5 screen.

```
  TOM4230--------------- FILES ATTRIBUTES (4/5) -------------------------------
  OPTION ===>

  SYMBOLIC NAME              : FILE1   DEF.: D  ALL.: 2   TYPE: S   DIR.: *
                                UPRFCT=Y
  --- S : SYMBOLS CHECKING
  V
    TRANSMISSION :
    START EXIT ..........    : L1GFIUE1   USER EXIT NAME
  _ START COMMAND .......    : -
    END EXIT ............    : L1GFIUE1   USER EXIT NAME
  _ END COMMAND .........    : s MYPROC,D=&D

    RECEPTION :
    START EXIT ..........    : -         USER EXIT NAME
  _ START COMMAND .......    : -
    END EXIT ............    : -         USER EXIT NAME
  _ END COMMAND .........    : -


  OPTION  : VIEW                         UPDATE: 00/08/17 06:26 USR8
  -ENTER- : NEXT SCREEN                  -PF3- : PREVIOUS SCREEN
```

8. Enter information as described in the following table:

Field	Length	Description
TRANSMISSION Commands and Exits		
START EXIT	1 to 8 alphanum char.	This is the name of a user exit routine which is executed before the beginning of file reception. L1GFIUE1 (PAC option)† can be used in the 4 exit places. It can schedule a lot of processes as well as abend commands. Entering 'NONE' as the exit name nullifies the UEXFTS parameter of the SYSIN file. The load module must be in APM *SYSLIB*.
START COMMAND‡	1 to 32 alphanum char.	This field can contain a command or series of commands separated by semicolons. The Monitor executes the command(s) before the beginning of file transfer. (See RECEPTION: END COMMAND for details.)
END EXIT	1 to 8 alphanum char.	This is the name of a user routine which must be executed at the end of file transmission with protocol control. This routine is processed for normal/abnormal end of transfer. Entering 'NONE' as the exit name nullifies the UEXFTF parameter of the SYSIN file. The load module must be in APM *SYSLIB*.
END COMMAND‡	1 to 32 alphanum char.	This field can contain a command or series of commands separated by semicolons. The Connect:Express Monitor executes the command(s) at the NORMAL end of file transfer. L1GFIUE1 (PAC option)† can be used to schedule command in case of an abnormal end. (See RECEPTION: END COMMAND for details.)

† L1GFIUE1 is discussed in the Utilities Guide for Connect:Express z/OS.
‡ Commands are executed only if the UPRFCT= parameter of the SYSIN file is set to Y.

Field	Length	Description
RECEPTION Commands and Exits		
START EXIT	1 to 8 alphanum char.	This is the name of a user exit routine which is executed before the beginning of file reception. Entering 'NONE' as the exit name nullifies the UEXFRS parameter of the SYSIN file. The load module must be in APM *SYSLIB*.
START COMMAND‡	1 to 32 alphanum char.	This is a command or series of commands, separated by a semicolon, that the Monitor executes before the beginning of file reception. (See RECEPTION: END COMMAND for details.)
END EXIT	1 to 8 alphanum char.	The end reception exit name is the name of a user routine which is executed at the end of file reception. Entering 'NONE' as the exit name nullifies the UEXFRE parameter of the SYSIN file. The load module must be in APM *SYSLIB*.
END COMMAND‡	1 to 32 alphanum char.	This is a command or series of commands separated by a semicolon. z/OS commands, clists, and TSO procedures are supported. The Connect:Express Monitor executes the command(s) at the NORMAL end of reception. L1GFIUE1 (PAC option)† can be used to schedule commands in case of an abnormal end. All symbolic variables available for the File Name (DSNAME) field are also available for the Command fields, however some abbreviated keywords are provided, such as &F=&FILENAM, and &P=&PARTNID. The &DSN keyword represents the DSNAME of the file being transferred without having to specify it. However, the DSNAME must be specified when it contains variables. Examples of Start/End Command: S BEG,F=&F,P=&P S PROC&O,D=&DSN S MYPROC,I2=&FILENAM,I3=&REQTIM Examples of END Command - CLIST: S PROCL,F=SN;$AJ'JOB1';S X (see *SAMPLIB* EX£PJCL for job customization and submit STC) % P=PRC,C=CLS (PRC:TSO procedure, C:User CLIST) (see *INSTLIB* £CLSPRC as 'PRC' sample) (see *SAMPLIB* C1USRJNL as 'CLS' sample) command is processed only if the UPRFCT= parameter of the SYSIN file is not 'N.' Note: The online help provides a list of available symbolic variables. Press <PF1> and enter option VS.

†   L1GFIUE1 is discussed in the Utilities Guide for Connect:Express z/OS.
‡   Commands are executed only if the UPRFCT= parameter of the SYSIN file is set to Y.

9. Press <Enter> to display the File Attributes 5/5 screen.

```
   TOM4230---- CONFIRM THIS ACTION ----------------------------------------------
   OPTION ===>

                                                                 USR8
                                                                 00/11/15
                                                                 06:00
   ACTION    : UPDATE                                            SYSA

   ENTRY     : FILE1




   MONITOR   : TOM4  ACTIVE     SYSA   GLOBAL




            X : EXIT, -ENTER- : CONFIRM, -PF3- : CANCEL

```

10. Press <Enter> to confirm the update to the Files directory.

> **Note:**   The ISPF message VSAM: OK TABLE: OK indicates that the modification is active in both directory
> (file) and table (storage). If TABLE: NOK, then the modification is not active in the monitor until a
> new update is done, or Connect:Express is restarted.

Managing HFS Files

z/OS UNIX files are organized in a hierarchical file system (HFS) such as UNIX and Windows systems.
Access to these files is managed by UNIX functions, and a specific interface has been implemented.

In the configuration files of Connect:Express, HFS files are defined with a special type: type H. Such a file is
used to transfer only UNIX files. TOM, APM, and FTP address spaces must be given permission to access the
HFS files to transfer.

The FILE TYPE field of the FILES ATTRIBUTES screen is used to specify a UNIX profile. All other fields of this screen are used in the normal way.

```
   TOM4230--------------- FILES ATTRIBUTES (2/5) ------------------------------
   OPTION ===>

   SYMBOLIC NAME           : F1HFS       MODE: NORMAL

   INIT STATE ............ ===> E          E: IN-SERVICE H: HOLD

   NOTIFICATION LEVEL.....   : 0           0:NO 1:START 2:END 3:START AND END
                                           4,5,6,7: SAME AS 0,1... AND ON ERROR
   DIRECTION ............. ===> *          T:TRANSMIT R:RECEIVE *:TRANS./REC.
   RECEIVING PARTNER ..... ===> *          'NAME', £LIST, */$$ALL$$ OR $$API$$
   SENDING PARTNER ....... ===> *          'NAME', £LIST, */$$ALL$$ OR $$API$$

   PRIORITY .............. ===> 1          0:URGENT 1:FAST 2:NORMAL 3:SLOW
   DSN DEFINITION TYPE ... ===> D          D:DYNAMIC F:FIXED
   ALLOCATION RULE ....... ===> 0          0:CREATE/REPLACE 1:PREALL. 2:CREATE
                                           3:EXIT A:APPLICATION SERVER
   FILE TYPE ............. ===> H          S/H/M/P/PU/V/VU/UU/SU/TU/HU
   PRESENTATION .......... ===> 01         COMPRESS.,DATA TYPE (01-24)
   UNLOAD/RELOAD MEMBER .. ===> -          OPTIONNAL
   SECURITY TABLE ........ ===> -          OPTIONNAL

   OPTION  : UPDATE                        UPDATE: 07/10/15 01:56 PSR0008
   -ENTER- : NEXT SCREEN                   -PF3- : CANCEL
```

If FILE TYPE is equal to H, the next FILES ATTRIBUTES screen is displayed as follows:

❖ DSN LOCAL field supports lower case.

❖ GDG NUMBER, SYMBOLIC UNIT NAME, VOLUME NAMES, SMS DATA-STOR-MGMT, ALLOCATION TYPE, SPACE PRIM.-SEC., DIRECTORY BLOCKS, and RETENTION are inactive.

❖ RECORD FORMAT, LRECL-BLKSIZE, and PERMISSIONS are active.

If FILE TYPE is equal to S, the next FILES ATTRIBUTES screen is displayed as before, and PERMISSION (HFS) is not active.

The DSN LOCAL field must follow the MVS dataset name syntax rules.

```
   TOM4230---------------- FILES ATTRIBUTES (3/5) -------------------------------
    OPTION ===>

    SYMBOLIC NAME             : F1HFS       DEF.: D  ALL.: 0  TYPE: H  DIR.: *
                                            SDB: Y
    Dsn local  ............ ===> /u/paris/usr0008/cexpress/&REQNUMB
    GDG NUMBER ............ ---- -          +XX OR -XX
    1 SYMBOLIC UNIT NAME .. ---- -          'UNITNAME'
      VOLUME NAMES ........ ---- -       -       -        -         -
    2 SMS DATA-STOR-MGMT .. ---- -                -           -
    DISPOSITION ........... ===> NEW       SHR/OLD/NEW

    ALLOCATION TYPE ....... ---- -          CYL/TRK UB/KB/MB(?BYTES-SMSSDB)
    SPACE PRIM.-SEC. ...... ---- -    -     1 TO 4 NUMERIC CHARACTERS
    DIRECTORY BLOCKS ..... ---- -          IF PARTITIONED
    RECORD FORMAT ......... ===> -          F,FB,FBA,FBM,V,VB,VBA,VBM,VBS,VS,U
    LRECL-BLKSIZE ......... ===> -     -    1 TO 5 NUMERIC CHARACTERS
    RETENTION (EXPDT/RETPD) ---- -          X'CCYYDDD',E'YYDDD'/R'NNNN'
    PERMISSION (HFS)       ===> 7  7  7     User(1-7) Group(1-7) Other(1-7)
    Remote dsn/Pi99 ....... ===> -                                        <
    TYPE/STRUCTURE/MODE FTP ===> I   - -    EN/AN/I,F/R,B/C/S
    UNIQUE ............ FTP ===> N          Yes/No
    NOTE ===> -
```

HFS files follow UNIX environment rules:

1. They have no structure (no record format, no record length and no blocksize).

2. Access rights are managed through Permissions at User, Group and Other levels.

3. HFS files can be binary or text files.

The table below describes specific fields (PERMISSION) or how standard fields are used with HFS files (RECORD FORMAT, LRECL-BLKSIZE, and TYPE/STRUCTURE/MODE).

This table provides you with information you need to understand the new mechanisms that have been implemented to manage HFS files. You should consider the following processes :

❖ Blocking process, to improve performance

❖ Managing UNIX permissions User, Group, and Other

❖ Managing data type: text and binary files

Field	Description
Dsn Local	This is the physical name of the Unix data set to be transmitted. All available symbolic variables are valid. You can use environment variables to extend this parameter up to 256 characters. See "Using Long File Names" on page 37.

Field	Description
RECORD FORMAT	This parameter determines the structure of the file for transmission or reception (F, FB, V, VB). If you provide this parameter, the LRECL parameter is required. Depending on the file transfer protocol, record format and record length parameters may be required. PeSIT protocol requires these two parameters (record format and record length). With the Odette protocol, if these parameters are not provided, the file is processed as an undefined, binary or text format based on the TYPE parameter described below. For any protocol, this parameter is used internally to process the file: the parameter must match the file attributes. For example, if the record format is fixed and the file is a text file, all lines must be of the same length.
LRECL-BLKSIZE	These parameters determine the structure of the file for transmission or reception. They must be consistent with the record format parameter described above. For example, if the record format is F or V, the second parameter is not required, or it must be equal to the first one. If the record format is FB or VB, the second parameter is required. It must be a multiple of the first parameter if the record format is FB. Depending on the file transfer protocol, record format and record length parameters may be required. PeSIT protocol requires these two parameters. With the Odette protocol, if they are not provided, the file will be processed as an undefined, binary, or text format, based on the TYPE parameter described below. For any protocol, this parameter is used internally to process the file: it must match the file attributes. For example if the record format is variable and the file is a text file, all lines must have a length less than or equal to the record length. Important note: you are advised to define a blocking factor, especially for reception, as record processing can be time consuming. For example, for a 20MB file, the transfer elapse would be 10 seconds without a blocking factor, and 7 seconds with a good blocking factor.
PERMISSION (HFS)	Access rights for reception for owner, owner's group and all others. These three parameters are processed as described below : Value 1 represents execute permission Value 2 represents write permission Value 3 represents read permission Each field must indicate a logical combination of these three values. Example : "3" = 1+2 = execute + write (-WX) "7" "7" "7" is equivalent to "RWX" "RWX" "RWX" While receiving the file, Connect:Express opens the file with permissions RWX RWX R - -. At the end of transfer or after an interruption, Connect:Express changes permissions to the values defined in the directory.
Remote dsn/Pi99	Used for FTP, PeSIT, and ODETTE transfers. For ODETTE transmissions, this information is sent in the ODETTE file name which has 26 characters. For PeSIT transfers, this field is sent in the PeSit Pi99 field. For FTP transfers in Client mode, this field is sent with the store or retrieve commands. You can use environment variables to extend this parameter up to 256 characters. See *Using Long File Names* on page 2-37.
TYPE/STRUCTURE /MODE	Type of data of the file (B, AN or EN). This parameter can be overriden by parameters of the transfer request. If type is AN, for ASCII, Connect:Express adds the delimiter "0D0A" when receiving. When sending, it searches for this delimiter and suppresses it. If the file is sent as an ASCII file and is not really an ASCII file, Connect :Express detects an error and issues the codes : TRC=3005 SRC=0D0A. If type is EN, for EBCDIC, Connect:Express adds the delimiter "15" when receiving. When sending, it searches for this delimiter and suppresses it. If the file is sent as an EBCDIC file and is not really an EBCDIC file, Connect :Express detects an error and issues the codes : TRC=3005 SRC=1540. If type is I, for image (binary), the file is sent as is. When an HFS file is sent with FTP protocol, this parameter is combined normally with parameters STRUCTURE and MODE.

Managing LARGE Files

Connect:Express z/OS supports files of type LARGE. Internal control blocks and screen fields have been re-sized. For reception, the allocation of LARGE files is managed by SMS.

Statistics screens show the extended fields like 'Number of Records', 'Number of Messages' and 'Number of Kbytes'. The 'Number of Records' displays 12 characters, 'Number of Messages' and 'Number of Kbytes' display 8 characters: when the value is greater than 999999999, the unit is changed to Kilo Messages or Mega bytes as shown line 2 of the example below.

```
 TOM4230    JOURNAL 4/5    F=                               ENTRY 1:1531
  OPTION ===>                                               SCROLL-> PAGE
                                                           09/04/01  04:28
  TOM4       -< 'COMMANDS'   -PF3- END, -PF7/8/10/11- SCROLL


  ------------< S SCOPE      B BROWSE
  !
  ! FILE       RECORDS      SND/REC. RET  PROTOCOL FILE     FLOW/SECOND      D.T.
  ! F1LARGE*                              K-CHAR.  K-CHAR.  K-CHAR. K.BITS
 V            22           23       24  25       26       27      28       29
 _  F1LARGE   55800000     195989   -    390076   4359375  51               A
 _  F1LARGE   2133297486   K2133297 -    M2083298 M2083298 281549           A
 _  F1LARGE   -            -        -    -        -        -                -
 _  F1LARGE   22916387     65523    -    1790368  1790343  -                B
 _  F1LARGE   22917530     55951    -    1790432  1790433  -                B
 _  ³TOTAL:
 _  ³TOT.OK:  .            K2133493 -    M2083679 M2087555
 _  ³AVE.OK:               2133493  -    2083679  2087556  140800
 *** END OF LIST
```

Implementing the EDCICONV Utility

Until version 4.2.0-0 inclusive, the unique method for transcoding data was based on a middle-of-transfer user exit that you declare in a presentation table.

More and more heterogeneous environments make it necessary to extend this functionality. For this purpose, the EDCICONV utility has been integrated in an automatic UNLOAD/RELOAD mechanism that you can apply to MVS sequential files or HFS files.

Configuration

To implement this functionality you need to configure three components.

❖ The symbolic file: FILE TYPE = TU (for MVS sequential files) or HU (for HFS files).

❖ JCL skeletons (SYSJCL) : $JOBREL5 and $JOBUNL5 files associated with files $RELOAD5 and $UNLOAD5

❖ Member (SYSPRM): to define origin and destination character sets

```
   TOM4230--------------- FILES ATTRIBUTES (2/5) ------------------------------
    OPTION ===>

    SYMBOLIC NAME              : F1TUR        MODE: NORMAL

    INIT STATE ............    : E            E: IN-SERVICE H: HOLD

    NOTIFICATION LEVEL.....    : 0            0:NO 1:START 2:END 3:START AND END
                                              4,5,6,7: SAME AS 0,1... AND ON ERROR
    DIRECTION .............    : *            T:TRANSMIT R:RECEIVE *:TRANS./REC.
    RECEIVING PARTNER .....    : *            'NAME', £LIST, */$$ALL$$ OR $$API$$
    SENDING PARTNER .......    : *            'NAME', £LIST, */$$ALL$$ OR $$API$$

    PRIORITY ..............    : 1            0:URGENT 1:FAST 2:NORMAL 3:SLOW
    DSN DEFINITION TYPE ...    : D            D:DYNAMIC F:FIXED
    ALLOCATION RULE .......    : 2            0:CREATE/REPLACE 1:PREALL. 2:CREATE
                                              3:EXIT A:APPLICATION SERVER
    FILE TYPE .............    : TU           S/H/M/P/PU/V/VU/UU/SU/TU/HU
    PRESENTATION ..........    : 01           COMPRESS.,DATA TYPE (01-24)
    UNLOAD/RELOAD MEMBER ..    : £F1TU        OPTIONNAL
    SECURITY TABLE ........    : -            OPTIONNAL

    OPTION  : VIEW                            UPDATE: 07/10/10 06:28 PSR0008
    -ENTER- : NEXT SCREEN                     -PF3- : CANCEL
```

If the FILE TYPE field is equal to TU or HU , an unload/reload member is required in the SYSPRM directory, however the field UNLOAD/RELOAD MEMBER is not required. The name of the unload/reload member can be defined in the JCL if it is unique for all file transfers. If you define the member in the FILES ATTRIBUTES screen, pressing the ENTER key edits the member. The name of the member must follow syntax rules described in *Unload/Reload Member Name Syntax* on page 2-36.

```
    File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
   -tyl-------------------------------------------------------------------------
   EDIT       INDEX.TOM4230.SYSPRM(£F1TU) - 01.10           Columns 00001 00072
   Command ===>                                              Scroll ===> CSR
   ****** **************************** Top of Data *****************************
   000001 *TRANSLATION BY EDCICONV WITH 'FROM'/'TO' 'TO'/'FROM, DEPENDING ON DIR
   000002 *SEND    ---------->
   000003 *RECEIVE <----------
   000004 *23456789012 123456789012
   000005 IBM-1047    ISO8859-1
   000006 *
   ****** *************************** Bottom of Data ***************************
```

The above example shows parameters for transcoding from codeset IBM-1047 (EBCDIC) to codeset ISO8859-1 (ASCII) when sending the file, and the reverse when receiving the file. Member name £F1TU is given as a parameter to the job built from files $JOBREL5+$RELOAD5 or $JOBUNL5+$UNLOAD5, according to the standard unload/reload process of Connect:Express.

```
EDIT       INDEX.TOM4230.SYSJCL($JOBREL5) - 01.04        Columns 00001 00072
 Command ===>                                            Scroll ===> CSR
 ****** **************************** Top of Data *****************************
 000001 //PSRRT5$$ JOB      (532,AINF),06497Z.UGB.PSR,
 000002 //         COND=(0,NE),
 000003 //         MSGCLASS=Q       CLASS=Q,
 000004 //*----------------------------------------------------------------
 000005 /*JOBPARM SYSAFF=
 000006 //*----------------------------------------------------------------
 000007 //*        JCL FOR RELOAD SEQUENTIAL DATASET AS EDCICONV
 000008 //*----------------------------------------------------------------
 000009 //JOBLIB   DD      DSN= INDEX.TOM4230.LOADLIB,DISP=SHR
 ****** *************************** Bottom of Data ***************************
```

```
EDIT       INDEX.TOM4230.SYSJCL($RELOAD5) - 01.08        Columns 00001 00072
 Command ===>                                            Scroll ===> CSR
 ****** **************************** Top of Data *****************************
 000001 //ETAPE001 EXEC     PGM=P1B2P500,REGION=0M,
 000002 //         PARM='EDCICONV,DTSM,F,SYMBNAME,REQNUMBR,SYSPRMMB'
 000003 //*STEPLIB  DD DSNAME=CEE.SCEERUN,DISP=SHR        <==IF NEEDED
 000004 //*----------------------------------------------------------------
 000005 //* USES IBM EDCICONV UTILITY, PARM=('FROMCODE(&FROMC),TOCODE(&TOC)')
 000006 //* TITLE: Z/OS V1R6.0 C/C++ USER'S GUIDE, DOCUMENT NUMBER: SC09-4767
 000007 //*----------------------------------------------------------------
 000008 //* *SYSPRM* IS MANDATORY FOR EDCICONV TO FIND PAGE CODES.
 000009 //*SYSPRM  DD  DISP=SHR,DSN=YOUR.FIXED.DSN(MEMBER)    IF ONLY ONE MEMBER,
 000010 //* ELSE USE EXACTLY THE FOLLOWING FORMAT FOR DYNAMIC MONITOR UPDATE :
 000011 //*
 000012 //SYSPRM   DD   DUMMY
 000013 //*
 000014 //I5           DD   DSN=
 000015 //             DISP=SHR
 000016 //* HFS        DD  PATH=
 000017 //*      PATHOPTS=(ORDONLY)
 000018 //*
 000019 //O5           DD   DSN=
 000020 //             DISP=OLD
 000021 //* HFS        DD  PATH=
 000022 //*      PATHOPTS=(OWRONLY,OCREAT),PATHMODE=(SIRWXU,SIRWXG,SIROTH)
 000023 //*
 000024 //SYSPRINT DD SYSOUT=*
```

Unload/Reload Member Name Syntax

Some code sets (UCS-2 for example) need several bytes to represent one single character. In this case the structure of the file is changed: the record length and the file size may double or even triple. Connect:Express uses the name of the unload/reload member to determine if it needs to compute a new structure for the file.

Normally, the member name must start with £ or #, with no numeric character in position 2. In the specific cases mentioned above, the multiplication or division factor is indicated by one or two mumeric characters at positions 2 and 3: £m….. indicates that Connect:Express must multiply by *m* when sending, and divide by *m*

when receiving. £0d… indicates that Connect:Express must divide by *d* when sending, and multiply by *d* when receiving.

Normal: No Factor	Multiplication Local/Remote	Division Local/Remote
£MEMBER	£2MEMBER	£02MEMB

For example, using code sets IBM-1047 (EBCDIC) and UCS2, should be configured in a member which name starts with *£2* if the local EBCDIC file is sent or received as an UCS2 file, and by *£02* if the local UCS2 file is sent or received as an EBCDIC file.

Specifics for HFS Files

HFS files are processed like MVS sequential files, but in a UNIX environment.

Unload/reload processing uses work files. You must indicate to Connect:Express where to allocate these temporary files. For HFS files, the path is indicated by a parameter in the Sysin file, called HFSDIR, that corresponds to the MAJIND parameter used for QSAM files.

```
HFSDIR=/u/paris/cexpress/work/
MAJIND=INDEX1.INDEX2
```

The EDCICONV utility executes under the same UNIX ID as Connect:Express: you must allocate enough memory to this account. Memory amount depends on the size of the files to process.

Using Long File Names

You can use environment variables to extend the length of local and remote physical file names names up to 256 characters. See Appendix B "*Using Environment Variables"* .

The example below shows how you can define long file names: the field *Dsn local* displays <mypathname>&REQNUMB, with the environment variable <mypathname>, that is defined in the ENVVAR file. The field *Remote dsn/Pi99* displays <yourpathname>&PARTNID, with the environment variable <yourpathname>, that is defined in the ENVVAR file.

Depending on the protocol, the remote file name will be extended before sending it in the appropriate field.

The first screen of the Files Directory Management shows the name of the ENVVAR file allocated to the monitor. You can change this name in the screen, for example if you want to retreive a variable definition from a previous environment.

Use option VAR to display the extension of the variable. Place the cursor on the field you want to extend. The default, if you enter VAR command without placing the cursor, is *Dsn local.*

```
TOM4230--------------- FILES ATTRIBUTES (3/5) ------------------------------
 OPTION ===>

 SYMBOLIC NAME             : F1HFS        DEF.: D  ALL.: 0  TYPE: H  DIR.: *
                                          SDB: Y
 Dsn local  ............ ===> <mypath>/&REQNUMB
 GDG NUMBER ............ ---- -             +XX OR -XX
 1 SYMBOLIC UNIT NAME .. ---- -             'UNITNAME'
   VOLUME NAMES ........ ---- -         -        -         -         -
 2 SMS DATA-STOR-MGMT .. ---- -                  -                   -
 DISPOSITION ........... ===> NEW          SHR/OLD/NEW

 ALLOCATION TYPE ....... ---- -            CYL/TRK UB/KB/MB(?BYTES-SMSSDB)
 SPACE PRIM.-SEC. ...... ---- -     -      1 TO 4 NUMERIC CHARACTERS
 DIRECTORY BLOCKS ..... ---- -             IF PARTITIONED
 RECORD FORMAT ......... ===> -            F,FB,FBA,FBM,V,VB,VBA,VBM,VBS,VS,U
 LRECL-BLKSIZE ......... ===> -     -      1 TO 5 NUMERIC CHARACTERS
 RETENTION (EXPDT/RETPD) ---- -            X'CCYYDDD',E'YYDDD'/R'NNNN'
 PERMISSION (HFS)       ===> 7  7  7       User(1-7) Group(1-7) Other(1-7)
 Remote dsn/Pi99 ....... ===> <yourpath>/&&REQNUMB
 TYPE/STRUCTURE/MODE FTP ===> I   -  -     EN/AN/I,F/R,B/C/S
 UNIQUE ............ FTP ===> N            Yes/No
 NOTE ===> -
```

.

```
TOM4230     RESOLUTION OF ENVIRONMENT VARIABLES
OPTION ===>                    -ENTER-PF3- END


     TOM3 JOBTOM3  CSGB  ACTIVE   GLOBAL     2009/04/01 09:08:24
     ENVVAR:  INDEX1.TOM4.PARMLIB(ENVVAR)
     =================================================================
     <mypathname>/&REQNUMB
     /u/paris/usr0008/cexpress/Applicationfiles/Receive/&REQNUMB
```

Viewing a File Definition

1. From the Main Menu, type 1.2 in the option field and press <Enter>
   OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
   The File Attributes 1/5 screen is displayed.

2. Enter the symbolic File name in the File field.

3. Type V in the option field and press <Enter>.

4. Press <Enter> to advance through the File definition screens. Refer to Adding a File Definition for field descriptions.

Updating a File Definition

1. From the Main Menu, type 1.2 in the option field and press <Enter>
    OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
    The File Attributes 1/5 screen is displayed.

2. Enter the symbolic File name in the File field.

3. Type U in the option field and press <Enter>.

4. Press <Enter> to advance through the File definition screens and make any necessary changes. Refer to Adding a File Definition for field descriptions.

Note: The ISPF message VSAM: OK TABLE: OK indicates that the modification is active in both directory (file) and table (storage). If TABLE: NOK, then the modification is not active in the monitor until a new update is done, or Connect:Express is restarted.

Deleting a File Definition

1. From the Main Menu, type 1.2 in the option field and press <Enter>
    OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
    The File Attributes 1/5 screen is displayed.

2. Enter the symbolic File name in the File field.

3. Type D in the option field and press <Enter>. The Files Attributes 2/5 screen is displayed.

4. Press <Enter> to go to the next screen.

5. When the confirmation screen displays, press <Enter> to confirm the deletion.

Listing Files Definitions

1. From the Main Menu, type 1.2 in the option field and press <Enter>
    OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
    The File Attributes 1/5 screen is displayed.

2. Type L in the option field and press <Enter>. Connect:Express displays a list of files in a table format.

```
 Menu   Utilities   Compilers   Help
 ------------------------------------------------------------------------------
 BROWSE     USR0008.C2B2P213.FILES                    Line 00000000 Col 001 080
 Command ===>                                              Scroll ===> CSR
 ****************************** Top of Data *********************************
 USR0008  01/11/22 04:34    TOM4 SYSA INDEX1.TOM4.SYSFIL
 FILE     ! S D P TRANS.    REC.     D A T  PP DSN
 ------------------------------------------------------------------------------
  F1      ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&FILENAM.&REQDAT.&REQTIM.&
 $$F1     ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&FILENAM.&REQDAT.&REQTIM.&
 $APPLIC  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  01 USR$REC.PS.F080.SHORT
 $BENCMPH ! E * 1 $$ALL$$  $$ALL$$  D 2 S  02 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENCMPM ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENCMPV ! E * 1 $$ALL$$  $$ALL$$  D 2 S  03 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENCMP0 ! E * 1 $$ALL$$  $$ALL$$  D 2 S  01 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENS01  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENS02  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENS20  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  01 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENS21  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  01 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $BENS22  ! E * 1 $$ALL$$  $$ALL$$  D 2 S  01 USR$TST.&PARTNID.&FILENAM.&REQDAT.
 $CLIST   ! E * 1 $$ALL$$  $$ALL$$  D 2 S  02 USR$TST.&PARTNID.&REQNUMB.&REQTIM
 $Connect ! E * 1 $$ALL$$  $$ALL$$  D A S  04 -
 $F08     ! E * 1 $$ALL$$  $$ALL$$  D 2 S  02 USR$TST.&PARTNID.&REQNUMB.&REQTIM
 $F1      ! E * 1 $$ALL$$  $$ALL$$  D 2 S  04 USR$TST.&FILENAM.&REQDAT.&REQTIM.&
```

Printing Files Definitions

1. From the Main Menu, type 1.2 in the option field and press <Enter>
   OR enter the jump command FIL in the option field on any Connect:Express screen and press <Enter>.
   The File Attributes 1/5 screen is displayed.

2. Type P in the option field and press <Enter>. A print file is displayed on screen.

Transfer Requests

This chapter discusses the five types of TSO/ISPF transfer requests and batch requests. It also discusses the purge request utility.

Overview

In Connect:Express, you can enter batch requests or use the TSO/ISPF interface to create transfer requests. With the TSO/ISPF interface, you can create normal requests for a sequential, VSAM, or partitioned file. You can also create transfer requests with member selection, SYSOUT selection, or by index. For batch requests, Connect:Express provides the following four utilities to help you create transfer requests:

❖   P1B2P101–Batch transfers using the French PeSIT protocol

❖   P1B2PREQ–Batch transfers based on the PARM=parameters of the EXEC statement

❖   P1B2PRQ2–Batch transfers using a command file

❖   P1B2PRQ3–Batch transfers for index transmission

Note: You can restrict requests using the Access Control facility (TSO/ISPF 3.3 ACS). This is discussed in Chapter 5.

Transfer Requests

From the Transfer Requests screen, you can create the following types of transfer requests in Connect:Express:

❖   Normal transfer requests

❖   PDS member transfer requests

❖   SYSOUT transfer requests

❖   Index transfer requests

❖   Ad hoc transfer requests

To access the Transfer Requests screen, type 4 in the option field on the Main Menu and press <Enter>.

```
  TOM4230------------------ TRANSFER REQUESTS ------------------------------ -
   OPTION ===>


            _ 1  N  NORMAL    NORMAL TRANSFER AND EXTENSION (API/...)
            _ 2  M  MEMBER    TRANSFER WITH MEMBERS SELECTION.
            _ 3  S  SYSOUT    TRANSFER WITH SYSOUTS SELECTION.
            _ 4  I  INDEX     TRANSFER BY INDEX.
            _ 5  A  AD-HOC    TRANSFER AD-HOC.
            _ 6  T  TABLE     TRANSFER BY TABLES.










            X EXIT, -PF3- END
```

The following table describes the options on the Transfer Requests screen.

Option	Description
Normal	The typical way of requesting a transfer. With normal requests, you can: • Provide extended parameters for applicable information about origin and destination, identification of transfer, and other extra parameters. • Select members for UNLOADED PDS files. • Create the sequential file to be transmitted online using the MSG option. • Update the sequential file to be transmitted online using the EDIT option. • Transfer a group of files with a command file (UNLOADED USER file) using the CMD option.
PDS members	Enables you to select members to be unloaded and sent from a PDS file: • Using the name of a selection list. • Providing the names of the members. • Selecting the members from the list.
SYSOUTS	Enables you to transfer SYSOUT files • Giving the SYSOUT references • Selecting the SYSOUT from ISF/SDSF
INDEX	Enables you to select a number of data sets to be transferred to one Partner. With this option, you can: • Send all • Select those wanted • Exclude those not wanted
AD HOC	Enables you to manage your own files from a remote system. This function includes system security features and allocation rules.
TABLE	Enables you to store recurring transfer requests.

Entering Normal Transfer Requests

Normal transfer requests enable you to:

❖ Provide extended parameters for sending applicable information, including lower case characters

❖ Select members for unloaded PDS files

❖ Create sequential files online

❖ Update sequential files online

❖ Transfer a group of files with a command file.

To enter a normal transfer request, complete the following steps:

1. From the Main Menu, type 4.1 in the option field and press <Enter>
   OR enter the jump command RQ1 in the option field on any screen in Connect:Express and press <Enter>.
   The Normal Transfer screen is displayed.

```
 TOM4230     NORMAL TRANSFER
 OPTION ===>                                                 SYSA


 SUB-SYSTEM . ===> TOM4
 NOTIFICATION ===>           (0-7/*)
 FILE ....... ===> FILETEST
 DIRECTION .. ---> T          (T/R)
 PARTNER .... ---> OS390

 DSNAME ....  ---> INDEX2.PS.F080.SHORT


 TYPE ....... ---> N          (N/H/I/K/U)
 MODE ....... ---> I          (I/D)
 LINK ....... ---> I          ( /C/I/S/T/X)
 CLASS ...... ---> *          (A-Z/*)
 PRIORITY ... ---> 1          (0-3)
 MEMBER ..... --->            (BFX)
 CHECKING ... ---> YES        (YES/NO)
 EXTENSION .. ---> YES        (YES/NO) ALIAS/ORG/DST/API-ETB3/SEC/RGR.
 NOTE->
           X EXIT, -ENTER- REQUEST, -PF1- HELP TRC, -PF3- END
```

2. Enter transfer information as described in the following table and press <Enter>.

Field	Description
OPTION	The following commands are valid: E - Clear fields R - Repeat previous request fields. The parameters are recorded in your ISPF user profile. RR - Permanent repeat: current parameters are permanently displayed. EDIT - Edits the file defined in the DSNAME field so you can update it before sending it. MSG - Creates a temporary message file that you can update before sending. This message is a pre-formatted file created by a REXX macro called M2B2PMSG. An example is provided in the *ISPCLIB* library. CMD - Creates a command file as described in the MSG option. This is a header file that is sent with a list of files matching the index you provide in the DSNAME filed. This index must be in the form A.B.* For example, A.* or A.B.C.* The file must be defined in the Files directory as a USER UNLOAD.
SUB-SYSTEM	Required. This is the local subsystem name for Connect:Express.

Field	Description

NOTIFICATION	Optional. This indicates the type of notification to implement. If this field is omitted, the type of notification will be the one defined in the Files directory.
	   0 – No notification
	   1) – Notification at initialization of transfer
	   2) – Notification at end of transfer
	   4) – Notification on error
	   Any logical combinaion of 1, 2 and 4 as shown in the examples below:
	   3 – Notification at initialization and end of transfer (1+2)
	   6) – Notification at end of transfer and on error (2+4
	   7) – Notification at initialization and end of transfer, and on error (1+2+4)
	   Refer to the Notification Implementation Guide.

FILE	Required. This must be specified in the Files directory.
DIRECTION	Direction of transfer. This field must match the direction field of the file definition in the directory. If the transfer direction is fixed for this symbolic file (Direction set to 'T' – Transmission or 'R' – Receive in the file definition), the request direction field must have the same value or be omitted.

PARTNER	This field can be a symbolic Partner name or the name given to a list of symbolic Partners in the form £xxxx. If you indicate a list of Partners, each Partner is verified in the directory and one request is created for each Partner.
	
	The Partner field must match the combination of Partner and direction fields from the File definition in the directory. If the Partner name is fixed for the transfer direction indicated in the direction field, the request Partner field must have the same value or be omitted.
	If the File definition describes the File as exchanged with a list of Partners, the request Partner (or any Partner in the list) must be included in the Partner list indicated in the File definition. Examples:
	  1. If the File is defined for transmission to PART1, the request must be transmitted to PART1. If you don't indicate the direction and Partner, these two values are taken from the File definition.
	  2. If the File is defined for both directions, transmission with £LISTPART and reception from PART2, you must indicate the direction, T or R, in the request field and in each case make the Partner field match the File definition restrictions. When the request is made for transmission, the Partner must be either a list included in the £LISTPART list, or one Partner on the list, or the £LISTPART itself. In this case, the list name can be omitted. When the request is made for reception, the name of the Partner must be PART2 or can be omitted.
	  3. If the File is defined for both directions with any Partner, you must indicate the direction and the Partner.

DSNAME	This field can be entered if the type of definition in the Files directory enables this (option D), otherwise the field must be blank. You can use symbolic variables and environment variables in this field Note: The online help provides a list of available symbolic variables. Press <PF1> and type VS in the Option field to see this list.
TYPE	The following types of requests are valid: N - Normal request that executes as soon as possible H - Request to hold the transfer until a Partner requests the transfer. This parameter applies only when sending a File. I - Initiate or request a transfer that was previously held. This parameter applies only when receiving a File that was held on the transmitter end. K -Keep type request for RJE transfers only. The request is not purged at the end of the transfer. This will be done by a manual or automatic process implemented by the user. U - Unchained type request for a transfer which is to be done during a single session. See Using the Request Type Field on page 3-7.

Field	Description
MODE	Valid modes include: I - Immediate request, initial status 'in-service' D - Deferred request, initial status 'out-service'. This request could be enabled afterwards with the 'enable' local command. The TYPE cannot be 'H' for a deferred request.
LINK	The link type. Optional. This must be one of the link types defined for the Partner. If the definition is mixed, it is possible to select the one which will be the first used to connect to the Partner. If blank, the list is found in the Partner definition. The following values are valid: C - LU6-2 I - TCP/IP S - SNA application to application T - 3270 X - X.25
CLASS	The transfer class default is any (*).
MEMBER	Specifies the member list for a partitioned data set transfer (file type = PU).
PRIORITY	Optional. If this field is omitted, the level of priority will be the one defined in the Files directory. The following values are valid: 0 - Urgent 1 - Fast 2 - Normal 3 - Slow
CHECKING	If yes, the parameters are sent to the monitor for checking, then merging parameters from your request, the File, and Partner definitions must fulfill the requested parameter list for a valid transfer request. Full transfer details are returned by the active monitor, and confirmation of the transfer is requested. Parameters from the directories are shown on the confirmation Screen.
EXTENSION	If yes, then the Transfer Extension screen is displayed and you can enter applicable information here. Fields in mixed case letters can be filled in with lower case characters. See Note 1 on the following screen.

```
   TOM4230        TRANSFER EXTENSION                    NAMES INITIALIZED   !
    OPTION ===>                                                   SYSA

    400-DEV-TSOA

    SUB-SYSTEM .  :   TOM4
    FILE .......  :   FILETEST                               ENABLED
    DIRECTION ..  :   T         (T/R)           <- *
    PARTNER ....  :   OS390                     <- $$ALL$$  52        ENABLED
    DSN LOCAL ..  :   INDEX2.PS.F080.SHORT                   DYNAMIC
          <-       PSR$TST.&PARTNID.&REQNUMB.&EXTNUMB      -   SEQUENTIAL
    Rdsn/Pi99 --->                              < *1
                <- -
    TYPE T/S/M ..---> '' ---> '  ---> '  <- -  - -   STOU ---> -    <- -
    RACF-GROUP . ---> MYGROUP                ('VALUE'/'BLANK')
    Org.-dest. . ---> MYAPPLI    < ---> YOURS     < *1
    AND ONLY IF TOM IS UP :
    SSL CONFIG.  ---> ''                     ('VALUE'/'BLANK')
    Alias id/psw. . ---> MYALIAS    < --->         < *1
    V----- S : DETAIL
    S' Api ....  ---> '''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
    '''''''''''''''''''<                          *1  ('VALUE'/'value'/'BLANK')
             X EXIT, -ENTER- CONFIRM, -PF1- HELP TRC, -PF3- PREVIOUS
```

3.   When the Extension field is Yes, the Transfer Extension screen displays. Note that parameters from the previous screen are shown in the upper part of this screen. Enter any additional information in the Transfer Extension screen, as described in the following two tables:

Field	Description
Rdsn/Pi99	This field can contain lower case characters. Used for FTP, PeSIT, and ODETTE transfers. For ODETTE transmissions, this information is sent in the ODETTE file name which has 26 characters. For PeSIT transfers, this field is sent in the PeSiT Pi99 field. For FTP transfers in Client mode, this field is sent with the store or retrieve commands. You can use symbolic variables and environment variables in this field. Refer to Chapter 2 , "Using Long File Names" on page 37. Note: The online help provides a list of available symbolic variables. Press <PF1> and type VS in the Option field to display the list.
Type T/S/M	The first field (TYPE) is used for HFS files. 'EN' or 'AN' are specified for an EBCIDC or ASCII TEXT file. 'I' is specified for a Binary file. The other two fields are used for FTP. Refer to the FTP Guide for more information.
STOU	Used for FTP transfers. Refer to the FTP Guide for more information.
RACF-GROUP	This parameter enables you to perform the request with a specific RACF Group. Default is the requestors RACF group.
Org-Dest (ORIGIN)	This field can contain lower case characters. The name of the entity that is sending the data. It is considered the REQUESTOR on the remote side.
Org-Dest (DESTINATION)	This field can contain lower case characters. The name of the entity that is receiving the data.

The next parameters are not valid if you make the request when Connect:Express is not running. This is because the recovery file record (SYSRCY) does not include these fields.

Field	Description
SSL CONFIG.	Indicates the SSL configuration file to be used. Refer to the SSL Guide for detailed information on how to use SSL profiles. SSL security is only available with PeSIT and ODETTE protocols. You can access SSLCFG files with the TSO/ISPF option 0, ANMSSL file.
Alias id/psw	These fields can contain lower case characters. The name and the password of the local computer as defined on the Partner side. These fields override the ALIAS id and password, if any, in the Partners directory entry and the SYSIN DPCSID and DPCPSW.
Api	This field can contain lower case characters. This field is used to send application information with the file. It can be sent in different protocol fields according to the syntax used. The first syntax identifies the file from an application viewpoint and is mapped by the D1B2RAPI structure in the *MACLIB*. If API is selected, the API formatting screen is displayed. The fields on this screen are determined by the transfer protocol used by this Partner. Two other syntaxes are used with the PeSIT protocol. You can specify "U:user data." The user data is carried in a protocol unit, called Pi37 or *label*. The value is processed on the receiver side by the keyword &EXTLAB. You can specify "P:user data." The user data is carried in a protocol unit, called Pi99 or 'User data field'. The value is processed on the receiver side by the keyword &PI99. **Note**: The online help provides a list of available symbolic variables. Press <PF1> and type VS in the Option field to display the list.

If you select API on the Transfer Extension screen, the Formatting screen is displayed. The following screens show the Formatting API, PESIT-E screen and the Formatting API, Odette screens. You can define the ETEBAC3 card on this screen.

Formatting the Application Program Interface (API), PESIT-E Screen

```
   TOM4230     FORMATTING API, PESIT-E
   OPTION ===>                                                       SYSA


   1/ USER ZONE OF 80 CHARACTERS, ALREADY PREFIXED BY "U:" :
   PI37 ---> '''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
'''''''''''

   2/ STANDARD API ZONE OF 82 CHARACTERS :
   PI61 ---> MYAPPLINAME              ORIGIN

   PI62 ---> YOURAPPLINAME            DESTINATION

   PI11 ---> 000000000000000A         TYPE (PESIT:HEXA)
        ---> 10800000                      (ETEBAC5:CHAR.)

   PI12 ---> MYFILE                   NAME

   PI51 ---> 001013182000             DATE-TIME



            X EXIT, -ENTER- GO ON, -PF1- HELP, -PF3- BACK
```

Formatting the Application Program Interface (API), ODETTE Screen

```
   TOM4230     FORMATTING API, ODETTE
   OPTION ===>                                                       SYSA



   ORIGIN:
   INTERNATIONAL CODE...  ---> 0001             NUMERIC (0001:9999)
   ORGANIZATION CODE....  ---> MY ORGANIZATION  ALPHANUM
   SUB ADDRESS..........  ---> 000001           NUMERIC (000000:999999)

   DESTINATION:
   INTERNATIONAL CODE...  ---> 0001             NUMERIC (0001:9999)
   ORGANIZATION CODE....  ---> REMOTE ORG       ALPHANUM
   SUB ADDRESS..........  ---> 000001           NUMERIC (000000:999999)

   FILE.................  ---> F1ODT

   DATE.................  ---> 010412
   TIME.................  ---> 100000



            X EXIT, -ENTER- GO ON, -PF1- HELP, -PF3- BACK
```

If the Keyword DSN is typed in the FILE field, it is replaced by the first 26 characters of the physical file name. This parameter is sent in the ODETTE file identification field.

If the Keyword $DATE$ is typed in the DATE field, it is replaced by the current date at the beginning of transfer. If the Keyword $TIME$ is typed in the TIME field, it is replaced by the current time at the beginning of transfer.

Using the Request Type Field

When creating transfer requests, it is important to consider the relationship between Partners according to request type. The following table shows the possible direction/type combinations between two Partners.

Partner 1			Partner 2	
Dir	Type	Note	Dir	Type
T	N		No Request	
R	N	Partner must be Connect:Express	No Request	
T†	H	Partner 2 is initiator –Mandatory with non-Connect:Express Partners	R	I
R	H	Forbidden		
T	I	Forbidden		
R‡	I	Mandatory with non-Connect:Express Partners	T	H
T	K	Request kept (RJE)	RJE Station	
R	K	Request kept (RJE)	RJE Station	
T	U	No request chained at end of transfer, even if another transfer is waiting for this logical connections	No Request	
R	U	No request chained at end of transfer, even if another transfer is waiting for this logical connections	No Request	

† Shows **T**ransmission request, type=**H**old assumes the remote Partner will call input (initiator) for **R**eception, type=**I**nquiry.

‡ Shows **R**eception request, type=**I**nquiry assumes the remote Partner has prepared a **T**ransmission request, type=**H**old.

Entering PDS Member Transfer Requests

You can transfer selected members from a PDS file with the unload/reload process. To do this, you must declare a file type PU in the directory, and then define a selection member in the *SYSPRM* library. You can either declare this selection member in the File definition or create a selection member at the time of the transfer request. The selection member can be a temporary file (its name is generated by Connect:Express) or kept in the SYSPRM directory where the user can name the file. You can also update the selection member through the File definition update process or at the time of the transfer request.

The TRANSFER OF PDS BY MEMBERS screen enables the user to update a member in the SYSPRM parameter file or to create a new specific member. In addition, you can either edit the selection member from the SYSPRM file, or select the members from a list on screen. In this case, the selection member is created or replaced in the *SYSPRM* library.

To transfer members from a PDS file, complete the following steps:

1. From the Main Menu, type 4.2 in the option field and press <Enter>
   OR enter the jump command RQ2 in the option field on any screen in Connect:Express and press <Enter>.
   The Transfer of PDS by Members screen is displayed.

```
 TOM4230     TRANSFER OF PDS BY MEMBERS 1/3
 OPTION ===>                                                   SYSA

 SUB-SYSTEM . ===> TOM4
 NOTIFICATION ===>          (0-7/*)
 FILE ....... ===> PDSMEM
 DIRECTION .. ---> T        (T)
 PARTNER .... ---> OS390

 DSNAME PDS   ---> INDEX2.PO.F080.SHORT

 TYPE ....... ---> N        (N/H/I/K/U)
 MODE ....... ---> I        (I/D)
 LINK ....... ---> I        ( /C/I/S/T/X)
 CLASS ...... ---> *        (A-Z/*)
 PRIORITY ... ---> 1        (0-3)
 CHECKING ... ---> YES      (YES/NO)
 NOTE->

           X EXIT, -ENTER- REQUEST, -PF1- HELP TRC, -PF3- END
```

2. Enter transfer information as you would for a normal transfer request and press <Enter>.

```
 TOM4230     TRANSFER OF PDS BY MEMBERS 2/3           E:CLEAR,R:REPEAT    !
 OPTION ===>
 SYSPRM: PSR£DEV.TOM3.SYSPRM(RK061434) ?



 SUB-SYSTEM . : TOM4          SYSA          ACTIVE            GLOBAL
 FILE ....... : PDSMEM                                        ENABLED
 DIRECTION .. : T                           *
 PARTNER .... : OS390                       $$ALL$$           ENABLED
 DSNAME ..... : INDEX2.PDS.F080.SHORT                         DYNAMIC
               INDEX2.&FILENAM.&REQNUMB.&REQDAT.&REQTIM        PARTITIONED

 PARAMETER DSN TO BE USED ... ===> INDEX1.TOM4.SYSPRM'''''''''''''''''''''''
  AND HIS SELECTION MEMBER .. ===> PDSUMEM                     -

 SELECTION BY MEMBERS LIST ... ===> YES
 OR SPECIFIC MEMBERS TO SELECT --->
 ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''
 ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''
 ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''
 ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''  ''''''''
           X EXIT, -ENTER- CONFIRM, -PF3- CANCEL
```

Note: A random name is generated for this selection member in the form 'Rdhhmmss,' where d is the day modulo 10, hh:hour, mm:minutes, and ss:seconds. You can automatically delete this random name once the unload is complete to avoid filling up the *SYSPRM* file. See comment in *SYSJCL* $UNLOAD1. You can also replace the system-generated name with your own name.

3. Enter members to be transferred, either by entering the name or by selecting them from a list. This screen formats the names in the following SYSPRM selection member format:

```
Select M=FILE1
Select M=FILE2
```

The list of members from the PDS file to unload can be displayed using the following:

```
SELECTION BY MEMBER LIST = YES
```

TRANSFER OF PDS BY MEMBERS (3/3) Screen

```
 TOM4230     PDS TRANSFER 3/3, INDEX2.PDS.F080.SHORT              ENTRY 1:5
 OPTION ===>                                                     PAGE -> PAGE

 TOM4        ^-< 'COMMANDS'    -PF3- END      -PF7/8- SCROWL

 -------------< S SELECT, B BROWSE
 !                NO SELECT : WHOLE PDS.
 ! MEMBER
 V
 _ MEGA1
 _ MEMBER1
 _ MEMBER2
 _ MEMBER3
 _ TYL1
 *** END OF LIST
```

Note: If no members are selected, the entire PDS is transferred.

If the SELECTION BY MEMBER LIST option is 'NO,' the table must be used for giving selected members names. If the selection member already exists in the SYSPRM file, a warning message is displayed. You can either change the name or confirm the replacement.

If 'CHECKING=YES,' these 2 screens are displayed again for confirmation, before the request is issued.

Entering SYSOUT Transfer Requests

To enter a SYSOUT transfer request, complete the following steps:

1. From the Main Menu, type 4.3 in the option field and press <Enter>
    OR enter the jump command RQ3 in the option field on any screen in Connect:Express and press <Enter>.
    The SYSOUT Transfer 1/2 screen is displayed.

```
 TOM4230    SYSOUT TRANSFER 1/2
 OPTION ===>                                                    SYSA


 SUB-SYSTEM . ===> TOM4
 NOTIFICATION ===>          (0-7/*)
 FILE ....... ===> FILETEST
 DIRECTION .. ---> T        (T/R)
 PARTNER .... ---> OS390

 DSNAME ....   :


 TYPE ....... ---> N        (N/H/I/K/U)
 MODE ....... ---> I        (I/D)
 LINK ....... ---> I        ( /C/I/S/T/X)
 CLASS ...... ---> *        (A-Z/*)
 PRIORITY ... ---> 1        (0-3)
 CHECKING ... ---> YES      (YES/NO)
 NOTE->

           X EXIT, -ENTER- REQUEST, -PF1- HELP TRC, -PF3- END
```

Note: The checking option is used for browsing and editing the file before sending it. Also note that the DSNAME field is disabled. The data set name is computed automatically from the user name, date, and time.

2. Enter transfer information as you would for a normal transfer and press <Enter>. The SYSOUT Transfer 2/2 screen is displayed.

```
 TOM4230     SYSOUT TRANSFER 2/2                    NAMES INITIALIZED    !
 OPTION ===>


'Operator message if any from the Sysin file or a modify command'

              VIA 'OUTPUT' COMMAND :
         L  - LIST OF JOBNAMES/ID'S
         T  - TRANSFER AND DELETE OF SYSOUT
         K  - TRANSFER AND KEEP OF SYSOUT
              SYSOUT IN JES : NAME   ===> JOB2L072
                             NUMBER ---> J123       (J744...T14...S2047)

              VIA 'ISF/SDSF' MENUS :
         TI - SELECTION, THEN 'PRT' OF SYSOUT(S) AND -PF3-

 SUB-SYSTEM . : TOM4          SYSA         ACTIVE            GLOBAL
 FILE ....... : FILETEST                                    ENABLED
 DIRECTION .. : T                          *
 PARTNER .... : OS390                      $$ALL$$          ENABLED
 DSNAME ..... : USR8.D001120.H061542                        DYNAMIC
               INDEX2.&PARTNID.&REQNUMB.&REQTIM              SEQUENTIAL

         X   EXIT, -ENTER- REQUEST, -PF3- END
```

3. Use the OUTPUT Command or the ISF/SDSF menus to execute the transfer. The ISF/SDSF method is more common for JES2 users. The OUTPUT Command requires special authority. The table below describes the steps required for each method.

Method	Steps
Output Command	Enter the job name in the Name field. Type L in the Option field to display a list of SYSOUT files that have this job name. If several SYSOUT files have the same name you may need to enter the file number. Select the file to transfer and press <Enter>.
ISF/SDSF Menus	Enter TI in the option field and press <Enter>. The SDSF Primary Option menu displays. Note that PRINT is open. Select the SDSF queue. Select the SYSOUT file that you want to send. Enter PRT in the command line. The number of lines printed is shown. Press <PF3> to return to the SYSOUT transfer screen.

4. If Checking is YES, you will automatically browse the file, and have an option to edit the file. Press <PF3> to exit out of the file.

5. When you are prompted to delete the work file after the transfer has successfully ended, enter Yes or No. Connect:Express returns to the SYSOUT Transfer 1/2 screen

Note: For SAM (EDS) users, you can set parameters in Connect:Express to use SAM (EDS), and refer to the SPIN command of SAM, and then transfer like a sequential file. These parameters are set when you initialize the ISPF session (option 0 on the Main Menu).

Entering Index Transfer Requests

In Connect:Express, you can initiate transfers by index. To do this, you must enter the index in the DSNAME INDEX field. The index name can be three levels deep, but cannot contain variables or special characters such as * or +.

Complete the following steps to enter index transfer requests:

1. From the Main Menu, type 4.4 in the option field and press <Enter>
    OR enter the jump command RQ4 in the option field on any screen and press <Enter>. The Transfers by Index 1/3 screen is displayed.

```
   TOM4230     TRANSFERS BY INDEX 1/3
   OPTION ===>                                                          SYSA


   SUB-SYSTEM . ===> TOM4      SYSA              ACTIVE           GLOBAL
   NOTIFICATION ===>           (0-7/*)
   FILE ....... ===> FILETEST                                    ENABLED
   DIRECTION .. ---> T         (T/R)             <- *
   PARTNER .... ---> OS390                        <- $$ALL$$     ENABLED

   DSNAME INDEX ===> INDEX2                                      DYNAMIC
               <- INDEX2.&PARTNID.&REQNUMB.&REQTIM        -      SEQUENTIAL
   DSNAME TYPE  --->            (' '/S/P/V)

   TYPE ....... ---> N         (N/H/I/K/U)
   MODE ....... ---> I         (I/D)
   LINK ....... ---> I         ( /C/I/S/T/X) <- MIXED
   CLASS ...... ---> *         (A-Z/*)
   PRIORITY ... ---> 1         (0-3)
   MEMBER ..... --->           (PDS-U/BFX)     <- -
   CHECKING ... ---> YES       (YES/NO)
   NOTE->
             X EXIT, -ENTER- LIST, -PF1- HELP TRC, -PF3- END
```

2. Enter transfer information as you would for a normal transfer, and be sure to specify the index in the DSNAME INDEX field. Press <Enter> to view the Transfers by Index 2/3 screen. This screen displays a list of all possible files that match the index that you entered.

Note: The files are also selected depending on the 'DSNAME TYPE' (S/P/V) of 'FILE'. If you enter CHECKING=YES, do not enter the DSNAME TYPE. It is retrieved from the Files directory entry. DSNAME TYPE can be entered if you set CHECKING=NO, but should only be used when the monitor is not up.

```
   TOM4230    TRANSFERS BY INDEX 2/3                              Row 1 of 109
   OPTION ===>                                                    PAGE -> PAGE

   TOM4        --< GS GLOBAL REQUESTS     -PF3- END    -PF7/8/10/11- SCROLL
   SYSA
   -------------< S  SELECTIVE REQUEST   GX EXCLUDE FROM GLOBAL REQUESTS
   !           B  BROWSE     E EDIT
   !  INDEX2                              TYPE : S   FILE : FILETEST
   !  DSNAME                               VOLSER £   TRC   REQ.NUM. MODE
   V
   __  INDEX2.$MVOL.TEST1                  8HAG02 1   -      -        -
   __  INDEX2.$MVOL.TEST2                  8HAG02 1   -      -        -
   __  INDEX2.MEGA                         8HAG03 1   -      -        -
   __  INDEX2.MVOL.DATACOMP                8HAG01 1   -      -        -
   __  INDEX2.PS                           8HAG02 1   -      -        -
   __  INDEX2.PS.BLANC                     8HAG02 1   -      -        -
   __  INDEX2.PS.FBA80                     8HAG03 1   -      -        -
   __  INDEX2.PS.FBS80                     8HAG02 1   -      -        -
   __  INDEX2.PS.FB131                     8HAG02 1   -      -        -
   __  INDEX2.PS.FB13680                   8HAG02 1   -      -        -
   __  INDEX2.PS.FB13680.SHORT             8HAG03 1   -      -        -
   __  INDEX2.PS.FB13680.UNZIP             8HAG02 1   -      -        -
   __  INDEX2.PS.FB19.UNZIP                8HAG02 1   -      -        -
   __  INDEX2.PS.FB400.B32760              8HAG03 1   -      -        -
```

Note: The files are selected.

3. Select the files for the request. You can either select files from a list (Selective Request), send all files (Global Request), or send all files except selected files (Exclude from Global Request). The table below describes the steps for each option.

Option	Steps
Selective Request	Type S in the selection field in front of each file that you want to send. Press <Enter> to confirm the selection. Press <PF8> to go to the next page in the list.
Global Request	Type GS in the option field and press <Enter>. All files on the list are sent. The list can have up to 255 files and include several pages. One request is issued for each file sent.
Exclude from Global Requests	Type GX in the selection field in front of each file that you do *not* want to send. Press <PF8> to go to the next page in the list. Type GS in the option field to send all files except those that you excluded. One request is issued for each file sent.

Note: If you use the GS option, Connect:Express displays a confirmation screen. No more than 255 files are enabled by the GS option.

Entering AD HOC Transfer Requests

While a normal transfer request can only transfer files for which Connect:Express is authorized, AD HOC requests can send any authorized file for the user. The ADHOCN=SYSIN parameter is provided if the AD HOC facility becomes disabled for security reasons.

AD HOC transfer requests enable a local user to access his own files on a remote computer on the condition that remote security rules are respected, including:

❖   AD HOC security facility: (USERID, OLD PASSWORD, NEW PASSWORD)

❖   AD HOC allocation facility: (LOCAL allocation, REMOTE allocation). The following are allocation restrictions:

 ◆   The File definition must be 'dynamic' on the remote side. The data set name can be passed at request time.

 ◆   The File definition can be 'dynamic/fixed' on the local side.

 ◆   The disposition (NEW,SHR,OLD) is given by the user in the request parameters and defined in the remote Files directory by the remote manager. The requestor cannot create a file on the remote side if the file has been pre-allocated by the remote manager. The requestor cannot write in a pre-allocated file on the remote side if the file has been declared to be created by the remote manager.

AD HOC transfer requests are only available between two Connect:Express systems, and only if Connect:Express is up. AD HOC uses PeSIT protocol parameters Pi99. To enter AD HOC transfer requests, complete the following steps:

1. From the Main Menu, type 4.5 in the option field and press <Enter>
    OR enter the jump command RQ5 in the option field on any screen and press <Enter>. The AD HOC Transfer 1/4 screen is displayed. The first screen is the general request of transfer screen.

```
   TOM4230     ADHOC TRANSFER 1/4
   OPTION ===>


   SUB-SYSTEM   ===> TOM4
   NOTIFICATION ===>          (0-7/*)
   FILE ....... ===> FILETEST
   DIRECTION .. ---> T        (T/R)
   PARTNER .... ---> OS390
   TYPE ....... ---> N        (N/H/I/K/U)
   MODE ....... ---> I        (I/D)
   LINK ....... ---> I        ( /C/I/S/T/X)            ISX
   CLASS ...... ---> *        (A-Z/*)
   PRIORITY ... ---> 1        (0-3)
   NOTE->

   DEF. LOCAL DSN:
   ADHOCN=
   RACFCN=



            X EXIT, -ENTER- GO ON, -PF1- HELP TRC, -PF3- END
```

2. Enter the general transfer information and press <Enter> to view the Ad Hoc Transfer screens 2/4 and 3/4. Screen 2/4 lets you define the local data set and screen 3/4 lets you define the remote data set.

AD HOC Transfer (2/4) Screen

```
   TOM4230     AD-HOC TRANSFER 2/4                         E:CLEAR,R:REPEAT    !
   OPTION ===>


   DEFINITION OF LOCAL ->       :


   DSN .......  ---> INDEX2.PS.F080.SHORT
                     INDEX2.&PARTNID.&REQNUMB.&REQTIM
   DISP 1,2,3  ===> OLD      KEEP      KEEP
   UNIT ......  ---> _____
   VOLSER 1:5  ---> _____ > _____ > _____ > _____ > _____
   TAPE  /SEQ. ---> ____        /TYPE-LABEL ---> ___
   SPACE       ---> ___
    PRIMARY    ---> ____
    SECONDARY  ---> ____
   DIRECTORY   ---> ___
   RECFM       ---> ___
   LRECL       ---> _____
   BLKSIZE     ---> _____
   RETENTION   ---> _____


               X EXIT, -ENTER- NEXT, -PF3- PREVIOUS
```

AD HOC TRANSFER (3/4) Screen

```
   TOM4230     AD-HOC TRANSFER 3/4
   OPTION ===>


   DEFINITION OF DISTANT <-       :

   USERID RACF  ---> USR8      GROUPE   ---> RACFGP          ADHOCN=U
   PASSWORD     --->               NOUVEAU ---->          --->
   DSN .......  ---> INDEX3.&PARTNID.&REQNUMB
   DISP 1,2,3  ===> NEW   > CATLG > CATLG
   UNIT ......  ---> SYSDA
   VOLSER 1:5  ---> VOLR1  > -       > -       > -       > -
   TAPE  /SEQ. ---> -         /TYPE-LABEL ---> -
   SPACE       ---> TRK
    PRIMARY    ---> 5
    SECONDARY  ---> -
   DIRECTORY   ---> -
   RECFM       ---> FB
   LRECL       ---> 80
   BLKSIZE     ---> 23120
   RETENTION   ---> -


               X EXIT, -ENTER- NEXT, -PF3- PREVIOUS
```

3. Define the local and/or remote data sets. Press <Enter> to advance through each screen.

The data set types can be sequential, PDS, VSAM, source PDS member or GDG. You must ensure that the definitions agree between sites. The LRECL and RECFM should be the same between local and remote allocation parameters. For example, the local and remote LRECL must be equal if the RECFM is F. A LRECL or RECFM error is detected during transfer execution.

The Ad Hoc Transfer feature provides three functions, as described below. You can use a combination of any of these functions under certain conditions.

Function	Description
Sending the local attributes	The DSN field is not mandatory. The default entry comes from the File definition in the Files directory. This enables you to create a file on the remote side with the same attributes as the original file.
Sending the remote attributes	This enables you to manage your own files on the remote side under RACF control.
Sending the RACF identification on the remote side	The remote Connect:Express decides if this is mandatory using the ADHOCN parameters of its SYSIN file. If the Unsafe Mode is selected, you do not have to provide your RACF identification. On the remote side, the monitor can use the RACFUD parameters of its SYSIN file as a default.

Storing Recurring Transfers

You can create and store normal recurring transfers in Connect:Express using the Usual Transfers option. This option displays an ISPF table that you can protect for each user. You can sort or filter the list by entering commands in the OPTION field. You can sort by change date, comment, or table, and you can filter by File name, Partner name, data set name, or comment.

The comment field is used to give information about the transfer request. For example, the comment field might indicate that the file to be transferred is an everyday file. The change date shows the last time the entry was used for making a transfer.

Complete the following steps to create and store a recurring transfer:

1. From the Main Menu, type 4.6 in the option field and press <Enter>. The Usual Transfers screen is displayed.

```
 TOM4230     USUAL TRANSFERS        ID:                        Row 1 of 260
 OPTION ===>                          TABLE===> TREQUSR9   MON. ===> TOM4 > PAGE
 CRE: 98/04/28 16.32.07 MOD: 00/11/17 08.13.48 USR9  00000542
            !-< 'COMMANDS'   -PF3- END    -PF7/8- SCROLL


     FILE     DIR.    PART.     DSN
              SSN     TYPE      MODE    LINK    CLASS  PRIO.   MBR.
              ID      DATE      TIME    REQ.    RC     COM.
 _   FILE1    T       USRTOM    INDEX3.USRTOM.XMIT
              TOM4    N         I        _       *     1
              USR9 99/12/30  16:19                     EVERY MONDAY
 _   FILE2    T       UNIX      INDEX3.UNIX.LOADMNT0.PDS
              TOM4    N         I        X       *     1
              USR9 99/12/30  16:19                     PAYROLL
 _   FILE3    T       CXNT      INDEX2.CXNT.FILE3
              TOM4    N         I        I       *     1        _____
              USR9 99/12/30  16:03   18100005 0        STATISTICS
 _   $BENCMP0 T       OS390     INDEX3.OS390.TEST
              TOM4    N         I        _       *     1        _____
              USR9 99/12/30  13:34   18100001 0        TEST LINK
 _   F1       T       OS390     INDEX2.TOM1.$LOAD.U152833.A7900041
              TOM1    N         I        I       *     1        _____
              USR9 99/12/28  15:33   17900043 0
```

2. Type I in the option field and press <Enter> to insert a new entry in the Usual Transfers table.

Note: You can also use any of the following commands on the Usual Transfers screen.

E - Edit the data set

B - Browse the data set

M - Modify the entry in the table

D - Delete the entry in the table

R - Repeat or copy an entry in the table

---

3. Enter the necessary transfer information and press <Enter>.
4. To send the transfer, type S next to the table entry and press <Enter>.

Batch Transfer Requests

The Connect:Express batch interface provides four utilities that enable you to enter batch requests, these include:

❖ P1B2PREQ–Batch transfers based on the PARM=parameters of the EXEC statement

❖ P1B2PRQ2–Batch transfers using a command file

❖ P1B2PRQ3–Batch transfers for index transmission

Entering Requests with the PARM of the EXEC Statement

You can use the P1B2PREQ program to enter batch requests in Connect:Express. The REQ£SCI member in the *SAMPLIB* library includes three examples. The elements of the following request are given by the PARM of the EXEC which requires mandatory keyword parameters. The following screen shows an example.

```
//ETAPE01  EXEC    PGM=P1B2PREQ,
//         PARM=('SSN=TOM1','TYP=N','PRT=1','CLS=A','DIR=T','LNK=N',   *
//         'SFN=XXXXXXXX','SPN=YYYYYYYY','NFY=USERID',                 *
//         'DSN=a.b.c','DFRD',WAITnnnn') Optional
//SYSPR20  DD      SYSOUT=*     <- L0B2Z20 messages
```

You can use the following PARM keywords for a Connect:Express Batch Request. Parameters that must be upper case are identified by Case=U.

Field	Case	Description
SSN	U	The name of the Subsystem in the form TOMx.
LOWC	U	Lower case option.
TYP	U	Optional. Type of request. Valid values are: Normal, Inquiry, Unchained or Hold. Default is Normal.

Field	Case	Description
PRT	U	Optional. Priority of the transfer. Valid values are 0,1,2 or 3. 0 is urgent and the default is 1.
CLS	U	Optional. Class of the transfer. Values can be from A to Z. Default is any.
DIR		Direction of transfer, Reception or Transmission. This parameter can be omitted if defined in the Files directory.
LNK		Enables the user to choose a type of link if the definition in the Partners directory contains the value M and a list of links. If this field is omitted, the default value will be the first in the list.
SPN		Symbolic name of the Partner with whom you are transferring. This field can be omitted if the File definition in the directory indicates only one Partner for the chosen direction.
SFN		This can have three values. Symbolic File name - This is the name of a symbolic File in the directory. $JCL keyword - Files to be transferred are described by a DD card in the JCL cards. These DD cards must be different from the reserved names like JOBLIB, STEPLIB, and names beginning with SYS. $SYS keyword - Enables you to add a SYSIN type file containing one card per request with a symbolic name in column 1 and possibly the DSN in column 10. If the DSN is omitted, the default value is from the directory.
NFY		Optional. Used to notify a TSO USER when the transfer has ended.
ORG		Optional. The name of the entity that is sending the data. It is considered the Requestor on the remote side.
DST		Optional. The name of the entity that is receiving the data.
API		Optional. The application file identification.
DSN	U	Optional. Indicates the full dsname (SFN must not be SYS/JCL).
RDS		Optional. Remote data set name.
DRFD	U	Optional. Indicates a DIFFERRED request (MODE=D) (mutually exclusive with WAITnnnn).
WAITnnnn	U	Optional. Indicates the program will wait nnnn minutes, or until transfer completion. If timer expires before successful transfer, rc=4. If transfer is not successful, rc=4. (mutually exclusive with DFRD).
NLV	0-7	Optional. Indicates the type of notification to send. If this field is omitted, the type of notification will be the one defined in the Files directory. 0 – No notification 1) – Notification at initialization of transfer 2) – Notification at end of transfer 4) – Notification on error Any logical combination of 1, 2 and 4 as shown in the examples below: 3 – Notification at initialization and end of transfer (1+2) 6) – Notification at end of transfer and on error (2+4 7) – Notification at initialization and end of transfer, and on error (1+2+4) Refer to the Notification Implementation Guide.

The return codes received after executing the P1B2PREQ program are listed in the table below:

Result	Return Code
Request is complete or recorded	0 (zero)
Request is refused by Connect:Express	4
Syntax error	8

Entering Requests Using a Command File

With Connect:Express, you use the P1B2PRQ2 program to enter conditional requests. The $REQSCI2 member in the *SAMPLIB* library includes four examples. One element of the request is given by the PARM of the EXEC which requires a mandatory keyword parameter (SSN=). The other parameter CAPS= indicates if lower case characters within the Sysin file are supported. CAPS=OFF means that all characters of the SYSIN file are set to upper case. This is the default value. CAPS=ON means that you can use lower case characters in certain fields (see the parameter table on page 24). The following screen shows an example.

```
//STEP0001 EXEC PGM=P1B2PRQ2,
// PARM='SSN=TOM2,CAPS=ON'
```

The other elements of the request are given by a SYSIN file with the same keywords as P1B2PREQ plus extended keywords. A character '*****' in column 1 indicates a comment. The following two commands can be used.

❖ SEND command for transmitting a file

❖ RECV command for receiving a file

The following table describes the three types of requests that can be used in the same flow card.

Request Type	Description
Independent	This type is similar to the P1B2PREQ request. Extended keywords are used for special processes and parameters.
Grouped	This type of request allows the user to send several requests; each request is accepted only if the entire block is accepted. The range number of requests per block is from 2 to 64. The Partner must be the same.
Grouped and Serialized	Same as grouped request except that the Connect:Express Monitor schedules the requests one by one in the same session. If an error occurs during a transfer, the automatic chaining is interrupted and the session is closed. The next transfers will be scheduled after the interrupted request is restarted and successfully ended. A serialized request is TYP=Normal.

The P1B2PRQ2 report is written on SYSPRINT SYSOUT. The return codes received after executing a P1B2PRQ2 request are listed below.

Result	Return Code
Request is complete or recorded	0 (zero)
Request is refused by Connect:Express	4
Syntax error	8

Special Processes include the following:

❖ WAIT for the end of transfer

❖ LOOP for getting all the available files on the remote site

❖ RETRY until the request is definitely rejected by the remote site

Special parameters are listed below:

❖ API - the file identification according to the application

❖ AD HOC request (RACF identification is not available)

The next two diagrams show examples of P1B2PRQ2 requests. Example 1 shows an independent request, an AD HOC request, and serialized requests. Example 2 shows how to wait for end of transfer and how to loop for inquiry.

Note: Parameters must be coherent, for example:

Wait requires TYP=N and MOD=I

Loop requires RECV, LPR=, PNE=, and PAE=

P1B2PRQ2 Example 1

```
//STEP01   EXEC    PGM=P1B2PRQ2,PARM='SSN=TOM3'
//STEPLIB  DD      DSN=index1.TOMV410.LOADLIB,DISP=SHR
//SYSUDUMP DD      SYSOUT=*
//SYSPRT   DD      SYSOUT=*
//SYSPR20  DD      SYSOUT=*      ← L0B2Z20 messages
//*SYSAPI82 DD     dsn='file with the 82 bytes of api'
//SYSIN    DD  *
*---------------------------- INDEPENDENT RECEIVE ----------------
RECV SFN=FRECV,SPR=PART1 SYMBOLIC FILE AND PARTNER NAME
*---------------------------- INDEPENDENT TRANSMIT----------------
SEND SFN=F1 MINIMUM KEY
*---------------------------- INDEPENDENT TRANSMIT ADHOC ----------
SEND SFN=F1,             MINIMUM KEY
SPN=PSR,                 SYMBOLIC PARTNER NAME
TYP=N,                   REQUEST TYPE
MOD=D,                   REQUEST MODE
CLS=A,                   REQUEST CLASS
PRT=1,                   REQUEST PRTY
SID=ALIASID,             ALIAS NAME FOR THIS XFER
PSW=ALIASPW,             ALIAS PASSWORD FOR THIS XFER
ORG=ORGXFER,             TRANSFER ORIGIN IDENTIFICATION
DST=DSTXFER,             TRANSFER DESTINATION IDENTIFICATION
RGR=GROUP2,              RACF GROUP FOR THIS USER,
DSN=PSR$REC.PS.F080.SHORT,   DSNAME to be sent
DSR=PSR$TST.ADHOC,       DSNAME to be created
D3R=NCC                  DSNAME DISP(New,Catlg,Catlg) created
*---------------------------- GROUPED AND SERIALIZED REQUESTS------
BBLOCK,S
SEND SFN=F1,             SYMBOLIC FILE NAME
SPN=PSR,                 SYMBOLIC PARTNER NAME
**** TYP=N,              no TYP= given or N REQUEST TYPE
MOD=I,                   REQUEST MODE
CLS=A,                   REQUEST CLASS
PRT=1,                   REQUEST PRTY
SID=ALIASID,             ALIAS NAME FOR THIS XFER
PSW=ALIASPW,             ALIAS PASSWORD FOR THIS XFER
ORG=ORGXFER,             TRANSFER ORIGIN IDENTIFICATION
DST=DSTXFER,             TRANSFER DESTINATION IDENTIFICATION
SEC=03,                  SECURITY TABLE NUMBER
RGR=GROUP2,              RACF GROUP FOR THIS USER,
DSN=PSR$REC.PS.F080.SHORT     OVERRIDDEN DSNAME
SEND SFN=TNFASC,         SYMBOLIC FILE NAME
SPN=PSR,                 SAME PARTNER
**** TYP=N,              no TYP= given or N REQUEST TYPE
MOD=I,                   REQUEST MODE
API=' 82 CHARACTERS '    APPLICATION DEFINITION OF TRANSFER
DSN=PSR$REC.PS.F080.MEGA      OVERRIDDEN DSNAME
SEND SFN=TNFASC,         SYMBOLIC FILE NAME
SPN=PSR,                 SAME PARTNER
TYP=N,                   REQUEST TYPE
MOD=I,                   REQUEST MODE
A48='                    48 CHARACTERS ' 1/2 APPLICATION DEFINITION OF TRANSFER
A34='                    34 CHARACTERS ' 2/2 APPLICATION DEFINITION OF TRANSFER
DSN=PSR$REC.PS.F080.MEGA      OVERRIDDEN DSNAME
EBLOCK
```

P1B2PRQ2 Example 2

```
//STEP01    EXEC     PGM=P1B2PRQ2,PARM='SSN=TOM3'
//STEPLIB   DD       DSN=index1.TOMV410.LOADLIB,DISP=SHR
//SYSUDUMP  DD       SYSOUT=*
//SYSPRT    DD       SYSOUT=*
//SYSPR20   DD       SYSOUT=*     ← L0B2Z20 messages
//SYSIN     DD  *
*---------------------------- INDEPENDENT WAIT REQUEST ------------
* the wait process allows the job to stay in wait till :
* 1/ timer expires, with transfer not done (error rc=4 TRC=2903)
* 2/ transfer ends ok, (normal rc=0)
*note : if cancel of job, APL entry cleared, request NOT purged.
*note : in C:X *SYSIN* APLNUM=(X,Y) must be active
* UEXJNL=... L1B2PAEX must be active
*note : wait is not impacted by a C:X stop.
*note : BBLOCK is mandatory, with one request only.
*note : think to 'TIME=' of your job.
BBLOCK
SEND SFN=F1,                              MINIMUM KEY
SPN=PSR,                                  SYMBOLIC PARTNER NAME
TYP=N,                                    *REQUEST TYPE, normal only
MOD=I,                                    *REQUEST MODE, IMMEDIATE ONLY
CLS=A,                                    REQUEST CLASS
PRT=1,                                    REQUEST PRTY
DSN=PSR$REC.PS.F080.SHORT,                DSNAME to be sent
WAI=0015                                  *WAIT 15 MINUTES BEFORE ERROR
EBLOCK
*---------------------------- INDEPENDENT LOOP REQUEST INQUIRY ----
* the loop process allows the job to stay
* in inquiry of reception till :
* 1/ C:X stops, (error rc=4)
* 2/ loop expires, with no transfer, (error rc=4)
* 3/ PNE (prc normal end) matches, with >=1 transfer(s), (normal rc=0)
* 4/ PNE (prc normal end) matches, with 0 transfer, (abnormal rc=4)
* 5/ PAE (prc abnormal end) matches, (abnormal rc=4)
*note : at abnormal end (rc/=0), request is purged.
*note : if cancel of job, request is purged.
*note : Connect:Express must be up during whole process.
*note : during loop retry, the request is monitored.
* If 'error-sel' state is detected, the request is re-enabled,
* if 'interrupted' state is detected, nothing is done,
* and if 'ended' state is detected, a new request is done.
*note : BBLOCK is mandatory, with one request only.
*note : think to 'TIME=' of your job.
BBLOCK
RECV SFN=F1,                              *RECEIVE ONLY
SPN=PSR,                                  SYMBOLIC PARTNER NAME
TYP=I,                                    *REQUEST TYPE, INQUIRY ONLY
MOD=I,                                    *REQUEST MODE, IMMEDIATE ONLY
CLS=A,                                    REQUEST CLASS
PRT=1,                                    REQUEST PRTY
DSN=PSR$REC.PS.F080.SHORT,                DSNAME TO BE RECEIVED
WAI=0015,                                 *WAIT 15 MINUTES BEFORE RETRY
LPR=0099,                                 *ALLOW 99 RETRIES
PNE=2205,                                 *PRC OF NORMAL END
PAE=3330                                  *PRC OF ABNORMAL END
EBLOCK
```

The P1B2PRQ2 keywords are identified in the following list. Parameters that must be upper case are identified by Case=U.

Field	Case	Description

BBLOCK
BBLOCK,S
	U	Begin Block, command starts a grouped request.
		GROUP and SERIALIZED request restrictions:
		    BBLOCK,S is not allowed for UNLOADED files, TYP=H or MOD=D.
		    BBLOCK,S is not allowed for multiple Partners.
		    BBLOCK,S is not allowed for special process requests like WAIT, LOOP, and RETRY.
		    BBLOCK,S is for TYP=normal requests.

EBLOCK	U	End Block, command ends a grouped request
CAPS	U	Lower case option. Default is CAPS=OFF. The following values are valid: OFF - All characters of the SYSIN fileare set to upper case. ON - Lower case characters are supported.
SFN	U	Symbolic File Name (mandatory)
SPN	U	Symbolic Partner Name

TYP	U	Request Type (default is N):
		    N – normal request (required if serial request is used).
		    I – inquiry request (to take 'H' remote request).
		    H – hold request (to be taken by 'I' remote Partner).
		    U – Unique. One transfer equals one connection.

MOD	U	Request Mode (Optional, default = I):
		    I – immediate request.
		    D – deferred request (to be enabled locally).

CLS	U	Class of APM. (A to Z, default is any.)
PRT	U	Priority of request. (0,1,2,3. Default is 1. 0 is urgent.)
LNK	U	Link type possible, if several links are available. optional.
NFY	U	Notify the TSO userid, optional.
DSN	U	Data set name. Fully qualified local data set name.
MBR	U	*SYSPRM* selection Member. optional
SID		The name of the local computer on the Partner side. This field overrides the ALIAS, if any, in the Partners directory entry and the SYSIN DPCSID.
PSW		The password assigned to the local computer on the Partner side. This field overrides the ALIAS password, if any, in the Partners directory entry and the SYSIN DPCPSW.
ORG		The name of the entity that is sending the data. It is considered the REQUESTOR on the remote side.
DST		The name of the entity that is receiving the data.
SEC	U	Indicates the SSL configuration file to be used. Refer to the SSL Guide for detailed information on how to use SSL profiles. SSL security is only available with PeSIT and ODETTE protocols. You can access SSLCFG files with the TSO/ISPF option 0, ANMSSL file.
RGR	U	This parameter enables you to perform the request with a specific RACF Group. The default is the requestors RACF group.

Field	Case	Description
RDS		Remote data set name. This parameter can be omitted. The default is picked up from the directory.
DTP	U	Data type, used for FTP transfer request and HFS files. This parameter can be omitted. The default is picked up from the directory.
FST	U	File structure (FTP transfer request). The default is picked up from the directory.
TMD	U	Transfer mode (FTP transfer request). The default is picked up from the directory.
STU	U	Store Unique option (FTP transfer request). The default is picked up from the directory.
NLV	0-7	Optional. Indicates the type of notification to send. If this field is omitted, the type of notification will be the one defined in the Files directory. 0 – No notification 1) – Notification at initialization of transfer 2) – Notification at end of transfer 4) – Notification on error Any logical combination of 1, 2 and 4 as shown in the examples below: 3 – Notification at initialization and end of transfer (1+2) 6) – Notification at end of transfer and on error (2+4 7) – Notification at initialization and end of transfer, and on error (1+2+4) Refer to the Notification Implementation Guide.

Using AD HOC Request Parameters

The following table lists special parameters for batch AD HOC transfers. Parameters that must be upper case are identified by Case=U.

Field	Case	Description
D3L	U	Disposition for local AD HOC dataset name DSN, optional • If receiving a file: D3L=NCC (NEW,CATLG,CATLG) (create the DSN on the local side, avoid TRC=2118 if FCT DISP=OKK). • If receiving a file: D3L=OKK (OLD,KEEP,KEEP) (rewrite old DSN on the local side, avoid TRC=2118 if FCT DISP=NCC). • If sending a file: D3L=OKK (OLD,KEEP,KEEP) (take the DSN from the local side, avoid TRC=2118 if FCT DISP=NCC). • If sending a file: D3L=SKK (SHR,KEEP,KEEP) (take the DSN from the local side, avoid TRC=2118 if FCT DISP=NCC).
RDS		Remote data set name or Pi99. This parameter can be omitted. The default value is retrieved from the directory.
D3R	U	Disposition for remote AD HOC data set name DSR. optional • If sending a file: D3R=NCC (NEW,CATLG,CATLG) (create the DSN on the remote side). • If sending a file: D3R=OKK (OLD,KEEP,KEEP) (rewrite existing DSN on the remote side). • If receiving a file: D3R=OKK (OLD,KEEP,KEEP) (take the DSN from the remote side). • If receiving a file: D3R=SKK (SHR,KEEP,KEEP) (take the DSN from the remote side).
DNR	U	Directory number for new AD HOC PDS. optional If sending a file: DNR=XXX (directory blocks), (if D3R=NCC for a PDS to create)

Note:	Ad hoc transfer in batch mode is executed in "unsafe" mode. This means that no RACF userid and password are available. The remote site must accept this mode (ADHOCN=U in the SYSIN file) and the default userid must be defined (RACFUD= in the SYSIN file). If RACFUD= is not defined, the transfer will be executed under the same RACF authority as the TOM address space.

Using API Parameters

The API field is used for transmitting user information such as the information needed for a process to be linked to the transfer. Special parameters for API transfers are shown below.

There are three possibilities for defining the 82-character Application file identification. This field is defined in a sequential file, and you can declare a SYSAPI82 DD card that points to this file in the JCL of the P1B2PRQ2 utility. If you do not need 82 characters for identifying the file, you can use the API= parameter. If you need 82 characters, you will have to use the A48= and A34= parameters or the SYSAPI82 method. All of the following parameters can contain lower case characters.

Field	Description
A48	48 quoted bytes as first part of API (if SYSIN LRECL=80)
A34	34 quoted bytes as last part of API (if SYSIN LRECL=80)
API	82 quoted bytes of user data field (if SYSIN LRECL>88)

The API field is used in three ways:

❖ 'API=Application file identification.' This can be used for an ETEBAC3 card or ODETTE FTP identification. The structure of this field depends on the transfer protocol used. See *Formatting the Application File Identification* on page 3-6. The structure is also described in the D1B2RAPI file of the *MACLIB* DSECT.

❖ 'API=U:message.' The message is prefixed by "U:" header and used by the PeSIT protocol. The Connect:Express sender sends the message in the PeSIT field Pi37 or file label. The Pi37 is received by the Connect:Express receiver in the &EXTLAB keyword.

❖ 'API=P:message.' The message is prefixed by "P:" header and used by the PeSIT protocol. The message is sent by the Connect:Express sender in the PeSIT field Pi99 or file label. The Pi99 is received by the Connect:Express receiver in the &PI99 keyword

Using Batch Special Processing Parameters

The following table lists keywords that enable the command file to wait, loop and retry.

Field	Description
WAI	Optional. Four numeric digits to specify the count of minutes to wait, from 0001 till 9999. Used to wait this time until the transfer is performed. Connect:Express *SYSIN* APLNUM=(X,Y) and UEXJNL=L1B2PAEX must be used. WAI can be used with LPR/PNE/PAE as retry time in inquiry loop.
LPR	Optional. Four numeric digits that specify how many times to loop if PNE or PAE is not received, from 0000 – 9999. Used with WAI/PNE/PAE inquiry loop.
PNE	Optional. Four numeric digits that specify the PRC of normal end. Used with WAI/LPR/PAE inquiry loop.
PAE	Optional. Four numeric digits that specify the PRC of abnormal end. Used with WAI/LPR/PNE inquiry loop.

Note: API/AD HOC/ 'inquiry-loop' parameters can only be used when Connect:Express is up. The recovery process does not record these fields in the recovery file (SYSRCY).

Entering Requests Processed by DSNAME Index

You use the P1B2PRQ3 Program to enter batch transmission requests processed by DSNAME Index. The $REQSCI3 member in the *SAMPLIB* library includes one example.

Two elements of the request are given by the PARM of the EXEC which requires one mandatory keyword parameter (SSN=). The MRQ= of parm is for the total maximum requests, and if omitted defaults to 256. The following screen shows an example.

```
//STEP0001 EXEC PGM=P1B2PRQ3,
// PARM='SSN=TOM2,MRQ=12'
```

The other elements of the request are given by a SYSIN file with the same keywords as P1B2PREQ, plus extended keywords.

A (*) character in column 1 indicates a comment.

The P1B2PRQ3 report is written on SYSPRINT SYSOUT. The return codes are as follows:

Result	Return Code
Request is complete or recorded	0 (zero)
Request is refused by Connect:Express	4
Syntax error	8

An example of a P1B2PRQ3 request follows.

```
//STEP01   EXEC    PGM=P1B2PRQ3,PARM='SSN=TOM3,MRQ=12'
//STEPLIB  DD      DSN=index1.TOMV222.LOADLIB,DISP=SHR
//SYSUDUMP DD      SYSOUT=*
//SYSPRT   DD      SYSOUT=*
//SYSPR20  DD      SYSOUT=*     <- L0B2Z20 messages
//SYSIN    DD  *
SENDN SFN=F1, SYMBOLIC FILE NAME
SPN=PSR, SYMBOLIC PARTNER NAME
TYP=N, REQUEST TYPE
CLS=A, REQUEST CLASS
PRT=1, REQUEST PRTY
DSO=S, DATA-SETS ORGANISATION
DSN=PSR$REC.PS, DSNAMES INDEX
MRQ=2, MAXIMUM REQUESTS FOR THE BLOCK
```

Some of the fields are identified in the following list.

Field	Value/Range	Description
SFN		Symbolic File name (mandatory)
SPN		Symbolic Partner name
TYP	N, I, H	Request type (default = N)
CLS	A – Z	Class of APM, default is any

Field	Value/Range	Description
PRT	0 – 3	Priority of request
DSO	S, P, V, H	Data sets organization: S – sequential data sets to be selected P – partitioned data sets to be selected V – VSAM data sets to be selected H – HFS file
DSN		The data set name's index (up to 3 levels deep).
MRQ		Optional. Maximum transfer requests to be scheduled by block.
LNK		Optional. Used if several Link types are possible.
WAI		Four numeric digits that specify the number of minutes to wait, from 0001 till 9999. C:X will wait this amount of time until the transfer is performed. Connect:Express *SYSIN* APLNUM=(X,Y) and UEXJNL= L1B2PAEX must be used.
MOD		Request Mode (Optional, default = I): I - immediate request. D - differed request (to be enabled locally).
ORG		Optional. The name of the entity that is sending the data. It is considered the Requestor on the remote side.
DST		Optional. The name of the entity that is receiving the data.
API		Optional. The application file identification.
RDS		Remote data set name or Pi99. This parameter can be omitted. The default value is retrieved from the directory.
DTP		Data type (FTP transfer request and HFS files). This parameter can be omitted. The default is picked up from the directory.
FST		File structure (FTP transfer request). The default is picked up from the directory.
TMD		Transfer mode (FTP transfer request). The default is picked up from the directory.
STU		Store Unique option (FTP transfer request). The default is picked up from the directory.
NLV	0-7	Optional. Indicates the type of notification to send. If this field is omitted, the type of notification will be the one defined in the Files directory. 0 – No notification 1) – Notification at initialization of transfer 2) – Notification at end of transfer 4) – Notification on error Any logical combination of 1, 2 and 4 as shown in the examples below: 3 – Notification at initialization and end of transfer (1+2) 6) – Notification at end of transfer and on error (2+4 7) – Notification at initialization and end of transfer, and on error (1+2+4) Refer to the Notification Implementation Guide.

Note: One transfer request is created for each data set name found.

Purge Request Utility

The P0B2Z20 utility enables you to purge requests from a batch procedure. You can:

❖ Purge one request

❖ Purge a group of requests from criteria

Available criteria are:

❖ Symbolic partner name

❖ User name

❖ Age of the request

❖ Local TRC code

❖ PRC code

❖ SRC code

Implementing P0B2Z20

The P0B2Z20 program executes in a PL1 environnement. The JCL must include the appropriate files. You can find an example in the *SAMPLIB*: $P0B2Z20.

```
//GO       EXEC  PGM=P0B2Z20
//STEPLIB  DD     DISP=SHR,DSN=PSR£DEV.TOM400.LOADLIB  <=== TOM
//*        DD     DSN=CEE.V1R5M0.SCEERUN,DISP=SHR  <=== if not in linklist
//*
//PLIDUMP  DD     SYSOUT=* <-- OPTIONNAL FOR PLI DEBUGGING+TRACE
//SNAP     DD     SYSOUT=* <-- OPTIONNAL FOR PLI DEBUGGING+TRACE
//SYSUDUMP DD     SYSOUT=* <-- OPTIONNAL FOR ASM DEBUGGING+TRACE
//SNAPDUMP DD     SYSOUT=* <-- OPTIONNAL FOR ASM DEBUGGING+TRACE
//SYSPRINT DD     SYSOUT=* <=== FOR LISTING
//*-------------------------------------------------------------
//SYSIN DD *
```

The input SYSIN file provides the execution parameters.

Execution Parameters

The P0B2Z20 program reads its SYSIN file. It reads one record at a time and processes the entire Request table of Connect:Express with the current criteria.

Example: Purge all requests for partner PART, with error code PRC=2204, Purge all requests for partner PART, with error code TRC not null, …

Syntax Rules

The figure below shows the P0B2Z20 utility parameters:

```
Mandatory parameters:

SUBSYS            = 'TOM2',
FUNCTION          = 'PURGE' ,
ENTRY             = 'REQUEST',

Trace option:
TT                = 'TT',

Comment option:
COMMENT               = 'LAUNCH AT 09 P.M.',


Criteria: one request number or a set of criteria

REQUEST = '00000415',8 characters

PARTNER = 'PART',maximum 8 characters
USERID= 'USER',maximum 8 characters
QQQ_LIMIT= '123',3 characters
TRC_LOCAL= '2082', 'NNUL'4 characters
PRC = '2204', 'NNUL'4 characters
SRC = '0210', 'NNUL'4 characters
;
```

The rules are listed below:

❖ One parameter per line, between single quotes (').
❖ One comma (,) at the end of a line means that the list continues.
❖ One semicolon (;) is used after the last parameter.
❖ No generic value is accepted.
❖ No comment line is allowed between parameters.
❖ In case of duplication, the last value provided is taken.
❖ The length of the parameters is controlled.

P0B2Z20 Execution

The P0B2Z20 program controls the SYSIN parameters. Return code 8 means that an error was detected in the SYSIN file. If control is correct, the utility processes the request control table (RCT). Return code 4 means that no request was found.

The P0B2Z20 program provides a report in the SYSPRINT file.

Return Code	Description
0	Successfully executed
4	'WARNING' anomaly during execution, no request found
8	'ERROR' detected while controlling the SYSIN file syntax

Some examples follow.

Purging One Request

```
//*----------------------------------------------------------------
//GO      EXEC   PGM=P0B2Z20
//STEPLIB DD     DISP=SHR,DSN=PSR£DEV.TOM400.LOADLIB  <=== TOM
//*
//SYSPRINT DD     SYSOUT=* <=== FOR LISTING
//*----------------------------------------------------------------
//SYSIN DD *
SUBSYS            = 'TOM2',
FUNCTION          = 'PURGE' ,
ENTRY             = 'REQUEST' ,

REQUEST           = '00004258',
;
//
//*=======================================
```

Purging a Group of Requests

In the following example the trace option is activated.

```
//*----------------------------------------------------------------
//GO      EXEC   PGM=P0B2Z20
//STEPLIB DD     DISP=SHR,DSN=PSR£DEV.TOM400.LOADLIB  <=== TOM
//*
//SYSPRINT DD     SYSOUT=* <=== FOR LISTING
//*----------------------------------------------------------------
//SYSIN DD *
SUBSYS            = 'TOM2',
FUNCTION          = 'PURGE' ,
ENTRY             = 'REQUEST' ,
TT            = 'TT',


PARTNER           = 'LYON',
PRC               = '2204',
;
//
//*=======================================
```

Monitor Management

This chapter describes how to monitor and control transfer activities in Connect:Express using the ISPF menus.

Overview

The Monitor option on the Connect:Express Main Menu displays the Monitor Management screen. From this screen, you can access various controls such as the Operations Control screen where you can display, enable, or disable resources like Partners, Files, Requests, and Networks. You can also access the log file screen to display events linked to a transfer and the journal screen to display statistics about file transfers that were executed. In addition, you can display the applications that are connected to the monitor, the SYSPLEX configuration, and the global monitoring screen to display multiple subsystems.

.

```
   TOM4230                      MONITOR MANAGEMENT
   OPTION ===>


            _ 1  S  SUPERVISOR  MONITOR STATUS.
            _ 2  L  LOG         INTERROGATION OF TOM/APM FILE-LOGS.
            _ 3  J  JOURNAL     INTERROGATION OF JOURNAL.
            _ 4  Z  ACTIVITY    TRANSFER ACTIVITY.
            _ 5  A  APPLI.      CONNECTED APPLICATIONS.
            _ 6  E  EXTRACT     EVENT EXTRACT.
            _ 7  X  SYSPLEX     SYSPLEX MONITORING.
            _ 8  G  GLOBAL      GLOBAL  MONITORING.









            X EXIT, -PF3- END
```

The following table describes the options on the Monitor Management screen:

Option	Description
1 Monitor Status	Displays the Operations Control screen where you can enable, disable, and display details about Partners, Files, Requests, Transfer and Network resources.
2 Interrogation of Logs	Enables the user to view events linked to transfer execution. This is only for SYSLOG allocated on disk. SYSOUT files are accessed by IBM-ISF.
3 Interrogation of Journal	Enables the user to select records from the journal file using a selection panel.
4 Transfer Activity	Displays active transfer requests by data set name.
5 Connected Application	Displays the Application Interface use.
6 Event-Extract	Lets you extract a combination of all information (FCT, PCT, RCT, JNL, and LOG) related to a group of Files/Partners and Requests.
7 Sysplex	Displays the SYSPLEX Control Table - XCT.
8 Global	Displays a global operations control screen including 1 to 6 monitors.

Note: Activity control can be restricted using the ACS facility (3.3.ACS).

The Operations Control Screen

From the Operations Control screen, you can manage resources by enabling or disabling Partners, Files, and Requests. You can also view information about networks and transfers.

Enabling a resource tells Connect:Express to start transferring requests waiting to be processed. Disabling a resource prevents the reception of incoming requests from that resource. For example, if you disable a Partner, you will not receive incoming requests from that Partner. You can, however, still make Requests to send to this Partner, but the requests are stored in a queue and not scheduled for transfer. You would have to enable the resource to send the transfers waiting to be processed.

The Operations Control screen is shown below. The lower half of the screen lists the available Display Detail screens.

```
  TOM4230    OPERATIONS CONTROL    ID=         MODE= *
   OPTION ===> !

              ^ F (ID)      - FILES.          B  - BYPASS.      PSR0008
                P (ID)      - PARTNERS         C  - COUPLING.    06/10/27
                R (ID)      - REQUESTS....      S  - SHARED.      08:35
                N           - NETWORK.          G  - GLOBAL.      CSGA
                T           - TRANSFERS.        Z  - ACTIVITY.    CSGPLEX
                */-/A/H/I/U  - 'mode'.

         MONITOR   ===> TOM4 / CSGA  ACTIVE   GLOBAL    STANDALONE
         EXIT UEXJNL  : L1B2PAEX     ENABLED

    ----------- S DISPLAY DETAILS, E ENABLE, H DISABLE
    V
    _   1076    FILES       - RESOURCE   : ENABLED
    _   591     PARTNERS    - RESOURCE   : ENABLED
    _   -       REQUESTS    - RESOURCE   : ENABLED      IN USE AT -  %
    _   -       SHARED      - RESOURCE   : DISABLED
    _           NETWORK     - SEE DETAIL : ENABLED
    _           TRANSFERS   - SEE DETAIL, EFFECTORS USED/ALLOC. : -   /  32
    _           SSL         - RESOURCE   : ENABLED
              X EXIT, -PF3- END, -ENTER- CONTINUE, -PF10/11- SCROLL
```

The Operations Control screen displays the following information:

❖ Commands necessary to continue the dialog, including: F,P,R,N,T,B,S,G,Z and Display Selection Mode.

❖ Subsystem (MONITOR) name, the SMF-ID (e.g., SYSA) of the CPU, and its status (active or inactive).

❖ SYSPLEX profile (Standalone, supervisor, manager, server).

❖ Name of the user journal exit routine (EXIT) and its status (enabled or disabled).

❖ Files, number of entries, and status (FCT).

❖ Partners, number of entries, and status (PCT).

❖ Requests, number of entries, and status (RCT).

❖ Shared Requests, number of entries, and status (HCT).

❖ Network resource (ANM), and its state 'ENABLED' or 'XERROR(S),' if x errors were found in handlers and/or MCH.

❖ Transfers resource (APM) and the number of effectors (Connect:Express initiators) used and allocated.

❖ SSL resource status.

Changing the Display

When viewing any of the control screens, you can activate a selection mode or use the Locate, Mask or Filter commands to change the display.

Using Selection Modes

A selection mode changes the display before you view a screen. For example, if you want to see a list of Files with a disabled status, type H in the option field and press <Enter> on the Operations Control screen. The mode indicator changes. Then, when you display the File Control screen, it will only show Files with a disabled status. The following table lists selection modes that you can use with the Partner and File control screens.

Mode	Description
*	All Files or Partners
A	All Files or Partners in error
H	All Files or Partners with a disabled status
-	All Files or Partners which are not connected by a request. Partner and File information can also be requested with **MODE I/U**.
I	Files or Partners which have at least one request waiting to be executed
U	Files or Partners which have at least one request currently being executed. Information about requests can be displayed with */-/A/h/I/U mode. A list of errors may be available.

The following table lists selection modes that you can use with Request control screens.

Mode	Description
*	All requests.
A	Requests with a Connect:Express (TRC) return code and/or a protocol (PRC) return code.
I	Requests waiting to be executed, or in retry connection process (TRC=2077), or maximum links reached (TRC=2145).
U	Requests currently being executed.

Changing the Sort Order

When you view control screens, the items are sorted by the first column, column 0. This is the File or Partner name, or Request number. You can change the sort order using the Sort command.

The sorting command uses the format *SORT x y* or *SORT (x) y*, where *x* is the column number of the sort field, and *y* is optional, but can be either 'A' for ascending (default) or 'D' for descending. Each column on a control screen has a column number that displays just below the column heading.

For example, if you want to sort the File Control screen by Transmitter in ascending order, you would type *SORT 2* on the option line and press <Enter>.

Note: The sort command is retained during the refresh '!' process.

The following table lists the screens where you can use the Sort command. It also shows the number of fields in each display and the number of screens associated with the display detail.

Control Screen	Number of Fields	Number of Screens
File	1 to 20	3
Partner	1 to 29	4
Request	1 to 22	4
Journal	1 to 36	5
Activity	1 to 18	4
Application	1 to 6	1

Using the Locate Command

The Locate command enables you to find or go to an entry in a list of Files, Requests, Partners, Transfers or Journal entries. The format for the Locate command is *L x* (x=1 to 8 characters). The Locate command only looks at the first column, column 0, of a control screen.

For example, if you type *L FT* on the File Control screen, Connect:Express goes to the first File definition that begins with FT.

Using the Mask Command

The Mask command enables you to display only entries that meet your criteria in a list of Files, Requests, Partners, Transfers or Journal entries. The format for the Mask command is *M x* (x=1 to 8 characters). The Mask command only looks at the first column, column 0, of a control screen.

For example, if you type *M FT* on the File Control screen, Connect:Express displays *only* the File definitions that begin with FT.

Using the Filter Command

The Filter command enables you to display a filtered list of entries on a control screen using any column to define your criteria. The format for the Filter command is *FILTER x EQ yyy,* where x is the column number and y is the value of x. y can be 1 to 8 characters with an '*' only at the end.

For example, if you type *FILTER 2 EQ FTP1* on the File Control screen, Connect:Express displays only those entries where the Transmitter, column 2, equals FTP1.

Note: The filter command is retained during the refresh '!' process.

File Controls

The File Control screen lists the Files defined in the File Control Table (FCT). From this screen, you can enable or disable Files, and display all requests for a File. To view the File Control screen, complete the following steps:

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type F in the option field and press <Enter>
   OR type S next to the Files option and press <Enter> to display details.
   If the File table cannot be accessed, one of the following messages will display.

Message	Explanation
NO POST IN THE TABLE OF FILES (FCT)	No entry exists in the File table. If an ID has been mentioned, the File does not exist.
TABLE OF FILES (FCT) GLOBALLY DISABLED	The File table was previously disabled.

3. Press <PF10> and <PF11> to move left and right and display all of the columns.

FILES 1/3 Screen

```
  TOM4230     FILES 1/3      F=    ID=          MODE= *           Row 1 of 13
   OPTION ===>                                                 PAGE -> PAGE

   TOM4         -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL
   SYSA
   -------------< R/S LISTS   D DIRECTORY  E ENABLE   H DISABLE
   ! FILE       STATUS      TRANSMITTER (EXT.)   <->   RECEIVER (EXT.)      MODE
   V            1           2           3        4     5          6         7
   _ F1         UNUSABLE    $$ALL$$     -         *     $$ALL$$    -         -
   _ $$F1       ENABLED     $$ALL$$     -         *     $$ALL$$    -         -
   _ $APPLIC    ENABLED     $$ALL$$     -         *     $$ALL$$    -         -
   _ $BENCMPH   ENABLED     OS390       -         *     OS390      -         -
   _ $BENCMPM   ENABLED     OS390       -         *     OS390      -         -
   _ $BENCMPV   ENABLED     OS390       -         *     OS390      -         -
   _ $BENCMPO   ENABLED     OS390       -         *     OS390      -         -
   _ FILETEST   ENABLED     $$ALL$$     -         *     $$ALL$$    -         -
   _ FILE1      ENABLED     -           -         T     USRTOM     YES       -
   _ FILE2      ENABLED     UNIX        -         R     -          -         -
   _ FILE3      ENABLED     CXNT        -         *     CXNT       -         -
   _ LIST       ENABLED     £LIST       -         *     £LIST      -         -
   *** END OF LIST
```

FILES 2/3 Screen

```
 TOM4230     FILES 2/3       F=    ID=          MODE= *        Row 1 of 13
 OPTION ===>                                                   PAGE -> PAGE

 TOM4          -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL

 --------------< R/S LISTS   D DIRECTORY  E ENABLE   H DISABLE
 ! FILE      DSNAME                                     GDG  TYPE  DEF.  ALL.
 V           8                                          9    10    11    12
 _ F1        INDEX2.&FILENAM.&REQDAT.&REQTIM.&REQNUMB   -    S     D     2
 _ $$F1      INDEX2.&FILENAM.&REQDAT.&REQTIM.&REQNUMB   -    S     D     2
 _ $APPLIC   INDEX2.PS.F080.SHORT                       -    S     D     2
 _ $BENCMPH  INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ $BENCMPM  INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ $BENCMPV  INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ $BENCMP0  INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ FILETEST  INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ FILE1     TOM4.FILE1.XMIT.TEST                       -    S     F     1
 _ FILE2     INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ FILE3     INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 _ LIST      INDEX2.&PARTNID.&FILENAM.&REQDAT.&REQNUMB  -    S     D     2
 *** END OF LIST
```

FILES 3/3 Screen

```
 TOM4230     FILES 3/3       F=    ID=          MODE= *        Row 1 of 13
 OPTION ===>                                                   PAGE -> PAGE

 TOM4          -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL

 --------------< R/S LISTS   D DIRECTORY  E ENABLE   H DISABLE
 ! FILE      DYN. STATUS TRANSMISS. EXITS    RECEPT. EXITS      PP  RECFM FTP
 V           13          14         15       16        17       18  19    20
 _ F1        ACTIVE      -          -        -         -        04  -
 _ $$F1      ACTIVE      L1EX£AE2   -        L1EX£AE2  L1APMCFJ  04  -
 _ $APPLIC   ACTIVE      -          -        -         -        01  -
 _ $BENCMPH  ACTIVE      -          -        -         -        02  -
 _ $BENCMPM  ACTIVE      -          -        -         -        04  -
 _ $BENCMPV  ACTIVE      -          -        -         -        03  -
 _ $BENCMP0  ACTIVE      -          -        -         -        01  -
 _ FILETEST  ACTIVE      L1GFIUE1   L1GFIUE1 L1GFIUE1  L1GFIUE1  04  -
 _ FILE1     ACTIVE      L1GFIUE1   L1GFIUE1 -         -        04  -
 _ FILE2     ACTIVE      L1GFIUE1   L1GFIUE1 L1GFIUE1  L1GFIUE1  04  -
 _ FILE3     ACTIVE      L1GFIUE1   L1GFIUE1 L1GFIUE1  L1GFIUE1  04  -
 _ LIST      ACTIVE      -          -        -         -        02  -
 *** END OF LIST
```

The following table describes the columns on the File Control Screen:

Column	Description
File	Symbolic File name.
Status	Status (Enabled, Disabled or Unusable). If a File is marked "unusable," its status will be changed only after modification of the entry.
Transmitter	Name of the Partner enabled to transmit.
Ext	Extension. List of transmitters found=YES.
< - >	Direction of the transfer.
Receiver	Name of the Partner enabled to receive.
Ext	Extension. List of receivers found=YES.
Mode	Mode type. A - File error H - File disabled I - File has at least one request waiting to be executed U - File has at least one request currently being executed
DSNAME	DSNAME of this file and # of generation for a GDG.
Type	File type.
Def	Definition type.
All	Allocation rule.
Dyn. Status	Dynamic status. SUPPRESS, if the entry has been dynamically suppressed. ACTIVE, if the entry has not been suppressed.
Transmiss. Exits Recept. Exits	User exits.
PP	Presentation table number (compression, exits).
RECFM	Record format.
FTP	FTP Protocol options.

4. Enter any of the following commands next to a File name and press <Enter>.

Command	Description
S – Select	Displays the requests for this File
D – Directory	Provides access to the Files directory functions
E – Enable	Enables the File
H – Hold	Disables the File

Displaying Requests for a File

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type F in the option field and press <Enter>
   OR type S next to the Files option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and find the File that you want.

4. Type R next to the symbolic File name and press <Enter>. All requests for the file are displayed. Or, type S next to the symbolic File name and press <Enter>. All shared requests for the file are displayed.

Disabling a File

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type F in the option field and press <Enter>
   OR type S next to the Files option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and find the File that you want.

4. Type H next to the symbolic File name and press <Enter>.

Enabling a File

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type F in the option field and press <Enter>
   OR type S next to the Files option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and find the File that you want.

4. Type E next to the symbolic File name and press <Enter>.

Disabling All Files

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type H next to the Files option and press <Enter>. All Files in the Files directory are disabled.

Enabling All Files

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type E next to the Files option and press <Enter>. All Files in the Files directory are enabled.

Partner Controls

The Partner Control screen lists the Partners in the Partners Control Table (PCT) with directory information. From this screen, you can enable or disable a Partner, and display all requests for a Partner. You can also list all Files accessed by a Partner. To view the Partner Controls screen, complete the following steps.

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type P in the option field and press <Enter>
   OR type S next to the Partners option and press <Enter> to display details.
   If the Partner table cannot be accessed, one of the following messages will display.

Message	Explanation
NO POST IN THE TABLE OF PARTNERS (PCT)	No entry exists in the Partner table. If an ID has been mentioned, the Partner does not exist.
TABLE OF PARTNERS (PCT) GLOBALLY DISABLED	The Partner table was previously disabled.

3. Press <PF10> and <PF11> to move left and right and display all of the columns.

PARTNERS 1/4 Screen

```
  TOM4230     PARTNERS 1/4    F=    ID=           MODE= *          Row 1 of 7
  OPTION ===>                                                      PAGE -> PAGE

  TOM4         -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL
  SYSA
  --------------< R/S/F LISTS    D DIRECTORY    E ENABLE   H DISABLE
  ! PARTNER   STATUS     PROTOCOL / TABLE  LINK       TYPE   REST.   EFF.     MODE
  V          1          2         3        4          5      6       7        8
  _ $$A       ENABLED    PESIT-D   30       X25               NO      000/004  -
  _ AS400IP   ENABLED    PESIT-E   52       MIXED      XCI    YES     000/008  -
  _ CXNT      ENABLED    PESIT-D   32       TCP-IP            YES     000/020  -
  _ ODETTE    ENABLED    ODETTE    20       X25               YES     000/002  -
  _ OS390     ENABLED    PESIT-D   50       SNA               YES     000/050  -
  _ UNIX      ENABLED    PESIT-D   50       X25               YES     000/020  -
  _ USRTOM    ENABLED    PESIT-D   50       TCP-IP            YES     000/002  -
  *** END OF LIST
```

PARTNERS 2/4 Screen

```
 TOM4230     PARTNERS 2/4    F=    ID=            MODE= *          Row 1 of 7
 OPTION ===>                                                      PAGE -> PAGE

 TOM4          -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL

 ---------------< R/S/F LISTS    D DIRECTORY    E ENABLE   H DISABLE
 !
 ! PARTNER     S-LUNAME   X-NUMBER        X-SUBAD   X-SEL     X-T.        SLD
 V           9          10              11        12        13  14      15
 _ $$A                   92100092202              A         1
 _ AS400IP     TCOMF500   801                      A         1
 _ CXNT
 _ ODETTE                175310604901             A         1
 _ OS390       SNAAPPL
 _ UNIX                  19586231404              A         1
 _ USRTOM
 *** END OF LIST
```

PARTNERS 3/4 Screen

```
 TOM4230     PARTNERS 3/4    F=    ID=            MODE= *          Row 1 of 7
 OPTION ===>                                                      PAGE -> PAGE

 TOM4          -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL

 ---------------< R/S/F LISTS    D DIRECTORY    E ENABLE   H DISABLE
 !
 ! PARTNER    ST-DYN    TYPE      U-R G-R P-T O-T   EFFECTORS      ALIAS    S-T
 V           16        17         18  19  20  21   IN      OUT    24       25
 _ $$A        ACTIVE    TOM-TED    YES NO  -   -    000/002 000/002         00
 _ AS400IP    ACTIVE    TOM-TED    YES NO  -   -    000/004 000/004     00         1
 _ CXNT       ACTIVE    TOM-TED    YES NO  -   -    000/010 000/010         00
 _ ODETTE     ACTIVE    TOM-TED    YES NO  -   -    000/001 000/001         00
 _ OS390      ACTIVE    TOM-TED    YES NO  -   -    000/025 000/025         00
 _ UNIX       ACTIVE    TOM-TED    YES NO  -   -    000/010 000/010         00
 _ USRTOM     ACTIVE    TOM-TED    YES NO  -   -   000/001 000/001     00
 *** END OF LIST
```

PARTNERS 4/4 Screen

```
   TOM4230      PARTNERS 4/4    F=    ID=           MODE= *           Row 1 of 500
   OPTION ===>                                                       PAGE -> PAGE


   TOM4          -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL

  --------------< R/S/F LISTS    D DIRECTORY    E ENABLE   H DISABLE
   !
   ! PARTNER    TCPIP-ADR.     TCPIP-P. TCPIP-HOST                       FTP
   V           26             27      28                                29
   _ $$A        -              -       -
   _ AS400IP    117.55.12.3    2000    -         -
   _ CXNT       10.212.14.51   7002    -
   _ ODETTE     -              -       -
   _ OS390      -              -       -
   _ UNIX       -              -       -
   _ USRTOM     192.21.10.4    4000
  *** END OF LIST
```

The following table describes the columns on the Partners Control screens:

Column	Description
Partner	Subscriber Partner name.
Status	Status (Enabled, Disabled or Unusable). If a Partner is marked "unusable," its status will be changed only after modification of the entry.
Protocol	Name of the transfer protocol.
Table	The session table for this Partner is T1B2PSxx.
Link	The type of link. It can be unique or mixed.
Type of Link	If the link is mixed, this field lists the possible link types.
Rest.	Restart. If yes, automatic call retry and transfer restart is active.
Eff.	The total number of current links and the total number of links provided.
Mode	Mode type. A - Partner error H - Partner disabled I - Partner has at least one request waiting to be executed U - Partner has at least one request currently being executed
S-LUNAME, X-Number, X-Subad, X-Sel, X-T	Network addresses (SNA, X.25).
SLD	SLD table entry.
ST-DYN	Dynamic Status. SUPPRESS, if the entry has been dynamically suppressed. ACTIVE, if the entry has not been suppressed.
Type	Partner type.
U-R, G-R,	RACF user and group.
P-T, O-T	ASIT type of Partner (France).

Column	Description
Effectors	Session in and out links used and allocated.
Alias	Local name for this Partner.
S-T	Security table number.
TCPIP-ADR	Network address (TCP/IP).
TCPIP-P	TCPIP host.
FTP-P	FTP default profile.

4. Enter any of the following commands next to a Partner name and press <Enter>.

Command	Description
E – Enable	Enables the Partner.
H – Hold	Disables the Partner, all requests regarding this Partner are placed in the queue.
S – Select	Displays the requests concerning this Partner.
F – Files	Lists all the Files accessed by this Partner.
D – Directory	Provides access to the Partners Directory functions.

Displaying Requests for a Partner

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type P in the option field and press <Enter>
   OR type S next to the Partners option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and display the Partner record that you want.

4. Type R next to the symbolic Partner name and press <Enter>. All requests for the Partner are displayed. Or type S next to the symbolic Partner name and press <Enter>. All shared requests for the partner are displayed.

5. Press <PF3> to cancel back to the previous screen.

Disabling a Partner

When you disable a Partner, you cannot receive incoming requests from this Partner and all transfers for the Partner are placed in a queue.

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type P in the option field and press <Enter>
   OR type S next to the Partners option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and display the Partner record that you want.

4. Type H next to the symbolic Partner name and press <Enter>.

Enabling a Partner

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type P in the option field and press <Enter>
   OR type S next to the Partners option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and display the Partner record that you want.

4. Type E next to the symbolic Partner name and press <Enter>.

Disabling all Partners in the Directory

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type H next to the Partners option and press <Enter>.

Enabling all Partners in the Directory

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type E next to the Partners option and press <Enter>.

Listing all Files Accessed by a Partner

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type P in the option field and press <Enter>
   OR type S next to the Partners option and press <Enter> to display details.

3. Press <PF7> and <PF8> to page up or down and display the Partner record that you want.

4. Type F next to the symbolic Partner name and press <Enter>. All Files accessed by the Partner are displayed.

Request Controls

The Request Control screen displays request information, such as class, priority, and status. From this screen, you can change a request class, enable or disable requests, and purge a request. You can also interrupt and restart requests. To view the Request Control screen, complete the following steps.

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.
    If the Request Control Table cannot be accessed, one of the following messages will display.

Message	Explanation
NO POST IN THE TABLE OF REQUESTS (RCT)	There is no request being processed at this time.
TABLE OF REQUESTS (RCT) GLOBALLY DISABLED	The Request table was previously disabled.

3. Press <PF10> and <PF11> to move left and right and display all of the columns.

REQUESTS 1/4 Screen

```
   TOM4230      REQUESTS 1/4    F=    ID=            MODE= *              Row 1 of 2
   OPTION ===>                                                       PAGE -> PAGE


   TOM4          -< 'COMMANDS'   -PF3- RETURN    -PF7/8/10/11- SCROLL
   SYSA
   --------------< S DETAILS     E ENABLE   H HOLD      C 'NEW-CLASS'
   !               I INTERRUPT   P PURGE    R RESTART   Y 'NEW-PRIORITY'
   !
   ! REQ.NUM.  WITH(CNX) C. P. ORIGIN   REQ.TYPE   STATUS-2     STATUS-3      MODE
   V    1           2 3 4      5          6          7             8
   _ 00000254  OS390     A 1 TSO       N NORMAL    DISABLED     SEL. FAILED   A
   _ 00001302  UNIX      A 0 BATCH     N NORMAL    ENABLED      AWAITING SEL  I
   *** END OF LIST
```

REQUESTS 2/4 Screen

```
   TOM4230      REQUESTS 2/4    F=    ID=            MODE= *              Row 1 of 2
   OPTION ===> !                                                     PAGE -> PAGE


   TOM4          -< 'COMMANDS'   -PF3- RETURN    -PF7/8/10/11- SCROLL
   SYSA
   --------------< S DETAILS     E ENABLE   H HOLD
   !               I INTERRUPT   P PURGE    R RESTART
   !
   ! REQ.NUM.  TYPE    APM-EFF.   SESSION     REQ. ID.   SYSTNAME   EXTERNAL NUMBER
   V    9       10         11         12         13         14
   _ 00000254  PESIT   -          RECEIVE     USR8       SYSA
   _ 00001302  PESIT   -          RECEIVE     USR4REQ1   SYSB
   *** END OF LIST
```

REQUESTS 3/4 Screen

```
  TOM4230    REQUESTS 3/4    F=    ID=         MODE= *           Row 1 of 2
  OPTION ===> !                                               PAGE -> PAGE


  TOM4         -< 'COMMANDS'   -PF3- RETURN     -PF7/8/10/11- SCROLL


  -------------< S DETAILS    E ENABLE    H HOLD
  !            I INTERRUPT   P PURGE    R RESTART
  !
  ! REQ.NUM.   STATUS-1      PART.TYPE    TRC         PRC       RETRIES
  V           15            16           17          18        19
  _  00000254  AVAILABLE     TOM-TED      -           2226      000
  _  00001302  AVAILABLE     TOM-TED      -           -         000
  *** END OF LIST
```

REQUESTS 4/4 Screen

```
  TOM4230    REQUESTS 4/4    F=    ID=         MODE= *           Row 1 of 2
  OPTION ===> !                                               PAGE -> PAGE


  TOM4          -< 'COMMANDS'   -PF3- RETURN     -PF7/8/10/11- SCROLL


  -------------< S DETAILS    E ENABLE    H HOLD
  !            I INTERRUPT   P PURGE    R RESTART
  !
  ! REQ.NUM.  STEP          LINK-TYPE     SLD-ID
  V          20            21            22
  _  00000254 3:SEL.TRANS.  TCP-IP
  _  00001302 0:NO PROCESS  X25
  *** END OF LIST
```

The following table describes the columns on the Request Control screens:

Column	Number	Description
REQ.NUM		Number of the request.
WITH	1	Partner name for connection.
C.	2	Request Class.
P.	3	Priority assigned to the request.
ORIGIN	4	Nature of the requestor: TSO, BATCH, EXTERNAL, etc.
REQ.TYPE	5	Type of request.
STATUS-2	6	Status of request. ENABLED - Request eligible DISABLED **-** Request not eligible either after operator entered a command H or after abnormal end of a previous processing operation. UNUSABLE **-** Request not eligible if the message: "REQ xxxxxxxx is marked unusable" has been issued during Connect:Express initialization otherwise, the request cannot be reactivated by the monitor. The operator can only purge these requests.

Column	Number	Description
STATUS-3	7	Status of Request. Valid values are: INIT - Connection phase active. WAITING - The request was scheduled and transfer resources were allocated. Connection failed and request is waiting for a new attempt. AWAITING SEL - Waiting in input queue for a resource. SELECTED - Server has started to process this request. STARTED - Transfer started. ENDED - Transfer completed, request will be deleted from queue. INTERRUPTED - Abnormal end of transfer; request was in error and remains in queue. SEL.PROTOCOL - File transfer being negotiated. UNLOAD/REL. - Batch job submitted for unloading or loading of a VSAM, PDS user or SYSOUT file, but not yet finished. SEL.FAILED - Error during the file transfer negotiation; transfer not started and request remains in queue.
MODE	8	Mode I - Request initialized U - Request being processed A - Request with anomaly
TYPE	9	Partner type (protocol).
APM-EFF	10	Identification of the APM resource used for the transfer.
SESSION	11	Transmit/receive, receive only, or transmit only.
REQ. ID	12	The TSO userid of the request or the JOB name of the BATCH request (outgoing). The Local name is associated with the name of the system from which the request was sent, in a Plex environment. The EXTERNAL requestor of an incoming transfer.
SYSTNAME	13	The name of the system on which the caller request is made. External requests have no system name.
External Number	14	The request number of this transfer on the remote side.
STATUS-1 (internal status)	15	Internal status. Valid values are: AVAILABLE - Request waiting to be processed SYSTEM - Status internal to the monitor
PART TYPE	16	Displays the Partner type for this transfer. For example, Connect:Express Partner, compatible Partner, RJE, etc.
TRC	17	Connect:Express return code displays here if an error occurs. If received from a remote Connect:Express Partner, it is associated with R. L or ' ' indicates a local TRC.
PRC	18	Protocol return codes display here if an error occurs.
RETRIES	19	Number of retries attempted if a failure occurred.
STEP	20	Holds a number from 0 to 8 that indicates the stage of the transfer process. The numbers have the following definitions: 0 - No process 1 - Begin unload 2 - End unload 3 - Begin transfer 4 - Transfer active 5 - End transfer 6 - Begin reload 7 - End reload 8 - End request
LINK-TYPE	21	Displays the type of link for the transfer.

Column	Number	Description
SLD-ID	22	The SLD table entry used for the transfer.

4. Enter any of the following commands next to a Request line and press <Enter>.

Command	Description
C	Changes the request class (values A-Z).
E	Enables a local request (if status-2=DISABLE or status-3=SEL.FAILED).
H	Disables the request and prevents its selection.
S	Requests details concerning this request (status, etc.).
P	Halts current transfer and purges request.
I	Interrupts the request.
X	Displays subsequent screens (PF10/11 in ISPF V2).
R	Restarts transfer when status-3 is 'Interrupted.'
Y	Changes request priority (values 0-3).
-	Placing the cursor and pressing <ENTER> key displays the return codes for this request. For online help press <PF1>.

Changing the Class for a Request

Classes enable you to control which APMs process transfer requests.

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3. Press <PF7> or <PF8> to page up or down and display the request line that you want.

4. Type C next to the request line, then move to column 2 and enter the new class. Classes can have a value of A-Z.

5. Press <Enter> to change the class for the request.

Changing the Priority for a Request

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3.   Press <PF7> or <PF8> to page up or down and display the request line that you want.

4.   Type Y next to the request line, then move to column 3 and enter the new priority. The priority can have a value of 0-3, with 0 being urgent and 3 being the lowest priority.

5.   Press <Enter> to change the priority for the request.

Displaying Return Codes for a Request

1.   From the Main Menu, type 2.1 and press <Enter>
     OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2.   Type R in the option field and press <Enter>
     OR type S next to the Requests option and press <Enter> to display details.

3.   Press <PF7> or <PF8> to page up or down and display the request line that you want.

4.   Place the cursor next to the request line and press <Enter> to display return codes for the request.

5.   Press <PF3> to cancel back to the previous screen.

Disabling a Request

1.   From the Main Menu, type 2.1 and press <Enter>
     OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2.   Type R in the option field and press <Enter>
     OR type S next to the Requests option and press <Enter> to display details.

3.   Press <PF7> or <PF8> to page up or down and display the request line that you want.

4.   Type H next to the request line and press <Enter> to disable the request.

Enabling a Request

1.   From the Main Menu, type 2.1 and press <Enter>
     OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2.   Type R in the option field and press <Enter>
     OR type S next to the Requests option and press <Enter> to display details.

3.   Press <PF7> or <PF8> to page up or down and display the request line that you want.

4.   Type E next to the request line and press <Enter> to enable the request.

Disabling all Requests

1.   From the Main Menu, type 2.1 and press <Enter>
     OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2.   Type H next to the Requests option and press <Enter>.

Enabling all Requests

1.   From the Main Menu, type 2.1 and press <Enter>
     OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2.   Type E next to the Requests option and press <Enter>.

Purging a Request

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations
    Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3. Press <PF7> or <PF8> to page up or down and display the request line that you want.

4. Type P next to the request line and press <Enter> to halt the current transfer and purge the request.

Interrupting a Request

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations
    Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3. Press <PF7> or <PF8> to page up or down and display the request line that you want.

4. Type I next to the request line and press <Enter> to interrupt the request.

Restarting a Request

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations
    Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3. Press <PF7> or <PF8> to page up or down and display the request line that you want.

4. Type R next to the request line and press <Enter> to restart a request that was interrupted.

Displaying Details about a Request

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations
    Control screen is displayed.

2. Type R in the option field and press <Enter>
    OR type S next to the Requests option and press <Enter> to display details.

3. Press <PF7> or <PF8> to page up or down and display the request line that you want.

4. Type S next to the request line and press <Enter> to display details for the request. This information is
    displayed on three screens, TRANSFERS 1/3 - 3/3, as shown below.

TRANSFERS 1/3 Screen

```
  TOM4230    TRANSFERS 1/3        ID= 00000254 MODE= *           Row 1 of 1
  OPTION ===> !                                            PAGE -> PAGE

  TOM4        -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL
  SYSA
  -------------< X EXTENSION
  !
  !  REQ.NUM.   FILE            TYPE(N./A.H.)  DIRECTION      PARTNER-XFER  MODE
  !             STATUS0         STATUS1        STATUS2        STATUS3
  !             START EXIT      END EXIT       PRESENTATION   TYPE          SECU.
  !             DSNAME LOC.
  !             DSNAME REM.
  V
  _  00000254  FILETEST         NORMAL         TRANSMIT       OS390       A
               DISABLED        REJ. PART.     END LOAD       -
               L1GFIUE1        L1GFIUE1       01             S             00
               INDEX2.PS.F080.SHORT
```

TRANSFERS 2/3 Screen

```
  TOM4230    TRANSFERS 2/3        ID= 00000254 MODE= *           Row 1 of 1
  OPTION ===> !                                            PAGE -> PAGE
                                                      00/11/17 08:57
  TOM4        -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL
                                                      2000/11/17 08:57:11
  -------------< X EXTENSION
  !
  !  REQ.NUM.   FILE         DATA-TYPE     ALIAS/AH-ID ID/AH-GROUPE
  !             DATE-TIME OF REQUEST       PI51(SIT)
  !             DATE-TIME OF SELECTION     ORG.       DEST.
  !             DATE-TIME OF LOAD/UNLOAD
  !             DATE-TIME OF START AND END
  V
  _  00000254  FILETEST     -             -           USR8
               00/10/23   11:22:50       -
               00/10/23   11:22:50       EXPRESS     OS390
               00/00/00   00:00:00
               00/10/23   11:22:53       00/10/23    11:22:53
  *** END OF LIST
```

TRANSFERS 3/3 Screen

```
   TOM4230     TRANSFERS 3/3        ID= 00000254 MODE= *          Row 1 of 1
   OPTION ===> !                                              PAGE -> PAGE
                                                   SYS:   00/11/17 08:57
   TOM4        -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL
                                                   TOM: 2000/11/17 08:57:22
   -------------< X EXTENSION
   !
   !  NUM.REQ.   FILE          RECORDS XFERED  SEND/REC.   INIT.K.     RESTARTS
   !             PARM.MBR      DURATION        PERCENT-XFERED          REM.DUR.
   !             FILE-K.       NETWORK-K.    NETWORK FLOW K./SECOND  (K.BYTES)
   !             API
   !
   V
   _  00000254   FILETEST      -               -            57          -
                 -             -               -                        -
                 -             -               -       ( 0    / 0   )
                 EXPRESS             OS390                       FILETEST
      001023112253
   *** END OF LIST
```

The following table describes the columns on the Transfers screens:

Column	Field	Description
	NUM.REQ	Number of request
1	FILE	Symbolic File name
	STATUS 0	Status of the request: see STATUS table below
	START EXIT	User exit called before transfer
	DSNAM. LOC.	Local data set name
	DSNAM. REM.	Remote data set name
2	TYPE	Type of the request
	STATUS 1	Status of the transfer: see STATUS table below
	END EXIT	User exit called after transfer
3	DIRECTION	Direction of the transfer
	STATUS 2	Status of transfer operations: see STATUS table below
	PRESENTATION	Data presentation table number
4	PARTNER-XFER	The name of the Partner with whom transfer is done.
	STATUS 3	Status of the transfer: see STATUS table below
	TYPE	File type (Sequential, PDS …)
5	MODE	Request mode (I, A, or U)
	SECU	Security table number
6	FILE	Symbolic File name
(6-7)	DATE of request	Date + time the request was received by Connect:Express

Column	Field	Description
(6-7)	DATE of Selection	Date + time the request was selected by Connect:Express
(6-7)	DATE of Load/unl	Date + time the unload or reload processing was launched by Connect:Express
(6-7)	DATE of start	Date + time the transfer was started
7	DATA-TYPE	Data type (ascii, ebcdic)
8	ALIAS/AH-ID	Ad Hoc RACF user ID or RACF Alias ID
	Pi51 (SIT)	Specific PeSIT parameter (File timestamp)
	ORG.	Transfer origin identification
(8-9)	DATE of end	Date + time the transfer was ended
9	ID/AH-GROUP	Ad Hoc RACF Group
	DEST.	Transfer destination identification
10	FILE	Symbolic File name
	PARM. MBR	PDS Unload selection member
	FILE K.	File size in Kilobytes
(10-14)	API (82 char.)	Application name of the file (origin-destination-file name-timestamp)
11	RECORDS XFERED	Number of records transferred
	DURATION	Transfer duration
	NETWORK-K.	Kilobytes transferred
12	SEND/REC.	Number of network send received performed
	PERCENT-XFERED	Percentage between file Kbytes and Network Kbytes
(12-14)	NETWORK FLOW….	Bytes transferred in one second
13	INIT. K.	File size information (before transfer)
14	RESTARTS	Number of restarts performed from the first selection of the request
	REM. DUR.	Time remaining before the end of transfer

The conditions for STATUS 0, 1, 2, and 3 are identified in the following table.

Field	Possible Values
STATUS0	ENABLED - Request eligible HELD - Request not eligible, either an operator entered the H command, or there was an abnormal termination of a previous processing operation. UNUSABLE - Request not eligible because the message: "REQ xxxxxxxx is marked unusable" was issued during Connect:Express initialization. Otherwise, the request can be reactivated by the monitor. The operator can only purge these requests.

Field	Possible Values
STATUS1	READY - Request waiting to be processed IN ALLOC - Allocation of a current file END ALLOC - End of allocation for a file REJ: PART - Request rejected by the Partner ERR. ALLOC - File allocation error TRANS. SEL. - Transfer selected
STATUS2	END LOAD - Loading step completed END UNLOAD - Unloading step completed TRAN.ACTIVE - Transfer currently executed END TRANS. - Transfer completed LOAD ERROR - Error during loading step UNLOAD ERROR - Error during unloading step ENDED - Request completed
STATUS3	ERR.TRANS - Error during transfer REST. IMPOS. - Restart impossible TO RESTART - Transfer to restart SUSPENDED - Transfer interrupted by operator STOP WAIT - Transfer stopped by server STOP INIT. - Transfer stopped by requestor

Shared Request Controls

The Shared Request Control screen displays request information for requests that are available for all monitors of a Sysplex supervised group. If the monitor is running stand alone, the table is empty.

From this screen, you can enable or disable requests, and purge a request. To view the Shared Request Control screen, complete the following steps.

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type S in the option field and press <Enter>
   OR type S next to the Shared option and press <Enter> to display details.

If the Shared Request Control Table cannot be accessed, one of the following messages will display.

Message	Explanation
NO POST IN THE TABLE OF REQUESTS (HCT)	There is no shared request being processed at this time.
TABLE OF REQUESTS (HCT) GLOBALLY DISABLED	The Shared Request table was previously disabled.

Request information of a shared request is the same as any request. Enabling, disabling, displaying information and return codes or purging a shared request is done in the same way as any request.

Disabling all Shared Requests

1. From the Main Menu, type 2.1 and press <Enter>.
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type H next to the Shared option and press <Enter>.

Enabling all Shared Requests

1. From the Main Menu, type 2.1 and press <Enter>.
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type E next to the Shared option and press <Enter>.

Network Controls (ANM)

The Network Control screens enable you to monitor the Connect:Express Network and issue z/OS commands that are sent to the system log.

Note: The commands are filtered through SDSF-IBM or SAM-EDS, this setup is configured from the Main Menu using Option 0 (zero).

The Management of Network 1/3 screen enables the user to view resources used for SNA, X.25, and TCP/IP, as well as their status. When you issue a DISPLAY or ACTIVATE command, a command is formatted and submitted to z/OS. You can view the results of display commands through SDSF-IBM or SAM-EDS LOG in z/OS. Complete the following steps to display the Network Control screen:

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type N in the option field and press <Enter>
   OR type S next to the Network option and press <Enter> to display details.

NETWORK 1/3 Screen

```
   TOM4230    NETWORK 1/3                              NAMES INITIALIZED    !
   OPTION ===> !

   TOM4        ^-< 'COMMANDS' -PF3- END   -PF10/11- SCROLL
   SYSA  ACTIVE   GLOBAL
   --------------< AT ACT.TOM  AV ACT.VTAM  DV DISPLAY VTAM
   !                          IV INA.VTAM
   !
   ! RESOURCES    ID           STATUS      COUNT
   V
   ___ NETWORK    APPLS        2ERROR(S)
   ___ SNA PA/PA  TOM4AP01     ACTIVE       -         SESSION(S)
   ___ IBM 3270   TOM4AP05     ACTIVE       -         SESSION(S)
   ___ LU 6.2     TOM4AP07     ACTIVE       -         SESSION(S)
   ___ TCP-IP     -            ACTIVE       -         SESSION(S)
   ___ X25 DATE   TOM4AP02     ACTIVE       1         MCH(S)
   ___ X25 GATE   TOM4AP06     ACTIVE       2         MCH(S)
   ___ X25 PCNE   TOM4AP03     ACTIVE

      WELCOME ROUTINE          ACTIVE
```

> **Note:** The Management of Network 2/3 and 3/3 screens enable the user to view X.25 resources with detail of the MCH used.

NETWORK X25 2/3 Screen

```
 TOM4230    NETWORK X25 2/3
 OPTION ===> !

 TOM4         -< 'COMMANDS'  -PF3- RETURN    -PF10/11- SCROLL
 --------------< AT ACT.TOM  AV ACT.VTAM MCH DV DISP.VTAM MCH ( .VLU FOR 'LU' )
 !                           IV INA.VTAM MCH                  ( .VLU FOR 'LU' )
 V     MCH         LU        MCHMSC    TYPE     STATUS     CV USED /CV ALL.
 ____ 01 GXCOM1    LUXCOM1    A         G        NOT ACTIVE   -        8
 ____ 02 GXCOM2    LUXCOM2    A         D        ACTIVE       -        8
 ____ 03 GXCOM3    LUXCOM3A   A         G        NOT ACTIVE   -        8
 ____ 04 -         -         -         -        -           -        -
 ____ 05 -         -         -         -        -           -        -
 ____ 06 -         -         -         -        -           -        -
 ____ 07 -         -         -         -        -           -        -
 ____ 08 -         -         -         -        -           -        -
 ____ 09 -         -         -         -        -           -        -
 ____ 10 -         -         -         -        -           -        -
 ____ 11 -         -         -         -        -           -        -
 ____ 12 -         -         -         -        -           -        -
 ____ 13 -         -         -         -        -           -        -
 ____ 14 -         -         -         -        -           -        -
 ____ 15 -         -         -         -        -           -        -
 ____ 16 -         -         -         -        -           -        -
```

NETWORK X25 3/3 Screen.

```
  TOM4230     NETWORK X25 3/3
 OPTION ===> !

 TOM4          -< 'COMMANDS'  -PF3- RETURN    -PF10/11- SCROLL
 --------------< AT ACT.TOM  AV ACT.VTAM MCH DV DISP.VTAM MCH ( .VLU FOR 'LU' )
 !                           IV INA.VTAM MCH                  ( .VLU FOR 'LU' )
 V      MCH        LU       MCHMSC    TYPE     STATUS      CV USED /CV ALL.
 ____ 17 -         -         -         -        -            -         -
 ____ 18 -         -         -         -        -            -         -
 ____ 19 -         -         -         -        -            -         -
 ____ 20 -         -         -         -        -            -         -
 ____ 21 -         -         -         -        -            -         -
 ____ 22 -         -         -         -        -            -         -
 ____ 23 -         -         -         -        -            -         -
 ____ 24 -         -         -         -        -            -         -
 ____ 25 -         -         -         -        -            -         -
 ____ 26 -         -         -         -        -            -         -
 ____ 27 -         -         -         -        -            -         -
 ____ 28 -         -         -         -        -            -         -
 ____ 29 -         -         -         -        -            -         -
 ____ 30 -         -         -         -        -            -         -
 ____ 31 -         -         -         -        -            -         -
 ____ 32 -         -         -         -        -            -         -
```

The following table describes the columns on the Network Control screen.

Field	Description
ID	The name of the VTAM application. This name is comprised of the SYSIN ANMAPPL= parameter plus a number, for example, TOMAPPL01 or TOMAPPL02 if ANMAPPL=TOMAPPL.
STATUS	Resource status. Values can be: ENABLE - All the Network components are in service X ERROR(S) - x error(s) were found in handlers and/or MCH ACTIVE - Normally active NOT ACTIVE - Abnormal state (not selected or out of service) DEACTIVATED - Abnormal temporary state (out of service) ABEND - Abnormal ending, or stopped, but can be restarted
COUNT	Number of currently active sessions or number of MCH. MCH are described in the next screens accessed with <PF10>.
MCH	Name of the MCH (described in the SYSIN file).
LU	Name of the LU of MCH (described in the SYSIN file).
MCHMSC	Internal identification of the MCH (described in the SYSIN file).
TYPE	Gate or Date MCH (described in the SYSIN file).
STATUS	Resource status.
CV USED	Number of virtual circuits currently being used.
CV ALL.	Total number of virtual circuits allocated (described in the SYSIN file).

3. Enter any of the following commands next to a Network resource and press <Enter>.

Command	Description
AT	Active TOM command. This is needed to start an ANM handler. The VTAM resource must be active (AV sent before). Note: TCP/IP handler only requires AT.
AV	Active VTAM command. This sends the correct command to VTAM according to the resource activated. To activate a Connect:Express resource, an AT command should follow.
IV	Inactive VTAM command. This sends the correct command to VTAM according to the resource activated. The corresponding Connect:Express resource will be inactivated.
DV	Display VTAM command. This sends the correct command to VTAM according to the resource activated.
AVLU	Active VTAM command. This sends the correct command to VTAM according to the X25 resource selected. To activate Connect:Express resources, an AT command should follow.
IVLU	Inactive VTAM command. This sends the correct command to VTAM according to the X25 resource selected. The corresponding Connect:Express resource will be inactivated.
DVLU	Display VTAM command. This sends the correct command to VTAM according to the X25 resource selected.

Transfer Servers Control (APM)

The Transfers (APM) screen lists transfer servers and enables the user to view activated, deactivated, and disabled areas. From this screen, you can control the number and distribution of allocated servers for each APM (Auxiliary Protocol Manager) and issue z/OS commands that are sent to the system log. The command is filtered through SDSF-IBM or SAM-EDS. This setup is configured from the Main Menu using Option 0 (zero). Complete the following steps to display the Transfers (APM) screen.

1. From the Main Menu, type 2.1 and press <Enter>
    OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type T in the option field and press <Enter>
    OR type S next to the Transfers option and press <Enter> to display details.

TRANSFERS Screen

```
   TOM4230    TRANSFERS  (A.P.M.)                        NAMES INITIALIZED    !
   OPTION ===> !

   TOM4        -< 'COMMANDS'   -PF3- END
   SYSA  ACTIVE   GLOBAL
   --------------< AA START   IA STOP   MC CHG. CLASSES ===> B
   !
   !  A.P.M.  EFFECTOR     STATUS          CLASSES        USE
   V
   __  01     - /  16     ACTIVE          B              -
   __  02     - /  16     NOT ACTIVE      ABCDEZ         -

   __  03     - /  16     NOT ACTIVE      ABCDEZ         -
   __  04     - /  16     NOT ACTIVE      ABCDEZ         -
   __  05     - /  16     NOT ACTIVE      ABCDEZ         -
   __  06     - /  16     NOT ACTIVE      ABCDEZ         -
   __  07     - /  16     NOT ACTIVE      ABCDEZ         -
   __  08     - /  16     NOT ACTIVE      ABCDEZ         -

                         ASIDS USED/ALL. : 1  / 8
```

The following table describes the values for the Status field:

Status	Description
ACTIVE	Normally active
NOT ACTIVE	Not selected at start-up, but can be started
UNUSED	Not defined at start-up, cannot be started
ABEND	Abnormal ending, or stopped, but can be restarted

3.   Enter any of the following commands next to an APM and press <Enter>.

Command	Description
AA	Start the APM. This sends the correct command to Connect:Express.
IA	Stop the APM. This sends the correct command to Connect:Express.
MC	Change the class of the APM. A class of NONE is used to delay the APM until no more requests are active. This sends the correct command to Connect:Express.

Starting an APM

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type T in the option field and press <Enter>
   OR type S next to the Transfers option and press <Enter> to display details.

3. Type AA next to the APM that you want to start and press <Enter>.

Stopping an APM

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type T in the option field and press <Enter>
   OR type S next to the Transfers option and press <Enter> to display details.

3. Type IA next to the APM that you want to stop and press <Enter>.

Changing the Class of an APM

1. From the Main Menu, type 2.1 and press <Enter>
   OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type T in the option field and press <Enter>
   OR type S next to the Transfers option and press <Enter> to display details.

3. In the CHG CLASSES field, enter the classes that you want to assign.

4. Type MC next to the APM that you want to change and press <Enter>.

Note: If you enter a class of NONE, no transfers will be executed in the APM.

Viewing the System Log

The System Log or SYSLOG keeps a detailed record of all events. This option can be used if Connect:Express and APM SYSLOG files are allocated on disk. You may need to view monitor activity in the system log to determine when a problem occurred.

Note: If a DDNAME SYSLOG is put on SYSOUT, SYSLOG control can be directly executed by viewing the Connect:Express JOB. This is the recommended option.

Complete the following steps to display the System Log:

1. From the Main Menu, type 2.2 and press <Enter>. The Interrogation of Logs screen is displayed.

```
TOM4230----------------- INTERROGATION OF LOGS -------- NAMES KEPT          !
 OPTION ===>                                                       SYSA

 MONITOR  ===> TOM4
 V--------------------< S SELECTION OF LOGS       TYPE ===> VIEW
 _ TOM    ---> SYSOUT
 _ APM01  ===> INDEX1.TOM4APM.SYSLOG
 _ APM02  ===>
 _ APM03  ===>
 _ APM04  ===>
 _ APM05  ===>
 _ APM06  ===>
 _ APM07  ===>
 _ APM08  ===>
 _ XXX01  ===>
 _ XXX02  ===>
 _ XXX03  ===>
 _ XXX04  ===>
 _ XXX05  ===>
 _ XXX06  ===>
 _ XXX07  ===>
 _ XXX08  ===>
           X EXIT, -PF3- END
```

2. Type S next to the system log that you want to view and press <Enter>.

Viewing the Transfer Journal

The Journal Inquiry option lets you review all successful and unsuccessful transfers that meet a certain criteria. The journal has a defined size. Once the journal is full, new information will overwrite the old information. You can adjust the size of the journal file to store records for a longer time period. See the Administration Guide for detailed information about the journal file.

Complete the following steps to display the Journal of Transfers Inquiry screen:

1. From the Main Menu, type 2.3 in the option field and press <Enter>
    OR type the jump command JNL in the option field on any Connect:Express screen and press <Enter>.
    The Journal of Transfers Inquiry Screen is displayed.

```
 TOM4230--------- JOURNAL OF TRANSFERS INQUIRY --------- NAMES INITIALIZED   !
 OPTION ===>                                                            SYSA

 MONITOR          ===> TOM4                         SYSA   ACTIVE   GLOBAL
                                                    2000/11/17     06:30:43
 FILE NAME        ---> FILETEST                     ' '/'FILE'/'ROOT'

 TRANSFER WITH    --->                              ' '/'PARTNER'/'ROOT'
 DIRECTION        --->                              ' '/'T'/'R'
 REQUESTED BY     --->                              ' '/'REQUESTOR'/'ROOT'
 LOCAL REQUEST    --->                :             ' '/'NUMBER:''/NUMBER2'
 LOCAL DSN        --->                              ' '/'ROOT'
 REMOTE DSN       --->                              ' '/'ROOT'
 ERROR TRC        --->                              ' '/'CODE'/'NNUL'
 ERROR PRC        --->                              ' '/'CODE'/'NNUL'

 START DATE/TIME ---> 001117    AT   000000    YYMMDD - HHMMSS  00/11/17
 END   DATE/TIME ---> 001117    AT   235959    YYMMDD - HHMMSS  06:30

 LIST IN TABLE FORMAT    ---> YES       (YES/NO/P)
 NAME OF JOURNAL FILE    ---> INDEX1.TOM4.SYSJNL
 NAME OF THE ENVVAR FILE ---> INDEX1.TOM4.ENVVAR

           X EXIT, -PF3- END
```

2. Enter any criteria that you want and press <Enter>. The criteria fields are described in the following table:

Field	Description
FILE NAME	The symbolic File name. Leave this field blank for all File names. Example: FILETEST, FILE*
TRANSFER WITH	The symbolic Partner name. Leave this field blank for all Partner names. Example: PARTNER, PART*
DIRECTION	R=Reception, T=Transmission or *=both directions
REQUESTED BY	The initiator of the transfer: The TSO user and system name, Batch and system name or remote Partner. Leave blank for any requestor. Example: TSOU*, PART*

LOCAL REQUEST	The transfer request number. Leave blank for all requests or enter a range of request numbers.
	Example: 00003000 : 00004000 (from 3000 to 4000),
	           00003000 : (greater than 3000),
	               : 00003000 (less than 3000),
	               : (Any)

LOCAL DSN	The data set name on the local system. Leave blank for all. Example: Index1.*
REMOTE DSN	The data set name on the remote side. Leave blank for all. Example: Index1.*
ERROR TRC	Connect:Express return code. Leave blank for all or enter the string 'NNULL' for all non-null entries. Example: 2036, NNULL
ERROR PRC	Transfer protocol return code. Leave blank for all or enter the string 'NNULL' for all non-null entries. Example: 2213, NNULL
START DATE/TIME	Beginning date/time of transfer. Transfers that began on or after this date/time are listed.
END DATE/TIME	End date/time of transfer. Transfers that ended after this date/time are not listed.
List in Table Format	Valid values include: YES - View a formatted ISPF screen where you can view details NO - Browse a sequential data set P - Browse a sequential data set for printing
Name of the ENVVAR file	The ENVVAR file defines environment variables. The current file is displayed. Changing the name of the file enable you to use old variables when extending fields.

3. The Journal 1/5 screen is displayed. Press <PF10> and <PF11> to view additional columns shown on Journal screens 2/5 - 5/5.

```
 TOM4230     JOURNAL 1/5     F=                                         -
 OPTION ===>                                             SCROLL-> PAGE

 TOM4        -< 'COMMANDS'  -PF3- END, -PF7/8/10/11- SCROLL
 SYSA
 ------------< S SCOPE     B BROWSE
 !
 ! FILE      N D  WITH   TYPE TRC  PRC  REQUESTOR  DATE-BEG./TIME      DURAT.
 ! *           *  *           *    *    *          001001    000000
 V           1 2  3      4    5    6    7          8         9         10
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:38:49  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:38:51  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:01  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:02  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:08  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:11  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:12  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:13  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:20  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:20  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:28  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:28  00:00:02
 _ FILETEST  0 T  OS390  T    -    -    USRAP4     00/10/16  07:39:33  00:00:02
 _ FILETEST  0 R  OS390  T    -    -    EXPRESS    00/10/16  07:39:35  00:00:02
```

4. Enter any of the following commands next to a journal entry and press <Enter>.

Command	Description
S	Display detail for this record
B	Browse the transferred file
V	Extend variables : available on Screen 2/5 to display the LOCAL-DSNAME and screen 5/5 to display the REMOTE-DSNAME/PI99
-	Placing the cursor on the line and pressing the <ENTER> key displays the return codes for the journal record. You can access online help by pressing <PF1>.

The following table describes the fields on the Journal 1/5 screen:

Field	Number	Description
FILE	- N/A -	The symbolic File name used for transfer
N	1	Displays the type of notification: 0-7
D	2	Displays the transfer direction T – Transmit R – Receive
WITH	3	The Partner name invoked in the transfer remote ID
TYPE	4	The Partner type. Valid values are: T – Connect:Express Partner: all facilities + symbolic security O – OTHER, compatible Partner: no facility + symbolic security J – RJE equipment: symbolic security E – ETEBAC1-ETEBAC2 equipment (France only): symbolic security 3 – ETEBAC3 equipment (France only): symbolic security A – APPLICATION environment: no facility, no symbolic security
TRC	5	Transfer Return Code. If received from a remote Connect:Express Partner, it is associated with the (*) character. 'L' or ' ' means local TRC.
PRC	6	Protocol Return Code
REQUEST.	7	The USER or BATCH or EXTERNAL requestor of the transfer. For an incoming transfer, the REQUESTOR (responsible) can be different from the 'WITH' field Partner (performer).
DATE-BEG./ TIME	8,9	Date and time at beginning of transfer, when the connection was accepted and the transfer negotiated.
DURAT.	10	The difference between the START time and END time of a successful transfer.

JOURNAL 2/5 Screen

```
  TOM4230     JOURNAL 2/5     F=                                    ENTRY 1:931
   OPTION ===>                                                  SCROLL-> PAGE
                                                             00/11/17  07:21
   TOM4        -< 'COMMANDS'   -PF3- END, -PF7/8/10/11- SCROLL

   ------------< S SCOPE      B BROWSE
  !
  ! FILE      LOCAL-DSNAME                              TYPE LNK SPR PPR  COMP
  ! *         *
  V           11                                        12   13  14  15   16
  _ FILETEST  INDEX2.FILETEST.D001016.H073823.A0002250   S   I   52  04   091
  _ FILETEST  INDEX2.FILETEST.D001016.H073845.A0002262   S   I   52  04   091
  _ FILETEST  INDEX2.FILETEST.D001016.H073848.A0002265   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073857.A0002270   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073845.A0002262   S   I   52  04   091
  _ FILETEST  INDEX2.FILETEST.D001016.H073905.A0002274   S   I   52  04   091
  _ FILETEST  INDEX2.FILETEST.D001016.H073857.A0002270   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073909.A0002277   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073917.A0002282   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073909.A0002277   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073924.A0002286   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073917.A0002282   S   I   52  04   -
  _ FILETEST  INDEX2.FILETEST.D001016.H073905.A0002274   S   I   52  04   091
  _ FILETEST  INDEX2.FILETEST.D001016.H073928.A0002289   S   I   52  04   091
```

The following table describes the fields on the Journal 2/5 screen.

Field	Number	Description
LOCAL-DSNAME	11	Displays the physical file on the local system used for the transfer.
TYPE	12	S – Sequential (SEQ,BDAM) P – Partitioned (PDS) (direct transfer) PE – Partitioned extended (PDSE) (direct transfer) V – VSAM (direct transfer) M – Magnetic tape (user exit forced) H – HFS (hierarchical file system) PU – Partioned (indirect transfer) VU – VSAM (indirect transfer) UU – User (indirect transfer) SU – SYSOUT (indirect transfer)
LNK	13	Specifies the type of link (SNA, etc).
SPR	14	The protocol number and session table number from the Partners directory.
PPR	15	Presentation Protocol table (last digit only) from the File attributes directory.
COMP.	16	Compress (PRES.) the Compression result = (transferred KBYTES / file KBYTES). If greater than 100%, it means that either the compression system or the protocol added data.

JOURNAL 3/5 Screen

```
  TOM4230     JOURNAL 3/5     F=                                    ENTRY 1:931
   OPTION ===>                                                     SCROLL-> PAGE
                                                                  00/11/17  07:21
   TOM4         -< 'COMMANDS'   -PF3- END, -PF7/8/10/11- SCROLL

   ------------< S SCOPE     B BROWSE
   !
   ! FILE      REQUEST   CLASS   PRIORITY   DATE-END/TIME     INTERRUPT-REASON
   ! *         *                            001117    235959
   V           17        18      19         20        21      22
   _ FILETEST  00002261  A       1          00/10/16 07:39:07  -
   _ FILETEST  00002262          1          00/10/16 07:39:04  -
   _ FILETEST  00002269  A       1          00/10/16 07:39:10  -
   _ FILETEST  00002270          1          00/10/16 07:39:02  -
   _ FILETEST  00002273  A       1          00/10/16 07:39:29  -
   _ FILETEST  00002274          1          00/10/16 07:39:26  -
   _ FILETEST  00002275  A       1          00/10/16 07:39:18  -
   _ FILETEST  00002277          1          00/10/16 07:39:16  -
   _ FILETEST  00002282          1          00/10/16 07:39:23  -
   _ FILETEST  00002281  A       1          00/10/16 07:39:26  -
   _ FILETEST  00002286          1          00/10/16 07:39:33  -
   _ FILETEST  00002285  A       1          00/10/16 07:39:36  -
   _ FILETEST  00002288  A       1          00/10/16 07:39:50  -
   _ FILETEST  00002289          1          00/10/16 07:39:47  -
```

The following table describes the fields on the JOURNAL 3/5 Screen:

Field	Number	Description
REQUEST	17	The request number assigned by Connect:Express.
CLASS	18	Transfer class.
PRIORITY	19	Specifies the File priority: 0 – Urgent 1 – Fast 2 – Normal 3 – Slow
DATE-END/TIME	20, 21	Date and time at end of transfer, after the recipient has acknowledged either a successful or unsuccessful end.
INTERRUPT REASON	22	Interrupt error codes appear here and can be translated using the HELP commands.

JOURNAL 4/5 Screen

```
  TOM4230     JOURNAL 4/5     F=                                ENTRY 1:931
   OPTION ===>                                               SCROLL-> PAGE
                                                           00/11/17  07:21
   TOM4        -< 'COMMANDS'   -PF3- END, -PF7/8/10/11- SCROLL

   ------------< S SCOPE      B BROWSE
   !
   ! FILE      RECORDS  SND/REC. RETRIES  PROTOCOL FILE     FLOW/SECOND      D.T.
   ! *                                    K-CAR.   K-CAR.   K-CHAR.  K.BITS
   V           23       24       25       26       27       28       29      30
   _  FILETEST 12798    46       -        91       1000     6        49      E
   _  FILETEST 12798    46       -        91       1000     9        73      E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST 12798    46       -        91       1000     5        40      E
   _  FILETEST 12798    46       -        91       1000     8        66      E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST -        -        -        1        -        -        -       E
   _  FILETEST 12798    46       -        91       1000     6        52      E
   _  FILETEST 12798    46       -        91       1000     10       81      E
```

The following table describes the fields on the JOURNAL 4/5 Screen:

Field	Number	Description
RECORDS	23	Specifies the number of records in the File being transferred.
SND/REC.	24	Send/Receive specifies the number of Connect:Express blocks (records blocked according to session and protocol tables).
RETRIES	25	The number of restarts before ending the transfer.
PROTOCOL K-BYTES	26	The number of kilobytes transferred, including file content and protocol data.
FILE K-BYTES	27	The file size in kilobytes.
FLOW/SECOND K-BYTES	28	The flow of kilobytes per second. This is the result of PROTOCOL divided by DURATION.
FLOW/SECOND K-BITS	29	The flow of kilobits per second. This is the result of PROTOCOL divided by DURATION. Bits are in 1024 units, not 1000.
D.T.	30	Data Type. (ASCII, EBCDIC, binary)

JOURNAL 5/5 Screen

```
  TOM4230      JOURNAL 5/5      F=                                    ENTRY 1:931
   OPTION ===>                                              SCROLL-> PAGE


   TOM4          -< 'COMMANDS'    -PF3- END     -PF7/8/10/11- SCROLL

   ------------< S SCOPE     B BROWSE
   !
   ! FILE      REMOTE-DSNAME/PI99                     TRF-ID   AP/EF SRC   M
   ! *         *
   V           30                                     31       32 33 34   35
   _ FILETEST                                         00002261 01 07 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073823.A0002250  00002261 01 05 -    -
   _ FILETEST                                         00002269 01 01 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073848.A0002265  00002269 01 02 -    -
   _ FILETEST                                         00002273 01 03 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073845.A0002262  00002273 01 04 -    -
   _ FILETEST                                         00002275 01 06 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073857.A0002270  00002275 01 08 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073909.A0002277  00002281 01 02 -    -
   _ FILETEST                                         00002281 01 01 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073917.A0002282  00002285 01 06 -    -
   _ FILETEST                                         00002285 01 05 -    -
   _ FILETEST                                         00002288 01 07 -    -
   _ FILETEST  INDEX2.FILETEST.D001016.H073905.A0002274  00002288 01 08 -    -
```

The following table describes the fields on the JOURNAL 5/5 Screen:

Field	Number	Description
REMOTE-DSNAME/ PI99	31	The physical file name on a remote Connect:Express system or the Pi99 received.
TRF-ID	32	The transfer identification number. Its significance depends on the transfer protocol used, the Partner type and the transfer direction. For PeSIT incoming reception, it is the remote transfer identification or the remote transfer request if it's a Connect:Express Partner. For PeSIT incoming transmission type NORMAL with Connect:Express Partner, it is the remote Connect:Express transfer request. In all other cases (protocol, session and transfer direction), it is the local request number.
AP/EF	33,34	The identification of the APM transfer resource used.
SRC	35	The System return code.
M	36	The Journal record mode A – Transfer anomaly E – Journal record field anomaly

If you display the details for an entry in the journal, the Journal Details screen is displayed.

JOURNAL (DETAILS) Screen

```
   TOM4230       JOURNAL (DETAILS)
   OPTION ===>                          B BROWSE  -ENTER- HELP TRC/PRC  -PF3- END
   SYSA TOM4                            INDEX1.TOM4.SYSJNL

   FILE   : FILETEST  DSN : INDEX1.FILETEST.D001016.H073823.A0002250
   USDF<-:
   USDF->:

   REQUEST: 00002261  OF  : USERSYSA      R.U./A.ID:          FACILITY : N
   DIR.   : T          WITH: OS390         TYPE     : N        ACCESS   : O
   NOTIF  : 0
   ADDR.  : 127.000.000.001               HOST  :
   API.   : EXPRESS    OS390     FILETEST
   001016073841                           SSLCFG  :          TYPE-DATA: E
   LINK   : I          SPR   : 52          PART.TYPE: T       TRF-ID   : 00002261
   PRIO.  : 1          PPR   : 04          COMPRES. : 091     FILE-TYP.: S

   TRC    : -          PRC   : -           SRC      : -       RESTARTS : -
   REASON : -                              APM/EFF. : 01 / 07  CLASS    : A

   BEG.: 20 00/10/16  AT    : 07:38:49  END     : 00/10/16  AT      : 07:39:07
   REQUEST: 00/10/16  AT    : 07:38:41  SYSJNL: 20 00/10/16  AT  11  : 07:39:07
   DURAT. : 00:00:15  REC:       12798  SEND/REC.:      46
   PROT.  :       91  FILE  :     1000  FLOW/ S. :       6 <-K.CHAR. 49 K.BIT
```

Use VAR Option to extend variables for fields DSN, USDF<- , USDF-> , and HOST. Place the cursor on the field you want to extend. By default the DSN is extended if you enter VAR option.

The following table describes the fields on the Journal (Details) screen:

Field	Description
FILE	The symbolic File name used for the transfer.
DSN	The physical file on the local system used for the transfer. Use VAR option to extend variables.
USDF<-:	User data field received with the file. The value in this field depends on the partner type and the protocol used. PeSIT protocol - Partner type TOM : the physical file name on the remote Connect:Express system. PeSIT protocol - Partner type Other : the 44 first characters of the Pi99 received. Odette protocol - Partner type Other : the file name field in the SFID command received. FTP protocol: file name received from the FTP client. This field can contain environment variables. Use option VAR and place cursor to extend the field.
USDF->:	User data field sent with the file. This field is only available for Partner type Other. PeSIT protocol - Partner type Other : the 44 first characters of the Pi99 sent. Odette protocol - Partner type Other : the file name field in the SFID command sent. FTP protocol: file name sent to the FTP server. This field can contain environment variables. Use option VARand place cursor to extend the field.
REQUEST	The request number assigned by Connect:Express.
OF	The Userid of the requestor with the name of the system from which the request was made, if not external.
R.U./A.ID	RACF-USER ID, used for RACF authorization (TSO, JOB, or assigned from Partners directory).
FACILITY	The type of service used: N – Normal A – AD HOC

Field	Description
DIR.	The transfer direction. T – Transmit R – Receive
WITH	The Partner name invoked in the transfer.
TYPE	The Request type.
ACCESS	The type of access: I – Incoming call O – Outgoing call
NOTIF.	Type of notifcation. 0) – No notification 1) – Notification at initialization of transfer 2) – Notification at end of transfer 4) – Notification on error Any logical combination of 1, 2 and 4 as shown in the examples below: 3 – Notification at initialization and end of transfer (1+2) 6) – Notification at end of transfer and on error (2+4 7) – Notification at initialization and end of transfer, and on error (1+2+4) Refer to the Notification Implementation Guide.
ADDR.	Network address of the Partner.
HOST	TCP/IP host name. This field can contain environment variables. Use option VAR and place cursor to extend the field.
SSLCFG	Indicates the SSL configuration file used. You can access SSLCFG files with the TSO/ISPF option 0, ANMSSL file.
DATA-TYPE	The type of data (ASCII, EBCDIC, BINARY)
API.	The 82 character application file identification (origin, destination, file type, file name, file date).
LINK	Specifies the type of link (SNA, etc).
PRIO.	Specifies the File priority: 0 – Urgent 1 – Fast 2 – Normal 3 – Slow
SPR	Stores the protocol number (one digit) and session table (one digit) number from the Partners directory.
PPR	This displays the last two digits of the Presentation Protocol table from the File attributes directory.
PART.TYPE	Denotes the Partner type as follows: T - Connect:Express Partner: all facilities + symbolic security O - OTHER, compatible Partner: no facility + symbolic security J - RJE equipment: symbolic security E - ETEBAC1-ETEBAC2 equipment (France only): symbolic security 3 - ETEBAC3 equipment (France only): symbolic security A - APPLICATION environment: no facility, no symbolic security
COMP RES.	The Compression result = (transferred kilobytes / file kilobytes). If greater than 100%, it means that the compression system protocol added some data.

Field	Description
TRF-ID	The transfer identification number. Its significance depends on the transfer protocol used, the Partner type, and the transfer direction. For PeSIT incoming reception, it is the remote transfer identification (remote transfer request if Connect:Express Partner). For PeSIT incoming transmission type NORMAL with a Connect:Express Partner, it is the remote Connect:Express transfer request. In all other cases (protocol, session and transfer direction), it is the local request number.
FILE-TYP,	The file type can be one of the following: S - Sequential (SEQ,BDAM) P - Partitioned (PDS) (direct transfer) PE - Partitioned extended (PDSE) (direct transfer) V - VSAM (direct transfer) M - Magnetic tape (user exit forced) H - HFS (hierarchical file system) PU - Partitioned (indirect transfer) VU - VSAM (indirect transfer) UU - User (indirect transfer) SU - SYSOUT (indirect transfer)
TRC	The Transfer Return Code. If received from a remote Connect:Express Partner, it is associated with the (*) character. 'L' or ' ' means local TRC.
REASON	The status in case of interruption of transfer.
PRC	The Protocol Return Code.
SRC	The System Return Code.
APM/EFF.	The identification of the APM transfer resource used.
RESTARTS	The number of restarts before ending the transfer.
CLASS	Transfer class.
BEG AT	Date/Time at beginning of transfer.
REQUEST AT	Date/Time when the request was accepted by Connect:Express.
DURAT.	Duration is the difference between the START time and END time of a successful transfer.
PROT.	Specifies the number of kilobytes transferred (file content PLUS presentation protocol data).
RECORDS	Specifies the number records in the file being sent.
FILE	Notes the actual file size (kilobytes).
END AT	Date/Time at end of transfer.
SYSJNL AT	Date/Time at writing the journal record.
SND/REC.	Send/Receive specifies the number of Connect:Express blocks (records blocked according to session and protocol tables).
FLOW/ S.	Shows the result of PROTOCOL divided by DURAT. in kilobytes, followed by the corresponding kilobits.

Printing Journal Records

P1B2PJNL is a utility program based on SYSJNL file. It provides two functionalities based on a selection criteria:

❖ Print journal Records

❖ Send Notification using P1B2PNFY

for selected Journal Records.

Selecting Main Function

Main function is selected using the PARM field on the EXEC statement, keyword FCT=F.

Value for f is one of the following:

❖ N: Notifications and Print Report

❖ P: Print Only

Example:

```
//* Notify
//PRINTJNL   EXEC    PGM=P1B2PJNL,PARM='FCT=N'
```

```
//* Print Only
//PRINTJNL   EXEC    PGM=P1B2PJNL,PARM='FCT=P'
```

Journal File

SYSJNL DDNAME located in the monitor JCL must be present in P1B2PJNL JCL.

```
/*
//* SYSJNL   : ALWAYS MANDATORY
//*
//SYSJNL   DD      DSN=Your SYSJNL file,DISP=SHR
//*
```

Selecting Journal Records

Record selection is done thru a SYSIN DD card using positional keywords starting on column 1:

Keyword	Description
SFN	Symbolic File Name – 1 to 8 chars
SPN	Partner – 1 to 8 chars
DIR	Transfer Direction – T/R/*/
RQR	Requestor – 1 to 8 chars
SRQ	Starting Request Number – numeric, root, 8 chars maximum
ERQ	Ending Request Number – Numeric, root, 8 chars maximum
LDR	Local DSN root
RDR	Remote DSN root
TRC	TRC – Numeric, root, 4 chars maximum or 'NNUL'
PRC	PRC – Numeric, root, 4 chars maximum or 'NNUL'
BDT	Request Starting Date – Numeric, default to 000000
BTM	Request Starting Time – Numeric, default to 000000
EDT	Request Ending Time – Numeric, default to 000000
ETM	Request Ending Time – Numeric, default to 000000

.

```
TOM4230--------- JOURNAL OF TRANSFERS INQUIRY --------- NAMES INITIALIZED   !
 OPTION ===>                                                           CSGB

 MONITOR        ===> TOM8                        CSGB  ACTIVE   GLOBAL
                                                 2010/01/21    10:32:35
 FILE NAME      --->                             ' '/'FILE'/'ROOT'

 TRANSFER WITH  --->                             ' '/'PARTNER'/'ROOT'
 DIRECTION      ---> *                           ' '/'T'/'R'
 REQUESTED BY   --->                             ' '/'REQUESTOR'/'ROOT'
 LOCAL REQUEST  --->             TO              ' '/'NUMBER'/'ROOT'
 LOCAL DSN      --->                             ' '/'ROOT'
 REMOTE DSN     --->                             ' '/'ROOT'
 ERROR TRC      --->                             ' '/'CODE'/'NNUL'
 ERROR PRC      --->                             ' '/'CODE'/'NNUL'

 START DATE/TIME ---> 100121    AT   000000   YYMMDD - HHMMSS  10/01/21
 END   DATE/TIME ---> 100121    AT   235959   YYMMDD - HHMMSS  10:32
```

Example:

Requesting Journal Records for Synbolic File Name FICTST with Transfer Request Number starting from 00000238 and ending to 00000240:

```
//SYSIN    DD *
*---0----1
*2--5----0
SFN=FICTSTFILE NAME
*SPN=PARTNER
*DIR=        DIRECTION         T,R
*RQR=        REQUESTOR
SRQ=00000238
ERQ=00000240
*LDR=        LOCAL DSN ROOT
*RDR=        REMOTE DSN ROOT
*TRC=        TRC               NNUL/NUMERIC
*PRC=        PRC               NNUL/NUMERIC
*BDT=        STARTING DATE     NUMERIC,DEFAUT 000000,PADDED LEFT 0
*BTM=        STARTING TIME     NUMERIC,DEFAUT 000000,PADDED LEFT 0
*EDT=        ENDING DATE       NUMERIC,DEFAUT 999999,PADDED LEFT 0
*ETM=        ENDING TIME       NUMERIC,DEFAUT 999999,PADDED LEFT 0
```

Result (partial, 2 parts):

```
SDSF OUTPUT DISPLAY PSR3NFYJ JOB65585  DSID   104 LINE 0      COLUMNS 01- 80
 COMMAND INPUT ===>                                       SCROLL ===> CSR
******************************* TOP OF DATA ********************************
  PSR3NFYJ 100121 100633 CSGB PSR£DEV.TOM4.SYSJNL                      *NOTI

  -----------------------------------------------------------------------------
  FILE    DSN                                      T  N D M PP PART.    T L
          REQ.    FROM    C Y BEG.DATE/HOUR    END-DATE/HOUR    DUR.    RS
          T F AP EF ST RACF-U.  REQ.DATE/HOUR    JNL.DATE/HOUR    USER DATA F
          ADDRESS                 HOST                       USER DATA FIELD

  FICTST  PSR$REC.PS.F080.SHORT                       7 T O 01 GFIPSR8O O X
          00000238 PSR0008  A 1 09/10/12 09:35:46 09/10/12 09:35:46 -      -
          N N 00 00 -          09/10/12 09:35:43 09/10/12 09:35:46
                                                          Définitio
  -----------------------------------------------------------------------------
  -----------------------------------------------------------------------------
```

```
SDSF OUTPUT DISPLAY PSR3NFYJ JOB65585  DSID   104 LINE 0        COLUMNS 54- 133
 COMMAND INPUT ===>                                             SCROLL ===> CSR
******************************* TOP OF DATA *********************************
                    *NOTIFIED REQUESTS*


--------------------------------------------------------------------------------
  T  N D M PP PART.    T L SP T   REC.CNT.           INTER.REAS TRC   PRC   SRC
D-DATE/HOUR    DUR.     RST PROT.-KB FILE-KB  KB/SEC. %C.  S/R-CNT.
L.DATE/HOUR     USER DATA FIELD RECEIVED (PI99)
          USER DATA FIELD SENT (PI99)

    7 T O 01 GFIPSR8O O X 24 - -                -         2076L 0003 -
/10/12 09:35:46 -         -   -      -         -        -    -
/10/12 09:35:46
              Définition <PI99>
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------


```

Notifications

Once records are selected and FCT=N is used in the EXEC PARM, Utility P1B2PNFY is internally called. P1B2PNFY uses 2 specifics DDNAMEs, SYSINFY and NFYPRF. These 2 DDNAMEs must be present in the JCL to prevent any execution error.

For more details on notifications and P1B2PNFY parameters, refer to Mise en Œuvre de l'Utilitaire de Notification Guide.

```
//*
//* PROFILES
//* NFYPRF  : MANDATORY IF FCT=N
//*
//NFYPRF   DD   DUMMY,DCB=(LRECL=80,RECFM=FB,DSORG=PO)
//*NFYPRF   DD   DISP=SHR,DSN=
//*
//* P1B2PNFY PARMS
//* SYSINFY  : MANDATORY IF FCT=N
//*
//SYSINFY  DD   DUMMY,DCB=(LRECL=80,RECFM=FB)
//*SYSINFY   DD   DISP=SHR,DSN=
```

Messages and Return Codes

RC	Message	Verify criteria
4	P1B2PJNL NO SELECTION MADE	No Record selected
8	B2PJNL0E EXEC PARM OMITTED OR INVALID	Verify EXEC card
8	B2PJNL1E INVALID VALUE FOR FCT EXEC PARM (X) (P,N)	A valid value is P or N, value is X. Change to a valid value and run again.
8	B2PJNL2E dddddddd DD MISSING	SYSIN, SYSPRINT, SYSJNL, SYSINFY(FCT=N), NFYPRF(FCT=N) DDNAMEs are mandatory
8	B2PJNL3E ERROR OPENING dddddddd	DCB for specified DDNAME dddddddd may be invalid.
8	B2PJNL4E INVALID KEYWORD kkkk READING SYSIN	Keyword kkkkis not a valid keyword. Check SYSIN and run again.
8	B2PJNL5E DUPLICATE KEYWORD kkkk READING SYSIN	Keyword kkkk encountered more than once. Correct SYSIN and run again.
8	B2PJNL6E NOT A VALID LRECL FOR SYSIN	SYSIN LRECL must be 80.
8	B2PJNL7E INVALID VALUE LENGTH FOR KEYWORD kkkk	Keyword kkkk value exceeds its maximum authorized length value. Check SYSIN, documentation and run again.
N/A	2PJNL8I CONFIG DISPLAY START	This Information message is a header message. This message is printed only when all parameters are valid.
N/A	B2PJNLAI CONFIG DISPLAY END	This Information message is a footer message. This message is printed only when all parameters are valid at the end of parameters dump.
N/A	B2PJNL9I kkk=vvvv….vvvv	This Information message shows parameters value. This message is printed only when all parameters are valid.
8	B2PJNLBE NON NUMERIC VALUE FOR KEYWORD kkkk	Keyword kkkk value must be numeric but a non numeric value was encountered. Check SYSIN and run again.
8	B2PJNLDE INVALID VALUE FOR KEYWORD DIR=d (T,R,)	Keyword DIR value is T, D or ' '. Check SYSIN and run again.

P1B2PNFY Messages can be issued by P1B2PJNL. For details on this messages, refer to Mise en Œuvre de l'Utilitaire de Notification Guide.

Sample

A sample $PRT£JNL is available in SAMPLIB library.

Viewing Transfer Activity

You can view all transfer requests in the Request Control Table using option 2.4, Transfer Activity. These screens display information for transfers that are not complete. From the Activity screens, you can view transfer details, change priority levels, enable or disable a transfer, and interrupt or restart a transfer. Complete the following steps to view transfer activity:

1. From the Main Menu, type 2.4 in the option field and press <Enter>. The Activity 1/4 screen is displayed.

2. Press <PF10> and <PF11>to view the Activity 2/4 - 4/4 screens.

ACTIVITY 1/4 Screen

```
  TOM4230     ACTIVITY 1/4    F=    ID=          MODE=    NAMES INITIALIZED    !
  OPTION ===>                                                       PAGE -> PAGE
                            FILE ===> *        J=>-                         SYSA

  ===> TOM 4  ^-< 'COMMANDS'  -PF3- END     -PF7/8/10/11- SCROLL
  SYSA ACTIVE     GLOBAL
  --------------< S DETAILS    E ENABLE      H DISABLE     B BROWSE
  !              P PURGE     I INTERRUPT    R RESTART
  ! REQ.NUMB.<-> DSNAME                               WITH-CNX  %     MODE
  V       1  2                                        3         4     5
  _ 00000254  T  INDEX2.PS.F080.SHORT                 OS390     -     A
  _ 00000012  T  INDEX2.PS.F080.SHORT                 UNIX      -     I
  *** END OF LIST
```

ACTIVITY 2/4 Screen

```
  TOM4230     ACTIVITY 2/4    F=    ID=          MODE= *           Row 1 of 2
  OPTION ===> !                                                     PAGE -> PAGE
                            FILE ===> *        J=>-

  ===> TOM 4  ^-< 'COMMANDS'  -PF3- END     -PF7/8/10/11- SCROLL
  SYSA
  --------------< S DETAILS    E ENABLE      H DISABLE     C 'CLASS'
  !              P PURGE     I INTERRUPT    R RESTART     Y 'PRIORITY'
  ! REQ.NUMB. TRC    PRC    RETRY  C. P.  TYPE STATUS-2     STATUS-3      DAYS
  V       6      7      8      9 10 11   12           13            14
  _ 00000254  -    2226    -      A  1   N    DISABLED     SEL. FAILED   025
  _ 00000012  -     -      -      A  0   N    ENABLED      AWAITING SEL  000
  *** END OF LIST
```

ACTIVITY 3/4 Screen

```
  TOM4230     ACTIVITY 3/4    F=    ID=          MODE= *              Row 1 of 2
  OPTION ===> !                                              PAGE -> PAGE
                            FILE ===> *        J=>-

  ===> TOM 4  ^-< 'COMMANDS'  -PF3- END     -PF7/8/10/11- SCROLL
  SYSA
  --------------< S DETAILS   E ENABLE      H DISABLE
  !           P PURGE    I INTERRUPT   R RESTART
  ! REQ.NUMB.<-> WITH-XFR DDNAME    TRC  PRC STATUS-2     STATUS-3    LINK    FTP
  V          1 15       16        6    7   12           13          17      18
  _ 00000254  T  OS390    FILETEST -    2226 DISABLED     SEL. FAILED TCP-IP  NO
  _ 00000012  T  UNIX     FILETEST -    -    ENABLED      AWAITING SEL TCP-IP  NO
  *** END OF LIST
```

ACTIVITY 4/4 Screen

```
   TOM4230    ACTIVITY 4/4    F=    ID=          MODE= *            Row 1 of 2
   OPTION ===> !                                              PAGE -> PAGE
                            FILE ===> *      J=>-                     SYSA

   ===> TOM 4  ^-< 'COMMANDS'  -PF3- END     -PF7/8/10/11- SCROLL
   SYSA ACTIVE    GLOBAL
   --------------< S DETAILS   E ENABLE     H DISABLE    Y 'PRIORITY'
   !           P PURGE    I INTERRUPT   R RESTART    C 'CLASS'
   ! NUM.REQ.  DSN                                    P  C %   STATUS-2
   V        2                                         10 9 4   12
   _ 00000254  INDEX2.PS.F080.SHORT                   1  A -   DISABLED
   _ 00000012  INDEX2.PS.F080.SHORT                   0  A -   ENABLED
   *** END OF LIST
```

3.   Enter any of the following commands next to a request number and press <Enter>.

Command	Description
S	Displays transfer details.
E	Enables the transfer request.
H	Disables the transfer request.
B	Browse the transferred file.
P	Purges the transfer request.
I	Interrupts the transfer request.
R	Restarts the transfer request.

Viewing Application Information

You can use the Application option to view a list of all applications that are connected to the Monitor. This screen displays information such as the application table T1B2PAPL usage.

In a SYSPLEX configuration, this screen displays a list of all the applications that are connected to Connect:Express through the subsystem interface. These applications can be connected to the manager system or to any of the servers' subsystems (listed under SYSTEM, column 6).

To view application information, type 2.5 in the option field on the Main Menu and press <Enter>. The Application screen is displayed.

```
 TOM4230     APPLICATION     (CICS,IMS,...)     MODE= *            Row 1 of 20
  OPTION ===> !                                                   PAGE -> PAGE
 APPLICATIVE MODE IS ACTIVE

 ===> TOM8   ^-< 'COMMANDS'  -PF3- END     -PF7/8- SCROWLL         SYSA
   ID         USED    /  DEFINED
   T1B2PAPL   1       /  5


 -------------<
  !
  ! ID        JOBNAME - TYPE     T1B2PAEX  CICS-EXTENSION  MODE       SYSTEM
 V           1         2         3         4               5          6
  _ SYSARQ2   SYSTARQ2  BATCH    USED      -               U          SYSA
  _ SYSARQ2   SYSTARQ2  BATCH    USED      -               U          SYSB
  _ SYSBCICS  CICSTEST  STC      USED      USED            U          SYSA
  _           -         -        -         -               -
  _           -         -        -         -               -

```

Extracting Event Information

Using the Extract of Event option, you can enter search criteria and view all information about a transfer. Depending on your selection criteria, the results display in succession on the 2.1 STATUS screens (F/Z/P/R/S), 2.3 JOURNAL screen, and/or 2.2 LOG screen (either on file or ISF). This information is useful for troubleshooting.

To extract event information, complete the following steps:

1. From the Main Menu, type 2.6 in the option field and press <Enter>. The Event Extract screen is displayed.

```
 TOM4230    EVENT EXTRACT                              NAMES INITIALIZED    !
 OPTION ===> !

4XX/TEXT


     MONITOR  ===> TOM4       CSGA  ACTIVE   GLOBAL            PSRTOM4M  SUPERVISOR
                              RACFCN= S      ADHOCN= Y          UPRFCT= Y
 ----------- S SELECTION
 V
 _ FILES TABLE
 _ PARTNERS TABLE
 _ REQUESTS TABLE
 _ SHARED REQUESTS TABLE
 _ JOURNAL
 _ TOM LOG                   SYSOUT

   FILE      ===> FILETEST   ENABLED              SEQUENTIAL
   PARTNER   ===> OS390      ENABLED              MIXED
   REQUEST   ===> 114*

   LOCAL DSN  ===> INDEX*
   REMOTE DSN ===> INDEX*


           X EXIT, -PF3- END, -ENTER- GO ON
```

2. Type an S in front of each table or journal that you want to display.
3. Enter your selection criteria in the bottom half of the screen as described in the following table, and press <Enter>. For a journal extract, any non-blank field will be used as a filter.

Field	Description
File	Enter a File name if you selected the Files table.
Partner	Enter a Partner name if you selected the Partners table.
Request	Enter a Request number if you selected the Requests table or the Shared Requests table.
Local DSN	Optional. If you want to search by DSN, use for File selection or as an additional search argument for the journal.
Remote DSN	Optional. If you want to search by DSN, use as an additional search argument if you selected the journal.

4. Any of the following screens may display, depending on the options you selected. If you selected the Files Table, Connect:Express displays the Files screen. Press <PF3> to display the Activity screen. Press <PF3> to move to any additional extract results screens.

EVENT EXTRACT Screen Results – Files

```
   TOM4230      FILES 1/3        F=   ID= FILETEST   MODE=    NAMES INITIALIZED    !
   OPTION ===> !                                                   PAGE -> PAGE

   TOM4          -< 'COMMANDS'  -PF3- RETURN   -PF7/8/10/11- SCROLL
   SYSA
   --------------< S DISPLAY DETAILS  D DIRECTORY  E ENABLE   H DISABLE
   !
   ! FILE      STATUS       TRANSMITTER (EXT.)   <->   RECEIVER (EXT.)       MODE
   V          1            2               3      4    5         6           7
   _ FILETEST  ENABLED      $$ALL$$      -         *   $$ALL$$   -           I
   *** END OF LIST
```

EVENT EXTRACT Screen Results – Activity

```
   TOM4230      ACTIVITY 1/4     F=    ID= FILETEST    MODE=    NAMES INITIALIZED    !
   OPTION ===>                                                     PAGE -> PAGE
                         FILE ===> FILETEST   J=>-                       SYSA

   ===> TOM 4  ^-< 'COMMANDS'  -PF3- END      -PF7/8/10/11- SCROLL
   SYSA ACTIVE    GLOBAL
   --------------< S DETAILS   E ENABLE      H DISABLE     B BROWSE
   !               P PURGE    I INTERRUPT   R RESTART
   ! REQ.NUMB.<-> DSNAME                                  WITH-CNX  %    MODE
   V          1 2                                         3         4    5
   _ 00000254  T  INDEX2.PS.F080.SHORT                    OS390     -    A
   *** END OF LIST
```

5. If you selected the Partners Table, Connect:Express displays the following screen. Press <PF3> to move to any additional extract results screens.

EVENT EXTRACT Screen Results – Partners

```
   TOM4230      PARTNERS 1/4    F=    ID= OS390     MODE= *           Row 1 of 1
   OPTION ===> !                                                   PAGE -> PAGE

   TOM4          -< 'COMMANDS'   -PF3- RETURN   -PF7/8/10/11- SCROLL
   SYSA
   --------------< S/F DETAILS   D DIRECTORY    E ENABLE   H DISABLE
   !
   ! PARTNER   STATUS       PROTOCOL / TABLE  LINK       TYPE   REST.  EFF.    MODE
   V          1            2         3        4          5      6      7       8
   _ OS390     ENABLED      PESIT-E   52       SNA        -      YES    000/50  I
   *** END OF LIST
```

6. If you selected the Requests Table, Connect:Express displays the following screen. Press <PF3> to move to any additional screens.

EVENT EXTRACT Screen Results – Requests

```
 TOM4230      REQUESTS 1/4    F=    ID=          MODE= *              Row 1 of 8
 OPTION ===>                                                       PAGE -> PAGE


 TOM4          -< 'COMMANDS'   -PF3- RETURN     -PF7/8/10/11- SCROLL
 SYSA
 --------------< S DETAILS     E ENABLE    H HOLD      C 'NEW-CLASS'
 !              I INTERRUPT   P PURGE    R RESTART   Y 'NEW-PRIORITY'
 !
 ! REQ.NUM.  WITH(CNX) C. P. ORIGIN   REQ.TYPE    STATUS-2    STATUS-3     MODE
 V 114*      1          2  3  4         5          6          7            8
 _ 00000254 OS390   A  1  TSO      N NORMAL    DISABLED    SEL. FAILED   A
 *** END OF LIST
```

7. If you selected the Shared Requests Table, Connect:Express displays the following screen. Press <PF3> to move to any additional screens.

EVENT EXTRACT Screen Results – Shared Requests

```
 TOM4230      REQUESTS 1/4    F=    ID=          MODE= *
 OPTION ===>                                                       PAGE -> PAGE
 NO ENTRY IN REQUESTS TABLE (HCT)
 TOM4          -< 'COMMANDS'   -PF3- RETURN     -PF7/8/10/11- SCROLL
 CSGA
 --------------< S DETAILS     E ENABLE    H HOLD      C 'NEW-CLASS'
 !              I INTERRUPT   P PURGE    R RESTART   Y 'NEW-PRIORITY'
 !
 ! REQ.NUM.  WITH(CNX) C. P. ORIGIN   REQ.TYPE    STATUS-2    STATUS-3     MODE
 V 114*      1          2  3  4         5          6          7            8
 *** END OF LIST
```

8. If you selected the Journal, Connect:Express displays the following screen. Press <PF3> to move to any additional screens.

EVENT EXTRACT Screen Results – Journal

```
 TOM4230      JOURNAL 1/5     F=                                            -
 OPTION ===>                                                       SCROLL-> PAGE


 TOM4          -< 'COMMANDS'   -PF3- END, -PF7/8/10/11- SCROLL


 -------------< S SCOPE      B BROWSE
 !
 ! FILE     <-> WITH     TYPE TRC   PRC  REQUESTOR DATE-BEG./TIME     DURAT.
 ! FILETEST*     OS390*    *    *    *         000000    000000
 V             1 2         3    4    5    6         7         8         9
 _ FILETEST   T OS390 T   -     2226 USR8   00/10/23  11:22:53  -
 *** END OF LIST
```

9. If you selected the TOM LOG when the log is a SYSOUT file, Connect:Express displays the following screen. This SDSF screen is used to browse the SYSOUT log. Press <PF3> to move to any additional screens.

Extract Screen Results – Log

```
  Display  Filter  View  Print  Options  Help
  -----------------------------------------------------------------------------
  HQX1900------------------  SDSF PRIMARY OPTION MENU  -- TOO MANY PARMS
  COMMAND INPUT ===> INPUT ON;PREFIX PSRTOM4;DA;F PSRTOM4;      SCROLL ===> CSR

     LOG       - Display the system log
     DA        - Display active users in the sysplex
     I         - Display jobs in the JES2 input queue
     O         - Display jobs in the JES2 output queue
     H         - Display jobs in the JES2 held output queue
     ST        - Display status of jobs in the JES2 queues
     PR        - Display JES2 printers on this system
     INIT      - Display JES2 initiators on this system
     MAS       - Display JES2 members in the MAS
     LINE      - Display JES2 lines on this system
     NODE      - Display JES2 nodes on this system
     SO        - Display JES2 spool offload for this system


     Licensed Materials - Property of IBM


     5647-A01 (C) Copyright IBM Corp. 1981, 1997. All rights reserved.
     US Government Users Restricted Rights - Use, duplication or
     disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
```

10. If you selected the TOM LOG when the log is on a data set, Connect:Express displays the following
    screen. Press <PF3> to move to any additional screens.

INTERROGATION OF LOGS screen

```
  TOM4230----------------- INTERROGATION OF LOGS --------------------------------
   OPTION ===>                                                        SYSA

   MONITOR  ===> TOM4
   V--------------------< S SELECTION OF LOGS       TYPE ===> VIEW
   S TOM    ---> INDEX1.TOM4.SYSLOG
   _ APM01  ===> INDEX1.APM401.SYSLOG
   _ APM02  ===>
   _ APM03  ===>
   _ APM04  ===>
   _ APM05  ===>
   _ APM06  ===>
   _ APM07  ===>
   _ APM08  ===>
   _ XXX01  ===>
   _ XXX02  ===>
   _ XXX03  ===>
   _ XXX04  ===>
   _ XXX05  ===>
   _ XXX06  ===>
   _ XXX07  ===>
   _ XXX08  ===>
             X EXIT, -PF3- END
```

Viewing Sysplex Table Information

Using the Sysplex Monitoring option, you can view information about the Connect:Express/Plex Supervisor, Manager and Server distribution over the SYSPLEX. This information is not available when using Connect:Express in stand-alone mode.

 This option displays supervisor, manager, and server information such as the member type and the member status, the System name and the Job ID of the process, the request number range, the maximum number of servers, as well as the standby Procname and System name if the XRF recovery is active.

All managers are defined in the CXPLEX file of the supervisor, and the request ranges are determined by the supervisor during initialization. A manager is identified by the TOM subsystem name. For the supervisor, the maximum number of servers includes managers and servers. For the manager, the maximum number of servers includes only servers.

If a server is started and not defined in the CXPLEX configuration file, it will appear in the list with a status of ACTIVE. The next time the monitor is started it will no longer be listed.

> **Note:**   A server is defined in the CXPLEX manager configuration file. The maximum number of servers is found in the asset protection file.

To view Sysplex information, type 2.7 in the option line on the Main Menu and press <Enter>.

SYSPLEX Screen

```
  TOM4230     SYSPLEX        F=                        NAMES INITIALIZED   !
   OPTION ===>                                                   PAGE -> PAGE

   TOM4        ^-< 'COMMANDS'   -PF3- END      -PF7/PF8- SCROLL
   CSGA    SUPERVISOR
   --------------< LN LAUNCH    SH SHUTDOWN
   !
   ! TYPE       STATUS   SSYS     REQUESTS       PROC    SYST MAXS STANDBY   SYST
   V           1        2        3               4       5    6    7         8
   __  *SUPER*  ACTIVE   TOM4  00000001/16666669 JOBTOM4 SYSA 12   JOBTOM4   SYSA
   __  *SUPER*  STANDBY  TOM4  -                 -       SYSA -
   __  MANAGER  INACTIVE TOM1  16666670/33333335 JOBTOM1 SYSB -
   __  MANAGER  ACTIVE   TOM8  33333336/50000001 JOBTOM8 SYSA 06
   __  MANAGER  ACTIVE   TOM2  50000002/66666667 JOBTOM2 SYSA 06
   __  MANAGER  ACTIVE   TOM7  66666668/83333333 JOBTOM7 SYSB 06
   __  MANAGER  INACTIVE TOM5  83333334/99999999 JOBTOM5 SYSB -
   __  SERVER   ACTIVE   TOM8  -                 JOBTOM8S SYSA -
   __  SERVER   ACTIVE   TOM7  -                 JOBTOM7S SYSA -
   __  SERVER   ACTIVE   TOM2  -                 JOBTOM2S SYSA -
   *** END OF LIST
```

In the example above, managers TOM1, TOM8, TOM2, TOM7 and TOM5 are defined in the supervisor CXPLEX file. TOM1 and TOM5 are inactive. Servers of TOM2, TOM7 and TOM8 are running on SYSA, where the supervisor is running. The supervisor started a standby on the system it is executing on.

On the manager side, the screen shows the supervisor, the manager and the servers of this manager.

Refer to the *Connect:Express z/OS Sysplex Supervision Guide* and the *Connect:Express z/OS Administration Guide* for more information.

Global Monitoring

Using the Global Monitoring option, you can view information about one to six Connect:Express. You can enter several subsystem names. This option displays resources status for each monitor and enables you to display the tables and send commands to each monitor. Details shows the Operations Control screen and enables you to enable/disable the global resources. Other options show the corresponding table and enable you to send the appropriate commands. Use PF10-PF11 to display the other three subsystems.

To view Global Monitoring information:

1. type 2.8 in the option line on the Main Menu and press <Enter>.
    You can also type 2.1 from the Main Menu, and press <Enter> OR type the jump command ACT from any screen in Connect:Express and press <Enter>. The Operations Control screen is displayed.

2. Type G in the option field and press <Enter>.

OPERATIONS CONTROL Screen

```
 TOM4230     OPERATIONS CONTROL 1/2
  OPTION ===>

  ----------- D DETAILS  F FILES  P PARTNERS  R REQUESTS  N NETWORK  T TRANSFERS
  !          B BYPASS   Z ACTIVITY      S SHARED REQUESTS    PF10-PF11 SCROLL
  V
  _  SUPERVISOR        => TOM4 / CSGA  ACTIVE         NET   : ENABLED
     1076    FILES     : ENABLED      EFFECTORS U./A. : -   / 32
     591     PARTNERS  : ENABLED      JOURNAL: L1B2PAEX ENABLED
     -       REQUESTS  : ENABLED      - %   -          SHARED  : ENABLED


  _  MANAGER           => TOM2 / CSGA  ACTIVE         NET   : 2ERROR(S)
     1076    FILES     : ENABLED      EFFECTORS U./A. : -   / 16
     591     PARTNERS  : ENABLED      JOURNAL: L1B2PDIX ENABLED
     1       REQUESTS  : ENABLED      - %   -          SHARED  : SUPERVISOR


                       =>      /                      NET   :
  _        FILES     :                EFFECTORS U./A. :     /
           PARTNERS  :                JOURNAL:
           REQUESTS  :                   %             SHARED  :
```

Utilities

This chapter describes how to update and manage general tables with Connect:Express utilities.

Overview

Tables provide the general parameters such as protocol profiles, alternative network addresses, and customization parameters. The Utilities option on the Connect:Express Main Menu enables you to update and manage general tables.

To display the Utilities screen, type 3 in the option field on the Main Menu and press <Enter>
OR enter the jump command UTI on any screen in Connect:Express and press <Enter>.

```
   TOM4230                    UTILITIES
   OPTION ===>

   TOM:          _ 1  I-INIT   INITIALIZATION OF PARAMETERS
                 _ 2  D-DUMP   TABLES DUMP
                 _ 3  T-TABLE  LIST/UPDATE TABLES
                 _ 4  E-SYSEVT LIST/UPDATE PLANNED TRANSFERS
                 _ 5  S-SYSSNA LIST/UPDATE OF SNA ALTERNATE ACCESS.
                 _ 6  P-SYSX25 LIST/UPDATE OF X25 ALTERNATE ACCESS.
                 _ 7  J-SYSJCL LIST/UPDATE OF JCL SKELETONS.
                 _ 8  Q-SYSTCP LIST/UPDATE OF TCP ALTERNATE ACCESS.

   MISC.:        _ CAL         CALCULATOR DECIMAL/HEXADECIMAL.
                 _ CMP         COMPILE WITH ASSEMBLY.
                 _ DDU         DISPLAY SYS1.DUMP TITLES.
                 _ PGM         MODULE ATTRIBUTES.
                 _ RACF        RACF AUTHORISATION TEST.
                 _ ZAP         AMASPZAP.
                 _ INFO        INFORMATIONS SEARCH (IBM BLGOZD2).
                               INDEX1 --->          INDEX2 --->

                 X EXIT, -PF3- END
```

Some tables are actually load modules, while others are files that can be edited.

WARNING: If *LOADLIB* tables are in the z/OS LINKLIST (LLA), refresh LLA after the table has been modified in the data set. Depending on the table, one of the following might be required:

- a Connect:Express command (Refresh table)
- a logoff-logon
- a stop-start of APM's
- a shut-down and a hot-start of Connect:Express

The following table describes the options on the Utilities screen:

Option	Description
Initialization of Parameters	Lets you specify which data sets are used when utilities are invoked. This information is recorded in your ISPF user profile.
Tables Dump	Enables you to display the internal bytes of a table.
List/Update Tables	Lets you list or update internal parameters and tables in Connect:Express.
List/Update Planned Transfers	Enables you to initiate transfer requests without operator assistance by scheduling a request.
List/Update of SNA Alternate Access	Lets you update multiple SNA link identifications.
List/Update of X25 Alternate Access	Lets you update multiple X.25 link identifications.
List Update of JCL Skeletons	Enables you to modify or refresh the SYSJCL skeleton.
List/Update of TCP Alternate Access	Lets you update multiple TCP/IP link identifications.

Initializing Utilities Parameters

This option should be completed *before* using Connect:Express utilities. Normally, this is done during installation. The Initialization screen enables you to specify which data sets are used when utilities are invoked.

1. From the Main Menu, type 3.1 in the option field and press <Enter>
   OR enter the jump command UTI from any screen in Connect:Express and press <Enter>. Then select option 1 from the Utilities menu to display the Initialization screen.

```
   TOM4230------------------ UTILITIES: INITIALIZATION -------------------------
   OPTION ===>

   ---- S : CHECKING
   V
    TYPE-IN/CHECK FILES, WITHOUT QUOTE :
   __ LOADS    (TOM STEPLIB ) ---> INDEX1.TOM4V410.LOADLIB
   __ LOADS    (TOM ISPLLIB ) ===> INDEX1.TOM4V410.ISPLLIB
   __ MACROS   (TOM MACLIB  ) ===> INDEX1.TOM4V410.MACLIB
   __ MACROS   (USER OPTION.) ===> INDEX2.TOM.MACLIB
   __ SOURCES SAVE (USER)     ===> INDEX2.SOURCE.SAVE

     TYPE-IN NAME :
      TEMPORARY WORK UNIT  ===> SYSDA

     TYPE-IN/CHECK FILES, FORMAT IS LIBRARY(MEMBER), WITHOUT QUOTE :
   __ ASSEMBLY          ===> ASM.SASMMOD1(ASMA90)
   __ LINK-EDIT         ===> SYS1.LINKLIB(IEWL)
   __ IEBGENER          ===> SYS1.LINKLIB(IEBGENER)
   __ AMASPZAP          ===> SYS1.LINKLIB(IGWSPZAP)


             X EXIT, -PF3- END
```

2. Verify that the correct dsn is specified, if two dsns are concatenated in the //STEPLIB card of the TOM JCL. Connect:Express must be up for the *LOADLIB* name field to be filled in on the ISPF screen, and the *LOADLIB* must be indicated if it is in LINKLIST.

3. Make any necessary changes, then press <PF3> to update the parameters.

4. Use the z/OS command 'F LLA,REFRESH' after the update.

The *ISPLLIB* is required, as well as the 'SOURCES SAVE' which is your own existing source library (LRECL=80) used if 'SAVE=YES'. The following table describes some of the fields on the Initialization screen.

Field	Description
STEPLIB	The library with Connect:Express BATCH programs.
ISPLLIB	The library with Connect:Express ISPF programs.
MACROS	The library with Connect:Express installation macros.
USER MACROS	The optional library with additional user macros.
SOURCES SAVE	The pre-allocated library to save new tables that you modify.
WORK UNIT	The name used for ALLOCATION of all temporary files: do not use 'VIO' but SYSDA/SYSALLDA/... or 'blank' depending on EDTGEN and SMS.
ASSEMBLY LINK-EDIT IEBGENER AMASPZAP	Enter the appropriate names if they are different from IBM standards.

Connect:Express Tables

Connect:Express tables can be displayed as load modules. In this mode, you can view the byte configuration of each table and update the tables using formatted screens. The update is followed by an automatic assembly and link-edit procedure.

Dumping Tables

The Tables Dump option on the Utilities menu enables you to display the internal bytes of a table. You use this option when a dump of the module is requested. The dump utility specified in the AMASPZAP field on the initialization screen is used to dump the module that you select on this screen.

1. To display the Dump of Table screen, type 3.2 in the option field on the Main Menu and press <Enter> OR enter the jump command UTI in the option field on any screen in Connect:Express and press <Enter>. Then select option 2 from the Utilities menu.

```
TOM4230---- DUMP OF TABLE ----------------------------------------
 OPTION ===>


          CNT     TABLE OF CONNEXION               (T1B2PCNT)
          COD     TABLE OF RETRY PRC               (T1B2PCOD)
          P..     TABLE OF PROTOCOL                (T1B2PP..)
          SLD     TABLE OF FLOW REGULATION         (T1B2PSLD)
          SRT     TABLE OF SERVOR                  (T1APMSRT)
          S..     TABLE OF SESSION                 (T1B2PS..)
          S32...  TABLE OF SECURITY (MODEL)        (T1S32...)
          VOL     TABLE OF VOLUMES                 (T1B2PVOL)
          ACS     TABLE OF ISPF ACCES CONTROL      (T0B2PACS)
          ACL     MODULE FOR LOADING ACS           (L2B2PACL)


   FROM   : INDEX1.TOM4V410.ISPLLIB                (ACL)
   FROM   : INDEX1.TOM4V410.LOADLIB                OTHERS



          X EXIT, -PF3- END
```

2. Enter the Table ID in the option field and press <Enter>. The internal bytes of the table are displayed on screen. The following table describes the options on the Dump of Table screen.

Field	Description
CNT	Connection exits table. Accesses the user exit connection table.
COD	Automatic retry option. Accesses the user table of automatic retry PRC table.
P..	Presentation protocol option. Accesses a specified presentation control table. Fill in the double periods (..) with the presentation protocol table suffix. For example, to access T1B2PP01, type *P01* on the command line and press <ENTER>.
SLD	Session link definition option. Accesses the flow regulation table.
S..	This option accesses a specified session table. Fill in the double periods (..) with the session table suffix. For example, to access T1B2PS10, type *S10* on the command line and press <ENTER>.

Field	Description
SRT	User selection exits option. Accesses the user exit transfer selection table.
VOL	Volume option. Accesses the volumes table.
ACS	Authorization option. Accesses the ISPF/batch access control table.
ACL	Access loader option. Accesses the T0B2PACS load module. Dumping the L2B2PACL verifies that the loader is: 1. the correct release 2. not modified (to use another dummy table) The purpose of the L2B2PACL is to load the T0B2PACS table, move the table to storage, and keep its address for other Connect:Express ISPF programs. This table is only loaded one time during the ISPF Connect:Express session. It is used for authority checking in any standard menu through the ISPF L2B2PACS checker module and with the user-modified module L0USRZA in batch.

Updating Tables

Connect:Express tables enable you to list or update internal parameters. You can access tables from the List/Modification of Tables screen.

To display the List Modification of Tables screen, type 3.3 in the option field from the Main Menu and press <Enter> OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.

```
   TOM4230---- LIST/MODIFICATION OF TABLES ----------------------------
   OPTION ===>


          CNT     TABLE OF CONNEXION              (T1B2PCNT)
          COD     TABLE OF RETRIED PRC            (T1B2PCOD)
          P..     TABLE OF PROTOCOL               (T1B2PP..)
          SLD     TABLE OF FLOW REGULATION        (T1B2PSLD)
          SRT     TABLE OF SERVOR                 (T1APMSRT)
          S..     TABLE OF SESSION                (T1B2PS..)
          VOL     TABLE OF VOLUMES                (T1B2PVOL)
          ACS     TABLE OF ISPF ACCESS CONTROL    (T0B2PACS)


   SAVE OLD IF MODICATION  ===> NO  (YES/NO)
   NEW SOURCE               : INDEX2.SOURCE.SAVE

   OLD LOAD MODULE (ISPF-ACS) : INDEX1.TOM4V410.ISPLLIB
   OLD LOAD MODULE            : INDEX1.TOM4V410.LOADLIB


          X EXIT, -PF3- END
```

The following table describes the Connect:Express tables that you can modify:

Field	Description
CNT	Connection exits table. Accesses the user exit connection table.
COD	Automatic retry option. Accesses the user table of automatic retry PRC table.

Field	Description
P..	Presentation protocol option. Accesses a specified presentation control table. Fill in the double periods (..) with the presentation protocol table suffix. For example, to access T1B2PP01, type *P01* on the command line and press <ENTER>.
SLD	Session link definition option. Accesses the flow regulation table.
S..	This option accesses a specified session table. Fill in the double periods (..) with the session table suffix. For example, to access T1B2PS10, type *S10* on the command line and press <ENTER>.
SRT	User selection exits option. Accesses the user exit transfer selection table.
VOL	Volume option. Accesses the volumes table.
ACS	Authorization option. Accesses the ISPF/batch access control table.

Updating the Connection Exits Table (CNT)

The connection exits table is processed by the L1B2PCNX driver during an incoming or outgoing connection with a Partner. The modification function **CNT** enables you to define the table parameters and to update it in libraries through assembly and link-editing.

The table shows user exits in the order in which they will be processed by the exit handler. The screen enables you to place an exit anywhere in the list. Refer to the Administration Guide for more information about implementing the exit handler.

1. To display the List Modification of Tables screen, type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.

2. Type CNT in the option field and press <Enter>. The Exit Table T1B2PCNT Screen is displayed.

```
   TOM4230    EXIT TABLE T1B2PCNT (LIST)                    LOAD DONE      !
   OPTION ===>                                                 PAGE -> PAGE
   UPDATE     : 93/04/29 12:00:00 TOM2182
              M   MODIFY
              D X DELETE ENTRY NUMBER 'X'
              C   CREATE A NEW ENTRY
              C X CREATE A NEW ENTRY 'X'
              X   EXIT, -PF3- END
                 <----------CONDITIONS------------>   <---OPTION--->   <EXIT>
      NUMBER     PROT.   MODE    PART.   DIR.   LINK   WTO     INIT.    MODULE

         10      2       0       A       *      *      N       Y        L1B2PSP2

         20      3       0       A       *      *      Y       Y        L1B2PSP3

         30      5       2       A       *      *      N       N        L1B2PSP3

         40      *       *       *       *      *      *       Y        L1GFICN1
   ****************************** Bottom of data ******************************
```

Note: Each entry in the table states the conditions for branching a user exit. A condition can be set to * = ANY. Dummy connection modules are supplied for protocols number 2 – L1B2PSP2 (ODETTE-FTP), 3 and 5 – L1B2PSP3 (PeSIT).

L1GFICN1 is active to trace any connection or session error with WTO and Netview, if used. It has the same message format as the optional feature package (PAC). A sample is in the *SAMPOPT* library: L1USRCN1. Notice that the exit must be in the Connect:Express *SYSLIB* and must be RENT, or else an abend can occur.

3. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 20* would delete entry number 20 in the table.
C	To create a new table entry. The entry is created from number 1. If you create several entries, number 1, 2, 3 ... will be created.
C X	To create a new table entry. X indicates the line number that you want to create, for example, the command *C22* would create entry number 22 in the table. If the entry already exists, the next available number is created. For example the command *C 20* would create entry number 21 in the table. Then, *C 20* againg would create line 22.

The following table describes the columns on the Exit Table screen.

Field	Description
PROT	The number of protocol corresponding to the Partners directory protocol number field. Only 2, 3, 5, and 6 are available.
MODE	The session table number corresponding to the Partners directory session table number field. Only 0 to 9 are available.
PART	The type of Partner. This value corresponds to the value you set in the Partners directory. Only letters T, A, O are available.
DIR	The direction of the connection OUT or IN (O or I).
LINK	The link on which connection is established (X, S, N, T, C).
WTO	Indicates if a message must be issued when invoked.
INIT	Indicates if the module must be invoked during Connect:Express initialization and termination.

In the example above, the Connection Exits screen shows the following:

❖ L1B2PSP2 will be activated for the ODETTE-FTP session (2), the ODETTE-FTP session table number is 0, the Partner type is application, this can be for an incoming or outgoing call, and any link type. No information message will be issued in the Connect:Express message file (SYSMSG), and L1B2PSP2 is invoked during initialization and termination of Connect:Express.

❖ L1B2PSP3 will be activated for the PeSIT-D session (3), PeSIT session table number 0, PeSIT-E session(5), and PeSIT session table number 1. The Partner type is application, this can be for an incoming or outgoing call, and any link type. An information message ('L1B2PSP3 invoked') will be issued in the

Connect:Express message file (SYSMSG) for PeSIT-D, not PeSIT-E, and L1B2PSP3 is invoked during initialization and termination of Connect:Express (because it was requested for PeSIT-D).

❖ L1GFICN1 will be activated for any Partner (protocol, mode, type, direction and link). No information message will be issued in the Connect:Express MESSAGE file (SYSMSG), and the module is invoked during initialization and termination of Connect:Express.

Updating the User Automatic Retry Table (COD)

The modification function **COD** enables you to define the table parameters and to update it in libraries through assembly and link-editing.

1. To display the List Modification of Tables screen, type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.

2. Type COD in the option field and press <Enter> to display the Table for Retried PRC T1B2PCOD screen.

```
 TOM4230     TABLE FOR RETRIED PRC T1B2PCOD (LIST)          LOAD DONE        !
 OPTION ===>                                                      PAGE -> PAGE
 UPDATE     : 09/05/00 03.53    TOM
            M    MODIFY
            D X  DELETE ENTRY NUMBER 'X'
            C    CREATE A NEW ENTRY
            SORT SORT TABLE
            X    EXIT, -PF3- END
             <--CONDITIONS-->
  NUMBER       PROTOCOL     PRC

      1        ETEBAC3      300

      2        ETEBAC3      302

      3        ETEBAC3      304

      4        ETEBAC3      306

      5        ETEBAC3      400

      6        ETEBAC3      900

      7        ETEBAC3      901
```

Note: Each entry of the table gives the PRCs to retry for a protocol. A PRC can be set to 000 if unused. A Connect:Express HOT-START is required for the update to take effect. The retry process takes place either at connection or selection time, and is processed according to the SYSIN parameters STIMOC= and STIMEV=.

3. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 2* would delete entry number 2 in the table.

Command	Description
C	To create a new table entry.
SORT	To sort the table information.

In this example, if the return code 300 is received while performing a connection with an ETEBAC3 Partner, the Retry procedure will be activated. The STIMEV= parameter in the SYSIN file indicates how long the transfer request will wait for the next retry. The STIMOC= parameter indicates how many times the connection will be retried. If the return code is not defined in the table, the request will be disabled until the next activation.

Updating the Presentation Protocol Tables (P..)

Presentation Protocol Tables are used to determine how data transfers are processed. The basic processes are:

❖ Compression (PeSIT protocol only. For Odette FTP protocol, compression is declared in the Session table.)

❖ Translation

❖ User exits during transfer

Translation is performed by a user exit with all file transfer protocols, and a standard translation exit is provided (L1APM050). Product user exits are placed in default tables for specific features.

The following table describes the default tables provided for basic data processing. Do not modify these tables. Other tables are available for specific user needs.

Table	Data Processing
T1B2PP01	No compression (PeSIT)
T1B2PP02	Horizontal compression (PeSIT)
T1B2PP03	Vertical compression (PeSIT)
T1B2PP04	Mixed compression H+V (PeSIT)
T1B2PP05	Mixed compression H+V (PeSIT) And translation of EBCDIC / ASCII data • ASCII to EBCDIC in reception mode • EBCDIC to ASCII in transmission mode
T1B2PP06	MBO OPTION. Reserved for MAIL BOX option.
T1B2PP07	MAGNETIC TAPE. Reserved for magnetic tape file type.
T1B2PP08	DIFFUSION OPTION. Reserved for DIFFUSION optional feature.

If you want a file to be translated from ASCII to EBCDIC during reception, and EBCDIC to ASCII during transmission, type '05' in the PRESENTATION PROTOCOL field of the file definition in the Files directory.

If you want to activate mixed compression for a PeSIT file transfer, with no translation, type '04' in the PRESENTATION PROTOCOL field of the file definition.

You can define your own presentation tables, using table numbers 09 to 24 which are available to users. These tables must be grouped in a user library and concatenated in the STEPLIB of Connect:Express

The modification function **P..** enables you to define the table parameters and update them in libraries through assembly and link-editing. The data presentation table is directly related to the presentation protocol number in

the Files directory. To update a Presentation Protocol table, enter P and the presentation protocol number. For example, P02.

Caution: Work with your system administrator before accessing this panel, and refer to the Administration Guide for more information.

---

1. Type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>. The List Modification of Tables screen is displayed.

2. Type P and the presentation protocol number in the option field and press <Enter> to display the Protocol P.. screen.

```
 TOM4230---- PROTOCOL  P05   (LIST) ---------------------- LOAD DONE         !
 OPTION ===>


           M    MODIFY



 IDENTIFICATION       :   T1B2PP05       TYPE : ASCII<->EBCDIC

 EXIT I/O PRIVATE     :

 EXIT 1 USER          :   L1APM050
 EXIT 2 USER          :
 EXIT 3 USER          :

 SYNCHRONIZATION      :   100            1 TO 512
 COMPRESSION          :   YES    M       YES/NO   H/V/M
 SEGMENTATION         :   YES            YES/NO
 PERFORMANCE OPTION   :   NO             YES/NO
 DATA TYPE            :   A              A(ASCII)/E(EBCDIC)/B(BINARY)



           X   EXIT, -PF3- END
```

Note: This tables only displays a single entry.

---

3. Type M in the option field to create or modify tables 24 to 09 as required by file characteristics. The compression module cannot be accessed with parameters. A table source model TB£P00 is provided in the SAMPLIB. Some of the fields are defined as follows.

Field	Description
EXITS	EXIT 1 USER, EXIT 2 USER, and EXIT 3 USER are the names of user programs that will be executed when a transfer takes place using the presentation protocol table defined here.
SYNCHRONIZATION	The number of blocks written/read internally to Connect:Express buffers before given to the network
COMPRESSION	Enables you to request file compression when using the PeSIT protocol.
SEGMENTATION	Used to concatenate transmission messages with the PeSIT protocol.

Field	Description
PERFORMANCE OPTION (HPO)	Enables transmission of sequential files by physical blocks. The PERFORMANCE option is effective for a file with small LRECL and large BLKSIZE. Both Partners must specify PERFORMANCE OPTION = YES for this option to take effect.
TYPE OF DATA	Indicates if data is ASCII, EBCDIC, or BINARY data. PeSIT: No process is activated by any of the values. This value is moved to the corresponding transfer protocol field. Odette FTP: This field determines if data is to be processed as text or not. Option 'A' means that records are delimited by Carriage Return and Line Feed characters. When sending the data, these characters are added after reading the file. When receiving the data they are looked for and deleted before writing the file.

Caution: Some values are important for transfer performance and will degrade performance for certain file types while giving good performance to others. Work with your system administrator and refer to the Administration Guide for more information about making modifications.

Updating the Session Link Definition Table (SLD)

The Session Link Definition Table T1B2PSLD is used for general flow control. An entry in this table is referred to by the FLOW CONTROL TABLE field in the Partners directory and can be shared between a group of Partners. The table entry determines the number of simultaneous incoming and outgoing sessions accepted for all Partners pointing to it. This is especially important for flow control in an environment with CPUs of different processing power, such as, mainframe and workstation. It is also useful when connecting a large number of Partners to Connect:Express.

The modification function SLD enables you to define the table parameters. You can update them in libraries through assembly and link-editing.

1. Type 3.3 in the option field from the Main Menu and press <Enter>
    OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.
    The List Modification of Tables screen is displayed.

2. Type SLD in the option field and press <Enter> to display the Input/Output T1B2PSLD screen.

```
 TOM4230---- INPUT/OUTPUT T1B2PSLD (LIST) ---------------- LOAD DONE       !
 OPTION ===>                                                      PAGE -> PAGE

           M     MODIFY
           D XX  DELETE ENTRY NUMBER 'XX'
           C     CREATE A NEW ENTRY

           X     EXIT, -PF3- END

   NUMBER     ID     TYPE     OUTGOING  PRTY.2  PRTY.2+1       INCOMING

        1     A      N        004       000     000            004

        2     T      N        003       000     000            005

        3     X      A        006       002     004            006

        4     Z      N        002       000     000            002

 ***************************** Bottom of data ********************************
```

3. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 2* would delete entry number 2 in the table.
C	To create a new table entry.

The following table describes the columns in the Input/Output screen.

Field	Description
ID	Value from the Flow Control Table field in the Partners directory. This field contains a letter from A to Z, and defines an entry in the T1B2PSLD table, in the form of SLDx, where x=IDENTITY. The entry identified by character A in the example requires Connect:Express not to exceed 4 outgoing sessions and 4 incoming sessions. The definition of an ID can be applied to several Partners that have defined their own maximum (TOT/IN/OUT) session numbers.
TYPE	N is normal entry, used everywhere. A is for France only (A-SIT or B-SIT networks).
OUTGOING	Specifies the number of outgoing sessions authorized.

Field	Description
PRTY.2	Used for French PeSIT Application. It specifies the number of outgoing transfers with priority level 2. See French documentation 'z/OS/F-SIT410 Connect:Express z/OS MSIT MISE EN OEUVRE'. This field is only used in France.
PRTY.2+1	Used for French PeSIT Application. It specifies the number of outgoing transfers with priority level 2 or 1. See French documentation 'z/OS/F-SIT410 Connect:Express z/OS MSIT MISE EN OEUVRE.' This field is only used in France.
INCOMING	Specifies the number of incoming sessions authorized.

Defining Session Rules between Partners

The diagram below illustrates an example of session rules between two Partners.
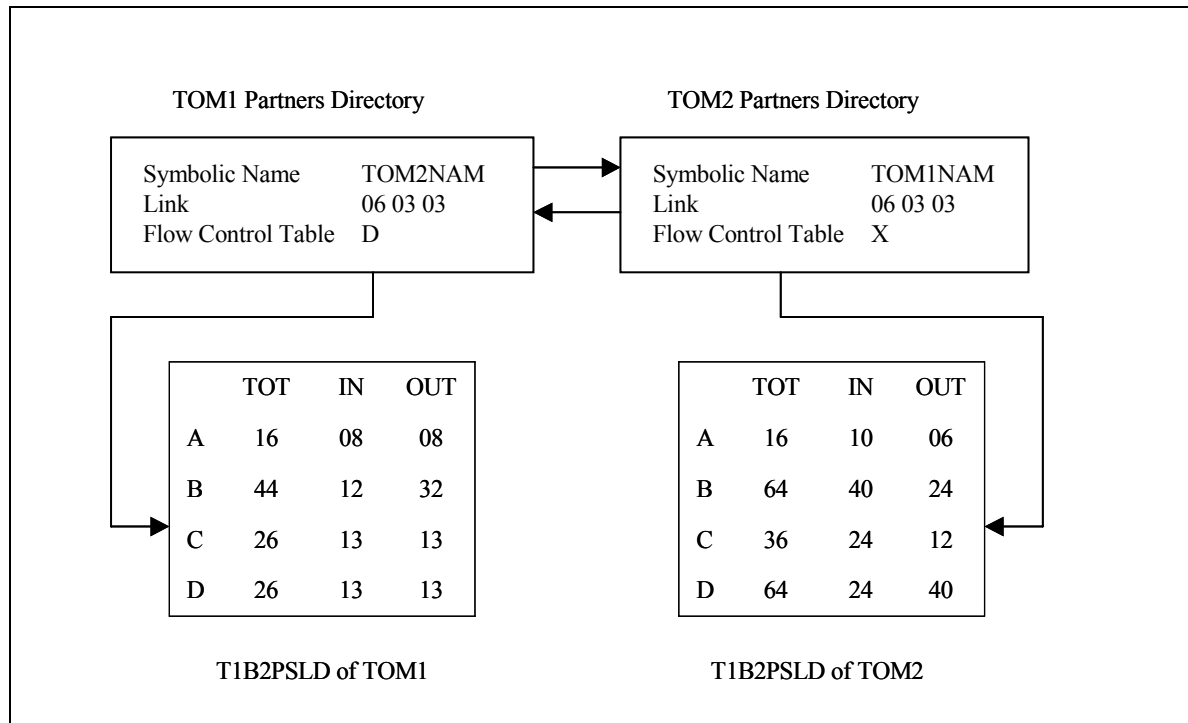
On the TOM1 side, Partner TOM2NAM has 3+3 sessions enabled through the flow control table entry D which is shared with other Partners, and offers 13+13 sessions.

On the TOM2 side, Partner TOM1NAM has 3+3 sessions enabled through the flow control table entry X which is shared with other Partners, and offers 40+24 sessions.

Partners have defined IN an OUT link numbers and an SLD entry. In the example below, the IN and OUT fields for PART1, PART2, and PART3 are greater than the IN and OUT fields of the SLD entry D, but each

Partner could be allocated its maximum if other Partners have less activity. The diagram below shows an example of a shared SLD entry.
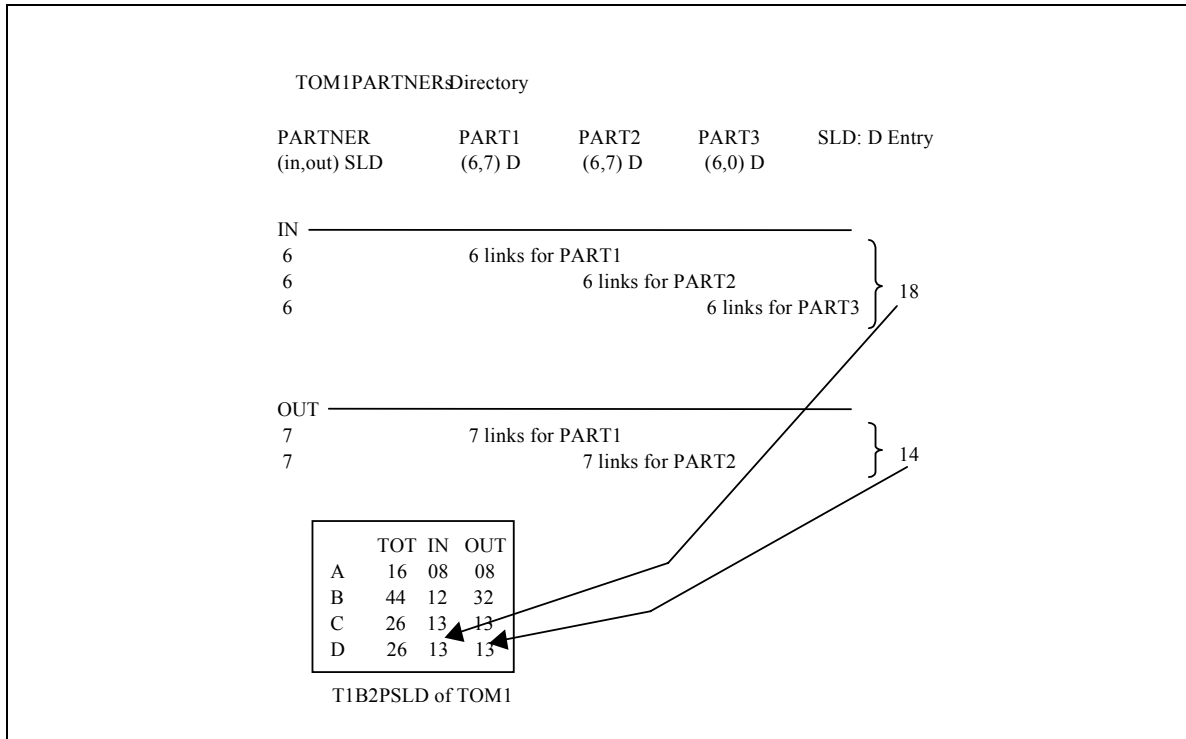
Updating the User Selection Exits Table (SRT)

The User Selection Exits table is processed during file transfer when the transfer is selected and at the beginning and end of the transfer, if the allocation rule is A. When **L1APMSRV** name is set in any user exit name field (during transfer exit, security exit), the user selection exit is processed as well.

The modification function **SRT** enables you to define the table parameters and to update it in libraries through assembly and link-editing.

The table shows user exits in the order in which they will be processed by the exit handler. The screen enables you to place an exit anywhere in the list. Refer to the Administration Guide for more information about implementing the exit handler.

1. Type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.
   The List Modification of Tables screen is displayed.

2. Type SRT in the option field and press <Enter> to display the Exit Table T1APMSRT screen.

```
TOM4230     EXIT TABLE T1APMSRT (LIST)                      LOAD DONE          !
OPTION ===>                                                       PAGE -> PAGE
UPDATE      : 09/05/00 03.52    TOM2183+
            M   MODIFY
            D X DELETE ENTRY NUMBER 'X'
            C   CREATE A NEW ENTRY
            C X CREATE A NEW ENTRY 'X'
            X   EXIT, -PF3- END
              <-----------CONDITIONS------------>   <---OPTION--->    <EXIT>
    NUMBER      PROT.   MODE    PART.   DIR.   LINK   WTO    INIT.    MODULE


        10      2       S       A       *      *      N      Y        L1APMSP2

        20      3       S       A       *      *      Y      Y        L1APMSP3

        30      5       V       A       *      *      N      N        L1APMSP3

        40      *       *       *       R      *      N      Y        L1GFICN1

****************************** Bottom of data ******************************
```

Note: Each entry in the table states the conditions for branching a user exit. A condition can be set to * =
ANY. Dummy selection modules are supplied for protocols number 2–L1APMSP2 (ODETTE-FTP),
3 and 5–L1APMSP3 (PeSIT). For example, L1GFICN1 can be used for trapping PRC 201.

3. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 2* would delete entry number 2 in the table.
C	To create a new table entry. The entry is created from number 1. If you create several entries, number 1, 2, 3 ... will be created.
C X	To create a new table entry. X indicates the line number that you want to create, for example, the command *C22* would create entry number 22 in the table. If the entry already exists, the next available number is created. For example the command *C 20* would create entry number 21 in the table. Then, *C 20* again would create line 22.

The following table describes the columns on the Exit Table screen:

Field	Description
PROT	The protocol number corresponding to the Partners directory protocol number field. 2, 3, 5, and 6 are available.
MODE	File organization (Sequential, Partitioned, VSAM, HFS, Magnetic tape), corresponds to the file organization field of the Files directory. PU, VU, UU, and SU files are transmitted as sequential files. This condition is active only for beginning of transmission call onward (IEX call), since at reception call time it is still unknown. Only S, V, P, M, and H are available.
PART	The type of Partner corresponding to the Partners directory type of Partner field. T, O, A are available.
DIR	The direction of the transfer: Reception (R) or Transmission (T).
LINK	The link on which the connection is running X, S, N, T, C, I.
WTO	Indicates if an information message must be issued when invoked or not.
INIT	Indicates if the module must be invoked during any APM initialization and termination.

In the example on page 5-16, the Selection Exits screen shows the following:

❖ L1APMSP2 will be activated for the ODETTE-FTP session (2) and sequential files. The Partner type is application, and this can be for transmission or reception and any link type. No information message will be issued in the Connect:Express MESSAGE file (SYSMSG), and L1APMSP2 is invoked at initialization and termination of the APM.

❖ L1APMSP3 will be activated for the PeSIT-D session (3) and sequential files. The Partner type is application, and this can be for transmission or reception and any link type. An information message ('L1APMSP3 invoked') will be issued in the APM log file (SYSLOG), and L1APMSP3 is invoked during initialization and termination of the APM.

❖ L1APMSP3 will be activated for the PeSIT-E session (5) and VSAM files. The Partner type is application, and this can be for transmission or reception and any link type. No information will be issued in the APM log file (SYSLOG), and L1APMSP3 is not invoked during initialization and termination of the APM.

❖ L1GFICN1 will be activated for reception with any Partner (protocol, file organization, Partner type, direction and link). No information message will be issued in the APM log file (SYSLOG), and the module is invoked during initialization and termination of the APM.

Updating the Session Tables (S..)

Session tables are used for tuning the network. Session table parameters are negotiated between the Partners of a file transfer. The lowest value in a negotiated parameter will be the value used during the transfer. The session table directly relates to the session table number in the Partners directory.

The modification function S.. enables you to define session table parameters. You can also update them in libraries through assembly and link-editing. A table source model TB£PS00 is supplied in the *SAMPLIB*. To update session tables, enter S and the session table number for example, S02.

The following table lists the default tables which cannot be changed.

Table	Description
T1B2PS10	PeSIT in X.25
T1B2PS20	ODETTE-FTP in X.25
T1B2PS30	TOM01 (PeSIT-D') in Connect:Express environment (TED/PC, Connect:Express /VAX)
T1B2PS31	TOM01 (PeSIT-D) in Partner type "other" (one-way transfer only)
T1B2PS32	TOM01 (PeSIT-D') full function session table
T1B2PS52	TOM02 (PeSIT-E) in ANY environment, AD HOC function added

Note: Work with your system administrator when updating session tables and refer to the Administration Guide for more information.

1. Type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.
   The List Modification of Tables screen is displayed.

2. Type S and the session table number in the option field and press <Enter> to display the Session S.. screen.

```
 TOM4230---- SESSION 1/2 S52   (LIST) -------------------- LOAD DONE        !
 OPTION ===>

           M   MODIFY                              -PF10/11- SCROLL


 IDENTIFICATION        :   T1B2PS52        TYPE:    TOM02


 VALUES:      BASIC,    !  SNA,   RESERVED,   X25,     TCP-IP.
                        !
 MESSAGE  :   0         !  4096               2048     2048      BYTES    128:65537
 SYNCHRO  :   0         !  64                 64       64        K.BYTES  0:65537
 WINDOW   :   0         !  3                  3        3         POINTS   0:16


 DIRECTION             :   *       T(TRANSM.)/R(REC.)/*(T/R)/U(UNIQUE)


          X EXIT, -PF3- END
```

Note:	This is a single entry screen. Tables T1B2PSxn are loaded as required by operating protocol. Their names must not be modified.

Caution:	Some values are important for transfer performance and will degrade performance for certain file types, while giving good performance to others. Work with your system administrator when making modifications to the session tables.

The following table describes the fields on the SESSION S.. screen.

Note:	Three fields can be specified for each link so as to enable a Partner to have optimized performance in case of mixed links. These 3 fields are: LINE MESSAGE SIZE, SYNCHRONIZATION, and WINDOW. Most transfer protocols provide session parameter negotiation.

Field	Description
TYPE	Specifies the type and version of protocol.
MESSAGE	Line Message Size. This field specifies the maximum length of a message exchanged between Connect:Express and the Partner, using this session table. Its value must be related to the user's network parameters and it must be related to ANM **STDMSG=** and ANM **MAXEXT=** buffer parameters. These two parameters are defined in the SYSIN file.
SYNCHRO	Synchronization. This field specifies the number of kilobytes of transferred data before taking a checkpoint of the transfer.
WINDOW	Indicates the number of synchronization messages between acknowledgements. It is used for flow control.
DIRECTION	Specifies the direction, such as T (Transmit), R (Receive), U (unique = one way), or * for both according to the direction of the transfers in one session. T – Only transmit requests are chained output or accepted input during the same session R – Only reception requests are chained output or accepted input during the same session U – The first request determines the direction T or R of the current session * – Session is opened both ways

Note:	SYNCHRONIZATION for PDS and VSAM must be 32 kilobytes.

SESSION S.. Screen 2/2

```
TOM4230---- SESSION 2/2 S52   (LIST) ---------------------------------------
OPTION ===>

              M   MODIFY                          -PF10/11- SCROLL


    IDENTIFICATION                   :   T1B2PS52

    LEVEL                            :   02          PROTOCOL VERSION (HEXA)
    COMPRESSION (ODETTE)             :   ?           YES/NO
    CRC USAGE (PAD)                  :   NO          YES/NO

    RESTART AUTHORISED               :   Y                               Y/N
    USER DATA FIELDS   (EXCEPT SIT)                                    'HEXA'
                                     :   0000000000000000000000000000000000000000
                                     :   0000000000000000000000000000000000000000
    CALLS RETRY                      :   0A          UNUSED            'HEXA'
    RESERVED                         :   000000      UNUSED            'HEXA'




              X EXIT, -PF3- END

```

The following table describes the fields on the Session S.. screen 2/2:

Field	Description
LEVEL	Defines the level of protocol used (02 for PeSIT).
COMPRESSION (ODETTE-FTP)	Yes or No. Indicates if compression is used. This field is used for ODETTE-FTP protocol only. PeSIT compression is defined in the Presentation Protocol Tables section.
USE CRC (PAD)	Used only when a PC with a PAD link is involved.
RESTART	Defines if restart is enabled (yes for PeSIT and ODETTE-FTP).
USER DATA	Defines additional user data (currently not used).
CALL RETRY	Currently not used.
RESERVED	Currently not used.

Updating the Volume Table (T1B2PVOL)

The Volume Table enables you to provide the Connect:Express Monitor with 1 to 32 volume lists for multivolume allocation and volume rotation. A circular permutation of one volume is performed at each allocation to balance the allocation on a set of devices.

This table is used when the definition of the Files directory for a symbolic File name includes two parameters in the first fields of the VOLUME NAME1.

❖ The keyword $MVOL$ or $RVOL$ is set in the first volume field.

❖ The name of the list found in the T1B2PVOL table defined in the second volume field. A volume list name is written in the form %xxxxx.

For example, a volume name could be $MVOL$ %LIST1.

Complete the following steps to update the Volume Table:

1. Type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB in the option field on any screen in Connect:Express and press <Enter>.
   The List Modification of Tables screen is displayed.

2. Type VOL in the option field and press <Enter> to display the Table of Volumes screen.

```
 TOM4230---- TABLE OF VOLUMES ---------------------------- LOAD DONE       !
 OPTION ===>                                                     PAGE -> PAGE

           M   MODIFY
           D X DELETE ENTRY NUMBER 'XX'
           C   CREATE A NEW ENTRY

           X   EXIT, -PF3- END

   NUMBER  NAME  VOLSER

        2  GFI32
              GFI003  GFI003  GFI004  GFI005  GFI003  GFI003  GFI004  GFI005
              GFI003  GFI003  GFI004  GFI005  GFI003  GFI003  GFI004  GFI005
              GFI003  GFI003  GFI004  GFI005  GFI003  GFI003  GFI004  GFI005
              GFI003  GFI003  GFI004  GFI005  GFI003  GFI003  GFI004  GFI005

        1  LIST1
              VOL001  VOL002  VOL003  VOL004
```

3. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 2* would delete entry number 2 in the table.
C	To create a new table entry.

4. Make the changes that you want and press <PF3> to update.

5. Press <Enter> to confirm your changes. Assembly and link-edit of table will be made directly.

6. Perform a hot start of Connect:Express for the changes to take effect.

Updating the Authorization Table (ACS)

The Authorization Table enables you to bypass any control or to implement selective access to the Files and Partners directories or operations control. This feature does not interface with system security such as RACF, ACF2, or TOPSECRET. The authorization table only controls access to Connect:Express functions.

The modification function (ACS) enables you to set parameters and install a security table. A dummy T0B2PACS table is supplied. This table is available for controlling both TSO user access and batch jobs access. See the L0USRZA and L1USRACS examples provided in the *SAMPLIB* library. When used in the TSO/ISPF environment, the T0B2PACS table is integrated in a module called L2B2PACS and placed in the *ISPLLIB* library. You can replace the original dummy table by re-assembling and link-editing automatically through the ISPF menu. You can also use a batch procedure for updating the table. See TB£ACS and $TB£ACS provided in the *SAMPLIB* library.

Before you modify the authorization table, you should save the dummy table and decide how controls should be performed.

❖ Create a backup to re-enable your TSO-user to access this ACS utility panel. In case of a problem, keep the backup copy of T0B2PACS of *LOADLIB*, for batch and L2B2PACL of *ISPLLIB*, for ISPF.

❖ Determine whether access to Connect:Express functions will be limited to the users/LOGON-PROC or jobs defined in the table. In this case, you set the Restrict Option to YES. If the Restrict Option=No, the rules in the table still define authorization, but any user or job not defined in the table can access all functions.

Note: Any refused access to subsystems or commands will be written in the z/OS log.

To update the Authorization table, complete the following steps:

1. Type 3.3 in the option field from the Main Menu and press <Enter>
   OR enter the jump command TAB from any screen in Connect:Express and press <Enter>. The List Modification of Tables screen is displayed.

2. Type ACS in the option field and press <Enter> to display the Access Control ACS screen.

3. In the RESTRICT OPTION field, select YES if you want **only** rules defined in the table to determine authorization. If you select NO, the rules defined in the table still apply, but any user or job not mentioned in the table can access all functions.

4. Type any of the following commands in the option field and press <Enter>.

Command	Description
M	To modify a table entry.
D X	To delete an entry in the table. X indicates the line number that you want to delete, for example, the command *D 2* would delete entry number 2 in the table.
C	To create a new table entry.

5. Make any changes that you want in ACS table then press <PF3> to update. The following tables lists the parameters that you can change:

Parameter	Description
RESTRICT OPTION	Y–YES, only listed id's are enabled to defined accesses. N–NO, no control performed on unlisted ids.
ID	ID to be checked. TSOUSER*,LOGPROC*,... mandatory as identifier, sorted in descending order.
SUB-SYSTEM	The Subsystem to be enabled for this user. TOM1,... OR '*' (ALL), OR 'NONE'

COMMANDS	The following values are valid:
	  C – change or modify.
	  D – for disable or pause.
	  E – enable or start or activate.
	  H – request-hold.
	  I – request-interrupt.
	  L – request-class-change.
	  P – request-purge.
	  R – request-restart.
	  Y – request-change-priority.
	  T – transfer-request.
	  U – utility access (ACS included).
	  * – all of above
	  NONE – none of above

FILES	The following values are valid:
	  F* – Any filename beginning with the letter F.
	  FILE1 – The filename FILE1
	  * – (ALL)
	  NONE – No files

PARTNERS	The following values are valid:
	  P* – Any filename beginning with the letter P.
	  PART1– The filename PART1
	  * – (ALL)
	  NONE – No Partners

REQUESTS OF	The following values are valid:
	  T* – Any requestor beginning with the letter T.
	  TSOUSER – The requestor TSOUSER.
	  * – ALL
	  NONE – No Requests

6. Press <Enter> to confirm your changes. Connect:Express will assemble and link-edit the table for you.

7. Logoff and Logon to implement the changes.

ACCESS CONTROL ACS Screen (RESTRICT OPTION=NO)

```
   TOM4230---- ACCESS CONTROL   ACS (LIST) ------------------ LOAD DONE        !
   OPTION ===>
   MOD:  USR9   96/04/29  11.33
              C   CREATE A NEW ENTRY
              D X DELETE ENTRY NUMBER 'X'
              M   MODIFY
              R   REPEAT

              X   EXIT, -PF3- END

                  RESTRICT OPTION   :  NO  (YES/NO)

     NUMBER LABEL     USERID ACCESS-LIST :

         1 DEF1       TYL
                            SUB-SYSTEM   :  TOM1   TOM2
                            COMMANDS     :  NONE
                            FILES        :  FI11*
                            PARTNERS     :  PA11
                            REQUESTS OF  :  TSOUSER1
   *** END OF LIST
```

ACCESS CONTROL ACS Screen (RESTRICT OPTION = YES)

```
   TOM4230---- ACCESS CONTROL   ACS (LIST) ------------------ LOAD DONE        !
   OPTION ===>
   MOD:  USR9   96/04/29  11.33
              C   CREATE A NEW ENTRY
              D X DELETE ENTRY NUMBER 'X'
              M   MODIFY
              R   REPEAT

              X   EXIT, -PF3- END

                  RESTRICT OPTION   :  YES  (YES/NO)

     NUMBER LABEL     USERID ACCESS-LIST :

         1 L0000001  TSOUSER*
                            SUB-SYSTEM   :  TOM1
                            COMMANDS     :  NONE
                            FILES        :  FILE*
                            PARTNERS     :  PSR*
                            REQUESTS OF  :  TSOUSER2
         2 L0000002  LOGPROC*
                            SUB-SYSTEM   :  TOM1   TOM2   TOM3
                            COMMANDS     :  CETU
                            FILES        :  NONE
                            PARTNERS     :  PSR*   SCI*
                            REQUESTS OF  :  USER*
   *** END OF LIST
```

In the example above, Definition 1 (L0000001) states that all USERIDs that begin with TSOUSER have access to subsystem TOM1, no commands, all File definitions beginning with FILE, all Partners beginning with PSR, and all requests done by JOBS or TSO USERIDs equal to TSOUSER2.

In Definition 2 (L0000002), all TSO users that have a logon procedure step name that begins with LOGPROC have access to sub-system TOM1/TOM2/TOM3, the CHANGE/ENABLE/TRANSFER/UTILITY commands, all Partners that begin with PSR or SCI, and all requests by Jobs or users that begin with USER. The specification of NONE for Files states that access to all Files defined in Connect:Express is denied.

Planned Transfers

You can automatically initiate transfer requests without operator assistance by scheduling a request at a specific time and date. This enables the user to schedule batch requests without using JCL.

Predetermined transfer orders are kept in the file referenced by *SYSEVT*. You can use external scheduling packages to provide more functionality. An example is in the EVENT member of the *SYSPRM* library which is supplied during installation. The following screen displays transfer orders in the EVENT Member of the *SYSPRM* Library:

```
CMD TYP=x,CLA=y,DIR=z,DDN=DDNAME01,PAR=TOMSNA,DPR=*,TPR=20:30
CMD TYP=x,CLA=y,DIR=z,DDN=DDNAME01,PAR=TOMSNA,DPR=MONDAY,TPR=12:15
```

The parameters are described in the list below.

Parameter	Description
CMD	The mandatory keyword placed in column one
TYP	Type of request (N=Normal; H=Hold; I=Query)
CLA	The transfer class based on APM definition, discussed in "Request (Option 4)"
DIR	The transfer direction (T=Transmission; R=Reception)
DDN	The symbolic name for the requested File is discussed in "Files Directory (Option 1.2)"
PAR	The symbolic Partner name is discussed in "Partners Directory (Option 1.1)"
DPR	Specifies the day of the week when the request must be carried out (or * for all the days)
TPR	Specifies the time when the request must be carried out (written in the form hh:mm)

Note: These requests can only be performed if the Monitor is up.

1. To create or modify a planned request, type 3.4 in the option field from the Main Menu and press <Enter>. The Planned Transfers Parameters screen is displayed.

```
 TOM4230     PLANNED TRANSFERS PARAMETERS
 OPTION ===>
             E : EDIT MEMBER, I : INSERT NEW PARAMETERS, ? : INIT DSN


 MONITOR  ===> TOM4

  FILE(MEMBER) ===>  INDEX1.TOM4.SYSPRM(SYSEVT)          (SYSEVT)

 NEW PARAMETERS :
  FILE ..... ===> FILETEST   (SYMBOLIC NAME)
  DIRECTION  ===> T          T/R
  PARTNER .. ===> OS390      (SYMBOLIC NAME)
  TYPE ..... ===> N          N/H/I
  CLASS .... ===> A          A:Z
  DAY ...... ===> MONDAY     */MONDAY/TUESDAY/...
  TIME ..... ===> 09:00      (HH:MM)



 DATA ARE CHECKED BY COMMAND 'F TOM,LOADEV', CHECK TOM WTO.

            X EXIT, -PF3- END
```

2. In the option field, type E to edit a member, or complete the fields on screen and type I to insert the new parameters.

3. Make any necessary changes and press <PF3> to update.

4. Press <Enter> to confirm the update. The update is automatically refreshed.

Alternate Address Files

The SYSSNA, SYSX25, and the SYSTCP files provide alternate network addresses for Partners.

Updating the SYSSNA File

You can update multiple SNA link identifications from the Parameters of the SYSSNA List screen. The SNA addresses in the SYSSNA file for one Partner can be considered the second and subsequent addresses for this Partner. The first SNA address is contained in the Partner's definition, and the number of additional SNA addresses is unlimited.

If one of the alternate addresses for a Partner is set to '*', the caller address control is disabled for SNA incoming calls from this Partner. A keyword is provided for bypassing the LU6.2 Partner's incoming call address control.

LU2BYPAS: This keyword is associated with a symbolic Partner name. Any LU6.2 calling Partner who is unknown, or not defined in the Partners directory, is processed as the default Partner name with no address control. The 'BYPASS' defined in the SYSSNA file can be displayed through the general OPERATIONS CONTROL panel. (Option 2.1.B)

1. To display the Parameters of SYSSNA List screen, type 3.5 in the option field on the Main Menu and press <Enter>
    OR enter the jump command SNA in the option field on any screen in Connect:Express and press <Enter>.

```
 TOM4230     PARAMETERS OF SYSSNA LIST                 NAMES INITIALIZED   !
 OPTION ===>
            E : EDIT MEMBER, I : INSERT NEWS PARAMETERS, ? : INIT DSN


 MONITOR ===> TOM4

 DSN(MEMBER) ===> INDEX1.TOM4.SYSPRM(LSNA)                 (SYSSNA)

 NEW PARAMETERS :
  PARTNER ... ===>            (SYMBOLIC NAME)
  LUNAME .... ===>            (LUNAME/'LU2BYPAS/*')
  LOGMODE ... ===>
  LOGDATA ... ===>
  COMMENT ... ===>




 DATA ARE CHECKED WHEN 'F TOM,REF SYSSNA' IS PERFORMED, SEE WTO OF THIS TOM.

            X EXIT, -PF3- END
```

2. In the option field, type E to edit a member or complete the fields on screen and type I to insert the new parameters.
3. Make any necessary changes and press <PF3> to update.
4. Press <Enter> to confirm the update. The update is automatically refreshed.

Updating the SYSX25 File

You can update multiple X.25 link identifications using the Parameters of SYSX25 List screen. The X.25 link identification SYSX25 file for one Partner can be considered the second and subsequent addresses for this Partner. The first X.25 link is contained in the Partner's definition, and the number of additional X.25 addresses is unlimited.

If one of the alternate addresses for one Partner is set to '*', the caller address control is disabled for X25 incoming calls from this Partner. A keyword is provided for bypassing PAD or ETEBAC3 Partner's incoming call address control.

X25BYPASXPAD: This keyword is associated with a symbolic Partner name. Any PAD calling Partner who is unknown, or not defined in the Partners directory, is processed as the default Partner name with no address control.

X25BYPASETB3: This keyword is associated a symbolic ETEBAC3 Partner name. Any ETEBAC3 calling Partner who is unknown (not defined in the Partners directory) is processed as this default Partner name, with no address control. The 'BYPASS' defined in the SYSX25 file can be displayed through the general OPERATIONS CONTROL panel (Option 2.1.B).

1. To display the Parameters of SYSX25 List screen, type 3.6 in the option field on the Main Menu and press <Enter>
    OR enter the jump command X25 in the option field on any screen in Connect:Express and press <Enter>.

```
 TOM4230     PARAMETERS OF SYSX25 LIST                  NAMES INITIALIZED    !
 OPTION ===>
             E : EDIT MEMBER, I : INSERT NEW PARAMETERS, ? : INIT DSN


 MONITOR ===> TOM4

 DSN(MEMBER) ===> INDEX1.TOM4.SYSPRM(LX25)                  (SYSX25)

 NEW PARAMETERS :
  PARTNER ... ===>                   (SYMBOLIC NAME)
  REM.ADDR. . ===>                   (NUMBER/'X25BYPASETB3-5/X25BYPASXPAD/*')
  MCHSEL .... ===>
  LOC.ADDR. . ===>
  TAXATION .. ===>
  CUG ....... ===>
  UDF ....... ===>
  FACILITIES. ===>


 DATA ARE CHECKED WHEN 'F TOM,REF SYSX25' IS PERFORMED, SEE WTO OF THIS TOM.

             X EXIT, -PF3- END
```

2. In the option field, type E to edit a member or complete the fields on screen and type I to insert the new parameters.
3. Make any necessary changes then press <PF3> to update.
4. Press <Enter> to confirm the update. The update is automatically refreshed.

Updating the SYSTCP File

You can update multiple TCP/IP link identifications from the Parameters of SYSTCP screen. The TCP/IP link identification in the SYSTCP file for one Partner can be considered the second and subsequent addresses for this Partner. The first TCP/IP link is contained in the Partner's definition, and the number of additional SNA addresses is unlimited.

If one of the alternate addresses for one Partner is set to '*', the caller address control is disabled for TCP/IP incoming calls from this Partner. A keyword is provided for bypassing FTP Partner's incoming call address control.

FTPBYPAS: This keyword is associated with a symbolic Partner name. Any FTP calling Partner who is unknown, or not defined in the Partners directory, is processed as the default Partner name with no address control. The 'BYPASS' defined in the SYSTCP file can be displayed through the general OPERATIONS CONTROL panel (Option 2.1.B).

1. To display the Parameters of SYSTCP screen, type 3.8 in the option field on the Main Menu and press
    <Enter>
    OR enter the jump command TCP in the option field on any screen in Connect:Express and press <Enter>.

```
 TOM4230     PARAMETERS OF SYSTCP LIST                  NAMES INITIALIZED    !
 OPTION ===>
            E : EDIT MEMBER, I : INSERT NEW PARAMETRES, ? : INIT DSN


 MONITOR ===> TOM4

 DSN(MEMBER) ===> INDEX1.TOM4.SYSPRM(LTCP)                   (SYSTCP)

 NEW PARAMETERS :
  NAME ...... ===>                                  (NAME)
  ADDRESS ... ===>                                  (ADDRESS/*)
  PORT ...... ===>                                  (PORT)
  HOST ...... ===>                                  (HOST/' ')
  COMMENT.... ===>





 DATA ARE CHECKED WHEN 'F TOM,REF SYSTCP' IS PERFORMED, SEE WTO OF THIS TOM.

            X EXIT, -PF3- END
```

2. In the option field, type E to edit a member or complete the fields on screen and type I to insert the new parameters.

3. Make any necessary changes and press <PF3> to update.

4. Press <Enter> to confirm the update. The update is automatically refreshed.

The JCL Skeleton Library

JCL skeletons are provided for the Unload/Reload processes for PDS, VSAM, SYSOUT, and user files. You can modify or refresh the SYSJCL skeleton library from the SYSJCL Update screen.

1. To display the SYSJCL Update screen, type 3.7 in the option field on the Main Menu and press <Enter> OR enter the jump command JCL in the option field on any screen in Connect:Express and press <Enter>.

```
 TOM4230     SYSJCL MEMBERS PARAMETERS                     NAMES INITIALIZED    !
 OPTION ===>
             E : EDIT DSN(MEMBER), ? : INIT DSN


 MONITOR ===> TOM4

 DSN(MEMBER) ===> INDEX1.TOM4.SYSJCL                       (SYSJCL)




 DATA ARE CHECKED WHEN 'F TOM,REF SYSJCL' IS PERFORMED, SEE WTO OF THIS TOM.

             X EXIT, -PF3- END
```

2. In the option field, type E to edit a member and press <Enter>.

```
 Menu  Functions  Utilities  Help
 -tyl/USR8/SYSA-------------------------------------------------------
 EDIT    INDEX1.TOM4.SYSJCL                          Row 00001 of 00038
 Command ===>                                            Scroll ===> PAGE
   Name      Prompt      Size    Created       Changed             ID
 . $$$$MDLJ               1     1989/08/17   1989/08/17 18:52:00   USR4
 . $JOBREL1               9     1994/01/31   1997/09/17 16:12:51   USR4
 . $JOBREL2               9     1989/05/25   1997/09/17 16:13:05   USR4
 . $JOBREL3              13     1993/02/19   1997/12/16 14:20:03   USR9
 . $JOBREL4               9     1993/12/07   1997/09/17 16:13:27   USR4
 . $JOBREL5               9     1993/12/07   1997/09/17 16:13:27   USR4
 . $JOBRJEE               9     1989/05/25   1993/08/25 17:32:00   USR9
 . $JOBUNL1               9     1989/05/25   1997/09/17 16:11:11   USR4
 . $JOBUNL2               9     1989/05/25   1997/09/17 16:11:28   USR4
 . $JOBUNL3              13     1993/02/19   1997/12/16 14:19:06   USR9
 . $JOBUNL4              10     1993/12/14   1998/04/09 13:55:52   USR4
 . $JOBUNL5              10     1993/12/14   1998/04/09 13:55:52   USR4
 . $PHRUNL1              14     1994/01/31   1994/01/31 11:25:00   PSR0015
 . $RELOAD1              14     1989/05/25   1993/02/19 21:27:00   USR4
 . $RELOAD2              14     1989/05/25   1993/08/26 16:23:00   USR9
 . $RELOAD3              27     1993/02/19   1997/12/16 14:18:09   USR9
 . $RELOAD4              17     1993/12/07   1998/04/09 15:19:23   USR4
 . $RELOAD5              17     1993/12/07   1998/04/09 15:19:23   USR4
 . $RELOAO3              26     1997/10/31   1997/10/31 12:35:24   USR4
 . $TEDRJEE              14     1989/05/25   1989/05/25 12:47:00   TOM214
```

3.   Make any necessary changes and press <PF3> to update. The Confirm screen is displayed.

```
   TOM4230---- CONFIRM THIS ACTION ------------------------ F PSRTOM4,REF SYSJCL
    OPTION ===>


                                                                       USR8
                                                                       00/11/20
                                                                       02:06
    ACTION    : UPDATE

    ENTRY     : F PSRTOM4,REF SYSJCL


    MVS COMMAND ASKING THE MONITOR TO TAKE ACCOUNT OF THIS MODIFICATION



    MONITOR   : TOM4  ACTIVE     SYSA   GLOBAL




              X : EXIT, -ENTER- : CONFIRM, -PF3- : CANCEL
```

4.   Press <Enter> to confirm the update. The update is automatically refreshed.

Application Program Interface (API)

This chapter discusses the Application Program Interface which enables you to integrate file transfer operations with your application process.

Overview

The control functions available from the Operations Control screen are also available in batch mode using a programmed interface. There are five modules that provide this functionality:

❖ L0B2Z20 - the general API module that you can link-edit with user applications

❖ L0USRZA - the security module (ACS)

❖ L0B2ZUSJ - the Journal inquiry module

❖ L0B2ZAPL - the Journal notification module

❖ L0B2ZREX - a REXX interface

The utility P1B2P300 is also provided for batch implementation.

The General API Module (L0B2Z20)

The General API Module (L0B2Z20) provides a Display, Transfer, and Modify service. Using the Display service, a user program can query Files, Partners, and requests. With the Modify service, a user program can enable and disable Files, Partners, and requests, or change a request class or priority.

The L0B2Z20 program must always be called dynamically, except when called by the L1B2P20 root module, which in turn calls L0B2Z20. If your program invokes L0B2Z20 by a static "CALL" statement, you will have to link-edit the program again for each PTF update, so it's better to use the L1B2P20 module. It uses the same calling conventions, but invokes L0B2Z20 by a dynamic "LINK" and does not need you to link-edit again in case of a PTF update.

When updating the product, the release notes will advise you if any compilations and link-edits are necessary. This may be required if a new function has been added.

You must always use the structures provided in the *MACLIB* library (DSECT, COPY).

```
assembly : D0B2ZEXH header, which can call D0B2ZEX? extension.
cobol : D0COBEXH header, and D0COBEX? extension if needed.
```

The *ISPCLIB* contains an ISPF EDIT MACRO to convert assembly-DSECT to a COBOL-copy, M2COBASM.

L0B2Z20 Usage with Assembly

L0B2Z20 uses a communication structure called D0B2ZEXH. The D0B2ZEXH parameter list is made up of a header and different structures corresponding to the service invoked. Modify services only use the header. Display services may result in one entry or several entries returned by Connect:Express.

You can build the structure as a map (DSECT=NO) or as a data area (DSECT=YES). You can also indicate the TYPE of use, for example to access Files or Partners. There is also an OPTION about what kind of process you are implementing. One entry or a list of entries is requested. The structure is expanded from the TYPE parameter and only the header or the header followed by the appropriate structure is displayed.

The answer from Connect:Express is comprised of return codes (RTCF and RSCF) and data, and the return codes must be tested first. Data is returned only if the codes are null. See Testing Return Codes with the Application Program on page 6-16.

```
DSECT='YES'/'NO' for DS/DC generation.

OPTION='ONE'/'ALL' for unique/multiple entry(ies) mapping.
'ONE' means no EXHXRET/EXHXNUM iteration fields.

TYPE=''
for header only (modify commands).
TYPE='1'
'1' transfer request.

TYPE='F'/'P'/'R'/'T'/'S'/'W'
'F' FCT entry(ies) display.
'P' PCT entry(ies) display.
'R' RCT entry(ies) display.
'T' TCT entry display.
'S' HCT entry(ies) display.
'W' TCT of HCT entry display.

TYPE='G'/'GA'/'GD'/'GN'
'G' GLOBAL states display.
'GA' APM state display.
'GD' DSNAMES/UMSG display.
'GN' ANM state display.

LABEL='YES'/'NO' for extraneous labels generation or no.
('NO' is advised)

PREFIX='user' for 3 characters of zones.
('EXH' is default)
```

Sample ZONE mapping (DC) of transfer request:
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=1,LABEL=NO

Sample DSECT mapping (DS) of display whole RCT:
D0B2ZEXH DSECT=YES,OPTION=ALL,TYPE=R,LABEL=NO,BUFL=YES

Sample ZONE mapping (DC) of display global state:
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=G,LABEL=NO

Sample ZONE mapping (DC) of some modify command:
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO

In all cases, clear the entire zone, then complete the required fields and call L0B2Z20 or L1B2P20 using the IBM standard type shown below.

```
CALL L1B2P20,(PARM),VL
```

Using the DISPLAY API Service

Displaying an FCT Extract (File)

In this example, the D0COBEXH header and D0COBEXF function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 ZONF-DISP-FCT.
          10 D0B2ZEXF-EXHSSN PIC X(4) VALUE 'TOM2'.
          10 D0B2ZEXF-EXHFUNC PIC X VALUE 'D'.
          10 D0B2ZEXF-EXHTYPE PIC X VALUE 'F'.
          10 D0B2ZEXF-EXHID PIC X(8) VALUE 'SYMBNAME'.
          10 D0B2ZEXF-EXHOPT PIC X VALUE ' '.
          10 D0B2ZEXF-EXHPRTY PIC X VALUE ' '.
          10 D0B2ZEXF-EXHRTCF PIC 9 VALUE ZERO.
          10 D0B2ZEXF-EXHRSCF PIC 999 VALUE ZERO.
          10 D0B2ZEXF-EXHEMSG PIC X(80) VALUE BLANK.
          10 D0B2ZEXF-EXHBUFFL COMP PIC S9(8) VALUE 94.
            15 D0B2ZEXF-EXFDDNAM PIC X(8).
            15 D0B2ZEXF-EXFLSTEM PIC X(8).
            15 D0B2ZEXF-EXFLSTRE PIC X(8).
            15 D0B2ZEXF-EXFDIREC PIC X.
            15 D0B2ZEXF-EXFFTYPE PIC X.
            15 D0B2ZEXF-EXFALRUL PIC X.
            15 D0B2ZEXF-EXFSTATS PIC X.
            15 D0B2ZEXF-EXFDSNAM PIC X(44).
            15 D0B2ZEXF-EXFTQECT PIC S9(2).
            15 D0B2ZEXF-EXFFILL1 PIC S9(20).
```

```
  CALL L1B2P20 USING ZONF-DISP-FCT.
```

The program returns the information below if the two fields, D0B2ZEXF-EXHRTCF and D0B2ZEXF-EXHRSCF, are set to zero.

```
        15 EXFDDNAM ← SYMBOLIC FILE NAME
        15 EXFLSTEM ← SYMBOLIC NAME FOR THE DEFINED TRANSMITT
        15 EXFLSTRE ← '' '' FOR THE DEFINED RECEIVER
        15 EXFDIREC ← DIRECTION (T,R OR *)
        15 EXFFTYPE ← TYPE OF FILE (S,V,P OR M)
        15 EXFALRUL ← ALLOCATION RULE (1,2,3 OR A)
        15 EXFSTATS ← STATUS (E,H,U OR S)
        15 EXFDSNAM ← 'DSNAME'
        15 EXFTQECT ← NUMBER OF ACTIVE TRANSFERS
```

For assembly you can use the following Connect:Express MACRO.

```
  D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=F,LABEL=NO
```

Displaying a PCT Extract (Partner)

In this example, the D0COBEXH header and D0COBEXP function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 ZONP-DISP-PCT.
          10 D0B2ZEXP-EXHSSN PIC X(4) VALUE 'TOM2'.
          10 D0B2ZEXP-EXHFUNC PIC X VALUE 'D'.
          10 D0B2ZEXP-EXHTYPE PIC X VALUE 'P'.
          10 D0B2ZEXP-EXHID PIC X(8) VALUE 'PARTNAME'.
          10 D0B2ZEXP-EXHOPT PIC X VALUE ' '.
          10 D0B2ZEXP-EXHPRTY PIC X VALUE ' '.
          10 D0B2ZEXP-EXHRTCF PIC 9 VALUE ZERO.
          10 D0B2ZEXP-EXHRSCF PIC 999 VALUE ZERO.
          10 D0B2ZEXP-EXHEMSG PIC X(80) VALUE BLANK.
          10 D0B2ZEXP-EXHBUFFL COMP PIC 9(8) VALUE 92.
            15 D0B2ZEXP-EXPSIDNM PIC X(8).
            15 D0B2ZEXP-EXPALTPN PIC X(8).
            15 D0B2ZEXP-EXPPRMOD PIC X.
            15 D0B2ZEXP-EXPSTATS PIC X.
            15 D0B2ZEXP-EXPACRFL PIC X.
            15 D0B2ZEXP-EXPCLASS PIC X.
            15 D0B2ZEXP-EXPDLINK PIC X.
            15 D0B2ZEXP-EXPORDLN PIC X(4).
            15 D0B2ZEXP-EXPLULST PIC X(8).
            15 D0B2ZEXP-EXPNTOFN PIC X(8).
            15 D0B2ZEXP-EXPXDIAL PIC X(16).
            15 D0B2ZEXP-EXPSPRNB PIC X.
            15 D0B2ZEXP-EXPSPSTN PIC X.
            15 D0B2ZEXP-EXPSITSI PIC X.
            15 D0B2ZEXP-EXPRQECT PIC 99.
            15 D0B2ZEXP-EXPCURNL PIC 99.
            15 D0B2ZEXP-EXPMXNLK PIC 99.
            15 D0B2ZEXP-EXPNETER PIC X.
            15 D0B2ZEXP-EXPHASIT.
              20 D0B2ZEXP-EXPAPTYP PIC 9.
              20 D0B2ZEXP-EXPAPNUM PIC 99999.
              20 D0B2ZEXP-EXPNTNDN PIC X(8).
              20 D0B2ZEXP-EXPSECNB PIC X(2).
              20 D0B2ZEXP-EXPFILL1 PIC X(9).
```

```
      CALL L1B2P20 USING ZONP-DISP-PCT.
```

The program returns the following information if the two fields, D0B2ZEXP-EXHRTCF and D0B2ZEXP-EXHRSCF, are set to zero.

```
              15 EXPSIDNM ← PARTNER SYMBOLIC NAME.
              15 EXPALTPN ← not used
              15 EXPPRMOD ← TYPE OF PARTNER (T,O,A,5,3,J OR E)
              15 EXPSTATS ← STATUS OF PARTNER (E H OR U)
              15 EXPDLINK ← TYPE OF LINK (X,S,N,T,C,O OR M)
              15 EXPORDLN ← LINK LIST IF MIXED
              15 EXPXDIAL ← X25 DIAL (LG,NUMBER)
              15 EXPSPRNB ← USED PROTOCOL (01,02,03,04 OR 05)
              15 EXPSPSTN ← USED SESSION TABLE NUMBER (01 TO 08)
              15 EXPSITSI ← MCH SELECTION CODE
              15 EXPRQECT ← NUMBER OF CURRENT REQUESTS
              15 EXPCURNL ← NUMBER OF CURRENT SESSIONS (TOTAL)
              15 EXPMXNLK ← MAXIMUM SESSION NUMBER (TOTAL)
              15 EXPNETER ← NETWORK STATUS
              15 EXPHASIT.← SIT NETWORK ONLY
                 20 EXPAPTYP ← TYPE OF APPLICATION (1,2,3 OR 4)
                 20 EXPAPNUM ← APPLICATION NUMBER (1 TO 32765)
                 20 EXPSECNB ← SECURITY TABLE.
```

For assembly you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=P,LABEL=NO
```

Displaying an RCT Extract (Request)

In this example, the D0COBEXH header and D0COBEXR function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 ZONR-DISP-RCT.
           10 D0B2ZEXR-EXHSSN PIC X(4) VALUE 'TOM2'.
           10 D0B2ZEXR-EXHFUNC PIC X VALUE 'D'.
           10 D0B2ZEXR-EXHTYPE PIC X VALUE 'R'.
           10 D0B2ZEXR-EXHID PIC X(8) VALUE '25200001'.
           10 D0B2ZEXR-EXHOPT PIC X VALUE ' '.
           10 D0B2ZEXR-EXHPRTY PIC X VALUE ' '.
           10 D0B2ZEXR-EXHRTCF PIC 9 VALUE ZERO.
           10 D0B2ZEXR-EXHRSCF PIC 999 VALUE ZERO.
           10 D0B2ZEXR-EXHEMSG PIC X(80) VALUE BLANK.
           10 D0B2ZEXR-EXHBUFFL COMP PIC 9(8) VALUE 70.
             15 D0B2ZEXR-EXRREQNB PIC 9(8).
             15 D0B2ZEXR-EXRCLASS PIC X.
             15 D0B2ZEXR-EXRIPRTY PIC X.
             15 D0B2ZEXR-EXRRSTA1 PIC X.
             15 D0B2ZEXR-EXRRSTA2 PIC X.
             15 D0B2ZEXR-EXRPARID PIC X(8).
             15 D0B2ZEXR-EXRTPART PIC X.
             15 D0B2ZEXR-EXRUSRID PIC X(8).
             15 D0B2ZEXR-EXRRTYPE PIC X.
             15 D0B2ZEXR-EXREXRNB PIC X(8).
             15 D0B2ZEXR-EXRLNKFL PIC X.
             15 D0B2ZEXR-EXRSTEPN PIC X.
             15 D0B2ZEXR-EXRAPMNB PIC 9(1).
             15 D0B2ZEXR-EXREFFNB PIC 9(1).
             15 D0B2ZEXR-EXRRETCN PIC 9(1).
             15 D0B2ZEXR-EXRCMPCC PIC X(12).
             15 D0B2ZEXR-EXRUSTYP PIC X.
             15 D0B2ZEXR-EXRFILL1 PIC X(14).
```

```
   CALL L1B2P20 USING ZONR-DISP-RCT.
```

The program returns the following information if the two fields, D0B2ZEXP-EXHRTCF and
D0B2ZEXP-EXHRSCF, are set to zero.

```
         15 EXRREQNB ← REQUEST NUMBER
         15 EXRREQCL ← CLASS OF EXECUTION
         15 EXRREQPR ← PRIORITY OF SELECTION
         15 EXRSTAT1 ← STATUS 1 OF THE REQUEST (E,H OR U)
         15 EXRSTAT2 ← STATUS 2 OF THE REQUEST (W,S,F,I,T,L,Z,H)
         15 EXRPARID ← PARTNER NAME
         15 EXRTPART ← PARTNER TYPE (T,O,E,J,3,B,5,A)
         15 EXRUSRID ← REQUESTOR ID
         15 EXRRTYPE ← REQUEST TYPE (N,H,I,K,U,S)
         15 EXREXRNB ← EXTERNAL REQUEST NUMBER
         15 EXRLNKFL ← CURRENT LINK (X,S,T,L,N,C,O)
         15 EXRSTEPN ← STEP (H,=,1,2,3,4,5,6,7,8)
         15 EXRAPMNB ← APM NUMBER
         15 EXREFFNB ← EFFECTOR NUMBER
         15 EXRRETCN ← RETRY COUNT
         15 EXRCMPCC ← RETURN CODES (TXXXPXXXSXXX) TRC,SRC,PRC
         15 EXRUSTYP ← INCOMING, OUTGOING
```

For assembly you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=R,LABEL=NO
```

Displaying all of the RCT(Requests)

In this example, the D0COBEXH header and D0COBEXR function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
      05 ZONR-DISP-RCT.
        10 D0B2ZEXR-EXHSSN PIC X(4) VALUE 'TOM2'.
        10 D0B2ZEXR-EXHFUNC PIC X VALUE 'D'.
        10 D0B2ZEXR-EXHTYPE PIC X VALUE 'R'.
        10 D0B2ZEXR-EXHID PIC X(8) VALUE '00000000'.
        10 D0B2ZEXR-EXHOPT PIC X VALUE ' '.
        10 D0B2ZEXR-EXHPRTY PIC X VALUE ' '.
        10 D0B2ZEXR-EXHRTCF PIC 9 VALUE ZERO.
        10 D0B2ZEXR-EXHRSCF PIC 999 VALUE ZERO.
        10 D0B2ZEXR-EXHEMSG PIC X(80) VALUE BLANK.
        10 D0B2ZEXR-EXHBUFFL COMP PIC 9(8) VALUE 4096.
          15 D0B2ZEXR-EXHXRET COMP PIC 9(8) VALUE ZERO.
          15 D0B2ZEXR-EXHXNUM COMP PIC 9(8) VALUE ZERO.
          15 POST-REQ OCCURS 130.
            20 D0B2ZEXR-EXRREQNB PIC 9(8).
            20 D0B2ZEXR-EXRCLASS PIC X.
            20 D0B2ZEXR-EXRIPRTY PIC X.
            20 D0B2ZEXR-EXRRSTA1 PIC X.
            20 D0B2ZEXR-EXRRSTA2 PIC X.
            20 D0B2ZEXR-EXRPARID PIC X(8).
            20 D0B2ZEXR-EXRTPART PIC X.
            20 D0B2ZEXR-EXRUSRID PIC X(8).
            20 D0B2ZEXR-EXRRTYPE PIC X.
            20 D0B2ZEXR-EXREXRNB PIC X(8).
            20 D0B2ZEXR-EXRLNKFL PIC X.
            20 D0B2ZEXR-EXRSTEPN PIC X.
            20 D0B2ZEXR-EXRAPMNB PIC 9(1).
            20 D0B2ZEXR-EXREFFNB PIC 9(1).
            20 D0B2ZEXR-EXRRETCN PIC 9(1).
            20 D0B2ZEXR-EXRCMPCC PIC X(12).
            20 D0B2ZEXR-EXRUSTYP PIC X.
            20 D0B2ZEXR-EXRFILL1 PIC X(14).
```

```
      CALL L1B2P20 USING ZONR-DISP-RCT.
```

The program returns the following information if the two fields, D0B2ZEXP-EXHRTCF and D0B2ZEXP-EXHRSCF, are set to '0000' or '2998'.

```
   D0B2ZEXR-EXHRSCF
    → C'000' FUNCTION OK
    → C'998' FOR 'DISPLAY ALL ENTRIES' ONLY :
    BUFFER TOO SHORT FOR ALL ENTRIES WITH :
    EXHBUFFL CONTAINS THE USED BUFFER LENGHT;
    EXHXRET CONTAINS THE ENTRIES RETURNED COUNT;
    EXHXNUM CONTAINS THE ENTRIES LEFT COUNT.

    PERFORM A NEW ITERATION FOR NEXT ENTRIES WITH :
    EXHBUFFL CONTAINING THE BUFFER LENGHT;
    EXHXRET CONTAINING X'00';
    EXHXNUM CONTAINING THE NEXT ASKED ENTRY NUMBER.
    see in *SAMPLIB* EX£Z20.
```

```
        10 EXHRTCF PIC 9. ← '0' OR '2'
        10 EXHRSCF PIC 999. ← '000' OR '998'
        10 EXHEMSG PIC X(80). ← 'BLANK' OR 'OPERATOR MSG'
        10 EXHBUFFL COMP PIC 9(8).← 'HEX-LENGTH-OF-BUFFER'
          15 EXHXRET ← HEXA NUMBER OF RETURNED ENTRIES
          15 EXHXNUM ← HEXA NUMBER OF REMAINING ENTRIES
          15 POST-REQ.
            20 EXRREQNB ← REQUEST NUMBER , entry number 1.
            20 EXRREQCL ← CLASS OF EXECUTION
            20 EXRREQPR ← PRIORITY OF SELECTION
            20 EXRSTAT1 ← STATUS 1 OF THE REQUEST (E,H OR U)
            20 EXRSTAT2 ← STATUS 2 OF THE REQUEST (W,S,F,I,T,L,Z,H)
            20 EXRPARID ← PARTNER NAME
            20 EXRTPART ← PARTNER TYPE (T,O,E,J,3,B,5,A)
            20 EXRUSRID ← REQUESTOR ID
            20 EXRRTYPE ← REQUEST TYPE (N,H,I,K,U,S)
            20 EXREXRNB ← EXTERNAL REQUEST NUMBER
            20 EXRLNKFL ← CURRENT LINK (X,S,T,N,C,O)
            20 EXRSTEPN ← STEP (H,=,1,2,3,4,5,6,7,8)
            20 EXRAPMNB ← APM NUMBER
            20 EXREFFNB ← EFFECTOR NUMBER
            20 EXRRETCN ← RETRY COUNT
            20 EXRCMPCC ← RETURN CODES (TRC,SRC,PRC)
            20 EXRUSTYP ← INCOMING, OUTGOING
```

For assembly you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ALL,TYPE=R,LABEL=NO,BUFL=YES
```

Displaying a TCT Extract (Transfers)

In this example, the D0COBEXH header and D0COBEXT function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
           05 ZONT-DISP-TCT.
           10 D0B2ZEXT-EXHSSN PIC X(4) VALUE 'TOM2'.
           10 D0B2ZEXT-EXHFUNC PIC X VALUE 'D'.
           10 D0B2ZEXT-EXHTYPE PIC X VALUE 'T'.
           10 D0B2ZEXT-EXHID PIC X(8) VALUE '25200001'.
           10 D0B2ZEXT-EXHOPT PIC X VALUE ' '.
           10 D0B2ZEXT-EXHPRTY PIC X VALUE ' '.
           10 D0B2ZEXT-EXHRTCF PIC 9 VALUE ZERO.
           10 D0B2ZEXT-EXHRSCF PIC 999 VALUE ZERO.
           10 D0B2ZEXT-EXHEMSG PIC X(80) VALUE BLANK.
           10 D0B2ZEXT-EXHBUFFL COMP PIC S9(8) VALUE 280.
             15 D0B2ZEXT-EXTREQNB PIC X(8).
             15 D0B2ZEXT-EXTDDNAM PIC X(8).
             15 D0B2ZEXT-EXTPARID PIC X(8).
             15 D0B2ZEXT-EXTDSNAM PIC X(44).
             15 D0B2ZEXT-EXTMEMBR PIC X(8).
             15 D0B2ZEXT-EXTFTYPR PIC X(2).
             15 D0B2ZEXT-EXTALRUL PIC X(1).
             15 D0B2ZEXT-EXTTRTYP PIC X(1).
             15 D0B2ZEXT-EXTDIREC PIC X(1).
             15 D0B2ZEXT-EXTSPPNB PIC X(2).
             15 D0B2ZEXT-EXTIEXNM PIC X(8).
             15 D0B2ZEXT-EXTTEXNM PIC X(8).
             15 D0B2ZEXT-EXTFLAG0 PIC X(1).
             15 D0B2ZEXT-EXTFLAG1 PIC X(1).
             15 D0B2ZEXT-EXTFLAG2 PIC X(1).
             15 D0B2ZEXT-EXTFLAG3 PIC X(1).
             15 D0B2ZEXT-EXTRQDAT PIC 9(8).
             15 D0B2ZEXT-EXTRQTIM PIC 9(8).
             15 D0B2ZEXT-EXTSLDAT PIC 9(8).
             15 D0B2ZEXT-EXTSLTIM PIC 9(8).
             15 D0B2ZEXT-EXTLEDAT PIC 9(8).
             15 D0B2ZEXT-EXTLETIM PIC 9(8).
             15 D0B2ZEXT-EXTTBDAT PIC 9(8).
             15 D0B2ZEXT-EXTTBTIM PIC 9(8).
             15 D0B2ZEXT-EXTBYTTN PIC 9(8).
             15 D0B2ZEXT-EXTBYTEN PIC 9(8).
             15 D0B2ZEXT-EXTRECNB PIC 9(8).
             15 D0B2ZEXT-EXTVSRNB PIC 9(8).
             15 D0B2ZEXT-EXTRETNB PIC 9(8).
             15 D0B2ZEXT-EXTTRDUR PIC 9(8).
             15 D0B2ZEXT-EXTFILSZ PIC 9(8).
           10 D0B2ZEXT-EXTPREXT.
             15 D0B2ZEXT-EXTAORGT PIC X.
             15 D0B2ZEXT-EXTAORGN PIC S9(2).
             15 D0B2ZEXT-EXTADSTT PIC X.
             15 D0B2ZEXT-EXTADSTN PIC S9(2).
             15 EXTAFCOD COMP PIC S9(4).
             15 D0B2ZEXT-EXTAFLID PIC X(5).
             15 D0B2ZEXT-EXTACDAT PIC X(12).
             15 D0B2ZEXT-EXTFILL0 PIC X(1).
           10 NORMAL-REQUEST REDEFINES D0B2ZEXT-EXTPREXT.
             15 D0B2ZEXT-EXTSFORG PIC X(8).
             15 D0B2ZEXT-EXTSFDST PIC X(8).
             15 D0B2ZEXT-EXTSFCOD COMP PIC S9(4).
             15 D0B2ZEXT-EXTNOTFY PIC X(8).
           10 D0B2ZEXT-EXTFILL1 PIC X(30).
```

```
   CALL L1B2P20 USING ZONT-DISP-TCT.
```

The program returns the following information if the two fields, EXHRTCF and EXHRSCF, are set to zero.

```
          15 EXTREQNB ← REQUEST
          15 EXTDDNAM ← DDNAME
          15 EXTPARID ← PARTNER
          15 EXTDSNAM ← DSNAME
          15 EXTMEMBR ← MEMBER UNL./REL.
          15 EXTFTYPR ← P/PU/S/V/VU
          15 EXTALRUL ← ALLOCATION RULE (1,2,3,A)
          15 EXTTRTYP ← TRANSFER TYPE
          15 EXTDIREC ← DIRECTION
          15 EXTSPPNB ← PROT.PRESENTATION
          15 EXTIEXNM ← EXIT BEGINING
          15 EXTTEXNM ← EXIT END
          15 EXTFLAG0 ← STATUS 0 (E,H)
          15 EXTFLAG1 ← STATUS 1 (A,B,C,D,E,F)
          15 EXTFLAG2 ← STATUS 2 (A,B,C,D,E,F,G,H,Z)
          15 EXTFLAG3 ← STATUS 3 (A,B,C,D,E,F,G,H)
          15 EXTRQDAT ← DATE OF REQUEST YY/MM/DD
          15 EXTRQTIM ← HOUR OF REQUEST HH.MM.SS
          15 EXTSLDAT ← DATE OF SELECT. YY/MM/DD
          15 EXTSLTIM ← HOUR OF SELECT. HH.MM.SS
          15 EXTLEDAT ← DATE OF LOAD/UNLOAD YY/MM/DD
          15 EXTLETIM ← HOUR OF LOAD/UNLOAD HH.MM.SS
          15 EXTTBDAT ← DATE OF BEGIN TRF. YY/MM/DD
          15 EXTTBTIM ← HOUR OF BEGIN TRF. HH.MM.SS
          15 EXTBYTTN ← K.CHARACT. NETWORK
          15 EXTBYTEN ← K.CHARACT. FILE
          15 EXTRECNB ← REC. SENT
          15 EXTVSRNB ← SEN/REC. VTAM
          15 EXTRETNB ← RESTARTS
          15 EXTTRDUR ← TRANSFER ELAPSE TIME
          15 EXTFILSZ ← ACTUAL FILE SIZE
 IF SCI TRANSFER:
          15 EXTSFORG ← ORIGIN
          15 EXTSFDST ← DESTINATION
          15 EXTSFCOD ← FILE CODE BINARY
          15 EXTNOTFY ← NOTIFY
 IF PeSIT TRANSFER :
          15 EXTAORGT ← TYPE ORIGIN PI3 BINARY
          15 EXTAORGN ← NUMBER ORIGIN BINARY
          15 EXTADSTT ← TYPE ADDRESS PI4 BINARY
          15 EXTADSTN ← NUMBER ADRESS BINARY
          15 EXTAFCOD ← FILE CODE PI11 BINARY
          15 EXTAFLID ← FILE CODE PI12
          15 EXTACDAT ← CREATION CODE PI51
```

For assembly you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=T,LABEL=NO
```

Using the TRANSFER-REQUEST API Service

The full parmlist must always be cleared before moving the used fields. In this example, the D0COBEXH header and D0COBEX1 function are expanded. For names of zones, refer to the structures provided in the *MACLIB* library. For Ad Hoc extension zones, refer to D0B2ZEX1 in the *MACLIB* library. You can activate the use of lower case values by setting the EXHPRTY field to the hexadecimal value of '20'.

```
      05 ZREQ-TOM-RCT.
         10 D0B2ZEX1-EXHSSN PIC X(4) VALUE 'TOM2'.
         10 D0B2ZEX1-EXHFUNC PIC X VALUE 'T'.
         10 D0B2ZEX1-EXHTYPE PIC X VALUE 'R'.
         10 D0B2ZEX1-EXHID PIC X(8) VALUE '00000000'.
  * If EXHID has value 'WAITnnnn', the requestor will
  * stay in wait till transfer is performed (synchronized).
  * If the nnnn minutes timer expires before,
  * the requestor will receive rc=4 '2903'.
  * Think to 'TIME=' of your job.
         10 D0B2ZEX1-EXHOPT PIC X VALUE ' '.
  * If EXHOPT has value 'H', the request is deferred.
         10 D0B2ZEX1-EXHPRTY PIC X VALUE ' '.    X'20' = Lower case supported
         10 D0B2ZEX1-EXHRTCF PIC 9 VALUE ZERO.
         10 D0B2ZEX1-EXHRSCF PIC 999 VALUE ZERO.
         10 D0B2ZEX1-EXHEMSG PIC X(80) VALUE BLANK.
         10 D0B2ZEX1-EX1ENTRY PIC X(216).
            15 D0B2ZEX1-EXHFUNC PIC X VALUE 'A'.
            15 D0B2ZEX1-EX1ACLAS PIC X VALUE '?'.
            15 D0B2ZEX1-EX1APRTY PIC X VALUE '?'.
            15 D0B2ZEX1-EX1AREQT PIC X VALUE 'N'.
            15 D0B2ZEX1-EX1AFIL1 PIC X VALUE ' '.
            15 D0B2ZEX1-EX1AORGT PIC X. ← SIT ORG TYPE
            15 D0B2ZEX1-EX1AORGN PIC 9(5). ← SIT ORG APP NUMB
            15 D0B2ZEX1-EX1ADSTT PIC X. ← SIT DEST TYPE
            15 D0B2ZEX1-EX1ADSTN PIC 9(5). ← SIT DEST APP NUMB
            15 D0B2ZEX1-EX1ADATE PIC 9(6). ← SIT DATE YYMMDD
            15 D0B2ZEX1-EX1ATIME PIC 9(6). ← SIT TIME HHMMSS
            15 D0B2ZEX1-EX1AFCOD PIC 9(5). ← SIT FILE CODE
            15 D0B2ZEX1-EX1AFNAM PIC 9(5). ← SIT FILE NAME
            15 D0B2ZEX1-EX1ADSNM PIC X(44). ← DSNAME
         10 NORMAL-TRANSFER REDEFINES D0B2ZEX1-EX1ENTRY.
            15 D0B2ZEX1-EX1SRQTY PIC X VALUE 'S'.
            15 D0B2ZEX1-EX1SCLAS PIC X VALUE '?'.
            15 D0B2ZEX1-EX1SPRTY PIC X VALUE '?'.
            15 D0B2ZEX1-EX1SREQT PIC X VALUE 'N'.
            15 D0B2ZEX1-EX1STDIR PIC X VALUE '?'.
            15 D0B2ZEX1-EX1SDDNM PIC X(8). ← SYMB. FILE NAME
            15 D0B2ZEX1-EX1SPART PIC X(8). ← SYMB. PART NAME
            15 D0B2ZEX1-EX1SDSNM PIC X(44). ← DSNAME
            15 D0B2ZEX1-EX1SMEMB PIC X(8). ← EVENT U/R MEMBER
            15 D0B2ZEX1-EX1SNTFY PIC X(8). ← NOTIFY IDENT.
            15 D0B2ZEX1-EX1SLINK PIC X. ← LINK TYPE.
            15 D0B2ZEX1-EX1SSECN PIC 9(2). ← SECURITY TABLE NUMBER.
            15 D0B2ZEX1-EX1SFIL2 PIC X(2). ← PADDING
            15 D0B2ZEX1-EX1SRACG PIC X(8). ← RACF USER GROUP
            15 D0B2ZEX1-EX1SADPC PIC X(8). ← ALIAS
            15 D0B2ZEX1-EX1SAPSW PIC X(8). ← ALIAS PASSWORD
            15 D0B2ZEX1-EX1SFORG PIC X(8). ← TRANSFER ORIGIN
            15 D0B2ZEX1-EX1SFDST PIC X(8). ← TRANSFER DESTINATION
            15 D0B2ZEX1-EX1SAPID PIC X(82). ← APPLI: FILE ID.
            15 D0B2ZEX1-EX1AH-F PIC X(93). ← AD-HOC FILLER.
```

```
  CALL L1B2P20 USING ZREQ-TOM-RCT.
```

The transfer request is accepted if the two fields, D0B2ZEX1-EXHRTCF and D0B2ZEX1-EXHRSCF, are set to zero. The request number is returned to the D0B2ZEX1-EXHID field.

In case of errors, check the EXHEMSG message explanation. For assembly you can use the following Connect:Express MACRO:

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=1,LABEL=NO
```

Using the MODIFY API Service

Enabling a Disabled File

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'E'.
           10 EXHTYPE PIC X VALUE 'F'.
           10 EXHID PIC X(8) VALUE 'SYMBNAME'.
           10 D0B2ZEXH-EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The File status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly you can use the following Connect:Express macro.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Disabling an Enabled File

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'H'.
           10 EXHTYPE PIC X VALUE 'F'.
           10 EXHID PIC X(8) VALUE 'SYMBNAME'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The File status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express macro.

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Enabling a Disabled Partner

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'E'.
           10 EXHTYPE PIC X VALUE 'P'.
           10 EXHID PIC X(8) VALUE 'PARTNAME'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The Partner status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Disabling an Enabled Partner

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'H'.
           10 EXHTYPE PIC X VALUE 'P'.
           10 EXHID PIC X(8) VALUE 'PARTNAME'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The Partner status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Disabling an Enabled Request

In this example, the D0COBEXH header is expanded.For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'H'.
           10 EXHTYPE PIC X VALUE 'R'.
           10 ZHEA- CX -REQN PIC X(8) VALUE '25600234'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The request status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Enabling a Disabled Request

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'E'.
           10 EXHTYPE PIC X VALUE 'R'.
           10 ZHEA- CX -REQN PIC X(8) VALUE '25600234'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The request status is modified if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Restarting a Request

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
05 D0B2ZEXH-EXHENTRY.
   10 EXHSSN PIC X(4) VALUE 'TOM2'.
   10 EXHFUNC PIC X VALUE 'R'.
   10 EXHTYPE PIC X VALUE 'R'.
   10 ZHEA- CX -REQN PIC X(8) VALUE '25600234'.
   10 EXHOPT PIC X VALUE ' '.
   10 EXHPRTY PIC X VALUE ' '.
   10 EXHRTCF PIC 9 VALUE ZERO.
   10 EXHRSCF PIC 999 VALUE ZERO.
   10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The restart procedure is executed if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Purging a Request

You can purge a request that is being executed or a request waiting to be processed. In this example, D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
05 D0B2ZEXH-EXHENTRY.
   10 EXHSSN PIC X(4) VALUE 'TOM2'.
   10 EXHFUNC PIC X VALUE 'P'.
   10 EXHTYPE PIC X VALUE 'R'.
   10 ZHEA- CX -REQN PIC X(8) VALUE '25600234'.
   10 EXHOPT PIC X VALUE ' '.
   10 EXHPRTY PIC X VALUE ' '.
   10 EXHRTCF PIC 9 VALUE ZERO.
   10 EXHRSCF PIC 999 VALUE ZERO.
   10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The request is purged if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Interrupting a Request Being Executed.

In this example, the D0COBEXH header is expanded. For names of zones, refer to the structures provided in the *MACLIB* library.

```
        05 D0B2ZEXH-EXHENTRY.
           10 EXHSSN PIC X(4) VALUE 'TOM2'.
           10 EXHFUNC PIC X VALUE 'I'.
           10 EXHTYPE PIC X VALUE 'R'.
           10 ZHEA- CX -REQN PIC X(8) VALUE '25600234'.
           10 EXHOPT PIC X VALUE ' '.
           10 EXHPRTY PIC X VALUE ' '.
           10 EXHRTCF PIC 9 VALUE ZERO.
           10 EXHRSCF PIC 999 VALUE ZERO.
           10 EXHEMSG PIC X(80) VALUE BLANK.
```

```
   CALL L1B2P20 USING D0B2ZEXH-EXHENTRY.
```

The interruption procedure is started if the two fields, EXHRTCF and EXHRSCF, are set to zero. For assembly, you can use the following Connect:Express MACRO.

```
   D0B2ZEXH DSECT=NO,OPTION=ONE,TYPE=,LABEL=NO
```

Testing Return Codes with the Application Program

The following screen shows an example of return codes.

```
*  z/OS RETURN CODES (R15).
R15 = 0  _____  → FUNCTION OK .
R15 = 4  _____  → INCORRECT.
R15 = 8  _____  → CONVENTIONS INCORRECT, OR
→ IF 'DISPLAY' THE LIST NOT EXHAUSTED.
R15 = 12 _____  → INTERNAL ERROR.
*  RETURN CODES OF COMMUNICATION AREA (D0B2ZEXH).
*  RETURN CODE: EXHRTCF
→ C'0' FUNCTION OK, R15=0.
→ C'1' TRANSFER REQUEST RECORDED, R15=0.
→ C'2' FUNCTION REJECTED/INCOMPLETE, R15 NOT 0,
 SEE REASON CODE.
*  REASON CODE: EXHRSCF → C'000' FUNCTION OK.
→ C'001' MONITOR NOT STARTED
→ C'002' INVALID (MONITOR STARTING/STOPPING?)
→ C'900' INVALID (SUBSYS NOT UP/OPERATION REFUSED/...)
→ C'903' ANOMALY (SUBFUNCTION REFUSED/WAIT/...)
→ C'997' ERROR (SUBFUNCTION ERROR/...)
→ C'998' PARAMETER INVALID IF NOT 'DISPLAY ALL'.
→ C'998' FOR 'DISPLAY ALL ENTRIES' ONLY :
R15=8 IF BUFFER TOO SHORT FOR ALL ENTRIES
(THE LIST NOT EXHAUSTED).
→ C'999' INTERNAL ERROR L0B2Z20.
→ C'9XX' ERROR IEFSSREQ, SSREQ-RC=XX.
C'904' ERROR IEFSSREQ, SSVT CHAIN INVALID.
C'908' ERROR IEFSSREQ, UNKNOWN SUBSYSTEM.
C'912' ERROR IEFSSREQ, SUBSYSTEM NEVER STARTED.
C'916' ERROR IEFSSREQ, INCOMPATIBLE LEVELS.
```

L0B2Z20: Diagnostic Messages.

Note: In case of errors, check the //SYSPR20 or EXHEMSG message.

The '//SYSPR20' DDNAME is optional in the job SYSOUT. If specified, 2 lines of information or error messages are printed. The L0B2Z20 level is given on the right side of the first line.

The '//SYSPR20' DDNAME can only be specified for 'REUS' programs. Only the 'EMSG' zone of D0B2ZEXH header can be used for 'RENT' programs.

The //SYSPR20 or EXHEMSG message contains the full error message with true Connect:Express TRC, if any. See the documentation or HELP-ISPF ERROR CODE (-PF1- or 'RC').

Activating Security (L0USRZA)

A batch ACS security program is provided. The job running the program that calls L0B2Z20 must have a //JOBLIB or //STEPLIB or LINKLIST of the Connect:Express *LOADLIB* to load the L0USRZA security module (ACS) dynamically. The L0USRZA module is a dummy module. There is an example of a security implementation in the L1USRACS module in the *SAMPLIB* library. You have to implement your own L0USRZA exit and replace the dummy module with it.

Note: L0B2Z20 always calls the L0USRZA module.

Using the PARM Field to Take Action on a File, Partner, or Request (P1B2P300)

You can access the Connect:Express API using a batch utility called P1B2P300. This utility enables you to display or change the state of a File, Partner, or request. It can be used in BATCH to disable a File entry after its reception, or it can be use through a COBOL driver to purge specific requests. The following screen shows an example:

```
   EXAMPLE OF P1B2P300 USAGE.

//RESTART  EXEC  PGM=P1B2P300,
//         PARM='S=TOM3/P=PSRTOM4/R=12900017/R'
//SYSPR300 DD  SYSOUT=*    ← OPTIONNAL CARD

//DISPLAY  EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/F=F1/?'

//HOLD     EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/F=F1/H'

//ENABLE   EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/F=F1/E'

//DISPLAY  EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/P=PSRTOM3/?'

//INTERRUP EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/P=PSRTOM3/R=24500000/I'

//RESTART  EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/P=PSRTOM3/R=24500000/R'

//PURGE    EXEC  PGM=P1B2P300,
//         PARM='S=TOM4/P=PSRTOM3/R=24500000/P'
```

The Journal Record

Connect:Express records the results of transfers in the journal file accessed by the TSO/ISPF panels. The recorded data is the same as that given to the user exit routine (UEXJNL= parameter in the SYSIN file).

To view the journal data set, you can also use the TOMJNL clist with the P2B2PJNL program for your own TSO batch mode job, rather than direct C2B2P217 CLIST. This CLIST can be tailored to extract journal entries with selection criteria and then create a printable report.

The API of Connect:Express also provides a program for viewing the journal data set.

Viewing The Journal Data Set (L0B2ZUSJ)

This program can be called from a COBOL, PL/I or ASSEMBLER program to read the records of the "SYSJNL" file. Connect:Express monitors journal records according to the selection criteria described below:

Parameter Area

PL/I description of the parameter area (check D1B2PJNL *MACLIB*):

```
DCL 01 JOURNAL-COMMUNICATION,
 03 JOURNAL-PARM,
    05 JNL-PRM-FNC CHAR,
    05 JNL-PRM-FILLER CHAR(3),
    05 JNL-PRM-RTCOD CHAR(4),
    05 JNL-PRM-NBR CHAR(1),
    05 JNL-PRM-RSCOD CHAR(3),
  03 JOURNAL-SELECTION,
    05 JNL-SLC-FILEN CHAR(8),
    05 JNL-SLC-DSNAM CHAR(44),
    05 JNL-SLC-DIREC CHAR(1),
    05 JNL-SLC-PSFTY CHAR(5),
    05 JNL-SLC-PSNAM CHAR(5),
    05 JNL-SLC-PARTN CHAR(8),
    05 JNL-SLC-LOTYP CHAR,
    05 JNL-SLC-LOAPN CHAR(5),
    05 JNL-SLC-PATYP CHAR,
    05 JNL-SLC-PAAPN CHAR(5),
    05 JNL-SLC-REQNB CHAR(16),
    05 JNL-SLC-MNDAT CHAR(6),
    05 JNL-SLC-MNTIM CHAR(6),
    05 JNL-SLC-MXDAT CHAR(6),
    05 JNL-SLC-MXTIM CHAR(6),
    05 JNL-SLC-FILLER CHAR(9),
  03 JOURNAL-ANSWER,
    05 JNL-ANS-RECORD CHAR(1024);
```

The parameter area includes three parts:

Part	Description
Journal-Parm	The following are valid: O: Opens the SYSJNL file. The "O" function must be executed before any "D" functions. The "C" Function has to be executed when the "D" function indicates that there are no more records corresponding to the selection criteria (answer JNL-NBR = 0). D: Retrieves the contents of a record according to selection criteria. The contents of the record is placed in JNL-ANS-RECORD. C: Closes the SYSJNL file. JNL-PRM-FILLER_: → reserved area JNL-PRM-RTCOD_: → return code. Set to zero when the program has been successfully executed, otherwise, see the following list of return codes. JNL-PRM-NBR_: can be equal to 0 or 1. 0: no records or no more (SYSJNL end of file) records correspond to your selection criteria, 1: a record of the file has been placed in JNL-ANS-RECORD. JNL-PRM-RSCOD: → error message text. This field is blank when the program is successfully completed, otherwise it gives an error message.
Journal-Selection	It is possible to obtain a list of selected records from the JOURNAL file by completing selection fields. A blank field means that all the possible values are accepted. If the character "*" is placed at the end of the selection field, only records matching the pattern will be listed. For example, if DSNAM = SYS2.PARIS* then the list will include all the files starting by SYS2.PARIS. JNL-SLC-FILEN: symbolic File name JNL-SLC-DSNAM: physical file name (DSNAME) JNL-SLC-DIREC: transfer direction, T for transmission, R for reception. JNL-SLC-PSFTY: five numeric characters. File type. PeSIT transfers only. JNL-SLC-PSNAM: five numeric characters. File name. PeSIT transfers only. JNL-SLC-PARTN: Symbolic Partner name JNL-SLC-LOTYP: (equal to 1 or 2) Type of local Partner. PeSIT only. JNL-SLC-LOAPN: five numeric characters. Identification of the local PeSIT application. JNL-SLC-PATYP: (equal to 3 or 4) Type of transfer Partner. PeSIT transfer only. JNL-SLC-PAAPN: five numeric characters. Identification of the PeSIT application for the transfer Partner. JNL-SLC-REQNB: Request numbers (first, last. Each one can be omitted.) JNL-SLC-MNDAT, JNL-SLC-MNTIM, JNL-SLC-MXDAT & JNL-SLC-MXTIM: Time segment to examine stated as YYMMDD and HHMNSS. Selected records correspond to transfers which have started after date MNDAT and time MNTIM and have ended before date MXDAT and time MXTIM.
Journal-Answer	JNL-ANS-RECORD: Journal file record. The description of this record is in the Administration Guide (D1B2PJNL).

L0B2ZUSJ Error Codes

RSCOD indicates the type of error:

RSCOD error	Description
INV	Function code is different from O, D or C.
ACB	ACB cannot be generated.
RPL	RPL cannot be generated.
OPN	SYSJNL cannot be opened.
SHW	Following a VSAM error, the error code cannot be displayed.

RSCOD error	Description
GET	Record cannot be read. RTCOD contains field "feed back" of RPL.
CLS	SYSJNL cannot be closed.

Execution

The program calling L0B2ZUSJ can be executed in BATCH or in IMS Batch Message Processing (BMP). The JCL must include a DD card to reference the JOURNAL file using the DDname 'SYSJNL'.

Implementing Notifications of End of Transfer (L0B2ZAPL)

Connect:Express API provides a program for getting end of transfer notifications (L0B2ZAPL). The notification interface program L1B2PAEX must be installed first. This program is in charge of sending notifications.

The L1B2PDIX program is a driver that enables you to install several user journal exit programs. For example, you can have one journal exit for general statistics purposes and the notification interface for distributed notifications. See EX£DIX in the *SAMPLIB* library for an example of a driver of exit such as L1B2PAEX.

A direct notification of end of transfer can be transmitted to an application if the parameter UEXJNL=L1B2PAEX has been specified, or if L1B2PAEX is in the SYSINEXT file of LIB2PDIX and UEXJNL=LIB2PDIX is specified.

A user program can call the L0B2ZAPL module to receive notifications. This module can be called from BATCH or BMP programs to:

❖ Connect the calling application to the Connect:Express monitor.

❖ Wait for the notification of each end of file transfer (normal or interrupted) and for the characteristics of the transfer (number of records, number of bytes, etc).

❖ Disconnect the calling application from the Connect:Express monitor.

An example of the user program (EX£APL) is provided in the *SAMPLIB* library. A user oriented program called L1B2ZAPL can also be used to listen to Connect:Express journal events. This program enables a user application to receive notifications that match selection criteria. For example, you can receive notifications corresponding to one Partner. See the D1B2ZAPL structure in the *MACLIB* library for a description of the parameter list.

L0B2ZAPL: Implementation

It is performed by a standard CALL with a two-way communication area, as shown in the following example:

```
   01 REQUEST-L0B2ZAPL.

        05 APLTOMS PICTURE X(4) VALUE 'TOMP'. → L0B2ZAPL
        05 APLNAME PICTURE X(8) VALUE 'BSIT-IMS'. → L0B2ZAPL
        05 APLFUNC PICTURE X(1) VALUE 'I', 'W' or 'T' → L0B2ZAPL
        05 APLRSRV PICTURE X(3) VALUE LOW-VALUE.
        05 APLRTCD PICTURE X(1) VALUE ZERO. ← L0B2ZAPL
        05 APLRSCD PICTURE X(3) VALUE ZERO. ← L0B2ZAPL
        05 APLRJNL PICTURE X(320) VALUE SPACES. ← L0B2ZAPL
```

For each call to the L0B2ZAPL module, the fields, APLTOMS, APLNAME, and APLFUNC, must be filled in as follows:

Field	Description
APLTOMS	The name of the Connect:Express subsystem.
APLNAME	The name of the chosen application.
APLFUNC	The required function code. I - Initialization Connects your application to the Connect:Express subsystem specified in the T1B2PAPL table which can contain up to eight applications. W - Event Waiting The calling program waits for an end of transfer notification from the Connect:Express subsystem. This function is requested after initialization, for each notification request. T - Ending Disconnects your application from the Connect:Express subsystem. This function is requested when the application wants to stop operations.

For each call to the L0B2ZAPL module, the fields, APLRTCD, APLRSCD, and APLRJNL must be initialized.

❖ Initialize field APLRSRV with BLANK (reserved)

❖ Initialize field APLRTCD with ZERO (Connect:Express return code)

❖ Initialize field APLRSCD with ZERO (Connect:Express reason code)

❖ Initialize field APLRJNL with BLANK (Connect:Express return zone)

L0B2ZAPL: Reason and Return codes

These codes are in extended decimal and must be tested after each call to the module.

```
   RTC = 0 function I, W or T
   RSC = 000 → requested function normally executed

   RTC = 1 Subsystem error.
   RSC = 001 → APLTOMS is not defined as a subsystem
   RSC = 002 → end of chain SSCVT (TOMn not found)
   RSC = 003 → TOMn not started since IPL
   RSC = 004 → table T1B2PAPL is not initialized

   RTC = 2 Function parameterization error
   RSC = 999 → APLTOMSS is invalid
   RSC = 888 → APLNAME is invalid
   RSC = 777 → function code different from I, W or T

   RTC = 4 Error on Initialization
   RSC = 666 → table T1B2PAPL is invalid
   RSC = 555 → maximum initialized applications reached
   RSC = 444 → problem in the chaining of the subsystem
   RSC = 333 → application already initialized

   RTC = 6 C:X communication problem
   RSC = 008 → error in the notification by C:X

   RTC = 8 Error when ending.
   RSC = 222 → no application connected in T1B2PAPL
   RSC = 111 → application not found in T1B2PAPL.
```

Error Code	Action
RTC 1	Stop operations. Contact your Connect:Express support representative.
RTC 2	Stop operations and correct the parameters.
RTC 4	Stop operations. Contact your Connect:Express support engineer, unless RSC=333.
RTC 6	Stop operations and deactivate the application, then contact your Connect:Express support engineer.
RTC 8	Interrupt the process and then correct the problem.

The APLRJNL Field

Connect:Express will put the information saved into the SYSJNL file into the APLRJNL field.

Note: When the application *starts* before Connect:Express, it will receive a notification of start at the end of the Connect:Express initialization which returns the last record key value (4 binary bytes) followed by the word "INIT" in the Z45FILEN field (8 bytes).

When Connect:Express *stops* before the application, the application program receives a notification of end which returns the last record key value (4 binary bytes) followed by the word "TERM" in the Z45FILEN field (8 bytes).

L4B2ZAP0: Setting up the Environment for L0B2ZAPL

The L4B2ZAP0 program initializes an environment where the Connect:Express monitor application is deactivated if there is an abend for batch processing.

The CALL to L4B2ZAP0 must be coded before the initialization request for a connection between your application and Connect:Express can occur. This corresponds to the CALL to L0B2ZAPL with the "I" function code. The L4B2ZAP0 sets up a restart environment with the ESTAE macro.

Implementation is achieved by a standard CALL with the communication area used for L0B2ZAPL. Only the first two fields, APLTOMS and APLNAME, are used. These must contain the same values as those indicated in the following calls.

The REXX Interface (L0B2ZREX)

You can use the REXX interface with Connect:Express Utilities Programs. L0B2ZREX can be used to call various Connect:Express programs. It can be used in BATCH or TSO mode to submit request or modifications. The following screen shows an example.

```
 A.1/ TSO use of REXX exec 1 :

/*  Connect:Express  REXX : L0B2ZREX USAGE SAMPLES */
/* transfer request                */
ARG A
SAY ' C:X  REXX' DATE() TIME()
X.1 = "BBLOCK "
X.2 = "SEND SFN=F1,"
X.3 = "     SPN=PSRTOM3,"
X.4 = "     TYP=N,MOD=I,CLS=A,PRT=1,"
X.5 = "     DSN=PSR$REC.PS.F080.SHORT"
X.6 = "EBLOCK "
"EXECIO * DISKW SYSIN (STEM X."
 IF RC /= 0 THEN DO
    SAY '***' SIGL 'RC='RC
    SIGNAL LERROR
 END;
"EXECIO 0 DISKW SYSIN (FINIS"
 P1 = 'SSN=TOM4'
 ADDRESS ATTACH 'L0B2ZREX P1B2PRQ2' P1
 IF RC /= 0 THEN DO
    SAY '***' SIGL 'RC='RC
 END;
EXIT;
LERROR:
SAY 'SEVERE ERROR'
EXIT

 A.2/ TSO use of REXX exec 2 :

/*  Connect:Express  REXX : L0B2ZREX USAGE SAMPLES */
/* modification request           */
 P1 = 'S=TOM4/F=F1/E'
 ADDRESS ATTACH 'L0B2ZREX P1B2P300' P1
 IF RC /= 0 THEN DO
    SAY '***' SIGL 'RC='RC
 END;

 B.1/ BATCH use of the previous REXX exec :

//EXEC     EXEC PGM=IRXJCL,PARM='tomrexx'
//STEPLIB  DD    DSN=index1.index2.LOADDLIB,DISP=SHR ← C:X  loadlib
//SYSEXEC  DD    DSN=index1.index2.ISPCLIB,DISP=SHR ← your's
//SYSUDUMP DD    SYSOUT=*,FREE=CLOSE
//SYSPRINT DD    SYSOUT=*
//SNAPDUMP DD    SYSOUT=*
//SYSPRT   DD    SYSOUT=*
//SYSPR300 DD    SYSOUT=*
//SYSPR20  DD    SYSOUT=*
//SYSPRREX DD    SYSOUT=*
//SYSIN    DD DSN=&&TEMP,DISP=(NEW,DELETE,DELETE),
//           SPACE=(CYL,(1,1,1)),UNIT=3380,
//           DCB=(LRECL=80,BLKSIZE=6160,DSORG=PS)
//SYSTSPRT DD    SYSOUT=*
//SYSTSIN  DD    *
/*
```

Error Codes and Messages

This appendix describes error codes and messages from the Connect:Express application.

Error Codes

The error codes section lists and explains the types of return codes that you may encounter with Connect:Express. Return codes identify errors and can come from the network, system, Connect:Express, or the transfer protocol you are using. You can then correct errors based on their origin. The sections below list system return codes (SRC), network return codes (NRC), Connect:Express return codes (TRC), and protocol return codes (PRC).

> **Note:** If an error is not listed, press the Help key <PF1> two times when you are on a return code screen. This will display information about the origin of the return code. From the TSO/ISPF screens in Connect:Express, you can also type: 'TRC tttt', or 'PRC ppp' for direct Help or 'RC' for general 'C:X RETURN CODES' Help.

System Return Codes (SRC)

System return codes are returned by z/OS functions during any process running under its control (DYNALLOC/DASDM/...). In this case, the error is detected by the system.

System return codes will not display alone. You will always see a Connect:Express return code (TRC). If you receive a TRC and think the error may be a system error, display the help for the TRC to see if there is an SRC associated with it. Refer to IBM documentation for help with system errors.

Network Return Codes (NRC)

The ANM return codes format is AAxxyy and BBxxyy. The xxyy values change depending on the connection type. Check for special WTO messages in the ANM ASID. The NRC provided by the C:X GLOBAL/LOCAL interface has only one CCxxyy component.

NRC Codes From the ANM

NRC codes from the ANM have the format AAxxyy BBxxyy. The first part of the code gives the result of the action, and the second part gives the reason why the action failed. `AA` or `BB` identifies the event or action

concerned and the `xx` and `yy` variables depend on the current link. The table below identifies the xx and yy return codes for each link type.

Link	Description of xx and yy Return Codes from NRC.
SNA LU0, LU2	VTAM return code and FEEDBACK2 (RPLRTNCD, RPLFDBK2)
SNA LU6.2	APPC primary and secondary return codes APPC RPLGRCPR and RPLGRCSC 2nd bytes (RCPRI, RCSEC)
X.25	CAUSE and DIAGNOSTIC
TCP-IP	TCP-IP return codes (errno-1 and errno-2)

Note: If `xx = X'FF,'` the error is from an internal component of a local or remote ANM.

'AA' describes an error detected by the ANM when executing a service request from the TOM or APM address space. It is called the Action field. 'BB' describes an error detected from the Network by the ANM. It is called the Event field. The table below lists the possible values of AA and BB.

Code		Description
AA	= 00	xxyy is the return code of TOM/APM/ANM interface
		xxyy = 0004 APM/ANM buffers length incompatibility
		xxyy = 0008 ANM service asked for session already terminated
		xxyy = 000C ANM service asked for inactive handler
	= 01	Function failed
	= 02	LOSTERM detected
	= 04	TPEND detected
	= 10	RESTART X.25 command received
	= 80	Sequence error
BB	= 04	Receive data error
	= 08	DISCONNECT detected
	= 40	TIME-OUT detected
	= 80	CLOSE detected

When xx=FF, the FFyy return codes are generally issued only by X.25 handler. The following table describes the possible values for yy codes in this case.

Code		Description
yy	= 01	All SVCs are already in use.
	= 02	No MCH available (busy or inactive).

Code	Description
= 04	SVC was successfully opened but SMN level session establishment failed (SMN inactive or IDNUM error).
= 07	ANM CTCP session with MCH LU lost.
= 09	Unexpected packet with Q-bit on received.
= 31	DATE MCH in use. Time-out on call confirm detected.
= FF	Any involved handler **abended**.

Global/Local NRC Codes

In global/local sessions, a global Connect:Express system on one host communicates with a local Connect:Express system (a subset of the monitor) on another host through an open VTAM session. These codes are an optional feature with Connect:Express z/OS, and are listed below.

Code		Description	
CC = 80		UNBIND	received
= 81		TPEND	detected
= 82		DFASY	detected
= 83		RECEIVE	rejected
= 84		RECEIVE	error
= 85		LOSTERM	detected
= 86		OPNSEC	error
= 87		GENACB	error
= 88		OPEN ACB	error
= 89		GENRPL	error
= 8A		OPNDST	error
= 8B		SEND	error
= 8C		GETMAIN	rejected
= 8D		Termination requested by operator	

Connect:Express Return Codes (TRC)

Each time an error is detected locally by Connect:Express, a TRC is issued. Return codes from Connect:Express have 4 characters and are classified into eleven groups. These codes are listed in the sections that follow. TRC codes followed by the character R refer to a remote C:X Partner, and TRC codes followed by the character L are from a local C:X system.

WARNING: The TRC field can be set for a remote TRC. This means that there will be NO local errors, only remote errors. The remote Partner must be a Connect:Express monitor, otherwise when the TRC equals 0000, the error was detected on the remote side.

The example below shows how the remote TRC is processed internally.

```
*----- TRC IF REMOTE  C:X  FLAGGED BY : BYTE0 BIT1 SET TO ZERO,
* TO TEST BY           : TM  ..TRC,X'40' remote trc type?
*                        BNO ...       no
* TO MAKE IT EDITABLE BY : OI  ..TRC,X'40' editable now
See *MACLIB* D1B2RUEX D1B2PJNL D0B2ZEXR.
```

The low order bytes indicate the type of TRC. The following programs have to consider this detection method if the TRC is local or remote:

❖ User exit

❖ Journal inquiry utility, read function

❖ Request control table scanning utility

The table below shows the ranges and groupings of Connect:Express return codes (TRC).

Code Range	Description
1000 – 1999	Error detected by the protocol during protocol controls
2000 – 2999	Error detected by Connect:Express during user action controls
3000 – 3999	Error detected by the protocol during file management
4000 – 4999	Error detected by the protocol from a user exit
5000 – 5999	Error detected by the protocol during any negotiation process
6000 – 6999	Error detected by the protocol during storage acquisition
7000 – 7999	Error detected by the protocol during checkpoint management
8000 – 8999	Error detected by Connect:Express after protocol "ABEND"
9000 – 9999	Error detected by the protocol after network error
A000 – A999	Error detected by ANM (Handlers)
B000 – B999	Error detected by APM (BSC)
F000 – F999	Error detected by TOM lex Supervisor (Fxxx is equivalent to 2xxx)

TRC Return Codes from Protocols (1 xxx)

Refer to the protocol description in the Administration Guide for a list of possible commands and parameters.

TRC Return Codes from Protocols, 1 xxx

Return Code	Description
1 000	LOGON rejected by Partner
1 00x	Invalid LOGON received – invalid X field
1 1XX	Invalid length for command XX
1 2YY	Unknown or absent (PRC=318) or forbidden (PRC=311) YY parameter

TRC Return Codes from Protocols, 1 xxx

Return Code	Description
1 3XX	Invalid structure for command XX
1 4YY	Parameter YY not in the right place
1 5YY	Invalid value in parameter YY
1 6XX	Invalid command XX
1 7XX	Invalid header for command XX
1 8YY	Invalid length for parameter YY

TRC Return Codes from Transfer Operations (2xxx)

TRC Return Codes from Transfer Operations, 2xxx

Return Code	Description
2001	Connect:Express is not active
2002	Function not supported (INIT/TERM in process...)
2003	Logical error in subsystem request
2004	Fatal error in subsystem request
2005	Invalid post number
2006	Invalid user type
2007	Invalid user identity
2008	Invalid request type
2009	Invalid operation type
2010	Invalid File name (not found in directory)
2011	Invalid Partner name (not found in directory)
2012	Invalid direction
2013	Invalid DSNAME
2014	Invalid member
2015	Invalid request number
2016	Transfer table is full
2017	Request table is full
2018	Invalid allocation rule
2019	Allocation error PHASE 1
2020	Allocation error PHASE 2
2021	Invalid TQE chain
2022	Request table is empty

TRC Return Codes from Transfer Operations, 2xxx (continued)

Return Code	Description
2023	Active or selected request
2024	Reserved
2025	Request refused; Connect:Express inactive and RACF control mandatory
2026	Request refused; disabled Partner on remote location
2027	Request refused; disabled file on remote location
2028	Command refused; user not authorized for this request
2029	Request active; try later
2030	Selected Partner or file – PCT/FCT update failed
2031	Partner or file not found – PCT/FCT update failed
2032	Duplicate Partner or file – PCT/FCT add failed
2033	Partner or file cannot be added (PCT is full) – PCT/FCT add failed
2034	Partner or file is not allowed for dynamic update
2035	More than one file requested
2036	User/dsn access denied by RACF (see LOG and SRC)
2037	Invalid SIT data direction (French SIT network)
2038	Invalid SIT application identity (French SIT network)
2039	Invalid Request (French SIT network)
2040	Invalid RECFM
2041	Invalid LRECL
2042	Request not found
2043	Restart impossible
2044	Network circuit lost
2045	Network time out
2046	Inactive request
2047	Request not interrupted
2048	Reserved
2049	Reserved
2050	Reserved
2051	Invalid origin
2052	Reserved
2053	Invalid destination
2054	No transfer in queue (HOLD)
2055	Invalid direction for inquiry selection

TRC Return Codes from Transfer Operations, 2xxx (continued)

Return Code	Description
2056	Invalid direction for queued request (HOLD)
2057	Invalid state for this request
2058	Invalid priority for this request
2059	Major resource disabled
2060	Partner disabled
2061	File disabled
2062	Held request not found in Partner's queue
2063	Session table full
2064	Recovery inactive
2065	Maximum for active requests is reached (MAXSRQ)
2066	No more space available in CSA
2067	XPOST error
2068	Insufficient authority (APF)
2069	Maximum for allocation is reached
2070	Re-load failed
2071	Invalid protocol number
2072	Invalid data set organization
2073	Transfer failure – RJE/ETEBAC transfer
2074	Partially accepted
2075	Totally rejected
2076	Communication with Partner not obtained
2077	Communication rejected by Partner
2078	Invalid link type requested
2079	Reserved
2080	Allocation or DADSM error, see SRC on help screens
2081	Invalid or unknown VSAM file
2082	Unknown file
2083	File error (DSCB4) – internal error
2084	File error (DSCB1) – internal error
2085	Data set duplicate name
2086	Not enough space available on volume(s)
2087	ADY PARMLIST invalid (internal error) see SRC
2088	Incompatible DSORG

TRC Return Codes from Transfer Operations, 2xxx (continued)

Return Code	Description
2089	Allocation error (MSS)
2090	Allocation error (DADSM) see SRC with continued helps
2091	Allocation error (CATALOG)
2092	Other allocation error see SRC with continued helps
2093	Delete data set error
2094	Uncataloged error
2095	Scratch data set error
2096	Multivolume processing error, see SRC with continued helps
2097	PDS processing error, see SRC with continued helps
2098	Connect:Express /dsn access denied by RACF, see LOG and SRC
2099	Reserved
2100	Reserved
2101	Invalid parameter FCT
2102	Update impossible if alternate Partner
2103	Invalid X25 charge parameter
2104	Invalid select function for protocol
2105	Network receive error
2106	Incompatible levels of C:X -SPF and Connect:Express subsystem
2107	Reserved
2108	Reserved
2109	Reserved
2110	Reserved
2111	Reserved
2112	Reserved
2113	Message/RUSIZE too big (GLOBAL/LOCAL session)
2114	VTAM error (GLOBAL/LOCAL session)
2115	"BSC" APM out-of-service
2116	Request rejected by user exit
2117	Invalid first msg returned to ANM
2118	Invalid disp= for ADHOC
2119	RACF control failed for adhoc
2120	Full GM2 for L1B2P048
2121	Different BLOCKSIZE (RECFM=U)

TRC Return Codes from Transfer Operations, 2xxx (continued)

Return Code	Description
2122	Refused PARTNER list (#LIST: L1B2P049 MAX GM2 reached)
2123	Empty PARTNER LIST (#LIST: L1B2P049)
2124	SLD entry not found or invalid
2125	Invalid alternate PARTNER
2126	BLOCKED REQUEST invalid with UNLOAD/RELOAD
2127	Entry in error (NOT USABLE), check in C:X SYSMSG
2128	DELETE forbidden for this profile (PARTNER/FILE)
2129	Reserved
2130	Reserved

TRC Resources Return Codes (2131 - 2169)

TRC Resources Return Codes, 2131 - 2169

Return Code†	Description
2131	Rejected because Connect:Express is disabled.
2132	Rejected because ANM is disabled.
2133	Rejected because RCT is disabled.
2134	Rejected because PCT is disabled.
2135	Rejected because FCT is disabled.
2136	Rejected because SST is full.
2137	Rejected because NO APM available.
2138	Rejected because NO EFFECTOR available.
2139	Rejected because NO APM CLASS available.
2140	Rejected because PARTNER is disabled.
2141	Rejected because FILE is disabled.
2142	Rejected because PARTNER is not FOUND. (CHECK PROTOCOL)
2143	Rejected because FILE is not FOUND.
2144	Rejected because MAXIMUM PC reached.
2145	Rejected because MAXIMUM LINK REACHED.
2146	Rejected because PRIORITY/LINK error in SLD, or MAX EFFECTOR reached.
2147	Rejected because LINK COUNT error (SLD).
2148	Rejected because SELECTED LINK-HANDLER(S) inactive.

† Check Connect:Express resource and enable/activate/change or wait until available.

TRC Resources Return Codes, 2131 - 2169 (continued)

Return Code†	Description
2149	Rejected because MCH/LINK-HANDLER inact or MCHMSC invalid.
2150	Invalid PROTOCOL.
2151	UNKNOWN NETWORK identification (DIRECTORY/SYS...).
2152	UNKNOWN NETWORK link-type (DIRECTORY/SYS...).
2153	Rejected because TAXATION RULE error.
2154	Rejected because invalid ETEBAC/PESIT MSG2.
2155	Rejected because invalid ETEBAC/PESIT PROF.
2156	Rejected because APPC unavailable.
2157	Rejected JCL UNLOAD/RELOAD (L1B2P043: CHECK *SYSJCL* AND 'REFRESH').
2158	Rejected JCL 'BFX' (L1B2P043: CHECK *SYSJCL* AND 'REFRESH').
2159	Rejected JCL 'RJE' (L1B2P043: CHECK *SYSJCL* AND 'REFRESH').
2160	JCL FUNCTION stopped (L1B2P043: CHECK *SYSJCL* AND 'REFRESH').
2161	Unknown IP address, incoming call.
2162	Unused.
2163	SSL handler is disabled.
2164	SSL is forbidden for this partner.
2165	SSL is required for this partner.
2166	Unused.
2167	Unused.
2168	Unused.
2169	Unused.

†   Check Connect:Express resource and enable/activate/change or wait until available.

TRC Asset Protection Return Codes (2170 - 2199)

TRC Asset Protection Return Codes, 2170 - 2199

Return Code†	Description
2170	Option 01 not authorized Connect:Express
2171	Option 02 not authorized BSC-ETEBAC1/2
2172	Option 03 not authorized FTP
2173	Option 04 not authorized NSC-BFX
2175	Option 06 not authorized LU6.2
2176	Not used

†   Check your Asset Protection file and call support for a new one. Authorized option are shown under ISPF '0.O'.

TRC Asset Protection Return Codes, 2170 - 2199 (continued)

Return Code†	Description
2177	Option 08 not authorized PAC
2178	Option 09 not authorized LOCAL
2179	Option 10 not authorized CICS
2180	Option 11 not authorized DIFFUSION
2181	Option 12 not authorized MAILBOX
2182	Option 13 not authorized
2183	Option 14 not authorized RJE
2184	Option 15 not authorized TCP-IP
2185	Option 16 not authorized IMS
2186	Option 17 not authorized REXX
2187	Option 18 not authorized
2188	Option 19 not authorized DES
2189	Option 20 not authorized SECURITY
2190	Option 21 not authorized
2191	Not used
2192	Option 23 not authorized
2193	Option 24 not authorized
2194	Not used
2195	Not used
2196	Not used
2197	Not used
2198	Not used
2199	Not used

†   Check your Asset Protection file and call support for a new one. Authorized option are shown under ISPF '0.O'.

TRC ISPF/BATCH Return Codes (28xx)

Return Code†	Description
28XX	XX is the true ACS return code.
2801	Access refused to this PARTNER.
2802	Access refused to this FILE.
2803	Access refused to the REQUEST from this USER.
2805	Command or function forbidden (logged in z/OS).

†   Check ACS access-security table (ISPF 3.T.ACS).

Return Code†	Description
2806	Access refused to this SUBSYSTEM (logged in z/OS).
2891	L0B2PACS error: Parameter field length invalid.
2892	L0B2PACS error: Function unknown.
2893	L0B2PACS error: End of table found.
2894	L0B2PACS error: Null parameter (or R1=0).
2896	L0B2PACS error: Invalid table level.
2897	L0B2PACS error: Invalid table name.

† Check ACS access-security table (ISPF 3.T.ACS).

TRC Return Codes from the L0B2Z20 Routine or Subfunctions (29xx)

Return Code	Description
2900	L0B2Z20 anomaly, no entry matched.
2903	L1B2ZAPL anomaly, timer expired (WAI=).
2907	L1B2ZAPL anomaly, no match.
29XX	IEFSSREQ error; XX = IEFSSREQ return code, R15=4:16.
2997	L1B2ZAPL error, internal.
2998	L0B2Z20 invalid parameters or DISPLAY entries left.
2999	L0B2Z20 internal error. Check EMSG zone or JCL '//SYPR20 DD SYSOUT=*' for a detailed message.

TRC Return Codes from File Processing, 3xxx

TRC Return Codes from File Processing, 3xxx

Return Code	Description
3 Z01	Allocation†
3 Z02	Deallocation†
3 Z03	Open input
3 Z04	Open output
3 Z05	Read error
3 Z06	Note error
3 Z07	Point error
3 Z08	Write error
3 Z09	Invalid record length

† Check the APM log for z/OS DYNALLOC RBX WTO messages and for DYNALLOC error codes '0210'/'020C.'
L1APMDYA will show who holds this data set.

TRC Return Codes from File Processing, 3xxx (continued)

Return Code	Description
3 Z10	DD SYSVOL absent
3 Z11	Record format not supported
3 Z12	Record length not supported
3 Z92	Invalid LRECL. The record length of the file received doesn't match the file definition.
3 Z93	Invalid BLKSIZE. The files block size is does not match the file definition.
3 Z94	Invalid RECFM. The format of the file received doesn't match the file definition.
Z=0	Normal transfer
Z=1	Restarted transfer
Z=2	Re-synchronization processing

† Check the APM log for z/OS DYNALLOC RBX WTO messages and for DYNALLOC error codes '0210'/'020C.' L1APMDYA will show who holds this data set.

TRC Return Codes from User Exits (4xxx)

TRC Return Codes from User Exits, 4xxx

Code	Description
4 0RC	Error in beginning transfer user exit (Return Code=RC from user exit)
4 iRC	Error in transfer user exit (Return Code=RC from user exit) (i from 1 to 3)
4 4RC	Error in security interface Return Code=RC
4 5RC	Error in I/O user exit, Return Code=RC
4 6RC	Error in application server exit (connection, selection), Return code=RC from user
4 700	Error in loading begin transfer user exit
4 7ii	Error in loading T1B2PPii table (ii from 01 to 24)
4 797	Error in loading T1SECPss table
4 798	Error while loading ETEBAC3 exit
4 799	Error in loading end transfer user exit
4 8RC	Error in compression routine
4 814	Error in compression routine: null length segment
4 898	Fixed record length error (even if compression is not active)
4 899	Variable record length error (even if compression is not active)
4 9RC	Error in end transfer user exit (Return Code=RC 01:90 from user exit). See the Administration Guide for more information.
4 X91	Error in user exit. RC range must be from 1 to 90
X = 0	Transfer initialization exit

TRC Return Codes from User Exits, 4xxx (continued)

Code	Description
X = 1,2,3	Record processing exit
X = 4	Security
X = 6	Connection or selection exit
X = 9	Transfer termination exit

TRC Return Codes from Transfer Negotiation, 5xxx

Code	Description
5 001	Restart point – negotiation failure
5 002	Synchronization point – checkpoint error
5 003	Re-synchronization point – negotiation error
5 004	Too many bytes without a checkpoint
5 005	Null length for a record
5 006	Invalid number of bytes transferred – different from announced value
5 007	Invalid number of records transferred – different from announced value
5 008	More bytes received than announced
5 009	Error threshold reached
5 010	Unfilled record

TRC Return Codes from Storage, 6xxx

Code	Description
6 001	GETMAIN error
6 002	OPEN SYSLIB error
6 003	PARMETB3 file syntax error
6 iXX	Subsystem function IEFSSREQ error

TRC Return Codes from the Checkpoint, 7xxx

Code	Description
7 Z01	Allocation
7 Z02	Open error

Code	Description
7 Z03	Read error
Z=0	Normal transfer
Z=1	Restarted transfer
Z=2	Re-synchronization processing

TRC Return Codes from an ABEND, 8xxx

Code	Description
8 XYY	APM X, EFFECTOR YY ABENDED Associated SRC=U065 means that the timer has expired during user exit execution. Associated SRC=U064 means that the APM request to Connect:Express has been rejected.

TRC Return Codes from the Network, 9xxx

Code	Description
9 0XX	Null length message, command XX
9 1XX	CRC control (Asynchronous), command XX
9 2XX	Transfer error, sequence check failed, command XX
9 4XX	Last request failed
9 8XX	Abnormal state of ANM handler, command XX
9 999	Buffer extension demand rejected (check REGION=)

TRC Return Codes from the ANM

TRC Return Codes from the ANM

Return Code	Description
A XAS	ANM component abended (system)
A XAU	ANM component abended (user)
A X01	ANM DD card absent
A X02	ANM Invalid initialization parameters
A X03	ANM handler GETMAIN error
A X04	ANM ATTACH or LOAD error
A X05	Abnormal end for an ANM handler
A X10	ANM GENACB error

TRC Return Codes from the ANM (continued)

Return Code	Description
A X11	ANM OPEN ACB error
A X12	ANM GENRPL error
A X13	ANM SETLOGON error
A X20	Reserved
X	= Identity of ANM component
X=0	MANAGER (dispatcher)
X=1	Sub-system welcome routine
X=2	SNA LU 0 handler
X=3	SNA 3270 handler (SNA LU2 handler)
X=4	X25 CTCP (MCH handler)
X=5	X.25 protocol handler
X=6	PAD/PCNE handler
X=7	Reserved
X=8	reserved
X=9	LU6.2 handler
X=A	TCP-IP handler
B 101	Error line open
B 102	Error 'READ-TI' (BTAM)
B 103	'READ TI' ended and ENQ received (BTAM)
B 104	'READ TI' ended and READ error (BTAM)
B 105	Error 'READ-TT' (BTAM)
B 106	Error card, 'STX' missing
B 107	Error card,'STX''ETX' found

Protocol Return Codes (PRC)

Protocol return codes typically display with a TRC. Some PRC codes however, provide enough information to explain the problem and in this case, no TRC is issued. When a TRC is absent, this usually means that the error was detected on the remote side.

Some TRCs are sent by the issuer and display as TRC=xxxxR. You can return PRC codes from your own user exits. This section lists PeSIT and ODETTE-FTP return codes.

PeSIT Return Codes

This section lists all PeSIT return codes while the next section describes the relationship between PeSIT PRCs and TRCs. The PeSIT return code structure is x xnn. The codes appear in Connect:Express reports as a four character code where the first character means:

2 = transfer aborted
3 = session aborted

The following table lists the PeSIT return codes.

PeSIT Return Codes

Return Code	Description
1100	Transmission error
2200	Insufficient file attributes provided
2201	System resources temporarily unavailable
2202	User resources temporarily unavailable
2203	Low priority transfer
2204	Data set already exists
2205	Data set does not exist
2206	Reception of file would exceed the defined file size
2207	File busy
2208	File too old
2209	Not used
2210	Failure during presentation protocol negotiation
2211	Open file error
2212	Close file error
2213	Severe input/output error
2214	Failure during negotiation of restart point
2215	Local internal system error
2216	Voluntary premature stop
2217	Too many checkpoints without acknowledgements
2218	Error during transfer
2219	File space exhausted
2220	Record length longer than negotiated value
2221	Timeout waiting for end of transmission
2222	Too much data without a checkpoint
2223	Abnormal end of transfer
2224	File size greater than negotiated value
2225	PARTNER overloaded
2226	Transfer rejected
2299	Miscellaneous error (see TRC if not null)

PeSIT Return Codes (continued)

Return Code	Description
3300	Local system overflow (called PARTNER is locked and resource held – APM, PCT, FCT, RCT, or MAX.NO. OF CONNECTIONS already active)
3301	Invalid monitor ID (DPCSID)
3302	Called PARTNER is inactive
3303	Remote site network is overloaded
3304	PARTNER not authorized
3305	Negotiation failure – SELECT
3306	Negotiation failure – RESYNC
3307	Negotiation failure – SYNC
3308	Release level not supported
3309	Maximum number of connections already active
3310	Network error
3311	Protocol error
3312	Session closure requested by user
3313	Session interrupted; timeout
3314	Session interrupted; a new one will be established
3315	Negotiation failure
3316	Transfer session interrupted by operator
3317	Timeout detected
3318	Invalid protocol parameter
3319	Incorrect number of bytes or records transferred
3320	Too many checkpoints during a transfer
3399	Miscellaneous error (see TRC if not null)

PeSIT Return Codes and Connect:Express Codes

When a Partner is not a Connect:Express system, the fact that the TRC is null (TRC=0000) is sufficient in most cases to determine that the error was detected on the remote side. The table below shows the general relationship between PeSIT return codes and TRC.

PRC	TRC	Type	Action
000	0000		OK
301	0000	Invalid local identification PI (4)	Error detected by local or remote addressee
304	0000	Invalid remote identification PI (3)	Error detected by local or remote addressee

PRC	TRC	Type	Action
308	0000		Error detected by local or remote addressee
310	0000	Network error (+ NRC)	Detected locally, can be on both sides
312	0000	Session interruption	Local or remote requested interrupt
216	0000	Transfer interruption	Local or remote requested interrupt
XXX	0000		PRC issued by remote
XXX	yyyyR		PRC issued by remote
XXX	YYYY		PRC issued by local

The next sections describe the PRC and TRC that you can receive during the connection and file selection phases. During these phases, the automatic retry process may be activated depending on the PRC received. Refer to the Administration Guide for more information.

The PRC code is issued by the remote Partner. The local TRC code issued is 2077, as long as the retry process is operating. It changes to 2076 when the process is aborted and the Partner is disabled. If the RESTART option is YES in the Partner directory, then the retry procedure is never stopped unless you disable the Partner.

Some connection return codes invoke the call retry procedure activation. For PeSIT, the default T1B2PCOD entry contains the codes as indicated in the tables below.

PeSIT Codes and Connect:Express Codes for Outgoing Connections

PRC	TRC	Type	Action
300	2077, 2076	Remote system overflow	Call retry, aborted
303	2077, 2076		Call retry, aborted
309	2077, 2076		Call retry, aborted
310	2077, 2076		Call retry, aborted
317	2077, 2076		Call retry, aborted
311	2076	Protocol error	ABORT received, aborted
318	2076	Protocol error	ABORT received, aborted
XXX	2076		ABORT received, aborted
310	2076	Network error	Network abort, aborted

PeSIT Codes and Connect:Express Codes for Incoming Connections

PRC	TRC	Type	Action
300	21xx	Connect:Express resource disabled	RCONNECT(300) sent
311	1yyy	Protocol error	ABORT(311) sent
318	1yyy	Protocol error	ABORT(318) sent
XXX	tttt		ABORT(XXX) sent

PeSIT Codes and Connect:Express Codes for Incoming Connections

PRC	TRC	Type	Action
310	0000	Network error	Session cut

PeSIT Transfer Selection Failure

If the RESTART option is YES in the Partners directory, then all outgoing transfers rejected with the following PRC codes are automatically restarted by Connect:Express. For PeSIT, the default T1B2PCOD entry contains the codes as indicated in the table below.

PRC	TRC	Type	Action
100	0000		Issued by remote
201	0000		Issued by remote
202	0000		Issued by remote
203	0000		Issued by remote
207	0000		Issued by remote
221	0000		Issued by remote
225	0000		Issued by remote
233	0000	Restart rejected: next retry will be without restart	Issued by remote
300	0000		Issued by remote
317	0000, 2045	Time out detected	Issued by remote or local
310	2044, 2045, 2105		Issued by local

PeSIT PRC/TRC Codes Issued by Connect:Express

Listed below are the PRC and TRC codes issued by Connect:Express. Some PRC codes can only be issued by a user exit, and in this case the TRC form is 4....

PRC and TRC Issued by Connect:Express, 200-229

PRC	TRC	Error Description	
200		4 . . .	(EXIT)
201	2069 2016 2 . . .	4 . . .	None
202		4 . . .	(EXIT)
203		4 . . .	(EXIT)
204	2 . . .	4 . . .	None
205	2013 2082 2054	4 . . .	(EXIT)
206		4 . . .	(EXIT)
207	2 . . .	4 . . .	(EXIT)
208		4 . . .	(EXIT)

PRC and TRC Issued by Connect:Express, 200-229 (continued)

PRC	TRC		Error Description
209		4 . . .	(EXIT)
210		4 . . .	(EXIT)
211		4 . . .	(EXIT)
212		4 . . .	(EXIT)
213	3 . . .	4 . . .	I/O erros
214	5001 3.07 3.05	4 . . .	Invalid restart point
215		4 . . .	(EXIT)
216	0000 5005 4 . . .	4 . . .	Transfer interrupted
217		4 . . .	(EXIT)
218	5009	4 . . .	Cannot resynchronize
219	5008	4 . . .	File space full
220		4 . . .	(EXIT)
221		4 . . .	(EXIT)
222	5004	4 . . .	Restart point does not match
223		4 . . .	(EXIT)
224		4 . . .	(EXIT)
225		4 . . .	(EXIT)
226	2010, 2011, 2012, 2028, 2036, 2047, 2040, 2041, 2047, 2059, 2101, 2118	4 . . .	Error detected during directories control
227		4 . . .	(EXIT)
228		4 . . .	(EXIT)
229		4 . . .	(EXIT)

PRC and TRC Issued by Connect:Express, 230-299, 100

PRC	TRC		Error Description
230		4 . . .	(EXIT)
231		4 . . .	(EXIT)
232		4 . . .	(EXIT)
233	2043	4 . . .	Cannot restart
234		4 . . .	(EXIT)
235		4 . . .	(EXIT)
236		4 . . .	(EXIT)
237		4 . . .	(EXIT)
238		4 . . .	(EXIT)
239		4 . . .	(EXIT)
240		4 . . .	(EXIT)

PRC and TRC Issued by Connect:Express, 230-299, 100 (continued)

PRC	TRC		Error Description
241		4 . . .	(EXIT)
242		4 . . .	(EXIT)
243		4 . . .	(EXIT)
244	1521	4 . . .	Compression not available
245		4 . . .	(EXIT)
246		4 . . .	(EXIT)
247		4 . . .	(EXIT)
248		4 . . .	(EXIT)
249		4 . . .	(EXIT)
250		4 . . .	(EXIT)
251		4 . . .	(EXIT)
252		4 . . .	(EXIT)
253		4 . . .	(EXIT)
254		4 . . .	(EXIT)
255		4 . . .	(EXIT)
256		4 . . .	(EXIT)
257		4 . . .	(EXIT)
299	9 . . . 4 . . . 6 . . . 1507 5002	4 . . .	(EXIT)
100		4 . . .	(EXIT)

PRC and TRC Issued by Connect:Express, 4xx, 300

PRC	TRC		Error Description
300	0000 → 2131 . . 2155		Resource disabled
301	0000 2011	4 . . .	(EXIT)
302		4 . . .	(EXIT)
303		4 . . .	(EXIT)
304	0000 2011	4 . . .	None
305		4 . . .	(EXIT)
306		4 . . .	(EXIT)
307		4 . . .	(EXIT)
308	0000	4 . . .	(EXIT)
309		4 . . .	(EXIT)
310	0000 9999	4 . . .	None
311	1 . . .	4 . . .	Protocol error
311	44 . .	4 . . .	Security protocol error
312	8 . . .	4 . . .	(EXIT)
312		4 . . .	Effector abended
313		4 . . .	(EXIT)

PRC and TRC Issued by Connect:Express, 4xx, 300 (continued)

PRC	TRC		Error Description
314		4 . . .	(EXIT)
315		4 . . .	(EXIT)
316		4 . . .	(EXIT)
317	0000	4 . . .	(EXIT) RESTART
318	1 . . . 44 . .	4 . . .	Protocol error
319	5006 5007 15 . .	4 . . .	Bytes/records count error
320		4 . . .	(EXIT)
321		4 . . .	(EXIT)
322		4 . . .	(EXIT)
323	1501	4 . . .	CRC Control mandatory
324		4 . . .	(EXIT)
325		4 . . .	(EXIT)
326		4 . . .	(EXIT)
327		4 . . .	(EXIT)
328		4 . . .	(EXIT)
329		4 . . .	(EXIT)
330		4 . . .	(EXIT)
331		4 . . .	(EXIT)
332	1611	4 . . .	One way session
333	1612	4 . . .	One way session
399	1522 46 . . 9 . . .	4 . . .	(EXIT)

ODETTE-FTP Return Codes

When a TRC is absent, typically this means that an error has been detected on the remote side. When no remote TRC is received, all TRCs displayed are local. Some PRC codes are self sufficient and no TRC is issued. Some ODETTE-FTP return codes are never issued by Connect:Express. You can return ODETTE-FTP codes from your own exits.

The ODETTE-FTP return codes are divided into Session return codes (PRC=0xxx) and Transfer return codes (PRC=1xxx). The ODETTE-FTP return codes are listed below.

ODETTE-FTP Session Return Codes

Return Code	Description
0000	Normal session termination
0001	Command not recognized
0002	Protocol violation
0003	User code not known
0004	Invalid password
0005	Local site emergency close down
0006	Command contain invalid data
0007	NSDU size error
0008	Resources not available
0009	Time out
0010	Mode or capabilities incompatible
0099	Unspecified reason

ODETTE-FTP Transfer Return Codes

Return Code	Description
1001	Invalid file name
1002	Invalid destination
1003	Invalid origin
1004	Storage record size not supported
1005	Maximum record length not supported
1006	File size is too big
1007	Not used
1008	Not used
1009	Not used
1010	Invalid record count
1011	Invalid byte count
1012	Access method failure
1013	Duplicate file
1099	Unspecified reason

ODETTE-FTP Codes and Connect:Express Codes

When a Partner is not a Connect:Express Partner and the TRC is null (TRC=0000), this suggests that the error was detected on the remote side. The table below shows the general relationship between ODETTE-FTP return codes and TRC.

PRC	TRC	Result	Action
0000	0000		OK
0003	0000	User code not known	
0004	0000	Invalid password	
XXXX	0000		PRC issued by remote
XXXX	YYYY		PRC issued by local

The next sections show the PRC and TRC that you can receive during the connection and file selection phases. During these phases, the automatic retry process may be activated depending on the PRC received. Refer to the Administration Guide for more information.

ODETTE-FTP Outgoing Connections

The PRC code is issued by the remote Partner. The local TRC code issued is 2077, as long as the retry process is operating. It changes to 2076 when the process is aborted and the Partner is disabled. If the RESTART option is YES in the Partners directory, then the retry procedure is never stopped, unless you disable the Partner.

Some connection return codes invoke the call retry procedure activation. For ODETTE-FTP, the default T1B2PCOD entry contains the code 0005, as shown in the following tables.

PRC	TRC	Result	Action
0005	2077, 2076	Session interrupted	Call retry, aborted
xxxx	2076		Aborted

ODETTE-FTP Incoming Connections

PRC	TRC	Result	Action
0005	XXXX		ESID sent

ODETTE-FTP Transfer Selection Failure and Transfer Restart

If the RESTART option is YES in the Partners directory, then all outgoing transfers interrupted with the following PRC codes are automatically restarted by Connect:Express. For ODETTE-FTP, the default T1B2PCOD entry contains the code 005, as shown in the table below.

PRC	TRC	Result	Action
0005	XXXX		ESID sent

ODETTE-FTP PRC and TRC Codes Issued by Connect:Express

Listed below are the PRC and TRC codes issued by Connect:Express. Some PRC codes can only be issued by user exits, and in this case the TRC form is 4 . . . .

PRC	TRC		Error Description
0001	16. .	4. . .	Command not recognized
0002	5004/8	4. . .	Protocol violation
003	1501	4. . .	User code not known
004	1502	4. . .	Invalid password
005	0000 2140/145	4. . .	Local site emergency close down
006	15..	4. . .	Command contain invalid parameter
007	11..	4. . .	NSDU size error
008		4. . .	Resources not available
009		4. . .	Time out
0010	1504/28/20/24/03/26	4. . .	Mode or capabilities incompatible
0099	9. . . 46. . 6. . .	4. . .	Unspecified reason
1001	2. . . 2013/82/43/54	4. . .	Invalid file name
1002	2011	4. . .	Invalid destination
1003	2011	4. . .	Invalid origin
1004		4. . .	Record size not supported
1005		4. . .	Max record length not supported
1006		4. . .	File size is too big
1007		4. . .	
1008		4. . .	
1009		4. . .	
1010		4. . .	Invalid record count
1011	5006	4. . .	Invalid byte count
1012	2. . . 3. . . 6. . . 45. .	4. . .	Access method failure
1013		4. . .	Duplicate file
1099	2. . . 5. . . 6. . . 9. . .	4. . .	miscellaneous

Messages

This section lists WTO messages issued by the Monitor, the APM, and the ANM, as well as SYSLOG messages from the Monitor and APM.

WTO Messages Issued by the Monitor

Local operational errors are reported in the SYSMSG file, following the current messaging rules.

```
10/04/00  14:04:32  TOM8046I SUBSYSTEM REQUEST CLEAN UP COMPLETED
10/04/00  14:04:32  TOM8047I SUBSYSTEM INTERFACE INHIBITED
10/04/00  14:04:32  TOM8050I SHORT  ABNORMAL TERMINATION END
```

Time stamp-subsystem Name (TOM8)–message number (046)–message type (I),TEXT. Message types are standard IBM message types as shown in the table below.

Message	Description
W	Warning
E	Error
I	Information

The following table lists the WTO messages issued by the monitor.

WTO Messages Issued by the Monitor

Code	Description
dtsm000E	NIP MESSAGE NOT EDITABLE Explanation: Unrecoverable error before initialization. System action: The task is terminated. User action: Call programming support.

dtsm001E	INVALID EXEC PARM
	Explanation: Parameters passed to the main monitor program P1B2P000 are missing or invalid.
	System action: The task is terminated.
	User action: Check the JCL procedure for valid "PARM" value.
	Specify the PARM of the exec as follows:
	//STEP01 EXEC PGM=P1B2P000,
	// PARM='RUN=x,SSN=TOMx,PLEX=x,XRF=x,XCFGROUP=cccccccc',

dtsm002E	xxxxxxxx DYNAMIC LOADING ERROR Explanation: An error has been detected when loading a module. System action: The task is terminated. User action: Check the "LOADLIB" in the JCL or in the LINKLIST, the module specified by "xxxxxxxx" is missing.
dtsm003E	xxxxxxxx DD STATEMENT MISSING Explanation: A file used by the monitor is not defined by a "DD" statement in the JCL. System action: The task is terminated. User action: Check the JCL: a statement "//xxxxxxxx DD ..." is missing.
dtsm004E	INVALID SSCVT CHAIN Explanation: An error has been detected in the subsystem list structure. System action: The task is terminated. User action: Take A CSA dump. Call your PROGRAMMING SUPPORT PERSONNEL.

The 'dtsm' prefix is replaced by your Connect:Express subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm005E	xxxx IS NOT A PREDEFINED SUBSYSTEM Explanation: The subsystem "xxxx" does not exist. System action: The task is terminated. User action: If the subsystem "xxxx" should really exist it has not been defined in the "IEFSSNxx" member of the SYS1.PARMLIB.
dtsm006E	xxxx ALREADY STARTED Explanation: The monitor "TOMx", the "ANM" or an "APMxx" is already started. System action: The task is terminated. User action: Before starting a monitor, check that all related address spaces (Monitor, ANM, AFM, APMxx) are ended.
dtsm008E	GETMAIN REJECTED TABLE=xxx Explanation: Insufficient storage. System action: If the error occurred during the monitor initialization step, the task is terminated. User action: A "GETMAIN" has been issued for table "xxx" but there is not enough virtual storage available. Check the REGION value in the JCL.
dtsm009E	xxxxxxxx INVALID/MISSING SYSIN CARD RC=xx Explanation: The monitor SYSIN contains an invalid card. System action: The task is terminated. User action: Check the monitor sysin file for invalid or missing card. All mandatory cards must exist even if it is a hot start. See Appendix D.
dtsm010E	ERROR DETECTED IN SYSIN FILE Explanation: The monitor SYSIN file cannot be processed. System action: The task is terminated. User action: Check the RECFM (F) or LRECL (80) of the monitor sysin file and the contents (a mandatory parameter may be missing). See Appendix D.

The 'dtsm' prefix is replaced by your Connect:Express subsystem name.

WTO Messages Issued by the Monitor

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
016	DD STATEMENT MISSING
018	ERROR LOADING C:X PGM
019	EXEC PARM ERROR (NO PARM GIVEN)
020	EXEC PARM ERROR (PARM RUN=)
021	EXEC PARM ERROR (PARM SSN=)
022	OPEN ERROR ON SYSCHK
023	OPEN ERROR ON SYSLOG
024	P1B2P000 INVALID LEVEL
025	INVALID SSVT CHAIN

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
032	C:X ALREADY STARTED
033	ANM ALREADY STARTED
034	APM ALREADY STARTED
035	SSN NOT PREDEFINED SUBSYSTEM
036	T1B2PS?0 NOT FOUND
037	T1B2PCOD NOT FOUND
038	T1B2PP?? NOT FOUND
039	ERROR FOUND IN SYSIN
040	T1B2PTCT GETMAIN ERROR
041	T1B2PRCT GETMAIN ERROR
048	CHECKPOINT ERROR READING PCT
049	CHECKPOINT ERROR READING FCT
050	CHECKPOINT ERROR READING RCT
051	CHECKPOINT ERROR READING TCT
052	ERROR ON SYSX25
053	ERROR ON SYSSNA
067	T1B2PSCE GETMAIN ERROR
070	DSNRCY (HOT) /= DSNRCY (COLD)
071	CSA MODULE DO NOT MATCH
074	SSVT CSA GETMAIN ERROR
078	L1B2P046 COMAREA GETMAIN ERROR
079	OPEN ERROR ON SYSLIB
080	ERROR LOADING EXITJNL
081	L1B2P049 COMAREA GETMAIN ERROR
082	L1B2P049 ATTACH ERROR
083	L1B2P049 ATTACH FAILED
084	L1B2P04? ATTACH FAILED
085	L1B2P046 ATTACH ERROR

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
086	L1B2P046 ATTACH FAILED
087	L1B2P04? ATTACH ERROR
088	L1B2P045 ATTACH ERROR
089	L1B2P045 ATTACH FAILED
090	L1B2P047 COMAREA GETMAIN ERROR (C:X local)
091	L1B2P047 ATTACH ERROR (C:X local)
092	L1B2P047 ATTACH FAILED (C:X local)
093	L1B2P047 ATTACH FAILED (C:X local)
096	L1B2P04? ATTACH FAILED
097	INVALID MAXSRQ
098	L1B2P040 COMAREA GETMAIN ERROR
099	L1B2P044 ATTACH ERROR
100	L1B2P044 ATTACH FAILED
101	L1B2P04? ATTACH FAILED
102	L1B2P043 ATTACH ERROR
103	L1B2P043 ATTACH FAILED
104	L1B2P04? ATTACH FAILED
105	L1B2P042 ATTACH ERROR
112	L1B2P042 ATTACH FAILED
113	L1B2P04? ATTACH FAILED
114	L1B2P041 ATTACH ERROR
115	L1B2P041 ATTACH FAILED
116	L1B2P04? ATTACH FAILED
117	L1B2P040 COMAREA GETMAIN ERROR
118	L1B2P040 ATTACH ERROR
119	L1B2P040 ATTACH FAILED
120	L1B2P04? ATTACH FAILED
121	OPTS FOR INFORMATION

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
122	L1B2P072 ATTACH FAILED
128	ERROR START ANM PROCEDURE
130	START ANM FAILED
131	ANM PREMATURE END
133	START APM PROCEDURE FAILED
134	START APM PROCEDURE FAILED
135	ERROR LOADING L1B2PCNX
136	L1B2PCNX INIT ERROR
137	ANM PREMATURE END
144	APM PREMATURE END
145	L1B2P04? PREMATURE END
146	L1B2P040 PREMATURE END
147	T1B2PZAPL GETMAIN ERROR
149	P1B2P000 INVALID LEVEL
150	P1B2P000 INVALID LEVEL
151	ERROR LOADING T1B2PSLD
152	ERROR READING CVT FROM SYSCHK
153	ERROR READING CVT FROM SYSCHK
154	SSN (HOT/COLD) MISMATCHED
155	INVALID T1B2PCVT LEVEL
160	INVALID T1B2PCVT LEVEL
161	ERROR LOADING CSA PGM
162	OPEN ERROR ON SYSFIL
163	POINT ERROR ON SYSFIL
164	READ ERROR ON SYSFIL
165	OPEN ERROR ON SYSPAR
166	POINT ERROR ON SYSPAR
167	READ ERROR ON SYSPAR

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
168	T1B2PFCT GETMAIN ERROR
169	POINT ERROR ON SYSFIL
173	P1B2P000 STAE ENTERED
174	P1B2P000 STAE ENTERED
177	READ ERROR ON SYSFIL
180	CLOSE ERROR ON SYSFIL
182	T1B2PPCT GETMAIN ERROR
183	POINT ERROR ON SYSPAR
184	READ ERROR ON SYSPAR
185	CLOSE ERROR ON SYSPAR
192	T1B2PSST GETMAIN ERROR
193	OPEN ERROR ON SYSX25
194	T1B2PX25 GETMAIN ERROR
195	OPEN ERROR ON SYSX25
196	OPEN ERROR ON SYSSNA
197	T1B2PSNA GETMAIN ERROR
198	OPEN ERROR ON SYSSNA
199	OPEN ERROR ON SYS???
200	BLDL ERROR ON SYS???
201	POINT ERROR ON SYS???
208	READ ERROR ON SYS???
209	READ ERROR ON SYS???
210	T1B2P??? GETMAIN ERROR
211	CLOSE ERROR ON SYS???
212	ERROR ON SYSTCP
213	CXPLEX MISSING
214	SYSPRTX MISSING
215	ERROR FOUND IN CXPLEX FILE

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm011S	STOPPED FOLLOWING PREVIOUS MESSAGE RC=xxxx Explanation: The monitor has detected an error. System action: The task is terminated. User action: Check previous messages for the reason.

Reason Code	Description
216	JOINXCF ERROR
217	ERROR LOADING L1B2PXRF
218	LIB2PAPS ATTACH FAILED
219	LIB2PAPS ATTACH FAILED
240	ERROR ON SYSCHK

WTO Messages Issued by the Monitor

Code	Description
dtsm012E	"ATTACH" ERROR xxxxxxxx RC= Snnn/Uvvv Explanation: An error has been detected by the "ATTACH" routine. System action: The task is terminated. User action: Check the C:X "LOADLIB" in SYSLIB/STEPLIB/LINKLIST for the member specified by "xxxxxxx". If module is 'L1B2P055', check your journal exit 'UEXJNL='.
dtsm013E	NO REQUEST IN SCHEDULING LIST Explanation: An error has been detected. System action: The task is terminated. User action: Call programming support.
dtsm014I	SUBSYSTEM FUNCTION SUCCESFULLY STARTED Explanation: Subsystem is initialized. System action: None. User action: None.
dtsm015I	COMMUNICATION WITH OPERATOR OPENED Explanation: z/OS 'modify' commands accepted. System action: None. User action: None.
dtsm016I	TOM INITIALIZATION COMPLETE Explanation: Monitor and network are fully started. System action: None. User action: None, check for APM's.
dtsm017E	ACCESS ERROR ON FILE " SYSLOG " RC=?? Explanation: Severe i/o error. System action: The task is terminated. User action: Call programming support.
dtsm018E	ACCESS ERROR ON FILE " SYSCHK " RC=?? Explanation: Severe i/o error. System action: The task is terminated. User action: Call programming support.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm019E	ERROR ON ???????? FOR INIT ??? OP=?? Explanation: Severe error on function. System action: The task is terminated. User action: Call programming support.
dtsm020E	INVALID AUTH FILE, CALL SUPPORT. Explanation: The asset protection key file is not valid. System action: Initialization is stopped. User action: Activate the SYSPAPS DD card in the TOM JCL, restart Connect:Express, and send this file to support.
dtsm021E	INVALID COMMAND Explanation: The operator entered an invalid command. System action: None. User action: Correct and retry.
dtsm022W	TOM IS ALREADY IN THIS STATUS Explanation: The operator entered a command, but the required state is the same as the actual one. System action: None. User action: Check and retry.
dtsm023I	TOM IS IN STOP STATUS Explanation: The operator entered a modify-stop command. System action: The monitor is temporarily stopped. User action: None.
dtsm024I	TOM IS IN ACTIVE STATUS Explanation: The operator entered a modify-start command. System action: The monitor is re-activated. User action: None.
dtsm025I	TOM ACKNOWLEDGES STOP COMMAND Explanation: The operator entered a stop command. System action: The monitor is stopping normally, after interrupting the current transfers. User action: None.
dtsm026I	TOM ACKNOWLEDGES IMMEDIATE STOP COMMAND Explanation: The operator entered a cancel command. System action: The monitor is stopping shortly, after interrupting the current transfers. User action: Never enter a second cancel command.
dtsm027I	TOM : ? / FCT: ? / PCT: ? / RCT: ? Explanation: Monitor states. System action: None. User action: None.
dtsm028I	APM?? : ? A-EF: ?? U-EF: ?? ETC: ? Explanation: Monitor states. System action: None. User action: None.
dtsm029I	??? IS NOW ENABLED Explanation: Monitor component new state. System action: The component is enabled. User action: None.
dtsm030I	??? IS NOW DISABLED Explanation: Monitor component new state. System action: The component is disabled. User action: None.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm031W	??? IS ALREADY IN THIS STATUS Explanation: Command entered, but the required state is the same as the actual one. System action: None. User action: Check and retry.
dtsm032I	CSA RELOAD REQUESTED BY OPERATOR Explanation: $LOAD$ command entered. System action: The action will be performed at restart. User action: Restart the monitor.
dtsm033I	???????? / RELOAD PARTNER LIST RC=?? Explanation: ACF= command entered. System action: The action is performed. User action: Check rc.
dtsm034E	APM ?? HAS NOT A VALID STATE Explanation: A modify command against an APM was not executed. System action: None. User action: Check the reason (APM active/stooping/...).
dtsm035I	APM ?? (????) COMMAND EXECUTED Explanation: APM component new state. System action: The component will take this new state. User action: None.
dtsm036E	INITIALIZATION ERROR RC=?? Explanation: Connect:Express could not start. System action: Connect:Express startup fails. User action: Check previous error message.
dtsm037E	???????? PARTNER LIST MEMBER NOT FOUND Explanation: Invalid ACF= command entered. System action: None. User action: Correct and retry,
dtsm038E	ANM INITIALIZATION PENDING Explanation: The ANM initialization is not complete for now. System action: The monitor is waiting the normal completion. User action: Check the ANM is well started, or check the sysout of the failing ANM for more information.
dtsm039E	ANM INITIALIZATION FAILED Explanation: The ANM initialization cannot complete successfully. System action: The task is terminated. User action: The monitor cannot start without the ANM. Check the sysout of the failing ANM for more information.
dtsm040E	APM INITIALIZATION PENDING Explanation: The APM initialization is not complete for now. System action: The monitor is waiting the normal completion. User action: Check the APM is well started, or check the sysout of the failing APM for more information.
dtsm041E	APM INITIALIZATION FAILED Explanation: The APM initialization cannot complete successfully. System action: The task continues, but the APMxx is set "ABENDED". User action: Check the sysout of the APM for more information, and start it again.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm042I	TOM IS WAITING FOR A.P.M. TERMINATION Explanation: The APM termination is not complete. System action: Monitor will stop in any case. User action: Check the sysout of the APM for more information. Some minutes of delay is normal, else cancel it with dump.
dtsm043S	"ABEND" : Sxxx/Uyyy , TOM IS ENDING Explanation: An ABEND occurred within monitor main task. System action: The task is terminated. User action: The monitor can be restarted (hot or cold). Depending on the problem, call your PROGRAMMING SUPPORT.
dtsm044S	SUB-TASK ERROR -> STOP Explanation: An ABEND occurred within a monitor sub-task. System action: The task is terminated. User action: The monitor can be restarted (hot or cold). Depending on the problem, call your PROGRAMMING SUPPORT.
dtsm045I	COMMUNICATION WITH OPERATOR CLOSED Explanation: Operator stop command entered. System action: The monitor is terminating. User action: None.
dtsm046I	SUBSYSTEM REQUEST CLEAN UP COMPLETE Explanation: Stop process entered. System action: The monitor is terminating. User action: None.
dtsm047I	SUBSYSTEM REQUEST INTERFACE INHIBITED Explanation: Stop process entered. System action: The monitor is terminating. User action: None.
dtsm048I	NORMAL TERMINATION PROCEDURE ENDED Explanation: Stop process entered. System action: The monitor is terminating. User action: None.
dtsm049E	ANM ABNORMAL TERMINATION DETECTED Explanation: The ANM reports to the monitor an abnormal termination. System action: The task is terminated. User action: The monitor can be restarted (hot or cold). Depending on the problem, call your PROGRAMMING SUPPORT.
dtsm050I	SHORT ABNORMAL TERMINATION END Explanation: During monitor recovery process a new error has been detected. System action: Short termination processed. User action: Check previous messages for more details.
dtsm051E	???????? INVALID FUNCTION SPECIFIED Explanation: An invalid function was entered. System action: None. User action: Correct and retry.
dtsm052E	MONITOR NOT DORMANT, REQUEST DENIED Explanation: The requested function cannot be performed. System action: None. User action: Wait complete stop and retry.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm053E	APM ?? , ACTIVE EFF: ??, REQUEST DENIED Explanation: The requested function cannot be performed. System action: None. User action: Wait complete stop and retry.
dtsm054E	INIT SESSION PENDING, REQUEST DENIED Explanation: The requested function cannot be performed. System action: None. User action: Wait complete stop and retry.
dtsm055E	COMMAND REJECTED BY ANM, RETRY LATER Explanation: The requested function cannot be performed. System action: None. User action: Check reason and retry.
dtsm056I	SDUMP COMMAND PROCESSED RC=?? Explanation: The requested SDUMP of all Connect:Express asids were tried. System action: One SYS1.DUMP?? was taken. User action: Check for successful completion rc=00, else check messages (sys1.dump too small/...).
dtsm057W	xxxxxxxx CSA MODULES DO NOT MATCH Explanation: At each start, the monitor checks the CSA modules. If they are not identical to the modules in the Connect:Express library a message is issued. System action: If in the previous Connect:Express session the command "$LOAD$" has been issued, the task continues, else the task terminates. User action: The message can be issued if a new release of the product has been installed. In other cases check the reasons before restarting the monitor and depending on the problem call your PROGRAMMING SUPPORT.
dtsm058I	xxxxxxxx CSA MODULE RELOADED Explanation: The specified module has been loaded in CSA. System action: None. User action: The message can be issued if an IPL z/OS has been executed or if a command "$LOAD$" has been issued.
dtsm059W	$LOAD$ AUTOMATIC SET, IF "OK" START AGAIN Explanation: The message is issued after message 057. System action: The task is terminated. User action: Refer to message 057 for more details.
dtsm060W	OPTION NOT AUTHORIZED TRC=xxxx Explanation: The message is issued if the option specified by xxxx is used. System action: None. User action: If the message is issued during the monitor initialization, check the partner directory for unauthorized option (TCP/IP, LU6.2 ...).
dtsm061E	INVALID CHECKPOINT SERVICE RC:??? Explanation: The checkpoint utility has detected an error. System action: The task is terminated. User action: Call programming support.
dtsm062E	INVALID FILE INITIALIZATION rc:?? Explanation: The checkpoint utility has detected an error. System action: The task is terminated. User action: Check installation and customization, then call programming support.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm063E	INVALID FILE LEVEL (SYSCHK/SYSCHK2) Explanation: The checkpoint utility has detected the SYSCHK file has a wrong level. System action: The task is terminated. User action: Check the monitor JCL for right SYSCHK dsname. If a new product release has been installed refer to the installation documentation. A cold start is mandatory after formatting the checkpoint file.
dtsm064E	INVALID RQEMAX VALUE IN TOM SYSIN Explanation: The value indicates for RQEMAX in the monitor sysin file is invalid (default maximum value is 1020). System action: The task is terminated. User action: Check the monitor SYSIN and correct the RQEMAX card. If a new RQEMAX value is set the monitor must be cold start.
dtsm065E	OPEN ERROR ON xxxxxxxx RC=rrrr Explanation: The OPEN function has failed for the file specified by xxxxxxx. System action: See following messages. User action: Check the definition of the specified file.
dtsm066E	READ ERROR ON xxxxxxxx RC=rrrr Explanation: The READ function has failed for the file specified by xxxxxxx. System action: See following messages. User action: Check the definition of the specified file. If SYSCHK/SYSRCY/SYSLOG has been migrated/freed, refer to the Installation Guide and complete step 13, Create the Monitor Environment. You only have to do this for the file that has the problem.
dtsm067E	WRITE ERROR ON xxxxxxxx RC=rrrr Explanation: The WRITE function has failed for the file specified by xxxxxxx. System action: See following messages. User action: Check the definition of the specified file.
dtsm068E	CLOSE ERROR ON xxxxxxxx RC=rrrr Explanation: The CLOSE function has failed for the file specified by xxxxxxx. System action: See following messages. User action: None.
dtsm069E	POINT ERROR ON xxxxxxxx RC=rrrr Explanation: The POINT function has failed for the file specified by xxxxxxx. System action: See following messages. User action: None.
dtsm070E	NOTE ERROR ON xxxxxxxx RC=rrrr Explanation: The POINT function has failed for the file specified by xxxxxxx. System action: See following messages. User action: None.
dtsm071E	HOT RESTART: xxx INITIALIZATION ERROR Explanation: During hot restart the table specified by xxx cannot be initialized. System action: The task is terminated. User action: Check previous messages.
dtsm072E	HOT RESTART: SSN ARE DIFFERENT Explanation: During hot restart the SSN specified in the PARM of the EXEC is different from the one specified for the cold start. System action: The task is terminated. User action: Check the JCL for the parm of the EXEC and the DSNAME of the CHECKPOINT file.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm073E	HOT RESTART: INVALID LEVEL DETECTED Explanation: During hot restart an invalid level has been detected. System action: The task is terminated. User action: Check the C:X level in LOADLIB/LINKLIST and the level of the CHECKPOINT file. If a new released has just been installed a cold start may be necessary.
dtsm074E	INVALID P1B2P000 LEVEL DETECTED Explanation: Programs have different level. System action: The task is terminated. User action: Call your PROGRAMMING SUPPORT.
dtsm075i	???????? CONNECTION EXIT INVOKED Explanation: User table invoked this exit. ('Y' fit in the WTO option field). System action: The user exit was performed. User action: None.
dtsm076i	???????? CONNECTION EXIT ERROR RC:?? Explanation: This user Connection exit returned an error code. System action: The user exit was performed with error. User action: Check the RC explanation.
dtsm077i	???????? USER EXIT DISABLED Explanation: This user exit created a serious error. System action: The user exit is disabled. User action: Check the RC explanation, and restart.
dtsm078i	L1B2PCNX INITIALIZED Explanation: The connection user exit server is initialized. System action: The user exit was called. User action: None.
dtsm079i	L1B2PCNX TERMINATED Explanation: The connection user exit driver is terminated. System action: The user exit was called. User action: None.
dtsm080E	L1B2PCNX DISABLED Explanation: The connection user exit driver has been disabled. System action: The CNX exit is disabled. User action: Check the RC explanation, and restart.
dtsm081E	L1B2P040 ERROR : ??????? ??? rc:?? Explanation: A major task failed. System action: Connect:Express is terminating. User action: Check the explanation and restart. Keep corresponding information and call programming support.
dtsm082E	SMF ERROR REQUEST ????/????? rc:?? Explanation: SMF task failed. System action: Connect:Express is terminating. User action: Check the explanation and restart. Keep corresponding information and call programming support.
dtsm083I	ANM INITIALIZATION COMPLETE Explanation: ANM Successfully started. System action: None. User action: None.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm084I	APM ?? INITIALIZATION COMPLETE Explanation: APM Successfully started. System action: None. User action: None.
dtsm085I	ANM ?? ENDED CMP: S???/U??? Explanation: ANM ended. System action: None. User action: Check for no abend.
dtsm086I	APM ?? ENDED CMP: S???/U??? Explanation: APM ended. System action: None. User action: Check for no abend.
dtsm087W	ANM HANDLER TERMINATED SRC=??? TRC=??? Explanation: ANM ended. System action: This handler is no more available. User action: Check the reason of termination.
dtsm088W	APM ?? CANCELLED BY OPERATOR Explanation: APM ended. System action: This APM is no more available. User action: Check the reason of cancel termination.
dtsm089E	XPOST ERROR FOR ADDRESS SPACE ???????? Explanation: One asid is in error. System action: Connect:Express will terminate. User action: Check the reason of error, and call programming support.
dtsm099I	REQUEST COUNT RESTARTED ???????? Explanation: The request number has reached the 99999999 maximum value. System action: Connect:Express restart the count. User action: None.
dtsm100I	TOM IS STARTING ????????????? Explanation: The initialization process is running. System action: The SYSMSG file is opened. User action: None.
dtsm101I	EVENT MEMBER RELOAD REQUESTED BY OPERATOR Explanation: The EVT command was entered. System action: The event is refreshed. User action: None.
dtsm102I	???????? DEL/RELOAD REQUESTED BY OPERATOR Explanation: A refresh command was entered. System action: The member is refreshed. User action: None.
dtsm111E	xxxxxxxx INITIALIZATION FAILED RC=rrrr Explanation: The initialization of the task specified by xxxxxxx failed. System action: The task is terminated. User action: Check complementary messages.
dtsm112E	xxxxxxxx ERROR ON yyyyyyyy RC=rrrr Explanation: The task xxxxxxxx has detected an error when processing the file yyyyyyyy. System action: The task function is ended. User action: Check complementary messages.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm112E	**L1B2P043 ERROR ON SYSJCL RC=rrrr** Explanation: The task L1B2P043 has detected an error when processing the file SYSJCL. System action: The UNLOAD/RELOAD function is ended. User action: Check complementary messages. If RC=0148, check that the JOBNAME format of SYSJCL is 'xxxxxx$$'.
dtsm113E	**xxxxxxxx FUNCTION (z) FAILED REQ: rrrrrrrr** Explanation: The task xxxxxxxx has detected an error during the function (Unload, Reload or Send_file) for the request rrrrrrr. System action: The task function is ended; the request is set disable. User action: Check complementary messages, apply corrections and enable the request.
dtsm114E	**xxxxxxxx MBR yyyyyyyy NOT FOUND rrrrrrrr** Explanation: The task xxxxxxxx has not found the member yyyyyyyy into the library rrrrrrrr. System action: The task function is ended; the request is set disable. User action: Check complementary messages, apply corrections and enable the request.
dtsm115E	**xxxxxxxx HAS BEEN SET DISABLE** Explanation: The task xxxxxxxx has found a sever error and cannot perform any kind of service. System action: The task is set disable. User action: If the task is "L1B2P043" all incoming requests with "RELOAD" will be rejected, all outgoing requests with "UNLOAD" will not be scheduled. To set the task enable: apply necessary corrections and issue the command "REF SYSJCL".
dtsm116E	**xxxxxxxx REFRESH SYSJCL yyyyyyyy rc=rrrr** Explanation: The refresh command for the task xxxxxxxx has failed or complete successfully. System action: None if refresh successful, else the task is set disable. User action: Check and process according to their messages if any. If RC=0106 (partial), some special unload/reload skeletons are missing in SYSJCL, create dummy members as named in dtsm114E to avoid message.
dtsm121I	**???????? ???????? FILE DELETED** Explanation: A request was purged, or workfile no more necessary at completion. System action: Delete of DSN done. User action: None.
dtsm123I	**????????.????????.????????.????????** Explanation: DSN of dtsm121I. System action: None. User action: None.
dtsm126E	**L1B2P045 ERROR RC=???** Explanation: The journal utility has detected an error. System action: The task is terminated. User action: Check installation and customization, then call programming support.
dtsm127E	**L1B2P055 ERROR (ATTACH)** Explanation: The journal exit driver has detected an error. System action: The task is terminated. User action: Check installation and customization for your STEPLIB/SYSLIB/LINKLIST journal user exit(s).
dtsm128E	**L1B2P055 ERROR RC= S???/U???** Explanation: The journal exit driver has detected an error. System action: The task is terminated. User action: Check the process of your journal user exit(s).

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm129E	L1B2P055 ERROR : ???????? IS INACTIVE Explanation: The journal exit driver has detected a user exit error. System action: The task is terminated. User action: Check the process of your journal user exit(s).
dtsm130I	END OF TOM IS REPORTED TO APPLICATION Explanation: Application was notified. System action: Notification done. User action: None.
dtsm131I	REQ: ???????? WITH ???????? ERROR: ???? Explanation: An error was detected. System action: Request not processed. User action: Check for message and error code.
dtsm132I	REQUEST NUMBER CHANGED + xxxxxxx -> xxxxxxxx Explanation: Operator command changed request number start. System action: Requests will start from this number. User action: None.
dtsm133I	T1B2PX25 RELOADED BY OPERATOR Explanation: Operator command refreshed the table. System action: The table is refreshed totally/partially. User action: Check for rc=00, else see error messages then correct and retry.
dtsm134I	T1B2PSNA RELOADED BY OPERATOR Explanation: Operator command refreshed the table. System action: The table is refreshed totally/partially. User action: Check for rc=00, else see error messages then correct and retry.
dtsm135I	EXTERNAL APPLICATION TABLE CREATE Explanation: At start up, APLNUM was requested. System action: The table T1B2PAPL was created. User action: None.
dtsm136E	L1B2P048 ERROR RC= S???/U??? Explanation: The RSA utility has detected an error. System action: The task is terminated. User action: Check installation and customization, then call programming support.
dtsm137E	L1B2P058 ERROR (ATTACH) Explanation: The RSA utility has detected an error. System action: The task is terminated. User action: Check installation and customization, then call programming support.
dtsm138E	L1B2P058 ERROR RC= S???/U??? Explanation: The RSA utility has detected an error. System action: The task is terminated. User action: Check installation and customization, then call programming support.
dtsm139E	L1B2P058 ERROR : RSA-EXIT IS INACTIVE Explanation: The RSA utility has detected a user exit error. System action: The task is terminated. User action: Check installation and customization, then call programming support.
dtsm141E	ACB GENERATION FAILED Explanation: The ANM has detected a serious error. System action: The ANM is terminated. User action: Check installation and customization, then call programming support.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm142E	RPL GENERATION FAILED
	Explanation: The ANM has detected a serious error.
	System action: The ANM is terminated.
	User action: Check installation and customization, then call programming support.
dtsm143E	??: OPEN ACB EF: ??
	Explanation: The ANM has detected a serious error.
	System action: The ANM is terminated.
	User action: Check installation and customization, then call programming support.
dtsm144E	LU: ???????? ??: ???????? RC: ?? FB2: ??
	Explanation: The ANM has detected a serious error.
	System action: The ANM is terminated.
	User action: Check installation and customization, then call programming support.
dtsm145E	LU: ???????? EX: LOSTERM RS: ??
	Explanation: The ANM has detected a serious error.
	System action: The ANM is terminated.
	User action: Check installation and customization, syslogs, then call programming support.
dtsm146E	REQUEST MANAGER IS BUSY; TRY LATER
	Explanation: This asid could not perform process.
	System action: The process is terminated.
	User action: Check installation, syslogs, if problem persists then call programming support.
dtsm147E	LU: ???????? TIME-OUT DETECTED
	Explanation: The ANM has detected an error.
	System action: The process is terminated.
	User action: Check installation and customization, syslogs, then call programming support.
dtsm161I	SESSION ENDED WITH PARTNER : ????????
	Explanation: The session ended.
	System action: The connection is terminated.
	User action: None.
dtsm162I	REJECT COMMAND IS RECEIVED
	Explanation: The session ended.
	System action: The connection is terminated.
	User action: Check syslogs.
dtsm163I	???? INVALID COMMAND STATE ? ??
	Explanation: An invalid command was received.
	System action: The process is terminated.
	User action: Check syslogs, if problem persists then call programming support.
dtsm164I	LUIDT SESSION REJECTED RC= ?
	Explanation: An invalid command was received.
	System action: The process is terminated.
	User action: Check syslogs, if problem persists then call programming support.
dtsm165I	??????? PARTNER ERROR RC = ?
	Explanation: An error was encountered with this partner.
	System action: The process is terminated.
	User action: Check syslogs, if problem persists then call programming support.
dtsm166E	PC-PT: ???????? RC: ?? FDB: ??
	Explanation: An critical error was encountered between asids.
	System action: The asid is terminated.
	User action: Call your PROGRAMMING SUPPORT.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm201E	OLD SYSIN VALUE FOR ???????? WAS ???? Explanation: The parameter specified in the following message changed. System action: Change done. User action: None.
dtsm202E	RUN=H DENIED, RESTORE SYSIN VALUE FOR: Explanation: The parameter specified in the following message must have the same value for cold and hot start. System action: The task is terminated. User action: If that value must be changed a cold start must be specified.
dtsm204i	'MODIFY COMMAND' Explanation: The Command displayed was entered by the operator. System action: This message is followed by another message stating the result of the action. User action: None.
dtsm205E	xxxxxxxx PARTNER LIST MEMBER TOO BIG Explanation: The partner list specified contains more than 128 partners. System action: The partner list is not processed. User action: Modify the partner list and issue the command "ACF=xxxxxxxx"
dtsm206E	HOT START: SYSRCY DSNAME HAS BEEN CHANGED Explanation: The SYSRCY file contains requests that has been issued when Connect:Express was not started. The SYSRCY dsname is stored in memory after a $LOAD$ command has been issued. This DSNAME must be the same as the one specified in monitor JCL. System action: The task is terminated. User action: In order to change the dsname of SYSRCY a $LOAD$ command must be issued before cold start the monitor.
dtsm207E	xxxxxxxx ERROR DURING yyyyyyyy FUNCTION Explanation: The function specified by yyyyyyyy has failed within program xxxxxxxx. System action: See other messages. User action: Call your PROGRAMMING SUPPORT. If hot start SYSCHK/SYSRCY 'READ' error or SYSLOG 'WRITE' error after file has been migrated/freed, refer to the Installation Guide and complete step 13, Create the Monitor Environment. You only have to do this for the file that has the problem.
dtsm208I	SYSIN SUCCESSFULLY PROCESSED Explanation: The SYSIN is correct. System action: None. User action: None.
dtsm209I	??????? DUPLICATE ENTRY (IGNORED) Explanation: This entry is already present. System action: None. User action: Correct the name (file/partner).
dtsm210I	RACF USER/GROUP/O: ????????/????????/? Explanation: This information shows the RACF user/group assigned to this TOM STC/JOB and where from (Ascb to Tcb). System action: None. User action: Check if correct.
dtsm211W	REQ xxxxxxxx MARKED UNUSABLE (PURGE ONLY) Explanation: During hot start the monitor has detected an invalid request. System action: Request marked unusable. User action: Check the reasons. The request cannot be processed, only purge is authorized.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm212W	uuu xxxxxxxx MARKED UNUSABLE Explanation: During hot or cold start, the monitor has detected an invalid file or partner entry. System action: The entry is marked unusable. User action: Check the reasons, modify the entry in order to change its status.

dtsm213W	PCT xxxxxxxx INVALID SLD ssssssss
	Explanation: During hot or cold start the monitor has detected an invalid partner definition.
	                 The SLD specified does not exist.
	System action: The entry is marked unusable.
	User action: Check the reasons, modify the entry in order to change its status. To refresh the
	                 SLD table the monitor must be restarted.

dtsm214W	PCT xxxxxxxx INVALID ALT.PART. ssssssss Explanation: The partner specified by ssssssss does not exist. System action: The entry is marked unusable. User action: Apply corrections and modify the entry in order to change its status.
dtsm215W	REQ xxxxxxxx PARTNER NOT FOUND ssssssss Explanation: The partner specified by ssssssss has been deleted, Connect:Express was not started. System action: The request is marked unusable. User action: Check the reasons and purge the request.
dtsm216W	REQ xxxxxxxx FILE NOT FOUND ssssssss Explanation: The file specified by ssssssss has been deleted, Connect:Express was not started. System action: The request is marked unusable. User action: Check the reasons and purge the request.
dtsm217W	REQ xxxxxxxx INVALID TQE CHAIN ssssssss Explanation: The request and its TQE are incompatible. System action: The request is marked unusable. User action: Purge the request.
dtsm218W	REQ xxxxxxxx SLD (d)/= PART ssssssss Explanation: The partner definition (sld) has been modified, Connect:Express was not started. System action: The request is marked unusable. User action: Purge the request.
dtsm219W	REQ xxxxxxxx PART_TYP (t)/= PART ssssssss Explanation: The partner definition (partner type) has been modified, Connect:Express was not started. System action: The request is marked unusable. User action: Purge the request.
dtsm220W	REQ xxxxxxxx INVALID SST ADDRESS Explanation: The request has an invalid pointer. System action: The request is marked unusable. User action: Purge the request.
dtsm221W	REQ xxxxxxxx INVALID SST PARTNER ADDRESS Explanation: The request has an invalid pointer. System action: The request is marked unusable. User action: Purge the request.
dtsm222W	REQ xxxxxxxx INVALID SST TYPE OF CALL Explanation: The request has an invalid status. System action: The request is marked unusable. User action: Purge the request.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm223W	REQ xxxxxxxx MAY BE UNUSABLE
	Explanation: The monitor detected the request status is unexpected. This can occur because an UNLOAD or RELOAD JOB has been issued while Connect:Express was ending and the JOB is not finished when Connect:Express restarts.
	System action: The request is marked almost unusable.
	User action: Check the reasons, if a JOB has been issued the request will be processed at its end, otherwise purge the request.
dtsm224W	SYSxxx RECORD rrrrrrr IS INVALID (iiii)
	Explanation: The monitor has detected an invalid record within SYSSNA or SYSX25 file: "rrrrrrr" indicates the record number and "iiii" the reason.
	System action: The record is not processed.
	User action: Modify the specified record and issue a refresh command.
dtsm225W	PCT xxxxxxxx INVALID PROTOCOL / LINK
	Explanation: The specified partner has an invalid link specified according to its protocol.
	System action: The entry is marked unusable.
	User action: Modify the entry in order to change its status.
dtsm226W	REQ xxxxxxxx LINK (l) FORCED TO (y)
	Explanation: The partner of the request has been modified (link definition), Connect:Express was not started.
	System action: The "link" (l) specified in the request has been changed into "link" (y) (first link of the partner).
	User action: Check the reasons.
dtsm227W	FCT xxxxxxxx INVALID PARTN. LIST yyyyyyyy
	Explanation: The partner list specified in the definition of the file has not been found.
	System action: The file is marked unusable.
	User action: Apply the corrections, modify the file entry and issue the command "ACF=xxxxxxxx"
dtsm228W	??? xxxxxxxx INVALID CHARACTER IN NAME
	Explanation: The entry specified has an invalid character as ' ' or '-' in position one, or not EBCDIC printable char.
	System action: Entry is marked unusable.
	User action: Delete it, then type correct name.
dtsm230W	REQUEST COUNT HAS BEEN ADJUSTED
	Explanation: Depending on how the monitor has been stopped the request count can be false.
	System action: The request count is adjusted.
	User action: None
dtsm231E	SYS??? PROCESS ERROR RC=??
	Explanation: During SNA/X25/TCP extension process, an error has bee detected.
	System action: Connect:Express stops.
	User action: Correct the related file, and restart.
dtsm232I	???????? NOT USED
	Explanation: The mentioned DD card was not used in the procedure.
	System action: None
	User action: None
dtsm233I	T1B2PTCP RELOADED BY OPERATOR
	Explanation: Operator command refreshed the table.
	System action: The table is refreshed totally/partially.
	User action: Check for rc=00, else see error messages then correct and retry.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm240I	CXPLEX SUCCESSFULLY PROCESSED Explanation: The CXPLEX is correct System action: None User action: None
dtsm241E†	ERROR DETECTED IN THE CXPLEX FILE Explanation: An error had been detected while processing the CXPLEX file. System action: Connect:Express stops initialization. User action: See next message.
dtsm242E†	?????? INVALID CXPLEX CARD VALUE L=??? ?? Explanation: An invalid CXPLEX card value has been detected. System action: Connect:Express stops initialization. User action: Correct this value about line = ????

†   Refer to the Administration Guide for a description of the CXPLEX file.

Code	Description
dtsm243E†	?????? INVALID CXPLEX KEYWORD L=??? Explanation: An invalid CXPLEX card value has been detected. System action: Connect:Express stops initialization. User action: Correct this value about line = ????
dtsm244E†	?????? TOO MANY/INV.SEQ.CXPLEX CARD L=??? Explanation: An invalid CXPLEX card value has been detected. System action: Connect:Express stops initialization. User action: Correct this value about line = ????
dtsm245E†	?????? ?????? MISSING CXPLEX CARD Explanation: An invalid CXPLEX card value has been detected. System action: Connect:Express stops initialization. User action: Add the missing card.
dtsm251E‡	?????? INVALID SYSIN CARD VALUE (RUN=H) Explanation: An invalid sysin card value has been detected. System action: Connect:Express stops initialization. User action: Correct this value for a warm start (H), or perform a cold start (C).
dtsm252E‡	?????? INVALID SYSIN CARD VALUE L=??? Explanation: An invalid sysin card value has been detected. System action: Connect:Express stops initialization. User action: Correct this value about line ???.
dtsm253E‡	?????? INVALID SYSIN CARD (KEYWORD) L=??? Explanation: An invalid sysin card keyword has been detected. System action: Connect:Express stops initialization. User action: Correct this keyword about line ???.
dtsm254E‡	?????? TOO MANY/INV.SEQ. SYSIN CARD L=??? Explanation: An invalid sysin condition has been detected. System action: Connect:Express stops initialization. User action: Correct this condition about line ???, whether too many cards, whether invalid sequence.
dtsm255E‡	?????? MISSING SYSIN CARD Explanation: An invalid sysin condition has been detected. System action: Connect:Express stops initialization. User action: Add the missing card.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm260I	AFMCLS=(X/XXX/XXX/XXX): COMMAND REJECTED Explanation: Changing AFM class parameter for FTP transfers is rejected. System action: None User action: check the syntax of the command and retry.
dtsm261I	AFMCLS=(X/XXX/XXX/XXX):COMMAND ACCEPTED Explanation: Changing AFM class parameter for FTP transfers accepted. System action: The FTP scheduling process is changed rules. User action: None
dtsm262I	AFM START COMMAND FAILED RC=???? Explanation: The AFM initialization process failed. System action: The task is terminated. User action: Check the JCL of the AFM and the AFM parameter file.

†   Refer to the Administration Guide for a description of the CXPLEX file.

‡   Refer to Appendix D of the Administration Guide, *Initialization Parameters*, for a description of the SYSIN file.

Code	Description
dtsm263I	AFM SUCCESSFULLY STARTED ASID=???? Explanation: The FTP manager has been successfully started. System action: FTP service is enabled. User action: None
dtsm264I	TOM LAST UPDATE DATE-TIME : 010701-0808 Explanation: This is the last update of the product. System action: None. User action: This information may be checked by support.
dtsm265E	FREEMAIN ERROR DETECTED FOR TABLE: ??? Explanation: CSA storage could not be freed System action: Termination processed. User action: Keep information and call programming support.
dtsm270E	JOIN XCF FAILED RC=?? Explanation: The standby could not Join the XCFGROUP. System action: The process is stopped. Recovery functions are disabled. User action: Check return code and environment.
dtsm271I	COMMUNICATION OPENED WITH MANAGER ??????? Explanation: a SYSPLEX server connected to the manager. System action: the API is active on the corresponding system. User action: None
dtsm272I	MEMBER $MGTOM1$ $$SYSB$$ CONNECTED Explanation : Manager TOM1, executes on the z/OS image SYSB, and joined the group. System action : Manager TOM1 is activated, message 317 is issued. User action: None.
dtsm273I	STANDBY ???????? CONNECTED ???????? Explanation: The standby process connected to the XCF group. System action: Extended Recovery is active for the related component User action: None
dtsm274I	MEMBER $MGTOM1$ TERMINATED Explanation : Member $MGTOM1$ left the group. System action : None. User action: Check the reasons for the member to leave.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm275E	SERVER ???????? ABNORMALY TERMINATED Explanation: A SYSPLEX server disconnected from the manager. System action: Service is disabled for the corresponding system. User action: Check the server SYSOUT.
dtsm276I	SERVER ACKNOWLEDGES STOP COMMAND Explanation: A SYSPLEX server is notified to STOP. System action: This server terminates. User action: None
dtsm277I	STANDBY INITIALIZATION COMPLETE Explanation: A standby process initialized successfully. System action: Extended Recovery is active for the related component User action: None
dtsm278I	STANDBY ACKNOWLEDGES RECOVERY COMMAND Explanation: The Standby is taking over after the related component abnormally terminated. System action: The component is reinitialized and new standby started. User action: Check the component abnormal termination.
dtsm279I	STANDBY ACKNOWLEDGES STOP COMMAND Explanation: The standby is notified to stop. System action: Process is normally stopped. User action: None
dtsm280I	STANDBY ENDED CMP: S???/U??? Explanation: The standby termination is complete. System action: None User action: None
dtsm281E	STANDBY ABNORMALY TERMINATED Explanation: The standby process was terminated abnormally. System action: The Extended Recovery is disabled for the corresponding component. User action: Check the abnormal termination.
dtsm282I	START SERVER ???????? ???????? Explanation: A SYSPLEX server is started. System action: The start procedure is launched. User action: None
dtsm283I	START STANDBY ???????? ???????? Explanation: The standby is started System action: The start procedure is launched. User action: None
dtsm284E	START MANAGER TOMJOB1 SYSB Explanation : The supervisor started procedure TOMJOB1 on the z/OS image SYSB from its configuration file - MANAGR=(SYSB,TOMJOB1),SSN=TOM1. System action: The manager initializes and join the group. User action: None.
dtsm285E	START MEMBER TOMJOB1 SYSB FAILED Explanation : The supervisor or a manager failed to start a member on the z/OS image SYSB. The name of the start command is TOMJOB1. System action : None. User action: Check messages in the system log, Contact Sterling Commerce Customer Support.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm286I	START STANDBY TOMSTBY SYSA FAILED Explanation : The supervisor or a manager failed to start the standby on the z/OS image SYSA. The name of the start command is TOMSTB1. System action : None. User action: Check messages in the system log, contact support.
dtsm287I	SEND COMMAND TO TOMJOB1 SYSB Explanation : The supervisor transmitted an MVS command to manager TOMJOB1 that is execuitng on the z/OS image SYSB. System action : The command is routed to SYSB and passed to TOMJOB1. User action: None.
dtsm288E	$SPTOMX$ REJECTED, SSN CHANGED TOMP->TOMX Explanation : The manager received a join indication from a supervisor different from the one that initialized it. System action: The supervisor is abended (Abend 00C). User action: Check the configuration.
dtsm289E	UNKNOWN MANAGER JOINING $MGTOMX$ $$SYSB$$ Explanation : The supervisor received a join indication from a manager that is not defined in its configuration file. System action: The manager is abended (abend 00C). User action: Check the configuration.
dtsm290E	SUPERVISOR ALREADY UP: $SPTOMX$ ABENDED Explanation : A supervisor joined a group that is already under supervision . System action: The second supervisor is abended (Abend 00C). User action: Check the configuration.
dtsm291I	AP DETECTED UNAUTH PROGRAM MODIFICATIONS Explanation: The AP key file has been modified System action: Initialization is terminated User action: Get valid AP key file from Sterling Commerce
dtsm292I	AP KEY NOT FOR THIS SYSTEM, ???????? Explanation: The AP key file is not for z/OS System action: Initialization is terminated User action: Get valid AP key file from Sterling Commerce
dtsm293W	AP KEY FILE NOT VALID FOR ?? DAY(S) Explanation: The AP key file will not be valid for ?? days System action: Initialization is terminated User action: Get valid AP key file from Sterling Commerce
dtsm294W	AP KEY OPTION HAS EXPIRED, ???????? Explanation: The specified option has expired System action: Processing continues User action: Get valid AP key file from Sterling Commerce
dtsm295W	WARNING AP OPTION ???????? HAS EXPIRED Explanation**:** The specified option has expired System action: Processing continues User action: Get valid AP key file from Sterling Commerce
dtsm296W	AP OPTION EXPIRES IN ?? DAY(S) ???????? Explanation**:** The specified option is about to expire System action: Processing continues User action: Contact Sterling Commerce to update your AP key file

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
dtsm297W	AP KEY IS NOT VALID Explanation**:** The AP key file is corrupt System action: Initialization is terminated User action: Get valid AP key file from Sterling Commerce
dtsm298W	AP KEY HAS EXPIRED Explanation**:** The AP key file has expired System action: Initialization is terminated User action: Contact Sterling Commerce for a valid AP key file
dtsm299W	WARNING AP KEY HAS EXPIRED Explanation: The AP key file has expired System action: Processing continues User action: Contact Sterling Commerce for a valid Ap key file
Dtsm300W	AP KEY EXPIRES IN ?? DAY(S) ???????? Explanation**:** The AP key file is about to expire System action: Processing continues User action: Contact Sterling Commerce for a valid AP key file
Dtsm301I	UNABLE TO INITIALIZE AP SYSTEM Explanation**:** The Asset Protection (AP) system could not be initialized System action: Processing terminates User action: Contact Sterling Commerce Customer Support
Dtsm302W	AP KEY NOT VALID Explanation**:** The AP key file is corrupt System action: Initialization is terminated User action: Get valid AP key file from Sterling Commerce
Dtsm303I	INITIALIZED USING EMERGENCY KEY Explanation**:** A temporary emergency key has been found System action: Processing continues User action: Contact Sterling Commerce for a valid AP key file
Dtsm304I	REFRESHING ASSET PROTECTION VALUES Explanation**:** The asset protection values are being refreshed System action: Processing continues User action: None
Dtsm305I	ASSET PROTECTION FAILURE Explanation: The asset protection (AP) system has failed System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm306I	NUMBER OF LICENSED COPIES EXCEEDED Explanation**:** The number of licensed copies has been exceeded System action: Processing is terminated User action: Get a valid AP key file from Sterling Commerce
Dtsm307I	AP_STRG ALLOCATION FAILURE Explanation**:** The asset protection (AP) system had a storage failure System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm308I	AP SYSTEM STORAGE ALLOCATION FAILURE Explanation**:** The asset protection (AP) system had a storage failure System action: Processing is terminated User action: Contact Sterling Commerce Customer Support

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
Dtsm309I	AP KEY FILE ALLOCATION ERROR Explanation**:** The AP key file could not be allocated System action: Processing is terminated User action: Check initialization parameters for valid AP key file name
Dtsm310I	NUMBER OF SERVERS EXCEEDED Explanation**:** The number of TOM servers has been exceeded System action: Processing is terminated User action: Get valid AP key file from Sterling Commerce
Dtsm311W	AP ERROR, ERRFUNC ???????? RC=???????? Explanation**:** An internal error occurred in asset protection processing System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm312W	ERROR TXT=?????????????????????????????? Explanation**:** An internal error occurred in asset protection processing System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm315I	TOM ACKNOWLEDGES SHUTDOWN COMMAND Explanation: The supervisor received a SHUTDOWN command, either for all or for a specific manager. System action: The supervisor stops all managers and terminates or stops the specified manager. User action: None.
Dtsm316W	MANAGER TOM1 IS NOT ACTIVE Explanation : The supervisor received the command SHUTDOWN=TOM1 and manager TOM1 is inactive or unknown. System action: The supervisor rejects the command. User action: Check the command or the status of sub system TOM1.
Dtsm317I	REQUEST NUMBERS FROM 00000001 TO 33333333 Explanation : This message follows message 326 at the end of initialization of a manager or the supervisor, or message 264-320 at the end of initialization of the supervisor when it participates to transfers. This message follows message 272 each time the supervisor accepts the connection of a manager. The sub system associated to this message uses this request range. System action: Each componant uses the request range that the supervisor allocated. User action: None.
Dtsm318E	NO MANAGERS DEFINED FOR THIS SUPERVISOR Explanation : While initializing the supervisor found no MANAGR= card in its CXPLEX file. System action: The supervisor terminates. User action: Check the configuration, corriger et relancer
Dtsm319I	FILE TRANSFER FUNCTIONS ARE INACTIVE Explanation: XFRTYP=NO in the supervisor CXPLEX file. System action: Network resources (ANM) and transfer resources (APM et AFM) are inactive. The supervisor rejects all local transfer requests. User action: None.
Dtsm320I	ONLY HOLD REQUESTS ARE SUPPORTED Explanation : XFRTYP=HOLD in the supervisor CXPLEX file. System action: The supervisor accepts only local requests of type Hold, and records them in the HCT. User action: None.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
Dtsm321I	???????? IXCQUERY ERROR RC/RS=????/???? Explanation: An IXCQUERY error occurred System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm322I	???????? IXCJOIN ERROR RC/RS=????/???? Explanation: An IXCJOIN error occurred System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm323I	???????? IXCLEAVE ERROR RC/RS=????/???? Explanation: An IXCLEAVE error occurred System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm324I	GROUPP SUPERVISOR STANDBY INITIATED Explanation : The standby of the supervisor of group GROUPP is initialized. System action: Processing continues. User action: None.
Dtsm325I	GROUPP/SVTOMP$ STANDBY INITIATED Explanation : The standby of member $SVTOMP$ in the group GROUPP is initialized. System action: Processing continues. User action : None.
Dtsm326I	COMMUNICATION OPENED WITH SUPER $SPTOMP$ Explanation : Communication is established with supervisor TOMP. System action: Manager status is set to active. User action: None.
Dtsm327W	COMMUNICATION CLOSED WITH SUPER $SPTOMP$ Explanation: Supervisor TOMP terminated. System action: The manager becomes a standalone manager. User action: Restart the supervisor.
Dtsm328I	SUPERVISOR $SPTOMP$ IS UP: INIT. STOPPED Explanation: While initializing the supervisor detects that another supervisor is already started. System action: The supervisor terminates. User action: Check the configuration.
Dtsm329IE	JOIN FAILED WITH $MGTOM1$ - DTSM288E Explanation: Manager $MGTOM1$ rejected the first contact with the supervisor. The reason is specified by the message number, DTSM288E in this example. System action: the member that is joining the group terminates. User action: Check the configuration.
Dtsm330I	PAUSE MEMBER JOBTOM1 SYSB Explanation : The supervisor received a command to shutdown a manager. The name of the procedure is JOBTOM1 for this manager and it is executing on z/OS image SYSB. System action: The pause command is routed to the z/OS image SYSB. User action: None.
Dtsm331E	LOST CONTACT WITH MANAGER, GROUP ???????? Explanation: A TOM server has lost contact with the TOM manager System action: The TOM server is terminated User action: Contact Sterling Commerce Customer Support

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
Dtsm332I	GROUPP MEMBER LOST: $MGTOM1$$$SYSB$$ Explanation : Member TOM1 of GROUPP lost communication. System action: Member $MGTOM1$ is set to inactive. User action: Contact Sterling Commerce Customer Support.
Dtsm333I	LOST CONTACT WITH $MGTOM1$ MANAGER Explanation : A TOM server has lost contact with the TOM manager. System action : The server terminates. User action: Contact Sterling Commerce Customer Support.
Dtsm334I	SEVERE XCF COMMUNICATIONS ERROR Explanation**:** A severe XCF error occurred System action: Processing is terminated User action**:** Contact Sterling Commerce Customer Support
Dtsm335I	REQUEST ABENDED ON TARGET Explanation**:** A request has abended on the receiving side System action: The request is terminated User action: Retry the request. Contact Sterling Commerce Customer Support
Dtsm336I	SERVER LEFT XCF GROUP Explanation**:** A TOM server has been terminated System action: Processing continues User action: None
Dtsm337I	XCF REQUEST TIMED-OUT Explanation**:** An attempt to communicate using XCF has timed-out System action: Message Dtsm331E or Dtsm332I is issued User action: See appropriate message
Dtsm338I	XCF MCIA AREA CLEARED TO ZERO Explanation**:** A null MCIA area was received System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm339I	IXCMSGO ERROR Explanation**:** An error occurred when trying to communicate using XCF System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm340I	M1B2XCF$ MACRO SUCCESSFUL Explanation**:** Informational only System action: Processing continues User action: None
Dtsm341I	NUMBER-SERVERS EXCEEDED Explanation: The number of TOM servers has been exceeded System action: The TOM server is terminated User action: Get a valid AP key file from Sterling Commerce
Dtsm342I	NO EMPTY REQUEST QUEUE FOUND Explanation: This is an internal error System action: Processing is terminated User action: Contact Sterling Commerce Customer Support
Dtsm343I	CANNOT FIND MEMBER D1B2PXCT Explanation**:** This is an internal error System action: Processing is terminated User action: Contact Sterling Commerce Customer Support

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
Dtsm344I	TERMINATING STANDBY Explanation: TOM manager or server is terminating its standby System action: Processing continues User action: None
Dtsm345I	TERMINATING. EXPECT ABEND U1025 00000000 Explanation: The XCF member has been terminated System action: Processing is terminated with ABEND U1025 User action: None. Look for other messages for cause.
Dtsm346I	TERMINATING. EXPECT ABEND U1027 00000000 Explanation: The XCF member has been terminated System action: Processing is terminated with ABEND U1027 User action: None. Look for other message for cause
Dtsm347I	INSUFFICIENT STORAGE FOR ???????? Explanation: Insufficient storage is available for a request System action: Processing is terminated User action: Increase region size and retry
Dtsm350E	SUPERVISOR XCT ENTRY NOT FOUND Explanation: The manager did not find the supervisor XCT entry. System action: The manager rejects the supervisor request. User action: Contact Sterling Commerce Customer Support.
Dtsm351E	$SPTOMP$ REJECTED, REQUEST RANGE CHANGED Explanation: The manager detects that the request range proposed by the supervisor during initialization is different than the current request range. System action: The manager terminates. User action: Check the configuration of the supervisor.
Dtsm352E	HOT RESTART: CXPLEX CONFIG CHANGED Explanation: The supervisor is hot started with a new configuration. System action: Message 011 is issued, the supervisor terminates. User action: Cold start the supervisor or change back the configuration..
Dtsm354E	15000000 INVALID INIT REQUEST NUMBER Explanation: The monitor (manager or supervisor) is initializing with the EXEC parm REQ=15000000, and this value is out of the request range. System action: The monitor termminates. User action: Change parameter REQ=.
Dtsm355I	STARTING REQUEST NUMBER AT 01500000 Explanation: The monitor (manager or supervisor) is initializing with the EXEC parm REQ=15000000. System action: The first request number will be this value. User action: None.
Dtsm356W	MANAGER TOMP IS ACTIVE Explanation: The supervisor received the command LAUNCH=TOMP, but TOMP is already active. System action: The command is ignored. User action: Check the reason for sending this command.
Dtsm357W	MANAGER TOMP IS UNKNOWN Explication: The supervisor received the command LAUNCH=TOMP, but TOMP is not defined in the CXPLEX file. System action: The command is ignored. User action: Check the reason for sending this command.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

WTO Messages Issued by the Monitor (continued)

Code	Description
Dtsm358W	DTSM358W PCT UPDATE REJECTED BY $MGTOM2$ TRC=2030
	Explanation: Manager TOM2 rejected the partner update.
	System action: The supervisor updates the partner definition locally.
	User action: Check the TRC code and update again.
Dtsm359E	INVALID CONFIGURATION FILES
	Explanation: During initialization, the manager detects that the configuration files are different from those of the supervisor.
	System action: The manager terminates.
	User action: Check configuration files SYSFIL, SYSPAR, SYSSNA, SYSX25 et SYSTCP.

The 'dtsm' prefix is replaced by your 'C:X' subsystem name.

SYSLOG Messages Issued by the Monitor

SYSLOG messages are text messages and have no 'ID.' They are listed in this section by product/function. The table below lists symbols that may appear in SYSLOG messages:

Symbol(s)	Substitution
?	return code
c	class
cccc	CPU-ID
d	direction
dddddd	date
dsn	data-set-name
ffffffff	symbolic file name
gggggggg	RACF group
hhhhhh	hour
jjjjjjjj	job name or user name
l	link type
lid	type, main, secondary link (x,mch,cv/...)
llllllll	lu-name
mmmm	C:X subsys
nn	number
nnnnnnnn nnnnnnnn	NRC
o	option
pp	percent
pppp	PRC
pppppppp	symbolic partner name
rrrrrrrr	request number

Symbol(s)	Substitution
S???	system abend
ssss	SRC
tttt	TRC (L/R)
U???	user abend
uuuuuuuu	userid
xxxxxxxx	function

The following table lists SYSLOG messages issued by the Monitor by product/function.

SYSLOG Messages Issued by the Monitor

Message	Comment
START MESSAGES	

```TOM IS STARTING   (xxxxxxxx)```
```START OF A.N.M. IN ASID: nnnnn RC=?```
```START OF A.P.M. nn IN ASID: nnnnn RC=?```
```START OF AF.M REQUESTED BY TOM```
```TOM INITIALIZATION COMPLETE V410-PTF2-5 dddddd-hhhh RUN=H```
	The update level information may be requested by support.

```AFM INITIALIZATION COMPLETE ASID=nnnnn PORT=nnnnn SESSION (nnnn1/nnnn2)```	The AFM is listening incoming calls on PORT=nnnnn, nnn1 sessions input and nnnn2 sessions output are available.
```PARAMETERS OF JOB: jjjjjjjj RUN=o CPU=xxxx``` ```PLEX PARAMETERS OF JOB: jjjjjjjj```	The SYSIN and CXPLEX files have already been listed.
```RESTART PROCEEDING``` ```RESTART SUCCESSFUL```	Connect:Express processed the Recovery file in which file transfer requests are recorded while the monitor was not up.
Connection ~~With TOM Local	

```CONNECTION ESTABLISHED WITH LOCAL: llllllll```
```CONNECTION CLOSED WITH LOCAL: llllllll```
```CONNECTION FAILED WITH LOCAL: llllllll NRC=nnnnnn nnnnnnn```
	Check the SNA link between Local and Global (TOMACB= parameter in the SYSIN file).

REQUEST MESSAGES	
Normal Request	

SYSLOG Messages Issued by the Monitor (continued)

Message	Comment
| ```
REQUEST rrrrrrrr <- ffffffff pppppppp (d) SRC=0000 TRC=0000 PRC=0000
REQUEST rrrrrrrr <- jjjjjjjj   ACCEPTED   (o)
AFM  INCOMING FTP SESSION (nn/nn) OPENED   WITH pppppppp (xxx.xxx.xxx.xxx)
AFM  OUTGOING FTP SESSION (nn/nn) OPENED   WITH pppppppp (xxx.xxx.xxx.xxx)
REQUEST rrrrrrrr COMMUNICATION OPENED (d) WITH pppppppp lid
REQUEST rrrrrrrr ffffffff TRANSFER ACCEPTED APM nn EFF nn
REQUEST rrrrrrrr HSM AUTOMATIC RECALL ffffffff SRC=ssss
REQUEST rrrrrrrr HSM AUTOMATIC RECALL PROCESSING FOR DSN dsn
REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnnn UNLOAD STARTED
REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnnn UNLOAD ENDED
REQUEST rrrrrrrr ffffffff TRANSFER STARTED APM nn EFF nn
REQUEST rrrrrrrr ffffffff TRANSFER RESTARTING APM nn EFF nn
REQUEST rrrrrrrr TRANSMITTING -> pppppppp FILE ffffffff RECORDS nnnnnnn
REQUEST rrrrrrrr RECEIVING <- pppppppp FILE ffffffff RECORDS nnnnnnn
REQUEST rrrrrrrr ffffffff pppppppp SRC=ssss TRC=tttt PRC=pppp
REQUEST rrrrrrrr ffffffff TRANSFER ENDED TRC=0000L APM nn EFF nn
REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnnn RELOAD STARTED
REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnnn RELOAD ENDED
REQUEST rrrrrrrr JOB jjjjjjjj SUBMITTED
``` | This is the normal sequence of messages, depending on the type of file.<br>PU, VU, SU, UU files are processed with Unload job before transfer and Reload job after transfer. |

End Transfer

Message	Comment
| ```
TRANSFER DURATION hhmmss, RESTART NUMBER: nnn ,NUMBER OF S/R: nnnnnnn
COMMUNICATION CLOSED (d) WITH: pppppppp APM nn EFF nn
AFM INCOMING FTP SESSION (nn/nn) CLOSED WITH pppppppp(xxx.xxx.xxx.xxx)
  TRC=????
AFM OUTGOING FTP SESSION (nn/nn) CLOSED WITH pppppppp(xxx.xxx.xxx.xxx)
  TRC=????
SE 'ffffffff REQ rrrrrrrr TRANSFER ENDED',USER=(uuuuuuu),LOGON
``` | The TSO user is notified only if the transfer is done |

End Request

Message	Comment
| ```
REQUEST rrrrrrrr PURGED              BY   uuuuuuuu
REQUEST rrrrrrrr <- uuuuuuuu COMPLETED
REQUEST rrrrrrrr <- uuuuuuuu PURGED
``` | A request can be purged either automatically at end of successful transfer or by the operator. |

Abnormal Request

Message	Comment
| ```
INCOMING REQUEST REJECTED rrrrrrrr SRC=ssss TRC=tttt PRC=pppp
``` | This message is generally issued when an input call is not resolved. For example an X25 call packet has been received and session interrupted. |
| ```
TRACE pppppppp : nnnnnnnn nn  T=x G=xxxxx U=xxxxxx
  "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"
``` | See Administration guide Chapter 9 (Tracking Incoming Connection errors): the trace facility has been activated. An incoming call was received for partner pppppppp, X25 address nnnnnnnn, sub address nn ….and so on. |

SYSLOG Messages Issued by the Monitor (continued)

Message	Comment
`REQUEST rrrrrrrr INVALID DESTINATION pppppppp`	The local Connect:Express is not well identified by the remote partner. The remote partner must change its definition or aliases must be used.

`REQUEST rrrrrrrr COMMUNICATION POSTPONED BY ppppppp,RETRY IN nn MIN lid`
`REQUEST rrrrrrrr COMMUNICATION NOT OBTAINED ppppppp,RETRY IN nn MIN lid`
`REQUEST rrrrrrrr RETRY WITH PARTNER pppppppp, NEW LINK : l`
`AFM  OUTGOING FTP SESSION (nn/nn)  POSTPONED WITH pppppppp (xxx.xxx.xxx.xxx)`
`  RC=????? TRC=???? PRC=????`
`AFM  OUTGOING FTP SESSION (nn/nn)  NOT OBTAINED WITH pppppppp`
`  (xxx.xxx.xxx.xxx)   RC=????? TRC=???? PRC=????`
	The automatic retry process is running from STIMEV= and STIMOC= parameters declared in the SYSIN file. When all possible retries that are possible have been done (all alternate addresses failed for the current link), next link type is selected.

`REQUEST rrrrrrrr COMMUNICATION REJECTED BY pppppppp PRC=pppp lid`
`AFM  INCOMING FTP SESSION (nn/nn)   REJECTED  WITH pppppppp`
`  (xxx.xxx.xxx.xxx)   TRC=????`
`AFM  OUTGOING FTP SESSION (nn/nn)  REJECTED  WITH pppppppp (xxx.xxx.xxx.xxx)`
`  RC=????? TRC=???? PRC=????`
`REQUEST rrrrrrrr COMMUNICATION ABORTED WITH pppppppp, PARTNER HELD`
	No automatic retry process is running because it has never been activated or the automatic retry process is stopped at the end of the possible links. if needed add the PRC received in T1B2PCOD, and ACR=YES in partner definition.

`REQUEST rrrrrrrr ABORT <- pppppppp SRC=ssss TRC=tttt PRC=pppp`
`REQUEST rrrrrrrr SESSION ERROR : AAAAAAAA NRC=nnnnnn nnnnn`
`REQUEST rrrrrrrr SESSION DISCONNECTED SRC=ssss TRC=tttt PRC=pppp`
	These are different ways of cutting a session. A protocol message may abort the session or a network anomaly can occur (check the NRC codes).

`REQUEST rrrrrrrr NOT xxxxxxx SRC=ssss TRC=tttt PRC=pppp`	You probably passed a command that is not allowed by the status of this request (for example restarting a not interrupted request, purging a request during negotiation phase are not allowed).

`REQUEST rrrrrrrr <- ffffffff pppppppp (d) SRC=ssss TRC=tttt PRC=pppp`
`REQUEST rrrrrrrr <- jjjjjjjj   REJECTED`
`REQUEST rrrrrrrr WITH PARTNER pppppppp UNSUPPORTE D LINK : I`
`REQUEST rrrrrrrr ffffffff ERROR DURING SELECTION TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr REJECTED SRC=ssss TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr ffffffff SUSPENDED TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr ffffffff INTERPT./PURGED BY SERVER TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr ffffffff INTERPT./PURGED BY CALLER TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr ffffffff WILL BE RESTARTED TRC=ttttL PRC=pppp`
`REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnn TRANSFER INTERRUPTED (?)`
	If the trc is null, the problem has probably been detected on the remote side. If the TRC=ttttL this is a local error, if the TRC=ttttR this is a remote error.

`REQUEST rrrrrrrr NO AUTOMATIC RESTART BY T1B2PCOD, PRC=ppp 'protocol id'`	This message is issued if a connection or file selection error. If needed add this PRC in T1B2PCOD, and ACR=YES in the partner definition.

SYSLOG Messages Issued by the Monitor (continued)

Message	Comment
`REQUEST rrrrrrrr API-CREATE: api-data`	The API-CREATE field enables checking of API data sent/received if fail, see *MACLIB* D1B2RAPI for format (Origin – Destination – file name – date/time).

`REQUEST rrrrrrrr/ffffffff/pppppppp JOBnnnnn ABEND S???/U??? RC=?`
`REQUEST xxxx/rrrrrrrr/ffffffff(nnnn) PARTNER ABEND S???/U??? PHASE f`
`REQUEST rrrrrrrr SESSION ABORTED APM nn ABENDED`
`REQUEST rrrrrrrr PARTNER pppppppp FUNCTION xxxxxxxx FAILED TRC=tttt`
`REQUEST rrrrrrrr pppppppp TRANSFER ABORTED SRC=ssss TRC=tttt PRC=pppp`
`REQUEST rrrrrrrr AUTOMATIC COMMAND FORBIDDEN, UPRFCT=o`
	The command associated with file end/start transfer is forbidden by the UPRFCT option set in the SYSIN file.

AD HOC Incoming Notification

`SECURITY-ADHOC STAT RACFCN=o ADHOCN=o ffff DSN=dsn U=uuuuuuu G=ggggg`	None

RACF Control Refused

`SECURITY xxxxx o r15/r0 uuuuuuuu gggggggg ffffffff dsn` `SECURITY-ADHOC INIT o r15/r0 uuuuuuuu gggggggg`	This DSN was not found or found in error or mismatching

Allocation Control

`REQUEST rrrrrrrr ffffffff xxxxxxxx FAILED DSN=dsn` `REQUEST rrrrrrrr ffffffff LOC/CHECK FAILED DSN=dsn`	This DSN was not found or found in error or mismatching
`REQUEST rrrrrrrr ffffffff ALLOC FAILED DSN=dsn E..I..E..I..S...`	E/I = DYNALLOC error/info primary+secondary codes, S = SMS error code
`REQUEST rrrrrrrr ffffffff xxxxxxxx ADVISED DSN=dsn`	An option is advised for this file, in file directory
`REQUEST rrrrrrrr ffffffff DATA SET ENQUEUED BY uuuuuuuu cccc`	Enqueue detected for the requested dsn

Auxiliary Protocol

`RJE RESTART --> $AJnnnn`
`BSC APM: nn LINE: nn PROCESSING FAILED SRC=ssss TRC=tttt PRC=pppp`
`REQUEST rrrrrrrr TED INTERRUPTION ?`
	None

Change

`rrrrrrrr ACTIVATED BY uuuuuuuu`
`rrrrrrrr DEACTIVATED BY uuuuuuuu`
`xCT: xxxxxxxx xxxxxxxx BY uuuuuuuu`
`REQUEST rrrrrrrr PRTY c TO c CHANGED BY uuuuuuuu`
`REQUEST rrrrrrrr SITDATE UPDATED uuuuuuuu J-2 yymmdd/J-1 yymmdd/J+0 yymmdd`
`REQUEST rrrrrrrr INTERRUPTED BY uuuuuuuu`
`INTERRUPT REQUEST TRANSMIT TO APM nn/n REQ: rrrrrrrr`
`PURGE REQUEST TRANSMIT TO APM nn/n REQ: rrrrrrrr`
`PARTNER pppppppp  TRACE ON BY uuuuuuuu`
`REQUEST rrrrrrrr NOT FOUND`
	None

SYSLOG Messages Issued by the Monitor (continued)

Message	Comment
Anomaly	
`REQUEST rrrrrrrr AUTOMATIC COMMAND NOT RESOLVED`	Check the start or end command defined for the file.
`LOCAL REQUEST QUEUE RCT pp % FULL` `EXTERNAL REQUEST QUEUE RCT pp % FULL`	The RCT size is define by the RQEMAX= parameter of the SYSIN file.
`ANM HANDLER ABNORMALY TERMINATED SRC=ssss TRC=tttt PRC=pppp`	Check the return codes. Check the network resource involved, and restart the handler when the problem is fixed.
`AFM INITIALIZATION FAILED   ASID=nnnnn   RC=nnnnn`	Check the return code. Check the configuration (Started task, TCP/IP, RACF …)
`STOP OF A.P.M nn REQUESTED BY TOM` `ABEND IN L1B2Pnnn S???/U???`	Keep the dump and call support.
End Connect:Express	

`TOM (GLOBAL) TERMINATION COMPLETE V410-PTF2 RUN=(o)`
`TOM IS ENDING NORMALLY (xxxxxxxx) ---------------------`
`STOP  OF A.F.M.    REQUESTED BY TOM`
`AFM TERMINATION    COMPLETE ASID=xxxxx   RC=?  ?`
	None

Local Connect:Express Messages	

`TOM (LOCAL) INITIALIZATION COMPLETE V410-PTF2-5`
`CONNECTION ESTABLISHED WITH GLOBAL: llllllll`
`L1B2P046 INITIALIZATION FAILED NRC=nnnnnnnn`
`CONNECTION CLOSED WITH GLOBAL: llllllll`
`CONNECTION FAILED WITH GLOBAL: llllllll`
`rrrrrrrr FROM uuuuuuuu TRANSMITTED TO GLOBAL mmmm,WAITING FOR RESP.`
`rrrrrrrr FROM uuuuuuuu NOT TRANSMITTED TO GLOBAL mmmm TRC=tttt`
`x xxxxxxxx COMMAND EXECUTED`
`x xxxxxxxx COMMAND NOT EXECUTED`
`REQUEST nnnnnnnn CLAS c TO c CHANGED BY uuuuuuuu`
`TOM (LOCAL) TERMINATION COMPLETE V410-PTF2`
	None

WTO Messages Issued by the APM

WTO Messages Issued by the APM

Code	Description
APM001I	CVT ALLOCATION ERROR RC=?? Explanation: The APM initialization cannot complete successfully. System action: rc="rc", the task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Call support.

WTO Messages Issued by the APM (continued)

Code	Description
APM002I	ERROR DETECTED IN PARM OF EXEC Explanation: The APM initialization cannot complete successfully. System action: rc="rc", the task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Check the PARM of EXEC of the failing APM, modify and start again.
APM003I	.... DD STATEMENT MISSING Explanation: The APM needs this work file. System action: The task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Check the JCL of the failing APM, modify, start again.
APM005I	ERROR DURING INITIALIZATION -> STOP Explanation: The APM initialization cannot complete successfully. System action: The task is terminated. User action: Check previous message.
APM006I	SSCVT CHAIN IS INVALID Explanation: The APM initialization cannot complete successfully. System action: The task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Call support.
APM007I	ssss NOT DEFINED AS A SUB-SYSTEM Explanation: The APM initialization cannot complete successfully. System action: The task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Call support.
APM008I	xxxx NOT INITIALIZED Explanation: The APM initialization cannot complete successfully. System action: The task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Call support.
APM010I	GETMAIN ERROR RC=xxx Explanation: The APM initialization cannot complete successfully. System action: rc="rc", the task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Increase region size and if not ok call support.
APM012I	ERROR DURING ATTACH EFF. :.. RC=.. Explanation: The APM cannot attach an EFFECTOR. System action: rc="rc", the transfer is interrupted. User action: Call support.
APM016I	APM xx INITIALIZATION COMPLETE RC=00 Explanation: APM number xx successfully initialized. System action: None. User action: None.
APM017I	EFFECTOR: xx INITIALIZATION COMPLETE Explanation: Effector number xx successfully initialized. System action: None. User action: None.

WTO Messages Issued by the APM (continued)

Code	Description
APM018I	EFFECTOR: xx REQ. rrrrrrrr Ssss/Uuuu Explanation: An abend SYSTEM/USER occurred during transfer. System action: rc="S.../U...", the transfer is interrupted. The transfer resource is restored. User action: Check the abend code. Be aware that if any user exit is activated and an abend occurs in it, this message is issued.
APM019I	EFFECTOR: xx TERMINATION COMPLETE Explanation: Effector number xx successfully terminated. System action: None. User action: None.
APM020I	SP:xx/EF: xx REQ: rrrrrrrr Ssss/Uuuu Explanation: An abend occurred during transfer; session protocol is SP, effector is EF, request number is REQ. System action: rc="S.../U...", the transfer is interrupted. The transfer resource is restored. User action: Check the abend code. Be aware that if any user exit is activated and an abend occurs in it, this message is issued.
APM021I	EFFECTOR: xx PROTOCOL ETEBAC1/2 STARTED Explanation: Effector ETEBAC number xx successfully initialized. System action: None. User action: None.
APM022I	EFFECTOR: xx REQ: rrrrrrrr,PR pp STARTED Explanation: The request number REQ is allocated the effector xx, working with session protocol pp. System action: None. User action: None.
APM024I	EFFECTOR: xx REQ: rrrrrrrr,PR pp ENDED Explanation: Effector number xx successfully terminated. System action: None. User action: None.
APM024I	EFFECTOR: xx PROTOCOL ETEBAC1/2 ENDED Explanation: Effector ETEBAC number xx successfully terminated. System action: None. User action: None.
APM026I	EFFECTOR: xx ----> ABNORMAL TERMINATION Explanation: Effector stopped because of abend. System action: Effector becomes unavailable. User action: Check corresponding SYSUDUMP and correct. If all effector are in abend, stop and restart this APM
APM026I	COMMUNICATION OPENED WITH OPERATOR Explanation: APM available for command. System action: None. User action: None.
APM027I	INVALID COMMAND Explanation: APM received an invalid command. System action: None. User action: Correct, and retry.
APM028I	APM xx ALREADY IN THIS STATUS Explanation: APM received an already processed command. System action: None. User action: None.

WTO Messages Issued by the APM (continued)

Code	Description
APM029I	APM xx IS IN MODE : STOP Explanation: APM ETEBAC1/2 received a STOP command. If any transfer is active, a two minutes timer is activated and the active effector will be detached when expired. System action: None. User action: None.
APM031I	APM xx ACKNOWLEDGES IMMEDIAT STOP Explanation: APM received a stop command. System action: The APM will stop. User action: None.
APM036I	OPTION NOT AUTHORIZED RC:2-ttt Explanation: An executing transfer needs a C:X OPTION module the customer is not authorized to use. System action: TRC given indicates the option needed. The transfer is interrupted. User action: Check the TRC code. Contact the support for AUTHORIZATION key.
APM037I	APM xx INIT REPORT REJECTED BY C:X :2-xxx Explanation: A BSC APM is rejected by Connect:Express at initialization. System action: TRC given indicates the reason. The task is terminated after message: APM005I ERROR DURING INITIALIZATION -> STOP User action: Check the TRC code. Check DAPMxx= parameters in C:X SYSIN and APM= in PARM of EXEC of BSC APM JCL.
APM038I	APM xx END REPORT REJECTED BY C:X :2-ttt Explanation: The APM cannot advise Connect:Express of its stop. System action: 2-ttt="trc", the stop is incomplete. User action: Call support.
APM039I	APM xx ABNORMAL TERMINATION Ssss/Uuuu Explanation: The APM cannot stop normally. System action: Ssss ="system-abend", Uuuu ="user-abend". User action: Call support.
APM040I	APM xx TERMINATION COMPLETE Explanation: APM number xx successfully ended. System action: None. User action: None.
APM042I	uuuuuuuu USER EXIT INVOKED Explanation: The user exit server was invoked successfully and the parameter created using the T1APMSRT table. System action: None. User action: None.
APM043I	uuuuuuuu USER EXIT ERROR RC:.... Explanation: The 'uuuuuuuu' exit server returned R15=RC. System action: RC is reported in TRC given by Connect:Express. The transfer is interrupted. User action: Check the TRC and PRC codes. Check transfer specifications.
APM044I	uuuuuuuu USER EXIT DISABLED Explanation: The 'uuuuuuuu' user application server returned error at initialization or abended. System action: The exit will be no more invoked. User action: Check the exit, modify, stop APM and start it again.

WTO Messages Issued by the APM (continued)

Code	Description
APM045I	L1APMSRV INITIALIZED Explanation: User exit application driver l1APMSRV is initialized. System action: None. User action: None.
APM046I	L1APMSRV TERMINATED Explanation: User exit application driver L1APMSRV is terminated. System action: None. User action: None.
APM047I	L1APMSRV DISABLED Explanation: User exit application driver L1APMSRV is disabled. System action: None. User action: Check for exit trouble, and correct.
APM051I	SMS ???????? ???????? Explanation: Tells if CHKMODEL is SMS managed or not. If SMS managed, no unit/volser will be used for checkpoints. System action: None. User action: None.

SYSLOG File Messages Issued by the APM

SYSLOG Messages from the APM

Description

SPRyy STARTED/PROCESSING/ENDED REQ: zzzzzzzz
Explanation: The effector xx, session protocol yy, is starting/processing/ending with request zzzzzzzz.
System action: None.
User action: None.

DDDDDDDD ALLOCATION ERROR SRC .... INF .... RC ..
Explanation: An error occurred when allocating DDDDDDDD.
System action: SRC is reported to Connect:Express, INF is SVC99 info code which indicates the allocation parmlist field involved in the error.
User action: Check the SRC and INFO codes in IBM documentation.

SESSION ERROR : AAAAAAA NRC ....
Explanation: An error occurred during AAAAAAA access to network.
System action: NRC is reported to Connect:Express.
User action: Check the NRC.

uuuuuuuu TERM USER EXIT ERROR RC:....
Explanation: The 'uuuuuuuu' user exit returned R15=RC.
System action: RC is reported in TRC given by Connect:Express. The transfer is interrupted.
User action: Check the TRC and PRC codes. Check transfer specifications.

DDDDDDDD ETEBAC3 PARAMETER CARD DEFAULT USED
Explanation: No specific ETEBAC3 card was given by user neither by PARMETB3 file nor API= parameter.
System action: This is for information purpose.
User action: Check if normal or not.

RRRRRRRR I/O ERROR DDD,VOLSER,CM,EC,STAT,SENSES
Explanation: An I/O error occurred on sequential file.
System action: System message and codes given.
User action: Check codes and messages.

SYSLOG Messages from the APM (continued)

Description
RRRRRRRR EEEEEEEE SERVER INVOKED OPTION NOT AUTHORIZED Explanation: An executing transfer needs a Connect:Express OPTION module the customer is not authorized to use. System action: TRC given indicates the option needed. The transfer is interrupted. User action: Check the TRC code. Contact the support for asset protection file.
RRRRRRRR EEEEEEEE SERVER RC:.... Explanation: The 'rrrrrrrr' user application server returned R15=RC. System action: RC is reported in TRC given by Connect:Express. The transfer is interrupted. User action: Check the TRC and PRC codes. Check transfer specifications.
RRRRRRRR EEEEEEEE SERVER DISABLED Explanation: The 'uuuuuuuu' user application server returned error at initialization or abended. System action: The exit will be no more invoked. User action: Check the exit, modify, stop APM and start it again.

WTO Messages Issued by the ANM

The ANM may issue some warnings, especially if you are using X25 connections. These messages are found in the SYSOUT file of the ANM. The information provided can help you to troubleshoot Network problems.

ANM Messages in the SYSOUT File

Code	Description
ANM0001	MCH .... XIO TO NETWORK FAILED Session has been lost
ANM0002	MCH .... PHYSICAL LINK FAILED Session has been lost
ANM0003	MCH .... DIAG RCVD; CD=.. This can occur when the MCH definition declares more SVC's than the subscription does.
ANM0004	MCH .... STRANGE DATA RCVD Unexpected data received, session with MCH is closed.
ANM0005	MCH ....OPNDST PENDING; CHECK WHY? At initialization an MCH could not be activated and an Opendest is pending. The operator must VARY INACT the MCH FORCE and VARY ACT it. Then he must activate the MCH and pass the ACT TOM command.
ANM0006	APPL .... GENCB FAILED RC:.. At initialization GENACB for application APPL failed, RC = register 15.. X25 resources initialization procedure is stopped.
ANM0007	GENRPL FAILED RC:.. At initialization GENRPL failed, RC = register 15. X25 resources initialization procedure is stopped.
ANM0008	APPL .... OPEN FAILED RC:..:.. At initialization OPEN ACB for application APPL failed, RC = register 15: ACB error flag. X25 resources initialization procedure is stopped.
ANM0009	SETLOGON FAILED RC:..:..:..:.. At initialization SETLOGON, RC = register 0:register 15:RPL rtncd:RPL feedback 2. ACBs are closed, X25 resources initialization procedure is stopped.

ANM Messages in the SYSOUT File (continued)

Code	Description
ANM0010	MCH .... MODCB FAILED RC:.. At initialization MODCB failed for the MCH LU, RC = register 15. The current MCH is set to inactive, next MCH is processed.
ANM0011	MCH .... OPDEST REJECT RJ:.. At initialization OPEN DEST was not accepted for the MCH, RC = register 15. The current MCH is set to inactive, next MCH is processed.
ANM0012	MCH .... OPDEST RC:..:..:..:.. At initialization OPEN DEST failed for the MCH, RC = register 0:register15:RPL rtncd:RPL fdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0013	MCH .... MODCB/RPL RC:..:..:.. At initialization after OPEN DEST successfull MODCB failed for the MCH, RC register15:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0014	MCH .... SESSIONC RJ:..:..:..' At initialization, after successfull OPEN DEST, SESSIONC was rejected for the MCH, RC register15:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0015	MCH .... SESSIONC RC:..:..:..:.. At initialization after OPEN DEST successfull SESSIONC failed for the MCH, RC register15:register0:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0016	MCH .... SENDFB REJECTED:..:..:.. At initialization of a date MCH, the restart procedure failed, send FB request was rejected. RC register15:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0017	MCH .... SENDFB ERROR:..:..:..:.. At initialization of a date MCH, the restart procedure failed, send FB packet was in error. RC register15:register0:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0018	MCH .... RECEIVE REJECT :..:..:.. At initialization of a date MCH, the restart procedure failed, receive request was rejected. RC register15:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0019	MCH .... REST/CONF RC:..:..:..:.. At initialization of a date MCH, the restart procedure failed, receive request was in error. RC register15:register0:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0020	MCH .... SENDFF ERROR:..:..:..:.. At initialization of a date MCH, the restart procedure failed, send FF request was rejected. RC:register15:RPLrtncd:RPLfdbk2. The current MCH is set to inactive, next MCH is processed.
ANM0021	MCH .... ERROR INFO RECEIVED At initialization of a date MCH, the restart procedure failed, error info was received twice.
ANM0022	MCH .... LINE LOST :..:..:..:.. While listening to the MCH session an error occured. The line is probably lost. RC:register15:Register0:RPLrtncd:RPLfdbk2. The current MCH is disabled. Automatic retry is activated.

ANM Messages in the SYSOUT File (continued)

Code	Description
DTSANM11	NXHSRC42 PCNE/PAD EVENT WITH FLG=0 Unexpected event when session is being cleared, ignored,.
MSHXPR70	ALL XRB BUSY This may occur when more SVC'S are available than used by ANM : incoming calls maximum number is then higher than the maximum control blocks managed by ANM. The number of ANM control blocks is equal to the total number of APM EFFECTORS declared at initialization: XRB = APM*EFF1 + APM2*EFF2+ ….
NXHWTO00	MCH .... xxxxxxxxxxxxxxx LVL3 DEF ERROR More than ten RESET packets received on this MCH,connected with this remote dial number : probably the gate MCH definition doesn't match the subscription.
NXHWTO22	SVC WILL BE CANCELLED An out of sequence event was received and the SVC is closed. This may happen with gate MCH after re-init phase.
X25WTO00	MCH .... xxxxxxxxxxxxxxx LVL3 DEF ERROR More than ten RESET packets received on this MCH,connected with this remote dial number: probably the date MCH definition doesn't match the subscription.

Appendix B

Using Environment Variables

This appendix describes how you can define long names for files and IP hosts.

Why to Use Long Names

Supporting HFS files means that file names can be much more than 44 characters long. This problem applies to *IP HOST* names, limited to 32 characters long as a Connect:Express parameter fields, and to the *Remote dsn / Pi99* , limited to 44 characters long as a Connect:Express parameter fields.

Connect:Express uses environment variables to support long names. The environment variables are specfic to the monitor, and they are resolved when the name is processed. You can define variables in a file allocated to TOM address space using the ENVVAR DD card . All address spaces that need to process environment variables , such as the APM, the ANM, the AFM and the EAS, know this file.

The fields *Dsn local*, *IP HOST* and *Remote dsn/Pi99* can be extended up to 256 characters. They can contain several variables.

ENVVAR Environment Variables File

The environment variables file is defined in TOM JCL, using DD ENVVAR card. This is a sequential file, fixed format, record length less equal 1024 characters.

```
//SYSIN    DD      DISP=SHR,DSN=PROD.CEXPRESS.SYSIN(TOM4)
//SYJNL    DD      DISP=SHR,DSN=PROD.CEXPRESS.TOM4JNL
//SYLOG    DD      SYSOUT=V,HOLD=YES
//ENVVAR   DD      DISP=SHR,DSN=PROD.CEXPRESS.ENVVAR(TOM4)
```

The environment variable process can issue WTO messages prefixed by 'ZVAR', as shown in the example below, where the error is that the file record format is variable.

```
ZVAR004E OPEN ENVVAR ERROR  RECFM: 00000080
```

These messages can be issued by any address space that processes variables, APM , ANM, AFM ou EAS. When a syntax error is detected, the process issues a warning and continues. The following example shows that a syntax error has been detected at line 00003 of the ENVVAR file: no '>' character has been found.

```
ZVAR006W ENVVAR SYNTAX ERROR   :   NO >    00003
```

If the variable cannot be resolved due to a syntax error, or because no corresponding definition exists, the process continues without resolving it.

Option 0 of TSO/ISPF interface enables the operator to access the ENVVAR file. Use option'S' to edit the file, updates are dynamically available.

```
 TOM4230-------------- INITIALIZATION 2/2 ------------------------------------
  OPTION ===> ?                                          2009/04/01 07:27:27
  4XX/TEST
              ?  MONITOR ===> TOM3  NAMES INITIALIZATION ( AUTOMATIC --> YES ).
                TEMPORARY WORK-UNIT ===> SYSDA    , JES2-INTERFACE ---> ISF
              L LOGON-PROCEDURE, O  OPTIONS, V ISPF INSTALLATION CHECKING.
 ---------  S : CHECK FILES OF JOBTOM3   CSGB ACTIVE GLOBAL
 V
 _  ISPLLIB    ===> PROD.CEXPRESS.ISPLLIB
 _  LOADLIB    ---> PROD.CEXPRESS.LOADLIB.PSR0003
 _             --->
 _  SYSSNA      -> PROD.CEXPRESS.SYSPRM(L4SNA)
 _  SYSX25      -> PROD.CEXPRESS.SYSPRM(L4X25)
 _  SYSTCP      -> PROD.CEXPRESS.SYSPRM(L4TCP)
 _  SYSUE1      -> PROD.CEXPRESS.PARMLIB(SYSUE1)
 _  SYSCE1      ->

 S  ENVVAR      -> PROD.CEXPRESS.ENVVAR(TOM30)
 _  ANMSSL      ->
 _  AFMFTPE     ->

                X EXIT, -PF3- FIN, -PF10/11- DEFILEMENT
```

Syntax and Processing of the Variables

To define a variable in ENVVAR file, use the following syntax :

```
<var>value to replace
```

The string 'var' can contain 1 to 8 characters , including blanks, excluding '>'. The string <var> must be placed in the name you want to extend : 'value to replace' will replace it when processed.

Variables are processed in the following situations :

1. •Transfer of an HFS file – data set name processed in APM for PeSIT and Odette, or EAS for Ftp.

2. •TCP/IP connection with host name – processed in ANM or AFM depending on the protocol.

3.   •Sending and receiving PeSIT PI99 – processed in APM.

4.   •Showing the variable in the TSO/ISPF screens (File definition, Partner definition, Journal)

Message	Description
ZVAR004E OPEN ENVVAR ERROR	The ENVVAR record format is invalid. The cause is indicated. The file transfer is not interrupted, but variables are not resolved
ZVAR006W ENVVAR SYNTAX ERROR	While processing, a syntax error has been detected – the error type and the line number are indicated. All possible variable resolution are completed.
ZVAR007W OVERFLOW, STRING TRUNCATED	While processing, an overflow has been detected : the result is more than 256 characters long : the result is truncated, the process stops.
ZVAR009W VARIABLE NOT FOUND	The variable shown in the message has no definition in the ENVVAR file. All possible resolution are completed

Examples of Use

You can use environment variables in the Dsn local field of the symbolic file definition for an HFS file (See Chapter 2 "*Using Long File Names*"), the IP HOST field of the partner definition for a TCP/IP partner (See Chapter 2 "*Using Long Ip Host Names*"), and in the Remote Dsn/Pi99 field of the file definition or the transfer request . You can request the variable resolution in the screen using a command VAR.

Glossary

A

Abend

An abnormal ending of a task. It ends prematurely, or abnormally, due to an error that cannot be resolved by recovery facilities while the task is executing.

Access Method

A technique for moving data between main storage and input/output (I/O) devices.

Access Method Control Block (ACB)

A control block that links an application program to VSAM or VTAM.

Access Control System (ACS)

A Connect:Express facility that grants access to Connect:Express resources and commands.

Adapter

A hardware card that enables a device such as a PC, to communicate with another device, such as a monitor, a printer, or other I/O device. See also Channel-to-Channel Adapter.

Address Space

The range of memory (both physical and virtual) that a process uses while running. Connect:Express is composed of several address spaces: TOM, APM, ANM, AFM and EAS.

AFM

See Auxiliary FTP Manager.

Alias

Alternate identification of an object. The name of the local Connect:Express that overrides the DPCSID. An alias can be used for transferring files with one Partner or for a special file transfer.

ANM

See Auxiliary Network Manager.

API

1. Application Program Interface. Connect:Express API accepts commands from the Interactive User Interface (TSO/ISPF), Batch Interface, or user-written program and places them in a format so that the user's request can be executed by the monitor. If there are errors, the API returns a message to the user. If there are no errors, the API sends the command to the monitor using the Subsystem Interface.

2. Application file identification used by Connect:Express to identify a transferred file. This ID consists of a concatenation of the requestor name, the addressee name, the file name and the date/time of the file transfer.

APM

See Auxiliary Protocol Manager.

APPLID

The name specified in the ACB macro that identifies the application program to VTAM. For Connect:Express, these APPLIDs are managed by the Auxiliary Network Manager (ANM).

Asynchronous Processes

Processes that occur without a regular or scheduled time relationship. They are unexpected or unpredictable with respect to the program's instructions or to time. Contrast with synchronous processes.

Attributes

Characteristics or properties that can be controlled, for example, the record length of a file.

Auxiliary FTP Manager (AFM)

The AFM monitors FTP transfers. This Connect:Express component runs in its own address space.

Auxiliary Network Manager (ANM)

The ANM is dedicated to network handling. X25, SNA, and TCP/IP drivers are ANM subtasks. This Connect:Express component runs in its own address space.

Auxiliary Protocol Manager (APM)

The APM handles the data transfer. File transfer protocol drivers are APM subtasks. Connect:Express can launch 1 to 8 APMs, and one APM can execute 1 to 16 transfers. Any combination of file transfer protocols and network protocols can execute at the same time in one APM. This Connect:Express component runs in its own address space.

B

Batch Interface

An interface where non-interactive programs are executed. The environment schedules their execution independently of their submitter. Connect:Express users issue batch commands using one of three Connect:Express-supplied programs such as P1B2PREQ, P1B2PRQ2 or P1B2PRQ3.

Buffer

1. A portion of storage used to temporarily hold input or output data.
2. Storage used to compensate for a difference in the rate of data exchange, or the time of events, when transferring data from one device to another.

Buffer Pool

A set of buffers that contains buffers of the same length.

Bypass

A tool or procedure to disable a function. Enables Connect:Express users to disable the network address control. X25, ETEBAC, LU2, and FTP connections can be managed with a default symbolic Partner name. A Partner definition can also specify no network address control.

C

CF

See Coupling Facility.

Channel

1. A functional unit, controlled by an S/390 server that handles the transfer of data between processor storage and local peripheral equipment.
2. A path along which signals can be sent.
3. The portion of a storage medium that is accessible to a given reading or writing station.
4. In broadband transmission, a designation of a frequency band 6 MHz wide.

Checkpoint/Restart

Eliminates the need to retransmit an entire file in the event of a transmission failure. The checkpoint interval value is specified in a session table. If a transfer is interrupted, Connect:Express will restart the transfer request at the last checkpoint.

CMS (Cross Memory Services)

z/OS services that provide the ability to address data in two address spaces at the same time. You can move data between two address spaces and invoke programs in one address space from another. Cross memory services are used for internal communication between Connect:Express components.

Command

An instruction that directs a control unit, a device, or a process to perform an operation or a set of operations. Connect:Express users issue commands to the Operator interface to activate or deactivate Connect:Express resources.

Component

1. Hardware or software that is part of a functional unit.
2. A functional part of an operating system; for example, the scheduler or the Hold queue.

Compression

Storing data in a format that requires less space than usual. Data compression is particularly useful in communications because it enables devices to transmit the same amount of data in fewer bits. PeSIT, FTP, and ODETTE protocols provide compression.

Configuration

The arrangement of a computer system or network as defined by the nature, number, and main characteristics of its functional units. More specifically, the term configuration may refer to a hardware or software configuration. The Connect:Express configuration file is called SYSIN. See also System Configuration.

Connectivity

A term used to describe the physical interconnections between multiple devices, computers, or networks employing similar or different technology and architecture to accomplish effective communication between connected members. It involves data exchange and/or resource sharing.

Console

A logical device that is used for communication between the user and the system.

Coupling Facility (CF)

A special logical partition (LP) that provides high-speed caching, list processing, and locking functions in a Parallel Sysplex.

Cross-System Coupling Facility (XCF)

An z/OS facility that allows multiple instances of the same application to communicate and share information with each other.

CSA (Common Service Area)

This area contains pageable and fixed data areas that can be addressed by all active virtual storage address spaces. Connect:Express Subsystem interface is set up in the CSA during the first initialization phase following an IPL, and remains until the next IPL.

CTCP

A host application called the communication and transmission control program. Two features give users complete control over their virtual circuit connection: the DATE (LLC types 0,2,3,5 connection) and GATE

(LLC type 4 connection). A CTCP must be written to take advantage of these features. The CTCP processes all X.25 control and data packets. The Connect:Express ANM is a CTCP.

Customer Application

An application that does customer-specific processing.

Customer Information Control System (CICS)

An IBM-licensed program that enables transactions entered at remote terminals to be processed concurrently by user-written application programs. It includes facilities for building, using, and maintaining databases.

D

Daemon

A background task, process, or thread that intermittently awakens to perform some task or function, and then returns to an idle state.

Database

1. A set of data, or a part or whole of another set of data, that consists of at least one file and is sufficient for a given purpose or for a given data-processing system.
2. A collection of data fundamental to a system. See also data sharing.

Data Set

The major unit of data storage and retrieval, consisting of a collection of data in a prescribed arrangement, and described by control information.

Data Sharing

In a Parallel Sysplex, the ability of concurrent subsystems or application programs to directly access and change the same data while maintaining data integrity.

DATE

Dedicated access to X.25 transport extension provided by X25NPSI for LLC type 0, 2, 3, and 5 connections. This feature gives users complete control over their virtual circuit connection. DATE support requires the use of a CTCP.

Decipher

To convert enciphered data into clear data.

Decrypt

To convert encrypted data into clear data.

Default

An attribute, value, or option that is assumed when none is specified.

DASD (Direct Access Storage Device)

A physical device like an IBM 3390, in which data can be permanently stored and subsequently retrieved using licensed products like IMS and DB2, or using IBM supported access methods like VSAM in operating system environments like z/OS.

DPCSID

Entry in the Connect:Express SYSIN File. The DPCSID defines the local Connect:Express.

Directory

A list of files that are stored on a disk or diskette. A directory also contains information about the file, such as size and date of last change. Connect:Express directories contain information about remote Partners in the Partners Directory, and information about data flows in the Files Directory.

Dynamic

An operation that occurs at the time it is needed, rather than at a predetermined or fixed time.

E

EAS

See Effector Address Space.

Effector Address Space (EAS)

This Connect:Express address space is an FTP component launched by the AFM. Several FTP transfers can be managed in one EAS.

ETEBAC

File transfer protocol defined by the French banking system. This protocol is supported by most Connect:Express products and executes in the APM (Auxiliary Protocol Manager).

Execute

To perform the actions specified by a program or portion of a program.

Execution

The process by which a computer carries out the instructions of a computer program.

Exit

User program which is loaded and executed during operations. This is a synchronous process as opposed to the user command process which is asynchronous. Connect:Express executes several exit calls during the execution of a file transfer.

F

FCT

See File Control Table.

File Control Table (FCT)

A Connect:Express internal table that stores File information and status. The FCT is built during initialization from the VSAM Files directory and is a major resource.

File System

The collection of files and file management structures on a physical or logical mass storage device such as a disk.

File Transfer Protocol

A specification of the format and relative timing of information exchanged between peer entities within the presentation. It describes messages and parameters that are exchanged between Partners during file transfer negotiations and data transfer. Connect:Express supports multiple file transfer protocols, including PeSIT, ETEBAC, FTP, and ODETTE (OFTP).

Files Directory

VSAM file identifying all valid symbolic files that Connect:Express can transfer with Partners. This file is loaded in the FCT during initialization. Updates are managed for both the directory and the FCT.

Format

1. A specified arrangement of things, such as characters, fields, and lines, usually used for displays, printouts, or files.
2. To arrange things such as characters, fields, and lines.

FTP

The TELNET File transfer protocol based on RFC959. This protocol is managed by the Connect:Express AFM (Auxiliary FTP Manager).

G

GATE

General access to X.25 transport extension provided by X25NPSI for LLC type 4 connections. The GATE support function is based on PCNE or LLC type 0. This feature gives users complete control over their virtual circuit connection. GATE support requires the use of a CTCP.

Global Connect:Express

The Connect:Express component that acts as a server and performs all tasks, as opposed to a Local Connect:Express component which acts as a client.

H

Hardware

Physical equipment as opposed to programs, procedures, rules, and associated documentation. Contrast with software.

Host (computer)

1. In a computer network, a computer that provides end users with services such as computation, databases, and network control functions.
2. The primary or controlling computer in a multiple-computer installation.

I

Initialization

Preparation of a system, device, or program for operation. Connect:Express initialization parameters are specified in the SYSIN file. They are used during Connect:Express start up.

Input/Output (I/O)

1. A device whose parts can perform an input process and an output process at the same time.
2. A functional unit or channel involved in an input process, output process, or both. Can also refer to the data involved in such a process.

Interactive

A program or system that alternately accepts input and then responds. An interactive system is conversational; that is, a continuous dialog exists between user and system. Contrast with batch. Connect:Express provides a TSO/ISPF interface.

Interface

A shared boundary. An interface could be a hardware component that links two devices or it could be a portion of storage or registers accessed by two or more computer programs. Connect:Express provides interactive and batch interfaces.

Interrupt

1. The suspension of a process, such as execution of a computer program. The suspension is performed in such a way that the process can be resumed.
2. To stop a process in such a way that it can be resumed.
3. In data communication, to take an action at a receiving station that causes the sending station to end a transmission.
4. To temporarily stop a process.

I/O

See input/output.

I/O Service Units

A measure of individual data set I/O activity and JES spool reads and writes for all data sets associated with an address space.

J

JES (Job Entry Subsystem)

A system facility for spooling, job queuing, and managing job-related data.

Journal

Collection of reporting records about events and their status. The Connect:Express Journal is a VSAM file in which transfer results are recorded and sent to applications that are waiting for notification.

L

LAN (local area network)

A data network located on the user's premises in which serial transmission is used for direct data communication among data stations. It services a facility without the use of common carrier facilities.

Link

The combination of physical media, protocols, and programming that connects devices.

Load Module

A computer program in a form suitable for loading into storage for execution.

Local Cache

A buffer in a local system that may contain copies of data entries in a CF cache structure.

Local Connect:Express

A client function that communicates with a Connect:Express Global component over an SNA link. Transfer request and monitoring services are supported.

Logical Connection

Devices in a network that can communicate or work with one another because they share the same protocol.

LPAR (logically partitioned) Mode

A CPC power-on reset mode that enables the use of the PR/SM (Processor Resource/Systems Manager) feature and allows an operator to allocate CPC hardware resources (including CPUs, central storage, expanded storage, and channel paths) among logical partitions.

LU (Logical Unit)

In VTAM, the source and recipient of data transmissions. Data is transmitted from one logical unit (LU) to another. For example, a terminal or a CICS system can be an LU.

M

Mainframe (S/390 server)

A large computer that is connected to other computers so that they can share facilities that the S/390 server provides; for example, an S/390 computing system could have personal computers attached so that they can upload and download programs and data.

Main Storage

A logical entity that represents the program addressable portion of central storage. All user programs are executed in main storage.

Manager (Connect:Express/Manager)

The component of a Connect:Express/Plex that manages the Connect:Express/Plex activity. The Connect:Express/Manager handles all functions in a Connect:Express/Plex, including execution of file transfers, management of the directories and processing of user requests from all over the sysplex.

Memory

Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent execution or processing.

Migration

Installing a new version or release of a program when an earlier version is already in place. See also file migration.

Module

A program unit that is discrete and identifiable with respect to compiling, combining with other units, and loading; for example, the input to or output from an assembler, compiler, linkage editor, or executive routine.

Multiprocessing

The simultaneous execution of two or more computer programs or sequences of instructions. See also parallel processing.

N

NCP (Network Control Program)

A program residing in a communication controller that controls the operation of the controller. One example is the IBM 3745 Communication Controller.

Network

A configuration of data processing devices and software connected for information exchange.

Network Protocol

A specification of the format and relative timing of information exchanged between peer entities within the session layer. Connect:Express supports multiple network protocols such as X25, SNA AP-AP, SNA LU2, SNA LU6.2, and TCP/IP.

Node

1. Any site in a network from which you can initiate information distribution.
2. In SNA, an endpoint of a link or junction common to two or more links in a network. Nodes can be distributed to S/390 server processors, communication controllers, cluster controllers, or terminals. Nodes can vary in routing and other functional capabilities.

O

ODETTE (OFTP)

File transfer protocol defined by the automotive manufacturers. This protocol is supported by Connect:Express z/OS.

Offline

Not controlled directly by, or not communicating with, a computer. Contrast with online.

OFTP

See ODETTE.

Online

Equipment, devices, or data under the direct control of the processor. Contrast with offline.

Online Messages

Completion and error messages that are displayed online.

Operator Interface

Interactive interface provided by the system and used for sending commands to a process. Enables you to issue Connect:Express commands from the operator console.

(OS) Operating System

Software that controls the execution of programs and that may provide services such as resource allocation, scheduling, input/output control, and data management. Although operating systems are predominantly software, partial hardware implementations are possible. Examples are z/OS, VSE/ESA, and VM/ESA.

P

Parallel

1. A process in which all events occur within the same interval of time, each handled by a separate but similar functional unit; for example, the parallel transmission of the bits of a computer word along the lines of an internal bus.

2. The concurrent or simultaneous operation of two or more devices, or the concurrent performance of two or more activities in a single device.

3. The concurrent or simultaneous occurrence of two or more related activities in multiple devices or channels.

4. The simultaneity of two or more processes.

5. The simultaneous processing of the individual parts of a whole, such as the bits of a character and the characters of a word, using separate facilities for the various parts.

Parallel Processing

The simultaneous processing of units of work by many servers. The units of work can be transactions or subdivisions of larger units of work (batch).

Parallel Sysplex

A sysplex with one or more coupling facilities.

Partner Control Table (PCT)

A Connect:Express internal table that stores Partner information and status. The PCT is built during initialization from the VSAM Partners directory and is a major resource.

Partners Directory

VSAM file identifying all valid Connect:Express Partners. This file is loaded in the PCT during initialization. Updates are managed for both the directory and the PCT.

PCT

See Partner Control Table.

PDS (Partitioned Data Set)

A data set in DASD storage that is divided into partitions, called members, each of which can contain a program, part of a program, or data.

PeSIT

File transfer protocol defined by the French banking system. This protocol is supported by all Connect:Express products and executes in the APM (Auxiliary Protocol Manager).

Plex (Connect:Express/Plex)

A Connect:Express system consisting of a Connect:Express/Manager and one or more Connect:Express/Servers in a sysplex or parallel sysplex.

Processing Unit

The part of the system that does the processing, and contains processor storage.

Processor

A processing unit, capable of executing instructions when combined with main storage and channels.

Protocol

A specification of the format and relative timing of information exchanged between peer entities within a layer. Connect:Express supports multiple standard file transfer protocols and network protocols.

R

RACF (Resource Access Control Facility)

RACF provides access control by identifying and verifying users to the system. RACF authorizes access to resources, logs unauthorized access attempts, and logs accesses to protected data sets.

RCT

See Request Control Table.

Request Control Table (RCT)

A Connect:Express internal table that stores transfer request data so that a client application can retrieve the information. The RCT is linked to a TCT entry and is a major resource.

Resource

A device, an amount of storage, a component, a server that enables a process to execute. Connect:Express needs system resources or its own resources. System resources are used for Network access, Security control, and Data storage. Connect:Express major resources are the control tables like the FCT, PCT, RCT, and TCT. Other resources are one symbolic Partner, one symbolic File, one request, the ANM and the Network drivers, the APM and the Protocol Drivers, the AFM and the FTP effectors, the transfer classes, and the number of network links. Connect:Express itself is also a resource.

Retry Interval

Installation parameter that specifies the interval, in minutes, that the retries in the Max Retries parameter will be performed.

Record

A set of data treated as a unit.

Recovery

To maintain or regain system operation after a failure occurs. Generally, to recover from a failure is to identify the failed hardware, to de-configure the failed hardware, and to continue or restart processing.

Request

Service unit sent to the Connect:Express subsystem interface. The subsystem interface provides Transfer, Display, and Change services that can be activated for the FCT, PCT, and RCT tables.

Requestor

Originates an action. The entity that requested a file transfer in Connect:Express. The requestor can be a local user, a local application, or a remote Partner.

Response Time

The amount of time it takes after a user presses the enter key at the terminal until the reply appears at the terminal.

Routing

The assignment of a path by which a transfer reaches its destination.

S

SAF (System Authorization Facility)

An z/OS system service that gives you a common focal point for all products that provide resource control.

Server (Connect:Express/Server)

A Connect:Express/Plex component that provides an interface between the user and applications in a sysplex. All local requests to the Connect:Express/Server are forwarded to the Connect:Express/Manager.

Session

1.   A connection between two application programs that enables them to communicate.
2.   In SNA, a logical connection between two network addressable units that can be activated, tailored to provide various protocols, and deactivated as requested.
3.   The data transport connection resulting from a call or link between two devices.
4.   The period of time during which a user of a node can communicate with an interactive system; usually it is the elapsed time between logon and logoff.
5.   In network architecture, an association of facilities necessary for establishing, maintaining, and releasing connections for communication between stations.

Shared

The availability of a resource to more than one user at the same time.

SNA (Systems Network Architecture)

A network architecture designed to provide compatibility among a wide variety of hardware and software products so that they can be used to build complex networks. It defines protocols, standards, and message formats to which different hardware and software products must conform. The SNA network consists of network addressable units (NAUs), boundary function components, and the path control network.

SSI

See Subsystem Interface.

Stand-alone (Connect:Express/Stand-alone)

A Connect:Express system that is not part of a Connect:Express/Plex.

Standby Connect:Express/Manager

In an extended recovery environment, the Connect:Express/Manager that waits to take over work from the active Connect:Express/Manager if the active Connect:Express/Manager fails.

Standby Connect:Express/Server

In an extended recovery environment, the Connect:Express/Server that waits to take over work from the active Connect:Express/Server if the active Connect:Express/Server fails.

Standby Connect:Express System

In an extended recovery environment, the standby Connect:Express system that waits to take over work from the active Connect:Express system if the active system fails.

Storage

A unit into which recorded data can be entered, retained, and processed, and from which it can be retrieved.

Subsystem

A secondary or subordinate system, or programming support, that is capable of operating independently of a controlling system.

Subsystem Interface

z/OS services provided for communication with an identified subsystem. Connect:Express is an z/OS subsystem. All the API communications with the monitor are processed by the Connect:Express Subsystem Interface.

Symbolic File

An entry in the Connect:Express Files Directory. A File entry defines a file to be exchanged with Partners. The transfer and file attributes are described there.

Symbolic Partner

An entry in the Connect:Express Partners Directory. A Partner entry defines remote nodes in the network with which the local Connect:Express system may communicate. The Partner protocol and network attributes are described there.

Synchronous

1. Two or more processes that depend on the occurrence of a specific event, such as a common timing signal.
2. Occurring with a regular or predictable timing relationship.

SYSIN

A collection of parameters that provide a system or a program with information about what work is to be done and how it has to be done. The Connect:Express SYSIN file specifies the configuration parameters that are loaded by TOM during initialization.

Sysplex

A set of z/OS systems communicating with each other through certain multi-system hardware components and software services to process workloads.

Sysplex Data Sharing

The ability of multiple z/OS subsystems to share data across multiple system images. Sysplex data sharing differs from two-way data sharing in that the latter allows sharing across only two system images.

System

In data processing, a collection of people, machines, and methods organized to accomplish a set of specific functions.

System Configuration

A process that specifies the devices and programs that form a particular data processing system.

T

TCP/IP

TCP/IP (Transmission Control Protocol/Internet Protocol) is a set of public domain networking protocol standards that specify the details of how computers communicate. It has a set of conventions for interconnecting networks and routing traffic.

TCT

See Transfer Control Table.

Terminal

A device that is capable of sending and receiving information over a link. It is usually equipped with a keyboard and some kind of display, such as a screen or a printer.

Throughput

1. A measure of the amount of work performed by a computer system over a given period of time, for example, number of jobs per day.
2. A measure of the amount of information transmitted over a network in a given period of time.

TOM (Transfer Operation Manager)

TOM is the Connect:Express main component. It is in charge of initializing Connect:Express components and managing the Subsystem Interface. This Connect:Express component runs in its own address space.

Transfer Control Table (TCT)

A Connect:Express internal table that stores transfer request data so that a client application can retrieve the information. The TCT is an extension of the RCT and is a major resource.

V

VOLSER1 (Volume Server)

The first volume name in the optional symbolic name list.

VS (Virtual Storage)

This storage space can be regarded as addressable main storage by the user of a computer system in which virtual addresses are mapped into real addresses. Virtual storage size is limited by the address scheme of the computer system and the amount of auxiliary storage available, rather than the actual number of main storage locations.

VSAM (Virtual Storage Access Method)

An access method for direct or sequential processing of fixed and variable-length records on direct access devices. The records in a VSAM data set or file can be organized in logical sequence by a key field (key sequence), in the physical sequence in which they are written on the data set or file (entry-sequence), or by relative-record number.

VTAM (Virtual Telecommunication Access Method)

This program provides for workstation and network control. It is the basis of a System Network Architecture (SNA) network. It supports SNA and certain non-SNA terminals. VTAM supports the concurrent execution of multiple telecommunications applications and controls communication among devices in both single processor and multiple processor networks.

W

WAN (wide area network)

A network that provides communication services to a geographic area larger than that served by a local area network.

X

XCF (Cross-System Coupling Facility)

An z/OS facility that allows multiple instances of the same application to communicate and share information with each other.

X25NPSI (X25 NCP Packet Switching Interface)

NPSI offers Systems Network Architecture (SNA) users the ability to use communication facilities that support the X.25 protocol.

X25

CCITT X25 defines a standard interface to shared packet switching networks. It defines protocols, standards, and message formats to which different hardware and software products must conform.

Index

U

V

W

X