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Modification 01 or later of FileXfer3X/400™

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# TABLE OF CONTENTS

## Chapter 1 Introduction

FileXfer3X/400 Features .....	1-1
Operations .....	1-2

## Chapter 2 Installation

Prerequisites .....	2-1
AS/400 Installation .....	2-2
System/36 Installation.....	2-3

## Chapter 3 S/38, AS/400 to S/36 Download

S/38, AS/400 to S/36 File Download.....	3-1
S36DWNLD Parameters.....	3-1
Executing a S/36 Procedures.....	3-2
S36DWNLD Examples.....	3-5
Downloading Source Members.....	3-5
S36DWNMBR Parameters .....	3-5
Executing a S/36 Procedures.....	3-6
S36DWNMBR Examples .....	3-7

## Chapter 4 Uploading System/36 Information

S/36 to S/38, AS/400 File Upload.....	4-1
S38UPLD Parameters .....	4-1
S38UPLD Examples .....	4-3
Uploading Library Members.....	4-3
S38UPMBR Parameters.....	4-3
S38UPMBR Examples.....	4-5

## Chapter 5 System/36 to System/36 Transfer

S/36 to S/36 File Transfer .....	5-1
S36XFILE Parameters .....	5-1
S36XFILE Examples .....	5-2
Transferring Library Members.....	5-3
S36XMBR Parameters.....	5-3
S36XMBR Examples.....	5-4

## Chapter 6 S/38, AS/400 to S/38, AS/400 Transfer

File Transfer.....	6-1
XFILE Parameters .....	6-1
XFILE Examples .....	6-4
Object Transfer .....	6-4
XOBJ Parameters.....	6-4
XOBJ Examples.....	6-7
Save File Transfer .....	6-8
XSAVF Parameters.....	6-8

# TABLE OF CONTENTS

File Transfer Using TCP/IP .....	6-10
XTFE Parameters .....	6-10
Object Transfer Using TCP/IP .....	6-13
XTOBJ Parameters .....	6-13
Save File Transfer Using TCP/IP.....	6-16
XTSAVF Parameters .....	6-16
 <b>Chapter 7 S/3X, AS/400 to S/370 VSAM Transfer</b>	
AS/400, S/38 File Transfer Parameters.....	7-1
AS/400, S/38 XVSAM Parameters.....	7-1
AS/400, S/38 XVSAM Examples.....	7-4
S/36 to S/370 Transfer .....	7-4
S/36 XVSAM Parameters .....	7-4
S/36 XVSAM Examples .....	7-5
 <b>Chapter 8 Managing SAM and VSAM Specifications</b>	
SAM Specifications .....	8-1
VSAM Specifications .....	8-2
 <b>Chapter 9 S/36, AS/400 to S/370 SAM Transfer</b>	
AS/400 XSAM Parameters .....	9-1
AS/400 XSAM Examples .....	9-3
S/36 XSAM Parameters.....	9-3
 <b>Chapter 10 AS/400 to S/370 PDS Transfer</b>	
AS/400 XPDS Parameters .....	10-1
AS/400 XPDS Examples .....	10-3
 <b>Chapter 11 AS/400 File Retrieval</b>	
R400FILE Parameters.....	11-1
R36FILE Parameters.....	11-4
RMVSFILE Parameters .....	11-5
RT400FILE Parameters .....	11-8
 <b>Chapter 12 System/36 File Retrieval</b>	
Retrieve R400FILE Parameters .....	12-1
Retrieve R36FILE Parameters .....	12-2
Retrieve RMVSFILE Parameter .....	12-3
 <b>Chapter 13 Specifying Pre and Post JCL Files</b>	
 <b>Appendix A Tailoring FileXfer3X/400</b>	
Tailoring Options .....	A-1
BXFERSETUP Paarameters .....	A-1
Library Member Record Lengths.....	A-1

# TABLE OF CONTENTS

APPC Security Information .....	A-2
XFCTRL Parameters .....	A-2
APPC Security Information .....	A-3
Access the BDS Software Server.....	A-4
The FileXfer Server .....	A-4
Creating Application ID's.....	A-5
Access the BDS Software Server.....	A-6

## **Appendix B AS/400 Security Considerations**

Passing User Profile and Password.....	B-1
Passing User Profile and AVI Flag .....	B-2
Passing No User Profile or Password .....	B-2

## **Appendix C Electronic Media Distribution**

### **Appendix D TCP Considerations**

Planning Guide.....	D-1
The FileXfer Server .....	D-1
TCP Port Usage.....	D-2
Secure Socket Layer Considerations.....	D-2
Setup Example .....	D-3

# INTRODUCTION

## *FileXfer3X/400 Features*

FileXfer3X/400 will move information to and from any of the supported components: System/36, System/38, AS/400 and S/370 MVS. It has the following major functions:

### **File Transfer (Upload/Download)**

It will move data files from one system to another. Sequential and Indexed files are supported. File record lengths from 4 char to 4088 char are supported. If the file does not exist on the remote system, it will be created.

### **Member or Object Transfer**

It will upload Source File members from a S/38 or AS/400 into a S/36 Library (Source or Proc) and upload S/36 Library members (Source or Proc) into a S/38 or AS/400 Source File. S/36 to S/36 member Xfer supports all library types. S/38 to S/38 object transfer, and S/38 or AS/400 to AS/400 object transfer support all object types.

### **Save File Transfer**

It will transfer the contents of a Save File from a S/38 to a S/38 or AS/400, or from an AS/400 to an AS/400.

### **User Exec Option**

The user can specify a procedure (S/36) or command (S/38, AS/400) or user exit program (S/370) to be executed on the remote system. The process can be started independently or after a transfer has completed. Procedure parms/call parameters passed to the remote procedure are supported. This function is useful if the user wishes to start a job to process after data has been transferred.

### **File Retrieval**

It can retrieve a file on another system and place it into a file on the local system.

### **Features common to the above functions**

- + SNA/SDLC APPC is used: S/3X Upload/Download will run on any configuration which supports SNA/SDLC APPC (including X.25 and Token Ring). It can share a comm. line with Pass thru, DDM, and other APPC applications. If APPN is used, S/3X Upload/Download will participate in the APPN network.
- + No chargeable prerequisites needed: S/3X Upload/Download does not require S/36 IBM's ICF Base or any other chargeable feature to operate.
- + Multiple concurrent transfers supported: Multiple concurrent Upload or Download tasks can be executing concurrently.
- + Data Integrity Maintained: User data on the target system will not be updated permanently until the transfer is completed. For example if a line failure occurs during transmission the target file is not corrupted.

# FILEXFER3X/400™

## Data File Transfer Features

- + If the file exists on the target system, transmitted records replace the records in the existing file. If the file does not exist on the target system, it is created using sizing parameters obtained from the source system. Record lengths from 4 to 4088 are supported.

## Member/Object Features

- + S/36 All Library member types supported (S/36 <=>S/36).
- + S/36 Source and Proc types supported (S/36 <=> S/38, AS/400).
- + All object types supported, (S/38 <=>S/38, S/38, AS/400 to AS/400) except for i.e. user profiles, device descriptions and modes.
- + Generic Member names or ALL/\*ALL supported.
- + Member type (i.e COB/CBL, RPG, BAS) maintained.

## Operations

To use the FileXfer3X/400, the user enters commands (S/38, AS/400) or procedures (S/36). All functions can execute on line or in batch. The commands and their functions follow:

### System/38 or AS/400 to System/36

S36DWNLD: Transfers the specified S/38 or AS/400 file to the specified S/36 file.

S36DWNMBR: Transfers the specified S/38 or AS/400 source file member(s) to the specified S/36 library.

For a detailed description of the above commands, refer to Chapter 3, "Downloading S/38, AS/400 Information".

### System/36 to System/38 or AS/400

S38UPLD: Transfers the specified S/36 file to the specified S/38 or AS/400 file.

S38UPMBR: Transfers the specified S/36 Library member(s) to the specified S/38 or AS/400 source file.

For a detailed description of the above procedures, refer to Chapter 4, "Uploading System/36 Information".

### System/36 to System/36

S36XFILE: Transfers the specified S/36 file to the specified S/36 file.

S36XMBR: Transfers the specified S/36 Library member(s) to the specified S/36 Library file.

# INTRODUCTION

For a detailed description of the above procedures, refer to Chapter 5, "System/36 to System/36 Transfer".

## **System/38 or AS/400 to System/38 or AS/400**

XFILE: Transfers the specified file members from the source machine to the target machine.

XOBJ: Transfers the specified objects from the source machine to the target machine.

XSAVF: Transfers the contents of the specified save file from the source machine to the target machine.

For a detailed description of the above procedures, refer to Chapter 6, S/38, AS/400 to S/38 to AS/400 Transfer.

## **AS/400, System/36, or System/38 to System/370 MVS**

XVSAM: Transfers the specified file members from the source machine to an MVS VSAM dataset.

For a detailed description of the above procedures, refer to Chapter 7, AS/400, S/3X to S/370 VSAM Transfer.

## **AS/400 to MVS (SAM)**

XSAM: Transfers the specified file members from the source machine to an MVS SAM dataset.

For a detailed description of the above procedures, refer to Chapter 9, AS/400 to S/370 SAM Transfer.

## **AS/400 to MVS (Partitioned Dataset)**

XPDS: Transfers the specified file members from the source machine to an MVS Partitioned dataset.

For a detailed description of the above procedures, refer to Chapter 10, AS/400 to S/370 PDS Transfer.

## **AS/400 File Retrieval**

R400FILE: Retrieves a file from a remote AS/400 and places the data into a local file.

R36FILE: Retrieves a file from a remote System/36 and places the data into a local file.

RMVSFILE: Retrieves SAM file members and places the data into a local file.

For a detailed description of the above commands and procedures, refer to Chapters 11 and 12, AS/400 and S/36 File Retrieval.

## **S/36 File Retrieval**

R400FILE: Retrieves a file from a remote AS/400 and places the data into a local file.

R36FILE: Retrieves a file from a remote System/36 and places the data into a local file.

RMVSFILE: Retrieves SAM file members and places the data into a local file.

# **FILEXFER3X/400™**

## **AS/400 to AS/400 TCP Operations**

**XTFEILE:** Transfers the specified file members from the source machine to the target machine.

**XTOBJ:** Transfers the specified objects from the source machine to the target machine.

**XTSAVF:** Transfers the contents of the specified save file from the source machine to the target machine.

**RT400FILE:** Retrieves a file from a remote AS/400 and places the data into a local file.

For a detailed description of the above procedures, refer to Chapter 6, S/38, AS/400 to S/38 to AS/400 Transfer.

# INSTALLATION

## BEFORE YOU BEGIN:

1. A compatible release of FileXfer must be installed on all systems which will be sending or receiving data.
2. Use these instructions if you are installing FileXfer3X/400 for the first time. If you are updating your existing FileXfer software to a new release, use the Update Instructions provided with the update package.
3. FileXfer/370 users: Refer to the “FileXfer/370 Reference Manual” for setting up the S/370, and for example S/3X, AS/400 to S/370 configurations. Use this manual to install FileXfer on the S/3X or AS/400.
4. A temporary password is needed once FileXfer is installed. The same temporary password will work on all machines. If you plan to install FileXfer after business hours, you may wish to call Broderick Data Systems in advance to get your temporary password.
5. AS/400 Users: The install procedure will create a user profile BDSUSER, password BDSPASS. See Appendix B, “AS/400 Security Considerations” for more information.

## *Prerequisites*

### **AS/400**

- + OS/400 Version 05 Release 01 Modification 00 or later.
- + Properly configured Line, Control Unit, Device Descriptions. Please note that if you are currently using Pass Thru or other communications software which uses APPC, you have already configured the required objects.
- + For TCP operation:
  - TCP/IP Connectivity Utilities (57xx-TC1)
- + For TCP operation with Secure Socket layer (SSL):
  - IBM HTTP Server for AS/400 (57xx-DG1)
  - Digital Certificate Manager (Product Option 34)
  - Cryptographic Access Provider for AS/400 (57xx-AC3)

### **System/36**

- + SSP Release 5.1 or later.
- + SSP feature code 6001, Base Communications. (Please note that 6001 is a no charge feature from IBM. Also note that it is a prerequisite for Pass Thru, DDM, and other IBM SSP communications features).
- + Properly configured ICF Line Member and Subsystem Member Descriptions. Please note that if you are currently using Pass Thru or other communications software which uses APPC, you have already configured the required objects.

# FILEXFER3X/400™

**Please note** that FileXfer3X/400 must be installed on each system which will be uploading or downloading data.

## *AS/400 Installation*

**WARNING:** Refer to “Before you begin” on page 2-1 before proceeding.

- 1) Sign on as QSECOFR
- 2) Load the media.
- 3) Restore the install objects. Enter one of the following:

If you are using Tape:

```
RSTOBJ OBJ(BXFERIN*) SAVLIB(XFER40) DEV(XXXXX) VOL(*MOUNTED)  
RSTLIB(QTEMP)
```

If you are using CD-ROM:

```
RSTOBJ OBJ(BXFERIN*) SAVLIB(XFER40) DEV(OPT01) VOL(BDS)  
RSTLIB(QTEMP) OPTFILE(XFER40)
```

If you are using a Save file:

```
RSTOBJ OBJ(BXFERIN*) SAVLIB(XFER40) DEV(*SAVF) SAVF(IIII/ffff)  
RSTLIB(QTEMP)
```

Enter the lib/name of the save file containing library **XFER40**.

- 4) Execute the install command. Enter one of the following:

If you are using Tape or CD-ROM:

```
QTEMP/BXFERINS DEV(XXXXX)
```

If you are using a Save file:

```
QTEMP/BXFERINS DEV(*SAVF) PGMSAVF(aaaaa)
```

Enter the save file containing library **XFER40**.

The message "Installation of FileXfer/400 is complete." should appear. If any other message appears, the installation may not have completed properly.

# INSTALLATION

FileXfer3X/400 is now installed on the AS/400.

5) Access the BDS Software Server (optional).

**Note:** Your AS/400 must be connected to the Internet to perform this procedure.

a) If you have not done so previously, access the tailoring options screen:

## **BRODERICK/BRSPLESETUP**

b) Note the fields “BDS Access Userid” and “Password”. You will need a user ID and password to access some of the server options. If needed, contact BDS administration to get this information. If you add your user id and password, press **ENTER** to enter them and re-enter the setup command.

c) Press F14, E-Comm. The Software Server display will appear. Take note of the options available to you. When you are finished, press F3 to exit

## *System/36 Installation*

**WARNING:** Refer to “Before you begin” on page 2-1 before proceeding.

- 1) Sign on to the System/36 as a security officer.
- 2) If FileXfer3X/400 is not the first product from Broderick Data Systems installed on your System/36, then you may skip this step to proceed with step 3).

Build library BDSLIB. Enter the following command:

**BLDLIBR BDSLIB,300,30**

3) Restore the media from diskette:

a) Place the diskette into slot 1

b) Enter the following command:

**RESTORE XFERLIB**

c) Enter the following command:

**Note:** FileXfer requires 300 blocks and 30 directory sectors.

**TOLIBR XFERLIB,F1,,REPLACE,BDSLIB,,,,ALL,LIBRARY Answer 0 to SYS-2594 --  
Trying to copy privileged modules.**

# **FILEXFER3X/400™**

4) Restore the control file from diskette:

**RESTORE BDS.XFCT**

FileXfer/36 is now installed on the System/36.

# S/38, AS/400 TO S/36 DOWNLOAD

## *S/38, AS/400 to S/36 File Download*

The S36DWNLD Command will transmit a file from the specified System/38 or AS/400 file into the specified System/36 file, and optionally execute a S/36 procedure after the transfer is completed. The file to be transmitted must exist on the System/38 or AS/400.

If the file exists on the System/36, transmitted records will replace the file's existing records. If the System/36 file does not exist, it will be created and the S/36 file's record length will be taken from the System/38 or AS/400 file. The number of records allocated to the System/36 file if created will be taken from the number of active records in the System/38 or AS/400 file (not the allocation from the SIZE parameter). For example if the System/38 or AS/400 file currently has 100 active records, the System/36 file if created will be allocated 100 records.

The System/38, AS/400, and System/36 files' record lengths do not have to be equal. FileXfer3X/400 will truncate or pad with blanks transmitted records as necessary.

## *S36DWNLD Parameters*

At the command line, enter S36DWNLD, then press enter. The following screen should appear:

```
Download File to S/36 (S36DWNLD)

Type choices, press Enter.

S36 Remote Location Name . . . . . Name
Device Mode Entry . . . . . *NETATR Name, *NETATR
File to Transfer . . . . . *NOCOPY Name, *NOCOPY
                               *LIBL Name, *LIBL
File Member . . . . . *FILE Name, *FILE
S/36 File Name . . . . . *FILE Character value,*FILE
Proc to execute after transfer *NONE

Data Compression . . . . . *YES *YES, *NO
Records to extend file . . . . . 0 Number
Target file allow deleted recs *YES *YES, *NO
Target file type (if create) . . *SEQ *SEQ, *IDX
Target key pos (1=1st pos) . . . *NONE 1-4092, *NONE
Target file key length . . . . . *NONE 1-120, *NONE
Target file allow dup keys . . . *NO *YES, *NO
                               More. . .

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

# FILEXFER3X/400™

```
Download File to S/36 (S36DWND)

Type choices, press Enter.

Device. . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identified . . . . *LOC Name, *LOC, *NETATR, *NONE

Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The S36DWNLD command has the following parameters:

## DEVD Parameter (S/38 only)

Specifies the name of the \*PEER device description which communicates to the remote system.

## RMTLOCNAME Parameter (AS/400 only)

Specifies the name of the Remote Location Name which communicates to the remote system.

## MODE Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description/remote location name specified above.

\*FIRST: (S/38 only) The first mode added to the device description during configuration will be used.

\*NETATR: (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## FILE Parameter

Specifies the file which is to be transmitted. The file record length must be between 4 and 4092 characters (inclusive).

\*NOCOPY: Specifies that no file is to be downloaded. The user in this case wishes to evoke the System/36 procedure specified in the EXEC parameter without downloading a file.

## MEMBER Parameter

Specifies the file member to transmit.

\*FILE: The member name is the same as the file name.

# S/38, AS/400 TO S/36 DOWNLOAD

## **S36FILE Parameter**

Specifies the name of the S/36 file to receive the transmitted file.

\*FILE: The System/36 file name is the same as the S/38 or AS/400 file name. If the S/38 or AS/400 file name is longer than 8 characters, the S/36 file name will be truncated to 8 characters.

**Note:** Lower case characters will be converted to upper case.

## *Executing a System/36 Procedure*

### **EXEC Parameter**

Specifies an optional S/36 procedure to be executed after the file is downloaded. Enter up to 119 characters, appearing as if you were keying from a System/36 command display screen. Lower case characters will be converted to upper case. S/36 features such as parameters and jobq supported.

#### **Notes:**

The System/38 or AS/400 task will not complete until the System/36 task, including the EXEC procedure, completes. If the EXEC procedure ends abnormally a message will appear at the System/38 or AS/400 indicating that the transfer did not complete normally even though the file may have been successfully downloaded.

The user may wish to send long running EXEC procedures to the jobq.

If the user wishes to execute a S/36 command without transferring a file, enter FILE(\*NOCOPY). See the FILE parameter above for more information.

### **COMPRESS Parameter**

Specifies whether data compression will be performed during transmission. Compression of data during transmission can reduce transmission time. Repetitive characters will be converted into a repetition character. Data compression is totally transparent to the user, and the input data.

\*YES: Data compression will be performed.

\*NO: Data compression will not be performed.

### **Data compression performance notes:**

- 1) Data compression can increase throughput for 2 reasons; less characters are transmitted, and a large communications record length is used (SNA requires CPU overhead to format a record). Optimum increase in throughput occurs when 1) there are many repetitive characters in the record and 2) the file's record length is small, and 3) the line speed is slow (i.e 4800 baud dial-up).
- 2) Data compression requires considerable CPU overhead on the System/38 or AS/400.

# FILEXFER3X/400™

The following parameters are used to create the file on the S/36 and are ignored if the S/36 file currently exists:

## **EXTEND Parameter**

Specifies the number of records to extend the created S/36 file when it becomes full.

## **ALWDEL Parameter**

Specifies if the created S/36 file is to allow deleted records.

\*YES: Deleted records are allowed.

\*NO: Deleted records are not allowed.

## **FILETYPE Parameter**

Specifies, if the file does not exist on the target S/36, the type of file to create.

\*CALC: Specifies that FileXfer/3X will determine the file type (sequential or indexed), key starting position and length, and if duplicate keys are allowed.

### **Notes:**

If the S/38 or AS/400 file has more than one key field, the highest order key field will be used and duplicate keys will be allowed.

The S/36 file will be built with an ascending key regardless of the S/38 or AS/400 file definition.

\*IDX: An indexed file will be created. The S/36 file will be built with an ascending key regardless of the S/38 or AS/400 file definition.

\*SEQ: A sequential file will be created.

## **KPOS Parameter**

Specifies the starting position of the record key (1=first pos).

\*NONE: Keys will not be used, or are determined by FILETYPE(\*CALC).

## **KLEN Parameter**

Specifies the key length, in bytes.

\*NONE: Keys will not be used, or are determined by FILETYPE(\*CALC).

## **ALWDUP Parameter**

Specifies if duplicate keys are allowed.

\*NO: Specifies for the created S/36 file, duplicate keys will not be allowed, or are determined by

# S/38, AS/400 TO S/36 DOWNLOAD

FILETYPE(\*CALC).

\*YES: Duplicate keys will be allowed on the created S/36 file.

## **DEV Parameter (AS/400 Only)**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter (AS/400 Only)**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter (AS/400 Only)**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **S36DWNLD Examples**

The following example downloads the S/38 file ORDTRAN.DB, member TUESDAY into the S/36 file ORDTRAN. Please note to execute this command on an AS/400, specify FILE(DB/ORDTRAN). It executes a S/36 procedure UPDT in library OEI (i.e. apply downloaded transactions to the master file) after the file is downloaded.:

```
S36DWNLD (DET36) MODE(*BLANK) FILE(ORDTRAN.DB) MEMBER(TUESDAY)  
EXEC('UPDT,OEI TUESDAY')
```

The following example executes a procedure without downloading a file:

```
S36DWNLD (DET36) MODE(*BLANK) EXEC('CATALOG ALL,F1')
```

# FILEXFER3X/400™

## Downloading Source Members

The S36DWNMBR command will download S/38 or AS/400 source file members into the Specified S/36 Library, and optionally execute a S/36 procedure after the transfer is completed.

### S36DWNMBR Parameters

At the command line, enter S36DWNMBR, then press Help. The following screen should appear:

```
Download Source mbrs to S/36 (S36DWNMBR)

Type choices,press Enter.

S36 Remote Location Name . . . . . Name
Device Mode Entry. . . . . Name, *NETATR
File to Transfer. . . . . Name
                               *LIBL Name, *LIBL
Member name, gen*, or *ALL. . . . *ALL Name, generic*, *ALL
S/36 Library to contain mbrs. . . . *FILE Character value, *FILE
Proc to execute after transfer. . . *NONE

-----
Date Compression (*YES *NO) . . . *YES *YES, *NO
Device. . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier . . . . *LOC Name, *LOC, *NETATR, *NONE

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The S36DWNMBR command has the following parameters:

#### DEVD Parameter (S/38 only)

Specifies the name of the \*PEER device description which communicates to the remote system.

#### RMTLOCNAME Parameter (AS/400 only)

Specifies the name of the Remote Location Name which communicates to the remote system.

#### MODE Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the

# S/38, AS/400 TO S/36 DOWNLOAD

device description/remote location name specified above.

**\*FIRST:** (S/38 only) The first mode added to the device description during configuration will be used.

**\*NETATR:** (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **FILE Parameter**

Specifies the qualified S/38 or AS/400 Source file which contains the members to be transmitted.

## **MEMBER Parameter**

Specifies the file member to transmit. The member name can be generic, or \*ALL.

ALL: All members in the specified file will be downloaded.

## **S36LIB Parameter**

Specifies the name of the S/36 Library to receive the transmitted file. The library must currently exist on the target S/36.

\*FILE: The System/36 Library name is the same as the S/38 file name. If the S/38 file name is longer than 8 characters, the S/36 Library name will be truncated to 8 characters.

**Note:** Lower case characters will be converted to upper case.

## **LIBTYPE Parameter**

Specifies the member type (source or procedure) when the member is placed into the S/36 Library. The record length assigned to the S/36 member is taken from the value specified using the BXFERSETUP command. To change the member record length, refer to Appendix A, "Tailoring FileXfer3X/400".

SOURCE: The downloaded members will become source members when placed into the S/36 Library.

PROC: The downloaded members will become procedure members when placed into the S/36 Library.

## *Executing a System/36 Procedure*

### **EXEC Parameter**

Specifies an optional S/36 procedure to be executed after the source file member is downloaded. Enter up to 119 characters, appearing as if you were keying from a System/36 command display screen. Lower case characters will be converted to upper case. S/36 features such as procedure parameters and jobq are supported.

# FILEXFER3X/400™

## Notes:

The System/38 or AS/400 task will not complete until the System/36 task, including the EXEC procedure, completes. If the EXEC procedure ends abnormally a message will appear at the System/38 or AS/400 indicating that the transfer did not complete normally even though the members may have been successfully downloaded.

The user may wish to send long running procedures to the jobq.

If the user wishes to execute a S/36 command without transferring a file, use the S36DWNLD command and specify FILE(\*NOCOPY). See the S36DWNLD command; FILE parameter earlier in this chapter for more information.

## COMPRESS Parameter

Specifies whether data compression will be performed during transmission. Compression of data during transmission can reduce transmission time. Repetitive characters will be converted into a repetition character. Data compression is totally transparent to the user, and the input data.

\*YES: Data compression will be performed.

\*NO: Data compression will not be performed.

## Data compression performance notes:

Because there is usually many blanks in source and procedure members, data compression usually greatly increases throughput when downloading source file members.

## *S36DWNMBR Examples*

The following command downloads the member AR0030 in the S/38 Source file S36ARSRC into the S/36 Library AR. The member becomes a source member when placed into the S/36 Library. The procedure COMPAR in library PGMR (i.e. a user written proc to compile the member) is executed after the member is downloaded:

```
S36DWNMBR DEVD(DET36) MODE(*BLANK) FILE(QS36SRC) MEMBER(AR0030)  
S36LIB(AR) EXEC('// JOBQ PGMR,COMP,AR0030,AR')
```

The following command downloads all members in file S36ARPROC into the S/36 Library AR. The members become procedures when placed into the S/36 Library. Data compression is not used:

```
S36DWNMBR DEVD(DET36) MODE(*BLANK) FILE(QS36PRC)  
S36LIB(ALIBTYPE(PROC) COMPRESS(*NO))
```

# UPLOADING SYSTEM/36 INFORMATION

## *S/36 to S/38, AS/400 File Upload*

The S38UPLD command will transmit the specified S/36 file to the remote System/38, AS/400 and place it into the specified file library member. The file must exist on the S/36.

If the file exists in the System/38 or AS/400, transmitted records will replace the file's existing records. If the file does not exist, it will be created using the S/36 file record length. The created file will be allocated the same number of records as the S/36 file, with 1 additional increment of 1/5 the allocated records. For example if the S/36 file is allocated 100 records, the S/38 or AS/400 file if created will be created with SIZE(100 20 1).

The System/36 and System/38 or AS/400 record lengths do not have to be equal. FileXfer3X/400 will truncate or pad with blanks as necessary.

## *S38UPLD Parameters*

At the command line, enter S38UPLD then press Help. The following screen should appear:

```

                                     S38UPLD PROCEDURE
                                     Optional-*
                                     Upload a S/36 file to a S/38 file

S/36 file name . . . . . file name, *NOCOPY
S/38 file name . . . . .
      Library . . . . .
      Member . . . . .
Remote location name . . . . .
Session group name . . . . .
Compress . . . . . Y,N *
Exec command . . . . . .cmd, *LDA *

APPC Userid. . . . . Name, *NONE, *USER *
APPC Password. . . . . .Name, *NONE *

                                     Cmd7: Exit
                                     Help
                                     Copyright 1988, Broderick Data Systems
```

Or, on the command line, you can enter the following:

S38UPLD S/36 file name, remote file name, remote library, remote member, APPC remote location, APPC session group, compress, exec, APPC user ID, APPC password.

# FILEXFER3X/400™

The S38UPLD proc uses the following positional parameters:

## **S/36 File Name**

Specifies the name of the file on the local System/36 to transmit.

## **Remote File Name**

Specifies the name of the file residing on the remote System/38 or AS/400 which is to receive the data.

## **Remote Library Name**

Specifies the name of the library where the file resides on the remote system.

## **Remote Member**

Specifies the System/38 file member to receive the data.

## **APPC Remote Location**

Specifies the Remote Location defined (when configuring the ICF Subsystem member) to communicate to the remote System/38.

## **APPC Session Group**

Specifies the APPC session group defined (when configuring the ICF Subsystem member) to use during transmission.

## **Compress**

Specifies whether data compression will be performed during transmission. Compression of data can reduce transmission time. Repetitive characters will be converted to a repetition character. Data compression is totally transparent to the user and the input data.

Y: Data compression will be performed.

N: Data compression will not be performed.

## **Exec**

Specifies a S/38 or AS/400 command to execute after the upload completes. Enter up to 256 characters, appearing as if you typed them on the S/38 or AS/400 command entry screen. The double quote character (") will be converted to a single quote (') before executing the command.

## **\*LDA**

Specifies that the exec command has been placed in the Local Data Area, starting a position 257. The user may find this option useful when the intended command will not fit on the command line (the S/36 command line is a maximum of 119 characters, much of which is used for the S38UPLD command).

## **APPC User ID**

Specifies the APPC User Profile the target task will use.

# UPLOADING SYSTEM/36 INFORMATION

**\*DFT:** The setup screen (XFCTRL) will provide the user ID and password values.

**\*NONE:** No userid or password will be sent. The remote system must have a valid Default User ID in its Subsystem Communications Entry.

**Note:** FileXfer/400 creates a user profile BDSUSER with password BDSPASS when installed. We recommend using BDSUSER,BDSPASS when sending to an AS/400 and \*NONE,\*NONE when sending to a S/38.

## **APPC Password**

Specifies the APPC password sent to the remote system.

**\*NONE:** No password is sent to the remote system.

**\*USER:** The AVI (Already verified indicator) flag is sent to the remote system.

## *S38UPLD Examples*

The following example uploads the S/36 file ORD.W1 to the S/38 file ORDTRAN in library DB, member TUESDAY. A job is submitted (i.e. to apply the transmitted records) after the transmission completes. Note that the S/38 command is placed into the Local Data Area prior to performing the upload. To execute the EXEC command on an AS/400, change the call program to OEI/UPDTORD:

```
// LOCAL OFFSET-257,DATA-'SBMJOB JOBD(UPDATE) RQSDTA('CALL UPDTORD.OEI  
('"'TUESDAY"' "'MANSFIELD"'"))'
```

```
S38UPLD ORD.W1,ORDTRAN,DB,TUESDAY,L36DET,*BLANK,*,LDA
```

The following example uploads the S/36 file GL.TMGGEN into the S/38 file S36TRAN in library DB, member S36TRAN. Data compression is not used. A display active job command is executed after the transfer occurs.

```
S38UPLD GL.TMGGEN,S36TRAN,DB,S36TRAN,L36DET,*BLANK,N,DSPACTJOB
```

## *Uploading Library Members*

The S38UPMBR command will transmit the specified S/36 Library member(s) to the remote System/38 or AS/400 and place them into the specified source file. The Library and member(s) must exist on the S/36.

If the file exists in the System/38 or AS/400, transmitted members will replace the S/38 or AS/400 file's existing members. If the remote source file does not exist, it will be created. The created file will be allocated records using the default SIZE parameters for the CRTSRCPF command.

# FILEXFER3X/400™

The System/36 and System/38 record lengths do not have to be equal. S/3X Upload/Download Utilities will truncate or pad with blanks as necessary.

## *S38UPMBR Parameters*

At the command line enter S38UPMBR, then press enter. The following screen should appear:

```

                                     S38UPMBR PROCEDURE
                                     Optional-*
                                     Upload a S/36 member to a S/38 file member

S/36 member name . . . . .
ALL for generic copy . . . . . ALL      *
Member type. . . . . .SOURCE,.PROC     *
S/36 library name. . . . .
S/38 file name . . . . .
      Library . . . . .
Remote location name:. . . . .
Session group name:. . . . .
Compress:. . . . . .Y,N                *
Exec command . . . . . .cmd, *LDA      *
APPC User ID:. . . . . Name, *NONE, *USER *
APPC User Password . . . . . .Name, *NONE *

                                     Cmd7: Exit
                                     HELP
                                     Copyright 1988, Broderick Data Systems
```

Or, on the command line, you can enter the following:

S38UPMBR S/36 member name, ALL,mbr type, S/36 library, remote file name, remote library, APPC remote location, APPC session group, compress, exec, APPC user ID, APPC password.

The S38UPMBR proc uses the following positional parameters:

### **S/36 Member Name**

Specifies the name of the file on the local System/36 to transmit.

ALL: Specifies that all members of the specified type will be uploaded.

### **ALL**

# UPLOADING SYSTEM/36 INFORMATION

Specify ALL to upload the generic member name. This parameter is ignored if ALL is specified as the member name.

## **Mbr Type**

Specifies the member type to upload.

SOURCE: Specifies to upload source members.

PROC: Specifies to upload procedure members.

## **S/36 Library**

Specifies the System/36 library containing the members.

## **Remote File Name**

Specifies the name of the file residing on the remote System/38 or AS/400 which is to receive the uploaded S/36 members.

## **Remote Library Name**

Specifies the name of the library where the file resides on the remote system.

## **APPC Remote Location**

Specifies the Remote Location defined (when configuring the ICF Subsystem member) to communicate to the remote System/38.

## **APPC Session Group**

Specifies the APPC session group defined (when configuring the ICF Subsystem member) to use during transmission.

## **Compress**

Specifies whether data compression will be performed during transmission. Compression of data can reduce transmission time. Repetitive characters will be converted to a repetition character. Data compression is totally transparent to the user and the input data.

Y: Data compression will be performed.

N: Data compression will not be performed.

## **Exec**

Specifies a S/38 or AS/400 command to execute after the upload completes. Enter up to 256 characters, appearing as if you typed them on the S/38 or AS/400 command entry screen. The double quote character (") will be converted to a single quote (') before executing the command.

## **\*LDA**

Specifies that the exec command has been placed in the Local Data Area, starting a position 257. The user

# FILEXFER3X/400™

may find this option useful when the intended command will not fit on the command line (the S/36 command line is a maximum of 119 characters, much of which is used for the S38UPLD command).

## APPC User ID

Specifies the APPC User Profile the target task will use.

**\*DFT:** The setup screen (XFCTRL) will provide the user ID and password values.

**\*NONE:** No userid or password will be sent. The remote system must have a valid Default User ID in its Subsystem Communications Entry.

**Note:** FileXfer/400 creates a user profile BDSUSER with password BDSPASS when installed. We recommend using BDSUSER,BDSPASS when sending to an AS/400 and \*NONE,\*NONE when sending to a S/38.

## APPC Password

Specifies the APPC password sent to the remote system.

**\*NONE:** No password is sent to the remote system.

**\*USER:** The AVI (Already verified indicator) flag is sent to the remote system.

## *S38UPMBR Examples*

The following example uploads the S/36 member AR0030 in Library AR to the S/38 file ARSRC in library PGMSRC. A job is submitted (i.e. to compile the transmitted member) after the upload completes. Note that the S/38 command is placed into the Local Data Area prior to performing the upload. To execute the EXEC on an AS/400, change the CRTRPGPGM command to AS/400 syntax:

```
// LOCAL OFFSET-257,DATA-'SBMJOB JOB(UPDATE) RQSDTA('CRTRPGPGM  
AR0030.TEST SRCFILE(QRPGSRC.TEST)')
```

```
S38UPMBR AR0300,,AR,ARSRC,PGMSRC,L36DET,*BLANK,*,LDA
```

The following example uploads all S/36 procedure members in the library PAYROLL into the S/38 file QRPGSRC in library QPGMR. Data compression is not used. A display active job command is executed after the transfer occurs.

```
S38UPMBR ALL,,PROC,PAYROLL,QRPGSRC,QPGMR,L36DET, *BLANK,N,DSPACTJB
```

# SYSTEM/36 TO SYSTEM/36 TRANSFER

## *S/36 to S/36 File Transfer*

The S36XFILE command will transmit the specified S/36 file to the remote System/36 and place it into the specified file. The file must exist on the source S/36.

If the file exists on the target System/36, transmitted records will replace the target S/36 file's existing records. If the S/36 file does not exist, it will be created using the source S/36 file record length. The created file will be allocated the same number of records as the source S/36 file.

The source and target files' record lengths do not have to be equal. FileXfer/3X will truncate or pad with blanks as necessary.

## *S36XFILE Parameters*

At the command line enter S36XFILE, then press Help or Enter. The following screen should appear:

```
S36XFILE PROCEDURE                               Optional-*

Transfer a local S/36 file to a remote S/36

Local file name . . . . . file name, *NOCOPY
Remote file name . . . . . *
Remote location name:. . . . .
Session group name:. . . . .
Compress:. . . . . ..Y,N *
Exec command:. . . . . cmd, *LDA *

                                Cmd7:Exit
                                HELP
                                Copyright 1988, Broderick Data Systems
```

Or, on the command line, you can enter the following:

S36XFILE source file name, target file name, remote location, APPC session group, compress, exec.

The S36XFILE proc uses the following positional parameters:

### **Source File Name**

Specifies the name of the file on the source (local) System/36 to transmit.

\*NOCOPY: No file is transferred. This option is useful if the user wishes to execute a procedure on the

# FILEXFER3X/400™

target without transferring data.

## Target File Name

Specifies the name of the file residing on the remote System/36 which is to receive the data. If not specified, the source file name is used.

## Remote Location

Specifies the Remote Location defined (when configuring the ICF Subsystem member) to communicate to the remote System/36.

## Session Group

Specifies the APPC session group defined (when configuring the ICF Subsystem member) to use during transmission.

## Compress

Specifies whether data compression will be performed during transmission. Compression of data can reduce transmission time. Repetitive characters will be converted to a repetition character. Data compression is totally transparent to the user and the input data.

Y: Data compression will be performed.

N: Data compression will not be performed.

## Exec

Specifies a procedure to execute after the upload completes. Enter up to 119 characters, appearing as if you typed them on the S/36 command entry screen. The double quote character (") will be converted to a single quote (') before executing the command.

## \*LDA

Specifies that the exec command has been placed in the Local Data Area, starting at position 257. The user may find this option useful when the intended command will not fit on the command line (the S/36 command line is a maximum of 119 characters, much of which is used for the S36XFILE command).

## *S36XFILE Examples*

The following example uploads the file ORD.W1 to the target file ORD.W1. A job is submitted (i.e. to apply the transmitted records) after the transmission completes. Note that the target S/36 proc is placed into the Local Data Area prior to performing the upload.

```
// LOCAL OFFSET-257,DATA-// JOBQ,UPDATE,W1,"TUESDAY"
```

```
S36XFILE ORD.W1,,L36DET,*BLANK,,*LDA
```

# SYSTEM/36 TO SYSTEM/36 TRANSFER

The following example uploads the GL.TMGEN into the target S/36 file S36TRAN . Data compression is not used. A CATALOG proc is executed after the transfer occurs.

```
S36XFILE GL.TMGEN,S36TRAN,DB,S36TRAN,L36DET,*BLANK,N,'CATALOG ALL,F1'
```

The following example executes the procedure BACKUP on the remote S/36. No data is transferred.

```
S36XFILE *NOCOPY,,L36DET,*BLANK,,'// JOBQ ,BACKUP'
```

## *Transferring Library Members*

The S36XMBR command will transmit the specified S/36 Library member(s) to the remote System/36 and place them into the specified library. The Library and member(s) must exist on the source S/36. The target S/36 library must exist. If the transferred members exists on the target System/36, transmitted members will replace the target S/36 members.

## *S36XMBR Parameters*

At the command line, enter S36XMBR then press Help or Enter. The following screen should appear:

S36XMBR PROCEDURE	Optional-*
Transfer S/36 library members to a remote S/36	
S/36 member name . . . . .	
ALL for generic copy . . . . . ALL	*
Member type. . . SOURCE, PROC, LOAD, SUBR, LIBRARY	*
Local S/36 library name. . . . .	
Remote S/36 Library name . . . . .	
Remote location name . . . . .	
Session group name . . . . .	
Exec command . . . . . .cmd, *LDA	*
Cmd7:Exit	
HELP	
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Or, on the command line, you can enter the following:

# FILEXFER3X/400™

S36XMBR source member name, ALL, mbr type, source library name, target library name, remote location, APPC session group, exec.

The S36XMBR proc uses the following positional parameters:

## Source Member Name

Specifies the name of the member on the local System/36 to transmit.

ALL: Specifies that all members of the specified type will be transferred.

## ALL

Specify ALL to upload the generic member name. This parameter is ignored if ALL is specified as the member name.

## Mbr Type

Specifies the member type to upload.

SOURCE: Specifies to transfer source members.

PROC: Specifies to transfer procedure members.

SUBR: Specifies to transfer subroutine members.

LOAD: Specifies to transfer load modules.

LIBRARY: Specifies to transfer all types.

## Source Library Name

Specifies the name of the library on the local System/36 which contains the members to be transmitted.

## Target Library Name

Specifies the name of the library on the remote S/36 which is to contain the transferred members.

## Remote Location

Specifies the Remote Location defined (when configuring the ICF Subsystem member) to communicate to the remote System/36.

## Session Group

Specifies the APPC session group defined (when configuring the ICF Subsystem member) to use during transmission.

## Exec

Specifies a S/36 procedure to execute after the transfer completes. Enter up to 256 characters, appearing

## SYSTEM/36 TO SYSTEM/36 TRANSFER

as if you typed them on the S/36 command entry screen. The double quote character (") will be converted to a single quote (') before executing the command.

### **\*LDA**

Specifies that the exec command has been placed in the Local Data Area, starting a position 257. The user may find this option useful when the intended command will not fit on the command line (the S/36 command line is a maximum of 119 characters, much of which is used for the S36XMBR command).

### *S36XMBR Examples*

The following example transfers the local S/36 member AR0030 in Library AR to the remote S/36 library ARSRC. A job is submitted (i.e. to compile the transmitted member) after the upload completes. Note that the procedure is placed into the Local Data Area prior to performing the upload.

```
// LOCAL OFFSET-257,DATA- '// JOBQ ,RPGC,AR0030'
```

```
S36XMBR AR0300,,AR,ARSRC,L36DET,*BLANK,*LDA
```

The following example transfers all S/36 procedure members in the library PAYROLL into the remote S/36 library PGMR. A LISTLIBR command is executed after the transfer occurs.

```
S36XMBR ALL,,PROC,PAYROLL,PGMR,L36DET,*BLANK,'LISTLIBR ALL'
```

# FILEXFER3X/400™

## *File Transfer*

The XFILE command will transmit the specified data file from a S/38 or AS/400 to a S/38 or AS/400. Up to 50 members can be specified, each generic, or \*ALL. If the file exists on the target system the transmitted records will replace the existing records. If the file does not exist on the target system, it will be created. Since DDS will not be used, the created file will be a sequential, internally described file.

## *XFILE Parameters*

At the command line enter XFILE then press Enter. The following screen should appear:

```
Transfer files to S/38, AS/400 (XFILE)

Type choices, press Enter.

Remote Location Name . . . . . Name
Device Mode Entry . . . . . *NETATR      Name, *NETATR
From file . . . . . *NOCOPY             Name, *NOCOPY
                                   *LIBL      Name, *LIBL
To File . . . . . *FROMFILE            Name, *NOCOPY, *FROMFILE
                                   *LIBL      Name, *LIBL
From File Member, Gen*, *AL. . *FILE      Name, generic*, *FILE, *ALL
                                   + for more values
To File Member .. . . . *FROMMBR        Name, *FROMMBR
Cmd to execute after transfer . *NONE

Device . . . . . *LOC                  Name, *LOC
Local Location Name . . . . . *LOC      Name, *LOC, *NETATR
Remote Network Identifier . . *LOC      Name, *LOC, *NETATR, *NONE
                                   More...

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

# FILEXFER3X/400™

```
Transfer files to S/38, AS/400 (XFILE)

Type choices, press Enter.

APPC Security User Profile. . . . . *DFT      Name, *DFT, *NONE, *USER
APPC Security Password . . . . . *NONE      Name, *NONE

F3=Exit  F4=Promt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More Keys
```

The XFILE command has the following parameters:

## **DEV D Parameter (S/38 only)**

Specifies the name of the \*PEER device description which communicates to the remote system.

## **RMTLOCNAME Parameter (AS/400 only)**

Specifies the name of the Remote Location Name which communicates to the remote system.

## **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*FIRST: (S/38 only) The first mode added to the device description during configuration will be used.

\*NETATR: (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **FROMFILE Parameter**

Specifies the file on the source system to be transferred. The file's record length must be between 4 and 4088 characters (inclusive).

\*NOCOPY: Specifies that no file is to be transferred. The user in this case wishes to execute a command on the remote system without transferring data.

## **TOFILE Parameter**

Specifies the name of the file on the target system which is to receive the transferred records.

\*FROMFILE: The file on the target system is the same as the file on the source system.

# FILEXFER3X/400™

## **FROMMBR Parameter**

Specifies the members to transfer. Specify up to 50 members, each can be generic, or specify \*ALL. If the member exists within the file on the target system, the transmitted records will replace the existing records. If the member does not exist, it will be added to the target file.

\*FILE: The member name is the same as the file name.

\*ALL: All members in the file are to be transferred.

## **TOMBR Parameter**

Specifies the member name on the target system to contain transferred records. The TOMBR parameter is ignored if on the FROMMBR parameter a) more than one member is specified, b) a generic member is specified, or c) \*ALL is specified.

\*FROMMBR: The member on the target system will be the same as on the source system.

## **EXEC Parameter**

Specifies the command to be executed, using QCAEXEC (S/38) or QCMDEXC (AS/400), after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single quote ('). Lower case letters will be translated to upper case.

\*NONE: No command is to be executed after the transfer completes. Please note if FROMFILE(\*NOCOPY) is specified, EXEC cannot be \*NONE.

## **DEV Parameter (AS/400 Only)**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter (AS/400 Only)**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter (AS/400 Only)**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

# FILEXFER3X/400™

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## *XFILE Examples*

The following command transfers the file CUSTMAST to the remote system. After the transfer, a completion message will be sent to the system operator's message queue:

### **S/38**

```
XFILE DEVD(RMTA) MODE(BATCH) FROMFILE(CUSTMAST.DATALIB)
EXEC('SNDMSG "CUSTOMER TRANSFER DONE" QSYSOPR')
```

### **AS/400**

```
XFILE RMTLOCNAME(RMTA) MODE(BATCH) FROMFILE(DATALIB/CUSTMAST)
EXEC('SNDMSG "CUSTOMER TRANSFER DONE" QSYSOPR')
```

The following command copies the specified source file members to the remote system:

### **S/38, AS/400**

```
XFILE (RMTA) MODE(BATCH) FROMFILE(QCLSRC) MBR (ABC* MAINCL)
```

## *Object Transfer*

The XOBJ command will transfer objects from a S/38 to S/38, or from a S/38 or AS/400 to an AS/400 (Object transfer from an AS/400 to a S/38 is not supported by CPF and OS/400).

**Note:** Object transfer utilizes the RSTOBJ command on the target system, which in certain circumstances will not restore desired objects. Some examples are:

- Object owner is different on the source and target systems.
- File Level different on the source and target systems.
- Based on Physical File for Logical File not found.

The user must insure the object transfer completes normally and that objects are not skipped for the above (or other) reasons.

## *XOBJ Parameters*

At the command line enter XOBJ then press Enter. The following screen should appear:

# FILEXFER3X/400™

```
Copy objects to Rmt AS/400 (XOBJ)

Type choices, press Enter.

Remote Location Name. . . . . Name
Device Mode Entry . . . . . Name, *NETATR
Object names, generic* or *ALL Name, generic*, *ALL
    + for more values
From Library (on local system). Name
To Library (on remote system) . *FROMLIB Name, *FROMLIB
Object types. . . . . *ALL *ALL, *ALRTBL, *CFGL...
    + for more values
Cmd to execute after transfer. *NONE _____

_____

Device. . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier . . . *LOC Name, *LOC, *NETATR, *NONE
APPC Security User Profile. . . *DFT Name, *DFT, *NONE, *USER
More...

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

```
Copy objects to Rmt AS/400 (XOBJ)

Type choices, press Enter.

APPC Security Password. . . . . *NONE Name, *NONE
Target Release. . . . . *CURRENT Character value

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
```

The XOBJ command has the following parameters:

# FILEXFER3X/400™

## **DEV D Parameter (S/38 only)**

Specifies the name of the \*PEER device description which communicates to the remote system.

## **RMTLOCNAME Parameter (AS/400 only)**

Specifies the name of the Remote Location Name which communicates to the remote system.

## **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*FIRST: (S/38 only) The first mode added to the device description during configuration will be used.

\*NETATR: (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **FROMLIB Parameter**

Specifies the library on the source system which contains the objects to be transferred.

## **TOLIB Parameter**

Specifies the library on the target system which is to receive the transferred records.

\*FROMLIB: The library on the target system is the same as the library on the source system.

## **OBJ Parameter**

Specifies the objects to transfer. Specify up to 50 objects, each can be generic, or specify \*ALL.

\*ALL: All objects in the library are to be transferred.

## **OBJTYPE Parameter**

Specifies the object type to be transferred. Specify up to 31 object types, or \*ALL.

\*ALL: All object types will be transferred to the remote system.

## **EXEC Parameter**

Specifies the command to be executed, using QCAEXEC (S/38) or QCMDEXC (AS/400), after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single quote ('). Lower case letters will be translated to upper case.

## **DEV Parameter (AS/400 Only)**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEV D command) will be used.

# FILEXFER3X/400™

## **LOCLOCNAME Parameter (AS/400 Only)**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter (AS/400 Only)**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **TGTRLS Parameter (AS/400 Only)**

Specifies the OS/400 version/release/modification level of the receiving system. For valid values, see the "Target Release" parameter of the IBM SAVOBJ command.

\*CURRENT: The current OS/400 release will be used.

## **ALWSKP Parameter (AS/400 Only)**

Specifies the command will continue if some of the specified objects cannot be accessed. Reasons objects are skipped include allocate problems and authority problems.

\*NO: If any specified object cannot be processed, the command will fail and issue escape message XFR-1000.

\*YES: If some specified objects cannot be processed, the command will continue and at successful completion will issue escape message XFR-1091. If no specified objects are processed, the command will fail and issue escape message XFR-1000.

## ***XOBJ Examples***

The following example transfers all programs in library TEST on the source system to library PAYROLL on the remote system:

# FILEXFER3X/400™

```
XOBJ DEVD(RMTA) MODE(BATCH) FROMLIB(TEST) TOLIB(PAYROLL) OBJ(*ALL)
OBJTYPE(*PGM)
```

The following sends several objects of different types to the remote system. The from and to library names are TEST. After the transfer, the program UPDT in library PGMS is executed. Please note that the EXEC command must be in a format that can be understood by the remote system (in this example, the remote system is an AS/400):

```
XOBJ DEVD(RMTA) MODE(BATCH) FROMLIB(TEST) OBJ(BXFER* X* S36*)
OBJTYPE(*CMD *PGM *DTAARA *MSGF)EXEC('CALL PGMS/UPDT
("PARM1" "PARM2" "PARM3"))
```

## *Save File Transfer*

The XSAVF command will transfer the contents of a Save File from a S/38 to S/38, or from a S/38 or AS/400 to an AS/400 (Object transfer from an AS/400 to a S/38 is not supported by CPF and OS/400).

## *XSAVF Parameters*

At the command line enter XSAVF then press enter. The following screen should appear:

# FILEXFER3X/400™

```
Transfer Save files to AS/400 (XSAVF)

Type choices, press Enter.

Remote Location Name . . . . . Name
Device Mode Entry . . . . . Name, *NETATR
From file . . . . . Name
                               *LIBL Name, *LIBL
To File . . . . . *FROMFILE Name, *FROMFILE
                               *LIBL Name, *LIBL
Cmd to execute after transfer. . *NONE

-----

Device . . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier . . . . *LOC Name, *LOC, *NETATR, *NONE
APPC Security User Profile. . . . *DFT Name, *DFT, *NONE, *USER
APPC Security Password. . . . . *NONE Name, *NONE

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The XSAVF command has the following parameters:

## DEVDP Parameter (S/38 only)

Specifies the name of the \*PEER device description which communicates to the remote system.

## RMTLOCNAME Parameter (AS/400 only)

Specifies the name of the Remote Location Name which communicates to the remote system.

## MODE Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*FIRST: (S/38 only) The first mode added to the device description during configuration will be used.

\*NETATR: (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine this value.

## FROMFILE Parameter

Specifies the Save file on the source system to be transferred.

# FILEXFER3X/400™

## **TOFILE Parameter**

Specifies the name of the Save file on the target system which is to receive the transferred records.

\*FROMFILE: The file on the target system is the same as the file on the source system.

## **EXEC Parameter**

Specifies the command to be executed, using QCAEXEC (S/38) or QCMDEXC (AS/400), after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single quote ('). Lower case letters will be translated to upper case.

## **DEV Parameter (AS/400 Only)**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter (AS/400 Only)**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter (AS/400 Only)**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used. \*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## ***File Transfer Using TCP/IP***

The XTFILE command will transmit the specified data file via TCP/IP from an AS/400 to an AS/400. Up to 50 members can be specified, each generic, or \*ALL. If the file exists on the target system the transmitted records will replace the existing records. If the file does not exist on the target system, it will be created. Since DDS will not be used, the created file will be a sequential, internally described file.

## ***XTFILE Parameters***

# FILEXFER3X/400™

At the command line enter XTFILe then press Enter. The following screen should appear:

```
Transfer files to AS/400 (TCP) (XTFILE)

Type choices, press Enter.

Remote Name or IP address. . _____
_____

From file . . . . . *NOCOPY      Name, *NOCOPY
                               *LIBL      Name, *LIBL
To File . . . . . *FROMFILE     Name, *NOCOPY, *FROMFILE
                               *LIBL      Name, *LIBL
From File Member, Gen*, *AL. . *FILE      Name, generic*, *FILE, *ALL
      + for more values
To File Member .. . . . *FROMMBR     Name, *FROMMBR
Cmd to execute after transfer . *NONE
Remote Server Port Number. . . *DFT      1-65535, *DFT

More...

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

```
Transfer files to AS/400 (TCP) (XTFILE)

Type choices, press Enter.

Use Secure Socket Layer (SSL) . . . *SVR      *SVR, *YES, *NO
System Store Name . . . . . *DFT
System Store Password . . . . . *DFT      Character, *NONE
Application ID . . . . . *DFT      Character, *DFT, *NONE
Security User Profile . . . . . *DFT      Name, *DFT, *NONE
Security Password . . . . . *DFT      Name, *NONE

F3=Exit  F4=Promt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More Keys
```

# FILEXFER3X/400™

The XTFILE command has the following parameters:

## **RMTADDR Parameter**

Specifies the name or IP address of the remote system. If a name is specified, the sending AS/400 must be able to look up the specified name and determine its IP address. If an IP address is specified, it must be in dotted decimal form (192.168.1.1).

## **FROMFILE Parameter**

Specifies the file on the source system to be transferred. The file's record length must be between 4 and 4088 characters (inclusive).

\*NOCOPY: Specifies that no file is to be transferred. The user in this case wishes to execute a command on the remote system without transferring data.

## **TOFILE Parameter**

Specifies the name of the file on the target system which is to receive the transferred records.

\*FROMFILE: The file on the target system is the same as the file on the source system.

## **FROMMBR Parameter**

Specifies the members to transfer. Specify up to 50 members, each can be generic, or specify \*ALL. If the member exists within the file on the target system, the transmitted records will replace the existing records. If the member does not exist, it will be added to the target file.

\*FILE: The member name is the same as the file name.

\*ALL: All members in the file are to be transferred.

## **TOMBR Parameter**

Specifies the member name on the target system to contain transferred records. The TOMBR parameter is ignored if on the FROMMBR parameter a) more than one member is specified, b) a generic member is specified, or c) \*ALL is specified.

\*FROMMBR: The member on the target system will be the same as on the source system.

## **EXEC Parameter**

Specifies the command to be executed, using QCMDEXEC, after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single quote (').

\*NONE: No command is to be executed after the transfer completes. Please note if FROMFILE(\*NOCOPY) is specified, EXEC cannot be \*NONE.

## **Remote Server Port number (SVRPORT) Parameter**

Specifies the port number to use to communicate with the FileXfer Server on the receiving system. This

# FILEXFER3X/400™

value must match the value specified on the Server Attributes on the remote system.

\*DFT: The FileXfer Server port number attribute for the Local system will be used for the port number.

## **Use Secure Socket Layer (SSL) Parameter**

Specifies if the Secure Socket Layer (SSL) feature of TCP is used. Specify one of the following:

\*SVR: The FileXfer Server on the remote system will determine if SSL will be used.

\*YES: SSL will be used.

\*NO: SSL will not be used.

**Note:** SSL requires additional setup on both the sending and receiving machines. Refer to Appendix D, “TCP Considerations” for more information.

## **System Store Name and Password Parameters**

Specifies, for SSL, the System store containing the Digital Certificate to use.

\*DFT: The values defined for the Local system’s FileXfer Server will be used.

\*SYSTEM: The default System Store contains the Digital Certificate.

## **Application ID (APPLID) Parameter**

Specifies, for SSL, the Application ID to use to specify the Digital Certificate.

\*DFT: The value defined for the Local system’s FileXfer Server will be used.

\*NONE: No Application ID is specified. The Digital Certificate to use is the default for the specified System Store.

## **Security User ID and Password Parameters**

Specifies the User ID and Password the source system will send to the target AS/400 when TCP communications is established. If the FileXfer Server on the remote system requires a User ID and Password, these values must match.

\*DFT: The values defined for the Local system’s FileXfer Server will be used.

\*NONE: No Userid or Password is sent.

## ***Object Transfer using TCP/IP***

The XT OBJ command will transfer objects from an AS/400 to an AS/400 using TCP/IP.

# FILEXFER3X/400™

**Note:** Object transfer utilizes the RSTOBJ command on the target system, which in certain circumstances will not restore desired objects. Some examples are:

- Object owner is different on the source and target systems.
- File Level different on the source and target systems.
- Based on Physical File for Logical File not found.

The user must insure the object transfer completes normally and that objects are not skipped for the above (or other) reasons.

## *XTOBJ Parameters*

At the command line enter XTOBJ then press Enter. The following screen should appear:

```
Copy objects to Rmt AS/400 TCP (XTOBJ)

Type choices, press Enter.

Remote Name or IP Address . . . _____
_____

Object names, generic* or *ALL                Name, generic*, *ALL
      + for more values
From Library (on local system).                Name
To Library (on remote system) . *FROMLIB      Name, *FROMLIB
Object types. . . . . *ALL                    *ALL, *ALRTBL, *CFGL...
      + for more values
Cmd to execute after transfer. *NONE_____
_____

Remote Server port number . . . *DFT          1-65535, *DFT
Use Secure Socket Layer . . . *SVR           *SVR, *YES, *NO

More...

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

# FILEXFER3X/400™

```
Copy objects to Rmt AS/400 TCP (XTOBJ)

Type choices, press Enter.

System Store Name . . . . . *DFT          Name, *DFT, *SYSTEM, *NONE
System Store Password . . . . . *DFT      Character, *DFT
Application ID . . . . . *DFT            Character, *DFT, *NONE
Security User Profile . . . . . *DFT      Name, *DFT, *NONE
Security Password . . . . . *NONE        Name, *NONE
Target Release . . . . . *CURRENT        Character, *CURRENT

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
```

The XTOBJ command has the following parameters:

## RMTADDR Parameter

Specifies the name or IP address of the remote system. If a name is specified, the sending AS/400 must be able to look up the specified name and determine its IP address. If an IP address is specified, it must be in dotted decimal form (192.168.1.1).

## FROMLIB Parameter

Specifies the library on the source system which contains the objects to be transferred.

## TOLIB Parameter

Specifies the library on the target system which is to receive the transferred records.

\*FROMLIB: The library on the target system is the same as the library on the source system.

## OBJ Parameter

Specifies the objects to transfer. Specify up to 50 objects, each can be generic, or specify \*ALL.

\*ALL: All members in the file are to be transferred.

## OBJTYPE Parameter

Specifies the object type to be transferred. Specify up to 31 object types, or \*ALL.

\*ALL: All object types will be transferred to the remote system.

## EXEC Parameter

Specifies the command to be executed, using QCMDEXEC, after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single

# FILEXFER3X/400™

quote (').

## **Remote Server Port number (SVRPORT) Parameter**

Specifies the port number to use to communicate with the FileXfer Server on the receiving system. This value must match the value specified on the Server Attributes on the remote system.

\*DFT: The FileXfer Server port number attribute for the Local system will be used for the port number.

## **Use Secure Socket Layer (SSL) Parameter**

Specifies if the Secure Socket Layer (SSL) feature of TCP is used. Specify one of the following:

\*SVR: The FileXfer Server on the remote system will determine if SSL will be used.

\*YES: SSL will be used.

\*NO: SSL will not be used.

**Note**: SSL requires additional setup on both the sending and receiving machines. Refer to Appendix D, "TCP Considerations" for more information.

## **System Store Name and Password Parameters**

Specifies, for SSL, the System store containing the Digital Certificate to use.

\*DFT: The values defined for the Local system's FileXfer Server will be used.

\*SYSTEM: The default System Store contains the Digital Certificate.

## **Application ID (APPLID) Parameter**

Specifies, for SSL, the Application ID to use to specify the Digital Certificate.

\*DFT: The value defined for the Local system's FileXfer Server will be used.

\*NONE: No Application ID is specified. The Digital Certificate to use is the default for the specified System Store.

## **Security User ID and Password Parameters**

Specifies the User ID and Password the source system will send to the target AS/400 when TCP communications is established. If the FileXfer Server on the remote system requires a User ID and Password, these values must match.

\*DFT: The values defined for the Local system's FileXfer Server will be used.

\*NONE: No Userid or Password is sent.

## **TGTRLS Parameter (AS/400 Only)**

## **FILEXFER3X/400™**

Specifies the OS/400 version/release/modification level of the receiving system. For valid values, see the "Target Release" parameter of the IBM SAVOBJ command.

\*CURRENT: The current OS/400 release will be used.

### **ALWSKP Parameter (AS/400 Only)**

Specifies the command will continue if some of the specified objects cannot be accessed. Reasons objects are skipped include allocate problems and authority problems.

\*NO: If any specified object cannot be processed, the command will fail and issue escape message XFR-1000.

\*YES: If some specified objects cannot be processed, the command will continue and at successful completion will issue escape message XFR-1091. If no specified objects are processed, the command will fail and issue escape message XFR-1000.

## ***Save File Transfer Using TCP/IP***

The XTSAVF command will transfer the contents of a Save File via TCP/IP from an AS/400 to an AS/400.

### ***XTSAVF Parameters***

At the command line enter XTSAVF then press enter. The following screen should appear:

# FILEXFER3X/400™

```
Move Save files to AS/400 TCP (XTSAVF)

Type choices, press Enter.

Remote Name or IP Address . . . _____

From file . . . . . Name
*LIBL Name, *LIBL
To File . . . . . *FROMFILE Name, *FROMFILE
*LIBL Name, *LIBL
Cmd to execute after transfer . *NONE

Remote Server Port Number . . . *DFT 1-65535, *DFT
Use Secure Socket Layer . . . *SVR *SVR, *YES, *NO
System Store Name . . . . . *DFT Name, *DFT, *SYSTEM, *NONE
System Store Password . . . . . *DFT Name, *DFT, *NONE
Security User ID . . . . . *DFT Name, *DFT, *NONE
Security Password . . . . . *NONE Name, *NONE

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The XTSAVF command has the following parameters:

## RMTADDR Parameter

Specifies the name or IP address of the remote system. If a name is specified, the sending AS/400 must be able to look up the specified name and determine its IP address. If an IP address is specified, it must be in dotted decimal form (192.168.1.1).

## FROMFILE Parameter

Specifies the Save file on the source system to be transferred.

## TOFILE Parameter

Specifies the name of the Save file on the target system which is to receive the transferred records.

\*FROMFILE: The file on the target system is the same as the file on the source system.

## EXEC Parameter

Specifies the command to be executed, using QCMDEXEC, after all records are transferred to the target system successfully. Any double quote (") encountered in the EXEC string will be changed to a single quote (').

# FILEXFER3X/400™

## **Remote Server Port number (SVRPORT) Parameter**

Specifies the port number to use to communicate with the FileXfer Server on the receiving system. This value must match the value specified on the Server Attributes on the remote system.

\*DFT: The FileXfer Server port number attribute for the Local system will be used for the port number.

## **Use Secure Socket Layer (SSL) Parameter**

Specifies if the Secure Socket Layer (SSL) feature of TCP is used. Specify one of the following:

\*SVR: The FileXfer Server on the remote system will determine if SSL will be used.

\*YES: SSL will be used.

\*NO: SSL will not be used.

**Note:** SSL requires additional setup on both the sending and receiving machines. Refer to Appendix D, “TCP Considerations” for more information.

## **System Store Name and Password Parameters**

Specifies, for SSL, the System store containing the Digital Certificate to use.

\*DFT: The values defined for the Local system’s FileXfer Server will be used.

\*SYSTEM: The default System Store contains the Digital Certificate.

## **Application ID (APPLID) Parameter**

Specifies, for SSL, the Application ID to use to specify the Digital Certificate.

\*DFT: The value defined for the Local system’s FileXfer Server will be used.

\*NONE: No Application ID is specified. The Digital Certificate to use is the default for the specified System Store.

## **Security User ID and Password Parameters**

Specifies the User ID and Password the source system will send to the target AS/400 when TCP communications is established. If the FileXfer Server on the remote system requires a User ID and Password, these values must match.

\*DFT: The values defined for the Local system’s FileXfer Server will be used.

\*NONE: No Userid or Password is sent.

# S/3X, AS/400 TO S/370 VSAM TRANSFER

## *AS/400, S/38 to S/370 File Transfer*

The XVSAM command will transmit the specified data file from a S/36, S/38 or AS/400 to a S/370 MVS VSAM dataset. ESDS (sequential) or KSDS (Keyed) dataset types are supported. If the dataset exists on the target system the transmitted records will replace the existing records. If the dataset does not exist on the target system, it will be created.

## *AS/400, S/38 XVSAM Parameters*

At the command line enter XVSAM then press Enter. The following screen should appear:

```
Transfer files to MVS VSAM (XVSAM)

Type choices, press Enter.

Remote Location Name . . . . . Name
Device Mode Entry . . . . . *NETATR Name, *NETATR
From file . . . . . *NOCOPY Name, *NOCOPY
                               *LIBL Name, *LIBL
From File Member . . . . . *FILE Name, *FILE, *FIRST
VSAM File Name . . . . . *FROMFILE

VSAM File Catalog . . . . . *NONE
-----
VSAM Model for Build Cluster . *NONE
-----
VSAM Model Catalog . . . . . *NONE
-----

File Password . . . . . *NONE Character value
Catalog Password . . . . . *NONE Character value
Model Password . . . . . *NONE Character value

More...

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

# FILEXFER3X/400™

```
Transfer Files to MVS VSAM (XVSAM)

Type choices, press Enter.

Model Catalog Password. . . . . *NONE      Character value
VSAM File Type. . . . . ESDS          ESDS, KSDS
Key Position. . . . . *NONE          Number, *NONE
Key Length. . . . . *NONE           Number, *NONE
Record Length . . . . . *CALC         Number, *CALC
VSAM VOLUMES if Build . . . . . *NONE      Character value, *NONE
      + for more values
User Data for User Exits. . . . . *NONE

-----

Device. . . . . *LOC          Name, *LOC
Local Location Name . . . . . *LOC      Name, *LOC, *NETATR
Remote Network Identifier . . . . . *LOC  Name, *LOC, *NETATR, *NONE

Bottom

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

The XVSAM command has the following parameters:

## DEV D Parameter (S/38 only)

Specifies the name of the \*PEER device description which communicates to the remote system.

## RMTLOCNAME Parameter (AS/400 only)

Specifies the name of the Remote Location Name which communicates to the remote system.

## MODE Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*FIRST: (S/38 only) The first mode added to the device description during configuration will be used.

\*NETATR: (AS/400 only) The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## FROMFILE Parameter

Specifies the file on the source system to be transferred. The file's record length must be between 4 and 4088 characters (inclusive).

# S/3X, AS/400 TO S/370 VSAM TRANSFER

**\*NOCOPY:** Specifies that no file is to be transferred. The user in this case wishes to execute a command on the remote system without transferring data.

## **FROMMBR Parameter**

Specifies the member to transfer.

**\*FILE:** The member name is the same as the file name.

**\*FIRST:** The first member in the file will be transferred.

## **TOFILE Parameter**

Specifies the name of the VSAM dataset on the target system which is to receive the transferred records.

**\*FROMFILE:** The file on the target system is the same as the file on the source system.

## **TOFILECAT Parameter**

Specifies the VSAM User Catalog the dataset resides in.

**\*NONE:** The dataset does not reside in a user catalog.

## **TOMODEL and TOMODELCAT Parameters**

Specifies the dataset to use as a model if the dataset is created on the target system. Contact the remote system for this information.

**\*NONE:** No Model is used to create the dataset.

## **FILEPW, CATALOGPW, MODELPW, and MODCATPW Parameters**

Specifies the password needed to access the corresponding dataset and catalog.

**\*NONE:** No password is required.

## **VSAMTYPE Parameter**

Specifies the type of dataset on the remote system.

**ESDS:** The dataset is an Entry-sequenced dataset (sequential).

**KSDS:** The dataset is a Key-sequenced dataset.

**Note:** The following KEYPOS, KEYLEN, RECLEN, and VOLUMES parameters are only used if the dataset is created by FileXfer. Otherwise they are ignored.

## **KEYPOS Parameter**

Specifies the key position for KSDS datasets. Please note VSAM datasets start their relative position at zero. FileXfer will subtract 1 from the specified value to be compatible with VSAM.

# FILEXFER3X/400™

## **KLEN Parameter**

Specifies the key length.

## **RECLLEN Parameter**

Specifies the record length. If greater than the from file's record length, FileXfer will right pad the transmitted records with blanks. If smaller, FileXfer will truncate the transmitted records.

## **VOLUMES Parameter**

Specifies the VSAM volumes to contain the dataset. Contact the remote location for this information.

## **User Data Parameter**

Specifies the data passed to User Exit Programs. Refer to the FileXfer/370 Reference Manual, Appendix B, "User Exit Programs" for more information.

\*NONE: A blank area will be passed to the exit programs.

## **DEV Parameter (AS/400 Only)**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter (AS/400 Only)**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter (AS/400 Only)**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **PREJCLFILE, PREJCLMBR, PSTJCLFILE and PSTJCLMBR Parameters (AS/400 Only)**

Specifies the file which contains MVS JCL statements to include into the submitted job. See Chapter 13, "Specifying Pre and Post JCL Files" for a description of JCL files.

# S/3X, AS/400 TO S/370 VSAM TRANSFER

## *AS/400, S/38 XVSAM Examples*

The following command transfers the file CUSTMAST to the remote system.

### **S/38**

```
XVSAM DEVD(RMTA) MODE(BATCH) FROMFILE(CUSTMAST.DATALIB)
TOCATALOG(CATALOG.DATA) USERDATA('CUSTMAST')
```

### **AS/400**

```
XVSAM RMTLOCNAME(RMTA) MODE(BATCH) FROMFILE(DATALIB/CUSTMAST)
TOCATALOG(CATALOG.DATA) USERDATA('CUSTMAST')
```

## *S/36 to S/370 Transfer*

The XVSAM procedure will transfer a sequential or indexed file from the S/36 to an MVS VSAM ESDS (sequential) or KSDS (keyed) dataset. If the dataset exists on the target system the transmitted records will replace the existing records. If the data-set does not exist on the target system, it will be created. The XVSAM procedure uses the following positional parameters:

## *S/36 XVSAM Parameters*

At the command line enter XVSAM then press Enter. The following screen should appear:

<b>XVSAM Procedures</b>		Optional: *
Upload a S/36 file to an MVS VSAM Dataset		
S/36 file name. . . . .	file name, *NOCOPY	_____
VSAM Specifications Name. . . . .		_____
Remote location name. . . . .		_____
Session group name. . . . .		_____
		Cmd7:Exit
		Help
Copyright 1988, Broderick Data Systems		

# FILEXFER3X/400™

Or, on the command line you can enter the following:

XVSAM S/36 file name, VSAM specs name, remote location name, session group.

## **S/36 File Name**

Specifies the file on the S/36 to send to the remote system.

## **VSAM Specs Name**

Specifies the VSAM Specifications Name to retrieve to get the VSAM dataset information. See Chapter 8, "Managing VSAM Specifications" for more information.

## **Remote Location Name**

Specifies the APPC Remote Location Name to use to communicate to the remote system.

## **Session Group Name**

Specifies the APPC Session Group Name to use to communicate to the remote system.

## **User Data Information**

Specify user data which will be passed to user exit programs in the Local Data Area, starting a position 256 for length 256.

## ***S/36 XVSAM Examples***

The following procedure transfers the file CUSTMAST to the remote system:

```
// LOCAL OFFSET-257,BLANK-256,DATA-'CUSTMAST' XVSAM  
CUSTMAST,CUSTSPEC,RMTA,BATCH
```

# MANAGING SAM AND VSASM SPECIFICATIONS

## *Maintaining SAM and VSAM*

The MNGVSAM procedure allows the user to describe the name, catalog, model, passwords, and other attributes of a VSAM dataset. The user refers to this specification by name when using the S/36 XVSAM procedure. The LSTVSAM prints the VSAM Specifications.

The MNGSAM procedure allows the user to describe the name and other attributes of a SAM dataset. The user refers to this specification by name when using the S/36 XSAM or RMVSFILE procedures. The LSTSAM prints the SAM Specifications.

## *SAM Specifications*

Enter the MNGSAM proc, enter a name to add or change, and the following screen should appear:

```
FileXfer/36
Manage SAM File Specifications

Specifications Name:_____

Dataset name:_____
Create if not found: *NO
Use MVS Catalog: *NO
Volumes: *NONE _____
Unit Identifier: SYSDA
GDG Model Name: *NONE
Keep RDW: *YES
Description:_____

Cmd3=Return
Cmd7=Exit
```

The MNGSAM proc has the following parameters:

### **Dataset Name**

Specifies the dataset on the remote system which will receive or retrieve records.

### **Create if not found (XSAM proc only)**

Specifies if the dataset will be created on the remote system if it does not already exist.

### **Use MVS Catalog (XSAM Only)**

Specifies if the MVS catalog facility will be used to locate the dataset.

# FILEXFER3X/400™

## VOLUMES Parameter

Specifies the volumes to contain the dataset. Contact the remote location for this information. If \*NONE is specified during an RMVSFILE operation, the MVS catalog will be used.

## Unit Identifier

Specifies the unit to use. Contact the remote system for this information. Specify \*NONE to indicate no unit.

## GDG Model Name (XSAM only)

Specifies, for transfers to a GDG dataset, the file to use as a model to retrieve DSCB information.

## Keep RDW (RMVSFILE only)

Specifies, for variable length records, if the 4 byte RDW is to be transmitted at the beginning of each record.

## Description

Enter a brief description.

## VSAM Specifications

Enter the MNGVSAM proc, enter a name to add or change, and the following screen should appear:

FileXfer/36	
Manage VSAM File Specifications	
Specifications Name: _____	
	Passwords
Dataset name: <u>*NOCOPY</u>	<u>*NONE</u>
Catalog name: <u>*NONE</u>	<u>*NONE</u>
Model name: <u>*NONE</u>	<u>*NONE</u>
Model Catalog name: <u>*NONE</u>	<u>*NONE</u>
Dataset type: <u>ESDS</u>	ESDS or KSDS
Record Len: <u>00000</u>	0=NONE, 1-4088
Num Records: <u>000000000</u>	0=NONE
Key Position: <u>00000</u>	0=NONE
Key Length: <u>00000</u>	0=NONE
Volumes: <u>*NONE</u> _____	
Description: _____	
	Cmd3=Return
	Cmd7=Exit

# MANAGING SAM AND VSASM SPECIFICATIONS

The MNGVSAM proc has the following parameters:

## **File Name**

Specifies the dataset on the remote system which will receive the records.

\*NOCOPY: No data file will be sent. In this case the user wishes to send data to the user exit program at the remote system.

## **Catalog Name**

Specifies the VSAM User Catalog where the dataset resides.

\*NONE: The dataset does not reside in a user catalog.

## **Model Name and Catalog**

Specifies the model to use if the dataset is created. Ask the remote system for this information.

\*NONE: A model will not be used to create the dataset.

## **Dataset Type**

Specify ESDS for sequential or KSDS for keyed dataset types.

**Note:** The Record Length, Number of Records, Key, and Volumes fields are only used if the file is being created. They are ignored otherwise.

## **Record Length**

Specifies the record length. If greater than the from file's record length, FileXfer will right pad the transmitted records with blanks. If smaller, FileXfer will truncate the transmitted records.

## **Number of Records**

Specifies the number of records to allocate to the file.

## **Key Position**

Specified the key position for KSDS datasets. Please note VSAM datasets start their relative position at zero. FileXfer will subtract 1 from the specified value to be compatible with VSAM.

## **Key Length**

Specifies the key length.

## **VOLUMES Parameter**

Specifies the VSAM volumes to contain the dataset. Contact the remote location for this information.

## **Description**

Enter a brief description.

# S/36, AS/400 TO S/370 SAM TRANSFER

## *S/36, AS/400 to S/370 File Transfer*

The XSAM command will transmit the specified data file from an AS/400 or System/36 to a S/370 MVS SAM dataset. If the dataset exists on the target system the transmitted records will replace the existing records. If the dataset does not exist on the target system, it can be created.

### *AS/400 XSAM Parameters*

At the command line enter XSAM then press enter. The following screen should appear:

```
Transfer files to MVS SAM (XSAM)

Type choices, press Enter.

Remote Location Name . . . . . _____ Name
Device Mode Entry . . . . . *NETATR Name, *NETATR
From file . . . . . _____ Name
                               *LIBL Name, *LIBL
From File Member . . . . . *FILE Name, *FILE, *FIRST
SAM File Name . . . . . *FROMFILE

_____
Create file if not found . . . . *NO *YES, *NO
Use MVS Catalog . . . . . *YES *YES, *NO
Volume Serials . . . . . *NONE Character value, *NONE
      + for more values
User Data for User Exits . . . . *NONE

_____
_____
_____
Device . . . . . *LOC Name, *LOC

More...
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

# FILEXFER3X/400™

```
Transfer files to MVS SAM (XSAM)

Type choices, press Enter.

Local Location Name. . . . . *LOC      Name, *LOC, *NETATR
Remote Network Identifier. . . *LOC      Name, *LOC, *NETATR, *NONE
Remote System Unit Identifier. SYSDA      Character value *NONE
GDG Model file name. . . . . *NONE

Bottom

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

The XSAM command has the following parameters:

## RMTLOCNAME Parameter

Specifies the name of the Remote Location Name which communicates to the remote system.

## MODE Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## FROMFILE Parameter

Specifies the file on the source system to be transferred. The file's record length must be between 4 and 4088 characters (inclusive).

## FROMMBR Parameter

Specifies the member to transfer.

\*FILE: The member name is the same as the file name.

\*FIRST: The first member in the file will be transferred.

## TOFILE Parameter

Specifies the name of the SAM dataset on the target system which is to receive the transferred records.

# S/36, AS/400 TO S/370 SAM TRANSFER

\*FROMFILE: The file on the target system is the same as the file on the source system.

## **CREATE Parameter**

Specifies if File Xfer is to create the dataset on the remote system if it does not exist.

## **CATALOG Parameter**

Specifies if the dataset is a cataloged dataset. Also specifies if it is to be created as a cataloged dataset.

## **VOLUMES Parameter**

Specifies the volumes to contain the dataset. Contact the remote location for this information.

## **USER DATA Parameter**

Specifies the data passed to User Exit Programs. Refer to the FileXfer/370 Reference Manual, Appendix B, "User Exit Programs" for more information.

\*NONE: A blank area will be passed to the exit programs.

## **DEV Parameter**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **UNIT Parameter (AS/400 only)**

Specifies the Unit the remote system will use. Contact the remote system for this information.

# FILEXFER3X/400™

SYSDA: System Direct access devices (UNIT=SYSDA) will be used.

\*NONE: No unit will be used.

## **GDGMODEL Parameter (AS/400 only)**

Specifies the name of the file on the remote system which will be used as a model for DSCB information. This model is used when adding the latest (+n) revision to a generation data group.

\*NONE: No model file is used.

## **PREJCLFILE, PREJCLMBR, PSTJCLFILE and PSTJCLMBR Parameters (AS/400 Only)**

Specifies the file which contains MVS JCL statements to include into the submitted job. See Chapter 13, "Specifying Pre and Post JCL Files" for a description of JCL files.

## *AS/400 XSAM Examples*

The following command transfers the file CUSTMAST to the remote system.

```
XSAM RMTLOCNAME(RMTA) MODE(BATCH) FROMFILE(DATALIB/CUSTMAST)
USERDATA('CUSTMAST')
```

## *System/36 XSAM Parameters*

At the command line enter XSAM then press Enter. The following screen should appear:

```

                                XSAM PROCEDURE
                                Optional-*
                                Upload a S/36 file to an MVS SAM Dataset

S/36 file name. . . . . file name _____
SAM Specifications name. . . . . _____
Remote location name. . . . . _____
Session group name. . . . . _____

                                Cmd7:Exit
                                HELP
                                Copyright 1988, 1993 Broderick Data Systems
```

The XSAM procedure has the following format:

# **S/36, AS/400 TO S/370 SAM TRANSFER**

XSAM S/36 file, SAM specification, remote location, session group.

## **S/36 File Parameter**

Specifies the name of the file on the local system which is to receive the transferred records.

## **Sam Specification Parameter**

Specifies the name of the SAM Specification which contains information describing the remote file. Refer to Chapter 8, "Managing VSAM and SAM Specifications" for more information.

## **Remote Location Parameter**

Specifies the APPC Remote Location Name which communicates to the remote system.

## **Session Group Parameter**

Specifies the APPC Session Group within the above Remote Location to use.

# AS/400 TO S/370 PDS TRANSFER

## *Transferring Partitioned Dataset Members*

The XPDS command will transmit the specified source file members from an AS/400 to S/370 MVS Partitioned Dataset members. If the members exist on the target system the transmitted records will replace the existing records. If the member does not exist on the target system it will be added. The PDS must exist on the target system. Up to 50 generic member names can be specified, or \*ALL.

## *AS/400 XPDS Parameters*

At the command line enter XPDS then press enter. The following screen should appear:

```
Transfer file mbrs to MVS PDS (XPDS)

Type choices, press Enter.

Remote Location Name . . . . . _____ Name
Device Mode Entry. . . . . _____ *NETATR Name, *NETATR
From file . . . . . _____ Name
                               _____ *LIBL Name, *LIBL
From File Member . . . . . _____ *ALL Name, generic*, *ALL
      + for more values
Partitioned Dataset Name . . . . _____

User Data for Users Exits . . . . *NONE _____

Device . . . . . _____ *LOC Name, *LOC
Local Location Name . . . . . _____ *LOC Name, *LOC, *NETATR
Remote Network Identifier . . . _____ *LOC Name, *LOC, *NETATR, *NONE
Remote System Unit Identifier . _____ SYSDA Character value, *NONE
                                                    Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More Keys
```

The XPDS command has the following parameters:

### **RMTLOCNAME Parameter**

Specifies the name of the Remote Location Name which communicates to the remote system.

### **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

# FILEXFER3X/400™

## **FROMFILE Parameter**

Specifies the file on the source system to be transferred. The file's record length must be between 4 and 4088 characters (inclusive).

## **FROMMBR Parameter**

Specifies the members to transfer. Specify up to 50 members or \*ALL. To specify a generic member, place a '\*' at the end.

\*ALL: The member name is the same as the file name.

## **TOFILE Parameter**

Specifies the name of the SAM dataset on the target system which is to receive the transferred records.

\*FROMFILE: The file on the target system is the same as the file on the source system.

## **USER DATA Parameter**

Specifies the data passed to User Exit Programs. Refer to the FileXfer/370 Reference Manual, Appendix B, "User Exit Programs" for more information.

\*NONE: A blank area will be passed to the exit programs.

## **DEV Parameter**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **UNIT Parameter (AS/400 only)**

## **AS/400 TO S/370 PDS TRANSFER**

Specifies the Unit the remote system will use. Contact the remote system for this information.

**SYSDA**: System Direct access devices (UNIT=SYSDA) will be used.

\*NONE: No unit will be used.

### **PREJCLFILE, PREJCLMBR, PSTJCLFILE and PSTJCLMBR Parameters (AS/400 Only)**

Specifies the file which contains MVS JCL statements to include into the submitted job. See Chapter 13, "Specifying Pre and Post JCL Files" for a description of JCL files.

## ***AS/400 XPDS Examples***

The following command transfers all members that begin with ABC in file ARSRC to the remote system.

```
XPDS RMTLOCNAME(RMTA) MODE(BATCH) FROMFILE (SOURCELIB/ARSRC)  
FROMMBR(ABC*) USERDATA('CUSTMAST')
```

# AS/400 FILE RETRIEVAL

Data files on other AS/400, System/36, or MVS machines can be retrieved and placed into an AS/400 file member. The retrieved data replaces the existing data in the file. The entire file's data is replaced only after the transfer completes normally. The following commands are used to retrieve data from another system:

- + R400FILE - Retrieves data from a remote AS/400 file member.
- + R36FILE - Retrieves data from a remote S/36 file.
- + RMVSFILE - Retrieves data from a remote MVS SAM file.
- + RT400FILE - Retrieves data from a remote AS/400 file member using TCP/IP.

## *R400FILE Parameters*

At the command line enter R400FILE then press enter. The following screen should appear:

```
Receive files from AS/400s (R400FILE)

Type choices, press Enter.

Remote Location Name . . . . . Name
From File (on remote system) . . . Name
                                     *LIBL Name, *LIBL
To File (on local system). . . . . Name, *RMTFILE
                                     *LIBL Name, *LIBL
From Member (on remote system) . . *FILE Name, *FIRST, *FILE
To Member (on local system). . . . *FILE Name, *RMTMBR, *FILE, *FIRST
Device Mode Entry. . . . . *NETATR Name, *NETATR
Device . . . . . *LOC Name, *LOC
Local Location Name. . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier. . . . . *LOC Name, *LOC, *NETATR, *NONE
APPC Security User Profile . . . . *DFT Name, *DFT, *NONE, *USER
APPC Security Password . . . . . *NONE Name, *NONE

Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The R400FILE command has the following parameters.

### **RMTLOCNAME Parameter**

Specifies the name of the Remote Location Name which communicates to the remote system.

### **RMTRFILE Parameter**

# FILEXFER3X/400™

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed. For remote MVS, the file must be a SAM file.

## **LCLFILE Parameter**

Specifies the name of the file on the local system which is to receive the transferred records.

\*RMTFILE: The file on the target system is the same as the file on the source system.

## **RMTMBR Parameter**

Specifies the member on the remote system to transfer.

\*FILE: The member name is the same as the file name.

\*FIRST: The first member added to the file contains the desired records.

## **LCLMBR Parameter**

Specifies the member name on the local system to receive transferred records.

\*RMTMBR: The member on the target system will be the same as on the source system.

\*FILE: The member name is the same as the file name.

\*FIRST: The first member added to the file will receive the retrieved records.

## **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **DEV Parameter**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

# AS/400 FILE RETRIEVAL

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **APPCUSER Parameter**

Specifies the user profile and password APPC will use to evoke the remote programs. Specify \*DFT, \*NONE, \*USER, or a user profile.

\*DFT: The values specified on the setup screen (BXFERSETUP command) are used. This option allows the user to change user profile and password information at one location for all FileXfer commands.

\*NONE: No User profile or password information is sent during the evoke operation. The remote AS/400 must be properly configured with a communications entry specifying a valid user profile in the Default User Profile field.

\*USER: User profile QSYSOPR will be sent with the AVI (already verified indicator) flag set on.

## **User Profile**

Specifies the user profile to send during the evoke operation. This user must exist on the remote system and must be activated. The remote task will execute using this user profile.

## **APPCPASS Parameter**

Specifies the password sent during the evoke operation. This parameter must be specified when a user profile is specified in the APPCUSER parameter, and this must be the correct password for the specified user.

## ***Notes:***

- 1) See Appendix B, "AS/400 Security Considerations" for information concerning configuration requirements for the above options.
- 2) User profile BDSUSER with password BDSPASS is created on AS/400 machines during the install of FileZfer.
- 3) To verify a user profile and password, bring up a sign on screen on the remote system and attempt to sign on using the desired user profile and password.

# FILEXFER3X/400™

## *R36FILE Parameters*

At the command line enter R36FILE then press enter. The following screen should appear:

```
Receive files from S/36s (R36FILE)

Type choices, press Enter.

Remote Location Name. . . . . Name
From file (on remote system). . Name
To file (on local system) . . . Name
                                *LIBL Name, *LIBL
To Member (on local system) . . *FILE Name *RMTMBR, *FILE, *FIRST
Device Mode Entry . . . . . *NETATR Name, *NETATR
Device. . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier . . *LOC Name, *LOC, *NETATR, *NONE
                                Bottom
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The command R36FILE has the following parameters:

### **RMTLOCNAME Parameter**

Specifies the name of the Remote Location Name which communicates to the remote system.

### **RMTFILE Parameter**

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed. For remote MVS, the file must be a SAM file.

### **LCLFILE Parameter**

Specifies the name of the file on the local system which is to receive the transferred records.

### **LCLMBR Parameter**

Specifies the member name on the local system to receive transferred records.

\*RMTMBR: The member on the target system will be the same as on the source system.

\*FILE: The member name is the same as the file name.

# AS/400 FILE RETRIEVAL

\*FIRST: The first member added to the file will receive the retrieved records.

## **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **DEV Parameter**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## ***RMVSFILE Parameters***

At the command line enter RMVSFILE then press enter. The following screen should appear:

# FILEXFER3X/400™

```
Receive files from MVS Systems (RMVSFILE)

Type choices, press Enter.

Remote Location Name. . . . . Name
From file (on remote system). . . Name
To file (on local system) . . . Name, *RMTFILE
                                *LIBL Name, *LIBL
To Member (on local system) . . . *FILE Name, *FILE, *FIRST
Device Mode Entry . . . . . *NETATR Name, *NETATR
Device. . . . . *LOC Name, *LOC
Local Location Name . . . . . *LOC Name, *LOC, *NETATR
Remote Network Identifier . . . *LOC Name, *LOC, *NETATR
Remote system Unit Identifier . . SYSDA Character value
Volume Serials. . . . . *NONE Character value, *NONE
                                + for more values
Keep RDW on variable len recs . . *YES *YES, *NO

More...

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

```
Receive files from MVS Systems (RMVSFILE)

Type choices, press Enter.

User Data for User Exits. . . . . *NONE
_____
_____
_____

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
```

The command RMVSFILE has the following parameters:

## RMTLOCNAME Parameter

Specifies the name of the Remote Location Name which communicates to the remote system.

## RMTFILE Parameter

# AS/400 FILE RETRIEVAL

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed. For remote MVS, the file must be a SAM file.

## **LCLFILE Parameter**

Specifies the name of the file on the local system which is to receive the transferred records.

## **LCLMBR Parameter**

Specifies the member name on the local system to receive transferred records.

\*RMTMBR: The member on the target system will be the same as on the source system.

\*FILE: The member name is the same as the file name.

## **MODE Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

## **DEV Parameter**

Specifies the APPC/APPN Device description to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

## **LOCLOCNAME Parameter**

Specifies the APPC/APPN Local Location Name to use. Please note this parameter is only needed for certain situations, communicating to a S/370. In all other situations, specify \*LOC.

\*LOC: The Local Location Name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The Default Local Location Name on the Network Attributes Display (DSPNETA command) will be used.

## **RMTNETID ID Parameter**

Specifies the APPC/APPN Network ID to use. Please note this parameter is only needed if more than 1 network ID exists. In all other situations, specify \*LOC.

\*LOC: The name specified on the device description (WRKDEVD command) will be used.

\*NETATR: The value is retrieved from the Default Network Attributes screen. Use the command DSPNETA to determine the value.

# FILEXFER3X/400™

## **UNIT Parameter**

Specifies the Unit Identifier. Contact the remote system for this information.

SYSDA: Unit SYSDA will be used.

## **VOLUMES Parameter**

Specifies the volume serial(s) where the file resides. Specify up to 5 volume serials, or \*NONE.

\*NONE: The MVS catalog facility will be used to locate the file.

## **KEEPRDW Parameter**

Specifies, for variable length record files (RECFM=V or VB), if the 4 byte RDW is to be included as part of the record. Please note the RDW contains the length of the record and may be useful.

\*YES: The 4 byte RDW will be included at the beginning of the record.

NO: The RDW will not be included in the record

## ***RT400FILE Parameters***

At the command line enter RT400FILE then press enter. The following screen should appear:

# AS/400 FILE RETRIEVAL

```
Receive files from AS/400s TCP (RT400FILE)

Type choices, press Enter.

Remote Name or IP Address. . . . . _____

From File (on remote system) . . .      Name
                                         *LIBL  Name, *LIBL
To File (on local system). . . . .      Name, *RMTFILE
                                         *LIBL  Name, *LIBL
From Member (on remote system) . . .    *FILE  Name, *FIRST, *FILE
To Member (on local system). . . . .    *FILE  Name, *RMTMBR, *FILE, *FIRST
Remote Server Port Number. . . . .      *DFT   1-65535, *DFT
Submitted Job Port Number. . . . .       *SVR   1-65535. *SVR
Use Secure Socket Layer (SSL) . . .      *SVR   *SVR, *YES, *NO
System Store Name . . . . .              *DFT
System Store Password . . . . .          *DFT   Character, *NONE
Application ID . . . . .                 *DFT   Character, *DFT, *NONE
Security User Profile . . . . .          *DFT   Name, *DFT, *NONE
Security Password . . . . .              *DFT   Name, *NONE

Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

The RT400FILE command has the following parameters.

## RMTADDR Parameter

Specifies the name or IP address of the remote system. If a name is specified, the sending AS/400 must be able to look up the specified name and determine its IP address. If an IP address is specified, it must be in dotted decimal form (192.168.1.1).

## RMTFILE Parameter

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed. For remote MVS, the file must be a SAM file.

## LCLFILE Parameter

Specifies the name of the file on the local system which is to receive the transferred records.

\*RMTFILE: The file on the target system is the same as the file on the source system.

## RMTMBR Parameter

Specifies the member on the remote system to transfer.

# FILEXFER3X/400™

\*FILE: The member name is the same as the file name.

\*FIRST: The first member added to the file contains the desired records.

## **LCLMBR Parameter**

Specifies the member name on the local system to receive transferred records.

\*RMTMBR: The member on the target system will be the same as on the source system.

\*FILE: The member name is the same as the file name.

\*FIRST: The first member added to the file will receive the retrieved records.

## **Remote Server Port number (SVRPORT) Parameter**

Specifies the port number to use to communicate with the FileXfer Server on the receiving system. This value must match the value specified on the Server Attributes on the remote system.

\*DFT: The FileXfer Server port number attribute for the Local system will be used for the port number.

## **Submitted Job Port number (SBMPORT) Parameter**

Specifies the port number to use to communicate with the submitted job on the receiving system. Please note that the FileXfer Server on the remote system submits a job for each transfer request, and the submitted job communicates with this command to transfer the data. For more information refer to Appendix D, “TCP Considerations”.

\*SVR: The FileXfer Server on the remote system will determine the port number to use.

## **Use Secure Socket Layer (SSL) Parameter**

Specifies if the Secure Socket Layer (SSL) feature of TCP is used. Specify one of the following:

\*SVR: The FileXfer Server on the remote system will determine if SSL will be used.

\*YES: SSL will be used.

\*NO: SSL will not be used.

**Note:** SSL requires additional setup on both the sending and receiving machines. Refer to Appendix D, “TCP Considerations” for more information.

## **System Store Name and Password Parameters**

Specifies, for SSL, the System store containing the Digital Certificate to use.

\*DFT: The values defined for the Local system’s FileXfer Server will be used.

# AS/400 FILE RETRIEVAL

\*SYSTEM: The default System Store contains the Digital Certificate.

## **Application ID (APPLID) Parameter**

Specifies, for SSL, the Application ID to use to specify the Digital Certificate.

\*DFT: The value defined for the Local system's FileXfer Server will be used.

\*NONE: No Application ID is specified. The Digital Certificate to use is the default for the specified System Store.

## **Security User ID and Password Parameters**

Specifies the User ID and Password the source system will send to the target AS/400 when TCP communications is established. If the FileXfer Server on the remote system requires a User ID and Password, these values must match.

\*DFT: The values defined for the Local system's FileXfer Server will be used.

\*NONE: No Userid or Password is sent.

# SYSTEM/36 FILE RETRIEVAL

Data files on other AS/400, System/36, or MVS machines can be retrieved and placed into a System/36 file. The retrieved data replaces the existing data in the file. The entire file's data is replaced only after the transfer completes normally. The following procedures are used to retrieve data from another system:

## Retrieving from an AS/400:

R400FILE remote file, remote library, remote member, local file, remote location, session group, appc user, appc password

## Retrieving from another System/36:

R36FILE remote file, local file, remote location, session group

## Retrieving from a MVS/SAM:

RMVSFILE sam Specification, local file, remote location, session group

## *Retrieve R400FILE Parameters*

At the S/36 command line enter R400FILE then press enter. The following screen should appear:

```

                                     R400FILE
                                     Optional=*
                                     Retrieve an AS/400 FILE

AS/400 file name. . . . . _____
      Library. . . . . _____
      Member. . . . . _____
S/36 file Name. . . . . _____
Remote Location Name. . . . . _____
Session Group Name. . . . . _____
APPC User ID      *DFT, Name, *NONE, *USER _____ *
APPC Password          Name, *NONE _____ *

                                     CMD7:EXIT
                                     HELP
                                     Copyright 1993, Broderick Data Systems
```

The R400FILE command has the following parameters:

## Remote File Parameter

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed.

# FILEXFER3X/400™

## Local File Parameter

Specifies the name of the file on the local system which is to receive the transferred records.

## Remote Location Parameter

Specifies the name of the Remote Location Name which communicates to the remote system.

## Session Group Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

## APPC User Parameter

Specifies the user profile and password APPC will use to evoke the remote programs. Specify \*DFT, \*NONE, \*USER, or a user profile.

\*DFT: The values specified on the setup screen (XFCTRL proc) are used. This option allows the user to change user profile and password information at one location for all FileXfer commands.

\*NONE: No User profile or password information is sent during the evoke operation. The remote AS/400 must be properly configured with a communications entry specifying a valid user profile in the Default User Profile field.

\*USER: User profile QSYSOPR will be sent with the AVI (already verified indicator) flag set on.

## User Profile

Specifies the user profile to send during the evoke operation. This user must exist on the remote system and must be activated. The remote task will execute using this user profile.

## APPC Password Parameter

Specifies the password sent during the evoke operation. This parameter must be specified when a user profile is specified in the APPCUSER parameter, and this must be the correct password for the specified user.

## NOTES:

- 1) See Appendix B, "AS/400 Security Considerations" for information concerning configuration requirements for the above options.
- 2) User profile BDSUSER with password BDSPASS is created on AS/400 machines during the install of the FileXfer.
- 3) To verify a user profile and password, bring up a sign on screen on the remote system and attempt to sign on using the desired user profile and password.

# SYSTEM/36 FILE RETRIEVAL

## *Retrieve R36FILE Parameters*

At the S/36 command line enter R36FILE then press enter. The following screen should appear:

```

                                R36FILE Procedures
                                Optional:*
                                Retrieve a S/36 File

Remote S/36 file name. . . . . _____
Local S/36 file name . . . . . _____
Remote location name . . . . . _____
Session group name . . . . . _____

                                CMD7:EXIT
                                HELP
                                Copyright 1993, Broderick Data Systems

```

The R36FILE has the following parameters:

### **Remote File Parameter**

Specifies the file on the remote system to be retrieved. The file's record length must be between 4 and 4089 characters (inclusive). For remote S/36, the file must be sequential or indexed.

### **Local File Parameter**

Specifies the name of the file on the local system which is to receive the transferred records.

### **Remote Location Parameter**

Specifies the name of the Remote Location Name which communicates to the remote system.

### **Session Group Parameter**

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

## *Retrieve RMVSFILE Parameters*

At the S/36 command line enter RMVSFILE then press enter. The following screen should appear:

# FILEXFER3X/400™

```
RMVSFILE Procedures

Optional=*

SAM Specifications Name. . . . . _____
Local S/36 file name . . . . . _____
Remote location name . . . . . _____
Session group name . . . . . _____

CMP7:EXIT
HELP

Copyright 1993, Broderick Data Systems
```

The command RMVSFILE has the following parameters:

## Sam Specification Parameter

Specifies the name of the SAM Specification which contains information describing the remote file. Refer to Chapter 8, "Managing VSAM and SAM Specifications" for more information.

## Local File Parameter

Specifies the name of the file on the local system which is to receive the transferred records.

## Remote Location Parameter

Specifies the name of the Remote Location Name which communicates to the remote system.

## Session Group Parameter

Specifies the device mode entry to use during the transfer. The specified mode must be attached to the device description specified above.

## User Data Parameter

Specifies 256 characters which is passed to User Exit Program XFEXIT07 on the MVS system. Contact the remote system to determine if user data is requested. To pass user data, place the desired data into the Local Data Area starting at position 257 prior to the RMVSFILE procedure:

```
// LOCAL OFFSET-257,BLANK-256,DATA-'YOUR DATA'// RMVSFILE ...
```

# SPECIFYING PRE AND POST JCL FILES

File Xfer XSAM, XVSAM, and XPDS commands allow the administrator to send JCL statements to the MVS system. The statements are executed when the MVS task (BDSMON) submits a job to perform the update of the specified TOFILE. The JCL files will be ignored if Submit is specified as N on the RMTDESC setup file for the LU. The job submitted by BDSMON can be considered a card deck, and BDSMON builds the card deck in the following order:

- Exit Program 1, 3, or 5 cards (1-10) (see note)
- PREJCLFILE cards
- BDS cards to perform the file update
- PSTJCLFILE cards
- Exit program 2, 4, or 6 cards (0-10)

**Note:** If a pre-JCL file is specified, the pre-exit program can return zero cards.

The specified JCL file can be a physical or source physical file. Records will be truncated or padded with blanks to 80 character card images. For source files, the 6-digit sequence number and 6-digit change date fields will be removed. The file can contain zero records.

The specified JCL file can contain \*INCLUDE statements, which signal File Xfer to include the contents of another file at this point. The rules for creating an include file are the same for a pre or post JCL file. The format of the \*INCLUDE statement are as follows:

<u>Col</u>	<u>Len</u>	<u>Description</u>
1	10	*INCLUDE (must be capital letters)
11	10	File name
21	10	Library name or *LIBL
31	10	Member name or *FILE

Include files cannot be nested. If an include file contains \*INCLUDE, the \*INCLUDE card will be sent to the MVS system. The include file can contain zero records.

The following parameters specify pre and post JCL files:

## **PREJCLFILE Parameter**

Specifies the file which contains MVS JCL statements to include into the submitted job.

\*NONE: No JCL file is included.

## **PREJCLMBR Parameter**

Specifies the member to include.

\*FILE: The member name is the same as the file name.

## **PSTJCLFILE Parameter**

Specifies the file which contains MVS JCL statements to include into the submitted job.

\*NONE: No JCL file is included.

# FILEXFER3X/400™

## **PSTJCLMBR Parameter**

Specifies the member to include.

\*FILE: The member name is the same as the file name.

**Note:** The PREJCLFILE, PREJCLMBR, PSTJCLFILE, and PSTJCLMBR parameters are passed to the Exit Programs on the MVS system.

# APPENDIX A: TAILORING FILEXFER3X/400™

## *Tailoring Options*

The BXFERSETUP command (AS/400, S/38) or XFCTRL procedure (S/36) allows the user to tailor functions of FileXfer3X/400.

### *BXFERSETUP Parameters*

At the command line enter BXFERSETUP then press Enter. The following screen should appear:

```
FileXfer/400
Setup Display
Rel: 05          CPU Serial: xxxxxxxx
Mod: 00          Model: xxx
PTF: 0000        System Name: xxxxxxxx
Permanent Password: F1F2F3F4F5F6F7F8   Hex Digits (A-F, 0-9)
Temporary Password: F1F2F3F4F5F6        Hex Digits (A-F, 0-9)
Source Record Len: xx                    40-120
Proc Record Len: xxx                     40-120
Default APPC User/Password: BDSUSER      Name, *NONE, *USER
                                      BDSPASS Name
BDS Access User, Passw:

CMD-3 Exit w/o Update   CMD-10 Server   CMD-14 BDS SwSvr
```

The BXFERSETUP command has the following parameters:

#### **Rel/Mod/PTF**

Displays the current Release, Modification, and PTF level of FileXfer3X/400 installed on your system.

### *Library Member Record Lengths*

These following two fields specify the record length of S/36 Library members created when using the S/38 or AS/400 S36DWNMBR command.

#### **Source Record Length**

Specifies the record length to assign to S/36 source members if 36TYPE(SOURCE) is specified.

#### **Proc Record Length**

# FILEXFER3X/400™

Specifies the record length to assign to S/36 procedure members if S36TYPE(PROC) is specified.

## *APPC Security Information*

The APPC user id and password on this screen are used if the transfer commands (XFILE, etc.) specify \*DFT in their APPCUSER and APPCPASS fields. This screen allows the administrator to specify User ID and password information in one location.

### **APPC user**

Specifies the APPC user ID to pass to the remote system

\*NONE: No User Id or password will be sent.

### **APPC password**

Specifies the APPC password to send to the remote system.

\*NONE: No password will be sent.

\*USER: The AVI (Already Verified Indicator) Flag will be sent to the remote system.

**Note:** User profile BDSUSER is created with password BDSPASS when FileXfer is installed on the AS/400 or S/38. We recommend using Userid/password BDSUSER BDSPASS when communicating to an AS/400, and Userid/password \*NONE \*NONE when communicating to a S/38 or S/36.

### **BDS Access User ID and Password**

Specifies the user ID and password needed to access the BDS Software Server. Contact BDS Administration for your user ID and password.

## *XFCTRL Parameters*

At the command line enter SLIB BDSLIB then press Enter. At the command line enter XFCTRL then press Enter. The following screen should appear:

# APPENDIX A: TAILORING FILEXFER3X/400™

```
FileXFER/36
Tailoring Options
S/36 serial:_____

Release: 03
Mod: 02
PTF: 9502

Permanent Password: F1F2 F3F4 F5F6
Temporary Expiration: F1F2 F3F4 F5F6
AS/400 APPC Security User/Passw: BDSUSER BDSPASS (Name, *NONE, *USER)

ENTER Update Control and Exit          Cmd 7 Exit without update
Copyright 1988, 1993 Broderick Data Systems
```

The XFCTRL command has the following parameters:

## Rel/Mod/PTF

Displays the current Release, Modification, and PTF level of FileXfer3X/400 installed on your system.

## *APPC Security Information*

The APPC user id and password on this screen are used if the transfer commands (XFILE, etc.) specify \*DFT in their APPCUSER and APPCPASS fields. This screen allows the administrator to specify User ID and password information in one location.

### **APPC user**

Specifies the APPC user ID to pass to the remote system.

\*NONE: No User Id or password will be sent.

### **APPC password**

Specifies the APPC password to send to the remote system.

\*NONE: No password will be sent.

\*USER: The AVI (Already Verified Indicator) Flag will be sent to the remote system.

**Note:** User profile BDSUSER is created with password BDSPASS when FileXfer is installed on the AS/400 or S/38. We recommend using Userid/password BDSUSER BDSPASS when communicating to an AS/400, and Userid/password \*NONE \*NONE when communicating to a S/38 or S/36.

# FILEXFER3X/400™

## *The FileXfer Server*

The FileXfer Server task processes incoming transfer requests for TCP tasks on other systems. Access the Server Options screen by pressing F10:

FileXfer/400	1/02/13
TCP Server Options	13:21:31
Server Port: <u>3650</u>	0=None, 1-65535
Address/Name: <u>*ZERO</u>	
<hr/>	
User ID/Password: <u>BDSUSER</u>	<u>BDSPASS</u> Name, *NONE
Secure Socket Layer: <u>N</u>	Y, N
System Store Name: <u>*SYSTEM</u>	
<hr/>	
System Store Password: _____	
Application ID: <u>*NONE</u>	
<hr/>	
Listen Backlog: <u>50</u>	1-2000
<hr/>	
CMD-3 Exit w/o Update	ENTER Update F10=ApplID

### **Server Port**

Specifies the TCP port number the FileXfer Server will listen on. Remote Writers sending to this system must specify this port number on their Server Port parameter.

### **Address/Name:**

Specifies the address or name to listen on:

\*ZERO: All addresses that the AS/400 is capable of listening on will be processed.

### **Userid/Password Parameter:**

Specifies the User profile and Password the source system must send when TCP communications is established.

\*NONE: No Userid or password is required.

Note: The User ID parameter does not need to match a user profile on the system.

### **Secure Socket Layer:**

## APPENDIX A: TAILORING FILEXFER3X/400™

Specifies, for Remote Writers that do not define SSL, if the Secure Socket Layer (SSL) feature of TCP will be used. Specify Y or N.

**Note:** SSL requires additional setup on both the sending and receiving machines. Refer to Appendix D, “TCP Considerations” for more information.

### System Store Name/Password:

Specifies, for SSL, the System store containing the Digital Certificate to use.

\*SYSTEM: The default System Store contains the Digital Certificate.

### Application ID:

Specifies, for SSL, the Application ID to use to specify the Digital Certificate.

\*NONE: No Application ID is specified. The Digital Certificate to use is the default for the specified System Store.

### Listen Backlog

Specifies the number of connection requests that can be queued up before the system starts rejecting incoming connection requests. Specify a number between 1 and 2000. Note that this number does not limit the number of connections that can be processed at a time; it limits the number that are waiting to be accepted and passed to a batch job by the server.

## *Creating Application ID's*

To allow FileXfer to access a Digital Certificate, you may need to create an Application ID. This function is provided by FileXfer from the Server Options display. You may also create and delete Application IDs using other methods if desired. Access the Application ID screen by pressing F10:

FileXfer/400	1/02/13
Manage Application ID	13:21:31
Press F6 to add the following Application ID, F9 to delete:	
Prefix: BDS_BRODERICK_XFER40_	
Application ID: <u>SERVER</u>	
Description: <u>Broderick Data Systems FileXfer/400</u>	
F3=Exit F12=Exit	

**Prefix:**

# FILEXFER3X/400™

To simplify the definition and edit process, FileXfer automatically attaches this value to the front of the ID you specify.

## **Application ID:**

Specify the value that (appended to the prefix) will be the Application ID to create or delete.

## **Description**

Specify Descriptive text.

## *Access the BDS Software Server*

If **F14** is chosen, the screen showing BDS Software Server options is displayed. To access the BDS Software Server the AS/400 must be connected to the Internet. The following display will appear:

```

                                                                    12/03/01   11:45:21
                                BDS Software Server Display

Select one of the following:

1. Check for updates
2. Download Software Update
3. Download Software Patch
4. Upload Captured Problem Data

Option:

F3=Exit  F12=Exit
```

Some of the following options require a user ID and password. If you do not have one, contact BDS Administration. These options use the Internet to connect to a server at Broderick Data Systems. Therefore your AS/400 must be connected to the Internet. If behind a firewall, the firewall must allow outbound sessions through it.

## **Check for updates**

Retrieves the latest available release of the product. Displays the BDS and OS/400 prerequisites releases required to install the latest release of the product.

## **Download Software Update**

Downloads the latest release of the product into save files on your system. The update procedure can then be done using these save files. The product may be active and running while you perform this download.

# APPENDIX A: TAILORING FILEXFER3X/400™

## **Download Software Patch**

Downloads objects into a save file on your system. Usually you will use this option while working with BDS tech support.

## **Upload Captured Problem Data**

Uploads a save file on your system (containing objects that you have saved) into a save file on the BDS server. Usually you will use this option while working with BDS tech support.

## **F3 (Return)**

Press F3 to exit.

## **F12 (Return)**

Press F12 to exit.

# AS/400 SECURITY CONSIDERATIONS

APPC communications to an AS/400 allows the administrator many options concerning security. FileXfer incorporates some of these security options. In order to use them, additional communications setup may be necessary on all systems. Please note that this section only applies if you are sending to an AS/400. If sending to or retrieving from a S/36 or S/38, this section does not apply.

FileXfer supports SNA Application Program Security, which gives the administrator the ability to send User Profile information when the communications link between programs is established. The administrator has the following choices:

- + User profile and password passed
- + User profile and the AVI (Already Verified Indicator) flag passed
- + No user profile or password passed

To specify security parameters to FileXfer, use the APPCUSER and APPCPASS parameters on the Xfer command (XFILE cmd, S38UPLD proc, etc.). The default values for these parameters are specified on the "Tailoring Options" screen (BXFERSETUP cmd, XFCTRL proc). As shipped from BDS, FileXfer will send the User profile and password. For most operations, sending User profile and password is recommended. Before deciding which security method to use, the administrator should consider the following:

- 1) Going to a new release of OS/400 will erase any changes made to Subsystem QCMN. Thus BDS software may not work correctly after an IBM release update. For this reason, we do not recommend sending "No security user information".
- 2) Auditors may not allow a user profile and password to be accessed via unsecured screens on a remote system (S/36 XFCTRL proc, AS/400 and S/38 BXFERSETUP command, etc.) The additional setup needed for sending the AVI flag may be warranted.
- 3) The administrator may not wish to increase the security level on the S/36 or AS/400, so a user profile and the AVI flag can be sent.
- 4) When FileXfer/36 sends a user profile and the AVI flag, user profile QSYSOPR is sent.

Sending no user profile or password is easy to implement. The only additional setup required is to enter the following command on the target AS/400(s):

```
CHGCMNE SBSDB(QCMN) DEV(*ALL) DFTUSER(QUSER)
```

Sending user profile and password is the easiest method to implement (no setup changes are necessary), if all systems are at the required system security level.

## *Passing User Profile and Password*

To send a user profile and password, the following conditions must be met:

# FILEXFER3X/400™

## Target AS/400

- 1) System Security level must be 20 or 30 (DSPSYSVAL QSECURITY).
- 2) The passed User profile must exist on the target AS/400, and the correct password must be passed.

## S/36

- 1) Password security or greater must be active.

## S/38

- 1) No changes required.

## Source AS/400

- 1) System Security level must be 20 or 30 (DSPSYSVAL QSECURITY).

## *Passing User Profile and AVI Flag*

To send a user profile and the AVI flag, the following conditions must be met:

### Target AS/400

- 1) If APPN(\*NO) is specified on the APPC control unit, SECURELOC(\*YES) must be specified on APPC device description(s) that communicate to the source system(s).
- 2) If APPN(\*YES) is specified on the APPC control unit, A configuration list type \*APPCRMT must exist, and have an entry for the remote location, with SECURE LOC = \*YES specified. (WRKCFGL command).

### S/36

- 1) Password security or greater must be active.
- 2) A Remote Location entry (SECEDIT COMM proc) with Require user password=Y must be configured. See Appendix C, Section "AS/400 to AS/400, S/36, and S/38 Example" for an example.

### S/38

- 1) No changes required.

### Source AS/400

- 1) Security level 20 or greater must be active.

## *Passing No User Profile or Password*

To send no user profile or password, the following conditions must be met:

### Target AS/400

- 1) The Subsystem QCMN communications entry DEVICE(\*ALL) MODE(\*ANY) must have a valid default user profile (i.e. QUSER).

# **AS/400 SECURITY CONSIDERATIONS**

## **S/36**

1) No changes required.

## **S/38**

1) No changes required.

## **Source AS/400**

1) No changes required.

# ELECTRONIC MEDIA DISTRIBUTION

The user can distribute File Transfer3X/400 to remote systems electronically. Thus the user can install or update File Transfer3X/400 on similar remote systems (i.e. AS/400 to AS/400's). A working APPC/APPN link to the remote system is needed to do this. Below are the steps you must perform to transmit File Transfer3X/400 to remote systems. Please note that a thorough knowledge of the operating systems involved is suggested.

## *S/38 or AS/400 Machines*

The S/38 and AS/400 media consists of 1 library:

XFER40

The steps to distribute File Transfer are:

### **Source System**

- 1) Restore library XFER40 from the BDS media.
- 2) Create a save file SAVXFER.
- 3) Save library XFER40 into save file SAVXFER.
- 4) Delete the library XFER40.
- 5) Transmit the save file to the remote system(s).

### **Remote System(s)**

- 1) Create and receive the transmitted save file, if necessary.
- 2) Proceed with the update or install instructions with the following:

When requested to restore the install or update objects into library QTEMP, use the save file option. Specify \*SAVF for the device description. Enter save file SAVXFER.

When executing the install or update command (BXFERINS or BXFERUPD) use the save file option. Specify \*SAVF for device description. Enter save file SAVXFER.

File Transfer will be installed or updated.

## *S/36 Machines*

The S/36 media consists of 2 files:

# FILEXFER3X/400™

XFERLIB  
BDS.XFCT

Please note that the file BDS.XFCT is not used during the update process. Thus the user will not need to transmit BDS.XFCT if an update is being performed. The steps needed to transmit File Transfer/36 are:

## Source system

- 1) Restore file XFERLIB from your media diskette.
- 2) If BDS.XFCT must be distributed (install), you may have the situation where you need to restore a different version of BDS.XFCT from diskette than you have on your disk. Please note BDS.XFCT has only 1 record and is maintained by the proc XFCTRL. You may wish to perform the following.

Rename BDS.XFCT on disk  
Restore the BDS.XFCT from diskette  
Rename the restored BDS.XFCT to XMT.XFCT  
Rename the old BDS.XFCT back

- 3) Transmit the files created in steps 1) and 2) to the remote systems.

## Remote System

- 1) Follow the install or update instructions. Skip the step instructing you to restore XFERLIB from diskette. You have already loaded it electronically.
- 2) For install processes, when the instructions ask you to restore BDS.XFCT, rename the transmitted file instead.

File Transfer/36 will be installed or updated.

# APPENDIX D: TCP CONSIDERATIONS

This chapter shows the areas needed to use TCP to send data from one AS/400 to another.

## *Planning Guide*

The following steps are recommended to set up TCP/IP processing on your AS/400.

**Connect your AS/400 to the network.** Contact your gateway for detailed information. Contact IBM and telecomm providers to acquire the required equipment if needed.

**Install IBM Software.** Refer to the Prerequisites section in Chapter 2, “Installation” for prerequisite IBM software.

**Decide whether to use Secure Socket Layer.** SSL is more secure but requires more setup and consumes more resources to transmit data.

**Create/Buy/Install a Digital Certificate** This step is only needed if you are running Secure Socket Layer. You can purchase a Digital Certificate or be your own CA and create/distribute/install your own Digital Certificate.

**Assign Ports** Determine which port each Receiving system Server will listen on.

**Setup/Start the FileXfer Server** Refer to Appendix A, “Tailoring FileXfer” section “The FileXfer Server Options”.

## *The FileXfer Server*

In order to receive entries from other AS/400 systems via TCP, a FileXfer Server job must be started. Prior to starting the server it must be configured. The following configuration options must be decided:

**IP Addresses to listen on.** Determine which IP address to listen on, or all.

**Port for the server to listen on.** See “TCP Port Usage” below.

**Secure Socket layer.** See “Secure Socket Layer” below.

**User ID/Password.** If set, all remote tasks sending to this system must provide matching information.

Refer to Appendix A, “Tailoring FileXfer” Section “FileXfer Server” for the Server setup options.

# FILEXFER3X/400™

Once set up, the Server must be started. We recommend the Server job be always running. Thus you should place the start command somewhere in your IPL startup stream.

## *TCP Port Usage*

FileXfer/400 needs a TCP port to send from one system to another. Each Receiving system's Server job will listen on the specified port. As shipped from BDS, the receiving systems will listen on port 3650 (servers on different systems can have the same number).

FileXfer uses the IBM Service Table to reserve an unused port. You can use the WRKSRVTBLE command to view the Service Table. The service name used by FileXfer is:

bds-xfer-tcp-server

**Note:** If the above service name does not appear in the service table, reenter the port values using the Tailoring Options display (BXFERSETUP, F-10).

## *Secure Socket Layer Considerations*

FileXfer/400 can use SSL to encrypt transmitted data. The administrator must decide whether to use SSL or not. In general, if you are using the internet to communicate between AS/400s, we strongly recommend you use SSL. Otherwise, we recommend not using SSL.

Using SSL requires that a Digital Certificate be installed on both AS/400s. To set up and process Digital Certificates, additional (no charge) IBM software must be installed on the AS/400. See the Prereqs in Chapter 2 for more information.

SSL also adds overhead to the transmission. You will notice a reduction in throughput when using SSL.

**Note:** Setting up a Digital Certificate on the AS/400 is an involved process. We recommend you contact the IBM Support Center for assistance if you are new to this area of AS/400 operations.

You will install your Digital Certificate into a System Store. Each System Store can have a default certificate. If your Digital Certificate is not the default certificate for the System Store that you install it in, you will need to create an Application ID. Application IDs tell the application (FileXfer) which Digital Certificate within a System Store to use.

FileXfer provides a utility to create an Application ID. Refer to Appendix A "Tailoring FileXfer" section "Creating Application ID's". Once created, you must use IBM products such as Digital Certificate Manager to assign the Application ID to a System Store.

# APPENDIX D: TCP CONSIDERATIONS

## *Setup Example*

The following steps provide an example of implementing TCP using Remote SpoolPrint/400.

**1) Connect your AS/400 to the network.** In this example, our AS/400 is already configured to access the network. To see if your system is connected to the internet, from an AS/400 command line enter:

**PING** *other.AS400.machine*

You should receive messages stating replies took xxx milliseconds. If not, your AS/400 is unable to connect to the other machines on the network. It may be behind a firewall or not set up properly. In this case you must have the network administrator give the AS/400 access to the other machines on the network.

**Note:** We have found many AS/400 administrators who are reluctant to connect their AS/400 to the Internet. We find this ironic because the AS/400 has arguably the best security features of any server on the market.

**2) Install IBM Software.** Refer to the Prerequisites in Chapter 2, “Installation” in this example we had TCP installed and ordered the following software from IBM:

Digital Certificate Manager (Product Option 34)  
IBM HTTP Server for AS/400 (5769-DG1)  
Cryptographic Access Provider for AS/400 (5769-AC3)

**Note:** There is no charge for these products.

To check to see if the prereqs are on your system, perform the following:

a. On the AS/400 bring up the license product menu:

**GO LICPGM**

b. Select option 10, Display installed licensed programs.

c. Press F11 twice to display Product Options. Verify the existence of Digital certificate Manager, 57xxSS1 option 34.

**Note:** xx=22 in Version 5, 69 in Version 4.

d. Scroll through the list, and verify the existence of the other prerequisites:

# FILEXFER3X/400™

57xxAC3	Crypto Access Provider 128-bit for AS/400
57xxDG1	IBM HTTP Server for AS/400
57xxTC1	TCP/IP Connectivity Utilities for AS/400

If an item is not in the list, you will need to contact IBM to order it.

**3) Decide whether to use Secure Socket Layer.** See above for more information.

**4) Create Certificate (SSL only).** Creating a Digital Certificate is an involved process, with many options. We recommend you contact IBM Support Center to assist you. You will need a Digital Certificate on each system using SSL.

**5) Create/Assign an Application ID (SSL Only).** In this example, we are not making our Digital Certificate the System store's default. Thus we need to create an Application ID and assign our certificate to it.

a. From an AS/400 command line enter the following:

**BRODERICK/BXFERSETUP**

From the "Setup Display" screen, press **F10** (Server options) and press **F10** (ApplID).

b. The Application ID screen will appear. You may change the name if you need to. Otherwise, press **F6** (Create). Press **F6** to confirm. Exit (**F3**) back to the command line.

c. From the Digital Certificate Manager Display, click "Work with Secure Applications". Click the button next to:

**BDS\_BRODERICK\_XFER\_SERVER**

Click "Work with System Certificate".

d. The Certificate you created in step 3 should appear in the list of certificates. Click its radio box and click "Assign New Certificate". Click OK on the confirmation screen.

e. Again, Click the **BDS\_BRODERICK\_XFER40\_SERVER** radio button and click "Work with Certificate Authority".

f. For each CA in the list that you are using, click its radio button and then click "Trust". The word "Yes" will appear in the Trusted column.

**6) Assign a Port.** In this example, we will use the Defaults. Contact your Network personnel to have them set up the firewalls at both sites to allow port 3650 to pass through the firewall.

**7) Setup the FileXfer Server.** On each system that will receive spool entries, configure the Server job. Refer to Appendix A "Tailoring FileXfer", section "FileXfer Server Options" for more information.

## APPENDIX D: TCP CONSIDERATIONS

In our example we will monitor all IP addresses, use SSL, and use the default system store:

a. From an AS/400 command line enter the following:

**BRODERICK/BXFERSETUP**

From the “Setup Display” screen, press **F10** (Server options).

b. The Server options screen will appear. Fill in the following parameters:

SSL: Y  
System store password: *(your password)*  
Application ID: BDS\_BRODERICK\_XFER40\_SERVER

Press **ENTER** twice to return to the command line.

c. Start the Server job. Enter the following command:

**BRODERICK/STRXFSVR**

**Note:** You should place the above command in your IPL startup stream.