FUJITSU Software

openFT (BS2000) V12.1

Command Interface

User Guide

Comments… Suggestions… Corrections…

The User Documentation Department would like to know your opinion on this manual. Your feedback helps us to optimize our documentation to suit your individual needs.

Feel free to send us your comments by e-mail to:
manuals@ts.fujitsu.com

Certified documentation
according to DIN EN ISO 9001:2008

To ensure a consistently high quality standard and user-friendliness, this documentation was created to meet the regulations of a quality management system which complies with the requirements of the standard DIN EN ISO 9001:2008.

cognitas. Gesellschaft für Technik-Dokumentation mbH
www.cognitas.de

Copyright and Trademarks

Contents

Contents

Contents

Contents

1 Preface

The openFT product range transfers and manages files

– automatically,
– securely, and
– cost-effectively.

The reliable and user-friendly transfer of files is an important function in a high-performance computer network. The corporate topologies consist of networked PC workstations, which are usually additionally linked to a mainframe or Unix based server or Windows server. This allows much of the processing power to be provided directly at the workstation, while file transfer moves the data to the mainframe for further processing there as required. In such landscapes, the locations of the individual systems may be quite far apart. Fujitsu offers an extensive range of file transfer products - the openFT product range - for the following system platforms:

● BS2000®

● Linux® (Intel x86 and x86_64 / IBM z Systems), Solaris™ (SPARC®/Intel™), AIX®, HP-UX®

● Microsoft® Windows™ 8.1, 10, Windows Server 2012 R2, Windows Server 2016

● z/OS (IBM®)

1.1   Brief description of the product

FUJITSU Software openFT (BS2000) is the file transfer product for computers using the operating system BS2000.

All openFT products communicate with each other using the openFT protocol (previously only known as FTNEA) as laid down by Fujitsu. Since a number of FT products from other software vendors also support these protocols, many interconnection options are available.

The range of functions made available by openFT can be extended by:

● FTAC:

   FTAC provides extended system and data access protection. FTAC stands for File Transfer Access Control.
   On BS2000 systems, FTAC is provided by the add-on product openFT-AC.

● openFT-FTAM:

   openFT supports the FTAM file transfer protocol (File Transfer Access and Management) standardized by ISO (International Organization for Standardization). This makes it possible to interconnect with even more systems from other vendors whose file transfer products support the same standard.

● openFT-FTP:

   openFT also supports the FTP functionality. This makes it possible to interconnect with other FTP servers.

1.2   Target group

This manual is intended for those who want to use the command openFT interface on a BS2000 system in order to transfer files and to administer openFT.

1.3   Concept of openFT manuals

openFT - Concepts and Functions

This manual is intended for those who want to get familiar with the capabilities of openFT and want to understand the openFT functions. It describes:

–   the concept of openFT as a Managed File Transfer
–   the scope of work and main features of the openFT product family
–   the openFT-specific terms

openFT (Unix and Windows Systems) - Installation and Operation

This manual is intended for the FT, FTAC and ADM administrator on Unix and Windows systems. It describes:

–   how to install openFT and its optional components
–   how to operate, control and monitor the FT system and the FTAC environment
–   the configuration and operation of a remote administration server and a ADM trap server
–   important CMX commands on Unix systems

openFT (BS2000) - Installation and Operation

This manual is intended for the FT and FTAC administrator on BS2000 systems. It describes:

–   how to install openFT and its optional components on the BS2000 system
–   how to operate, control and monitor the FT system and the FTAC environment
–   the accounting records

openFT (z/OS) - Installation and Operation

This manual is intended for the FT and FTAC administrator on z/OS. It describes:

–   how to install openFT and its optional components, including the requirements for using the product
–   how to operate, control and monitor the FT system and the FTAC environment
–   the openFT and openFT-AC messages for the FT administrator
–   additional sources of information for the FT administrator, such as the accounting records and the logging information

openFT (Unix and Windows Systems) - Command Interface

This manual is intended for the openFT users on Unix and Windows systems and describes:

– the conventions for file transfer to computers with different operating systems
– the openFT commands on Unix and Windows systems
– the messages of the various components

The description of the openFT commands also applies to the POSIX interface on BS2000 systems.

openFT (BS2000) - Command Interface

This manual is intended for the openFT users on BS2000 systems and describes:

– the conventions for file transfer to computers with different operating systems
– the openFT commands on BS2000 systems
– the messages of the various components

openFT (z/OS) - Command Interface

This manual is intended for the openFT users on z/OS systems and describes:

– the conventions for file transfer to computers with different operating systems
– the openFT commands on z/OS
– the menu interface for the FT administrator and the FT user
– the program interface for the FT user
– the messages of the various components

openFT (BS2000) - Program Interface

This manual is intended for the openFT programmer and describes the openFT and openFT-AC program interfaces on BS2000 systems.

openFT (Unix and Windows Systems) - C and Java Program Interface

This manual is intended for C and Java programmers on Unix and Windows systems. It describes the C program interface and the main features of the Java interface.

openFT (Unix and Windows Systems) - openFT-Script Interface

This manual is intended for XML programmers and describes the XML statements for the openFT-Script interface.

i Many of the functions described in the manuals can also be executed via the openFT graphical interface, the openFT Explorer. The openFT Explorer is available on Unix systems and Windows systems. You can use the openFT Explorer to operate, control and monitor the FT system and the FTAC environment of remote openFT installations on any system platform independent from the local system, A detailed online help system that describes the operation of all the dialogs is supplied together with the openFT Explorer.

1.4 Changes since the last version

This section describes the changes in openFT V12.1 compared to openFT V12.0A.

i The functional extensions to the openFT commands, whether they relate to administrators or users, are also available in the openFT Explorer which is provided on Unix and Windows systems. For details, see the *New functions* section in the associated online help system.

On z/OS, the functional extensions are also available in the menu system (panels).

1.4.1 Changes for all platforms

● Extended Unicode support

On all Unicode capable systems, file names, FTAC transfer admissions and follow-up processing may consist of Unicode characters. To permit this, the function "Encoding Mode" has been introduced in order to represent the Unicode names correctly on all involved systems.

The command interfaces have been extended as follows:

– All platforms:

The new field FNC-MODE in the long output of log records displays the encoding mode for the file name (commands *ftshwl*, SHOW-FT-LOGGING-RECORDS and FTSHWLOG). On BS2000 systems, the OPS variables have been extended by the elements FNC-MODE and FNCCS.

– Unix systems and Windows systems:

– New option *-fnc* in order to set the encoding mode in a file transfer, file management or administration request. This option is available for the commands *ft*, *ftadm*, *ftcredir*, *ftdel*, *ftdeldir*, *ftexec*, *ftmod*, *ftmoddir*, *ftshw* and *nopy*. The encoding mode is displayed in the output of the following commands (in addition to *ftshwl*): *ftshw* and *ftshwr* (FNC-MODE field).
The number of not mapped file names is displayed using *ftshw -sif*.
– New attribute *CmdMode* in the configuration of remote administration server to define the (recommended) encoding mode for administered openFT instances. The encoding mode is displayed in the output of the *ftshwc* command (MODE field).
This function is also available in the configuration editor of the openFT Explorer.
– In Unix systems, it is also possible to set the character set which is to be used for inbound requests in character mode. To do this, the new option *-fnccs* in the *ftmodo* command has been introduced.

The character set which is currently set for inbound requests in character mode is displayed in *ftshwo*, FN-CCS-NAME field.

● For inbound requests, the long output and CSV output of log records display the address of the partner system in the new field PTNR-ADDR. On BS2000 systems, the partner address is also displayed in the OPS variable PARTNER-ADDRESS.

● Deactivation of the restart functions

The restart function can be deactivated for asynchronous file transfer requests via the openFT or FTAM protocol. The restart can be set partner-specifically for outbound requests and globally for inbound and outbound requests. To permit this, the following commands have been modified:

Unix and Windows systems:
– *ftaddptn* and *ftmodptn*: New option *-rco*
– *ftmodo*: New options *-rco* and *-rci*

BS2000 and z/OS systems:
– ADD-/MODIFY-FT-PARTNER and FTADDPTN/FTMODPTN:
  New operand RECOVERY-OUTBOUND
– MODIFY-FT-OPTIONS and FTMODOPT:
  New operands RECOVERY-OUTBOUND and RECOVERY-INBOUND

● Minimum RSA key length for openFT protocol

An openFT instance can require a minimum RSA key length for the openFT session encryption. The minimum RSA key length can be defined in the operating parameters. To permit this, the following commands have been modified:

Unix and Windows systems:
– *ftmodo*: New option *-klmin*

BS2000 and z/OS systems:
– MODIFY-FT-OPTIONS and FTMODOPT: New parameters RSA-PROPOSED and RSA-MINIMUM for the KEY-LENGTH operand.

● Minimum AES key length for openFT protocol

An openFT instance can require a minimum AES key length for the openFT session encryption. The minimum AES key length can be defined in the operating parameters. To permit this, the following commands have been modified:

Unix and Windows systems:
– *ftmodo*: New option *-aesmin*

BS2000 and z/OS systems:
– MODIFY-FT-OPTIONS and FTMODOPT: New parameter AES-MINIMUM for the KEY-LENGTH operand.

1.4.2   Changes for Unix and Windows platforms

- Transferring directories:

  - Directories can be transferred between Unix and Windows systems. To permit this, the commands *ft* and *ncopy* have been extended with the option *-d*.

  - The new field PROGRESS in the output of the *ftshwr* command displays the progress of (asynchronous) directory transfer.

  - The new option *ftmodo -ltd* has been introduced to set the logging scope for directory transfer.

  - The new value *ftshwl -ff=T* selects log records of directory transfer requests. In addition, the *ftshwl* output has been extended to the field TRANSFILE (long output) as well as the FT function values TD, SD, SF (short output) and the value FUNCTION=TRANSFER-DIR (long output).

- Transferring multiple files via FTAM:

  Multiple files can be transferred synchronously between Unix and Windows systems using the FTAM protocol. This is controlled by a specific file name syntax of the *ncopy* command.

- Extension of the openFT-Script commands

  - The FT administrator can set limits of openFT requests. To permit this, the command *ftmodsuo* has been extended to the options *-u*, *-thl* and *-ftl*.

  - *ftshwsuo* displays the limits currently set.

- The *ftshwk* command displays the partner name for public keys of partner systems.

- FarSync X25 support

  FarSync X.25 cards from the manufacturer FarSite are directly supported by openFT on Linux and Windows systems. PCMX is no longer required for this. The connection method XOT (X.25 via TCP/IP) is also supported on Linux by using the FarSync XOT Runtime.
  To permit this, the commands *ftaddptn*, *ftmodptn*, *ftmodo*, *ftshwptn* and *ftshwo* have been extended.

- Extended support of the Application Entity Title

  The Application Entity Title (AET) now can be used for checking the partner address of FTAM partners. To permit this, the *ftmodo* command has been modified by extending the *-ptc* (partner check) option and adding the *-aet* option for specifying the AET. The *ftshwo* command has been extended by the *-ae* option.

- Other changes

  – Modified partner checking for partners which are addressed via IPv6 with scope ID or via X.25 with line number. By this, a unique identification via the partner address is always possible.

  – The *ft_mget* command has been extended by the *-case* option which controls the consideration of the upper case / lower case in file name pattern.

  – The ADM administrator now can return the permission for remote administration (*ftmoda -admpriv=n*). The configuration of the remote administration server is retained.

1.4.3 Changes for Unix platforms

- Single-user mode

  On Unix systems, the administrator can switch between the multi-user mode (default) and the single-user mode using the *ftsetmode* command. In single-user mode openFT runs completely under a specific user ID (the so called openFT ID) which is also FT and FTAC administrator. To permit creating and administering additional openFT instances in single-user mode, the commands *ftcrei* and *ftmodi* have been extended by the option *-ua* for specifying the user ID of a new instance.

- openFT release for Linux 64 bit.

- SNMP is no longer supported on Unix platforms.

1.4.4 Changes for BS2000 systems and z/OS

- New commands GET-REMOTE-FILES (BS2000 systems) and FTMGET (z/OS) for synchronous or asynchronous fetching of multiple files specified by wildcards from a remote system.

- New diagnostics command FTPING on BS2000-POSIX and z/OS for testing the openFT connection to a remote partner.

1.4.5 Changes for z/OS

- The PARM member of the z/OS parameter file has been changed as follows:

  - New key word JOB_JOBCLASS for follow-up processing jobs, preprocessing jobs, postprocessing jobs and print jobs.

  - New key word LISTPARM for setting of a default printer (LISTING=*STD in a FT request).

  - The key word JOB_MSGCLASS now applies to preprocessing jobs and postprocessing jobs.

- For FJBATCH in z/OS as of V2.1, you can use the PARMDD parameter instead for the PARM parameter.

- NCOPY and FTACOPY: New value LISTING=*STD in LOCAL-PARAMETER in order to assign a printer defined via LISTPARM.

- openFT (z/OS) is now supporting host names with up to 80 characters in length. This applies both to the internal communication in z/OS and to connections to z/OS partners.

- The member TNCTCPIP of the z/OS parameter file is no longer supported, therefore the description has been dropped.

1.4.6 New functions that are only available in the openFT Explorer

- Exporting public keys

  The FT administrator can export public keys of the local openFT instance using the *Key Management - Export Public Key* command in the *Administration* menu.

- Deleting diagnosis information and console messages

  The FT administrator can delete diagnosis information and console messages using the commands *Delete Diagnosis Information* and *Delete Console Messages* in the *Administration* menu.

- The logging is also available in the object tree of the openFT Explorer.

Please refer to the online help for more details.

1.5 Notational conventions

The following notational conventions are used throughout this manual:

typewriter font
> typewriter font is used to identify entries and examples.

i indicates notes.

⚠ Indicates warnings.

Additional conventions are used for the command descriptions, see section "Command syntax representation" on page 28.

1.6 README files

Information on any functional changes and additions to the current product version can be found in product-specific README files.

Readme files are available to you online in addition to the product manuals under the various products at *http://manuals.ts.fujitsu.com*.

You will also find the Readme files on the Softbook DVD.

Information under BS2000 systems

When a Readme file exists for a product version, you will find the following file on the BS2000 system:

SYSRME.<product>.<version>.<lang>

This file contains brief information on the Readme file in English or German (<lang>=E/D). You can view this information on screen using the /SHOW-FILE command or an editor. The /SHOW-INSTALLATION-PATH INSTALLATION-UNIT=<product> command shows the user ID under which the product's files are stored.

Additional product information

Current information, version and hardware dependencies, and instructions for installing and using a product version are contained in the associated Release Notice. These Release Notices are available online at *http://manuals.ts.fujitsu.com*.

1.7 Current information on the Internet

Current information on the openFT family of products can be found in the internet under *http://www.fujitsu.com/ts/openFT*.

2 Introduction to the command interface

This chapter contains a functional overview of the SDF based openFT commands for users and administrators.

The functional command description provides a quick overview of which commands are available for which tasks.

This is followed by an explanation of how to enter the commands and of the notational conventions used in chapter "openFT commands" on page 67.

> **i** At the BS2000 POSIX interface, the openFT commands provided on Unix and Windows systems are available. Please refer to the manual "openFT (Unix and Windows systems) - Command Interface" for details.

Notes for the FT administrator

The FT administration commands can be issued from the console. Administration from the terminal requires the FT-ADMINISTRATION privilege, which is assigned by default to the TSOS ID. If SECOS is in use, this privilege can also be assigned to other user IDs. See the SECOS manual for details.

The FT administrator commands that may be entered via the console, can also be set by all the IDs with the OPERATING privilege. If necessary, this privilege can be taken away from these IDs.

These are the commands: ADD-FT-PARTNER, CREATE-FT-INSTANCE, CREATE-FT-KEY-SET, DELETE-FT-INSTANCE, DELETE-FT-KEY-SET, MODIFY-FT-INSTANCE, MODIFY-FT-OPTIONS, MODIFY-FT-PARTNER, REMOVE-FT-PARTNER, SHOW-FT-OPTIONS, SHOW-FT-PARTNER, START-FT, STOP-FT, UPDATE-FT-PUBLIC-KEYS.

2.1 Functions command overview

The following overview shows the FT and FTAC commands as they relate to individual jobs. The following user groups are distinguished here:

FT user

      Person who uses functions of the product openFT but has no rights as FT administrator.

FT administrator

      Person who manages the product openFT on a computer.

FTAC user

      Person who can manage admission sets and admission profiles for his/her own user ID but does not have the rights of an FTAC administrator.

FTAC administrator

      Person who manages the product openFT-AC on a computer.

In a number of commands additional options are available to the FT or FTAC administrator which enable him/her to perform the associated actions system-wide. In addition, there are commands which only the FT or FTAC administrator may call.

2.1.1 FT commands overview

Transfer files and manage request queue		
Submit asynchronous FT request	TRANSFER-FILE	page 391
Submit synchronous FT request	TRANSFER-FILE-SYNCHRONOUS	page 442
Fetch multiple files from a remote system	GET-REMOTE-FILES	page 149
Cancel FT requests	CANCEL-FILE-TRANSFER	page 79
Show information on FT requests	SHOW-FILE-TRANSFER	page 269
Modify FT request queue	MODIFY-FILE-TRANSFER	page 172
File management		
Show attributes of file/files in a remote system	SHOW-REMOTE-FILE-ATTRIBUTES	page 371
Change file attributes in a remote system	MODIFY-REMOTE-FILE-ATTRIBUTES	page 254

Setting, showing and administering openFT instances

Create openFT instance	CREATE-FT-INSTANCE	page 86
Delete openFT instance	DELETE-FT-INSTANCE	page 115
Modify openFT instance	MODIFY-FT-INSTANCE	page 185
Set openFT instance	SET-FT-INSTANCE	page 264
Show openFT instance	SHOW-FT-INSTANCE	page 296

Logging Function

Delete log records or offline log files	DELETE-FT-LOGGING-RECORDS	page 118
Show log records or log files	SHOW-FT-LOGGING-RECORDS	page 302

Monitoring

Show monitoring data	SHOW-FT-MONITOR-VALUES	page 324

Obtain information on openFT

Display operating parameters	SHOW-FT-OPTIONS	page 338

Remote administration

Issue remote administration command	EXECUTE-REMOTE-FTADM-CMD	page 137

i A detailed description of the FT command START-FTTRACE for evaluating traces is provided in the manual "openFT (BS2000) - Installation and Operation".

2.1.2 FTAC commands overview

openFT-AC must be installed in order to use the following commands:

Edit FTAC admission profiles

Create admission profile	CREATE-FT-PROFILE	page 90
Delete admission profile	DELETE-FT-PROFILE	page 123
Modify admission profile	MODIFY-FT-PROFILE	page 225
Show admission profile	SHOW-FT-PROFILE	page 360

Edit FTAC admission sets

Modify admission set	MODIFY-FT-ADMISSION-SET	page 178
Show admission set	SHOW-FT-ADMISSION-SET	page 291

Store and display saved FTAC admission profiles and sets

Export admission profiles and sets	EXPORT-FTAC-ENVIRONMENT	page 146
Import admission profiles and sets	IMPORT-FTAC-ENVIRONMENT	page 160
Display saved admission profiles and sets	SHOW-FTAC-ENVIRONMENT	page 287

Show partner systems

Display partner systems and security levels	SHOW-FT-RANGE	page 368

2.2 Entering FT commands

Please remember the following when entering commands:

–   You must insert commas to separate the individual operands of a command, e.g.

    `/TRANSFER-FILE TRANSFER-DIRECTION=TO,PARTNER=ZENTRALE,LOCAL-PARAMETER=...`

–   If quotes appear in a value assignment which is itself enclosed in quotes, they must be entered twice.

–   If there is no default value marked (by underscoring) for an operand, then it **must** be specified with a valid value (mandatory operand).

–   A distinction is made between positional operands and keyword operands. Positional operands are uniquely determined by their position in the command. Keyword operands are uniquely determined by their keyword, for example `TRANSFER-DIRECTION=...` There are a number of considerations to be borne in mind when specifying such operands (see below).

–   You can abbreviate your entries for commands and operands, always ensuring that your entries retain their uniqueness. You can also use positional operands if you wish. Short forms and long forms can be mixed at will. Certain abbreviated forms of keywords and a number of positional operands are guaranteed for openFT. In the command representation the recommended abbreviation is shown in **bold**. This means that you will find these options unchanged in subsequent versions. This means, therefore, that to be "on the safe side", you should form the habit of entering these commands in their abbreviated form. You should take particular care to use the guaranteed abbreviated forms in procedures, as this will ensure their continued executability in subsequent versions. The recommended abbreviations are used in the examples shown in this chapter. The possible abbreviations are listed for the individual command formats.

–   If a structure is preceded by an introductory operand value, then the opening parentheses must immediately follow this operand value. Example: *BS2000 is an introductory operand value in REM=*BS2000(...). Introductory operand values may be omitted if there is no risk of ambiguity.

–   The asterisk (*) that precedes constant operand values may be omitted if there is no risk of ambiguity. Please ensure that it is not a guaranteed abbreviation.

When you enter commands, the value assignments for the operands may be specified in positional form, in keyword form or in mixed form.
Please note the following:

– When you perform value assignments in positional form, the first value is assigned to the first operand in the command, the second value to the second operand etc.

– Values assigned in positional form are separated by commas. You must also enter a comma for each operand for which no value is assigned.

– If two values are assigned to an operand, the last value to be assigned always applies. This also applies to parameter specifications in introductory operand values within the corresponding structure brackets. However, for the sake of clarity, double assignments should generally be avoided.

– If you mix the different forms of operand value assignments (positional and keyword form), then you must observe the correct sequence. Note that you can start your input with positional operands and follow these with keyword operands but not the other way round!

– Since there is a possibility that the sequence of operands may change in subsequent versions, only keyword operands should be used in procedures.

2.3 Command syntax representation

The following example shows the representation of the syntax of a command in a manual.
The command format consists of a field with the command name. All operands with their
legal values are then listed. Operand values which introduce structures and the operands
dependent on these operands are listed separately.

HELP-SDF   Alias: **HPSDF**

 GUIDANCE-**MODE** = <u>***NO**</u> / ***YE**S

,**SDF-COM**MANDS = <u>***NO**</u> / ***YE**S

,**ABBR**EVIATION-**RULES** = <u>***NO**</u> / ***YE**S

,**GUID**ED-**DIA**LOG = <u>***YES**</u>(...)

  <u>***YES**</u>(...)

     SCREEN-STEPS = <u>***NO**</u> / ***YE**S

    ,**SPEC**IAL-**FUNC**TIONS = <u>***NO**</u> / ***YE**S

    ,**FUNC**TION-**KEYS** = <u>***NO**</u> / ***YE**S

    ,**NEXT-FIELD** = <u>***NO**</u> / ***YE**S

,**UNGUID**ED-**DIA**LOG = <u>***YES**</u>(...) / ***NO**

  <u>***YES**</u>(...)

     SPECIAL-**FUNC**TIONS = <u>***NO**</u> / ***YE**S

    ,**FUNC**TION-**KEYS** = <u>***NO**</u> / ***YE**S

Representation of the syntax of the user command HELP-SDF

This syntax description is valid for SDF V4.6A. The syntax of the SDF command/statement
language is explained in the following three tables.

table 1: Notational conventions

The meanings of the special characters and the notation used to describe command and
statement formats are explained in table 1.

Table 2: Data types

Variable operand values are represented in SDF by data types. Each data type represents
a specific set of values. The number of data types is limited to those described in table 2.

The description of the data types is valid for the entire set of commands/statements.
Therefore only deviations (if any) from the attributes described here are explained in the
relevant operand descriptions.

Table 3: Suffixes for data types

Data type suffixes define additional rules for data type input. They contain a length or interval specification. They can be used to limit the set of values (suffix begins with *without*), extend it (suffix begins with *with*), or declare a particular task mandatory (suffix begins with *mandatory*). The following short forms are used in this manual for data type suffixes:

cat-id	cat
completion	compl
correction-state	corr
generation	gen
lower-case	low
manual-release	man
odd-possible	odd
path-completion	path-compl
separators	sep
temporary-file	temp-file
under-score	under
user-id	user
version	vers
wildcard-constr	wild-constr
wildcards	wild

The description of the 'integer' data type in table 3 contains a number of items in italics which are not part of the syntax. They are only used to make the table easier to read. For special data types that are checked by the implementation, table 3 contains suffixes printed in italics (see the *special* suffix) which are not part of the syntax.

The description of the data type suffixes is valid for the entire set of commands/statements. Therefore only deviations (if any) from table 3 are explained in the relevant operand descriptions.

Metasyntax

Representation	Meaning	Examples
UPPERCASE LETTERS	Uppercase letters denote keywords (command, statement or operand names, keyword values) and constant operand values. Keyword values begin with *	**HELP-SDF** **SCREEN-STEPS** = <u>***NO**</u>
UPPERCASE LETTERS in boldface	Uppercase letters printed in boldface denote guaranteed or suggested abbreviations of keywords.	**GUID**ANCE-**MODE** = *YES
=	The equals sign connects an operand name with the associated operand values.	**GUID**ANCE-**MODE** = <u>***NO**</u>
< >	Angle brackets denote variables whose range of values is described by data types and suffixes (see Tables 2 and 3).	**SYNTAX-F**ILE = <filename 1..54>
<u>Underscoring</u>	Underscoring denotes the default value of an operand.	**GUID**ANCE-**MODE** = <u>***NO**</u>
/	A slash serves to separate alternative operand values.	**NEXT-FIELD** = <u>***NO**</u> / *YES
(…)	Parentheses denote operand values that initiate a structure.	,**UNGUID**ED-**DIA**LOG = <u>***Y**ES</u>(...) / ***NO**
[ ]	Square brackets denote operand values which introduce a structure and are optional. The subsequent structure can be specified without the initiating operand value.	**SELECT** = [***BY-ATTR**IBUTES](...)

Indentation	Indentation indicates that the operand is dependent on a higher-ranking operand.	,**GUID**ED-**DIA**LOG = <u>***Y**ES</u>(...)
		
		    <u>***Y**ES</u>(...)
		
		        SCREEN-STEPS = <u>***NO**</u> /
		                        *YES

Table 1: Metasyntax (part 1 of 2)

Representation	Meaning	Examples

│	A vertical bar identifies related operands within a structure. Its length marks the beginning and end of a structure. A structure may contain further structures. The number of vertical bars preceding an operand corresponds to the depth of the structure.	**SUP**PORT = ***TAPE**(...)
		
		    *TAPE(...)
		
		        VOLUME = <u>***ANY**</u>(...)
		
		            <u>***ANY**</u>(...)
		
		                ...

,	A comma precedes further operands at the same structure level.	**GUID**ANCE-**MODE** = <u>***NO**</u> / ***Y**ES ,**SDF-COM**MANDS = <u>***NO**</u> / ***Y**ES
list-poss(n):	The entry "list-poss" signifies that a list of operand values can be given at this point. If (n) is present, it means that the list must not have more than n elements. A list of more than one element must be enclosed in parentheses.	list-poss: ***SAM** / ***ISAM** list-poss(40): <structured-name 1..30> list-poss(256): ***OMF** / ***SYSLST**(...) / <filename 1..54>
Alias:	The name that follows represents a guaranteed alias (abbreviation) for the command or statement name.	**HELP-SDF** Alias: **HPSDF**

Table 1: Metasyntax (part 2 of 2)

Data types

Data type	Character set	Special rules
alphanum-name	A…Z 0…9 $, #, @	
cat-id	A…Z 0…9	Not more than 4 characters; must not begin with the string PUB
command-rest	freely selectable	
composed-name	A…Z 0…9 $, #, @ hyphen period catalog ID	Alphanumeric string that can be split into multiple substrings by means of a period or hyphen. If a file name can also be specified, the string may begin with a catalog ID in the form :cat: (see data type filename).
c-string	EBCDIC character	Must be enclosed within single quotes; the letter C may be prefixed; any single quotes occurring within the string must be entered twice.
date	0…9 Structure identifier: hyphen	Input format: yyyy-mm-dd yyyy: year; optionally 2 or 4 digits mm: month dd: day Only date specifications between 1.1.2000 and 19.1.2038 are possible. If the year is specified in 2-digit form, 2000 is added to the number
device	A…Z 0…9 hyphen	Character string, max. 8 characters in length, corresponding to a device available in the system. In guided dialog, SDF displays the valid operand values. For notes on possible devices, see the relevant operand description.

Table 2: Data types (part 1 of 6)

Data type	Character set	Special rules
fixed	+, - 0…9 period	Input format: [sign][digits].[digits] [sign]: + or - [digits]: 0...9 must contain at least one digit, but may contain up to 10 characters (0...9, period) apart from the sign.

filename	A…Z
	0…9
	$, #, @
	hyphen
	period
		Input format:
		
		[:cat:][$user.] ⎰ file / file(no) / group / group{ (*abs) (+rel) (-rel) } ⎱
		
		:cat:
		    optional entry of the catalog identifier; character set restricted to A...Z and 0...9; maximum of 4 characters; must be enclosed in colons; default value is the catalog identifier assigned to the user ID, as specified in the user catalog.
		
		$user.
		    optional entry of the user ID; character set is A…Z, 0…9, $, #, @; maximum of 8 characters; first character cannot be a digit; $ and period are mandatory; default value is the user's own ID.
		
		$. (special case)
		    system default ID

Table 2: Data types (part 2 of 6)

Data type	Character set	Special rules

filename (continued)		file
		    file or job variable name;
		    may be split into a number of partial names
		    using a period as a delimiter:
		    $name_1[.name_2[...]]$
		    $name_i$ does not contain a period and must
		    not begin or end with a hyphen;
		    file can have a maximum length of 41
		    characters; it must not begin with a \$ and
		    must include at least one character from the
		    range A...Z.

		#file (special case)
		@file (special case)
		    # or @ used as the first character indicates
		    temporary files or job variables, depending
		    on system generation.

		file(no)
		    tape file name
		    no: version number;
		    character set is A...Z, 0...9, \$, #, @.
		    Parentheses must be specified.

		group
		    name of a file generation group
		    (character set: as for "file")
		
		    group$\begin{cases}(*abs)\\(+rel)\\(-rel)\end{cases}$

		(*abs)
		    absolute generation number (1-9999);
		    * and parentheses must be specified.

		(+rel)
		(-rel)
		    relative generation number (0-99);
		    sign and parentheses must be specified.

integer	0...9, +, -	+ or -, if specified, must be the first character.
name	A...Z 0...9 \$, #, @	Must not begin with 0...9.

Table 2: Data types (part 3 of 6)

Data type	Character set	Special rules

partial-filename	A…Z
	0…9
	$, #, @
	hyphen
	period
		Input format: [:cat:][$user.][partname.]
		
		:cat: see filename
		$user. see filename
		
		partname
		    optional entry of the initial part of a name
		    common to a number of files or file
		    generation groups in the form:
		    $name_1.[name_2.[...]]$
		    $name_i$ (see filename).
		    The final character of "partname" must be a
		    period.
		    At least one of the parts :cat:, $user. or
		    partname must be specified.

posix-filename	A...Z 0...9 special characters	String which may have a maximum length of 255 characters. Consists of either one or two periods or of alphanumeric characters and special characters. The special characters must be escaped with a preceding \ (backslash). The / is not allowed. Must be enclosed within single quotes if alternative data types are permitted, separators are used, or the first character is a ?, ! or ^. A distinction is made between uppercase and lowercase.
posix-pathname	A...Z 0...9 special characters structure identifier: slash	Input format: [/]$part_1/.../part_n$ where $part_i$ is a posix-filename; maximum of 510 in *POSIX syntax; must be enclosed within single quotes if alternative data types are permitted, separators are used, or the first character is a ?, ! or ^

Table 2: Data types (part 4 of 6)

Data type	Character set	Special rules

product-version	A…Z
	0…9
	period
	single quote
		Input format: [[C]'][V][m]m.naso[']
		
		                   correction status
		              release status
		where m, n, s and o are all digits and a is a letter. Whether the release and/or correction status may/must be specified depends on the suffixes to the data type (see the suffixes without-corr, without-man, mandatory-man and mandatory-corr in table 3).
		product-version may be enclosed within single quotes (possibly with a preceding C).
		The specification of the version may begin with the letter V.

structured-name	A…Z 0…9 $, #, @ hyphen	Alphanumeric string which may comprise a number of substrings separated by a hyphen. First character: A...Z or $, #, @
text	freely selectable	For the input format, see the relevant operand descriptions.

time	0…9
	structure identifier:
	colon
		Time-of-day entry:
		
		Input format: hh:mm:ss
		                hh:mm
		                hh
		
		hh: hours
		mm: minutes Leading zeros may be omitted
		ss: seconds

vsn	a) A…Z
	     0…9
	
	b) A…Z
	     0…9
	     $, #, @
		a) Input format: pvsid.sequence-no
		     max. 6 characters
		     pvsid: 2-4 characters; PUB must not be entered
		     sequence-no: 1-3 characters
		
		b) Max. 6 characters;
		     PUB may be prefixed, but must not be followed by $, #, @.

Table 2: Data types (part 5 of 6)

Data type	Character set	Special rules
x-string	Hexadecimal: 00…FF	Must be enclosed in single quotes; must be prefixed by the letter X. There may be an odd number of characters.
x-text	Hexadecimal: 00…FF	Must not be enclosed in single quotes; the letter X must not be prefixed. There may be an odd number of characters.

Table 2: Data types (part 6 of 6)

Suffixes for data types

Suffix	Meaning
x..y *unit*	With data type "integer": interval specification
	x minimum value permitted for "integer". x is an (optionally signed) integer.
	y maximum value permitted for "integer". y is an (optionally signed) integer.
	unit with "integer" only: additional units. The following units may be specified: *days* *byte* *hours* *2Kbyte* *minutes* *4Kbyte* *seconds* *Mbyte* *milliseconds*
x..y *special*	With the other data types: length specification For data types catid, date, device, product-version, time and vsn the length specification is not displayed.
	x minimum length for the operand value; x is an integer.
	y maximum length for the operand value; y is an integer.
	x=y the length of the operand value must be precisely x.
	special Specification of a suffix for describing a special data type that is checked by the implementation. "*special*" can be preceded by other suffixes. The following specifications are used: *arithm-expr* arithmetic expression (SDF-P) *bool-expr* logical expression (SDF-P) *string-expr* string expression (SDF-P) *expr* freely selectable expression (SDF-P) *cond-expr* conditional expression (JV) *symbol* CSECT or entry name (BLS)
with	Extends the specification options for a data type.
-compl	When specifying the data type "date", SDF expands two-digit year specifications in the form yy-mm-dd to: 20yy-mm-dd if yy < 60 19yy-mm-dd if yy ≥ 60
-low	Uppercase and lowercase letters are differentiated.
-path-compl	For specifications for the data type "filename", SDF adds the catalog and/or user ID if these have not been specified.

Table 3: Data type suffixes (part 1 of 7)

Suffix	Meaning
with (cont.)	
-under	Permits underscores (_) for the data types "name" and "composed-name".
-wild(n)	Parts of names may be replaced by the following wildcards. n denotes the maximum input length when using wildcards. Due to the introduction of the data types posix-filename and posix-pathname, SDF now accepts wildcards from the Unix world (referred to below as POSIX wildcards) in addition to the usual BS2000 wildcards. However, as not all commands support POSIX wildcards, their use for data types other than posix-filename and posix-pathname can lead to semantic errors. Only POSIX wildcards or only BS2000 wildcards should be used within a search pattern. Only POSIX wildcards are allowed for the data types posix-filename and posix-pathname. If a pattern can be matched more than once in a string, the first match is used.

BS2000 wildcards	Meaning
*	Replaces an arbitrary (even empty) character string. If the string concerned starts with *, then the * must be entered twice in succession if it is followed by other characters and if the character string entered does not contain at least one other wildcard.
Termina-ting period	Partially-qualified entry of a name. Corresponds implicitly to the string "./*", i.e. at least one other character follows the period.
/	Replaces any single character.
$<s_x:s_y>$	Replaces a string that meets the following conditions: – It is at least as long as the shortest string (s_x or s_y) – It is not longer than the longest string (s_x or s_y) – It lies between s_x and s_y in the alphabetic collating sequence; numbers are sorted after letters (A...Z0...9) – s_x can also be an empty string (which is in the first position in the alphabetic collating sequence) – s_y can also be an empty string, which in this position stands for the string with the highest possible code (contains only the characters X'FF')
$<s_1,...>$	Replaces all strings that match any of the character combinations specified by s. s may also be an empty string. Any such string may also be a range specification "$s_x:s_y$" (see above).

Table 3: Data type suffixes (part 2 of 7)

Suffix	Meaning	
with-wild(n)		
	-s	Replaces all strings that do not match the specified string s. The minus sign may only appear at the beginning of string s. Within the data types filename or partial-filename the negated string -s can be used exactly once, i.e. -s can replace one of the three name components: cat, user or file.
	Wildcards are not permitted in generation and version specifications for file names. Only system administration may use wildcards in user IDs. Wildcards cannot be used to replace the delimiters in name components cat (colon) and user ($ and period).	
	POSIX wildcards	Meaning
	*	Replaces any single string (including an empty string). An * appearing at the first position must be duplicated if it is followed by other characters and if the entered string does not include at least one further wildcard.
	?	Replaces any single character. It is not permitted as the first character outside single quotes.
	$[c_x\text{-}c_y]$	Replaces any single character from the range defined by c_x and c_y, including the limits of the range. c_x and c_y must be normal characters.
	[s]	Replaces exactly one character from string s. The expressions $[c_x\text{-}c_y]$ and [s] can be combined into $[s_1c_x\text{-}c_ys_2]$.
	$[!c_x\text{-}c_y]$	Replaces exactly one character not in the range defined by c_x and c_y, including the limits of the range. c_x and c_y must be normal characters. The expressions $[!c_x\text{-}c_y]$ and [!s] can be combined into $[!s_1c_x\text{-}c_ys_2]$.
	[!s]	Replaces exactly one character not contained in string s. The expressions [!s] and $[!c_x\text{-}c_y]$ can be combined into $[!s_1c_x\text{-}c_ys_2]$.

Table 3: Data type suffixes (part 3 of 7)

Suffix	Meaning
with (cont.)	
-wild-constr(n)	Specification of a constructor (string) that defines how new names are to be constructed from a previously specified selector, i.e., a selection string with wildcards (see also with-wild). n denotes the maximum input length when using wildcards. The constructor may consist of constant strings and patterns. A pattern (character) is replaced by the string that was selected by the corresponding pattern in the selector. The following wildcards may be used in constructors: <table><tr><td>Wildcard</td><td>Meaning</td></tr><tr><td>*</td><td>Corresponds to the string selected by the wildcard * in the selector.</td></tr><tr><td>Termina-ting period</td><td>Corresponds to the partially-qualified specification of a name in the selector. Corresponds to the string selected by the terminating period in the selector.</td></tr><tr><td>/ or ?</td><td>Corresponds to the character selected by the / or ? wildcard in the selector.</td></tr><tr><td><n></td><td>Corresponds to the string selected by the n-th wildcard in the selector, where n is an integer.</td></tr></table>Allocation of wildcards to corresponding wildcards in the selector: All wildcards in the selector are numbered from left to right in ascending order (global index). Identical wildcards in the selector are additionally numbered from left to right in ascending order (wildcard-specific index). Wildcards can be specified in the constructor by one of two mutually exclusive methods: 1. Wildcards can be specified via the global index: <n> 2. The same wildcard may be specified as in the selector; substitution occurs on the basis of the wildcard-specific index. For example: the second "/" corresponds to the string selected by the second "/" in the selector

Table 3: Data type suffixes (part 4 of 7)

Suffix	Meaning
with-wild-constr(n) (continued)	The following rules must be observed when specifying a constructor: – The constructor can only contain wildcards of the selector. – If the string selected by the wildcard <...> or [...] is to be used in the constructor, the index notation must be selected. – The index notation must be selected if the string identified by a wildcard in the selector is to be used more than once in the constructor. For example: if the selector "A/" is specified, the constructor "A<n><n>" must be specified instead of "A//". – The wildcard * can also be an empty string. Note that if multiple asterisks appear in sequence (even with further wildcards), only the last asterisk can be a non-empty string, e.g. for "****" or "*//*". – Valid names must be produced by the constructor. This must be taken into account when specifying both the constructor and the selector. – Depending on the constructor, identical names may be constructed from different names selected by the selector. For example: "A/*" selects the names "A1" and "A2"; the constructor "B*" generates the same new name "B" in both cases. To prevent this from occurring, all wildcards of the selector should be used at least once in the constructor. – If the selector ends with a period, the constructor must also end with a period (and vice versa). The string selected by the terminating period in the constructor cannot be specified via the global index.

Table 3: Data type suffixes (part 5 of 7)

Suffix	Meaning
with-wild-constr(n) (continued)	Examples:

Selector	Selection	Constructor	New name
A//*	AB1 AB2 A.B.C	D<3><2>	D1 D2 D.CB
C.<A:C>/<D,F>	C.AAD C.ABD C.BAF C.BBF	G.<1>.<3>.XY<2>	G.A.D.XYA G.A.D.XYB G.B.F.XYA G.B.F.XYB
C.<A:C>/<D,F>	C.AAD C.ABD C.BAF C.BBF	G.<1>.<2>.XY<2>	G.A.A.XYA G.A.B.XYB G.B.A.XYA G.B.B.XYB
A//B	ACDB ACEB AC.B A.CB	G/XY/	GCXYD GCXYE GCXY. [1] G.XYC

[1] The period at the end of the name may violate naming conventions (e.g. for fully-qualified file names).

Suffix	Meaning
without	Restricts the specification options for a data type.
-cat	Specification of a catalog ID is not permitted.
-corr	Input format: [[C]'][V][m]m.na['] Specifications for the data type product-version must not include the correction status.
-gen	Specification of a file generation or file generation group is not permitted.
-man	Input format: [[C]'][V][m]m.n['] Specifications for the data type product-version must not include either release or correction status.
-odd	The data type x-text permits only an even number of characters.
-sep	With the data type "text", specification of the following separators is not permitted: ; = ( ) < > ⌴ (i.e. semicolon, equals sign, left and right parentheses, greater than, less than, and blank).
-temp-file	Specification of a temporary file is not permitted (see #file or @file under filename).

Table 3: Data type suffixes (part 6 of 7)

Suffix	Meaning
without (cont.)	
-user	Specification of a user ID is not permitted.
-vers	Specification of the version (see "file(no)") is not permitted for tape files.
-wild	The file types posix-filename and posix-pathname must not contain a pattern (character).
mandatory	Certain specifications are necessary for a data type.
-corr	Input format: [[C]'][V][m]m.naso['] Specifications for the data type product-version must include the correction status and therefore also the release status.
-man	Input format: [[C]'][V][m]m.na[so]['] Specifications for the data type product-version must include the release status. Specification of the correction status is optional if this is not prohibited by the use of the suffix without-corr.
-quotes	Specifications for the data types posix-filename and posix-pathname must be enclosed in single quotes.

Table 3: Data type suffixes (part 7 of 7)

Meaning of operands

After the format of each command there is a detailed description of all the operands, the possible value assignments and their functions.

Otherwise the same metasyntax is used in describing operands as in the representation of the command formats (see above).

2.4 Command return codes

The openFT commands supply return codes that you can query when using SDF-P. Each return code consists of a subcode1 (SC1), a subcode2 (SC2) and the maincode (MC).

Subcode1

Subcode1 represents the error class. It is a decimal number. The possible error classes are:

– No error:
    the value of subcode1 is 0.
– Syntax error:
    the value of subcode1 is between 1 and 31, inclusive.
– Internal error (system error):
    the value of subcode1 is 32.
– Errors not assigned to any other class:
    the value of subcode1 is between 64 and 127, inclusive. If the value of subcode 1 is in this range, the maincode must be evaluated in order to ascertain the appropriate action.
– Command cannot be executed at this time:
    the value of subcode1 is between 128 and 130, inclusive.

Subcode2

Subcode2 either contains information supplementary to that in subcode1 or is equal to 0.

Maincode

The maincode corresponds to the message key of the SYSOUT message. You can use the /HELP-MSG-INFORMATION command to fetch detailed information.

For the command return codes of the file transfer and file management commands refer to chapter "Command return codes for file transfer and file management" on page 451. The command return codes of the remaining commands are always located after the detailed description of the command. In each case, the corresponding section specifies which command return codes are possible and what their meaning is.

2.5 Creating files in BS2000

If the receive file is not yet present then it is set up by openFT (BS2000). When library members are received, any libraries that are not present are also implicitly set up. The file or library cannot be set up under the following circumstances:

–   if the file belongs to a file generation group that has not yet been cataloged.

–   if the file or library member is specified in fully qualified form and the user ID present in the name does not match the user ID to which the transfer admission refers (possibly via an FTAC admission profile) unless the transfer admission refers to $TSOS

Library members that are not yet present are also implicitly set up. If the member name does not specify a version then the highest possible version number is assumed. The specification WRITE=NEW in the FT request protects existing members in the receive library with TYPE, NAME and VERSION definitions against being overwritten.

A receive file that has been newly set up by openFT (BS2000) or an implicitly created receive library possesses the following file protection features:

–   no file password
–   write and read access permitted
–   not shareable and
–   no period of protection against modification

Special receive file properties:

●   If a file is transferred to an NK pubset using BLKCTRL=PAMKEY then it is implicitly converted to BLKCTRL=DATA. In this case, openFT (BS2000) offers the same functionality as the PAMCONV utility (see the "Utility Routines (BS2000)" manual).

PAMKEY cannot convert files with BLKSIZE (STD,16) to DATA.

In the case of transfer to an NK4 pubset it may be necessary to perform conversion with PAMCONV. If no conversion is performed then only evenly blocked files can be transferred to NK4 pubsets. ISAM files must additionally possess an NK4 format (BLKCTRL=DATA(NK4)).

●   If the receive file is password-protected and if the buffer size of the send file BLKSIZE ≥ 2 (PAM blocks) then the primary allocation of the send file must be sufficiently large. The required primary allocation is dependent on the BS2000 version and can be found in the current DMS manuals.

●   The secondary allocation for receive files that did not previously exist or are not password-protected has, following transfer, approximately the value
```
   Size of send file / 4.
```
The secondary allocation of password-protected receive files that have already been set up remains unchanged.

● PAM files with empty blocks (coded file-id on OPEN ≠ coded file-id of the PAM block) are transferred together with the empty blocks if the number of successive empty blocks satisfies the following conditions:

– Receive file not set up or not password-protected:
  ```
  Number of empty blocks ≤ (M / 4) - 3,
  ```
  where M = 72 or is equal to the block number of the last PAM block written in the send file if this block number > 72.

– Receive file is password-protected:
  ```
  Number of empty blocks ≤ secondary allocation of receive file
  before file transfer - 3
  ```

2.6 Specifying partner addresses

The following applies to the addressing of a partner system:

● You can specify the name of the partner from the partner list provided that the partner has been entered in the partner list.

  A partner has to be entered in the partner list by the FT administrator. For this purpose, the FT administrator can use the following commands:

  – ADD-FT-PARTNER

  – MODIFY-FT-PARTNER

● You can access a partner directly via its address in FT or file management requests even if it is not entered in the partner list. This is only possible if the "dynamic partner" function is enabled via operating parameters.

Partner addresses

A partner address has the following structure:

[protocol://]host[:[port].[tsel].[ssel].[psel]]

host (= computer name, see) is mandatory; all other specifications are optional. In many cases, the other specifications are covered by the default values, so that the host name suffices as the partner address, see . Final '.' or ':' can be omitted.

The individual components of the address have the following meanings:

protocol://
     Protocol stack via which the partner is addressed. Possible values for *protocol* (uppercase and lowercase are not distinguished):

  openft   openFT partner, i.e. communication takes place over the openFT protocol.

  ftam   FTAM partner, i.e. communication takes place over the FTAM protocol.

  ftp   FTP partner, i.e. communication takes place over the FTP protocol.

  ftadm   ADM partner, i.e. communication takes place over the FTADM protocol for remote administration and ADM traps.

     Default value: **openft**

host
     Computer name via which the partner is addressed. Possible entries:

- – BCAM processor name, length 1 to 8 characters
- – only with FTP partners:
    - – internet host name (e.g. DNS name), length 1 to 80 characters
    - – IPv4 address with the prefix %ip, i.e. for example %ip139.22.33.44

        The IP address must always be specified as a sequence of decimal numbers separated by dots and without leading zeros.

    - – IPv6 address with the prefix %ip6, i.e. for example
        `%ip6[FEDC:BA98:7654:3210:FEDC:BA98:7654:3210]` (ipv6) or
        `%ip6[FE80::20C:29ff:fe22:b670%5]` (ipv6 with scope ID)

        The square brackets [..] must be specified.

        The scope ID designates the local network card via which the remote partner can be accessed in the same LAN-Agment. It must be appended to the address with a % character. In Windows systems, this is a numerical value (e.g. 5). On other systems, it may also be a symbolic name (e.g. *eth0*). The scope ID can be identified using the *ipconfig* command.

        | **i** | When the SHOW-FT-PARTNERS command is issued, openFT attempts to determine the DNS name and displays this instead of the IPv4-/IPv6 address. |

- – TNS name from the z/OS library (TNSTCPIP member), up to 8 characters in length.

port

When a connection is established over TCP/IP, you can specify the port name under which the file transfer application can be accessed in the partner system.
Permitted range of values: 1 through 65535.

Default value: **1100** for openFT partners.
A different default value can also be set in the operating parameters using the following command:
MODIFY-FT-OPTIONS

4800 for FTAM partners.

21 for FTP partners

11000 for ADM partners

tsel

Transport selector under which the file transfer application is available in the partner system. The transport selector is only relevant for openFT partners and FTAM partners. You can specify the selector in printable or hexadecimal format (0xnnnn...).

The specification will depend on the type of partner:

– openFT partner:
Length, 1 through 8 characters; alphanumeric characters and the special
characters # @ $ are permitted. A printable selector will be coded in EBCDIC in the
protocol and may be padded with spaces internally to the length of eight characters.

Default value: **$FJAM**

– FTAM partner:
Length 1 to 10 characters; a printable selector will be coded as variable length
ASCII in the protocol. Exception: T-selectors that start with $FTAM (default value)
are coded in EBCDIC and padded with spaces to the length of 8 characters.

All alphanumeric characters and the special characters @ $ # _ - + = and * can be
used with ASCII selectors.

Default value: **$FTAM**

Note:
As a rule, **SNI-FTAM** must be specified for Windows partners with openFT-FTAM
up to V10. As of openFT-FTAM V11 for Windows, the default value has been
changed to **$FTAM** and can therefore be omitted.

Printable transport selectors are always used in uppercase in openFT even if they are
specified or output in lowercase.

ssel
Session selector under which the file transfer application is accessible in the partner
system. You can specify the selector in printable or hexadecimal format (0xnnnn...).
Length, 1 through 10 characters; alphanumeric characters and the special characters
@ $ # _ - + = * are permitted. A printable selector is encoded in ASCII with a variable
length in the log.

Default value: empty

Printable session selectors are always used in uppercase in openFT even if they are
specified or output in lowercase.

psel
Only relevant for FTAM partners.
Presentation selector under which the file transfer application is available in the partner
system. You can specify the selector in printable or hexadecimal format (0xnnnn...).
Length, 1 through 10 characters; alphanumeric characters and the special characters
@ $ # _ - + = * are permitted. A printable selector is interpreted as ASCII with a variable
length in the log.

Default value: empty

Printable presentation selectors are always used in uppercase in openFT even if they
are specified or output in lowercase.

Examples

The partner computer with the host name FILESERV is to be addressed over different protocols/connection types:

Connection type/protocol	Address specification
openFT partner	FILESERV
FTAM partner (Windows system as of V11.0, BS2000 or Unix system with default setting as of V11.0)	ftam://FILESERV
FTAM partner (Windows system with default setting up to V10.0)	ftam://FILESERV:.SNI-FTAM
Third-party FTAM partner	ftam://FILESERV:102.TS0001.SES1.PSFTAM
FTP partner	ftp://FILESERV
FTADM partner	ftadm://FILESERV

2.7 Entering the authorization data for the partner system

The authorization data can be specified via login/LOGON authorization or via FTAC transfer admission, see the following table:

System	FTAC transfer admission	Login name	Account number	Password
BS2000	8 - 32 character long C string or 15 - 64 character long X string	1 - 8 alphanu-meric characters	1 - 8 alphanumeric characters	1 - 32 character long C string or 1 - 16 character long X string
Unix based	8 - 32 characters long C string (Unicode characters are also permitted) or 15 - 64 characters long X string	1 - 32 characters	Unix systems do not recognize any account numbers locally	Alphanumeric characters (the length is system dependent), a distinction is made between uppercase and lowercase
Windows	8 - 36 characters (Unicode characters are also permitted)	1 - 36 characters, possibly with leading domain name (DOM\)	Windows does not recognize any account numbers locally	8 - 32 character long C string or 15 - 64 character long X string
z/OS	8 - 32 character long C string or 15 - 64 character long X string	1 - 8 alphanu-meric characters	max. 40 characters, uppercase, digits and special characters $, @, #	1 - 8 alphanumeric characters

Examples

If you do not possess FTAC transfer admission then you can specify the LOGON/login authorization for the individual platforms using the following syntax:

● BS2000 systems:

```
userid,[account-number][,'password']
```

You can omit the account number if the user has a default account number for the BS2000 timesharing mode and you want to use this default account number.

● Unix systems

```
userid[,,password]
```

● Windows systems:

```
userid[,,password]
```

The user ID consists of a user name (In the case of local IDs, the "`hostname\`" must not be entered in front of the user ID.) or, if a user ID in a LAN Manager or Windows domain is accessed, it consists of the domain name followed by a backslash (\) and the user name.

● OS/390 and z/OS:

`userid,account-number[,password]`

The accounting number is optional with more recent z/OS versions.

● FTAM partner systems on which no file transfer product of the openFT product family is used:

`user-identity,[storage account],filestore-password`

● In the case of other partner systems, your specifications depend on the conventions used in the partner system.

Inbound access using the default FTP client

If you wish to access an openFT server from a standard FTP client, you should note the following:

● Establishing a connection
If the default listener port 21 is set on the openFT FTP server, enter the following from the shell (Unix systems), from the command prompt (Windows) or on command level (BS2000 and z/OS):

`ftp` *hostname*

hostname is the host name of the openFT FTP server.

If a listener port other than 21 is set on the openFT FTP server, you need two commands to establish a connection:

`ftp`
`ftp> open` *hostname* *port-number*

● Login
If you log in without an FTAC transfer admission, enter the login data interactively as usual (user ID and any password that is required and/or account number). If you log in using an FTAC transfer admission, enter the FTAC transfer admission under *User* and leave the *Password* empty.

Example

```
User: ftpuser1
Password: (empty)
```

With openFT FTP servers as of V11, you can enter the value *$ftac* under *User* and the FTAC transfer admission under *Password*.

Example

```
User: $ftac
Password: ftpuser1
```

2.8 **Preprocessing and postprocessing**

In the case of preprocessing only the command's SYSLST or %TEMPFILE output is trans-
ferred. The SYSLST or %TEMPFILE output is temporarily stored in a file prefixed by S.PP.
which is deleted following transfer. This file is created with a unique file name in order to
prevent conflicts between file processing operations that are running in parallel. The ID
under which preprocessing is running must possess sufficient space for the creation of the
temporary file as otherwise preprocessing will be aborted.

The temporary files that are created for pre/postprocessing are automatically deleted as
soon as transfer and/or preprocessing and postprocessing are completed.

If the FT subsystem is closed down before a file can be deleted, then the information
concerning the file for deletion is lost and automatic deletion is no longer possible.

If pre- or postprocessing are running in BS2000, the commands will be executed as a batch
job:

● During preprocessing, data output to SYSLST or the %TEMPFILE variable must occur.
  If you specify %TEMPFILE then the file can have a file format other than SAM-V. The
  batch job uses this output to create a help file, which is then transferred to the partner
  system. Because the file attributes of the generated file are not known when the request
  is accepted, they must either be passed as request parameters (RECORD-SIZE,
  RECORD-FORMAT) or the transfer must be performed transparently if the systems are
  homogeneous.

● During postprocessing, the data is read from SYSDTA by default. In this case, it must
  have a format which can be processed by SYSDTA (SAM-V or ISAM-V). It is also
  possible, however, to explicitly address the transferred file using the variable
  %TEMPFILE. For this, the file can be of a different file format than SAM-V or ISAM-V.
  openFT makes the transferred data available to the first command and waits until
  processing is complete ("postprocessing").

Each individual BS2000 command must be preceded by a forward slash '/'.

Preprocessing and postprocessing in the BS2000 system runs under a separate TSN. If an
ENTER-JOB command is encountered during preprocessing, this command is subject to
the usual definitions for the user ID that initiated preprocessing. openFT generates a JOB
file with the name $*userid*.S.VV.FT.*unique-string*.JOB which is automatically deleted after the
ENTER-JOB. If a job class JBCLJOB has been declared for the user under whose ID the
pre/postprocessing is being performed, then pre/postprocessing is performed under this job
class. Otherwise the user's default job class is used.

If the %JOBCLASS variable is used, preprocessing and postprocessing can be started
under a selected job class by inserting the following command in the pre/postprocessing
operation:

```
/REMARK %JOBCLASS=<jobclass>
```

When choosing the job class, you should note that pre/postprocessing operations should be started as quickly as possible as otherwise resources (transport connections, server tasks) may block and, in the worst scenario, may be aborted after 15 minutes.

2.9 Follow-up processing

Follow-up processing operates in BS2000 under the user's own TSN. Temporary files and temporary job variables can only be accessed for follow-up processing if they belong to this TSN. Access to temporary files of job variables of the TSN under which the actual FT request was carried out is not possible. It is however possible to access permanent files and job variables.

openFT generates a file in BS2000 for the execution of follow-up processing with the name $*userid*.S.FT-BS2.*instance name*.*transfer-id*.JOB, which is automatically deleted after the ENTER-JOB. This file is created by openFT with the catalog attribute DESTROY=YES and started with the following operands:

```
ERASE=YES,FLUSH=NO,RERUN=NO
```

If a job class JBCLJOB is set for the user whose ID is being used for the follow-up processing, the follow-up processing is executed under this job class. Otherwise the user's default job class will be used.

*DELETE as a special form of follow-up processing

This character string *DELETE can be specified as follows:

– as remote follow-up processing for synchronous and asynchronous receive requests,

– as local follow-up processing for asynchronous send requests or with FTP partners.

*DELETE causes openFT itself to delete the sent file in the sending system after the termination of the FT request without it being necessary to start a batch job. However, as in the case of "genuine" follow-up processing that consists of system commands, *DELETE does not form part of the job scope. This means there is no response message indicating whether or not the file has been successfully deleted. "Genuine" follow-up processing can be additionally specified via an FTAC profile.

2.9.1   Variables for follow-up processing

The following table shows which variables can be used for which system.

Variable	Meaning	BS2000	Unix system	Windows	z/OS
%PARTNER	Partner name (long form)	X	X	X	X
%PARTNERAT	Partner name (short form)	X	X	X	X
%FILENAME	File name	X	X	X	X
%ELEMNAME	Element name	X			
%ELEMVERS	Element version	X			
%ELEMTYP	Element type	X			
%RESULT	Request result	X	X	X	X
%JOBCLASS	Job class	X			

In the case of %PARTNER and %PARTNERAT, the partner name found in the partner list is used if it is present in the partner list. If it is not entered in the partner list (dynamic partner) then the partner address is used. In this case, %PARTNER and %PARTNERAT have different effects:

– In the case of %PARTNER, all the address components are used, i.e. including protocol prefix, port number and selectors if appropriate.

– In the case of %PARTNERAT, only the *host* address component is used, see section "Specifying partner addresses" on page 48. In addition, all characters apart from letters, digits or periods are replaced by '@'.

If one of the above-named symbolic identifiers remains in this form, that is without replacement, then the initial percentage sign must be doubled, as in %%FILENAME.

2.9.2 Starting follow-up processing under a job class

You can start the follow-up processing under one of the job classes which you have selected by adding the following command in the follow-up processing:

```
/REMARK %JOBCLASS=<jobclass>
```

The following conditions apply for the metastring %JOBCLASS=<jobclass>
– no blanks are permitted within the metastring,
– the metastring must be located immediately before a semicolon (command separator) or at the end of a command sequence,
– the metastring must be after a REMARK or something similar, since it is not deleted before the follow-up processing is performed and otherwise will be mistaken for an invalid follow-up processing command.

openFT checks if the job class is available for the user. If it is, then it is used for the follow-up processing. If it isn't, then the default job class or JBCLJOB is used.

If no direct or indirect (e.g. default) specification is made in the command for a variable which occurs in the follow-up processing data, then it is removed from the follow-up processing data and not replaced.

2.9.3 Monitoring using job variables

openFT makes it possible to use a job variable to monitor an FT request. The name of the job variable together with any password that may be necessary in order to access this job variable are specified in the FT request. If the job variable does not yet exist, it is entered in the catalog. An existing job variable is overwritten unless it is currently monitoring another FT request. The user must also be authorized to access this job variable.

A job variable that is monitoring an FT request is not protected against write accesses. Processing of the FT request continues even if openFT recognizes that the content of a job variable is inconsistent. However, in this case the job variable is no longer used. The system issues the following warning at the terminal at which the command was issued:

```
FTR0802 Request (&00). Warning: Job variable contents inconsistent
```

This warning also appears in the result list if one is generated.

A job variable that monitors a request is also used to identify the request and can be used as a selection criterion to cancel the request in the CANCEL-FILE-TRANSFER command or for information on the request in the SHOW-FILE-TRANSFER command. It can also be used for event control purposes.

Contents of the job variable

Column	Length	Meaning
1 - 2	(2)	Transfer status with the possible values:
		'$W' The FT request has been accepted and is waiting for the necessary resources or for restart. '$R' The FT request is running. '$A' The FT request has terminated incorrectly or has been deleted by means of a command. '$T' The FT request has been terminated successfully.
3 - 3	(1)	Space
4 - 14	(11)	Transfer identification
15 - 15	(1)	Space
16 - 71	(56)	Local file or library name
72 - 72	(1)	Space
73 - 136	(64)	Local member name when library members are transferred, otherwise space
137 - 137	(1)	Space
138 - 145	(8)	Local member type when library members are transferred, otherwise space
146 - 146	(1)	Space
147 - 153	(7)	Message number for status '$T' or '$A', otherwise space
154 - 154	(1)	Space
155 - 218	(64)	Additional information about the termination of a request
219 - 247	(29)	Space
248 - 256	(9)	'FT-BS2000' or space. While the job variable is monitoring an FT request, this area contains the entry 'FT-BS2000'. Any other FT requests that want to use this variable are rejected. When transfer is complete, the field is overwritten with spaces.

2.9.4 Logging the follow-up processing

openFT initiates follow-up processing as an ENTER job. By default, the tracer listing is only printed out as standard if an error occurs.
The command LOGOFF with the option SYSTEM-OUTPUT=PRINT or SYSTEM-OUTPUT=DELETE in the follow-up processing allows the user to decide if a tracer listing should be printed out or not.

The follow-up processing job is set up as follows:

```
/.OPENFT LOGON
/SET-FT-INSTANCE <current instance>
/<usercommand>
/<usercommand>
/..........
/SKIP-COMMAND TO-LABEL=FTJOBOK
/SET-JOB-STEP
/LOGOFF
/.FTJOBOK LOGOFF NOSPOOL
```

This set-up only leads to the logging of the follow-up processing job if there are errors in the user commands. If error-free operation is to be logged as well, then the last user command must be LOGOFF.
Note that follow-up processing always runs in the instance in which the TRANSFER-FILE command was executed.

2.10 Instance identifications

An instance ID may have a maximum length of 64 characters and may be comprised of alphanumeric characters and the special characters. You are advised only to use the special characters ".", "-", ":" or "%". The first character must be alphanumeric or the special character "%". The "%" character may only be used as a first character. An alphanumeric character must follow a "." character.

In order to ensure the network-wide uniqueness of instance IDs, you should proceed as follows when assigning them:

–   If the openFT instance has a network address with a **DNS name**, you should use this as the ID. You can create an "artificial" DNS name for an openFT instance, by placing part of a name, separated by a period, in front of an existing "neighboring" DNS name.

–   If the openFT instance does not have a DNS name, but is connected to a TCP/IP network, you should use the ID **%ipn.n.n.n** (n.n.n.n is the IP address of the local openFT instance, minus the leading zeros in the address components).

–   If the openFT instance is connected to an ISDN network rather than a TCP/IP network, you should use the ID **%isdnmmmmmmmm** (mmmmmmmm is the ISDN call number, including country and local prefixes).

–   If the openFT instance is connected to an X.25 network (but not to TCP/IP or ISDN), the ID should begin with **%x25** and the X.25 number should contain the NSAP, where necessary (e.g. **%x25mmmmmmmmmmmNSAP)**.

The form of instance ID used internally by openFT for partners using a version earlier than V8.1, (i.e. **%.<prozessor>.<entity>)**, should not be used for your own openFT instance.

2.11 CSV output

The output of some SHOW commands in openFT and openFT-AC can be optionally requested in CSV (**C**haracter **S**eparated **V**alues) format. CSV is a popular format in the PC environment in which tabular data is defined by lines. Output in CSV format is offered for the following commands:

– SHOW-FILE-TRANSFER

– SHOW-FILE-FT-ATTRIBUTES

– SHOW-FTAC-ENVIRONMENT

– SHOW-REMOTE-FILE-ATTRIBUTES

– SHOW-FT-ADMISSION-SET

– SHOW-FT-KEY

– SHOW-FT-LOGGING-RECORDS

– SHOW-FT-MONITOR-VALUES

– SHOW-FT-OPTIONS

– SHOW-FT-PARTNERS

– SHOW-FT-PROFILE

– SHOW-FT-RANGE

Many programs such as spreadsheets, databases, etc., can import data in CSV format. This means that you can use the processing and presentation features of such programs on the CSV outputs of the command listed above.

The field names of the CSV outputs are described in the appendix.

The first line is the header and contains the field names of the respective columns. **Only the field names are guaranteed, not the order of fields in a record.** In other words, the order of columns is determined by the order of the field names in the header line.

One example of a possible evaluation procedure is supplied a template in the Microsoft Excel format under the name $SYSFJAM.FTACCNT.XLT. You will need to first make a binary copy of this template on your PC. The template evaluates a CSV log file by means of an automatically running macro. The result shows the number of inbound and outbound requests and the Kilobytes transferred in each case for all BS2000 users.

2.12 OPS variables

With OPS (Output Presentation Service), you have the option to create the outputs of
SHOW commands alternative or additional to the output in SYSLST/SYSOUT in OPS
variables. For this to be possible, SDF-P must be installed. The user must generate the
corresponding OPS variables with DECLARE-VARIABLE. The information supplied by
SHOW commands is stored by openFT in an SDF-P structure, which can be evaluated with
the help of an SDF-P procedure. Structure elements which have not been set due to a
corresponding command input are output without value assignment.

The request to set OPS variables is made by integrating the unchanged FT command into
the BS2000 command EXEC-CMD.

Example

```
/DECLARE-VARIABLE VARIABLE-NAME=<variable-name>,TYPE=*STRUCTURE(...)...

/EXEC-CMD (SHOW-FILE-TRANSFER),TEXT=*N,STRUCT-OUT=<variable-name>
```

The following openFT user commands offer OPS support:

– SHOW-FILE-TRANSFER

– SHOW-FILE-FT-ATTRIBUTES

– SHOW-FTAC-ENVIRONMENT

– SHOW-FT-ADMISSION-SET

– SHOW-FT-INSTANCE

– SHOW-FT-KEY

– SHOW-FT-LOGGING-RECORDS

– SHOW-FT-MONITOR-VALUES

– SHOW-FT-OPTIONS

– SHOW-FT-PARTNERS

– SHOW-FT-PROFILE

– SHOW-FT-RANGE

– SHOW-REMOTE-FILE-ATTRIBUTES

2.13 **Notes on FTP partners**

If the FTP protocol is used then only communication via TCP/IP is possible. Furthermore, a number of special considerations apply when FTP servers are used compared to openFT partners. These are for the most part due to limitations in the FTP protocol:

● No restart is performed.

● Encryption is only possible for outbound requests to an FTP server that provides support for Secure FTP with the TLS protocol. This requires openFT-CR delivery unit to be installed.

● If encryption of the user data is required and the FTP server does not provide encryption, the request is rejected. If encrypted transfer of the user data is required, the login data is also encrypted. If encryption of the user data is not required, the login data is encrypted if the FTP server provides this. No mutual authentication is carried out.

● Coded character sets are only supported locally; specifications for the partner system cannot be transported by the FTP protocol.

● When files with a record structure are transferred in binary format, the record structure is lost. The contents of the records are stored in the destination file as a byte stream.

● File attributes are not supported by the FTP protocol. This means that the modification date and maximum record length are not taken over for the destination file.

● Follow-up processing is only possible on the local system or by specifying the FTAC profiles.

● The modification date cannot be taken over for the destination file. As a result, the modification date of the destination file is set to the transfer date. This is of particular importance when comparing file hierarchies.

● The maximum record length of the send file is not passed to the receiving system. This has an impact when transferring files to a mainframe system such as BS2000 or z/OS. In this case, the default maximum record length applies in the receiving system.

● The size of the send file is not passed to the receiving system. This has an impact when transferring files to a mainframe system such as BS2000 or z/OS. The maximum file size is derived from the default value that is used by openFT for primary and secondary allocation and by the maximum number of file extents defined by the system, see openFT manual "Concepts and Functions". If a file exceeds this size, the request is cancelled with the message: "File gets no more space".

● The 'do not overwrite' option can have a different effect because this option cannot be passed to the responder, and the initiator must check whether the file already exists in the partner system. This has the following consequences:

– It is possible for a request with the 'do not overwrite' option to overwrite a file that has been created by a third party in the period between the check being performed by the initiator and the actual transfer.

– If 'overwrite' is specified in an admission profile and if the file to be transferred does not yet exist, a request using this profile will still be executed, even if 'do not overwrite' is set in the request.

● If you access password-protected mainframe files with a standard FTP client, e.g. in text format (C'password') or hexadecimal format (X'0A6F73'), you must append the password to the name of the remote file separated by a comma.

Example

```
put localfile remotefile,X'0A6F73'
```

Please note that the other openFT functions (preprocessing and postprocessing, FTAC, etc.) can only be used if openFT is used as the FTP server on the system, where preprocessing and postprocessing are to be performed.

Problems may also occur when addressing FTP servers which send an unexpected layout when listing directories.

3 openFT commands

This chapter provides a detailed description of all openFT SDF commands in alphabetic order.

The description of the openFT commands for the BS2000 POSIX interface can be found in the manual "openFT (Unix and Windows systems) - Command Interface".

3.1 ADD-FT-PARTNER
Add remote system to the partner list

Note on usage

User group: FT administrator

Alias name: FTADDPTN

Functional description

The ADD-FT-PARTNER command is used to enter a remote system in the partner list of the
local system. The network or transport system should be generated beforehand.
Please refer to the appropriate manuals on BCAM for further information on the generation
process. A transport system in accordance with ISO or TCP/IP can be used for generation.

If dynamic partners are permitted then inbound and outbound requests can be processed
with partners which are accessed via their addresses and are not defined in the partner list.

You can issue the ADD-FT-PARTNER command for all partner types while the FT system
is running (openFT partner, FTAM partner, ftp partner and ADM partner).

You can modify the partner system entry with MODIFY-FT-PARTNER (page 217) and
delete it with REMOVE-FT-PARTNER (page 262).

Format

ADD-FT-**PART**NER / **FTADDPTN**

 PARTNER-**NAME** = <name 1..8> / <u>***NONE**</u>

,**PART**NER-**ADDR**ESS = <text 1..200 with-low>

,**SEC**URITY-**LEV**EL = <u>***STD**</u> / ***BY**-**PART**NER-**ATTR**IBUTES / <integer 1..100>

,**STATE** = ***PAR**AMETERS(...)

   *PARAMETERS(...)

      OUTBOUND = <u>***ACT**IVE</u>(...) / ***DEACT**

         <u>***ACT**IVE</u>(...)

           AUTOMATIC-DEACT = <u>***NO**</u> / ***YES**

     ,**IN**BOUND = <u>***ACT**IVE</u> / ***DEACT**

,**ID**ENTIFICATION = <u>***STD**</u> / <composed-name 1..64> / <c-string 1..64 with-low>

,**SESS**ION-**ROUT**ING-**INFO** = <u>***NONE**</u> / ***ID**ENTIFICATION / <alphanum-name 1..8>

,**PART**NER-**CHECK** = <u>***BY-FT-OPT**IONS</u> / ***STD** / ***TRANS**PORT-**ADDR**ESS

,**TRACE** = <u>***BY-FT-OPT**IONS</u> / ***ON** / ***OFF**

,**AUTH-MAN**DATORY= <u>***NO**</u> / ***YES**

,**PRIO**RITY**=** <u>***NORMAL**</u> / ***LOW** / ***HIGH**

,**REQ**UEST-**PROC**ESSING = <u>***STD**</u> / ***SERIAL**

,**RECOVERY-OUTBOUND** = <u>***BY-FT-OPTIONS**</u> / *ON / *OFF

Operands

PARTNER-NAME =
Symbolic name of the partner system. It can be freely selected and need only be unique within openFT.

PARTNER-NAME = <name 1..8>
The operand value "name" consists of a maximum of 8 alphanumeric characters and must be unique in the local system. The FT administrator defines this name. This name can be used in the PARTNER parameter in all FT commands in order to address the partner system.

PARTNER-NAME = <u>*NONE</u>
Specifies that the partner is a dynamic partner.

PARTNER-ADDRESS = <text 1..200 with-low>
Address of the partner system. This specifies whether the partner is an openFT or FTAM or FTP or ADM partner. For more information on address specifications see section "Specifying partner addresses" on page 48.

SECURITY-LEVEL =
Assigns a security level to a remote system.

SECURITY-LEVEL = *STD
If you set this operand to *STD or if you do not enter a value here, a standard security level
is assigned to the remote system. This standard security level is defined using the
command MODIFY-FT-OPTIONS. You can define a fixed value or specify that the value
should be attribute-dependent.

SECURITY-LEVEL = *BY-PARTNER-ATTRIBUTES
If you set this operand to *STD or if you do not enter a value here, a standard security level
is assigned to the remote system:
–   This setting assigns partners that are authenticated by openFT the security level 10.
–   Partners that are known in BCAM (i.e. they are addressed via their BCAM names) are
    assigned the security level 90.
–   All other partners are assigned security level 100.

SECURITY-LEVEL = <integer 1..100>
Must be specified if you wish to assign an individual security level to a specific remote
system.

STATE = *PARAMETERS(...)
Controls the status of the partner system, i.e. the settings for file transfer requests issued
locally (outbound) and file transfer requests issued remotely (inbound).

OUTBOUND =
Specifies the settings for file transfer requests issued locally to this partner system.

OUTBOUND = *ACTIVE(...)
File transfer requests issued locally to this partner system are processed.

AUTOMATIC-DEACT =
Defines whether cyclical attempts to establish a connection to this partner system are
prohibited after a number of attempts by deactivating the partner system.

AUTOMATIC-DEACT = *NO
Failed attempts to establish a connection of this partner system do not result in its
deactivation.

AUTOMATIC-DEACT = *YES
Failed attempts to establish a connection of this partner system result in its deactivation.
In order to enable file transfer requests issued locally to this partner system to be
executed again subsequently, it must be explicitly activated (with
OUTBOUND=*ACTIVE).

OUTBOUND = *DEACT
File transfer requests issued locally to this partner system are initially not processed (not started), but are only placed in the request queue. They are executed only after the partner system has been activated with
MODIFY-FT-PARTNERS ... , STATE=(OUTBOUND=*ACTIVE).

INBOUND =
Specifies the settings for file transfer requests issued remotely, i.e. requests which are issued by this partner system.

INBOUND = *ACTIVE
File transfer requests issued remotely by this partner system are processed.

INBOUND = *DEACT
Synchronous file transfer requests issued remotely by this partner system are rejected. Asynchronous file transfer requests issued remotely by this partner system are stored there and cannot be processed until this partner system is activated with INBOUND=*ACTIVE.

IDENTIFICATION =
Network-wide, unique identification of the openFT instance in the partner system.

IDENTIFICATION = *STD
For openFT and FTADM partners, the partner address or the hostname from the partner address is used as the identification. For FTP and FTAM partners, no identification is set.

IDENTIFICATION = <composed-name 1..64> / <c-string 1..64 with-low>
The network-wide, unique instance ID of the openFT instance in the partner system. This ID is used for authentication of partner systems as of openFT V8.1. It is set by the FT administrator of the partner system (in BS2000 by using MODIFY-FT-OPTIONS IDENTIFICATION= and in Unix systems or Windows systems by using ftmodo -id).
For more details on allocating instance IDs, please refer to section "Instance identifications" on page 62.

With FTAM partners an Application Entity Title can be specified as an identification in the format $n1.n2.n3.n4..mmm$. For details, see the section "Addressing via Application Entity Title" in the openFT User Guide.

No instance identification may be specified for FTP partners.

> **i** You should always specify the instance identification of the partner system explicitly (except in the case of FTAM and FTP partners) and should not use the default value (IDENTIFICATION=*STD).

SESSION-ROUTING-INFO =
If the partner system is only accessible by a go-between instance, specify the address information that the gateway instance uses for re-routing here.
This is necessary, for example, for partner systems using openFT (z/OS), dependent on TRANSIT coupling.

SESSION-ROUTING-INFO = *NONE
By default, no specification is required.
The session selector can be specified as a part of the partner address.

SESSION-ROUTING-INFO = *IDENTIFICATION
Connections to the partner are re-routed via a gateway that supports the instance ID as
address information.

SESSION-ROUTING-INFO = <alphanum-name 1..8>
Connections to the partner are re-routed via a gateway that supports the specified character
string as address information.

PARTNER-CHECK =
Modifies the global settings for the sender check in a partner-specific way. These settings
are only valid for named openFT partners that do not work with authentication.
This setting has no meaning for FTAM partners, FTP partners and dynamic partner entries.

PARTNER-CHECK = *BY-FT-OPTIONS
The global settings are valid for the partners.

PARTNER-CHECK = *STD
Disables the expanded sender checking. The transport address of the partner is not
checked, even if the expanded sender checking is globally enabled (see the MODIFY-FT-
OPTIONS command).

PARTNER-CHECK = *TRANSPORT-ADDRESS
Enables the expanded sender checking. The transport address is checked, even if the
expanded sender checking is globally disabled (see the MODIFY-FT-OPTIONS command).
If the transport address under which the partner is reporting does not correspond to the
entry in the partner list, the request is rejected.

TRACE =
Trace setting for openFT partner systems. Trace entries are generated only when the FT
trace function is activated by an operating parameter (MODIFY-FT-OPTIONS
TRACE=*ON).

TRACE = *BY-FT-OPTIONS
The global settings apply for the partner.

TRACE = *ON
The trace function is activated for this partner. However, the trace is only written if the global
openFT trace function is also activated (see also the MODIFY-FT-OPTIONS command,
TRACE option, SWITCH=*ON). The setting made here takes priority over the setting in the
operating parameters for selecting partners for the monitoring function, see the option
TRACE=(...,PARTNER-SELECTION=).

i	A detailed description of the trace function is provided in the manual "openFT (BS2000) - Installation and Operation".

TRACE = *OFF
The trace function is deactivated for this partner.

AUTH-MANDATORY =
Allows you to force the authentication of a named partner.

AUTH-MANDATORY = *NO
Authentication is not forced, i.e. this partner is not restricted with regard to authentication.

AUTH-MANDATORY = *YES
Authentication is forced, i.e. connections to and from this partner are only permitted with authentication.

PRIORITY=
This operand allows you to specify the priority of a partner in respect of processing requests that have the same request priority. This means that the partner priority only applies in the case of requests that have the same request priority, but that are issued to partners with a different partner priority.

PRIORITY = *NORMAL
The partner has normal priority.

PRIORITY = *LOW
The partner has low priority.

PRIORITY = *HIGH
The partner has high priority.

REQUEST-PROCESSING =
You use this option to control whether asynchronous outbound requests to this partner are always run serially or whether parallel connections are permitted.

REQUEST-PROCESSING = *STD
Parallel connections to this partner are permitted.

REQUEST-PROCESSING = *SERIAL
Parallel connections to this partner are not permitted. If multiple file transfer requests to this partner are pending, then they are processed serially. A follow-up request is consequently not started until the preceding request has terminated.

RECOVERY-OUTBOUND=
This operand controls the restart function for asynchronous outbound requests for this partner system.

RECOVERY-OUTBOUND= *BY-FT-OPTIONS
The global setting for the restart function for outbound requests is valid.

RECOVERY-OUTBOUND= *ON
The restart function for outbound requests to this partner system is activated. This is only valid if the global setting for the restart function is activated, too.

RECOVERY-OUTBOUND= *OFF
The restart function for outbound requests to this partner system is deactivated.

If the ADD-FT-PARTNER command is executed correctly then no message is output.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
35	64	FTR1035	Command only permissible for FT administrator.
43	64	FTR1043	Partner with same attribute already exists in partner list.
44	64	FTR1044	Maximum number of partners exceeded.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

3.1.1 Notes on entering partner systems

The following principles must be adhered to when entering named openFT and FTADM
partner systems in the partner list:

– Partner systems are always addressed in the inbound direction via the instance IDs of
their openFT instance (the IDENTIFICATION parameter).

– For partners using openFT as of version 8.1, the instance ID is set by the FT adminis-
trator of the partner system. Refer to the note in the section "Instance identifications" on
page 62.

– For partners using openFT version 8.0 (or earlier), the instance ID has the following
format:

%.<processor>.<entity>

This enters the address of the main station of the partner system just as it was defined
in the partner system or as it was assigned to the partner system by the network
administration, see also openFT manual "Concepts and Functions".

3.1.2 Sample openFT partner entries

Partner systems via computer-to-computer connection

A partner system that uses openFT V8.1 or later is addressed via its instance ID. This can
be obtained from the network administrator or the system administrator of the partner
system.

Example 1

A partner system that uses openFT (BS2000) V12.0 and whose symbolic name is
FTBS2 is to be entered in the partner list. Its processor name is *VAR1* and the instance
ID is *VAR1.FUSINET.AT*. The appropriate command is as follows:

```
/ADD-FT-PARTNER                                          –
/      PARTNER-NAME=FTBS2,                               –
/      PARTNER-ADDRESS=VAR1,                             –
/      IDENTIFICATION='VAR1.FUSINET.AT'
```

Example 2

The Unix based partner system with the symbolic name *FTUNI2*, on which openFT V8.0
is installed, is to be entered in the partner list. The partner system is connected via
computer interconnection. Its processor name is *UNIX2*, which is defined in the Unix
system by means of the command fta -p. The corresponding command is:

```
/ADD-FT-PARTNER                                          –
/      PARTNER-NAME=FTUNI2                               –
/      PARTNER-ADDRESS=UNIX2,                            –
/          IDENTIFICATION='%.UNIX2.$FJAM'
```

Example 3

The partner system *FTSIE1* with openFT V10.0 for Unix systems is accessed via TCP/IP
with the IP address 123.123.45.67. The FT administrator of the partner system has
correspondingly assigned it the instance ID %ip123.123.45.67. The processor name
UNIX9 is assigned to the partner system and it uses the default port number for openFT.
The port number is defined in the Unix system by means of the openFT operating
parameter.

```
/ADD-FT-PARTNER                                          –
/      PARTNER-NAME=FTSIE1,                              –
/      PARTNER-ADDRESS=UNIX9,                            –
/          IDENTIFICATION='%ip123.123.45.67'
```

Partner systems via ISO

If the partner system is connected via ISO, the differences relate solely to the generation of
the transport system. The partner entry using ADD-FT-PARTNER occurs as described in
the section .

3.1.3 Example for entering a remote administration server

Example

The partner system SERVER11 with openFT V11 for Unix systems is a remote adminis-
tration server. The default port number (11000) is to be used for remote administration.
The partner address is to be used for identification.

```
/ADD-FT-PARTNER                                                    -
/      PARTNER-NAME=ADMINSRV,                                      -
/      PARTNER-ADDRESS=FTADM://SERVER11
```

3.1.4 Sample FTAM partner entries

Example 1

The FTAM partner *RITTER* is to be entered in the partner list. At BCAM generation, this
system was assigned the processor name *BURGHOF1*. The transport selector is
KUNIBERT, the session selector is *SESSION1* and the presentation selector is *FTAM*.

```
/ADD-FT-PARTNER RITTER,FTAM://BURGHOF1:.KUNIBERT.SESSION1.FTAM
```

Positional operands were used in this statement. This is why the keywords are omitted.

If the partner requires a transport selector which is not in TRANSDATA format (8
character name in EBCDIC, filled with blanks if necessary), this must be defined in
BCAM.

If the partner uses, for example, the 6-character transport selector TSKUNI in ASCII
format, the BCMAP command must be as follows:

```
/BCMAP FUNCT=DEFINE,SUBFUNCT=GLOBAL,                   -
/      NAME=KUNIBERT,                                  -
/      ES=BURGHOF1,                                    -
/      PTSEL-I=(6,x'54534B554E49')
```

Example 2

Since some FTAM implementations respond with another address during connection
setup, openFT (BS2000) requires a further entry defining the sender address of the
partner for the purpose of checking the sender for this partner.

The partner responds with the FTAM1 transport selector, the SESSION2 session
selector and the FTAM presentation selector (all in ASCII code):

```
/ADD-FT-PARTNER                                                           -
/      PARTNER-NAME=RITTERXX,                                             -
/      PARTNER-ADDRESS=FTAM://BURGHOF1:.X'4654414D31404040'.SESSION2.FTAM,-
/      STATE = *DEACT
```

The relevant BCMAP command must be:

```
/BCMAP FUNCT = DEFINE,SUBFUNCT = GLOBAL,              −
/      NAME = KUNI,                                   −
/      ES = BURGHOF1,                                 −
/      PTSEL−I = (5,X'4654414D31')
```

Example 3

FTAM connection between openFT (BS2000) <-> openFT (Windows) (openFT as of V11.0)

The FTAM partner WINDOWS is to be entered in the partner list. The default transport selector has the name $FTAM in TRANSDATA format; the computer has the processor name WINDOWS2.

```
/ADD−FT−PARTNER WINDOWS,FTAM://WINDOWS2
```

A BCMAP command is no longer necessary for this connection!

Example 4

FTAM link: openFT (BS2000) <-> openFT (Windows) (openFT up to V10.0)

The FTAM partner WINDOWS is to be entered in the partner list. At BCAM generation, this system was assigned the processor name WINDOWS1. The transport selector is SNI-FTAM in ASCII code and the port number 4800.

```
/ADD−FT−PARTNER WINDOWS,FTAM://WINDOWS1:.SNI−FTAM
```

The relevant BCMAP command must be:

```
/BCMAP FUNCT = DEFINE,SUBFUNCT = GLOBAL,              −
/      NAME = SNI−FTAM,                               −
/      ES = WINDOWS1,                                 −
/      PTSEL−I = (8,X'534E492D4654414D'),             −
/      PPORT# = 4800
```

3.1.5 Examples for entering FTP partners

Example 1

The FTP partner FTP1 with the IP address 192.168.20.10 is to be entered in the partner list. It is accessed via the default port 21.

```
/ADD-FT-PARTNER                                        -
/        PARTNER-NAME=FTP1,                            -
/        PARTNER-ADDRESS=FTP://%ip192.168.20.10
```

Example 2

The FTP partner FTP2 with the host name UX1 is to be entered in the partner list. It is accessed via port 1234.

```
/ADD-FT-PARTNER                                        -
/        PARTNER-NAME=FTP2,                            -
/        PARTNER-ADDRESS=FTP://UX1:1234
```

3.2 CANCEL-FILE-TRANSFER
Cancel file transfer requests

Note on usage

User group: FT user and FT administrator

Alias names: CNFT / NCANCEL / FTCANREQ

Functional description

The CANCEL-FILE-TRANSFER command can be used to cancel a file transfer request or to abort the file transfer. The FT system deletes from the request queue the file transfer request that corresponds to the specified selection criteria and, if necessary, aborts the associated file transfer.

The following features apply to this command:

– FT requests submitted either in the local or the remote system can be canceled.

– A single command can be used to cancel several FT requests simultaneously.

– The FT requests to be canceled can be selected using different selection criteria.

– The FT user can only cancel file transfer requests, whose "owner" he/she is.

  The owner of an FT request submitted in the local system is the user ID under which the request was issued.
  The owner of an FT request submitted in the remote system is the user ID that is accessed in the local system for the request.

– As FT administrator you can cancel requests from any user.

– As FT administrator you can also fully and unconditionally cancel a selected request and remove it from the request file. "Unconditional" means that, if necessary, the request can be cancelled without any negotiation with the corresponding partner system. In this way, you can clear the request file of requests which are no longer recognized in the partner system or for which there is no longer any connection to the partner system.

WARNING!
If not used carefully, this function can result in inconsistencies in the request files of the corresponding partner systems. Under certain circumstances these inconsistencies may cause baffling error messages (SYSTEM ERROR) and "dead requests" in the partner system request files. It should therefore only be used in exceptional circumstances and after a suitable period has elapsed.

When a request is canceled, it is only deleted completely from the request file after it has been deleted from the request file in the remote system.

Format

```
CANCEL-FILE-TRANSFER / CNFT / NCANCEL / FTCANREQ

 TRANSFER-ID = *ALL/ <integer 1..2147483647> (FORCE-CANCELLATION = *NO / *YES)
,SELECT = *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
         OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>
        ,INITIATOR = (*LOCAL, *REMOTE) / list-poss(2): *LOCAL / *REMOTE
        ,PARTNER = *ALL / <text 1..200 with-low>
        ,FILE-NAME = *ALL / <filename 1..54> / <c-string 1..512 with-low> /
                       *LIBRARY-ELEMENT(...) / *POSIX(NAME = <posix-pathname 1..510>) /
                       *PUBSET(PUBSET = <cat-id 1..4>)
           *LIBRARY-ELEMENT(...)
                 LIBRARY = *ALL / <filename 1..54>
                ,ELEMENT = *ALL / <filename 1..64 without-gen-vers>(...) /
                             <composed-name 1..64 with-under>(...)
                   <filename>(...) / <composed-name>(...)
                         VERSION = *ALL / <text 1..24>
                ,TYPE = *ALL / <name 1..8>
        ,MONJV = *NONE / <filename 1..54 without-gen-vers>
        ,JV-PASSWORD = *NONE / <c-string 1..4> / <x-string 1..8> /
                         <integer -2147483648..2147483647> / *SECRET
```

Operands

TRANSFER-ID =
Transfer ID of the FT request to be canceled.

TRANSFER-ID = *ALL
Deletes all FT requests if no further selection criteria are specified with SELECT. FT users can only delete FT requests of their own ID using this entry. FT administrators can delete all current FT requests that access the system.

TRANSFER-ID = <integer 1..2147483647>
Request identification which was communicated to the local system in the FT request confirmation. The associated FORCE-CANCELLATION parameter is available only to the FT administrator. It is used for an **unconditional** request cancellation.

TRANSFER-ID = <integer 1..2147483647>(FORCE-CANCELLATION = *NO)
NO is the default value. The request is removed from the request file following negotiation with the partner system.

TRANSFER-ID = <integer 1..2147483647>(FORCE-CANCELLATION = *YES)
The request is removed from the request file without negotiation with the partner system. This specification is only possible for an FT administrator who has previously attempted to cancel the request with CANCEL-FILE-TRANSFER <transfer-id> (FORCE-CAN=*NO).

SELECT =
Contains selection criteria for FT requests to be canceled. A request is canceled if it satisfies all the specified criteria.

SELECT = *OWN
Cancels all FT requests associated with the own user ID and the specified TRANSFER-ID.

SELECT = *PARAMETERS(...)

OWNER-IDENTIFICATION =
Designates the owner of the FT requests. As an FT user you can omit this parameter, because you can only delete requests of your own ID.

OWNER-IDENTIFICATION = *OWN
Cancels only the FT requests under the user's own ID.

OWNER-IDENTIFICATION = *ALL
Cancels FT requests under all user IDs. Only the administrator can use this entry.

OWNER-IDENTIFICATION = <name 1..8>
Specifies a particular user ID whose FT requests are to be canceled. As FT user you can only specify your own ID.

INITIATOR =
Initiator of the FT requests to be canceled.

INITIATOR = (*LOCAL,*REMOTE)
Cancels FT requests in the local system and in remote systems.

INITIATOR = *LOCAL
Cancels FT requests issued in the local system.

INITIATOR = *REMOTE
Cancels FT requests issued in remote systems.

PARTNER =
Cancels FT requests that were to be executed with a specific partner system.

PARTNER = *ALL
The name of the partner system is not used as a selection criterion to determine the FT requests to be canceled.

PARTNER = <text 1..200 with-low>
The FT requests that were to be executed with this partner are to be canceled. You can specify either the name of the partner system from the partner list or the address of the partner system, see section "Specifying partner addresses" on page 48.

FILE-NAME =
Cancels all FT requests in the local system that access this file, this pubset or this library element whether as a send file or receive file. The file name or library member name must be specified exactly as it appears in the file transfer request.

FILE-NAME = <u>*ALL</u>
The file name is not used as a selection criterion to determine the FT requests to be canceled.

FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)
Cancels FT requests in the local system that access this file.

FILE-NAME = *PUBSET(PUBSET = <cat-id 1..4>)
Deletes all FT requests that have locked files on the specified pubset. Only the FT administrator can use this specification.

FILE-NAME = *LIBRARY-ELEMENT(...)
Cancels FT requests that access library members in the local system.

> **LIBRARY =**
> Selects the library concerned.
>
> **LIBRARY = <u>*ALL</u>**
> The library name is not used as a selection criterion to determine the FT requests to be canceled.
>
> **LIBRARY = <filename 1..54>**
> FT requests that access this library are to be canceled.
>
> **ELEMENT =**
> Selects the library concerned.
>
> **ELEMENT = <u>*ALL</u>**
> The name of the library member is not a selection criterion to determine the FT requests to be canceled.
>
> **ELEMENT = <filename 1..64 without-gen-vers>(...) /**
> **<composed-name 1..64 with-under>(...)**
> Name of the library member concerned.
>
>> **VERSION =**
>> Version of the library member.

VERSION = *ALL
The version of the library member is not a selection criterion for the FT requests
to be canceled.

VERSION = <text 1..24>
Only FT requests that access this version of the library member are to be
canceled.

TYPE =
Type of the library member concerned.

TYPE = *ALL
The type of library member is not used as a selection criterion to determine the FT
requests to be canceled.

TYPE = <name 1..8>
Only FT requests that access library members of this type are to be canceled.

MONJV =
If appropriate, selects the specific FT request that is being monitored by this job
variable.

MONJV = *NONE
A job variable is not selected as a selection criterion to cancel the file transfer.

MONJV = <filename 1..54 without-gen-vers>
The FT monitored by this job variable is to be canceled.

JV-PASSWORD =
If required, specifies the password needed to access the job variable.
If you have already notified the system of the password with the BS2000 command
ADD-PASSWORD, you do not have to specify JV-PASSWORD.

JV-PASSWORD = *NONE
The job variable is not password-protected.

JV-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
This password is required to access the job variable.

JV-PASSWORD = *SECRET
The system issues the request to enter the password. However, input is not displayed
on the screen.

The specification of more than one selection criteria in the CANCEL-FILE-TRANSFER
command may result in a file transfer request being "overdefined" (e.g. by entries for
TRANSFER-ID and MONJV). If all selection criteria for a request apply, the job is canceled.

If not all selection criteria for a request apply, it is not canceled.
If the specified criteria conflict, the CANCEL-FILE-TRANSFER command is acknowledged with the following message:

```
%  FTR0504 No requests available for the selection criteria
```

In such a case there is no jump to the next SET-JOB-STEP in procedures as no error has occurred.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	There are no requests that meet the specified selection criteria.
32	32	CMD0221	Request rejected. Internal error. Job variable not accessible.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
82	32	CMD0221	Internal error. Job variable not accessible.
83	32	CMD0221	Internal error.
36	64	FTR1036	User not authorized for other user IDs.
38	64	FTR1038	Request is in the termination phase and can no longer be cancelled.
47	64	FTR1047	Request not found.
226	64	FTR2226	Job variable contents inconsistent.
227	64	FTR2227	Job variable not in use by openFT.
228	64	FTR2228	Job variable not found.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see .

Examples

1. An openFT user wants to cancel all FT requests with his/her user ID. It is enough simply to issue the

```
/CANCEL-FILE-TRANSFER
```

   command without specifying any further operands. If only one request is present, openFT acknowledges the request with the following message:

```
%  FTR2072 Request 229583776 has been canceled
```

   If there is more than one request, the following prompt appears first:

```
%  FTR0560 Cancel all specified requests? Reply (y=yes; n=no)
```

   After the FT user entered a Y, the following messages appear:

```
%  FTR2072 Request 23958376 has been canceled
%  FTR2072 Request 23958461 has been canceled
%  FTR2072 Request 23958507 has been canceled
```

2. The FT request with the transfer ID 194578 is to be deleted. If the CANCEL-FILE-TRANSFER command is to be issued under the same ID as that under which the FT request was also submitted, the following command is sufficient:

```
/CANCEL-FILE-TRANSFER TRANSFER-ID=194578
```

   The recommended short form of this command is as follows:

```
/CNFT 194578
```

3. An FT user wishes to cancel all file transfer requests from remote system VAR001 that access his/her file DATA. This can be achieved with the following command:

```
/CANCEL-FILE-TRANSFER                                           -
/       SELECT=(INITIATOR=*REMOTE,                              -
/       PARTNER=VAR001,                                         -
/       FILE-NAME=DATA)
```

   The recommended short form of this command is as follows:

```
/CNFT SEL=(INIT=*REM,PART-NAME=VAR001,FILE=DATA)
or
/NCAN SEL=(INIT=*REM,PART-NAME=VAR001,FILE=DATA).
```

4. If more than one request has been deleted by a CANCEL-FILE-TRANSFER command, the following prompt appears:

```
%  FTR0560 Cancel all specified requests? Reply (y=yes; n=no)
```

   With N the deletion request can be cancelled.

3.3 CREATE-FT-INSTANCE
Create a new openFT instance or
activate an unloaded openFT instance

Note on usage

User group: FT administrator

Functional description

Using this CREATE-FT-INSTANCE command, you create a new administration entry for an instance and load the instance. You can optionally create the instance in such a manner that when the subsystem FT is started, openFT is also automatically started in this instance (a START-FT command is no longer necessary). In addition, the command re-activates or reloads an instance that was unloaded using DELETE-FT-INSTANCE.

In addition to the standard instance, you can define up to 16 other instances, see also the manual "openFT (BS2000) - Installation and Operation".

Format

CREATE-**FT**-**INST**ANCE
NAME = <alphanum-name 1..8> ,**CON**FIG-**USER**ID = <text 1..15> ,**AUTO**MATIC-**START** = ***OFF** / ***ON**

Operands

NAME = <alphanum-name 1..8>
The name of the openFT instance that is to be created. This name must be identical on all of the computers on which this instance is to be used.

CONFIG-USERID = <text 1..15>
The file name prefix of the openFT instance variable files. The prefix must consist of a catalog name and a USER-ID. This USER-ID is designated as the configuration user ID of the instance.

AUTOMATIC-START=
This is specified if an automatic start of openFT is to occur within an instance, after loading the instance.

AUTOMATIC-START = *OFF
openFT is not started after loading the instance.

AUTOMATIC-START = *ON
After each loading of the instance, a START-FT command is implicitly executed in this instance. By doing this, it is possible to immediately work with openFT after loading. All the components which are available to a standard instance are also started, such as, for example openFT-AC, openFT-FTAM and openFT-FTP.

Command return codes

(SC2)	SC1	Maincode	Meaning
195	1	CMD0202	Invalid parameter.
83	32	CMD0221	Internal error.
22	64	FTR1022	Instance already exists.
23	64	FTR1023	Maximum number of instances exceeded.
2	0	FTR1028	Config user ID not accessible.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45

Example

```
/CREATE-FT-INSTANCE NAME=STEVEN,CONFIG-USERID=:HOME:$STEVEN
```

3.4 CREATE-FT-KEY-SET
Create a key pair set

Note on usage

User group: FT administrator

Alias name: FTCREKEY

Functional description

Using this CREATE-FT-KEY-SET command, you create a key pair for authenticating your openFT instance in partner systems (RSA procedures). The key pair consists of a private key, administered internally by openFT, and a public key.

Public keys are stored on the configuration user ID of the FT instance (default: $SYSFJAM) under the name:

SYSPKF.R<key reference>.L<key length>

The key reference is a numerical designator for the version of the key pair. The key length is 768 or 1024 or 2048. The three key lengths are always generated. The public key files are text files which are created in the character code of the respective operating system, i.e. EBCDIC.DF04-1 for BS2000, IBM1047 for z/OS, ISO8859-1 for Unix systems and CP1252 for Windows systems.

In a file SYSPKF.COMMENT on the configuration user ID of the openFT instance you can store comments, which are written in the first lines of the public key files when a key pair set is created. Such comments could be, for example, the communications partner and the telephone number of the FT administrator on duty. The lines in the SYSPKF.COMMENT file may be a maximum of 78 characters long.

So that your openFT instance can be authenticated by partner systems (using openFT as of version 8.1), the public key file must be transported to the partners via a reliable path and re-coded if necessary.

In order to make an authorized update of the key pair sets, openFT supports up to three key pair sets at a time.

The most current key pair is used for delivering the session key for encrypting user data and request description data. If there is no key pair set, work proceeds without encryption.

Format

CREATE-**FT-KEY**-SET / **FTCREKEY**

Without operands

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
87	32	CMD0221	No space left on device for internal files.
29	64	FTR1029	Maximum number of key pairs exceeded.
35	64	FTR1035	Command only permissible for FT administrator.

SC1/2 = Subcode 1/2 in decimal-notation
For additional information see section "Command return codes" on page 45.

3.5 CREATE-FT-PROFILE
Create admission profile

Note on usage

User group: FTAC user and FTAC administrator

A prerequisite for using this command is the use of openFT-AC.

Functional description

All FTAC users can use CREATE-FT-PROFILE to set up their own admission profiles under their user IDs. Users must activate admission profiles predefined by the FTAC administrator with MODIFY-FT-PROFILE (see page 225) before they can be used. Profiles predefined by the FTAC administrator may be used immediately if the FTAC administrator also possesses the TSOS privilege.

The FTAC administrator can use CREATE-FT-PROFILE to create admission profiles for each user. It is necessary to distinguish between three cases:

– The FTAC administrator possesses the TSOS privilege. He/She can then create profiles for other user IDs without restriction which are available for immediate use if they are complete. If the FTAC administrator specifies *NOT-SPECIFIED for ACCOUNT or PASSWORD in the USER-ADMISSION operand, the profiles are not locked, but they cannot be used, either.

– If the FTAC administrator does not possess the TSOS privilege but specifies ACCOUNT and PASSWORD in the USER-ADMISSION parameter, then he/she may also assign a TRANSFER-ADMISSION for the profile. However, this functions only for as long as the current password for the user ID corresponds to the one defined in the profile.

– If the FTAC administrator does not possess the TSOS privilege and also does not specify the user's account number and password, then he/she may not define any TRANSFER-ADMISSION in the profile. In this case, the user must then assign the profile a TRANSFER-ADMISSION with the MODIFY-FT-PROFILE command, and the specifications for the USER-ADMISSION must, if necessary, be complemented.

Example

The FTAC administrator creates an admission profile for user USER1. In doing so he/she specifies only the user ID for the USER-ADMISSION, but not the account number and password. In this case the FTAC administrator may also not specify a TRANSFER-ADMISSION.

```
CR-FT-PROF NAME=HISPROF2,TRANS-ADM=*NOT-SPECIFIED, -
USER-ADM=(USER1,*NOT-SPECIFIED,*NOT-SPECIFIED)
```

– It is possible to create an admission profile for "preprocessing" or "postprocessing". To do this, the FILE-NAME operand must start with the pipe symbol '|'. After this has been done, one or more BS2000 commands can be specified. For detailed information refer to the .

Format

(part 1 of 2)

```
CREATE-FT-PROFILE

 NAME = *STD / <alphanum-name 1..8>

,PASSWORD = *NONE / <c-string 1..8 with-low> / <x-string 1..16> / *SECRET

,TRANSFER-ADMISSION = *NOT-SPECIFIED / <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) /
                      <x-string 15..64>(...) / *SECRET

   <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) / <x-string 15..64>(...)
   │    VALID = *YES / *NO
   │    ,USAGE = *PRIVATE / *PUBLIC
   │    ,EXPIRATION-DATE = *NOT-RESTRICTED / <date 8..10>

,PRIVILEGED = *NO / *YES

,IGNORE-MAX-LEVELS = *NO / *YES / *PARAMETERS(...)

   *PARAMETERS(...)
   │    OUTBOUND-SEND = *NO / *YES
   │    ,OUTBOUND-RECEIVE = *NO / *YES
   │    ,INBOUND-SEND = *NO / *YES
   │    ,INBOUND-RECEIVE = *NO / *YES
   │    ,INBOUND-PROCESSING = *NO / *YES
   │    ,INBOUND-MANAGEMENT = *NO / *YES

,USER-ADMISSION = *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
   │    USER-IDENTIFICATION = *OWN / <name 1..8>
   │    ,ACCOUNT = *OWN / *FIRST / *NOT-SPECIFIED / *NONE / <alphanum-name 1..8>
   │    ,PASSWORD = *OWN / *NOT-SPECIFIED / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> /
   │              *NONE / *SECRET

,INITIATOR = (*LOCAL, *REMOTE) / list-poss(2): *LOCAL / *REMOTE

,TRANSFER-DIRECTION = *NOT-RESTRICTED / *FROM-PARTNER / *TO-PARTNER

,PARTNER = *NOT-RESTRICTED / list-poss(50): <text 1..200 with-low>

,MAX-PARTNER-LEVEL = *NOT-RESTRICTED / <integer 0..100>
```
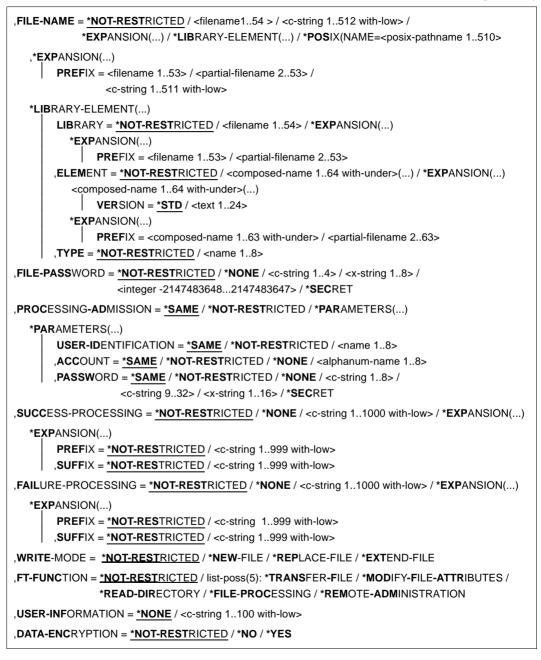
```
,FILE-NAME = *NOT-RESTRICTED / <filename1..54 > / <c-string 1..512 with-low> /
             *EXPANSION(...) / *LIBRARY-ELEMENT(...) / *POSIX(NAME=<posix-pathname 1..510>

   ,*EXPANSION(...)
    │   PREFIX = <filename 1..53> / <partial-filename 2..53> /
    │             <c-string 1..511 with-low>

   *LIBRARY-ELEMENT(...)
    │   LIBRARY = *NOT-RESTRICTED / <filename 1..54> / *EXPANSION(...)
    │     *EXPANSION(...)
    │      │   PREFIX = <filename 1..53> / <partial-filename 2..53>
    │   ,ELEMENT = *NOT-RESTRICTED / <composed-name 1..64 with-under>(...) / *EXPANSION(...)
    │     <composed-name 1..64 with-under>(...)
    │      │   VERSION = *STD / <text 1..24>
    │     *EXPANSION(...)
    │      │   PREFIX = <composed-name 1..63 with-under> / <partial-filename 2..63>
    │   ,TYPE = *NOT-RESTRICTED / <name 1..8>

,FILE-PASSWORD = *NOT-RESTRICTED / *NONE / <c-string 1..4> / <x-string 1..8> /
                 <integer -2147483648...2147483647> / *SECRET

,PROCESSING-ADMISSION = *SAME / *NOT-RESTRICTED / *PARAMETERS(...)

   *PARAMETERS(...)
    │   USER-IDENTIFICATION = *SAME / *NOT-RESTRICTED / <name 1..8>
    │   ,ACCOUNT = *SAME / *NOT-RESTRICTED / *NONE / <alphanum-name 1..8>
    │   ,PASSWORD = *SAME / *NOT-RESTRICTED / *NONE / <c-string 1..8> /
    │              <c-string 9..32> / <x-string 1..16> / *SECRET

,SUCCESS-PROCESSING = *NOT-RESTRICTED / *NONE / <c-string 1..1000 with-low> / *EXPANSION(...)

   *EXPANSION(...)
    │   PREFIX = *NOT-RESTRICTED / <c-string 1..999 with-low>
    │   ,SUFFIX = *NOT-RESTRICTED / <c-string 1..999 with-low>

,FAILURE-PROCESSING = *NOT-RESTRICTED / *NONE / <c-string 1..1000 with-low> / *EXPANSION(...)

   *EXPANSION(...)
    │   PREFIX = *NOT-RESTRICTED / <c-string  1..999 with-low>
    │   ,SUFFIX = *NOT-RESTRICTED / <c-string 1..999 with-low>

,WRITE-MODE = *NOT-RESTRICTED / *NEW-FILE / *REPLACE-FILE / *EXTEND-FILE

,FT-FUNCTION = *NOT-RESTRICTED / list-poss(5): *TRANSFER-FILE / *MODIFY-FILE-ATTRIBUTES /
               *READ-DIRECTORY / *FILE-PROCESSING / *REMOTE-ADMINISTRATION

,USER-INFORMATION = *NONE / <c-string 1..100 with-low>

,DATA-ENCRYPTION = *NOT-RESTRICTED / *NO / *YES
```

Operands

NAME = <alphanum-name 1..8>
With NAME, the admission profile is given a name. This name must be unique among all admission profiles on this user ID on the user ID specified in USER-ADM. If an admission profile with this name already exists, FTAC rejects the command with the message:

```
FTC0100 FT profile already exists
```

The command SHOW-FT-PROFILE (see page 360) can be used to view the already existing names. To obtain this information, the command SHOW-FT-PROFILE can be entered without operands and a user ID must be specified.

NAME = *STD
Creates a standard admission profile for the user ID. You must specify *NOT-SPECIFIED as the transfer admission, because a standard admission profile in a request is addressed using the user ID and password. You must not specify the parameters VALID, USAGE and EXPIRATION-DATE for a standard admission profile.

PASSWORD =
FTAC password which authorizes you to issue FTAC commands on your user ID, if such a password was defined in your admission set.

PASSWORD = *NONE
No FTAC password is required.

PASSWORD = <c-string 1..8 with-low> / <x-string 1..16>
This FTAC password is required.

PASSWORD = *SECRET
The system prompts you to input the password. However, the password does not appear on the screen.

TRANSFER-ADMISSION =
With TRANSFER-ADMISSION, you define the transfer admission. If this transfer admission is entered in an FT request instead of the LOGON authorization, then the access rights are valid which are defined in this admission profile. This transfer admission must be unique in the entire openFT system, so that there is no conflict with other transfer admissions which other FTAC users have defined for other access rights. When the transfer admission which you have selected has already been used, then FTAC rejects the command with the message:

```
FTC0101 Transfer admission already exists
```

The FTAC administrator can also assign a transfer admission when he/she creates an admission profile for a user ID. If the FTAC administrator possesses no TSOS admission, he/she must also enter the complete USER-ADMISSION for the user ID in question (USER-IDENTIFICATION, ACCOUNT and PASSWORD).

TRANSFER-ADMISSION = *NOT-SPECIFIED
This entry is used to set up a profile without transfer admission. If the profile is not a standard admission profile, it is locked until you specify a valid transfer admission or the owner specifies a valid transfer admission.

TRANSFER-ADMISSION = <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) / <x-string 15..64>(...)
The character string must be entered as the transfer admission in the transfer request. The alphanumeric entry is always stored in lower-case letters.

  VALID = *YES
  The transfer admission is valid.

  VALID = *NO
  The transfer admission is not valid. With this entry, users can be denied access to the profile.

  USAGE = *PRIVATE
  Access to your profile is denied for security reasons, when someone with another user ID attempts a second time to specify the TRANSFER ADMISSION which has already been used by you.

  USAGE = *PUBLIC
  Access to your profile is not denied if another user happens to "discover" your TRANSFER-ADMISSION. "Discovery" means that another user ID attempted to specify the same TRANSFER ADMISSION twice. This is rejected for uniqueness reasons.

  EXPIRATION-DATE = *NOT-RESTRICTED
  The use of this transfer admission is not restricted with respect to time.

  EXPIRATION-DATE = <date 8..10>
  Date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2017-12-31 or 17-12-31 for December 31, 2017. The use of the transfer admission is only possible until the given date.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this does not appear on the screen. The operands VALID, USAGE and EXPIRATION-DATE can also be secretly entered in this case.

PRIVILEGED =
The FTAC administrator can privilege the profile. FT requests which are processed with a privileged admission profile are not subject to the restrictions which are set for MAX-ADM-LEVEL (see) in the admission set.

PRIVILEGED = *NO
The admission profile is not privileged. As FTAC user you can omit this parameter, because you only can specify *NO.

PRIVILEGED = *YES
The admission profile is privileged.
Only the FTAC administrator can use this entry.

IGNORE-MAX-LEVELS =
You can determine for which of the six basic functions the restrictions of the admission set
should be ignored. The user's MAX-USER-LEVELS can be exceeded in this way. The
MAX-ADM-LEVELS in the admission set can only be effectively exceeded with an
admission profile which has been designated as privileged by the FTAC administrator. The
FTAC user can set up an admission profile for himself/herself for special tasks (e.g. sending
a certain file to a partner system with which he/she normally is not allowed to conduct a file
transfer), which allows him/her to exceed the admission set. This profile must be explicitly
given privileged status by the FTAC administrator.
If you enter IGNORE-MAX-LEVELS=*YES, the settings for **all** the basic functions are
ignored. If you wish to ignore the admission set for **specific** basic functions, you need to do
this with the operands explained later in the text.
The following table shows which partial components of the file management can be used
under which conditions:

Inbound file management function	Setting in admission set/extension in profile
Show file attributes	Inbound sending (IBS) permitted
Modify file attributes	Inbound receiving (IBR) **and** Inbound file management (IBF) permitted
Rename files	Inbound receiving (IBR) **and** Inbound file management (IBF) permitted
Delete files	Inbound receiving (IBR) permitted **and** write rule = overwrite in profile
Show directories	Inbound file management (IBF) permitted **and** direction = to partner in profile
Create, rename, delete directories	Inbound file management (IBF) permitted **and** direction = from partner in profile

IGNORE-MAX-LEVELS = *NO
FT requests which are processed with the admission profile are subject to the restrictions
of the admission set.

IGNORE-MAX-LEVELS = *YES
*YES allows you to communicate with partner systems whose security level exceeds the
specifications of the admission set. Unless you have a privileged profile, you can only
exceed the MAX-USER-LEVELS and not the MAX-ADM-LEVELS in the admission set. You
must respect the restrictions defined in the admission set by the FTAC administrator. The
SHOW-FT-ADMISSION-SET command provides information on the entries made by the
FTAC administrator (see example on).

This includes information about the current MAX-USER-LEVELS and MAX-ADM-LEVELS settings.

IGNORE-MAX-LEVELS = *PARAMETERS(...)
The following operands can be used to selectively deactivate the default settings for the individual basic functions.

OUTBOUND-SEND = <u>*NO</u>
The maximum security level which can be reached with the basic function "outbound send" is determined by the admission set.

OUTBOUND-SEND = *YES
For the basic function "outbound send", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.

OUTBOUND-RECEIVE = <u>*NO</u>
The maximum security level which can be reached with the basic function "outbound receive" is determined by the admission set.

OUTBOUND-RECEIVE = *YES
For the basic function "outbound receive", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.

INBOUND-SEND = <u>*NO</u>
The maximum security level which can be reached with the basic function "inbound send" is determined by the admission set.

INBOUND-SEND = *YES
For the basic function "inbound send", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS. The same applies to the partial component "display file attributes" of the basic function "inbound file management".

INBOUND-RECEIVE = <u>*NO</u>
The maximum security level which can be reached with the basic function "inbound receive" is determined by the admission set.

INBOUND-RECEIVE = *YES
You can disregard your settings for "inbound receive" in the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS. The same applies to the partial components of the basic function "inbound file management":
– delete files, as long as the file attributes are set accordingly,
– modify file attributes, if the basic function "inbound file management" was admitted in the admission set or in the admission profile.

INBOUND-PROCESSING = <u>*NO</u>
The maximum security level which can be reached with the basic function "inbound follow-up processing" is determined by the admission set.

INBOUND-PROCESSING = *YES
For the basic function "inbound follow-up processing", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.

INBOUND-MANAGEMENT = <u>*NO</u>
The maximum security level which can be reached with the basic function "inbound file management" is determined by the admission set.

INBOUND-MANAGEMENT = *YES
For the basic function "inbound file management", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS. The partial component "modify file attributes" of the basic function "inbound file management" only functions if the basic function "inbound receive" was admitted in the admission set or admission profile.

USER-ADMISSION =
USER-ADMISSION specifies the user ID under which the profile is saved. FT requests which work with this admission profile access the given user ID in the local system.
As FTAC user you can specify only your own user ID here.
If, as FTAC administrator, you create the admission profile for a user, you cannot generally specify neither ACCOUNT nor PASSWORD in the USER-ADMISSION operand (since these should be known only to the user in question). These specifications must be entered by the user by means of MODIFY-FT-PROFILE before the profile can actually be used.
As FTAC administrator you can create a profile which is available for immediate use, i.e. a profile with the TRANSFER-ADMISSION defined, only if you specify the USER-ADMISSION with ACCOUNT and PASSWORD or if you also possess the TSOS privilege.
For ACCOUNT= you can also specify *FIRST or *NONE.

USER-ADMISSION = <u>*OWN</u>
For USER-IDENTIFICATION and ACCOUNT, the specifications are taken from the current LOGON authorization. A possible BS2000 password is only taken from your LOGON authorization when an FT request accesses the admission profile. This specification consequently generates a profile in the current user ID.

USER-ADMISSION = *PARAMETERS(...)
Specifies the individual components of the user ID.
This allows you to keep FT requests which use this admission profile under an account number other than the current one, for example. Or, a password can be set in the admission profile. FT requests which use this admission profile will then only function if the current LOGON password corresponds to the preset password.

USER-IDENTIFICATION =
User ID in BS2000.

USER-IDENTIFICATION = *OWN
The user ID is taken from the current LOGON authorization.

USER-IDENTIFICATION = <name 1..8>
User ID to which the profile should belong. As FTAC administrator you may also specify
foreign user IDs. As an FTAC user you can only specify your own user ID; the
specification corresponds to *OWN.

ACCOUNT =
Account number under which an FT request is to be kept when it uses this admission
profile.

ACCOUNT = *OWN
The account number is taken from the current LOGON authorization.

ACCOUNT = *FIRST
The first account number assigned to the home pubset of the specified
USER-IDENTIFICATION at the time the profile is used in the system is used for account
assignment in the case of transfer requests. If the ID's account number changes, the
profile does not have to be modified.

ACCOUNT = *NOT-SPECIFIED
No account number is defined.
The account number is first entered by the owner of the admission profile. This function
allows the FTAC administrator to create profiles for foreign user IDs whose account
number he/she does not know.

ACCOUNT = *NONE
The account number is used which is defined as the default account number of the user
ID specified in the USER-IDENTIFICATION at the time the admission profile is used.

ACCOUNT = <alphanum-name 1..8>
An FT request should be kept under the account number specified when it accesses
this admission profile. You can enter any account number which belongs to the user ID
specified in the USER-IDENTIFICATION.

PASSWORD =
BS2000 password which an FT request should use when it works with this admission
profile.

PASSWORD = *OWN
When an FT request refers to this admission profile, FTAC uses the BS2000 password
valid for the specified USER-IDENTIFICATION at that moment. This prevents you from
having to modify the admission profile if the BS2000 password is changed.

PASSWORD = *NOT-SPECIFIED
The password will be entered by the owner of the admission profile. This function allows the FTAC administrator to create profiles for foreign user IDs whose access data he/she does not know.

PASSWORD = *NONE
No password is required for the user ID specified in the USER-IDENTIFICATION.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
When an FT request accesses the admission profile, the password specified is compared with the current LOGON password. If the two do not correspond, the FT request is rejected.

PASSWORD = *SECRET
The system prompts you to enter the password. The entry does not appear on the screen.

INITIATOR =
Determines if initiators from local and/or remote systems are permitted to use this admission profile for their FT requests.

INITIATOR = (*LOCAL,*REMOTE)
This admission profile may be used by initiators from local and remote systems.

INITIATOR = *REMOTE
This admission profile may only be used for FT requests by initiators from remote systems.

INITIATOR = *LOCAL
This admission profile may only be used for FT requests by initiators from the local system.

TRANSFER-DIRECTION =
Determines which transfer direction may be used with this admission profile. The transfer direction is always determined from the system in which the admission profile was defined.

TRANSFER-DIRECTION = *NOT-RESTRICTED
With this admission profile, files can be transferred to and from a partner system.

TRANSFER-DIRECTION = *FROM-PARTNER
With this admission profile, files can only be transferred from a partner system to your system. It is not possible to display file attributes/directories (partial components of "inbound file management").

TRANSFER-DIRECTION = *TO-PARTNER
With this admission profile, files can only be transferred from your system to a partner system. It is not possible to modify file attributes or delete files (partial components of "inbound file management").

PARTNER =
Specifies that this admission profile is to be used only for FT requests which are processed by a certain partner system.

PARTNER = *NOT-RESTRICTED
The range of use for this admission profile is not restricted to FT requests with certain partner systems.

PARTNER = list-poss(50): <text 1..200 with-low>
The admission profile only permits those FT requests which are processed with the specified partner systems. A maximum of 50 partner names can be specified. The total length of all the partners may not exceed 1000 characters. You may specify the name from the partner list or the address of the partner system, see also section "Specifying partner addresses" on page 48. It is recommended, to use the name from the partner list. The format shown in the long form of the logging output provides an indication of how a partner address should be entered in an FTAC profile.

MAX-PARTNER-LEVEL =
A maximum security level can be specified. The admission profile will then only permit those FT requests which are processed with partner systems which have this security level or lower.
MAX-PARTNER-LEVEL works in conjunction with the admission set. When non-privileged admission profiles are used, the access check is executed on the basis of the smallest specified value.

MAX-PARTNER-LEVEL = *NOT-RESTRICTED
If FT requests are processed with this admission profile, then the highest accessible security level is determined by the admission set.

MAX-PARTNER-LEVEL = <integer 0..100>
All partner systems which have this security level or lower can be communicated with.

> **i** When you set MAX-PARTNER-LEVEL=0, you prevent access to the admission profile (for the moment). No FT requests can be processed with this admission profile.

FILE-NAME =
Determines which files or library members under your user ID may be accessed by FT requests that use this admission profile.

FILE-NAME = *NOT-RESTRICTED
Permits unrestricted access to all files and library members of the user ID.

**FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)**
Only the specified file may be accessed. However, openFT is also able to generate unique filenames automatically, thus providing an easy way of avoiding conflicts. This is done by specifying the string %UNIQUE at the end of the filename which is predefined here. When follow-up processing is specified, this file can be referenced with %FILENAME.
You can also directly specify file transfer with file preprocessing or postprocessing here by entering a pipe symbol '|' followed by a command.

FILE-NAME = *EXPANSION(PREFIX = <filename 1..53> / <partial-filename 2..53> / <c-string 1..511 with-low>)
Restricts access to a number of files which all begin with the same prefix. If a *filename* is entered in an FT request which works with this admission profile, FTAC sets the *prefix* defined with EXPANSION in front of this filename. The FT request is then permitted to access the file *PrefixFilename*.

Example
– PREFIX=JACK.; an FT request in which FILE-NAME=BOERSE is specified, then accesses the file JACK.BOERSE.

Please note that the part of a DVS filename which is specified in the file transfer command still has to be of the type <filename>.

If you want to perform file transfer with pre- or postprocessing, you should indicate this by entering the pipe symbol '|' at the start of the prefix. The created FTAC profile can then be used only for file transfer with pre- or postprocessing since the file name that is generated also starts with a '|'. The variable %TEMPFILE can also be used in the filename prefix. You can find detailed information on preprocessing and postprocessing in the section section "Preprocessing and postprocessing" on page 55.

The maximum length of the entire pre- or postprocessing command is limited to the maximum length of the file name. If several commands are specified, then they must be separated by a semicolon (';').
There must not be a space between the semicolon and the slash.

Example
    FILE-NAME = C'|/Command1;/Command2;/Command3; ...'

If you specify a name prefix that starts with a pipe character with *EXP(PREFIX=...), the preprocessing or postprocessing command of the FT request must not contain any semicolons. If the preprocessing or postprocessing command nevertheless contains semicolons, it must be enclosed in '...' (single quotes) or "..." (double quotes).

Special cases

– A file name or file name prefix that begins with the string '|ftexecsv' must be specified for admission profiles that are to be exclusively used for the ftexec command (see page 110).

– Specify the file name prefix '|*ftmonitor' for admission profiles that are exclusively used for monitoring. A profile of this sort can then be used in the openFT Monitor or in an ft or ncopy command from a Windows or Unix system (see page 110).

FILE-NAME = *LIBRARY-ELEMENT(...)
Determines which of your libraries and library members may be accessed by FT requests which use this admission profile.

LIBRARY =
Defines which libraries may be accessed with this admission profile.

LIBRARY = <u>*NOT-RESTRICTED</u>
The admission profile does not restrict access to libraries.

LIBRARY = <filename 1..54>
Only this library may be accessed.

LIBRARY = *EXPANSION(PREFIX = <filename 1..53> / <partial-filename 2..53>)
Only those libraries may be accessed which begin with the specified prefix. FTAC sets
the prefix in front of a library name in an FT request which works with this admission
profile, and then permits access to the library *Prefix-Libraryname*.

ELEMENT =
Determines which library members may be accessed with this admission profile.

ELEMENT = <u>*NOT-RESTRICTED</u>
Permits unrestricted access to library members.

ELEMENT = <composed-name 1..64 with-under>(...)
Permits access to the specified library member.

    VERSION =
    Access is only permitted for a specific version of the library member.

    VERSION = <u>*STD</u>
    Permits access only to the highest version of the library member.

    VERSION = <text 1..24>
    Access is only permitted for this version of the library member.

**ELEMENT = *EXPANSION(PREFIX = <partial-filename 2..63> /
<composed-name 1..63 with-under)**
Defines a prefix. When a name for a library member is specified in an FT request which
works with this admission profile, FTAC adds the specified prefix to this member name.
The admission profile then permits access to this member with the name
PrefixMembername.

TYPE =
Specifies a certain type of library member. The admission profile then only permits
access to library members of this type.

TYPE = <u>*NOT-RESTRICTED</u>
Access is not restricted to a certain type of library member.

TYPE = <name 1..8>
FT requests which work with this admission profile may only access library members of
this type.

FILE-PASSWORD =
You can enter a password for files into the admission profile. The FTAC functionality then only permits access to files which are protected with this password and to unprotected files. When a FILE-PASSWORD is specified in an admission profile, the password may no longer be specified in an FT request which uses this admission profile. This allows you to permit access to certain files to users in remote systems, without having to give away the file passwords.

FILE-PASSWORD = *NOT-RESTRICTED
Permits access to all files. If a password is set for a file, then it must be specified in the transfer request.

FILE-PASSWORD = *NONE
Only permits access to files without file passwords.

FILE-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
Only permits access to files which are protected with the password specified and to unprotected files. The password which has already been specified in the profile may not be repeated in the transfer request. PASSWORD=*NONE would be entered in this case!

FILE-PASSWORD = *SECRET
The system prompts you to enter the password. However, the password does not appear on the screen.

PROCESSING-ADMISSION =
You can enter a user ID in your BS2000 system . Any follow-up processing of an FT request will be executed under this user ID. With PROCESSING-ADMISSION in the admission profile, you do not need to disclose your LOGON authorization to partner systems for follow-up processing.

PROCESSING-ADMISSION = *SAME
For the PROCESSING-ADMISSION, the values of the USER-ADMISSION are used. If *SAME is entered here, then any FT request which uses this profile must also contain PROCESSING-ADMISSION=*SAME or PROCESSING-ADMISSION=*NOT-SPECIFIED.

PROCESSING-ADMISSION = *NOT-RESTRICTED
FT requests which use this admission profile may contain any PROCESSING-ADMISSION. If you wish to perform follow-up processing with FTAM partners, PROCESSING-ADMISSION must have a value other than *NOT-RESTRICTED.

PROCESSING-ADMISSION = *PARAMETERS(...)
You can also enter the individual components of the user ID. This allows you to keep FT requests which use this admission profile under a different account number, for example. Or, a password can be set in the admission profile. FT requests which use this admission profile will then only function if their current LOGON password corresponds to the pre-set password.

USER-IDENTIFICATION =
Identifies the user ID under which the follow-up processing is to be executed.

USER-IDENTIFICATION = *SAME
The USER-IDENTIFICATION is taken from the USER-ADMISSION.

USER-IDENTIFICATION = *NOT-RESTRICTED
The admission profile does not restrict the user ID for the follow-up processing.

USER-IDENTIFICATION = <name 1..8>
FT requests which are processed with this admission profile are only permitted follow-up processing under this user ID. If another user ID is entered here, the parameter PASSWORD must also be entered. PASSWORD=*SAME is then not valid.

ACCOUNT =
Account number for the follow-up processing.

ACCOUNT = *SAME
The account number is taken from the USER-ADMISSION.

ACCOUNT = *NOT-RESTRICTED
Account number in FT requests which work with the admission profile. The admission profile does not restrict the account with regard to follow-up processing.

ACCOUNT = *NONE
The account number is used which is defined as the default account number of the user ID specified in the USER-IDENTIFICATION at the time the admission profile is used.

ACCOUNT = <alphanum-name 1..8>
Follow-up processing is to be settled under this account number.

PASSWORD =
You specify, where applicable, the BS2000 password for the user ID specified in the USER-IDENTIFICATION under which the follow-up processing is to be executed. Here, you can enter a PASSWORD when the user ID in question doesn't have such a password (yet).

PASSWORD = *SAME
The value *SAME is only valid if the PROCESSING-ADMISSION refers to your own user ID. If PASSWORD=*OWN is entered on USER-ADMISSION, then the password valid at the time of the request is used for the PROCESSING-ADMISSION.
The entry *SAME is only possible here if the follow-up processing is not started with the /ENTER command.

PASSWORD = *NOT-RESTRICTED
Specifies the password in FT requests which work with the admission profile. The admission profile does not restrict the password with regard to follow-up processing.

PASSWORD = *NONE
FT requests which use this admission profile can only initiate follow-up processing on
user IDs without a password.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
FT requests which use this admission profile may only initiate follow-up processing on
user IDs which are protected with this password.

PASSWORD = *SECRET
The system prompts you to enter the password. The entry does not appear on the
screen.

SUCCESS-PROCESSING =
Restricts the follow-up processing which an FT request is permitted to initiate in your
system after a successful data transfer.

SUCCESS-PROCESSING = <u>*NOT-RESTRICTED</u>
In FT requests which use this admission profile the operand SUCCESS-PROCESSING
may be used without restriction.

SUCCESS-PROCESSING = *NONE
The admission profile does not permit follow-up processing after successful data transfer.

SUCCESS-PROCESSING = <c-string 1..1000 with-low>
Commands which are executed in the local system after successful data transfer.
Individual commands must be preceded by a slash (/).
The individual commands must be separated by a semicolon (;). If a character string is
enclosed by single or double quotes (' or ") within a command sequence, openFT does not
interpret any semicolons within this character string as a separator.

SUCCESS-PROCESSING = *EXPANSION(...)
If a SUCCESS-PROCESSING was specified in an FT request which uses this admission
profile, FTAC adds the prefix or suffix specified here to this command. As follow-up
processing, the command which has been thus expanded is then executed.

If a suffix or prefix is defined at this point, then no command sequence for the follow-up
processing may be specified in FT requests which use this admission profile. This makes
the setting of prefixes and suffixes mandatory.

PREFIX = <u>*NOT-RESTRICTED</u>
Follow-up processing is not restricted by a prefix.

PREFIX = <c-string 1..999 with-low>
The specified prefix is set in front of a command which is specified in an FT request as
follow-up processing. Then, the command which has been expanded with the prefix is
executed as follow-up processing.

SUFFIX = <u>*NOT-RESTRICTED</u>
The follow-up processing is not restricted by a suffix.

SUFFIX = <c-string 1..999 with-low>
The specified suffix is added to a command which is specified in an FT request as follow-up processing. Then, the command which has been expanded with the suffix is executed as follow-up processing.

Example

If PREFIX='/PRINT-FILE ' is defined and SUCC='filename' specified in the FT request, then FT executes the command "/PRINT-FILE filename" as follow-up processing.

FAILURE-PROCESSING =
Restricts the follow-up processing which an FT request is permitted to initiate in your system after a failed data transfer.

FAILURE-PROCESSING = *NOT-RESTRICTED
In FT requests which use this admission profile the operand FAILURE-PROCESSING may be used without restriction.

FAILURE-PROCESSING = *NONE
The admission profile does not permit follow-up processing after failed data transfer.

FAILURE-PROCESSING = <c-string 1..1000 with-low>
Commands which are executed in the local system after failed data transfer.
Individual commands must be preceded by a slash (/).
The individual commands must be separated by a semicolon (;). If a character string is enclosed by single or double quotes (' or ") within a command sequence, openFT does not interpret any semicolons within this character string as a separator.

FAILURE-PROCESSING = *EXPANSION(...)
If a FAILURE-PROCESSING was specified in an FT request which uses this admission profile, FTAC adds the prefix or suffix specified here to this command. As follow-up processing, the command which has been thus expanded is then executed.

If a suffix or prefix is defined at this point, then no command sequence for the follow-up processing may be specified in FT requests which use this admission profile. This makes the setting of prefixes and suffixes mandatory.

PREFIX = *NOT-RESTRICTED
Follow-up processing is not restricted by a prefix.

PREFIX = <c-string 1..999 with-low>
The specified prefix is set in front of a command which is specified in an FT request as follow-up processing. Then, the command which has been expanded with the prefix is executed as follow-up processing.

SUFFIX = *NOT-RESTRICTED
The follow-up processing is not restricted by a suffix.

SUFFIX = <c-string 1..999 with-low>
The specified suffix is added to a command which is specified in an FT request as
follow-up processing. Then, the command which has been expanded with the suffix is
executed as follow-up processing.

WRITE-MODE =
Determines the WRITE-MODE specification which is valid for this FT request. WRITE-
MODE is only effective if the receive file is in the same system as the admission profile
definition.

WRITE-MODE = *NOT-RESTRICTED
In an FT request which accesses this admission profile, the operand WRITE-MODE may
be used without restrictions.

WRITE-MODE = *NEW-FILE
In the FT request, *NEW-FILE, *REPLACE-FILE or *EXTEND-FILE may be entered for
WRITE-MODE. If the receive file already exists, the transfer will be rejected.

WRITE-MODE = *REPLACE-FILE
In the FT request of openFT or FTAM partners, only *REPLACE-FILE or *EXTEND-FILE
may be entered for WRITE-MODE. With ftp partners, *NEW-FILE may also be entered if
the file does not yet exist.

WRITE-MODE = *EXTEND-FILE
In the FT request, only *EXTEND-FILE may be entered for WRITE-MODE.

FT-FUNCTION =
Permits the restriction of the profile validity to certain FT functions (=file transfer and file
management functions).

FT-FUNCTION = *NOT-RESTRICTED
The full scope of FT functions is available. For reasons of compatibility, the specification
NOT-RESTRICTED means that FILE-PROCESSING and REMOTE-ADMINISTRATION
are not permitted! All other functions are permitted if this value is specified.

FT-FUNCTION = (*TRANSFER-FILE, *MODIFY-FILE-ATTRIBUTES,
*READ-DIRECTORY,*FILE-PROCESSING, *REMOTE-ADMINISTRATION)
The following file transfer functions are available:

*TRANSFER-FILE
The admission profile may be used for the file transfer functions "transfer files", "view
file attributes" and "delete files".

*MODIFY-FILE-ATTRIBUTES
The admission profile may be used for the file transfer functions "view file attributes" and
"modify file attributes".

*READ-DIRECTORY
The admission profile may be used for the file transfer functions "view directories" and "view file attributes".

*FILE-PROCESSING
The admission profile may be used for the "preprocessing" and "postprocessing" file transfer function. The "transfer files" function must also be permitted.

The *FILE-PROCESSING specification is of relevance only for FTAC profiles without a filename prefix. Otherwise the first character of the filename prefix determines whether only normal data transfer (no pipe symbol |) or only preprocessing and postprocessing (pipe symbol |) are to be possible with this FTAC profile.

*REMOTE-ADMINISTRATION
The admission profile is allowed to be used for the "remote administration" function. This allows a remote administrator to administer the openFT instance using this profile. *REMOTE-ADMINISTRATION may only be specified by the FT administrator or FTAC administrator.

USER-INFORMATION =
Here, you enter a text in the admission profile. This text is displayed with the command SHOW-FT-PROFILE.

USER-INFORMATION = *NONE
No text is stored in the profile.

USER-INFORMATION = <c-string 1..100 with-low>
Here, you enter a character string containing user information.

DATA-ENCRYPTION =
Restricts the encryption option for user data.

DATA-ENCRYPTION = *NOT-RESTRICTED
The encryption option for user data is not restricted. Both encrypted and unencrypted file transfers are accepted.

DATA-ENCRYPTION = *NO
Only those file transfers which do not have encrypted user data are accepted, i.e. encrypted requests are rejected.
If the request is made in a BS2000 or z/OS, for example, it must be specified there in the NCOPY request DATA-ENCRYPTION=*NO.

DATA-ENCRYPTION = *YES
Only those file transfer requests that have encrypted user data are accepted, i.e. unencrypted requests are rejected.
If the request is made in a BS2000 or z/OS, for example, it must be specified there in the NCOPY request DATA-ENCRYPTION=*YES.

i	When using restrictions for FILE-NAME, SUCCESS-PROCESSING and FAILURE-PROCESSING, keep in mind that

- a restriction for follow-up processing must always be made for SUCCESS- and FAILURE-PROCESSING. Otherwise, it is possible that users will avoid this step.

- PREFIX of FILE-NAME, SUCCESS-PROCESSING and FAILURE-PROCESSING must correspond,
  e.g. FILE-NAME = *EXP(XYZ.),SUCC = *EXP('/PRINT-FILE XYZ.')

Examples

1. Jack John wishes to create an admission profile for the following purpose:

   Dylan Dack, employee at the Dack Goldmine, has his own BS2000 computer. He has to transfer monthly reports on a regular basis to his boss Jack's computer, JACKJOHN, using File Transfer. The file needs to have the name MONTHLYREPORT.GOLDMINE and is to be printed out after transfer.

   Since Jack's admission set does not permit any "inbound" requests, he needs to give the profile privileged status (he/she is permitted to do this, since he is an FTAC administrator). The Goldmine computer has the security level 50. The command required to create such an admission profile is as follows:

```
/CREATE-FT-PROFILE NAME=GOLDMORE,                                    –
/                  TRANSFER-ADMISSION='monthlyreportfortheboss',  –
/                  PRIVILEGED=*YES,                                –
/                  IGNORE-MAX-LEVELS=(INBOUND-RECEIVE=*YES,        –
/                  INBOUND-PROCESSING=*YES),                       –
/                  TRANSFER-DIRECTION=*FROM-PARTNER,               –
/                  PARTNER=GOLDMINE,                               –
/                  FILE-NAME=MONTHLYREPORT.GOLDMINE,               –
/                  SUCCESS-PROCESSING=                             –
/                  '/PRINT-FILE␣MONTHLYREPORT.GOLDMINE',           –
/                  FAILURE-PROCESSING=*NONE,                       –
/                  WRITE-MODE=*REPLACE-FILE
```

   The short form of this command is:

```
/CRE-FT-PROF␣GOLDMORE,TRANS-AD='monthlyreportfortheboss',         –
/PRIV=*YES,IGN-MAX-LEV=(I-R=*YES,I-P=*YES),TRANS-DIR=*FROM,       –
/PART=GOLDMINE, FILE-NAME=MONTHLYREPORT.GOLDMINE,                 –
/SUCC='/PRINT-FILE␣MONTHLYREPORT.GOLDMINE',FAIL=*NONE,            –
/WRITE=*REPL
```

   File management can also be performed with this admission profile (see the specifications for the IGNORE-MAX-LEVELS operand).

Dylan Dack, who keeps the monthly report for the goldmine in his BS2000 computer in
the file NOTHINGBUTLIES, can use the following openFT command to send it to the
central computer JACKJOHN and print it out there:

```
/TRANSFER-FILE␣TO,JACKJOHN,(NOTHINGBUTLIES),
                (FILE=*NOT-SPECIFIED,TRANS-AD='monthlyreportfortheboss')
```

2. A profile is to be created that only allows monitoring.

```
CREATE-FT-PROFILE MONITOR,,'ONLYFTMONITOR'  -
   ,FILE-NAME=*EXP('|*FTMONITOR ') -
   ,FT-FUN=(*TRANS-F,*FILE-PROC)
```

The openFT Monitor can be started from a Unix or Windows system using this profile
with the following command:

```
ftmonitor "-po=10" FTBS2 ONLYFTMONITOR
```

Alternatively, the monitoring values can be output as rows to a file (in this case
ftbs2_data), for instance with the following command:

```
ncopy FTBS2!"-po=10" ftbs2_data ONLYFTMONITOR
```

3. If you only want to use FTAC profiles for the ftexec command then you must specify a
filename prefix that starts with the character string '|ftexecsv'.

If a command or command prefix is also to be defined, you must specify it in the
following form:

```
FILE-NAME=*EXP('|ftexecsv -p=command-prefix')
```

If the command string or the command prefix set in the profile for calling ftexec contains
spaces, it must be enclosed in double quotes ("). Any double quotes in the command
string must be entered twice.

If the entire command string is specified as a file name in the profile for ftexec, you can
only specify a space (' ') as the command name when calling ftexec. The FTAC profile
does not prevent a caller of ftexec from specifying further command parameters.

4. You want to create a profile which can be used to run precisely one file processing
command. A number of logging records are output in the example below.

```
    /CR-FT-PRO NUR1VORV,,'GetLoggingRecords'            -
    ,FILE-NAME=*EXP('|ftexecsv -p="/SH-FT-LOG-REC ,"') -
    ,FT-FUN=(*TRANS-F,*FILE-PROC)
```

The following command, for example, can be used to access the profile from a remote system:

–   Unix system or Windows system:

```
ftexec FTBS2 3 GetLoggingRecords
```

–   BS2000 system:

```
/EXE-REM-CMD FTBS2,'3','GetLoggingRecords'
```

–   z/OS system:

```
FTEXEC FTBS2,'3','GetLoggingRecords'
```

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	FTC0051	A user ID with the same name already exists.
0	0	FTC0056	Transfer admission is locked.
0	64	FTC0100	An FT profile with the same name already exists.
0	64	FTC0101	An FT profile with the specified transfer admission already exists.
0	64	FTC0150	The access password is missing.
0	64	FTC0153	The owner identification entered is not the own user ID.
0	64	FTC0157	No authorization to create the profile. An FTAC administrator can only set up a profile with specification of the transfer admission if they know the complete user ID.
0	64	FTC0172	The User-Admission entered does not exist in the system.
0	64	FTC0173	The Processing-Admission entered does not exist in the system.
0	64	FTC0178	The partner name entered occurs several times.
0	64	FTC0182	Maximum length for partner names has been exceeded.
0	64	FTC0200	The total length of the two follow-up processing commands is too long.
0	64	FTC0255	A system error has occurred.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

3.6 CREATE-REMOTE-DIR
Create remote directory

Note on usage

User group: FT user

Alias name: FTCREDIR

Functional description

With the CREATE-REMOTE-DIR command, you can create a directory in an FT partner
system.

Format

```
CREATE-REMOTE-DIR / FTCREDIR

 PARTNER = <text 1..200 with-low>

,DIRECTORY-NAME = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low>

,PASSWORD = *NONE / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
            *SECRET

,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                      *SECRET / *PARAMETERS(...)

   *PARAMETERS(...)
      │  USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
      │ ,ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
      │ ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19> /
      │             *SECRET
```

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the
partner system address. For more information on address specifications, see
.

DIRECTORY-NAME =
Name of the directory in the remote FT partner system.

DIRECTORY-NAME = *NOT-SPECIFIED
The name of the directory is known to the remote system because it has already been
completely defined in the addressed FTAC admission profile, for instance.

DIRECTORY-NAME = <filename 1..54> / <c-string 1..512 with-low>
Name of the directory in the remote system. This must be specified in the syntax of the
remote system and must adhere to the conventions used in the remote system.
If the directory name is specified with an unattached Public Volume Set (BS2000 systems)
then the request is rejected with error message FTR2154.

PASSWORD =
If the file system or the parent directory only permits the directory to be created with a
password, you can specify this here.
This is only possible in the case of partner systems which support this type of password.

PASSWORD = *NONE
No password is required to create the directory.

PASSWORD =
<integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128>
Password giving permission to create the directory in the remote system. The password
must be specified in the syntax of the remote system and must adhere to the conventions
used in the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed on the
screen.

TRANSFER-ADMISSION =
Contains specifications concerning the transfer admission in the remote system for the file
management request.

TRANSFER-ADMISSION = *NONE
The remote system does not require or does not know any user admissions.

TRANSFER-ADMISSION =
<alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
If FTAC functionality is used in the remote system then the transfer admission for the
remote system can be defined via an admission profile. In this case, only the TRANSFER-
ADMISSION defined in the admission profile is used here. The alphanumeric input is
converted to lowercase internally.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this is not visible on the
screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the user's identification, account number and password in the remote system. The operands in the brackets can also be used as positional operands without the associated keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
Identification of the user in the remote system. The identification must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
Account number of the user in the remote system. The account number must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

PASSWORD =
Password allowing the user to access the remote system.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD =
<c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19>
Password allowing the user to access the remote system. The password must be specified in the syntax of the remote system, must adhere to the conventions used in the remote system and must be known there.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed on the screen.

Command return codes

For a list of the possible return codes, see the table as of .

3.7 DELETE-FT-INSTANCE
Delete the administration entry of an openFT instance

Note on usage

User group: FT administrator

Functional description

This command deletes the administration entry of the instance. All of the variable data such as, for example, the request file are kept and can be re-activated with the same instance name by re-executing the CREATE-FT-INSTANCE command.

In the event that a user task has altered the deleted instance, this will only be recognized on the next attempt by openFT to access this instance. openFT commands for this instance are rejected in this case, issuing the message FTR1025. The user must set another instance using the SET-FT-INSTANCE command.

Format

DELETE-**FT**-**INST**ANCE
NAME = <alphanum-name 1..8>

Operands

NAME = <alphanum-name 1..8>
The name of the openFT instance that is to be deleted. The standard instance cannot be deleted.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
24	64	FTR1024	Standard instance must not be deleted.
25	64	FTR1025	Instance does not exist.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45

3.8 DELETE-FT-KEY-SET
Delete a key pair set

Note on usage

User group: FT administrator

Alias name: FTDELKEY

Functional description

Using the DELETE-FT-KEY-SET command, you are deleting the key pair set of a reference. The key pair consists of a private key, which is internally administered by openFT, and a public key.

Public keys are stored on the configuration user ID of the openFT instance (default: $SYSFJAM) under the name:

SYSPKF.R<key reference>.L<key length>

The key reference is a numeric designator for the version of the key pair. For each reference there are three keys with lengths of 768, 1024 and 2048 bits respectively.

A key pair set should only be deleted if no partner system uses the corresponding public key any longer. This means that, after creating a new key pair set using CREATE-FT-KEY-SET, the new public key should be made available to all of the partner systems in which the local system is to be authenticated.

There should always be at least one key pair set in your openFT instance, otherwise all requests will be carried out in unencrypted form.

Format

DELETE**-FT-KEY**-SET / **FTDELKEY**

REFERENCE = <integer 1..9999999>

Operands

REFERENCE = <integer 1..9999999>
Allows selection of the key pair set to be deleted. You will find the reference in the name of the public key file (see above).

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
2	0	FTR1030	Warning: last key pair deleted.
32	64	FTR1032	Last key pair must not be deleted.
35	64	FTR1035	Command only permissible for FT administrator.
37	64	FTR1037	Key reference unknown.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

Example

Delete the key pair set with the public keys
$SYSFJAM.SYSPKF.R137.L768, $SYSFJAM.SYSPKF.R137.L1024 and
$SYSFJAM.SYSPKF.R137.L2048:

```
/DELETE-FT-KEY-SET REF=137
```

3.9 DELETE-FT-LOGGING-RECORDS
Delete log records or offline log files

Note on usage

User group: FT administrator, FTAC administrator

Alias name: FTDELLOG

Functional description

With DELETE-FT-LOGGING-RECORDS you can, as FT or FTAC administrator, delete log records for all login names and all record types (FT, FTAC, ADM) from the current log file.

You can also delete offline log files which are no longer required. Offline log files can only be deleted in their entirety. It is not possible to delete individual log records from an offline log file.

In principle, openFT can write any number of logging records (until the disk is full). The FT administrator should save the existing logging records (e.g. to tape or as a file in CSV format) and at regular intervals (weekly, for example, if there is a large number of requests) and delete older logging records. This means, firstly, that logging records are retained for a long period, thereby ensuring continuous documentation, and secondly, that memory space is not occupied unnecessarily.

You save the log records, for example, by redirecting the output of SHOW-FT-LOGGING-RECORDS (Displaying logging records, ff) to a file in CSV format (for more information, see SHOW-FT-LOGGING-RECORDS):

```
/ASSIGN-SYSLST LOGGING FILE
/SHOW-FT-LOGGING-RECORDS...,NUMBER=*ALL,OUTPUT=*SYSLST(*CSV)
```

When backing up logging records, CSV format should be preferred to the default format since in this format all the information is backed up "in a single line" and a variety of tools can be used for the further processing of the information.

When deleting logging records, the disk storage occupied by the log file is not released. The free space within the file is, however, used to store new records.

In the case of very large log files it may take several minutes to delete log records. To prevent inconsistencies, it is not possible to use the K2 key to interrupt the command.

In this case the following procedure is recommended:

► Switch the log file using MODIFY-FT-OPTIONS LOGGING=*CHANGE-FILES. The current log file is switched "offline". New log records are now written to a new log file.

► After a certain time, evaluate all log files in the offline log file and archive them using SHOW-FT-LOGGING-RECORDS.

► Delete the offline log file using DELETE-FT-LOGGING-RECORDS .

i The default setting for the command DELETE-FT-LOGGING-RECORDS has changed in openFTV11.0. If you specify the command without parameters, the default value *PARAMETERS() is used instead of *ALL as previously, i.e. all log records are deleted that have been written up to 00:00 h of the current day. This means that the command remains downward compatible in terms of its behavior.

Format

DELETE-**FT-LOG**GING-**REC**ORDS / **FTDELLOG**

SELECT = ***ALL** / ***OWN** / ***PAR**AMETERS(...) / ***LOG**GING-**FILES (...)**

   *PARAMETERS(...)
      │ **OWN**ER-**ID**ENTIFICATION = ***ALL** / ***OWN** / <name 1..8>
      │ ,**LOGG**ING-**DATE** = ***TODAY** / ***TOMOR**ROW / <date 8..10>
      │ ,**LOGG**ING-**TIME** = **00:00** / <time 1..8>
      │ ,**REC**ORD-**TYPE** = ***ALL** / ***PAR**AMETERS(...)
      │   ***PAR**AMETERS(...)
      │   │ **FT** = ***ALL** / ***NONE**
      │   │ ,**FTAC** = ***ALL** / ***NONE**
      │   │ ,**ADM** = ***ALL** / ***NONE**
      │ ,**LOGG**ING-**ID** = ***ALL** / <alphanum-name 1..12>
   *LOGGING-**FILES(...)**
     │ **BEF**ORE = ***TIME**(...)
     │   ***TIME** = (...)
     │   │ **DATE** = <date 8..10>
     │   │ ,**TIME** = **00:00** / <time1..8>

Operands

SELECT =
Selects a group of logging records.

SELECT = *ALL
Deletes all logging records.

SELECT = *OWN
Deletes all logging records of your own ID.

SELECT = *PARAMETERS(...)

  OWNER-IDENTIFICATION =
  User ID whose logging records are to be deleted.

OWNER-IDENTIFICATION = <u>*ALL</u>
The user ID is not a selection criterion.

OWNER-IDENTIFICATION = *OWN
Logging records of the own user ID are deleted.

OWNER-IDENTIFICATION = <name 1..8>
User ID whose logging records are to be deleted.

LOGGING-DATE =
Date before which the logging records are to be deleted.

LOGGING-DATE = <u>*TODAY</u>
If a time was specified explicitly with LOGGING-TIME, all log records that were written before this time are deleted. If no date was specified, openFT deletes all log records that were written up to midnight inclusive of the previous day.

LOGGING-DATE = *TOMORROW
All logging records that were created before the command was input are deleted.

LOGGING-DATE = <date 8..10>
Date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2016-12-24 or 16-12-24 for the 24th of December, 2016. openFT then deletes only those logging records that were written before the date and time specified with LOGGING-TIME and LOGGING-DATE.

LOGGING-TIME =
Logging records written up to the specified time are deleted.

LOGGING-TIME = <u>00:00</u>
If a date was specified explicitly with LOGGING-DATE, openFT deletes all log records written before the specified date. If no date was specified, openFT deletes all log records that were written up to midnight inclusive of the previous day.

LOGGING-TIME = <time 1..8>
Time for the day specified with LOGGING-DATE. openFT deletes all log records written before this time. You specify the time in the format *hh:mm:ss*, e.g. 14:30:10.

RECORD-TYPE =
Defines the type of logging records to be deleted.

RECORD-TYPE = <u>*ALL</u>
The record type is not a selection criterion.

RECORD-TYPE = *PARAMETERS(...)
Type of the logging record.

> **FT = <u>*ALL</u> / *NONE**
> Specifies whether or not the FT logging records are to be deleted.

> **FTAC = <u>*ALL</u> / *NONE**
> Specifies whether or not FTAC logging records are to be deleted.

Please note that the FTAC logging records can only be deleted by the FTAC administrator.

ADM = <u>*ALL</u> / *NONE
Specifies whether ADM log records are deleted or not.

LOGGING-ID =
Selects the logging records on the basis of the logging ID.

LOGGING-ID = <u>*ALL</u>
The logging ID is not a selection criterion.

LOGGING-ID = <alphanum-name 1..12>
All logging records with a logging ID smaller than or equal to the specified value are deleted.

SELECT = *LOGGING-FILES(...)
Controls the deletion of offline log files. Offline log records cannot be deleted individually: only entire files can be deleted.

BEFORE = <u>*TIME</u>(...)
Deletes all the offline log files which were switched offline on or before the specified time (local time!) by switching the log file offline. This ensures that only log records which are at least as old as the specified time are deleted.

If you enter the current date or a date in the future, then all the existing offline log files are deleted.

DATE = <date 8..10>
Creation date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2016-03-31 or 16-03-31 for March 31, 2016.

TIME = <u>00:00</u> / <time 1..8>
Time for the date specified with DATE. You enter the time in the format *hh:mm:ss*, e.g. 14:30:10.

> **i** Up to 1024 log files can be deleted per call. If you wish to delete more files, repeat the call.
>
> Under some circumstances it may not be possible to immediately delete a log file which has just been switched to become an offline log file after it has been switched if the file still has synchronous requests open.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	No log records available for the selection criteria.
83	32	CMD0221	Internal error.
34	64	FTR1034	Command only permissible for FT or FTAC administrator.
35	64	FTR1035	Command only permissible for FT administrator.
36	64	FTR1036	User not authorized for other user IDs.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see .

Example

The FT administrator wishes to delete all FT log records from the current log file, but not FTAC and ADM log records (if these are present):

```
/DELETE-FT-LOGGING-RECORDS  SELECT=*PARAMETERS(LOGGING-DATE=*TOMORROW, -
/                    RECORD-TYPE=*PARAMETERS(FTAC=*NONE,ADM=*NONE))
```

3.10 DELETE-FT-PROFILE
Delete admission profile

Note on usage

User group: FTAC user and FTAC administrator

A prerequisite for using this command is the use of openFT-AC.

Functional description

With the command DELETE-FT-PROFILE, you can delete all admission profiles of which
you are the owner. In your role as FTAC administrator, you can also delete the admission
profiles of any users. You should occasionally thin out the set of profiles to ensure that there
are no out-of-date admission profiles in your system that could potentially threaten the
security of your system.

With SHOW-FT-PROFILE (see), you can view the profiles and decide which ones
you no longer need.

Format

```
DELETE-FT-PROFILE

 NAME = *ALL / <alphanum-name 1..8> / *STD

,PASSWORD = *NONE / <c-string 1..8 with-low> / <x-string 1..16> / *SECRET

,SELECT-PARAMETER = *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
        TRANSFER-ADMISSION = *ALL / *NOT-SPECIFIED / <alphanum-name 8..32> /
                                     <c-string 8..32 with-low> / <x-string 15..64> / *SECRET
        ,OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>
```

Operands

NAME =
You can access the admission profile to be deleted using its name.

NAME = *ALL
Deletes all admission profiles. The FTAC user can delete all of his/her admission profiles
with this operand if he/she does not select a special profile with SELECT-PARAMETER.

The administrator can delete his/her own profiles with this entry. He/She can also use SELECT-PARAMETER to delete all the admission profiles of a particular user or all the admission profiles in the system.

NAME = <alphanum-name 1..8>
Deletes the admission profile with the specified name.

NAME = *STD
Deletes the standard admission profile for your own user ID.

PASSWORD =
You enter the FTAC password which permits you to use FTAC commands with your user ID.

PASSWORD = *NONE
No FTAC password is required.

PASSWORD = <c-string 1..8 with-low> / <x-string 1..16>
Specifies the corresponding FTAC password as required.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the password does not appear on the screen.

SELECT-PARAMETER =
You can enter selection criteria for the admission profiles to be deleted.
FTAC users can address the admission profiles to be deleted using their TRANSFER ADMISSION.
FTAC administrators can address the admission profiles to be deleted using their TRANSFER ADMISSION or OWNER IDENTIFICATION.

SELECT-PARAMETER = *OWN
Deletes your own admission profiles.

SELECT-PARAMETER = *PARAMETERS(...)
With this structure, you can enter individual selection criteria.

> **TRANSFER-ADMISSION =**
> You can use the transfer admission of an admission profile as a selection criterion for deletion.
>
> **TRANSFER-ADMISSION = *ALL**
> Deletes admission profiles irrespective of the TRANSFER-ADMISSION.
>
> **TRANSFER-ADMISSION = *NOT-SPECIFIED**
> Deletes admission profiles for which no transfer admission is specified.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
Deletes the admission profile which is accessed with this transfer admission. The alphanumeric entry is always saved in lower-case letters. The FTAC user can only enter the transfer admissions of his/her own admission profiles.

TRANSFER-ADMISSION = *SECRET
The system prompts you to enter the transfer admission. This does not appear on the screen.

OWNER-IDENTIFICATION =
Deletes a specific owner's admission profile. The FTAC user can only delete his/her own profiles. The FTAC administrator can also enter foreign user IDs.

OWNER-IDENTIFICATION = <u>*OWN</u>
Deletes your own admission profile.

OWNER-IDENTIFICATION = *ALL
Allows the FTAC administrator to delete admission profiles of all user IDs. The FTAC user is not permitted to use this entry.

OWNER-IDENTIFICATION = <alphanum-name 1..8>
The FTAC user can only specify his/her own user ID; the effect corresponds to *OWN. The FTAC administrator deletes the admission profiles under this user ID.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	64	FTC0053	No FT profile exists with these criteria.
0	64	FTC0150	The access password is missing.
0	64	FTC0153	The owner identification entered is not the user's own ID.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

3.11 DELETE-REMOTE-DIR
Delete remote directory

Note on usage

User group: FT user

Alias name: FTDELDIR

Functional description

With the DELETE-REMOTE-DIR command, you can delete an empty directory in an FT partner system.

Format

```
DELETE-REMOTE-DIR / FTDELDIR

 PARTNER = <text 1..200 with-low>

,DIRECTORY-NAME = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low>

,PASSWORD = *NONE / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
            *SECRET

,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                      *SECRET / *PARAMETERS(...)

   *PARAMETERS(...)
        USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
       ,ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
       ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19> /
                   *SECRET
```

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the partner system address. For more information on address specifications, see section "Specifying partner addresses" on page 48.

DIRECTORY-NAME =
Name of the directory in the remote FT partner system.

DIRECTORY-NAME = *NOT-SPECIFIED
The name of the directory is known to the remote system because it has already been completely defined in the addressed FTAC admission profile, for instance.

DIRECTORY-NAME = <filename 1..54> / <c-string 1..512 with-low>
Name of the directory in the remote system. This must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.
If the directory name is specified with an unattached Public Volume Set (BS2000 systems) then the request is rejected with error message FTR2155.

PASSWORD =
Password making it possible to access the directory in the remote system.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128>
Password allowing the user to delete the directory in the remote system. The password must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed on the screen.

TRANSFER-ADMISSION =
Contains specifications concerning the transfer admission in the remote system required to execute the file management request.

TRANSFER-ADMISSION = *NONE
The remote system does not require or does not know any user admissions.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
If FTAC functionality is used in the remote system then the transfer admission for the remote system can be defined via an admission profile. In this case, only the TRANSFER-ADMISSION defined in the admission profile is used here. In the case of alphanumeric input, uppercase is converted to lowercase internally.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this is not visible on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the user's identification, account number and password in the remote system. The operands in the brackets can also be used as positional operands without the associated keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
Identification of the user in the remote system. The identification must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
Account number of the user in the remote system. The account number must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

PASSWORD =
Password allowing the user to access the remote system.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <c-string 1..64 with-low> / <x-string 1..128> /
<alphanum-name 1..19>
Password allowing the user to access the remote system. The password must be specified in the syntax of the remote system, must adhere to the conventions used in the remote system and must be known there.

PASSWORD = *SECRET
The system prompts you to enter the password. Your input is not displayed on the screen.

Command return codes

For a list of the possible return codes, see the table as of page 451.

Example:

Delete the empty directory `Dir1` on the Unix system `partux` under the transfer admission `transadm`.

```
/DELETE-REMOTE-DIR partux,c'Dir1',,transadm
```

3.12 DELETE-REMOTE-FILE
Delete remote files

Note on usage

User group: FT user

Alias name: FTDEL

Functional description

The DELETE-REMOTE-FILE command can be used to delete a file in an FT partner system.

Format

```
DELETE-REMOTE-FILE / FTDEL

 PARTNER = <text 1..200 with-low>

,FILE = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low>

,PASSWORD = *NONE / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
           *SECRET

,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                      *SECRET / *PARAMETERS(...)

   *PARAMETERS(...)
      USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
      ,ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
      ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19> /
                  *SECRET
```

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the partner system address. For more information on address specifications, see section "Specifying partner addresses" on page 48.

FILE =
The name of the file in the remote FT partner system.

FILE = *NOT-SPECIFIED
The name of the file is known to the remote system because it has already been completely defined in the addressed FTAC admission profile, for instance.

FILE = <filename 1..54> / <c-string 1..512 with-low>
The name of the file in the remote system. The file name must be specified in the syntax of the remote system and must conform to the conventions of the remote system.
If the file name is specified with an unattached Public Volume Set (BS2000 systems), the request is rejected with the message FTR2155.

PASSWORD =
The password that provides access to the file in the remote system. If the file in the remote system is password-protected, the password required for deleting files in the remote system must be specified in these operands.

PASSWORD = *NONE
Access is possible without a password.

**PASSWORD = <integer -2147483648..2147483647> / <c-string 1..64 with-low> /
<x-string 1..128>**
The password that provides access to the file in the remote system. The password must be specified in the syntax of the remote system and conform to the conventions of the remote system.

PASSWORD = *SECRET
The system requests you to enter the password. However, the input is not displayed on the screen.

TRANSFER-ADMISSION =
Contains specifications on transfer admission to the remote system for file management requests.

TRANSFER-ADMISSION = *NONE
The remote system does not require or recognize user authorization.

TRANSFER-ADMISSION =
 <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
The transfer admission for the remote system can only be defined in an admission profile if the FTAC functionality is in use in the remote system. In this case, only the TRANSFER-ADMISSION defined in the FT profile is specified here. Uppercase alphanumeric input is converted internally to lowercase.

TRANSFER-ADMISSION = *SECRET
The system requests you to enter the transfer admission. However, the input is not displayed on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the ID, the account number, and the password of the user in the remote system. The operands in brackets can also be used as positional operands without their keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
User ID in the remote system. The ID must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

ACCOUNT = <u>*NONE</u> / <c-string 1..64 with-low> / <text 1..64>
Account number for the user in the remote system. The account number must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

PASSWORD =
The password that allows the user to access the remote system.

PASSWORD = <u>*NONE</u>
Access is possible without a password.

PASSWORD = <c-string 1..64 with-low> / <x-string 1..128> /
<alphanum-name 1..19>
The password that allows the user to access the remote system. The password must be specified in the syntax of the remote system, must conform to the conventions of the remote system, and be recognized by the remote system.

PASSWORD = *SECRET
The system requests you to enter the password. The input is not displayed on the screen.

Command return codes

For a list of the possible return codes, see the table as of .

Example

From your BS2000 system, you want to delete the file FILE which is stored in the partner system HUGO. FTAC is implemented in the remote system. The transfer admission DELETEACCESS must be specified to delete the file.

```
/DELETE-REMOTE-FILE PARTNER=HUGO,FILE-NAME=FILE, -
/                   TRANSFER-ADMISSION=DELETEACCESS
```

Short form:

```
/DEL-REM-FI HUGO,FILE,,DELETEACCESS
```

3.13 EXECUTE-REMOTE-CMD
Execute remote command

Note on usage

User group: FT user

Alias name: FTEXEC

Functional description

With the EXECUTE-REMOTE-CMD command, you can execute operating system commands in the remote system. In the local system, the resulting standard and standard error output can be sent to *SYSLST, *SYSOUT or to a file.

EXECUTE-REMOTE-CMD is only available for openFT partners and FTAM partners from Fujitsu Technology Solutions.

The exit code, i.e. the result of the command is output in the local system as subcode 2 of the EXECUTE-REMOTE-CMD command. If the received exit code exceeds the value range of the local exit code (BS2000 systems only have a 1-byte exit code whereas Windows systems have 4-byte exit codes), then the content of the lower-order byte is output.

If the command is not executed in the remote system then a transfer command exit code is output at STDOUT and EXECUTE-REMOTE-CMD terminates with exit code 255. The meaning of the exit code is system-specific.

In the case of output to *SYSLST, it is possible to specify character sets.

In the case of output to *SYSOUT, the character set specified in the local system is used.

Format

```
EXECUTE-REMOTE-CMD / FTEXEC

 PARTNER = <text 1..200 with-low>

,CMD= *NOT-SPECIFIED / <c-string 1..400 with-low> (...)
     │   CODED-CHARACTER-SET = *STD / <name 1..8>

,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                      *SECRET / *PARAMETERS(...)

   *PARAMETERS(...)
     │   USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
     │  ,ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
     │  ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19> /
     │             *SECRET

,OUTPUT = *SYSOUT / *SYSLST / *FILE(...)

   *FILE(...)
     │   FILE-NAME = <filename 1..54>
     │  ,CODED-CHARACTER-SET = *STD / <alphanum-name 1..8>

,DATA-TYPE = *CHARACTER / *BINARY

,DATA-ENCRYPTION = *NO / *YES
```

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the
partner system address. For more information on address specifications, see section
"Specifying partner addresses" on page 48.

CMD =
Command in the syntax of the remote FT partner system. A command sequence in the
remote system can only be processed if the remote system is using an FT product that
supports this function.

CMD = *NOT-SPECIFIED
No command string is passed. *NOT-SPECIFIED must be used if an admission profile is
specified in TRANSFER-ADMISSION for which a command sequence has been preset.

CMD = <c-string 1..400 with-low>
Command sequence. This command sequence may be a maximum of 400 characters in
length, with special characters being counted double (as two characters).

CODED-CHARACTER-SET =
Coding (character set) to be used when reading the data from the standard output of the remote command.

CODED-CHARACTER-SET = *STD
The character set defined as standard in the remote system is used.

CODED-CHARACTER-SET = <name 1..8>
The specified character set (CCS) is used. This must be known in the remote system. This specification must not be combined with DATA-TYPE=*BIN.

TRANSFER-ADMISSION =
Contains specifications about the transfer admission in the remote system.

TRANSFER-ADMISSION = *NONE
The remote system does not require or does not know any user admissions.

**TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> /
<x-string 15..64>**
If FTAC functionality is used in the remote system then the transfer admission for the remote system can be defined via an admission profile. In this case, only the TRANSFER-ADMISSION defined in the admission profile is used here. In the case of alphanumeric input, uppercase is converted to lowercase internally.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this is not visible on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the user's identification, account number and password in the remote system. The operands in the brackets can also be used as positional operands without the associated keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
Identification of the user in the remote system. The identification must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
Account number of the user in the remote system. The account number must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

PASSWORD =
Password allowing the user to access the remote system.

PASSWORD = *NONE
Access is possible without a password.

**PASSWORD = <c-string 1..64 with-low> / <x-string 1..128> /
<alphanum-name 1..19>**
Password allowing the user to access the remote system. The password must be
specified in the syntax of the remote system, must adhere to the conventions used in
the remote system and must be known there.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed
on the screen.

OUTPUT =
Specifies where the data generated by the command should be output following transfer in
the local system.
If the partner is a BS2000 system, output to SYSLST from the remote command is
redirected to the channel specified here. Output to SYSOUT is always shown locally on
SYSOUT.

OUTPUT = *SYSOUT
The data is written to *SYSOUT.

OUTPUT = *SYSLST
The data is written to *SYSLST.

OUTPUT = *FILE(...)
The data is written to a file. Please note that only the data which the command specified
with CMD outputs to *SYSLST (BS2000) or *STDOUT (on z/OS) or stdout (on a
Unix/Windows system) is written to file.

FILE-NAME = <filename 1..54>
Name of the output file.

CODED-CHARACTER-SET =
Coding (character set) that is to be used to write the data.

CODED-CHARACTER-SET = *STD
The character set predefined by XHCS is used.

CODED-CHARACTER-SET = <alphanum-name 1..8>
Name of the character set (CCS) that is to be used. This character set must be known
in the local system.

This specification must not be combined with DATA-TYPE=*BIN.

DATA-TYPE =
Transfer format for the data.

DATA-TYPE = *CHARACTER
The data is transferred as a text file.

DATA-TYPE = *BINARY
The data is transferred in binary form.

DATA-ENCRYPTION =
Specifies whether the data is to be transferred in encrypted form. The encryption of the request description data is not affected by this operand.

DATA-ENCRYPTION = *NO
The data is transferred unencrypted.

DATA-ENCRYPTION = *YES
The data is transferred encrypted.

Command return codes

(SC2)	SC1	Maincode	Meaning/Guaranteed messages
108	128	FTR0108	Request rejected. Remote system not accessible.
4	1	CMD0202	The selected parameters could not be specified simultaneously.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Inconsistent request data.
83	32	CMD0221	Internal error.
51	64	FTR2051	Encryption not possible for this request.
125	128	FTR2125	Request rejected. Transport connection lost.
169	64	FTR2169	Request rejected. Remote system: Transfer admission invalid. Transfer admission incorrect or missing FTAC admissions.
170	64	FTR2170	Request rejected. Remote system: Function not supported.
rc	64	FTR2207	The command returned an error in the remote system. The exit code of the remote command can be queried using subcode 2 (rc).

SC1/2 = subcode 1/2 in decimal format
For additional information refer to the section "Command return codes" on page 45.

Examples

1. The partner is a BS2000 system, output to the local file *ex.out*:

```
FTEXEC BS2PART,'/SH-FT-LOG ,3 ,OUTPUT=SYSLST',(userId,acct,'passw'),
OUTPUT=*FILE(ex.out),DATA-TYPE=*CHAR
```

2. The partner is a Unix system, output to *STDOUT:

```
FTEXEC PARTUX,'ftshwl -nb=10',uxtransadm,,*CHAR
```

3.14 EXECUTE-REMOTE-FTADM-CMD
Execute remote administration command

Note on usage

User group: Users configured as remote administrators on the remote administration server.

A remote administration server must be deployed in order to use this command.

Description of the function

The EXECUTE-REMOTE-FTADM-CMD command allows you to act as a remote adminis-trator and administer an openFT instance via a remote administration server. The remote administration server accepts the administration request, checks the authorization and forwards the request to the openFT instance that is to be administered.

In addition, as remote administrator, you can use EXECUTE-REMOTE-FTADM-CMD command to query the following information from the remote administration server (see):

● You can determine what openFT instances you are authorized to administer and what remote administration permissions you have for these instances.

● You can read the ADM traps that the openFT instances you are administering have sent to the remote administration server. For this to be possible, the remote administration server must also be configured as an ADM trap server for the administered openFT instances.

Format

EXECUTE-REMOTE-FTADM-CMD / FTADM

 PARTNER**-SER**VER = <text 1..200 with-low>

,TRANSFER**-ADM**ISSION = <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) / <x-string 15..64>(...)

,ROUTING**-INFO** = <text 1..200 with-low> / <c-string 1..200 with-low> / ***NONE**

,CMD = <c-string 1..1800 with-low>

,OUTPUT = ***SYSOUT** / ***SYSLST** / ***FILE(...)**

   *FILE(...)
     │   **FILE-NAME** = <filename 1..54>

,DATA-ENCRYPTION = ***NO** / ***YES**

Operands

PARTNER-SERVER= <text 1..200 with-low>
Specifies the partner name in the partner list or the address of the remote administration
server. The remote administration server must be addressed as an ADM partner. For
details, see the section "Specifying partner addresses" on page 48.

TRANSFER-ADMISSION =
Specifies the FTAC transfer admission for accessing the remote administration server.

ROUTING-INFO =
Contains the routing information required to forward the remote administration command
from the remote administration server to the required openFT instance.

ROUTING-INFO = <text 1..200 with-low> / <c-string 1..200 with-low>
Specifies the pathname of the openFT instance that you want to administer. The pathname
is configured on the remote administration server by the ADM administrator. You can get
the pathname by running the command ftshwc on the remote administration server, see the
manual "openFT (BS2000) - Installation and Operation".

ROUTING-INFO = *NONE
No routing information is required, i.e. the command is executed directly on the remote
administration server. Only specific commands, however, (ftshwc and ftshwatp) can be
executed directly on the remote administration server. You will find a brief description of
these commands on page 145.

CMD =
Remote administration server command in the syntax of the openFT instance to be
administered. A remote administration command can only be processed if the remote
system is using an FT product that supports this function (see the section "Remote
administration commands" on page 141).

CMD = <c-string 1..1800 with-low>
The remote administration command to be executed.

OUTPUT =
Specifies where the data generated by the command should be output following transfer in
the local system.
If the partner is a BS2000 system, output to SYSLST from the remote command is
redirected to the channel specified here. Output to SYSOUT is always shown locally on
SYSOUT.

OUTPUT = *SYSOUT
The data is written to *SYSOUT.

OUTPUT = *SYSLST
The data is written to *SYSLST.

OUTPUT = *FILE(...)
The data is written to a file. Please note that only the data which the command specified
with CMD outputs to *SYSLST (BS2000) or *STDOUT (on z/OS) or stdout (on a
Unix/Windows system) is written to file.

  FILE-**NAME = <filename 1..54>**
  Name of the output file.

DATA-ENCRYPTION =
Specifies whether the data is to be transferred in encrypted form. The encryption of the
request description data is not affected by this parameter.

DATA-ENCRYPTION = *NO
The data is transferred unencrypted.

DATA-ENCRYPTION = *YES
The data is transferred encrypted.

Command return codes

(SC2)	SC1	Maincode	Meaning/Guaranteed messages
108	128	FTR0108	Request rejected. Remote system not accessible.
4	1	CMD0202	The selected parameters could not be specified simultaneously.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Inconsistent request data.
83	32	CMD0221	Internal error.
51	64	FTR2051	Encryption not possible for this request.
52	64	FTR2052	Request rejected by central remote administration server.
54	64	FTR2054	Command invalid.
125	128	FTR2125	Request rejected. Transport connection lost.
169	64	FTR2169	Request rejected. Remote system: Transfer admission invalid. Transfer admission incorrect or missing FTAC admissions.
170	64	FTR2170	Request rejected. Remote system: Function not supported.
rc	64	FTR2207	The command returned an error in the remote system. The exit code of the remote command can be queried using subcode 2 (rc).

SC1/2 = Subcode 1/2 in decimal notation
For additional information refer to the section "Command return codes" on page 45.

3.14.1 Remote administration commands

The following tables list the possible remote administration commands on the individual openFT platforms and on the remote administration server. The Permission column shows the permission required to execute the command as a remote administration command. The following permissions are possible:

FTOP   Read FT access (FT operator)

FT   Read and modify FT access (FT administrator)

FTAC   Read and modify FTAC access (FTAC administrator)

If a number of permissions are specified, e.g. FT | FTAC, it is sufficient if one of these permissions applies, i.e. FT or FTAC.

In the case of a remote administration request, these permissions are compared with the permissions you have on the relevant instance as a remote administrator. The ADM administrator defines the permissions in the configuration data of the remote administration server. If your permissions are not sufficient, the request is rejected and an appropriate message is issued.

Commands for openFT partners in BS2000

The commands have to be prefixed with "/" (slash) before the command name.

BS2000 command	Short forms and aliases	Permission
ADD-FT-PARTNER	ADD-FT-PART FTADDPTN	FT
CANCEL-FILE-TRANSFER	CAN-FILE-T, CNFT NCANCEL, NCAN FTCANREQ	FT
CREATE-FT-KEY-SET	CRE-FT-KEY FTCREKEY	FT
CREATE-FT-PROFILE	CRE-FT-PROF	FTAC
DELETE-FT-KEY-SET	DEL-FT-KEY FTDELKEY	FT
DELETE-FT-LOGGING-RECORDS	DEL-FT-LOG-REC FTDELLOG	FT | FTAC
DELETE-FT-PROFILE	DEL-FT-PROF	FTAC
IMPORT-FT-KEY [1]	IMP-FT-KEY FTIMPKEY	FT
MODIFY-FILE-TRANSFER	MOD-FILE-T FTMODREQ	FT

BS2000 command	Short forms and aliases	Permission
MODIFY-FT-ADMISSION-SET	MOD-FT-ADM	FTAC
MODIFY-FT-KEY [1]	MOD-FT-KEY FTMODKEY	FT
MODIFY-FT-OPTIONS	MOD-FT-OPT FTMODOPT	FT
MODIFY-FT-PARTNER	MOD-FT-PART FTMODPTN	FT
MODIFY-FT-PROFILE	MOD-FT-PROF	FTAC
REMOVE-FT-PARTNER	REM-FT-PART FTREMPTN	FT
SHOW-FILE-TRANSFER	SHOW-FILE-T, SHFT NSTATUS, NSTAT FTSHWREQ	FT | FTOP
SHOW-FT-ADMISSION-SET	SHOW-FT-ADM-S	FTAC
SHOW-FT-DIAGNOSTIC	SHOW-FT-DIAG FTSHWD	FT | FTOP | FTAC
SHOW-FT-INSTANCE	SHOW-FT-INST	FT | FTOP
SHOW-FT-KEY [1]	FTSHWKEY	FT | FTOP
SHOW-FT-LOGGING-RECORDS	SHOW-FT-LOG-REC FTSHWLOG	FT | FTOP | FTAC
SHOW-FT-MONITOR-VALUES [2]	SHOW-FT-MON-VAL FTSHWMON	FT | FTOP
SHOW-FT-OPTIONS	SHOW-FT-OPT FTSHWOPT	FT | FTOP
SHOW-FT-PARTNERS	SHOW-FT-PART FTSHWPTN	FT | FTOP
SHOW-FT-PROFILE	SHOW-FT-PROF	FTAC
START-FTTRACE	FTTRACE	FT | FTOP
STOP-FT	FTSTOP	FT
UPDATE-FT-PUBLIC-KEYS	UPD-FT-PUB-KEY FTUPDKEY	FT

[1] As of V12.0

[2] As of V11.0

Commands for openFT partners in z/OS

z/OS command	Alias	Permission
FTADDPTN		FT
FTCANREQ	NCANCEL, NCAN	FT
FTCREKEY		FT
FTCREPRF		FTAC
FTDELKEY		FT
FTDELLOG		FT | FTAC
FTDELPRF		FTAC
FTHELP		FT | FTOP | FTAC
FTIMPKEY [1]		FT
FTINFO		FT | FTOP | FTAC
FTMODADS		FTAC
FTMODKEY [1]		FT
FTMODOPT		FT
FTMODPRF		FTAC
FTMODPTN		FT
FTMODREQ		FT
FTREMPTN		FT
FTSHWADS		FTAC
FTSHWD		FT | FTOP | FTAC
FTSHWINS		FT | FTOP
FTSHWKEY [1]		FT | FTOP
FTSHWLOG		FT | FTOP | FTAC
FTSHWMON [2]		FT | FTOP
FTSHWNET		FT | FTOP
FTSHWOPT		FT | FTOP
FTSHWPRF		FTAC
FTSHWPTN		FT | FTOP
FTSHWREQ	NSTATUS, NSTAT	FT | FTOP
FTSTOP		FT
FTTRACE		FT | FTOP
FTUPDKEY		FT

[1] As of V12.0

[2] As of V11.0

Commands for openFT partners in Unix and Windows systems

Command	Comment	Permission
fta	up to V10.0	FT
ftaddlic	Windows systems as of V12.0 only	FT
ftaddptn		FT
ftc	up to V10.0	FT
ftcanr		FT
ftcans	openFT-Script command	FT
ftcrek		FT
ftcrep		FTAC
ftdelk		FT
ftdell		FT	FTAC
ftdelp		FTAC
ftdels	openFT-Script command	FT
fthelp		FT	FTOP	FTAC
fti	up to V10.0	FT	FTOP
ftimpk	as of V12.0	FT
ftinfo		FT	FTOP	FTAC
ftmoda		FTAC
ftmodk	as of V12.0	FT
ftmodo		FT
ftmodp		FTAC
ftmodptn		FT
ftmodr		FT
ftremlic	Windows systems as of V12.0 only	FT
ftping		FT	FTOP
ftremptn		FT
ftrs	up to V10.0	FT
ftsetpwd	Windows systems only	FT	FTOP
ftshwa		FTAC
ftshwact	openFT-Script command	FT	FTOP
ftshwd		FT	FTOP	FTAC
ftshwi		FT	FTOP
ftshwk	as of V12.0	FT	FTOP

Command	Comment	Permission
ftshwl		FT	FTOP	FTAC
ftshwlic	Windows systems as of V12.0 only	FT
ftshwm	as of V11.0	FT	FTOP
ftshwo		FT	FTOP
ftshwp		FTAC
ftshwptn		FT	FTOP
ftshwr		FT	FTOP
ftshws	openFT-Script command	FT	FTOP
ftstop		FT
fttrace		FT	FTOP
ftupdk		FT

Commands on the remote administration server

EXECUTE-REMOTE-FTADM-CMD allows you to execute the commands *ftshwc* and
ftshwatp on the remote administration server. To do this, you must specify ROUTING-
INFO=*NONE:

Command	Comment	Permission
ftshwc	Gets the instances that the remote administrator is permitted to administer.	FT	FTOP	FTAC (I.e. all instances are displayed for which the remote administrator has this permission.)
ftshwatp	Outputs the ADM traps of the openFT instances that can be administered.	FT	FTOP (I.e. ADM traps of all instances are displayed for which the remote administrator has this permission.)

These commands also provide further options. For details, see, for instance, the manual
"openFT (Unix and Windows systems) - Installation and Operation"".

3.15 EXPORT-FTAC-ENVIRONMENT
Export FTAC admission profiles and sets

Note on usage

User group: FTAC administrator

openFT-AC must be installed to use this command.

Functional description

The FTAC administrator can easily "move" admission profiles and sets when a user migrates from one computer to another. The commands EXPORT-FTAC-ENVIRONMENT and IMPORT-FTAC-ENVIRONMENT are intended for this purpose.

This commands are not available to FTAC users!

The commands only affect the currently set openFT instance. If necessary, the FTAC administrator must create them under several openFT instances.

Export files cannot be extended. They must be deleted and created again if necessary.

Format

```
EXPORT-FTAC-ENVIRONMENT

 TO-FILE = <filename 1..54>

,USER-IDENTIFICATION = *ALL / list-poss(100): <name 1..8>

,SELECT-PARAMETER = *ALL / *PARAMETERS(...)

   *PARAMETERS(...)
        PROFILE-NAME = *ALL / *NONE / list-poss(100): <alphanum-name 1..8>
       ,ADMISSION-SET = *YES / *NO
```

Operands

TO-FILE = <filename 1..54>
Name of the file in which the admission profiles and sets are output.

USER-IDENTIFICATION =
The user ID whose admission profiles and sets are to be output on file.

USER-IDENTIFICATION = *ALL
The admission profiles and sets of all user IDs are to be output on file.

USER-IDENTIFICATION = list-poss(100): <name 1..8>
The admission profiles and sets of the user IDs specified are to be output on file.

SELECT-PARAMETER =
Determines whether only admission profiles, only admission sets, or both are to be output on file. For admission profiles, you can select those which are to be output.

SELECT-PARAMETER = *ALL
All admission profiles and sets associated with the user ID specified under USER-IDENTIFICATION are to be output on file.

SELECT-PARAMETER = *PARAMETERS(...)
Specifies which of the admission profiles and sets associated with the USER-IDENTIFICATION are to be output on file.

  PROFILE-NAME = *ALL
  All admission profiles are output on file.

  PROFILE-NAME = *NONE
  No admission profiles are exported.

  PROFILE-NAME = list-poss(100): <alphanum-name 1..8>
  Only the profiles with the specified names (maximum 100) are output on file.

  ADMISSION-SET = *YES
  All admission sets are output on file.

  ADMISSION-SET = *NO
  No admission sets are exported.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	FTC0054	No information matches the specified criteria.
0	64	FTC0102	File already exists.
0	64	FTC0104	Access to the user ID denied or the user ID does not exist.
0	64	FTC0105	Access to the file denied.
0	64	FTC0106	Access to the temporary file denied.
0	64	FTC0156	The command may only be executed by the FTAC adminis-trator.
0	64	FTC0180	The USER-ID entered occurs several times.
0	64	FTC0181	The FT profile name entered occurs several time.
0	64	FTC0206	Partially qualified file name too long.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

3.16 GET-REMOTE-FILES
Fetch multiple files from a remote system

Note on usage

User group: FT user

Alias name: FTMGET

Functional description

GET-REMOTE-FILES allows you to fetch synchronously or asynchronously multiple files from a remote partner system. You can specify the remote files using wildcards. To do this, GET-REMOTE-FILES uses the TRANSFER-FILE (asynchronous) or the TRANSFER-FILE-SYNCHRONOUS (synchronous) command internally. The transfer mode (synchronous or asynchronous) is controlled via the TRANSFER-MODE operand.

Format

(part 1 of 6)

```
GET-REMOTE-FILES / FTMGET
```

```
PARTNER = <text 1..200 with-low>
,LOCAL-PARAMETER = *PARAMETERS (...)

   *PARAMETERS (...)
      FILE-NAME = *SAME / <partial-filename_2..53> / <c-string_1..512_with-low> /
                  *LIBRARY-ELEMENT(...) / *POSIX(NAME= *SAME / <posix-pathname 1..510>)
         *LIBRARY-ELEMENT(...)
            LIBRARY = *SAME / <filename 1..54>
            ,ELEMENT = *SAME / <partial-filename 2..64>(...) / <c-string 1..64>(...)
               <partial-filename 2..64>(...) / <c-string 1..64>
                  VERSION = *STD / <text 1..24>
            ,TYPE = *SAME / <alphanum-name 1..8>
      ,PASSWORD =*NONE / <c-string 1..4> / <x-string 1..8> /
                  <integer -2147483648..2147483647> / *SECRET
      ,TRANSFER-ADMISSION = *SAME / <alphanum-name 8..32> / <x-string 15..64> /
                            <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)
         *PARAMETERS(...)
            USER-IDENTIFICATION = <name 1..8>
            ,ACCOUNT = *NONE / <alphanum-name 1..8>
            ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> /
               <x-string 1..16> / *SECRET
      ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

```
,REMOTE-PARAMETER = *BS2000(...) / *MSP(...) / *ANY(...)

   *BS2000(...)
        FILE-NAME = <file name with wildcard 1..54>  / *LIBRARY-ELEMENT(...) /
                       *POSIX(NAME=<posix-pathname 1..510>)
           *LIBRARY-ELEMENT(...)
                LIBRARY = <filename 1..54>
                ,ELEMENT = <filename 1..64 without-gen-vers with wildcard>(...) /
                           <composed-name 1..64 with-underscore with wildcards>(...)
                  <filename>(...) / <composed-name >(...)
                     | ,VERSION = *STD / <text 1..24>
                ,TYPE = <alphanum-name 1..8>
           ,PASSWORD = *SAME / *NONE / <c-string 1..4> / <x-string 1..8> /
                        <integer -2147483648..2147483647> / *SECRET
           ,TRANSFER-ADMISSION = *SAME / <alphanum-name 8..32> <x-string 15..64> /
                                  <c-string 8..32 with-low> / *SECRET/ *PARAMETERS(...)
              *PARAMETERS(...)
                   USER-IDENTIFICATION = <name 1..8>
                   ,ACCOUNT = *NONE / <alphanum-name 1..8>
                   ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
           ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
              *PARAMETERS(...)
                   USER-IDENTIFICATION = <name 1..8>
                   ,ACCOUNT = *NONE / <alphanum-name 1..8>
                   ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
           ,SUCCESS-PROCESSING = *NONE / <c-string 1..1000 with-low>
           ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
           ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
           ,STORAGE-ACCOUNT = *NONE / <c-string 1..40 with-low> / <text 1..40>
           ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)
              *PARAMETERS(...)
                   READ-FILE = *NO / *YES
                   ,INSERT-DATA-UNIT = *NO / *YES
                   ,REPLACE-FILE = *NO / *YES
                   ,EXTEND-FILE = *NO / *YES
                   ,ERASE-DATA-UNIT = *NO / *YES
                   ,READ-ATTRIBUTES = *NO / *YES
                   ,CHANGE-ATTRIBUTES = *NO / *YES
                   ,DELETE-FILE = *NO / *YES
           ,LEGAL-QUALIFICATION = *NONE / <c-string 1..80 with-low> / <text 1..80>
           ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

(part 3 of 6)

```
*MSP(...)
     FILE-NAME = <text 1..80>
    ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
    ,TRANSFER-ADMISSION = <alphanum-name 8..32>/<x-string 15..64>/<c-string 8..32 with-low> /
                          / *SECRET / *PARAMETERS(...)
        *PARAMETERS(...)
           USER-IDENTIFICATION = <name 1..7>
          ,ACCOUNT = *NONE / <text 1..43>
          ,PASSWORD = *NONE / <alphanum-name 1..8>/ *SECRET
    ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
        *PARAMETERS(...)
            USER-IDENTIFICATION = <name 1..7>
          ,ACCOUNT = *NONE / <text 1..43>
          ,PASSWORD = *NONE / <alphanum-name 1..8>/ *SECRET
    ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
    ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
    ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

```
*ANY(...)
     FILE-NAME = <c-string 1..512 with-low> / *LIBRARY-ELEMENT(...)
        *LIBRARY-ELEMENT(...)
           │  LIBRARY = <c-string 1..63 with-low>
           │ ,ELEMENT = <c-string 1..64 with-low>(...)
           │    <c-string 1..64 with-low>(...)
           │       │  VERSION = *NONE / *STD / <c-string 1..24 with-low>
           │ ,TYPE =<c-string 1..8 with-low>
    ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / *SECRET
    ,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <x-string 15..64> /
                                 <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)
        *PARAMETERS(...)
           │  USER-IDENTIFICATION = <c-string 1..67 with-low>
           │ ,ACCOUNT = *NONE / <c-string 1..64 with-low>
           │ ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
    ,PROCESSING-ADMISSION = *SAME / *NONE / *PARAMETERS(...)
        *PARAMETERS(...)
           │  USER-IDENTIFICATION = <c-string 1..67 with-low>
           │ ,ACCOUNT = *NONE / <c-string 1..64 with-low>
           │ ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
    ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
    ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
    ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
    ,STORAGE-ACCOUNT = *NONE / <c-string 1..40 with-low> / <text 1..40>
    ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)
        *PARAMETERS(...)
           │  READ-FILE = *NO / *YES
           │ ,INSERT-DATA-UNIT = *NO / *YES
           │ ,REPLACE-FILE = *NO / *YES
           │ ,EXTEND-FILE = *NO / *YES
           │ ,ERASE-DATA-UNIT = *NO / *YES
           │ ,READ-ATTRIBUTES = *NO / *YES
           │ ,CHANGE-ATTRIBUTES = *NO / *YES
           │ ,DELETE-FILE = *NO / *YES
    ,LEGAL-QUALIFICATION = *NONE / <c-string 1..80 with-low> / <text 1..80>
    ,CREATE-PASSWORD = *NONE / <c-string 1..64 with-low> /  <x-string 1..128> / *SECRET
    ,CODED-CHARACTER-SET = *STD / <c-string 1..8 with-low>
```

```
,TRANSFER- MODE = *SYNCHRONOUS / *ASYNCHRONOUS(...)

   *ASYNCHRONOUS (…)
        ,LOCAL-PARAMETER = *PARAMETERS (...)
           *PARAMETERS (...)
                ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
                   *PARAMETERS(...)
                        USER-IDENTIFICATION = <name 1..8>
                        ,ACCOUNT = *NONE / <alphanum-name 1..8>
                        ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> /
                                    <x-string 1..16> / *SECRET
                ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
                ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
                ,LISTING = *NONE / *SYSLST / *LISTFILE / *PARAMETERS(...)
                   *PARAMETERS(...)
                        OUTPUT = *SYSLST / *LISTFILE
                        ,CONDITION = *ANY / *ON-FAILURE-ONLY
        ,PRIORITY = *NORMAL / *HIGH / *LOW
        ,START = *SOON / *EARLIEST(...)
           *EARLIEST(...)
                DATE = *TODAY / *TOMORROW / <date 8..10>
                ,TIME = 00:00 / <time 1..8>
        ,CANCEL = *NO / *AT(...)
           *AT(...)
                DATE = *TODAY / *TOMORROW / <date 8..10>
                ,TIME = 23:59 / <time 1..8>
```

(part 6 of 6)

```
,CASE-SENSITIVE = *BY-PARTNER / *NO / *YES

,COMPRESS = *NONE / *BYTE-REPETITION / *ZIP

,WRITE-MODE = *REPLACE-FILE / *NEW-FILE / *EXTEND-FILE

,DATA-TYPE = *NOT-SPECIFIED / *CHARACTER (...) / *BINARY (...) / *USER

   *CHARACTER(...)
      │ TRANSPARENT = *NO / *YES

   *BINARY(...)
      │ TRANSPARENT = *NO / *YES

,DATA-ENCRYPTION = *NO / *YES / *ONLY-DATA-INTEGRITY

,RECORD-SIZE = *NOT-SPECIFIED /<integer 1..32767>

,RECORD-FORMAT = *STD / *FIXED / *VARIABLE / *UNDEFINED

,TARGET-FILE-FORMAT = *SAME / *BLOCK-ORIENTED / *SEQUENTIAL(...)

   *SEQUENTIAL(…)
      │ RECORD-FORMAT = *SAME / *UNDEFINED

,PROTECTION = *STD / *SAME

,LAST-CHANGE-DATE = *STD / *SAME
```

Operands

Only the differences compared with the TRANSFER-FILE-SYNCHRONOUS command (see page 442) and the TRANSFER-FILE command (see page 391) are described below.

LOCAL-PARAMETER = *PARAMETERS(...)

FILE-NAME =
Determines the names of the receive files in the local system.

FILE-NAME = *SAME
The file names are taken over unchanged.

**FILE-NAME = <partial-filename_2..53> / <c-string_1..512_with-low> /
POSIX(NAME=<posix-pathname 1..510>)**
The file names will be prefixed.
This prefix must end with a dot (.) in case of format partial-filename or a percent (%) character in case of format c-string or format POSIX(NAME=...). If the prefix ends with a dot then the last part of the name of the remote file is attached. If the prefix ends with a percent (%) then the % is replaced by the last part of the remote file.

The last part of the name starts after the last slash (/) or backslash (\) or a corresponding character in the remote system.

The prefix can also contain the absolute or relative path of a directory that exists on the local computer. If the specified directory does not exist, GET-REMOTE-FILES is not executed.

Please note that the resulting file name must comply with the rules of the local system, otherwise the files will not be transferred.

FILE-NAME = *LIBRARY-ELEMENT(...)
specifies that library members are to be transferred.
The operands in these parentheses can be used as positional operands without their keywords.

LIBRARY =
Name of the library in the local system.

LIBRARY = *SAME
The name is taken over unchanged.

LIBRARY = <filename 1..54>
Specifies the name of the library in the local system.

ELEMENT =
Names of the library elements in the local system.

ELEMENT = *SAME
The names are taken over unchanged.

ELEMENT = <partial-filename 2..64>(...) / <c-string 1..64>(...)
The names will be prefixed. This prefix must end with a dot (.) in case of format partial-filename or a percent (%) character in case of format c-string. If the prefix ends with a dot then the last part of the name of the remote file is attached. If the prefix ends with a percent (%) then the % is replaced by the last part of the name of the remote file.

VERSION =
Version of the elements in the local system.

VERSION = *STD
Highest version of the members.

VERSION = <text 1..24>
Version of the members.

TYPE =
Type of the members in the local system.

TYPE = *SAME
The type is taken over unchanged.

TYPE = <name 1..8>
Type of the elements.

REMOTE-PARAMETER = <u>*PARAMETERS</u>(...)

FILE-NAME = <file name with wildcard ...>/ <c-string with low> /
*POSIX(NAME = <posix-pathname 1..510>) /
LIBRARY-ELEMENT(ELEMENT=filename 1..64 without-gen-vers with wildcard)
Specifies which files or library elements are to be fetched from the remote system.

You can only use wildcard characters in the final part of the name following the last slash (/ with Unix systems) or backslash (\ with Windows systems). A BS2000 partner is regarded as a POSIX system if the specified file name is a POSIX pathname, i.e. starts with / or ./.

The following characters can be used to define a wildcard pattern:

*   as a wildcard for any string (including an empty string).

For BS2000 partners, the following applies: If the string to be searched starts with a * (asterisk), you must double the * (i.e. **) if the searched string is followed by other characters and if you do not specify any other wildcard.

?   as a wildcard for any single character.

[chars]

as a wildcard for a single character from the set specified by chars. In chars, you can list individual characters or specify one or more character ranges in the form a-z. This selects all characters a through z (inclusive).

Example: [aeiX-Z] stands for one of the characters a e i X Y Z.

\x   x as a wildcard for one only of the following characters: * ? [ ] \

The backslash is used to cancel the special meaning of these characters in the specified wildcard pattern.

TRANSFER- MODE =
Specifies the transfer mode.

TRANSFER- MODE = <u>*SYNCHRONOUS</u>
The files are fetched synchronously. To do this openFT starts internally one TRANSFER-FILE-SYNCHRONOUS request for each file.

TRANSFER- MODE = *ASYNCHRONOUS(…)
The files are fetched asynchronously. To do this openFT starts internally one TRANSFER-FILE request for each file. The further parameters (e.g. for follow-up processing) then apply for all transfer requests.

CASE-SENSITIVE =
Determines whether the search for the files is case sensitive or not.

CASE-SENSITIVE = *BY-PARTNER

The behavior is determined by the partner system:

– For Unix and POSIX partners, upper case and lower case is considered.

– For other partner systems, upper case and lower case is not considered.

CASE-SENSITIVE = *NO

Upper case and lower case is not considered when searching for the files.

CASE-SENSITIVE = *YES

Upper case and lower case is considered when searching for the files.

> **i** If you specify REMOTE-PARAMETER=*ANY without specifying a transfer
> admission with file name prefix in TRANSFER-ADMISSION, the following applies
> for BS2000 and z/OS partners:
>
> – BS2000 partners: GET-REMOTE-FILES will fetch files or library elements only
>   if file names are given in lower case in FILE-NAME=.
>
> – z/OS partners: GET-REMOTE-FILES will fetch files only if file names are given
>   in upper case in FILE-NAME=.

Result messages and return codes

On success, GET-REMOTE-FILES issues one of the following messages:

`FTR0505 Requests carried out; <n> files were transferred` (synchronous transfer)

`FTR0511 Requests accepted; <n> file transfers initiated` (asynchronous transfer)

Where <n> stands for the number of files transferred synchronously or the number of
asynchronous file transfer requests initiated. If no files that match the specified pattern were
found on the remote system, the following message appears instead:

`FTR2174 No files corresponding to specified pattern found`

Other messages:

Output (SYSOUT)	Meaning
FTR0707 Invalid parameter	The syntax of the local filename or library or element or element type is invalid
FTR0865 Not all files transferred successfully	At least one source file could not be transferred to the local system.
FTR2047 Request rejected by local FTAC	Invalid values in LOCAL-PARAMETER=...
FTR2155 File / directory not found	The path for the filename given in REMOTE-PARAMETER=... is incorrect
FTR2169 Transfer admission invalid	Request rejected. Remote system: Transfer admission invalid, i.e. transfer admission incorrect or insufficient FTAC authorizations.

Example

Fetch synchronously all files from the BS2000 system BS2 which start with CFG and store them in the local system with prefix SAV.

```
/GET-REMOTE-FILES BS2,(SAV.),(C'CFG*',,'TRANSADM')
```

The same command asynchronously and start of transfer is tomorrow:

```
/GET-REMOTE-FILES BS2,(SAV.),(C'CFG*',,'TRANSADM'),TRANS-MODE=*A(START=(*TOM))
```

3.17 IMPORT-FTAC-ENVIRONMENT
Import FTAC admission profiles and sets

Note on usage

User group: FTAC administrator

openFT-AC must be installed to use this command.

Functional description

The FTAC administrator can easily "move" admission profiles and sets when a user migrates from one computer to another. The commands EXPORT-FTAC-ENVIRONMENT and IMPORT-FTAC-ENVIRONMENT are intended for this purpose. These commands cannot be used by the FTAC user.
If the FTAC administrator does not possess TSOS privileges then all imported admission profiles will be locked.
This can be seen in the SHOW-FT-PROFILE command in the specification *LOCKED (by_import). Privileged profiles lose their privileged status when imported. They will also be designated as private.

These restrictions are not valid by default, if the FTAC administrator also has the TSOS privilege. In this case, profiles are imported unlocked and privileges are retained. If that is not desirable due to security concerns, the FTAC administrator can force locking by speci-fying the SECURITY=HIGH parameter.

An admissions profile is otherwise only imported if its name does not exist on the desti-nation ID.

If the target computer already has an admission profile with the same transfer admission and the admission profile is designated as private, both transfer admissions are locked. The transfer admission of the old profile is set to *DUPLICATED and the transfer admission of the imported profile is set to *NOT-SPECIFIED. If the already existing admission profile is designated as "public", then it is not locked.

Format

IMPORT-**FTAC-ENV**IRONMENT

 FROM-FILE = <filename 1..54>

,**USER-ID**ENTIFICATION = ***ALL** / list-poss(100): <name 1..8>

,**SEL**ECT-PARAMETER = ***ALL** / ***PAR**AMETERS(...)

   *PARAMETERS(...)
      │   **PROF**ILE-**NAME** = ***ALL** / ***NONE** / list-poss(100): <alphanum-name 1..8>
      │ ,**AD**MISSION-**SET** = ***YES** / ***NO**

,**SECURITY** = ***STD** / ***HIGH**

Operands

FROM-FILE = <filename 1..54>
Name of the file from which the admission profiles and sets are to be imported. Temporary
files may not be used. If the file contains invalid data or if there is an error while accessing
the file, the command is rejected with the message FTC0103.

USER-IDENTIFICATION =
User ID whose admission profiles and sets are to be transferred from an export file.

USER-IDENTIFICATION = *ALL
The admission profiles and sets of all users are to be transferred.

USER-IDENTIFICATION = list-poss(100): <name 1..8>
The admission profiles and sets of the users specified (maximum 100) are to be transferred.

SELECT-PARAMETER =
Determines whether only admission profiles, only admission sets, or both are to be
imported. For admission profiles, you can specify which are to be imported.

SELECT-PARAMETER = *ALL
All the admission profiles and sets associated with the user ID specified under USER-
IDENTIFICATION are to be imported.

SELECT-PARAMETER = *PARAMETERS(...)
Specifies which of the admission profiles and sets associated with the USER-
IDENTIFICATION are to be imported.

  PROFILE-NAME = *ALL
  All admission profiles are to be imported.

  PROFILE-NAME = *NONE
  No admission profiles are to be imported.

PROFILE-NAME = list-poss(100): <alphanum-name 1..8>
Only the profiles specified are to be imported (maximum 100).

ADMISSION-SET = *YES
All admission sets are to be imported.

ADMISSION-SET = *NO
No admission sets are to be imported.

SECURITY =
An FTAC administrator with TSOS privilege can use this operand to control security.

SECURITY = *STD
For FTAC administrators with TSOS privilege:
The profile attributes are not altered when imported.

For FTAC administrators not having the TSOS privilege:
This operand works like the specification *HIGH, i.e. the admissions profiles are locked
(locked by import) and retain the attributes USAGE=PRIVATE and PRIVILEGED = NO.

SECURITY = *HIGH
The admissions profiles are locked (locked by import) and retain the attributes
USAGE=PRIVATE and PRIVILEGED=NO.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	64	FTC0052	The information output was interrupted.
0	0	FTC0054	No information matches the specified criteria.
0	0	FTC0056	The transfer admission is locked.
0	64	FTC0100	An FT profile with the specified name already exists.
0	64	FTC0101	An FT profile with the specified transfer admission already exists.
0	64	FTC0103	The file is not an FTAC export file or access is denied.
0	64	FTC0104	Access to the user ID denied or the ID does not exist.
0	64	FTC0105	Access to the file denied.
0	64	FTC0106	Access to the temporary file denied.
0	64	FTC0156	The command can only be executed by the FTAC administrator.
0	64	FTC0177	The filename entered is unknown.
0	64	FTC0180	The USER-ID entered occurs several times.
0	64	FTC0181	The FT profile name entered occurs several times.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

3.18 IMPORT-FT-KEY
Import key

Note on usage

User group: FT administrator

Alias name: FTIMPKEY

Functional description

You can use the IMPORT-FT-KEY command as FT administrator to import a partner's public key or an RSA key pair.

Importing a public key

If you want to import the public key of a partner, the key must have been generated by the partner's openFT instance and the partner must have been entered in the partner list. The key is then stored in the SYSKEY file under the name of the partner. Please ensure that the partner's instance identification is entered correctly in the partner list.

Importing an RSA key pair

You can import an RSA key pair consisting of a public and a private key. The key pair can be used for data encryption and authentication like a key pair generated by openFT.

The key pair must be generated using an external tool. It must have the length 768, 1024 or 2048 bits and be present in PEM format (openSSL native PEM or PKCS#8) or in PKCS#12 V1.0 format.

If the key pair demands a password phrase (password), then this must be specified during the import.

During import, the same applies as for key pairs generated with CREATE-FT-KEY-SET:

● The key pair contains a unique reference number.

● The public key is stored under the name
   SYSPKF.R<key reference>.L<key length>

For details, see .

Format

```
IMPORT-FT-KEY / FTIMPKEY

PRIVATE-KEY = *NONE / *PARAMETERS(...)

   *PARAMETERS(...)
      │   FILE-NAME = <filename 1..54>
      │   ,PASSWORD = *NONE / *SECRET / <c-string 1..64 with-low>
      │   ,TYPE = *PEM / *P12
,PUBLIC-KEY = *NONE / *PARAMETERS(...)

   *PARAMETERS(...)
      │   FILE-NAME = <filename 1..54>
```

Operands

PRIVATE-KEY =
Specifies whether a private key is to be imported.

PRIVATE-KEY = *NONE
No private key is imported.

PRIVATE-KEY = *PARAMETERS(...)
Defines which private key is imported.

   FILE-NAME = <filename 1..54>
   Name of the file which contains the private key.

   PASSWORD =
   Password with which the private key is protected.

   PASSWORD = *NONE
   The private key is not protected by a password.

   PASSWORD = *SECRET
   You are requested by the system to enter the password. However, your entry is not
   displayed on the screen.

   PASSWORD = <c-string 1..64 with-low>
   Password with which the private key is protected.

   TYPE =
   Type of key file whose key is to be imported.

   TYPE = *PEM
   The key file is available in PEM format.

TYPE = *P12
The key file contains a certificate and a private key in accordance with the standard PKCS#12 V1.0. The file is searched for a private key and any non-supported elements (e.g. certificates, CRLs) are ignored during the import. The first private key that is found in the file is imported. Any others are ignored.
If the certificate is protected by a signature or hash, then openFT does not perform a validity check. The validity of the file must be verified using other means.

PUBLIC-KEY =
Specifies whether a public key is to be imported.

PUBLIC-KEY = *NONE
No public key is imported.

PUBLIC-KEY = *PARAMETERS(...)
Defines which public key is imported.

> **FILE-NAME = <filename 1..54>**
> Name of the file which contains the public key.

> **i** You must specify a file in at least one of the operands PRIVATE-KEY or PUBLIC-KEY.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	Key pair has been imported.
83	32	CMD0221	Internal error.
29	64	FTR1029	Maximum number of key pairs exceeded.
35	64	FTR1035	Command only permissible for FT administrator.
45	64	FTR1045	Partner name not found in partner list.
69	64	FTR1065	Key file not found.
66	128	FTR1066	Too little storage space for the file.
69	64	FTR1069	Error while accessing the key file.
83	64	FTR1083	Structure of the key file not supported.
84	64	FTR1084	Invalid password.
85	64	FTR1085	Password not specified.
86	64	FTR1086	Key pair already exists.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see .

3.19 MODIFY-FILE-FT-ATTRIBUTES
Modify local FT file attributes

Note on usage

User group: FT user

Alias name: FTMODF

The command is only useful in conjunction with FTAM functionality.

Functional description

The MODIFY-FILE-FT-ATTRIBUTES command is used to modify the FTAM attributes of a file in a local system so that they are suitable for a file transfer request or file management request with an FTAM partner. Invalid combinations of attributes are rejected with the message FTR2018. Values can be assigned to the following attributes:

– file access rights for an FTAM partner that the FTAM partner cannot change
  (PERMITTED-ACTIONS)
– file type (DATA-TYPE)
– character set (CHARACTER-SET)
– record format (RECORD-FORMAT)
– record length (RECORD-SIZE)

File attributes file type, character set and record format may only be changed if you are aware of the file contents. If this is not the case, file inconsistencies may occur, with the result that data transfer requests to the affected file are terminated.

Please note that when you use MODIFY-FILE-FT-ATTRIBUTES, you do not negate the BS2000 file attributes. This means that you can still delete the file with BS2000 resources (e.g. ERASE-FILE), even if the PERMITTED-ACTIONS do not permit deletion for an FTAM partner.

Format

```
MODIFY-FILE-FT-ATTRIBUTES / FTMODF
```

```
FILE-NAME = <filename 1..54>

,PASSWORD = *NONE / <integer -2147483648..2147483647> / <c-string 1..4> / <x-string 1..8> / *SECRET

,PERMITTED-ACTIONS = *UNCHANGED / *PARAMETERS(...)

   *PARAMETERS(...)
        READ-FILE = *NO / *YES
       ,INSERT-DATA-UNIT = *NO / *YES
       ,REPLACE-FILE = *NO / *YES
       ,EXTEND-FILE = *NO / *YES
       ,ERASE-DATA-UNIT = *NO / *YES
       ,READ-ATTRIBUTES = *NO / *YES
       ,CHANGE-ATTRIBUTES = *NO / *YES
       ,DELETE-FILE = *NO / *YES

,TRANSFER-ATTRIBUTES = *UNCHANGED / *PARAMETERS(...)

   *PARAMETERS(...)
        DATA-TYPE = *UNCHANGED / *BINARY / *CHARACTER(...)
          *CHARACTER(...)
               CHARACTER-SET = *GRAPHIC / *GENERAL / *IA5 / *VISIBLE
       ,RECORD-FORMAT = *UNCHANGED
       ,RECORD-SIZE = *UNCHANGED / <integer 1..32767>
```

Operands

FILE-NAME = <filename 1..54>
File in the local system whose attributes are to be modified. These attributes only apply for
partners who wish to transfer files with the use of FTAM functionality.
With regard to file transfer admission, the same rules apply as for the BS2000 MODIFY-
FILE-ATTRIBUTES command.
If the file name is specified with unattached Public Volume Set, the request is rejected with
the error message FTR0020.

PASSWORD =
Password authorizing the user to access the file in the local system. If the file in the local
system is password-protected, the password must be specified in this operand unless you
notified BS2000 of the password beforehand with ADD-PASSWORD. The password is
required in BS2000 for modifying file attributes.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <integer -2147483648..2147483647> / <c-string 1..4> / <x-string 1..8>
Password authorizing the user to access the file in the local system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on the screen.

PERMITTED-ACTIONS =
The permitted file accesses. Defines how an FTAM partner can access a local file exclusively. The operand does not affect the access rights of a BS2000 file. It merely defines the access rights for a partner who wishes to access a file using FTAM protocols. The FTAM partner cannot modify this definition.

PERMITTED-ACTIONS = <u>*UNCHANGED</u>
The access rights remain unchanged.

PERMITTED-ACTIONS = *PARAMETERS(...)
Changes file access permissions.

   READ-FILE = <u>*NO</u> / *YES
   The file cannot or can be read.

   INSERT-DATA-UNIT = <u>*NO</u> / *YES
   Data units, such as records, cannot or can be inserted in the file.

   REPLACE-FILE = <u>*NO</u> / *YES
   The file cannot or can be overwritten.

   EXTEND-FILE = <u>*NO</u> / *YES
   The file cannot or can be extended.

   ERASE-DATA-UNIT = <u>*NO</u> / *YES
   Data units, such as records, cannot or can be deleted from the file.

   READ-ATTRIBUTES = <u>*NO</u> / *YES
   The file attributes cannot or can be read.

   CHANGE-ATTRIBUTES = <u>*NO</u> / *YES
   The file attributes cannot or can be changed.

   DELETE-FILE = <u>*NO</u> / *YES
   The file cannot or can be deleted.

TRANSFER-ATTRIBUTES =
Attributes used for file transfer.

TRANSFER-ATTRIBUTES = <u>*UNCHANGED</u>
The previous attributes remain unchanged.

TRANSFER-ATTRIBUTES = *PARAMETERS(...)

DATA-TYPE =
File type. Specifies whether the file is to be transferred as a text file or a binary file.

DATA-TYPE = *UNCHANGED
The previous file type remains unchanged.

DATA-TYPE = *BINARY
The file is to be transferred as a binary file.

DATA-TYPE = *CHARACTER(...)
The file is to be transferred as a text file.

CHARACTER-SET =
Character set for the text file.

CHARACTER-SET = *GRAPHIC
The file can contain characters from the GO set defined in ISO646 or ISO8859-1, or from the G1 defined in ISO8859-1.

CHARACTER-SET = *GENERAL
The file can contain characters from the C0 set defined in ISO646, the G0 set defined in ISO646 or ISO8859-1, or the G1 set defined in ISO8859-1.

CHARACTER-SET = *IA5
The file can contain characters from the C0 set and the G0 set defined in ISO646.

CHARACTER-SET = *VISIBLE
The file can contain characters from the G0 set defined in ISO646.

In the case of text files with CHARACTER-SET=*GRAPHIC or CHARACTER-SET=*VISIBLE, the data is transferred in the form of variable length records (for SAM-V files), or fixed length records (SAM-F files).

In the case of text files with CHARACTER-SET=*GENERAL or CHARACTER-SET=*IA5, every record is terminated with a CRLF (Carriage Return Line Feed) during file transfer. The transfer units do not necessarily correspond to the real records.

RECORD-FORMAT =
The format of the records in the file. This operand is intended for future extensions.

RECORD-FORMAT = *UNCHANGED
The previous record length remains unchanged.

RECORD-SIZE =
The length of the longest record in the file.

RECORD-SIZE = *UNCHANGED
The previous record format remains unchanged.

RECORD-SIZE = <integer 1..32767>
Record length in bytes with which the data is to be transferred to an FTAM partner.
RECORD-SIZE defines the maximum length for transfer units for files with
CHARACTER-SET=*IA5, CHARACTER-SET=*GENERAL as well as for SAM-U files.

i For DATA-TYPE and CHARACTER-SET, you can only select the combinations that correspond to the file contents and the SAM record format of the file:

Entries for	in SAM record format	DATA-TYPE	CHARACTER-SET	RECORD-FORMAT, displayed in SHOW-FILE-FT-ATTR
Text files	F	*CHARACTER	*GRAPHIC	*FIXED
	V	*CHARACTER	*GRAPHIC	*VARIABLE
	F	*CHARACTER	*VISIBLE	*FIXED
	V	*CHARACTER	*VISIBLE	*VARIABLE
	V	*CHARACTER	*GENERAL	*UNDEFINED
	V	*CHARACTER	*IA5	*UNDEFINED
Structured binary files	V	*BINARY	No entry	*VARIABLE
Unstructured binary files	U	*BINARY	No entry	*UNDEFINED

File access errors are also possible if the record length defined for a SAM-F file differs from that defined in the BS2000 catalog.

Command return codes

For a list of the possible return codes, see the table as of .

Example

You wish to reset the access rights of the local file MYFILE, such that FTAM partners have only read access.

```
/MODIFY-FILE-FT-ATTRIBUTES FILE-NAME=MYFILE, -
/                          PERMITTED-ACTIONS=(READ-FILE=*YES, -
/                          READ-ATTRIBUTES=*YES,CHANGE-ATTRIBUTES=*NO)
```

Short form:

```
/MOD-FI-FT-AT MYFILE,,(Y,,,,,,Y,N)
```

3.20 MODIFY-FILE-TRANSFER
Modify request queue

Note on usage

User group: FT user and FT administrator

Alias name: FTMODREQ

Functional description

You use the MODIFY-FILE-TRANSFER command to modify the position and priority of your outbound requests within the openFT request queue. You have the option of processing the outbound requests in any order you wish. Newly input requests or requests whose priority changes are put at the end of the request queue for the corresponding priority. If already active requests are repositioned behind waiting outbound requests, the active requests are interrupted if possible in favor of those waiting.

MODIFY-FILE-TRANSFER is only valid for outbound requests.

The sequence of requests with a starting time in the future cannot be modified.

As FT administrator you can modify all requests.

As FT user you can only modify your own requests.

Format

```
MODIFY-FILE-TRANSFER / FTMODREQ

 TRANSFER-ID = *ALL / <integer 1..2147483647>
,SELECT = *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
         OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>
        ,PARTNER = *ALL / <text 1..200 with-low>
        ,FILE = *ALL / <filename 1..54> / <c-string 1..512 with-low> /
                     *LIBRARY-ELEMENT(...)
          *LIBRARY-ELEMENT(...)
              LIBRARY = *ALL / <filename 1..54>
             ,ELEMENT = *ALL / <filename 1..64 without-gen-vers>(...) /
                           <composed-name 1..64 with-under>(...)
               <filename>(...) / composed-name 1..64>(...)
                  VERSION = *ALL / <text 1..24>
        ,TYPE = *ALL / <name 1..8>
       ,MONJV = *NONE / <filename 1..54>
       ,JV-PASSWORD = *NONE / <c-string 1..4> / <x-string 1..8> / <integer -2147483648..2147483647> /
                   *SECRET
,QUEUE-POSITION = *UNCHANGED / *FIRST / *LAST
,PRIORITY = *UNCHANGED / *NORMAL / *HIGH / *LOW
```

Operands

TRANSFER-ID =
Transfer ID of the outbound request to be modified.

TRANSFER-ID = *ALL
Modifies all outbound requests if further selections haven't been specified with SELECT (see below). FT users can only modify requests under their own user ID.

TRANSFER-ID = <integer 1..2147483647>
Transfer ID which is communicated to the local system in the FT request confirmation.

SELECT =
Contains selection criteria for outbound requests to be modified. A request is only modified if all the criteria specified are met.

SELECT = *OWN
Modifies all FT requests of the user's own ID.

SELECT = *PARAMETERS(...)

OWNER-IDENTIFICATION =
Identifies the owner of the FT request.

OWNER-IDENTIFICATION = *OWN
Modifies only outbound requests with the user's own ID.

OWNER-IDENTIFICATION = *ALL
Modifies outbound requests for all user IDs.
Only the FTAC administrator may use this entry.

OWNER-IDENTIFICATION = <name 1..8>
Specifies a user ID whose requests are to be modified.
Users may only enter their own user ID.

PARTNER =
Modifies outbound requests which are to be executed with a particular partner system.

PARTNER = *ALL
The name of the partner system is not selected as a criterion for the outbound requests
to be modified.

PARTNER = <text 1..200 with-low>
Modifies outbound requests which are to be executed with this partner system. You can
specify the name from the partner list or the address of the partner system. For more
information on address specifications, see section "Specifying partner addresses" on
page 48.

FILE =
Modifies outbound requests which access this file or library member in the local system
as a send or receive file. The file or library member name must be entered exactly as
in the file transfer request and as it is output using the SHOW-FILE-TRANSFER
command. File names with wildcards are not permitted.

FILE = *ALL
The filename is not selected as a criterion for the outbound requests to be modified.

FILE = <filename 1..54> / <c-string 1..512 with-low>
Modifies outbound requests which access this file (DVS/POSIX) in the local system.

FILE = *LIBRARY-ELEMENT(...)
Modifies outbound requests which access library members in the local system.

LIBRARY =
Selects the library.

LIBRARY = *ALL
The library name is not selected as a criterion for the outbound requests to be
modified

LIBRARY = <filename 1..54>
Outbound requests are to be modified which access this library.

ELEMENT =
Library member.

ELEMENT = <u>*ALL</u>
The name of the library member is not selected as a criterion for the outbound requests to be modified.

ELEMENT = <filename 1..64 without-gen-vers>(...) /
<composed-name 1..64 with-under>(...)
Name of the library member.

> **VERSION =**
> Version of the member.
>
> **VERSION = <u>*ALL</u>**
> The library member version is not selected as a criterion for the outbound requests to be modified.
>
> **VERSION = <text 1..24>**
> Only outbound requests which access this version of the library member are to be modified.

TYPE =
Type of library member.

TYPE = <u>*ALL</u>
The member type is not selected as a criterion for the outbound requests to be modified.

TYPE = <name 1..8>
Only outbound requests which access library members of this type are to be modified.

MONJV =
Selects any outbound request which is monitored by this job variable.

MONJV = <u>*NONE</u>
No job variable is used as a selection criterion for outbound requests to be changed.

MONJV = <filename 1..54>
The outbound request monitored by this job variable is to be modified.

JV-PASSWORD =
Password which is needed to access the job variable.
If you have already entered the password using the BS2000 command ADD-PASSWORD, you do not need to enter JV-PASSWORD.

JV-PASSWORD = *NONE
The job variable is not password-protected or it does not need to be specified.

JV-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
This password is required for the job variable.

JV-PASSWORD = *SECRET
The system prompts you to enter the password. The entry does not appear on the screen.

QUEUE-POSITION =
New position of the outbound request that is to be modified in the openFT request queue.
The position of an FTAM request can only be changed relative to the requests that affect the same FTAM partner.

QUEUE-POSITION = *UNCHANGED
The position of the outbound request in this user's openFT request queue remains unchanged.

QUEUE-POSITION = *FIRST
The outbound request is placed in front of all the other requests of the same priority issued by the user in the openFT request queue.

QUEUE-POSITION = *LAST
The outbound request is placed behind all the other requests of the same priority issued by the user in the openFT request queue.

PRIORITY =
Modifies the priority of the FT request.

PRIORITY = *UNCHANGED
The priority of the FT request remains unchanged.

PRIORITY = *NORMAL
The priority of the FT request is set to the normal value

PRIORITY = *HIGH
The FT request is given a high priority.

PRIORITY = *LOW
The FT request is given a low priority.

Command return codes

(SC2)	SC1	Maincode	Meaning/Guaranteed messages
0	0	CMD0001	There are no requests that meet the specified selection criteria.
32	32	CMD0221	Request rejected. Internal error. Job variable not accessible.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
82	32	CMD0221	Internal error. Job variable not accessible.
83	32	CMD0221	Internal error.
36	64	FTR1036	User not authorized for other user IDs.
47	64	FTR1047	Request with the specified transfer ID could not be found.
226	64	FTR2226	Job variable contents inconsistent.
227	64	FTR2227	Job variable not in use by openFT.
228	64	FTR2228	Job variable not found.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

Example

```
/SHOW-FILE-TRANSFER
% TRANS-ID  INI  STATE  PARTNER  DIR   BYTE-COUNT FILE-NAME
% 54483612  LOC  WAIT   UNIX1    FROM  0          FILE1
% 11164324  LOC  WAIT   UNIX2    FROM  0          FILE2

/MODIFY-FILE-TRANSFER SELECT=(FILE=FILE2),QUEUE-POS=*FIRST

/SHOW-FILE-TRANSFER
% TRANS-ID  INI  STATE  PARTNER  DIR   BYTE-COUNT FILE-NAME
% 11164324  LOC  WAIT   UNIX2    FROM  0          FILE2
% 54483612  LOC  WAIT   UNIX1    FROM  0          FILE1
```

3.21 MODIFY-FT-ADMISSION-SET
Modify admission set

Note on usage

User group: FTAC user and FTAC administrator

Prerequisite for using this command is the use of openFT-AC.

Functional description

The FTAC user can modify the admission set for his/her own user ID with the MODIFY-FT-ADMISSION-SET command. The FTAC administrator also can modify the admission sets of foreign user IDs. You may access two components of the admission set:

a) You can define a password to be entered for almost all subsequent FTAC commands (except the /SHOW... commands). This prevents other users working with your user ID from entering FTAC commands.

> **i** It is not possible to have an FTAC password output. If an FTAC user forgets his/her FTAC password, only the FTAC administrator can delete or modify the password.

> **WARNING!**
> If the FTAC administrator should assign and subsequently forget a password, openFT-AC must be reinstalled. In this case, all admission profiles and sets are deleted!
>
> If SECOS is installed, this can be avoided by appointing another FTAC administrator.

b) FTAC users may modify the limit values for the maximum number of security levels that can be reached from their user ID (the MAX-USER-LEVELS) within the range specified by the FTAC administrator. The limit values defined by the FTAC administrator (MAX-ADM-LEVELS) cannot, however, be overridden by the FTAC user. They can simply reduce the limit values since, in the case of FT requests, FTAC performs the admission check on the basis of the smallest value in the admission set. The MAX-USER-LEVELS are only effective if they are lower, i.e. more restrictive, than the MAX-ADM-LEVELS.

FTAC administrators assign a maximum security level for each of the six basic functions. The user ID associated with the admission set can then use this function with all partner systems with this security level or lower. The owner of the admission set may only increase the degree of restriction.

In addition, the FTAC administrator can delete an admission set from the admission file by entering the standard admission set for the user ID in question (MAX-LEVELS=*STD). This is also possible with user IDs which have already been deleted!

Format

MODIFY-FT-ADMISSION-SET
USER-IDENTIFICATION = ***OWN** / ***STD** / <alphanum-name 1..8>
,**PASS**WORD = ***NONE** / <c-string 1..8 with-low> / <x-string 1..16> / ***SEC**RET
,**SEL**ECT-PARAMETER = ***ALL**
,**NEW-PASS**WORD = ***OLD** / ***NONE** / <c-string 1..8 with-low> / <x-string 1..16> / ***SEC**RET
,**MAX-LEV**ELS = ***UNCH**ANGED / ***STD** / <integer 0...100> / ***PAR**AMETERS(...)
*PARAMETERS(...)
OUTBOUND-**SEND** = ***UNCH**ANGED / ***STD** / <integer 0...100>
,**OUT**BOUND-**REC**EIVE = ***UNCH**ANGED / ***STD** / <integer 0...100>
,**IN**BOUND-**SEND** = ***UNCH**ANGED / ***STD** / <integer 0...100>
,**IN**BOUND-**REC**EIVE = ***UNCH**ANGED / ***STD** / <integer 0...100>
,**IN**BOUND-**PROC**ESSING = ***UNCH**ANGED / ***STD** / <integer 0...100>
,**IN**BOUND-**MAN**AGEMENT = ***UNCH**ANGED / ***STD** / <integer 0...100>

Operands

USER-IDENTIFICATION =
User ID whose admission set is to be modified.

USER-IDENTIFICATION = *OWN
The admission set for the user ID which you are currently using is to be modified.

USER-IDENTIFICATION = *STD
The standard admission set is to be modified. Only the FTAC administrator can make this entry.

USER-IDENTIFICATION = <alphanum-name 1..8>
The admission set for this user ID is to be modified. The FTAC user can only enter his/her own user ID here.
The FTAC administrator can enter any user ID here.

PASSWORD =
FTAC password which authorizes you to use FTAC commands, if such a password was defined in your admission set. An FTAC password is set with the operand NEW-PASSWORD.

PASSWORD = *NONE
No FTAC password is required for this admission set.

PASSWORD = <c-string 1..8 with-low> / <x-string 1..16>
This password authorizes this user to use FTAC commands.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the password does not appear on the screen.

SELECT-PARAMETER = *ALL
In later openFT-AC versions it will be possible to specify additional selection criteria here.

NEW-PASSWORD =
Changes the FTAC password. If such an FTAC password has already been set, it must be used for almost all FTAC commands on the user ID for this admission set (except: the SHOW... commands). This is done using the parameter PASSWORD in the respective commands.

NEW-PASSWORD = *OLD
The FTAC password remains unchanged.

NEW-PASSWORD = *NONE
No FTAC password is required for the user ID associated with this admission set.

NEW-PASSWORD = <c-string 1..8 with-low> / <x-string 1..16>
Specification of the new FTAC password.

NEW-PASSWORD = *SECRET
The system prompts you to input the password. The input does not appear on the screen, however.

MAX-LEVELS =
You set which security level(s) you can access, with which basic functions, from the user ID of this admission set. Either you can set one security level for all basic functions or different security levels for each basic function.
The MAX-USER-LEVELS for this admission set are set by the FTAC user; the MAX-ADM-LEVELS are set by the FTAC administrator.
FTAC runs authorization checks on the basis of the lowest specified security level. FTAC users may reduce but not increase the values specified for them by the FTAC administrator, see example to SHOW-FT-ADMISSION-SET.

MAX-LEVELS = *UNCHANGED
The security levels set in this admission set are to remain unchanged.

MAX-LEVELS = *STD
For this admission set, the values of the standard admission set are valid. The admission set is deleted from the admission file. This is possible if the user ID has already been deleted.

MAX-LEVELS = <integer 0...100>
You can set a maximum security level for all six basic functions. The value 0 means that no file transfer is possible on this user ID until further notice (until the admission set is modified again).

MAX-LEVELS = *PARAMETERS(...)
You can set a maximum security level for each of the basic functions.

OUTBOUND-SEND =
Sets the maximum security level for the basic function "outbound send". The owner of the admission set can send files to all partner systems whose security level has this value or lower.

OUTBOUND-SEND = *UNCHANGED
The value for OUTBOUND-SEND remains unchanged.

OUTBOUND-SEND = *STD
For OUTBOUND-SEND, the value from the standard admission set is used.

OUTBOUND-SEND = <integer 0..100>
For OUTBOUND-SEND, this maximum security level is entered in the admission set.

OUTBOUND-RECEIVE =
Sets the maximum security level for the basic function "outbound receive". The owner of the admission set can receive files from all partner systems whose security level has this value or lower.

OUTBOUND-RECEIVE = *UNCHANGED
The value for OUTBOUND-RECEIVE remains unchanged.

OUTBOUND-RECEIVE = *STD
For OUTBOUND-RECEIVE, the value from the standard admission set is used.

OUTBOUND-RECEIVE = <integer 0..100>
For OUTBOUND-RECEIVE, this maximum security level is entered in the admission set.

INBOUND-SEND =
Sets the maximum security level for the basic function "inbound send". All partner systems with this security level or lower can request files from the owner of the admission set.

INBOUND-SEND = *UNCHANGED
The value for INBOUND-SEND remains unchanged.

INBOUND-SEND = *STD
For INBOUND-SEND, the value from the standard admission set is used.

INBOUND-SEND = <integer 0..100>
For INBOUND-SEND, this maximum security level is entered in the admission set.

INBOUND-RECEIVE =
Sets the maximum security level for the basic function "inbound receive". All partner systems with this security level or lower may send files to the owner of the admission set.

INBOUND-RECEIVE = *UNCHANGED
The value for INBOUND-RECEIVE remains unchanged.

INBOUND-RECEIVE = *STD
For INBOUND-RECEIVE, the value from the standard admission set is used.

INBOUND-RECEIVE = <integer 0..100>
For INBOUND-RECEIVE, this maximum security level is entered in the admission set.

INBOUND-PROCESSING =
Sets the maximum security level for the basic function "inbound processing". All partner systems which have this security level or lower may include follow-up processing as part of their FT request.

INBOUND-PROCESSING = *UNCHANGED
The value for INBOUND-PROCESSING remains unchanged.

INBOUND-PROCESSING = *STD
For INBOUND-PROCESSING, the value from the standard admission set is used.

INBOUND-PROCESSING = <integer 0..100>
For INBOUND-PROCESSING, this maximum security level is entered in the admission set.

INBOUND-MANAGEMENT =
Sets the maximum security level for the basic function "inbound file management". All partner systems with this security level or lower may include the modification of file attributes and the querying of directories as part of their FT request.

INBOUND-MANAGEMENT = *UNCHANGED
The value for INBOUND-MANAGEMENT remains unchanged.

INBOUND-MANAGEMENT = *STD
For INBOUND-MANAGEMENT, the value from the standard admission set is used.

INBOUND-MANAGEMENT = <integer 0..100>
For INBOUND-MANAGEMENT, this maximum security level is entered in the admission set.

Example

Steven needs information on his admission set.

```
/SHOW-FT-ADMISSION-SET
```

Short form:

```
/SHOW-FT-ADM
```

He receives the following output:

```
%               MAX. USER LEVELS              MAX. ADM LEVELS
% USER-ID  OBS  OBR  IBS  IBR  IBP  IBF    OBS  OBR  IBS  IBR  IBP  IBF
% DACKTAIL 100  100  100  100  100  100     80   80   80   80   60   60
```

Steven forbids any follow-up processing and thus only allows FT functions.

```
/MODIFY-FT-ADMISSION-SET MAX-LEVELS = *PARAMETERS(INBOUND-PROCESSING = 0)
```

The short form of this command is

```
/MOD-FT-ADM MAX-LEV = (IN-PROC = 0)
```

He outputs his admission set once more to double-check.

```
/SHOW-FT-ADM
```

```
%               MAX. USER LEVELS              MAX. ADM LEVELS
% USER-ID  OBS  OBR  IBS  IBR  IBP  IBF    OBS  OBR  IBS  IBR  IBP  IBF
% DACKTAIL 100  100  100  100    0  100     80   80   80   80   60   60
```

Although the FTAC administrator permitted follow-up processing (IBP) for all partners with a security level of 60 or lower, this is no longer possible on Steven's user ID. However, Steven then sets up a profile for trustworthy partners which allows them follow-up processing again.

```
/CREATE-FT-PROF FRIENDS,TRANS-AD = 'for my friends', IGN-MAX-LEV = (IN-
PROC = *YES)
```

Example

Jack John, the FTAC administrator of the Dack Bank, wishes set up the admission set for his employee Steven, such that Steven

– can send files to partner systems with the security level of 10 or lower (basic function "outbound send"),

– can request files from partner systems with the security level of 10 or lower (basic function "outbound receive").

He wants all partner systems to be able send files to and request files from the user ID STEVEN. Therefore he sets the security level for INBOUND-SEND and INBOUND-RECEIVE to 100.

Jack does not wish to permit follow-up processing to be initiated from external partners, since he is too stingy to want to make his resources available to others. Therefore, he sets INBOUND-PROCESSING and INBOUND-MANAGEMENT at 0. Since these values are set in the standard admission set for the Dack Bank, these specifications are used for *STD. No FTAC password is defined.

The long form of the required command is as follows:

```
/MODIFY-FT-ADMISSION-SET USER-IDENTIFICATION=STEVEN,              -
/                        MAX-LEVELS=(OUTBOUND-SEND=10,            -
/                                    OUTBOUND-RECEIVE=10,         -
/                                    INBOUND-SEND=100,            -
/                                    INBOUND-RECEIVE=100,         -
/                                    INBOUND-PROCESSING=*STD,     -
/                                    INBOUND-MANAGEMENT=*STD)
```

A possible short form of this command would be:

```
/MOD-FT-ADM STEVEN,MAX-LEV=(10,10,100,100,*STD,*STD)
```

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	FTC0050	The set security level exceeds the administrator's limit and will remain invalid until the administrator's limit is raised accordingly.
0	64	FTC0150	The authorization password is missing.
0	64	FTC0151	Only the administrator or owner is permitted to make this modification.
0	64	FTC0152	The user ID entered is not the user's own user ID.
0	64	FTC0175	The operand "NEW-PASSWORD" may not be entered for *STD.
0	64	FTC0176	The user ID entered does not exist in the system.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see .

3.22 MODIFY-FT-INSTANCE
Modify an openFT instance

Note on usage

User group: FT administrator

Functional description

Using this command, you can modify the characteristics of an instance (name, automatic start of openFT).

MODIFY-FT-INSTANCE may only be used if openFT is not started in this instance, (STARTED=*NO is displayed in the SHOW-FT-INSTANCE command).

WARNING!

The instance may not be renamed if - even though openFT has been terminated - the instance is still occupying system resources that contain the instance name. That is the case, for example, if requests with pre- or postprocessing are still entered under this instance.

Format

MODIFY-**FT**-**INST**ANCE

NAME = <alphanum-name 1..8>

,**NEW-NAME** = ***UNCHA**NGED / <alphanum-name 1..8>

,**AUTO**MATIC-**START** = ***UNCHA**NGED / ***ON** / ***OFF**

Operands

NAME = <alphanum-name 1..8>
Name of the openFT instance that is to be modified.

NEW-NAME = *UNCHANGED
The instance name remains unchanged.

NEW-NAME = <alphanum-name 1..8>
The new instance name. This name must be identical on all the computers on which this instance is to be used.

AUTOMATIC-START =
This is specified if, after loading the instance, openFT is automatically started in this
instance.

AUTOMATIC-START = <u>*UNCHANGED</u>
The previous setting remains unchanged.

AUTOMATIC-START = *OFF
After loading the instance, openFT is not started.

AUTOMATIC-START = *ON
After each loading of the instance, a START-FT command is also implicitly executed in this
instance. In this way, it is possible to work with openFT immediately after loading. All the
components that are available for the standard instance are also started such as, for
example, openFT-AC and openFT-FTAM.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
25	64	FTR1025	Instance does not exist.
26	64	FTR1026	Instance must not be modified.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45

3.23 MODIFY-FT-KEY
Modify key

Note on usage

User group: FT administrator

Alias name: FTMODKEY

Functional description

You can use the MODIFY-FT-KEY command to modify the expiration date and authentication level of keys that are used for the authentication of partner systems. The changes are stored in the relevant key file.

Once the expiration date of a key has been reached, authentication using this key is rejected. However, you can still modify the expiration date after the key's validity date has expired, e.g. in order to temporarily re-enable a key so that a current key can be transferred securely.

Format

MODIFY-**FT**-**KEY / FTMODKEY**
PARTNER-**NAME** = ***ALL** / <name 1..8>
,**AUTH**ENTICATION-**LEV**EL = ***UNCHA**NGED / <integer 1..2>
,**EXP**IRATION-**DATE** = ***UNCHA**NGED / *NONE / <date 8..10>

Operands

PARTNER-NAME =
Specifies the partner whose key is to be modified.

PARTNER-NAME = *ALL
The installed keys of all partner systems are modified.

PARTNER-NAME = <name 1..8>
Name of the partner whose key is modified.

AUTHENTICATION-LEVEL =
Specifies the authentication level for the key or keys.

AUTHENTICATION-LEVEL = *UNCHANGED
The authentication level remains unchanged.

AUTHENTICATION-LEVEL = 1
The authentication level for the partner or partners is set to 1. This corresponds to the options available up to openFT V11.0A.

If the partner system is subsequently authenticated at level 2, then the entry AUTHENTI-CATION-LEVEL=2 is automatically recorded in its key file.

AUTHENTICATION-LEVEL = 2
The partner system supports the level 2 authentication procedure introduced in openFT V11.0B . Level 1 authentication attempts are rejected.

EXPIRATION-DATE =
Specifies the expiration date of the key or keys.

EXPIRATION-DATE = <u>*UNCHANGED</u>
The expiration date remains unchanged.

EXPIRATION-DATE = *NONE
No expiration date for the key or keys.

EXPIRATION-DATE = <date 8..10>
Expiration date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g.. 2017-12-31 or 17-12-31 for December 31, 2017. The key or keys can be used for authentication at the latest up until the time 00:00 on the specified date.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	The key has been modified.
83	32	CMD0221	Internal error.
35	64	FTR1035	Command only permissible for FT administrator.
76	64	FTR1076	Selected key file not found.
2	0	FTR1087	Key expired.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see .

3.24 **MODIFY-FT-OPTIONS**
Modify operating parameters

Note on usage

User group: FT administrator

Alias name: FTMODOPT

Functional description

The MODIFY-FT-OPTIONS command is used to modify one or more operating parameters of the local system. The relationships between the different operating parameters are explained in manual "openFT (BS2000) - Installation and Operation".

After setting up an instance that is not working via the standard host, a host must be configured for this instance using the MODIFY-FT-OPTIONS command. Only then can openFT be started for the first time in this instance. Using MODIFY-FT-OPTIONS, an instance ID which is unique throughout the network must, if necessary, be set before the initial startup.

The MODIFY-FT-OPTIONS command also enables you to do the following:

●   Activate and deactivate the FT trace function, SNMP traps and console and ADM traps

●   Control FT logging, monitoring and user data encryption

> **i** Any unspecified operating parameters remain unchanged. The current operating parameters can be queried at any time using the SHOW-FT-OPTIONS command (see page 338).

Format

(part 1 of 3)

MOD**IFY**-**FT**-**OPT**IONS / **FTMODOPT**

 PROCESS-**LIM**IT = ***UNCHA**NGED / <integer 1..32> / ***NONE**

,**CONN**ECTION-**LIM**IT = ***UNCHA**NGED / <integer 1..255>

,**REQ**UEST-**WAIT**-LEVEL = ***UNCHA**NGED

,**PACING** = ***UNCHA**NGED

,**TRANS**PORT-**UNIT**-SIZE = ***UNCHA**NGED / <integer 512..65535>

,**SEC**URITY-**LEV**EL = ***UNCHA**NGED / ***BY-PART**NER-**ATTR**IBUTES / <integer 1..100>

,**PART**NER-**CHECK** = ***UNCHA**NGED / ***STD** / ***TRANS**PORT-**ADDR**ESS

,**TRACE** = ***UNCHA**NGED / ***ON** / ***OFF** / ***CHA**NGE-FILES / ***PAR**AMETERS(...)

   *PARAMETERS(...)
        SWITCH = ***UNCHA**NGED / ***ON** / ***OFF** / ***CHA**NGE-FILES
        ,**PART**NER-**SEL**ECTION = ***UNCHA**NGED / ***ALL** / ***NONE** / list-poss(4): ***OPENFT** / ***FTAM** /
                         *FTP / ***ADM**
        ,**REQ**UEST-**SEL**ECTION = ***UNCHA**NGED / ***ALL** / list-poss(2): ***ONLY-SYNC** / ***ONLY-ASYNC** /
                       *ONLY-LOCAL / ***ONLY-REM**OTE
        ,**OPT**IONS = ***UNCHA**NGED / ***NONE** / list-poss(1): ***NO-BULK**-DATA

,**LOGG**ING = ***UNCHA**NGED / ***CHA**NGE-FILES / ***SEL**ECT(...)

   *SELECT(...)
        TRANSFER-**FILE** = ***UNCHA**NGED / ***OFF** / ***ON** / ***FAIL**URE
        ,**FTAC** = ***UNCHA**NGED / ***ON** / ***REJ**ECTED / ***MOD**IFICATIONS
        ,**ADM** = ***UNCHA**NGED / ***OFF** / ***ON** / ***FAIL**URE/ ***MOD**IFICATIONS

,**MAX-INB**OUND-**REQ**UEST = ***UNCHA**NGED

,**REQ**UEST-**LIM**IT = ***UNCHA**NGED / <integer 2..32000>

,**MAX-REQUEST-LIFE**TIME = ***UNCHA**NGED / ***UNLIM**ITED / <integer 1..400>

,**SNMP-TRAPS** = ***UNCHA**NGED / ***ALL** / ***NONE** / ***PAR**AMETERS(...)

   *PARAMETERS(...)
        SUBSYSTEM-**STATE** = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**FT-STATE** = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**PART**NER-**STATE** = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**PART**NER-**UNREA**CHABLE = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**REQUEST-**QUEUE-**STATE** = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**TRANS**FER-**SUCC**ESS = ***UNCHA**NGED / ***OFF** / ***ON**
        ,**TRANS**FER-**FAIL**URE = ***UNCHA**NGED / ***OFF** / ***ON**

```
,CONSOLE-TRAPS = *UNCHANGED / *ALL / *NONE / *PARAMETERS(...)

   *PARAMETERS(...)
        SUBSYSTEM-STATE = *UNCHANGED / *OFF / *ON
       ,FT-STATE = *UNCHANGED / *OFF / *ON
       ,PARTNER-STATE = *UNCHANGED / *OFF / *ON
       ,PARTNER-UNREACHABLE = *UNCHANGED / *OFF / *ON
       ,REQUEST-QUEUE-STATE = *UNCHANGED / *OFF / *ON
       ,TRANSFER-SUCCESS = *UNCHANGED / *OFF / *ON
       ,TRANSFER-FAILURE = *UNCHANGED / *OFF / *ON

,HOST-NAME = *UNCHANGED / <alphanum-name 1..8>

,IDENTIFICATION = *UNCHANGED / <c-string 1..64 with-low> / <composed-name 1..64>

,KEY-LENGTH = *PARAMETERS (...)

   *PARAMETERS(...)
        RSA-PROPOSED = *UNCHANGED / 0 / 768 / 1024 / 2048
       ,RSA-MINIMUM = *UNCHANGED / 0 / 768 / 1024 / 2048
       ,AES-MINIMUM = *UNCHANGED / *NONE / 128 / 256

,OPENFT-APPLICATION = *UNCHANGED / *STD / <text 1..24>

,OPENFT-STD = *UNCHANGED / *STD / <integer 1..65535>

,FTAM-APPLICATION = *UNCHANGED / *STD / <text 1..40>

,FTP-PORT = *UNCHANGED / *NONE / *STD / <integer 1..65535>

,DYNAMIC-PARTNERS = *UNCHANGED / *OFF / *ON

,ADM-PORT = *UNCHANGED / *STD / <integer 1..65535>

,ACTIVE-APPLICATIONS = *UNCHANGED / *ALL / *NONE / list-poss(3): *OPENFT / *ADM / *FTP

,ADM-CONNECTION-LIMIT = *UNCHANGED / <integer 1..255>

,MONITORING = *UNCHANGED / *ON / *OFF / *PARAMETERS(...)

   *PARAMETERS(...)
        SWITCH = *UNCHANGED / *ON / *OFF
       ,PARTNER-SELECTION = *UNCHANGED / *ALL / *NONE / list-poss(3): *OPENFT / *FTAM / *FTP
       ,REQUEST-SELECTION = *UNCHANGED / *ALL / list-poss(2): *ONLY-SYNC / *ONLY-ASYNC /
                            *ONLY-LOCAL / *ONLY-REMOTE
```

(part 3 of 3)

```
,ADM-TRAPS = *UNCHANGED / *NONE / *PARAMETERS(...)

   *PARAMETERS(...)
        DESTINATION = *UNCHANGED / *NONE / *PARAMETERS(...)
           *PARAMETERS(...)
                PARTNER = *UNCHANGED / <text 1..200 with-low>
                ,TRANSFER-ADMISSION = *UNCHANGED / <alphanum-name 8..32> /
                                      <c-string 8..32 with-low> / <x-string15..64> / *SECRET
        ,SELECTION = *UNCHANGED / *ALL/ *NONE / *PARAMETERS(...)
           *PARAMETERS(...)
                ,FT-STATE = *UNCHANGED / *OFF / *ON
                ,FT-STATE = *UNCHANGED / *OFF / *ON
                ,PARTNER-STATE = *UNCHANGED / *OFF / *ON
                ,PARTNER-UNREACHABLE = *UNCHANGED / *OFF / *ON
                ,REQUEST-QUEUE-STATE = *UNCHANGED / *OFF / *ON
                ,TRANSFER-SUCCESS = *UNCHANGED / *OFF / *ON
                ,TRANSFER-FAILURE = *UNCHANGED / *OFF / *ON
,ENCRYPTION-MANDATORY = *UNCHANGED / *NO / list-poss(2): *INBOUND / *OUTBOUND
,DELETE-LOGGING = *UNCHANGED / *PARAMETERS(...)

   *PARAMETERS(...)
        SWITCH = *UNCHANGED / *ON / *OFF
        ,RETENTION-PERIOD = *UNCHANGED / <integer 0..999 days>
        ,REPEAT = *UNCHANGED / *DAILY / *WEEKLY(...) / *MONTHLY(...)
           *WEEKLY(...)
                ON = *SUNDAY / *MONDAY / *TUESDAY / *WEDNESDAY / THURSDAY / *FRIDAY /
                     *SATURDAY
           *MONTHLY(...)
                ON = 1 / <integer 1..31>
        ,DELETE-TIME = *UNCHANGED / <time 1..8>
,RECOVERY-OUTBOUND = *UNCHANGED / *ON / *OFF
,RECOVERY-INBOUND = *UNCHANGED / *ON / *OFF
```

Operands

PROCESS-LIMIT =
Maximum number of tasks that can be reserved simultaneously for the execution of file transfer requests.

Default setting following installation: 2

PROCESS-LIMIT = *UNCHANGED
PROCESS-LIMIT is not changed, default value.

PROCESS-LIMIT = <integer 1..32>
PROCESS-LIMIT can have any value between 1 and 32.

PROCESS-LIMIT = *NONE
A server task is created for each new connection. PROCESS-LIMIT is therefore restricted by CONNECTION-LIMIT.

CONNECTION-LIMIT =
Maximum number of transport connections that can be reserved for the execution of FT requests. This limit does not include file management requests and synchronous requests. The maximum number of transport connections cannot be exceeded, not even if there are many high-priority file transfer requests to be executed. Since only one request can be processed at a time per transport connection, CONNECTION-LIMIT is also the maximum number of requests which a system can process simultaneously. One third of the transport connections defined by CONNECTION-LIMIT are reserved for requests from the remote system, and another third for requests submitted in the local system. The remaining third are available for both local and remote requests. This prevents locally submitted requests from blocking the system against requests from remote systems. If CONNECTION-LIMIT is less than 3, no transport connections are reserved.

Default setting following installation: 16

CONNECTION-LIMIT = <u>*UNCHANGED</u>
The CONNECTION-LIMIT value is not changed, default value.

CONNECTION-LIMIT = <integer 1..255>
CONNECTION-LIMIT can have any value between 1 and 255.

REQUEST-WAIT-LEVEL = <u>*UNCHANGED</u>
The value for REQUEST-WAIT-LEVEL is unchanged.

PACING = <u>*UNCHANGED</u>
This parameter is only supported for reasons of compatibility an cannot be modified.

TRANSPORT-UNIT-SIZE =
Maximum size of a transport unit in bytes.

Default setting following installation: 65535 bytes

TRANSPORT-UNIT-SIZE = <u>*UNCHANGED</u>
The current value size of a transport unit in bytes is unchanged.

TRANSPORT-UNIT-SIZE = <integer 512..65535>
TRANSPORT-UNIT-SIZE can assume any value between 512 and 65535.
It is recommended that you use value 65535.
TRANSPORT-UNIT-SIZE does not affect links with FTAM partners.

SECURITY-LEVEL =
This parameter need only be specified when FTAC functionality is used. An important part of the access protection functions provided by this product is based on the allocation of a security level to each partner. These security levels are designated using integers. The FT administrator can define a global value. This security level applies to all partner systems in the partner list that are not explicitly assigned their own security levels when entered.

Default setting following installation: *BY-PARTNER-ATTRIBUTES

SECURITY-LEVEL = *UNCHANGED
The security level is unchanged.

SECURITY-LEVEL = *BY-PARTNER-ATTRIBUTES
If you set the operand to *BY-PARTNER-ATTRIBUTES then the security level is defined automatically. This setting assigns partners that are authenticated by openFT the security level 10. Partners that are known in BCAM (i.e. they are addressed via their BCAM names) are assigned the security level 90. All other partners are assigned security level 100.

SECURITY-LEVEL = <integer 1..100>
SECURITY-LEVEL can assume any value between 1 and 100. If FTAC functionality is to be used, remember that 1 is the lowest level of security, offering the least protection. This is sufficient if you do not wish to further differentiate your remote systems; otherwise, a higher value should be defined. The allocation of different security levels is particularly meaningful if the authentication check is activated.

PARTNER-CHECK =
Activates the extended authentication check. When using expanded sender checking, not only the partner identification is checked, but also the transport address. PARTNER-CHECK only affects named openFT partners that are not authenticated in the local system (see openFT manual "Concepts and Functions").

This option has no meaning for FTAM and FTP partners. For them only the transport address (not the identification) is checked.

The globally set expanded sender checking can be modified for specific partners, see the operand PARTNER-CHECK for the ADD-FT-PARTNER and MODIFY-FT-PARTNER commands.

Default setting following installation: *STD

PARTNER-CHECK = *UNCHANGED
The existing value is retained.

PARTNER-CHECK = *STD
If dynamic partners are prohibited (DYNAMIC-PARTNERS=*OFF), a check is performed to determine whether the partner is entered in the partner list as a partner system with his/her instance identification, and only then will the file transfer be allowed.

If dynamic partners are permitted (DYNAMIC-PARTNERS=*ON), transfers are also permitted from partners that are accessed only using their address or are not entered in the partner list at all.

PARTNER-CHECK = *TRANSPORT-ADDRESS
Extended authentication check. In addition to checking whether the partner is entered in its own partner list as a partner system, it is checked whether the transport address under which the partner logs on matches the transport address entered in the partner list for the partner system. In the SHOW-FT-OPTIONS command then PARTNER-CHECK = ADDR is output.
This setting has no significance for dynamic partners and FTAM or FTP partners.

TRACE =
Defines the settings for the FT trace functions.

Default setting following installation: *OFF

TRACE = *UNCHANGED
The existing FT trace functions remain unchanged.

TRACE = *ON
Switches the FT trace functions on.

TRACE = *OFF
Switches the FT trace functions off.

TRACE = *CHANGE-FILES
Switches to a new trace file. This allows a continuous trace to be created across several files to prevent a single trace file from becoming too large.

TRACE = *PARAMETERS(...)
Option that is to be applied when writing the trace.

   SWITCH =
   Deactivates the FT trace functions for the selected partners.
   Default setting following installation: *OFF

   SWITCH = *UNCHANGED
   The previous value is unchanged.

   SWITCH = *ON
   Activates the FT trace functions.

   SWITCH = *OFF
   Deactivates the FT trace functions.

   SWITCH = *CHANGE-FILES
   Switches to a new trace file. This allows a continuous trace to be created across several files to prevent a single trace file from becoming too large.

PARTNER-SELECTION =
Selects the partners that are to be traced. The selection made here can be modified with
the TRACE operand of the MODIFY-FT-PARTNER command.
Default setting following installation: *ALL

PARTNER-SELECTION = *UNCHANGED
The previous value is unchanged.

PARTNER-SELECTION = *ALL
All the partners are selected for tracing.

PARTNER-SELECTION = *NONE
No partner is selected for tracing. Only those partners are traced which have been
selected for tracing with the TRACE operand of the MODIFY-FT-PARTNER command.

PARTNER-SELECTION = *OPENFT
All partners which are addressed via the openFT protocol are selected for tracing.

PARTNER-SELECTION = *FTAM
All partners which are addressed via the FTAM protocol are selected for tracing.

PARTNER-SELECTION = *FTP
All partners which are addressed via the FTP protocol are selected for tracing.

PARTNER-SELECTION = *ADM
All administration partners are selected for tracing.

REQUEST-SELECTION =
Selects the request types that are to be traced.
Default setting following installation: *ALL

REQUEST-SELECTION = *UNCHANGED
The previous value is unchanged.

REQUEST-SELECTION = *ALL
All the requests are selected for tracing.

REQUEST-SELECTION = *ONLY-SYNC
All synchronous requests are selected for tracing. Synchronous requests are always
issued locally.

REQUEST-SELECTION = *ONLY-ASYNC
All asynchronous requests are selected for tracing. Requests issued remotely are
always regarded as asynchronous.

REQUEST-SELECTION = *ONLY-LOCAL
All locally submitted requests are selected for tracing.

REQUEST-SELECTION = *ONLY-REMOTE
All remotely submitted requests are selected for tracing.

OPTIONS =
Controls the options for the trace functions.
Default setting following installation: *NONE

OPTIONS = *UNCHANGED
The previous value is unchanged.

OPTIONS = *NONE
No options are selected for the trace functions.

OPTIONS = *NO-BULK-DATA
If file contents (bulk data) are transferred with a protocol element and multiple trace records with the same protocol element occur in succession then only the first of these records is written to the trace file. This reduces the volume of the trace file.

LOGGING =
Switches the logging functions.

LOGGING = *UNCHANGED
The existing logging functions remain unchanged.

LOGGING = *CHANGE-FILES
The log file is changed.
The new log file is created under the name SYSLOG.Lyymmdd.Lhhmmss. *yymmdd* is the date (year, month, day) and *hhmmss* is the time (hour, minute, second in GMT) on/at which the file was created.
The old log file is closed and remains stored as an offline log file.

LOGGING = *SELECT(...)
Controls logging for FT, FTAC and administration functions.
Default setting following installation: *ON for all types of log records

  TRANSFER-FILE = *UNCHANGED
  The previous settings for FT logging remain unchanged.

  TRANSFER-FILE = *OFF
  Switches the FT logging functions off.

  TRANSFER-FILE = *ON
  Switches the FT logging functions on.

  TRANSFER-FILE = *FAILURE
  Only failed requests are written to the logging file.

  FTAC = *UNCHANGED
  The previous settings for FTAC logging remain unchanged.

  FTAC = *ON
  Switches the FTAC logging functions on.

FTAC = *REJECTED
All requests rejected by FTAC are logged.

FTAC = *MODIFICATIONS
All modifying requests are logged.

ADM = *UNCHANGED
The previous settings for administration logging remain unchanged.

ADM = *OFF
Deactivates administration logging.

ADM = *ON
Activates administration logging.

ADM = *FAILURE
Only failed administration requests are written to the log file.

ADM = *MODIFICATIONS
Only administration requests that modify data are written to the log file.

MAX-INBOUND-REQUEST = *UNCHANGED
MAX-INBOUND-REQUEST is now only supported for reasons of compatibility.

REQUEST-LIMIT =
Changes the number of requests which can be saved in the request queue.
Although it is logically possible to reduce the size of the request queue, this does not result
in any memory being freed but only reduces the size of the internal queue. To free memory,
it is necessary to end the FT subsystem, delete the request queue (SYSRQF) and then
restart openFT.

Default setting following installation: 2000

REQUEST-LIMIT = *UNCHANGED
The previous value remains unchanged.

REQUEST-LIMIT = <integer 2..32000>
The maximum number of requests which can be saved in the request queue is changed to
the value specified.

MAX-REQUEST-LIFETIME =
Limits the lifetime of FT requests in the request file. The maximum lifetime applies to
inbound and outbound requests and is specified in days. The default value when a new
request file is generated is 30 days.
The maximum lifetime does not apply to requests that have been transferred from an earlier
request file as part of a version change. Such requests still have to be terminated using the
CANCEL-FILE-TRANSFER command.

Default setting following installation: 30 days

MAX-REQUEST-LIFETIME = *UNCHANGED
The previous value remains unchanged.

MAX-REQUEST-LIFETIME = *UNLIMITED
The lifetime of FT requests is unlimited.

MAX-REQUEST-LIFETIME = <integer 1..400>
The maximum lifetime for FT requests may have a value of between 1 and 400 days.

SNMP-TRAPS =
Activates or deactivates specific SNMP traps. SNMP traps are generated to indicate specific events which are routed by the FT subagent to an SNMP Management Station if one is in use.
Default setting following installation: *NONE

SNMP-TRAPS = *UNCHANGED
The previous value is unchanged.

SNMP-TRAPS = *NONE
Deactivates all SNMP traps.

SNMP-TRAPS = *ALL
Activates all SNMP traps.

SNMP-TRAPS = *PARAMETERS(...)
Activates or deactivates selected SNMP traps. For further information, please refer to manual "openFT (BS2000) - Installation and Operation".

SUBSYSTEM-STATE =
Controls the output of SNMP traps concerning the status of the openFT subsystem.
Default setting following installation: *OFF

SUBSYSTEM-STATE = *UNCHANGED
The previous value is unchanged.

SUBSYSTEM-STATE = *OFF
No SNMP traps concerning the status of the openFT subsystem are output.

SUBSYSTEM-STATE = *ON
SNMP traps concerning the status of the openFT subsystem are output.

FT-STATE =
Controls trap transmission on START-FT / STOP-FT or abnormal FT termination.
Default setting following installation: *OFF

FT-STATE = *UNCHANGED
The previous value is unchanged.

FT-STATE = *OFF
Deactivates the FT-STATE traps.

FT-STATE = *ON
Activates the FT-STATE traps.

PARTNER-STATE =
Controls trap transmission when the status of FT partners changes.
Default setting following installation: *OFF

PARTNER-STATE = <u>*UNCHANGED</u>
The previous value is unchanged.

PARTNER-STATE = *OFF
Deactivates the PARTNER-STATE traps.

PARTNER-STATE = *ON
Activates the PARTNER-STATE traps.

PARTNER-UNREACHABLE =
Controls transmission of the trap that indicates if a partner cannot be accessed.
Default setting following installation: *OFF

PARTNER-UNREACHABLE = <u>*UNCHANGED</u>
The previous value is unchanged.

PARTNER-UNREACHABLE = *OFF
Deactivates the "partner unreachable" trap.

PARTNER-UNREACHABLE = *ON
Activates the "partner unreachable" trap.

REQUEST-QUEUE-STATE =
Controls the transmission of traps when the request queue is more than 85% or less
than 80% full.
Default setting following installation: *OFF

REQUEST-QUEUE-STATE = <u>*UNCHANGED</u>
The previous value is unchanged.

REQUEST-QUEUE-STATE = *OFF
Deactivates the request queue fill level traps.

REQUEST-QUEUE-STATE = *ON
Activates the request queue fill level traps.

TRANSFER-SUCCESS =
Controls the transmission of the trap that indicates that an FT request has been
successfully concluded.
Default setting following installation: *OFF

TRANSFER-SUCCESS = <u>*UNCHANGED</u>
The previous value is unchanged.

TRANSFER-SUCCESS = *OFF
Deactivates the TRANSFER-SUCCESS trap.

TRANSFER-SUCCESS = *ON
Activates the TRANSFER-SUCCESS trap.

TRANSFER-FAILURE =
Controls the transmission of the trap that indicates that an FT request has been
aborted.
Default setting following installation: *OFF

TRANSFER-FAILURE = *UNCHANGED
The previous value is unchanged.

TRANSFER-FAILURE = *OFF
Deactivates the TRANSFER-FAILURE trap.

TRANSFER-FAILURE = *ON
Activates the TRANSFER-FAILURE trap.

CONSOLE-TRAPS =
Activates or deactivates console traps.
By default, these trap messages are not displayed at the console. However, they are logged
in the CONSLOG file.
They can therefore cause storage problems on systems with high request volumes.
By default, the output of console traps is activated.
Default setting following installation: *OFF

CONSOLE-TRAPS = *UNCHANGED
The previous value is unchanged.

CONSOLE-TRAPS = *ALL
The FTR03XX console messages are output by openFT. They always appear in the
CONSLOG file. However, they are only output to the console if they are explicitly requested
using the following command, e.g.:

```
/MOD-MSG-SUBSCRIPTION ADD-MSG-ID=(FTR0301,FTR0307,FTR0340,FTR0341)
```

CONSOLE-TRAPS = *NONE
The FTR03XX console messages are not output.

CONSOLE-TRAPS = *PARAMETERS(...)
Explicit specification of the events for which FTR03XX console messages are output.

SUBSYSTEM-STATE =
Controls the output of console messages concerning the status of the openFT
subsystems.
Default setting following installation: *OFF

SUBSYSTEM-STATE = *UNCHANGED
The previous value is unchanged.

SUBSYSTEM-STATE = *OFF
No console messages concerning the status of the openFT subsystem are output.

SUBSYSTEM-STATE = *ON
Console messages concerning the status of the openFT subsystem are output.

FT-STATE =
Controls the output of console messages concerning the status of the openFT control process.
Default setting following installation: *OFF

FT-STATE = *UNCHANGED
The previous value is unchanged.

FT-STATE = *OFF
No console messages concerning the status of the openFT control process are output.

FT-STATE = *ON
Console messages concerning the status of the openFT control process are output.

PARTNER-STATE =
Controls the output of console messages concerning the status of the partner systems.
Default setting following installation: *OFF

PARTNER-STATE = *UNCHANGED
The previous value is unchanged.

PARTNER-STATE = *OFF
No console messages concerning the status of partner systems are output.

PARTNER-STATE = *ON
Console messages concerning the status of partner systems are output.

PARTNER-UNREACHABLE =
Controls the output of console messages if partner systems cannot be accessed.
Default setting following installation: *OFF

PARTNER-UNREACHABLE = *UNCHANGED
The previous value is unchanged.

PARTNER-UNREACHABLE = *OFF
No console messages are output if partner systems cannot be accessed.

PARTNER-UNREACHABLE = *ON
Console messages are output if partner systems cannot be accessed.

REQUEST-QUEUE-STATE =
Controls the output of console messages concerning the status of the request queue.

Default setting following installation: *OFF

REQUEST-QUEUE-STATE = *UNCHANGED
The previous value is unchanged.

REQUEST-QUEUE-STATE = *OFF
No console messages concerning the status of the request queue are output.

REQUEST-QUEUE-STATE = *ON
Console messages concerning the status of the request queue are output.

TRANSFER-SUCCESS =
Controls the output of console messages when a request is terminated successfully.
Default setting following installation: *OFF

TRANSFER-SUCCESS = *UNCHANGED
The previous value is unchanged.

TRANSFER-SUCCESS = *OFF
No console messages are output if a request is terminated successfully.

TRANSFER-SUCCESS = *ON
Console messages are output if a request is terminated successfully.

TRANSFER-FAILURE =
Controls the output of console messages when a request fails.
Default setting following installation: *OFF

TRANSFER-FAILURE = *UNCHANGED
The previous value is unchanged.

TRANSFER-FAILURE = *OFF
No console messages are output if a request fails.

TRANSFER-FAILURE = *ON
Console messages are output if a request fails.

HOST-NAME =
For using the openFT instance concept: Here you can set the BCAM host to which the transport system calls are made.

Default setting following installation: *NONE

HOST-NAME = *UNCHANGED
The setting for the BCAM host remains unchanged.

HOST-NAME = <alphanum-name 1..8>
The name of the BCAM host via which the requests are processed. The result of this is that requests of an openFT instance are always processed via the same network address, irrespective of the real host. If an instance is to run on a virtual host, then the host name must be entered here before the first START-FT. Later, the host name should not be changed. It may not be changed if requests are present in the request file of this instance.

IDENTIFICATION =
Local instance ID of your openFT instance. With the aid of this instance ID, openFT partners as of V8.1 manage the resources for your openFT instance.

The instance ID must be unique, network-wide and must not be case-sensitive. An instance ID may consist of alphanumeric characters or special characters and may have a maximum length of 64 characters. It is advisable only to use the special characters ".", "-", ":" or "%". The initial character must be alphanumeric or the special character "%". The character "%" may only be used as an initial character. The character "." must be followed by an alphanumeric character. For further details on assigning instance identifications, see section "Instance identifications" on page 62.

Default setting following installation: When an instance is installed for the first time, the BCAM name of the real host under which their instance operates is entered as the default setting. If another identification is to be used for operation then this must be configured with MODIFY-FT-OPTIONS.

IDENTIFICATION = *UNCHANGED
The instance ID remains unchanged.

IDENTIFICATION = <c-string 1..64 with-low> / <composed-name 1..64>
The instance ID is set to this value.

KEY-LENGTH = *PARAMETERS(...)
Configuration of the length of the RSA key and the length of the AES key.

   RSA-PROPOSED
   Length of the RSA key used for encryption. This key is used only to encrypt the AES key which is agreed on between the partners. openFT uses the AES key to encrypt the request description data and possibly also the file contents.
   Default setting following installation: 2048

   RSA-PROPOSED = 0
   Encryption is switched off.

   RSA-PROPOSED = 768 / 1024 / 2048
   Length of the RSA key (in bits) that is used for the transfer of the AES key of the session.

   RSA-MINIMUM
   Minimum length of the RSA key (in bits) accepted by the partner system for the transfer of the AES key for the request initiated by the partner.

Default setting following installation: 0

RSA-MINIMUM = 0
There is no configuration for the minimum length of the RSA key. Every key length is accepted and even requests without encryption can be processed.

RSA-MINIMUM = 768 / 1024 / 2048
Keys with this minimum length are accepted only. If the initiator uses a shorter key he gets a counter proposal of the responder of the session. A session without encryption will be denied.

AES-MINIMUM
Minimum length of the AES key (in bits) that will be required from the partner system. Default setting following installation: *NONE

AES-MINIMUM = *NONE
There is no configuration for the minimum length of the AES key. Every AES key length and even requests with DES keys are accepted.

AES-MINIMUM = 128 / 256
AES keys with this minimum length are accepted only. If the partner cannot fulfill this requirement the request will be rejected.

OPENFT-APPLICATION =
Specifies a port number and/or a transport selector for the local openFT server. Use this function carefully as it will be more difficult for the openFT partners to address the local system if the port number or transport selector differ from the default values!
Default setting following installation: *STD

OPENFT-APPLICATION = *UNCHANGED
The previous value is unchanged.

OPENFT-APPLICATION = *STD
The port number and transport selector are set to the default value, i.e.:
Port number: 1100
Transport selector: $FJAM in EBCDIC code, followed by three spaces.

OPENFT-APPLICATION = <text 1..24>
Valid port number and/or a transport selector in the form [<port number>].[tsel].

OPENFT-STD =
Port number other than the default when addressing openFT partners via their host names. Use this function carefully, as changing the port number from the default value means that it will no longer be possible to reach openFT partners which use the default port number and are addressed via the host name!
Default setting following installation: *STD

OPENFT-STD = *UNCHANGED
The previous value is unchanged.

OPENFT-STD = *STD
The port number is set to the default value 1100.

OPENFT-STD = <integer 1..65535>
Valid port number.

FTAM-APPLICATION =
Specifies a port number other than the default for the local FTAM server. You can also specify a transport selector which differs from the default $FTAM plus a session and presentation selectors.
Use this function carefully, as changing the port number and/or selectors from the default value will make it more difficult for the FTAM partners to address the local system!
Default setting following installation: *STD

FTAM-APPLICATION = *UNCHANGED
The previous value is unchanged.

FTAM-APPLICATION = *STD
The port number is set to the default value 4800. The transport selector is reset to the default value $FTAM (in EBCDIC, followed by three blanks). Session and presentation selectors are reset to the empty format.

FTAM-APPLICATION = <text 1..40>
Specifies a valid port number, optionally together with selectors in the format <port number>.[transport selector].[session selector].[presentation selector].

FTP-PORT =
This option allows you to specify the port number used by FTP.
Default setting following installation: 21

FTP-PORT = *UNCHANGED
The previous value is unchanged.

FTP-PORT = *NONE
This setting is only supported for reasons of compatibility.
You should use the operand ACTIVE-APPLICATIONS to activate and deactivate the inbound FTP server.

FTP-PORT = *STD
The port number is set to the default value 21.

FTP-PORT = <integer 1..65535>
Valid port number.

DYNAMIC-PARTNERS =
Specifies whether dynamic partners are permitted.
Default setting following installation: *ON

DYNAMIC-PARTNERS = *UNCHANGED
The previous value is unchanged.

DYNAMIC-PARTNERS = *OFF
Dynamic partners are not permitted. This means that it is only possible to access partner systems which are entered in the partner list and are addressed via the partner name. Transfer requests with partners which are not entered in the partner list or are entered in the partner list without a name are not permitted.

DYNAMIC-PARTNERS = *ON
Dynamic partners are permitted. This means that transfer requests are also permitted with partner systems which are not entered in the partner list or only have their address entered there.

ADM-PORT =
This option allows you to specify the port number used for remote administration.
Default setting following installation: 11000

ADM-PORT = *UNCHANGED
The previous value is unchanged**.**

ADM-PORT = *STD
The port number is set to the default value 11000.

ADM-PORT = <integer 1..65535>
Specifies a valid port number.

ACTIVE-APPLICATIONS=
This option allows you to activate or deactivate the asynchronous inbound server.
Default setting following installation: *OPENFT,*ADM

ACTIVE-APPLICATIONS = *UNCHANGED
The previous value is unchanged**.**

ACTIVE-APPLICATIONS = *ALL
The asynchronous inbound servers for the openFT, ADM and FTP protocols are activated.

ACTIVE-APPLICATIONS = *NONE
The asynchronous inbound servers for the openFT, ADM and FTP protocols are deactivated.

ACTIVE-APPLICATIONS = list-poss(3): *OPENFT / *ADM / *FTP
You can activate the asynchronous inbound servers for specific protocols (openFT, ADM, and/or FTP), by specifying a comma-delimited list of one or more asynchronous inbound servers listed.
The asynchronous inbound servers for the protocol types that are not in the list are then automatically deactivated.

ACTIVE-APPLICATIONS = *OPENFT
Activates the asynchronous inbound server for requests via the openFT protocol.

ACTIVE-APPLICATIONS = *ADM
Activates the asynchronous inbound server for administration requests.

ACTIVE-APPLICATIONS = *FTP
Activates the asynchronous inbound server for requests via the FTP protocol.

ADM-CONNECTION-LIMIT =
This allows you to specify the maximum number of connections for remote administration.
Default setting following installation: 8

ADM-CONNECTION-LIMIT = *UNCHANGED
The previous value is unchanged.

ADM-CONNECTION-LIMIT = <integer 1..255>
You can enter a value between 1 and 255 here.
The default value after installation is 8.

MONITORING =
Activates or deactivates the monitoring functions.
Default setting following installation: *OFF

MONITORING = *UNCHANGED
The monitoring settings remain unchanged.

MONITORING = *ON
Activates monitoring without changing the filter.

MONITORING = *OFF
Deactivates monitoring.

MONITORING = *PARAMETERS(...)
Selects the options that are to be applied to monitoring.

    SWITCH =
    Activates or deactivates monitoring for the selected partners.
    Default setting following installation: *OFF

    SWITCH = *UNCHANGED
    The previous value is unchanged.

    SWITCH = *ON
    Activates monitoring.

    SWITCH = *OFF
    Deactivates monitoring.

    PARTNER-SELECTION =
    Selects the partners that are to be monitored.
    Default setting following installation: *ALL

    PARTNER-SELECTION = *UNCHANGED
    The previous value is unchanged.

PARTNER-SELECTION = *ALL
All the partners are selected for monitoring.

PARTNER-SELECTION = *NONE
No partner is selected for monitoring. In this event, only certain monitoring data values are populated, see the section "Description of the monitoring values" on page 330.

PARTNER-SELECTION = *OPENFT
All partners which are addressed via the openFT protocol are selected for monitoring.

PARTNER-SELECTION = *FTAM
All partners which are addressed via the FTAM protocol are selected for monitoring.

PARTNER-SELECTION = *FTP
All partners which are addressed via the FTP protocol are selected for monitoring.

REQUEST-SELECTION =
Selects the request types for which monitoring data is to be collected.
Default setting following installation: *ALL

REQUEST-SELECTION = <u>*UNCHANGED</u>
The previous value is unchanged.

REQUEST-SELECTION = *ALL
All requests are selected for monitoring.

REQUEST-SELECTION = *ONLY-SYNC
All synchronous requests are selected for monitoring. Synchronous requests are always issued locally.

REQUEST-SELECTION = *ONLY-ASYNC
All asynchronous requests are selected for monitoring. Requests issued remotely are always regarded as asynchronous.

REQUEST-SELECTION = *ONLY-LOCAL
All locally submitted requests are selected for monitoring.

REQUEST-SELECTION = *ONLY-REMOTE
All remotely submitted requests are selected for monitoring.

ADM-TRAPS =
Specifies the settings for the ADM trap server and the ADM traps.
Default setting following installation: *NONE

ADM-TRAPS = <u>*UNCHANGED</u>
The previous settings remain unchanged.

ADM-TRAPS = *NONE
The ADM trap server is removed from the list, the FTAC transfer admission is deleted and all ADM traps are deactivated.

ADM-TRAPS = *PARAMETERS(...)
Changes the name of the destination, i.e. the ADM trap server and the associated FTAC transfer admission and activates or deactivates selected ADM traps.

DESTINATION =
Here you specify the name of the destination or the ADM trap server together with the corresponding FTAC transfer admission.
Default setting following installation: *NONE

DESTINATION = <u>*UNCHANGED</u>
The name of the ADM trap server and the FTAC transfer admission remain unchanged.

DESTINATION = *NONE
The name of the ADM trap server and the FTAC transfer admission are deleted and thus reset to *NONE.

DESTINATION = *PARAMETERS(...)
Destination to which the ADM traps are to be sent.

PARTNER = <u>*UNCHANGED</u>
The name of the ADM trap server remains unchanged.

PARTNER = <text 1..200 with-low>
Name of the partner system from the partner list or the address of the partner system to which the ADM traps are to be sent. If the partner is not entered in the partner list, it must be specified with the prefix ftadm://, see section "Specifying partner addresses" on page 48.

TRANSFER-ADMISSION =
FTAC transfer admission for accessing the ADM trap server.

TRANSFER-ADMISSION = <u>*UNCHANGED</u>
The FTAC transfer admission of the ADM trap server remains unchanged.

**TRANSFER-ADMISSION = <alphanum-name 8..32> / <
c-string 8..32 with-low> / <x-string15..64>**
The FTAC functionality is used on the remote system. Only the transfer admission defined in the admission profile may be used.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this is not visible on the screen.

SELECTION =
Activates or deactivates specific ADM traps.
Default setting following installation: *NONE

SELECTION = <u>*UNCHANGED</u>
The previous value is unchanged.

SELECTION = *NONE
Deactivates all ADM traps.

SELECTION = *ALL
Activates all ADM traps.

SELECTION = *PARAMETERS(...)
Activates or deactivates selected ADM traps.

FT-STATE =
Activates or deactivates the sending of traps on START-FT / STOP-FT and if
openFT is terminated abnormally.
Default setting following installation: *OFF

FT-STATE = *UNCHANGED
The previous value is unchanged.

FT-STATE = *OFF
Deactivates the traps for FT-STATE.

FT-STATE = *ON
Activates the traps for FT-STATE.

PARTNER-STATE =
Activates or deactivates the sending of traps when the status of partners changes.
Default setting following installation: *OFF

PARTNER-STATE = *UNCHANGED
The previous value is unchanged.

PARTNER-STATE = *OFF
Deactivates the traps for PARTNER-STATE.

PARTNER-STATE = *ON
Activates the traps for PARTNER-STATE.

PARTNER-UNREACHABLE =
Activates or deactivates the sending of the trap indicating that a partner is
unreachable.
Default setting following installation: *OFF

PARTNER-UNREACHABLE = *UNCHANGED
The previous value is unchanged.

PARTNER-UNREACHABLE = *OFF
Deactivates the "partner unreachable" trap.

PARTNER-UNREACHABLE = *ON
Activates the "partner unreachable" trap.

REQUEST-QUEUE-STATE =
Activates the sending of traps referring to the filling level of the request queue, i.e. whether traps are sent if the filling level has exceeded the 85% threshold or fallen below the 80% threshold.
Default setting following installation: *OFF

REQUEST-QUEUE-STATE = <u>*UNCHANGED</u>
The previous value is unchanged.

REQUEST-QUEUE-STATE = *OFF
Deactivates the traps if the filling level falls outside the thresholds.

REQUEST-QUEUE-STATE = *ON
Activates the traps if the filling level falls outside the thresholds.

TRANSFER-SUCCESS =
Activates or deactivates the sending of the trap indicating that an FT request was completed successfully.
Default setting following installation: *OFF

TRANSFER-SUCCESS = <u>*UNCHANGED</u>
The previous value is unchanged.

TRANSFER-SUCCESS = *OFF
Deactivates the trap for TRANSFER-SUCCESS.

TRANSFER-SUCCESS = *ON
Activates the trap for TRANSFER-SUCCESS.

TRANSFER-FAILURE =
Activates or deactivates the sending of the trap indicating that an FT request was aborted.
Default setting following installation: *OFF

TRANSFER-FAILURE = <u>*UNCHANGED</u>
The previous value is unchanged.

TRANSFER-FAILURE = *OFF
Deactivates the trap for TRANSFER-FAILURE.

TRANSFER-FAILURE = *ON
Activates the trap for TRANSFER-FAILURE.

ENCRYPTION-MANDATORY =
Controls the system-wide obligation for user data encryption. This setting applies for transfer and administration requests.
Default setting following installation: *NO

ENCRYPTION-MANDATORY = <u>*UNCHANGED</u>
The setting remains unchanged.

ENCRYPTION-MANDATORY = *NO
Deactivates the system-wide obligation for user data encryption. If encryption is required, this must be specified explicitly in the request.

ENCRYPTION-MANDATORY = *INBOUND
Activates the obligation for inbound encryption:
Inbound requests must transfer the user data in encrypted form, otherwise they are rejected.

ENCRYPTION-MANDATORY = *OUTBOUND
Activates the obligation for outbound encryption, i.e.:
Outbound requests transfer the user data in encrypted form, even if no encryption was called for in the request (e.g. TRANSFER-FILE, program interface, etc.).

ENCRYPTION-MANDATORY = (*INBOUND,*OUTBOUND)
Activates the obligation for inbound and outbound encryption, i.e:
Inbound requests must be transferred in encrypted form, otherwise they are rejected.
Outbound requests transfer the user data in encrypted form, even if no encryption was called for in the request.

> **i** – System-wide mandatory encryption may be activated only if openFT-CR is installed. Deactivation with ENCRYPTION-MANDATORY=*NO is, on the other hand, permitted even if openFT-CR is no (longer) installed.
> – When mandatory inbound encryption is activated, inbound FTAM requests and inbound FTP requests are rejected.
> When mandatory outbound encryption is activated, outbound FTAM requests are rejected. Outbound FTP requests are, however, permitted.
> – File management requests are executed in unencrypted format irrespective of the specification in ENCRYPTION-MANDATORY.

DELETE-LOGGING =
Controls the settings for deleting log records.

**DELETE-LOGGING = *UNCHANGED*
The settings for deleting log records remain unchanged.

DELETE-LOGGING = *PARAMETERS(...)
Defines the options for deleting log records.

SWITCH =
Activates or deactivates the automatic deletion of log records.
Default setting following installation: *OFF

**SWITCH = *UNCHANGED*
The automatic deletion of log records remains activated or deactivated.

SWITCH = *ON
Activates the automatic deletion of log records.

SWITCH = *OFF
Deactivates the automatic deletion of log records.

RETENTION-PERIOD =
Specifies the minimum age of the log records for deletion.
Default setting following installation: 14 days.

RETENTION-PERIOD = *UNCHANGED
The settings remain unchanged.

RETENTION-PERIOD = <integer 0..999 days>
Minimum age of log records for deletion in days. The days are counted back from the
deletion time specified in DELETE-TIME. The value 0 deletes all the log records that
were written before or at the time of the current day specified in DELETE-TIME.

REPEAT =
Specifies when deletion is to be repeated.
Default setting following installation: *DAILY

REPEAT = *UNCHANGED
The settings remain unchanged.

REPEAT = *DAILY
The log records are deleted every day.

REPEAT = *WEEKLY(..)
The log records are deleted once a week.

> **ON = *SUNDAY / *MONDAY / *TUESDAY / *WEDNESDAY / *THURSDAY /
> *FRIDAY / *SATURDAY**
> Weekday on which the log records are deleted.

REPEAT = *MONTHLY(..)
The log records are deleted once a month.

> **ON = 1 / <integer 1..31>**
> Specific day of the month (1-31). If 29, 30 or 31 is specified as the day of the month
> but the month has fewer days, deletion will take place on the last day of the month.

DELETE-TIME =
Specifies the time at which the log records are to be deleted.
Default setting following installation: 00:00

DELETE-TIME = *UNCHANGED
The setting remains unchanged.

DELETE-TIME = <time 1..8>
Time (local time at which the log records are to be deleted. Due to the nature of the
system, the delete function can be performed up to 5 minutes after this time. You enter
the time in the format *hh:mm:ss*, e.g. 14:30:10.

RECOVERY-OUTBOUND=
Specifies the global restart function for outbound requests.
Default setting following installation: *ON

RECOVERY-OUTBOUND=*UNCHANGED
The present restart function setting for outbound requests remains unchanged.

RECOVERY-OUTBOUND=*ON
The restart function for outbound requests is activated for all partner systems for which there is no partner-specific setting.

| i | The restart function for outbound requests is valid only, if the restart function for inbound requests is activated by the foreign system. |

RECOVERY-OUTBOUND=*OFF
The restart function for outbound requests is deactivated for all partner systems for which there is no partner-specific setting.

RECOVERY-INBOUND=
This operand specifies the global restart function for inbound requests of partner systems which have activated the recovery for outbound requests.
Default setting following installation: *ON

RECOVERY- INBOUND =*UNCHANGED
The present restart function setting for inbound requests remains unchanged.

RECOVERY- INBOUND =*ON
The restart function for inbound requests is globally activated.

RECOVERY- INBOUND =*OFF
The restart function for inbound requests is globally deactivated.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
87	32	CMD0221	No space left on device for internal files.
33	64	FTR1033	The public key files could not be updated.
35	64	FTR1035	Command only permissible for FT administrator.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see .

Example

The maximum number of tasks to be executed in parallel is to be 3 and the maximum
number of transport connections to be set up is to be 10:

```
/MODIFY-FT-OPTIONS PROCESS-LIMIT=3,CONNECTION-LIMIT=10
```

3.25   MODIFY-FT-PARTNER
Modify partner properties in the partner list

Note on usage

User group: FT administrator

Alias name: FTMODPTN

Functional description

This command can be used to modify the characteristics of a partner that is already entered in the partner list. When changing the partner address, please note that an openFT partner cannot be changed to an FTP partner or an FTAM partner and vice versa.

You can remove an entered dynamic partner from the partner list by setting all the properties to the default values for free dynamic partners by means of the MODIFY-FT-PARTNER command. The default values are the same as the default values in the ADD-FT-PARTNER command with the exception of the SECURITY-LEVEL operand which must be set to *BY-PARTNER-ATTRIBUTES.

Similarly, you can add a free dynamic partner to the partner list by setting at least one of its attributes to a value other than the default. This is possible if PARTNER does not reference a partner list entry and PARTNER-ADDRESS is not specified.

If a partner name for which there is not yet a partner list entry is specified for PARTNER and PARTNER-ADDRESS is also specified, a new named partner list entry is created. This function is intended for the re-import of exported partner entries. To explicitly create new partner entries, you should use ADD-FT-PARTNER.

Format

```
MODIFY-FT-PARTNER / FTMODPTN

 PARTNER = *ALL / <text 1..200 with-low>

,STATE = *UNCHANGED / *PARAMETERS(...)

   *PARAMETERS(...)
       │  OUTBOUND = *UNCHANGED / *ACTIVE(...) / *DEACT
       │       *ACTIVE(...)
       │          AUTOMATIC-DEACT = *NO / *YES
       │  ,INBOUND = *UNCHANGED / *ACTIVE / *DEACT

,SECURITY-LEVEL = *UNCHANGED / *STD / *BY-PARTNER-ATTRIBUTES / <integer 1..100>

,PARTNER-ADDRESS = *UNCHANGED / <text 1..200 with-low>

,TRACE = *UNCHANGED / *BY-FT-OPTIONS / *ON / *OFF

,IDENTIFICATION = *UNCHANGED / *STD / <composed-name 1..64> / <c-string 1..64 with-low>

,SESSION-ROUTING-INFO = *UNCHANGED / *NONE / *IDENTIFICATION / <alphanum-name 1..8>

,PARTNER-CHECK = *UNCHANGED / *BY-FT-OPTIONS / *STD / *TRANSPORT-ADDRESS

,AUTH-MANDATORY = *UNCHANGED / *NO / *YES

,PRIORITY= *UNCHANGED / *NORMAL / *LOW / *HIGH

,REQUEST-PROCESSING = *UNCHANGED / *STD / *SERIAL

,RECOVERY-OUTBOUND = *UNCHANGED / *ON / *OFF/ *BY-FT-OPTIONS
```

Operands

PARTNER =
Specifies the partner system.

PARTNER = *ALL
The specified changes are to be implemented for all partner systems defined in the partner list. This specification is only meaningful in conjunction with the operands STATE, SECURITY-LEVEL, TRACE, PARTNER-CHECK, AUTH-MANDATORY, PRIORITY and REQUEST-PROCESSING.

Particular care is necessary when using PARTNER=*ALL in combination with the SECURITY-LEVEL operand.

> **i** The description below refers to a single partner system. If you have selected *ALL, the description applies by analogy for all partner system in the partner list which comply with the relevant selection criteria.

PARTNER = <text 1..200 with-low>
Specifies either the name of the partner system from the partner list or the address of the
partner system (see).

STATE =
Controls the state of the partner system (activated, deactivated).

STATE = <u>*UNCHANGED</u>
The state is unchanged.

STATE = *PARAMETERS(...)
Specifies the settings for locally submitted file transfer requests (outbound) and for remotely
submitted file transfer requests.

OUTBOUND =
Specifies the setting for locally submitted file transfer requests to the partner system.

OUTBOUND = <u>*UNCHANGED</u>
The state of locally submitted FT requests is unchanged.

OUTBOUND = *ACTIVE(...)
Locally submitted file transfer requests to the partner system are processed.

AUTOMATIC-DEACT =
Defines if repeated attempts to establish a connection with this partner system
should result in a deactivation of the partner system after multiple attempts.

AUTOMATIC-DEACT = <u>*NO</u>
Unsuccessful attempts to establish a connection with this partner system do not
lead to its deactivation.

AUTOMATIC-DEACT = *YES
Repeated unsuccessful attempts to establish a connection with this partner system
lead to its deactivation. If locally submitted file transfer requests to the partner
system are to be executed again after this, the system must be activated explicitly
(with OUTBOUND=*ACTIVE).

OUTBOUND = *DEACT
Locally submitted file transfer requests to the partner system are initially not processed
(not started) but are stored in the request queue. They are executed only after the
partner system has been activated with OUTBOUND=*ACTIVE.

INBOUND =
Specifies the setting for remotely submitted file transfer requests, i.e. requests which
were submitted by this partner system.

INBOUND = <u>*UNCHANGED</u>
The state of locally submitted FT requests is unchanged.

INBOUND = *ACTIVE
Remotely submitted file transfer requests from this partner system are processed.

INBOUND = *DEACT
Remotely submitted synchronous file transfer requests from this partner system are rejected. Remotely submitted asynchronous file transfer requests from this partner system are stored there and cannot be processed until the partner system is activated again with INBOUND=*ACTIVE.

SECURITY-LEVEL =
Assigns a security level to a remote system.

SECURITY-LEVEL = *UNCHANGED
The value is unchanged.

SECURITY-LEVEL = *STD
If you set this operand to *STD, a standard security level is assigned to the remote system. This standard security level is defined using the MODIFY-FT-OPTIONS command. Here you can define a fixed value or make the value attribute-dependent.

SECURITY-LEVEL = *BY-PARTNER-ATTRIBUTES
If you set the operand to *BY-PARTNER-ATTRIBUTES then the security level is defined automatically:
– Partners that are authenticated by openFT are assigned the security level 10.
– Partners, that are known in BCAM (i.e. they are addressed via their BCAM names), are assigned the security level 90.
– All other partners are assigned security level 100.

SECURITY-LEVEL = <integer 1..100>
Must be specified if you want to assign a particular security level to the individual partner system.

PARTNER-ADDRESS =
Address of the partner system.

PARTNER-ADDRESS = *UNCHANGED
The address remains unchanged.

PARTNER-ADDRESS = <text 1..200 with-low>
New address for the partner system. For details on the address format, see section "Specifying partner addresses" on page 48.

TRACE =
Trace setting for the partner systems. Trace entries are generated only if the FT trace function is activated by means of an operating parameter (MODIFY-FT-OPTIONS TRACE=*ON).

TRACE = *UNCHANGED
The current trace setting is unchanged.

TRACE = *BY-FT-OPTIONS
The trace settings specified in the MODIFY-FT-OPTIONS command are used.

TRACE = *ON
Activates the trace for this partner system even if tracing is deactivated for this partner type in the global settings (MODIFY-FT-OPTIONS). The request-specific trace settings made in MODIFY-FT-OPTIONS, on the other hand, are taken into account.

> **i** A detailed description of the trace function can be found in the manual "openFT (BS2000) - Installation and Operation".

TRACE = *OFF
For connections to this partner system, only those trace entries which it is technically impossible to suppress are generated. Trace entries which it is technically impossible to suppress are those which are generated before openFT (BS2000) identifies the partner system

IDENTIFICATION =
The network-wide, unique ID of the openFT instance in the partner system.

IDENTIFICATION = <u>*UNCHANGED</u>
The ID remains unchanged.

IDENTIFICATION = *STD
For openFT and FTADM partners, the partner address or the host name from the partner address is used as the identification. No identification is set for FTP and FTAM partners.

IDENTIFICATION = <composed-name 1..64> / <c-string 1..64 with-low>
The network-wide, unique instance ID of the openFT instance in the partner system. This ID is used for authenticating partner systems as of openFT V8.1. It is set by the FT administrator of the partner system (in BS2000, by using MODIFY-FT-OPTIONS IDENTIFICATION=, in Unix systems or Windows, by using *ftmodo -id*). The uniqueness of this ID must be based on something other than case-sensitivity. An instance ID may be comprised of alphanumeric characters or special characters. It is advisable to use only the special characters ".", "-", ":" or "%".

The initial character must be alphanumeric or the special character "%". The "%" character may only be used as an initial character. An alphanumeric character must follow the "." character. For more details on assigning instance identifications, see section "Instance identifications" on page 62.

With FTAM partners an Application Entity Title can be specified as an identification in the format *n1.n2.n3.n4..mmm*. For details, see the section "Addressing via Application Entity Title" in the openFT manual "Concepts and Functions".

The instance identification must not be specified with FTP partners!

i You should always specify the instance identification of the partner system explicitly (except with FTAM or FTP partners) and should not use the default value (IDENTIFICATION=*STD).

SESSION-ROUTING-INFO =
If the partner system is only accessible via a go-between instance, specify here the address information, which the go-between instance will use for re-routing. This is necessary, for example, for partner systems using openFT (z/OS), dependent on TRANSIT connections.

SESSION-ROUTING-INFO = *UNCHANGED
The setting remains unchanged.

SESSION-ROUTING-INFO = *NONE
No routing information is used. The session selector can be specified as part of the partner address.

SESSION-ROUTING-INFO = *IDENTIFICATION
Connections to the partner are re-routed via a gateway that uses the instance identification as the address information.

SESSION-ROUTING-INFO = <alphanum-name 1..8>

PARTNER-CHECK =
Enables the global settings for sender checking to be modified on a partner-specific basis. These settings are only effective for named openFT partners that do not work with authentication (see openFT manual "Concepts and Functions").

This setting has no meaning for FTAM partners, FTP partners and dynamic partner entries.

PARTNER-CHECK = *UNCHANGED
The set value remains unchanged.

PARTNER-CHECK = *BY-FT-OPTIONS
The global settings are valid for the partner.

PARTNER-CHECK = *STD
Disable the expanded sender checking. The transport address of the partner is not checked, even if the expanded sender checking is globally enabled (see the MODIFY-FT-OPTIONS command).

PARTNER-CHECK = *TRANSPORT-ADDRESS
Enables expanded sender checking. The transport address is checked, even if the expanded sender checking is globally disabled (see the MODIFY-FT-OPTIONS command). If the transport address under which the partner is reporting does not correspond to the entry in the partner list, the request is rejected.

AUTH-MANDATORY =
Forces the authentication of a named partner system.

AUTH-MANDATORY = *UNCHANGED
The set value is unchanged.

AUTH-MANDATORY = *NO
Authentication is not forced, i.e. this partner system is not restricted with regard to authentication.

AUTH-MANDATORY = *YES
Authentication is forced, i.e. connections to and from this named partner are only permitted when authentication is provided.

PRIORITY=
This operand allows you to specify the priority of the partner system in respect of processing requests that have the same request priority. This means that the partner priority only applies in the case of requests that have the same request priority, but that are issued to partners with a different partner priority.

PRIORITY = *UNCHANGED
The priority of the partner system with regard to the processing of requests with the same request priority remains unchanged.

PRIORITY = *NORMAL
The partner has normal priority.

PRIORITY = *LOW
The partner has low priority.

PRIORITY = *HIGH
The partner has high priority.

REQUEST-PROCESSING =
You use this option to control whether asynchronous outbound requests to this partner system are always run serially or whether parallel connections are permitted.

REQUEST-PROCESSING = *UNCHANGED
The operating mode to this partner system remains unchanged.

REQUEST-PROCESSING = *STD
Parallel connections to this partner system are permitted.

REQUEST-PROCESSING = *SERIAL
Parallel connections to this partner system are not permitted. If multiple file transfer requests to this partner system are pending, then they are processed serially. A follow-up request is consequently not started until the preceding request has terminated.

RECOVERY-OUTBOUND=
This operand controls the partner-specific restart function (recovery) for asynchronous outbound requests.

RECOVERY-OUTBOUND=*UNCHANGED
The current setting for the recovery of outbound requests remains unchanged.

RECOVERY-OUTBOUND=* ON
The restart function for outbound requests is activated for this partner system. This setting is valid only, if the global restart function of the openFT is activated, too.

RECOVERY-OUTBOUND=* OFF
The restart function for outbound requests is deactivated for this partner system.

RECOVERY-OUTBOUND=* BY-FT-OPTIONS
The global setting for the restart function for outbound requests is valid.

Command return codes

(SC2)	SC1	Maincode	Meaning
198	1	CMD0202	Invalid parameter value.
83	32	CMD0221	Internal error.
35	64	FTR1035	Command only permissible for FT administrator.
43	64	FTR1043	Partner with same attribute already exists in partner list.
44	64	FTR1044	Maximum number of partners exceeded.
45	64	FTR1045	Partner name not found in partner list.
46	64	FTR1046	Modification of partner protocol type not possible.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

Example 1

The SECURITY-LEVEL for the partner system TEST is set to 99:

```
/MODIFY-FT-PARTNER PARTNER=TEST,SECURITY-LEVEL=99
```

Example 2

The port number for partner WINDOWS (host name = winhost2) is set to 1100:

```
/MODIFY-FT-PARTNER PARTNER=WINDOWS,PARTNER-ADDRESS=winhost2:1100
```

3.26 MODIFY-FT-PROFILE
Modify admission profile

Note on usage

User group: FTAC user and FTAC administrator

Prerequisite for using this command is the use of openFT-AC.

Functional description

The command MODIFY-FT-PROFILE can be used by any FTAC user to modify his/her admission profile. In a privileged admission profile, an FTAC user can only modify the operands TRANSFER-ADMISSION and PRIVILEGED.

When the FTAC administrator neither possesses TSOS privilege nor has specified the account number and password, the profile is prohibited after a modification and must be released by the user. Modification of the privilege is excluded from this: in this case the profile is not locked.

As soon as an admission profile is modified, the timestamp of the last modification is also updated. You can see the timestamp with SHOW-FT-PROFILE INF=*ALL (LAST-MODIF). The timestamp is updated even if you do not change the properties of the profile, i.e. if you enter MODIFY-FT-PROFILE with the parameter NAME without specifying other parameters.

Format

MODIFY-**FT-PROF**ILE

 NAME = ***ALL** / ***STD** / <alphanum-name 1..8>

,**PASS**WORD = ***NONE** / <c-string 1..8 with-low> / <x-string 1..16> / ***SEC**RET

,**SELECT-PARAMETER** = ***OWN** / ***PAR**AMETERS(...)

   *PARAMETERS(...)
       │   **TRANSFER-ADMISSION** = ***ALL** / ***NOT-SPEC**IFIED / <alphanum-name 8..32> /
       │   c-string 8..32 with-low> / <x-string 15..64> / ***SEC**RET
       │   ,**OWNER-IDENTIFICATION** = ***OWN** / ***ALL** / <name 1..8>

,**NEW-NAME** = ***OLD** / ***STD** / <alphanum-name 1..8>

,**TRANSFER-ADMISSION** = ***UNCH**ANGED / ***NOT-SPEC**IFIED / ***OLD-ADM**ISSION(...) /
                             <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) /
                             <x-string 15..64>(...) / ***SEC**RET

   *OLD-ADMISSION(...)
       │   **VALID** = ***UNCH**ANGED / ***YES** / ***NO**
       │   ,**USAGE** = ***UNCH**ANGED / ***PRIVATE** / ***PUB**LIC
       │   ,**EXPIRATION-DATE** = ***UNCH**ANGED / ***NOT-REST**RICTED / <date 8..10>
   <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) / <x-string 15..64>(...)
       │   **VALID** = ***YES** / ***NO** / ***UNCH**ANGED
       │   ,**USAGE** = ***PRIVATE** / ***PUB**LIC / ***UNCH**ANGED
       │   ,**EXPIRATION-DATE** = ***NOT-REST**RICTED / <date 8..10> / ***UNCH**ANGED

,**PRIVILEGED** = ***UNCH**ANGED / ***NO** / ***YES**

,**IGNORE-MAX-LEVELS** = ***UNCH**ANGED / ***NO** / ***YES** / ***PAR**AMETERS(...)

   *PARAMETERS(...)
       │   **OUTBOUND-SEND** = ***UNCH**ANGED / ***NO** / ***YES**
       │   ,**OUTBOUND-RECEIVE** = ***UNCH**ANGED / ***NO** / ***YES**
       │   ,**INBOUND-SEND** = ***UNCH**ANGED / ***NO** / ***YES**
       │   ,**INBOUND-RECEIVE** = ***UNCH**ANGED / ***NO** / ***YES**
       │   ,**INBOUND-PROCESSING** = ***UNCH**ANGED / ***NO** / ***YES**
       │   ,**INBOUND-MANAGEMENT** = ***UNCH**ANGED / ***NO** / ***YES**

```
,USER-ADMISSION = *UNCHANGED / *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
        USER-IDENTIFICATION = *OWN / <name 1..8>
        ,ACCOUNT = *OWN / *FIRST / *NOT-SPECIFIED / *NONE / <alphanum-name 1..8>
        ,PASSWORD = *OWN / *NOT-SPECIFIED / <c-string 1..8> / <c-string 9..32> /
                    <x-string 1..16> / *NONE / *SECRET

,INITIATOR = *UNCHANGED / list-poss(2): *REMOTE / *LOCAL

,TRANSFER-DIRECTION = *UNCHANGED / *NOT-RESTRICTED / *FROM-PARTNER / *TO-PARTNER

,PARTNER = *UNCHANGED / *NOT-RESTRICTED / *ADD(...) / *REMOVE(...) /
                list-poss(50): <text 1..200 with-low>

   *ADD(...)
        NAME = list-poss(50): <text 1..200 with-low>

   *REMOVE(...)
        NAME = list-poss(50): <text 1..200 with-low>

,MAX-PARTNER-LEVEL = *UNCHANGED / *NOT-RESTRICTED / <integer 0..100>

,FILE-NAME = *UNCHANGED / *NOT-RESTRICTED / <filename1..54 > /
                <c-string 1..512 with-low> / *EXPANSION(...) / *LIBRARY-ELEMENT(...) /
                *POSIX(NAME=<posix-pathname 1..510>)

   *EXPANSION(...)
        PREFIX = <filename 1..53> / <partial-filename 2..53> / <c-string 1..511 with-low>

   *LIBRARY-ELEMENT(...)
        LIBRARY = *UNCHANGED / *NOT-RESTRICTED / <filename 1..54> / *EXPANSION(...)
           *EXPANSION(...)
                PREFIX = <filename 1..53> / <partial-filename 2..53>
        ,ELEMENT = *UNCHANGED / *NOT-RESTRICTED /
                        <composed-name 1..64 with-under>(...) / *EXPANSION(...)
           <composed-name 1..64 with-under>(...)
                VERSION = *STD / <text 1..24>
           *EXPANSION(...)
                PREFIX = <composed-name 1..63 with-under> / <partial-filename 2..63>
        ,TYPE = *UNCHANGED / *NOT-RESTRICTED / <name 1..8>

,FILE-PASSWORD = *UNCHANGED / *NOT-RESTRICTED / *NONE / <c-string 1..4> /
                <x-string 1..8> / <integer -2147483648...2147483647> / *SECRET
```

```
,PROCESSING-ADMISSION = *UNCHANGED / *SAME / *NOT-RESTRICTED / *PARAMETERS(...)

   *PARAMETERS(...)
      │  USER-IDENTIFICATION = *SAME / *NOT-RESTRICTED / <name 1..8>
      │  ,ACCOUNT = *SAME / *NOT-RESTRICTED / *NONE / <alphanum-name 1..8>
      │  ,PASSWORD = *SAME / *NOT-RESTRICTED / *NONE / <c-string 1..8> /
      │              <c-string 9..32> / <x-string 1..16> / *SECRET

,SUCCESS-PROCESSING = *UNCHANGED / *NOT-RESTRICTED / *NONE / <c-string 1..1000 with-low> /
                        *EXPANSION(...)

   *EXPANSION(...)
      │  PREFIX = *UNCHANGED / *NOT-RESTRICTED / <c-string 1..999 with-low>
      │  ,SUFFIX = *UNCHANGED / *NOT-RESTRICTED / <c-string 1..999 with-low>

,FAILURE-PROCESSING = *UNCHANGED / *NOT-RESTRICTED / *NONE / <c-string 1..1000 with-low> /
                        *EXPANSION(...)

   *EXPANSION(...)
      │  PREFIX = *UNCHANGED / *NOT-RESTRICTED / <c-string 1..999 with-low>
      │  ,SUFFIX = *UNCHANGED / *NOT-RESTRICTED / <c-string 1..999 with-low>

,WRITE-MODE = *UNCHANGED / *NOT-RESTRICTED / *NEW-FILE / *REPLACE-FILE / *EXTEND-FILE

,FT-FUNCTION = *UNCHANGED / *NOT-RESTRICTED / list-poss(5):
                  *TRANSFER-FILE / *MODIFY-FILE-ATTRIBUTES / *READ-DIRECTORY /
                  *FILE-PROCESSING / *REMOTE-ADMINISTRATION

,USER-INFORMATION = *UNCHANGED / *NONE / <c-string 1..100 with-low>

,DATA-ENCRYPTION = *UNCHANGED / *NOT-RESTRICTED / *NO / *YES
```

Operands

NAME =
Determines the name of the admission profile to be modified.

NAME = *ALL
Modifies all your admission profiles at the same time provided no further selection criteria are specified using the SELECT parameter and neither the name nor the transfer admission is to be modified.

NAME = *STD
Changes the standard admission profile for your user ID or, as FTAC administrator, the standard admission profile of the selected user ID.

NAME = <alphanum-name 1..8>
Modifies the admission profile with this name.

PASSWORD =
FTAC password which authorizes you to use FTAC commands on your user ID, if such a password has been defined in your admission set.

PASSWORD = *NONE
No FTAC password is required.

PASSWORD = <c-string 1..8 with-low> / <x-string 1..16>
This FTAC password is required.

PASSWORD = *SECRET
The system prompts you to enter the password. However, it does not appear on the screen.

SELECT-PARAMETER =
Specifies a transfer admission. You will then modify the admission profile which has this transfer admission.

SELECT-PARAMETER = *OWN
Modifies your own admission profile.

SELECT-PARAMETER = *PARAMETERS(...)
Specifies the selection criteria for the profiles which you wish to modify.

TRANSFER-ADMISSION =
Entering the TRANSFER-ADMISSION here makes it a selection criterion for the admission profiles which you wish to modify.

TRANSFER-ADMISSION = *ALL
All your admission profiles are to be modified, irrespective of the transfer admission.

TRANSFER-ADMISSION = *NOT-SPECIFIED
Only admission profiles without a defined transfer admission are to be modified. In the case of a standard admission profile, the transfer admission is never assigned, because this is addressed using the user ID and the user password.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
The admission profile with this transfer admission is to be modified.

TRANSFER-ADMISSION = *SECRET
The system prompts you to enter the transfer admission. However, it does not appear on the screen.

OWNER-IDENTIFICATION =
You can use the owner of an admission profile as a selection criterion for access to a profile to be modified.

OWNER-IDENTIFICATION = *OWN
Modifies your own admission profile.

OWNER-IDENTIFICATION = *ALL
The FTAC administrator can access the profiles of all users. The FTAC user is not permitted to make this entry.

OWNER-IDENTIFICATION = <name 1..8>
The FTAC user can enter only his/her own user ID here, the FTAC administrator can enter any user ID.

NEW-NAME =
NEW-NAME is used to assign a new name to the admission profile.
NEW-NAME may only be specified together with unambiguous selection criteria (NAME or TRANSFER-ADMISSION).

NEW-NAME = *OLD
The name of the admission profile remains unchanged.

NEW-NAME = *STD
Makes the admission profile the standard admission profile for the user ID. If the admission profile previously had a transfer admission, you must also specify TRANSFER-ADMISSION=*NOT-SPECIFIED.

NEW-NAME = <alphanum-name 1..8>
New name of the admission profile. This name must be unique among all the admission profiles on your user ID. If an admission profile with this name already exists, FTAC rejects the command with the following message:

```
FTC0100   FT profile already exists
```

The command SHOW-FT-PROFILE (see page 360) can be used to obtain information on the already existing name. For this information, it suffices to enter SHOW-FT-PROFILE without parameters.

TRANSFER-ADMISSION =
Modifies the transfer admission which is associated with the admission profile selected. You must ensure that the transfer admission is unique within your openFT system. If the transfer admission which you have selected already exists, FTAC rejects the command with the following message:

```
FTC0101   Transfer admission already exists
```

The FTAC administrator can also allocate a transfer admission here if he/she modifies the admissions profile of any user ID. If he/she has no TSOS privilege, the FTAC administrator must also specify the complete USER-ADMISSION for the affected user ID (USER-IDENTIFICATION, ACCOUNT and PASSWORD).
TRANSFER-ADMISSION may only be specified together with unambiguous selection criteria (NAME or SELECT-PARAMETERS=*PAR(TRANSFER-ADMISSION)).

TRANSFER-ADMISSION = *UNCHANGED
The transfer admission remains unchanged.

TRANSFER-ADMISSION = *NOT-SPECIFIED
No transfer admission is set and any existing transfer admissions are made invalid. This locks the profile, provided that it is not a profile that you are converting to a standard admission profile. In this case, you must specify *NOT-SPECIFIED.

TRANSFER-ADMISSION = *OLD-ADMISSION(...)
The transfer admission itself remains unchanged. The options, however, can be changed, as opposed to with the entry TRANSFER-ADMISSION=*UNCHANGED. The specifications are ignored if you are changing a standard admission profile.

VALID = *UNCHANGED
The value remains unchanged.

VALID = *YES
The transfer admission is valid.

VALID = *NO
The transfer admission is not valid. The profile can be locked with this entry.

USAGE = *UNCHANGED
The value remains unchanged.

USAGE = *PRIVATE
Access to your profile is denied for security reasons whenever another user ID attempts to set for a second time the TRANSFER-ADMISSION which has already been used by you.

USAGE = *PUBLIC
Access to your profile is not denied if another user happens to "discover" your TRANSFER-ADMISSION. "Discovery" means that another user ID attempted to specify the same TRANSFER ADMISSION twice. This is rejected for uniqueness reasons.

EXPIRATION-DATE = *UNCHANGED
The value remains unchanged.

EXPIRATION-DATE = *NOT-RESTRICTED
The use of this transfer admission is not restricted with respect to time.

EXPIRATION-DATE = <date 8..10>
Date in the form *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2017-12-31 or 17-12-31 for 31 December, 2017. The use of the transfer admission is only possible until the given date.

TRANSFER-ADMISSION = <alphanum-name 8..32>(...) / <c-string 8..32 with-low>(...) / <x-string 15..64>(...)
The character string must be entered as transfer admission in the transfer request. The alphanumeric input is always stored in lowercase letters.

VALID = *YES
The transfer admission is valid.

VALID = *NO
The transfer admission is not valid. The profile can be locked with this entry.

VALID = *UNCHANGED
The value remains unchanged.

USAGE = <u>*PRIVATE</u>
Access to your profile is denied for security reasons whenever another user ID attempts to set for a second time the TRANSFER-ADMISSION which has already been used by you.

USAGE = *PUBLIC
Access to your profile is not denied if another user happens to "discover" your TRANSFER-ADMISSION. "Discovery" means that another user ID attempted to specify the same TRANSFER ADMISSION twice. This is rejected for uniqueness reasons.

USAGE = *UNCHANGED
The value remains unchanged.

EXPIRATION-DATE = <u>*NOT-RESTRICTED</u>
The use of this transfer admission is not restricted with respect to time.

EXPIRATION-DATE = <date 8..10>
Date in the form *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2017-12-31 or 17-12-31 for 31 December, 2017..The use of the transfer admission is only possible until the given date.

EXPIRATION-DATE = *UNCHANGED
The value remains unchanged.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this does not appear on the screen. The operands VALID, USAGE and EXPIRATION-DATE can also be secretly entered in this case.

PRIVILEGED =
The FTAC administrator can privilege the admission profile of any FTAC user. FT requests which are processed with a privileged admission profile are not subject to the restrictions for MAX-ADM-LEVEL in the admission set.
The FTAC user can only reverse any privileged status given.

PRIVILEGED = <u>*UNCHANGED</u>
The status of this admission profile remains unchanged.

PRIVILEGED = *NO
With *NO, you can reverse the privileged status.

PRIVILEGED = *YES
With *YES, the FTAC administrator gives one or more admission profiles privileged status.

IGNORE-MAX-LEVELS =
Determines for which of the six basic functions the restrictions of the admission set should be ignored. The user's MAX-USER-LEVELS can be exceeded in this way. The MAX-ADM-LEVELS in the admission set can only be effectively exceeded with an admission profile which has been designated as privileged by the FTAC administrator. The FTAC user can set up an admission profile for himself/herself for special tasks (e.g. sending a certain file to a partner system with which he/she normally is not allowed to conduct a file transfer), which allows him/her to exceed the admission set. This profile must be explicitly given privileged status by the FTAC administrator.

If you enter IGNORE-MAX-LEVELS=*YES, the settings for all the basic functions are ignored. If you wish to ignore the admission set for specific basic functions, you need to do this with the operands explained later in the text.

The following table shows which partial components of the file management can be used under which conditions:

Inbound file management function	Setting in admission set/extension in profile
Show file attributes	Inbound sending (IBS) permitted
Modify file attributes	Inbound receiving (IBR) **and** Inbound file management (IBF) permitted
Rename files	Inbound receiving (IBR) **and** Inbound file management (IBF) permitted
Delete files	Inbound receiving (IBR) permitted **and** write rule = overwrite in profile
Show directories	Inbound file management (IBF) permitted **and** direction = to partner in profile
Create, rename, delete directories	Inbound file management (IBF) permitted **and** direction = from partner in profile

IGNORE-MAX-LEVELS = *UNCHANGED
You can access the same security levels as before the modification (unless you have reversed the privileged status with PRIVILEGED=*NO).

IGNORE-MAX-LEVELS = *NO
FT requests which are processed with the admission profile are subject to the restrictions of the admission set.

IGNORE-MAX-LEVELS = *YES
*YES allows you to communicate with partner systems whose security level exceeds the specifications of the admission set. If your profile does not have privileged status, you can only disregard the MAX-USER-LEVELS in the admission set, not the MAX-ADM-LEVELS. The current MAX-USER-LEVELS and MAX-ADM-LEVELS settings can be accessed using the command SHOW-FT-ADMISSION-SET (see example on).

IGNORE-MAX-LEVELS = *PARAMETERS(...)

OUTBOUND-SEND = *UNCHANGED
The maximum security level which can be reached with the basic function "outbound send" remains unchanged.

OUTBOUND-SEND = *NO
The maximum security level which can be reached with the basic function "outbound send" is determined by the admission set.

OUTBOUND-SEND = *YES
For the basic function "outbound send", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.

OUTBOUND-RECEIVE = *UNCHANGED
The maximum security level which can be reached with the basic function "outbound receive" remains unchanged.

OUTBOUND-RECEIVE = *NO
The maximum security level which can be reached with the basic function "outbound receive" is determined by the admission set.

OUTBOUND-RECEIVE = *YES
For the basic function "outbound receive", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.

INBOUND-SEND = *UNCHANGED
The maximum security level which can be reached with the basic function "inbound send" remains unchanged.

INBOUND-SEND = *NO
The maximum security level which can be reached with the basic function "inbound send" is determined by the admission set.

INBOUND-SEND = *YES
For the basic function "inbound send", you can use this admission profile to disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS. The same applies to the partial component "display file attributes" of the basic function "inbound file management".

INBOUND-RECEIVE = *UNCHANGED
The maximum security level which can be reached with the basic function "inbound receive" remains unchanged.

INBOUND-RECEIVE = *NO
The maximum security level which can be reached with the basic function "inbound receive" is determined by the admission set.

INBOUND-RECEIVE = *YES
Disregards your settings for "inbound receive" in the MAX-USER-LEVELS. If your
profile is privileged, you are also not held to the restrictions of the MAX-ADM-LEVELS.
The same applies to the following partial components of the basic function "inbound file
management":
– delete files, as long as the file attributes are set accordingly,
– modify file attributes, if the basic function "inbound file management" was admitted
   in the admission set or in the admission profile.

INBOUND-PROCESSING = *UNCHANGED
The maximum security level which can be reached with the basic function "inbound
processing" remains unchanged.

INBOUND-PROCESSING = *NO
The maximum security level which can be reached with the basic function "inbound
processing" is determined by the admission set.

INBOUND-PROCESSING = *YES
For the basic function "inbound processing", you can use this admission profile to
disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to
the restrictions of the MAX-ADM-LEVELS.

INBOUND-MANAGEMENT = *UNCHANGED
The maximum security level which can be reached with the basic function "inbound file
management" remains unchanged.

INBOUND-MANAGEMENT = *NO
The maximum security level which can be reached with the basic function "inbound file
management" is determined by the admission set.

INBOUND-MANAGEMENT = *YES
For the basic function "inbound file management", you can use this admission profile to
disregard the MAX-USER-LEVELS. If your profile is privileged, you are also not held to
the restrictions of the MAX-ADM-LEVELS. The partial component "modify file
attributes" of the basic function "inbound file management" only functions if the basic
function "inbound receive" was admitted in the admission set or admission profile.

USER-ADMISSION =
User ID under which the modified admission profile is saved. FT requests which use this
profile access the entered user ID in the local system.
As an FTAC user you can only specify your own user ID here.
If the FTAC administrator has created an admission profile for a user without specifying the
access data (see the CREATE-FT-PROFILE command, page 90), the user must, if
necessary, enter the account and password in the operands ACCOUNT and PASSWORD
described below before the profile can be used.

USER-ADMISSION = *UNCHANGED
The USER-ADMISSION of this admission profile remains unchanged.

USER-ADMISSION = *OWN
For USER-IDENTIFICATION and ACCOUNT, the specifications are taken from the current
LOGON authorization. A BS2000 password is only taken from your LOGON authorization
when an FT request accesses the admission profile.

USER-ADMISSION = *PARAMETERS(...)
Specifies the individual components of the user ID.
This allows you, for example, to ensure that FT requests which use this admission profile
are kept under a different account number from the currently valid account number. Another
application is to specify a password in the admission profile. FT requests which use this
admission profile will then only function if the current LOGON password corresponds to this
preset password.

USER-IDENTIFICATION =
Your user ID in BS2000.

USER-IDENTIFICATION = *OWN
The user ID is taken from your LOGON authorization.

USER-IDENTIFICATION = <name 1..8>
User ID with which the profile is to be associated. As FTAC administrator you may also
specify foreign user IDs.

ACCOUNT =
Account number under which an FT request is to be kept when it uses this admission
profile.

ACCOUNT = *OWN
The account number is taken from the current LOGON authorization.

ACCOUNT = *FIRST
The first account number assigned to the home pubset of the specified
USER-IDENTIFICATION at the time the profile is used in the system is used for account
assignment in the case of transfer requests. If the ID's account number changes, the
profile has not to be modified.

ACCOUNT = *NOT-SPECIFIED
No account number is defined.
The account number is to be specified by the owner of the admission profile. This
function permits the FTAC administrator to set up profiles for user IDs whose account
numbers he/she does not know.

ACCOUNT = *NONE
The account number is used which is defined as the default account number of the user
ID specified at the time the admission profile is used.

ACCOUNT = <alphanum-name 1..8>
An FT request should be kept under the account number specified when it accesses this admission profile. You can enter any account number which is associated with your user ID.

PASSWORD =
Password which an FT request is to use when it works with this admission profile.

PASSWORD = *OWN
When an FT request refers to this admission profile, FTAC uses the password valid for the specified USER-IDENTIFICATION at that moment. This prevents you from having to modify the admission profile if the BS2000 password is changed.

PASSWORD = *NOT-SPECIFIED
The password is specified by the owner of the admission profile. This function permits the FTAC administrator to set up profiles for foreign user IDs whose access data he/she does not know.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
When an FT request accesses the admission profile, the specified password is compared with the current LOGON password. If the two do not correspond, the FT request is rejected.

PASSWORD = *NONE
No password is required for the user ID.

PASSWORD = *SECRET
The system prompts you to enter the password. However, this does not appear on the screen.

INITIATOR =
Determines if initiators from local and/or remote systems are permitted to use this admission profile for their FT requests.

INITIATOR = *UNCHANGED
The settings in this admission profile remain unchanged,

INITIATOR = *REMOTE
This admission profile may only be used for FT requests by initiators from remote systems.

INITIATOR = *LOCAL
This admission profile may only be used for FT requests by initiators from the local system.

INITIATOR = (*LOCAL,*REMOTE)
This admission profile may be used by initiators from local and remote systems.

TRANSFER-DIRECTION =
Determines which transfer direction may be used with this admission profile.

> **i** The transfer direction is always determined from the system in which the admission profile was defined.

TRANSFER-DIRECTION = <u>*UNCHANGED</u>
The specification in the admission profile remains unchanged.

TRANSFER-DIRECTION = *NOT-RESTRICTED
Files can be transferred to and from a partner system.

TRANSFER-DIRECTION = *FROM-PARTNER
Files can only be transferred from a partner system to your system. It is not possible to display file attributes/directories (partial components of "inbound file management").

TRANSFER-DIRECTION = *TO-PARTNER
Files can only be transferred from your system to a partner system. It is not possible to modify file attributes or delete files (partial components of "inbound file management").

PARTNER =
Specifies that this admission profile is to be used only for FT requests which are processed by a a certain partner system.

PARTNER = <u>*UNCHANGED</u>
Any partner in the admission profile remains unchanged.

PARTNER = *NOT-RESTRICTED
This admission profile's scope of use is not limited to FT requests with certain partner systems.

PARTNER = *ADD(NAME = list-poss(50): <text 1..200 with-low>)
With this specification, you can add elements to an existing list of partner systems.
A maximum of 50 partner systems can be specified.

PARTNER = *REMOVE(NAME = list-poss(50): <text 1..200 with-low>)
Removes elements from an existing list of partner systems. A maximum of 50 partner systems can be specified.

PARTNER = list-poss(50): <text 1..200 with-low>
The admission profile only permits those FT requests which are processed with the specified partner systems. A maximum of 50 partner systems can be specified.
For PARTNER you can specify the name from the partner list or the address of the partner system, see also section "Specifying partner addresses" on page 48. You are advised to use the name from the partner list.

MAX-PARTNER-LEVEL =
A maximum security level can be specified. The admission profile will then only permit those FT requests which are processed with partner systems which have this security level or lower.

MAX-PARTNER-LEVEL works in conjunction with the admission set. When non-privileged admission profiles are used, the access check is executed on the basis of the smallest specified value.

MAX-PARTNER-LEVEL = <u>*UNCHANGED</u>
The specification for MAX-PARTNER-LEVEL in this admission set remains unchanged.

MAX-PARTNER-LEVEL = *NOT-RESTRICTED
If FT requests are processed with this admission profile, then the highest accessible security level is determined by the admission set.

MAX-PARTNER-LEVEL = <integer 0..100>
All partner systems which have this security level or lower can be communicated with.

> **i** When you set MAX-PARTNER-LEVEL=0, you prevent access to the admission profile (for the time being). No FT request can then be processed with this admission profile.

FILE-NAME =
Determines which files or library members under your user ID may be accessed by FT requests that use this admission profile.

FILE-NAME = <u>*UNCHANGED</u>
The specifications for FILE-NAME in this admission profile remain unchanged.

FILE-NAME = *NOT-RESTRICTED
The admission profile permits unrestricted access to all files and library members of the user ID.

FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)
Only the specified file may be accessed. However, openFT is also able to generate unique filenames automatically, thus providing an easy way of avoiding conflicts. This is done by specifying the string %UNIQUE at the end of the filename which is predefined here. When follow-up processing is specified, this file can be referenced with %FILENAME.
You can also directly specify file transfer with pre- and postprocessing here by entering the pipe symbol '|' followed by a command.

FILE-NAME =*EXPANSION(PREFIX = <filename 1..53> /
<partial-filename 2..53> / <c-string 1..511 with-low>)
Restricts access to a number of files which all begin with the same prefix. If a *filename* is entered in an FT request which uses this admission profile, FTAC sets the *prefix* defined with EXPANSION in front of this filename. The FT request is then permitted to access the file *PrefixFilename*.

Example

– If PREFIX=STEVEN. is specified, a FT request in which the FILE-NAME=MILLER is specified accesses the file STEVEN.MILLER.

Please note that the part of a DVS filename which is specified in the file transfer command still has to be of the type <filename>.

If you want to perform file transfer with pre- or postprocessing, you should indicate this by entering the pipe symbol '|' at the start of the prefix. The created FTAC profile can then be used only for file transfer with pre- or postprocessing since the file name that is generated also starts with a '|'. The variable %TEMPFILE can also be used in the filename prefix. You can find detailed information on preprocessing and postprocessing in .

The maximum length of the entire pre- or postprocessing command is limited to the maximum length of the file name. If several commands are specified, then they must be separated by a semicolon (';').
There must not be a space between the semicolon and the slash.

Example
```
FILE-NAME = C'|/Command1;/Command2;/Command3; ...'
```

If you specify a name prefix that starts with a pipe character with *EXP(PREFIX=...), the preprocessing or postprocessing command of the FT request must not contain any semicolons. If the preprocessing or postprocessing command nevertheless contains semicolons, it must be enclosed in '...' (single quotes) or "..." (double quotes).

Special cases

– In the case of admission profiles which are to be used exclusively for the ftexec command you must specify a filename or filename prefix that starts with the character string '|ftexecsv' (see CREATE-FT-PROFILE, page 90).

– Specify the file name prefix '|*ftmonitor' for admission profiles that are exclusively used for monitoring. A profile of this sort can then be used in the openFT Monitor or in an ft or ncopy command from a Windows or Unix system (see page 90).

FILE-NAME = *LIBRARY-ELEMENT(...)
Determines which of your libraries and library members may be accessed by FT requests which use this admission profile.

LIBRARY =
Defines which libraries may be accessed with this admission profile.

LIBRARY = *UNCHANGED
The library specifications in the admission profile remain unchanged.

LIBRARY = *NOT-RESTRICTED
The admission profile does not restrict access to libraries.

LIBRARY = <filename 1..54>
Only this library may be accessed.

LIBRARY = *EXPANSION(PREFIX = <composed-name 1..63 with-under> / <partial-filename 2..63>)
Only those libraries may be accessed which begin with the specified prefix. FTAC sets the prefix in front of a library name in an FT request which uses this admission profile, and then permits access to the library *PrefixLibraryname*.

ELEMENT =
Determines which library members may be accessed with this admission profile.

ELEMENT = *UNCHANGED
The library member specifications in the admission profile remain unchanged.

ELEMENT = *NOT-RESTRICTED
Permits unrestricted access to library members.

ELEMENT = <composed-name 1..64 with-under>(...)
Only permits access to the specified library member.

  VERSION =
  Access is only permitted for a specific version of the library member.

  VERSION = *STD
  Permits access only to the highest version of the library member.

  VERSION = <text 1..24>
  Access is only permitted for this version of the library member.

ELEMENT = *EXPANSION(PREFIX = <composed-name 1..63 with-under> / <partial-filename 2..63>)
Defines a prefix. When a name for a library member is specified in an FT request which uses this admission profile, FTAC adds the specified prefix to this member name. The admission profile then permits access to this member with the name *PrefixElementname*.

TYPE =
Specifies a certain type of library member. The admission profile then only permits access to library members of this type.

TYPE = *UNCHANGED
Any access restrictions to individual member types remain unchanged.

TYPE = *NOT-RESTRICTED
Access is not restricted to a certain type of library member.

TYPE = <name 1..8>
FT requests which use this admission profile may only access library members of this type.

FILE-PASSWORD =
You can enter a password for files into the admission profile. The FTAC functionality then only permits access to files which are protected with this password and to unprotected files. When a FILE-PASSWORD is specified in an admission profile, the password may no longer be specified in an FT request which uses this admission profile. This allows you to permit access to certain files to users in remote systems, without having to disclose the file passwords.

FILE-PASSWORD = *UNCHANGED
The specifications for FILE-PASSWORD in this admission profile remain unchanged.

FILE-PASSWORD = *NOT-RESTRICTED
Permits access to all files. If a password is set for a file, then it must be specified in the transfer request.

FILE-PASSWORD = *NONE
Only permits access to files without file passwords.

FILE-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
Only permits access to files which are protected with the password specified and to unprotected files. The password which has already been specified in the profile may not be repeated in the transfer request. PASSWORD=*NONE would be entered in this case!

FILE-PASSWORD = *SECRET
The system prompts you to enter the password. However, this does not appear on the screen.

PROCESSING-ADMISSION =
You can enter a user ID in your BS2000 system. Any follow-up processing of an FT request will be executed under this user ID. With PROCESSING-ADMISSION in the admission profile, you do not need to disclose your LOGON authorization to partner systems for follow-up processing.

PROCESSING-ADMISSION = *UNCHANGED
The PROCESSING-ADMISSION in this admission profile remains unchanged.

PROCESSING-ADMISSION = *SAME
For the PROCESSING-ADMISSION, the values of the USER-ADMISSION are used. If *SAME is entered here, then any FT request which uses this profile must also contain PROCESSING-ADMISSION=*SAME or PROCESSING-ADMISSION= *NOT-SPECIFIED. The entry *SAME is only possible here if the follow-up processing is not started with the command /ENTER.

PROCESSING-ADMISSION = *NOT-RESTRICTED
FT requests which use this admission profile may contain any PROCESSING-ADMISSION. For follow-up processing with FTAM partners, PROCESSING-ADMISSSION must have a value not equal to *NOT-RESTRICTED.

PROCESSING-ADMISSION = *PARAMETERS(...)
You can also enter the individual components of the user ID. This allows follow-up processing using this admission profile and started from FT requests to be charged under a different account number, for example. Or, a password can be set in the admission profile. Follow-up processing for FT requests which use this admission profile will then only function if their current LOGON password corresponds to the pre-set password.

USER-IDENTIFICATION =
User ID under which the follow-up processing is to be executed.

USER-IDENTIFICATION = *SAME
The USER-IDENTIFICATION is taken from the USER-ADMISSION.

USER-IDENTIFICATION = *NOT-RESTRICTED
The admission profile does not restrict the user ID under which the follow-up processing is to be executed.

USER-IDENTIFICATION = <name 1..8>
FT requests which are processed with this admission profile are only permitted follow-up processing under this user ID. If another user ID is entered here, the parameter PASSWORD must also be entered. PASSWORD=*SAME is then not valid.

ACCOUNT =
Specifies the account number for the follow-up processing.

ACCOUNT = *SAME
The account number is taken from the USER-ADMISSION.

ACCOUNT = *NOT-RESTRICTED
The account number may be specified in FT requests that work with the admission profile. The admission profile does not restrict the account for follow-up processing.

ACCOUNT = *NONE
The account number is used which is defined as the default account number of the user ID specified at the time the admission profile is used.

ACCOUNT = <alphanum-name 1..8>
Follow-up processing is to be settled under this account number.

PASSWORD =
Specifies, where applicable, the BS2000 password for the user ID under which the follow-up processing is to be executed. Here, you can enter a PASSWORD when the user ID in question doesn't have such a password (yet).

PASSWORD = *SAME
The value *SAME is only valid if the PROCESSING-ADMISSION refers to your own user ID. If PASSWORD=*OWN is entered on USER-ADMISSION, then the BS2000 password valid at the time of the request is used for the PROCESSING-ADMISSION.

The entry *SAME is only possible here if the follow-up processing is not started with the command /ENTER.

PASSWORD = *NOT-RESTRICTED
The password may be specified for FT requests which work with the admission profile. The admission profile does not restrict the password for follow-up processing.

PASSWORD = *NONE
FT requests which use this admission profile can only initiate follow-up processing on user IDs without a password.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
FT requests which use the admission profile may only initiate follow-up processing on user IDs which are protected with this password.

PASSWORD = *SECRET
The system prompts you to enter the password. The entry does not appear on the screen.

SUCCESS-PROCESSING =
Restricts the follow-up processing which an FT request is permitted to initiate in your system after a successful data transfer.

SUCCESS-PROCESSING = *UNCHANGED
The specifications for SUCCESS-PROCESSING in this admission profile remain unchanged.

SUCCESS-PROCESSING = *NOT-RESTRICTED
In FT requests which use this admission profile the operand SUCCESS-PROCESSING may be used without restriction.

SUCCESS-PROCESSING = *NONE
The admission profile does not permit follow-up processing after successful data transfer.

SUCCESS-PROCESSING = <c-string 1..1000 with-low>
BS2000 commands which are executed in the local system after successful data transfer. Individual commands must be preceded by a slash (/).
The individual commands must be separated by a semicolon (;). If a character string is enclosed by single or double quotes (' or ") within a command sequence, openFT does not interpret any semicolons within this character string as a separator.

SUCCESS-PROCESSING = *EXPANSION(...)
If a SUCCESS-PROCESSING was specified in an FT request which uses this admission profile, FTAC adds the prefix or suffix specified here to this command. As follow-up processing, the command which has been thus expanded is then executed.

If a suffix or prefix is defined at this point, then no command sequence for the follow-up processing may be specified in FT requests which use this admission profile. This makes the setting of prefixes and suffixes mandatory.

PREFIX = *UNCHANGED
The specifications for the follow-up processing prefix in this admission profile remain unchanged.

PREFIX = *NOT-RESTRICTED
Follow-up processing is not restricted by a prefix.

PREFIX = <c-string 1..999 with-low>
The specified prefix is set in front of a command which is specified in an FT request as follow-up processing. Then, the command which has been expanded with the prefix is executed as follow-up processing.

SUFFIX = *UNCHANGED
The specifications for the follow-up processing suffix in this admission profile remain unchanged.

SUFFIX = *NOT-RESTRICTED
Follow-up processing is not restricted by a suffix.

SUFFIX = <c-string 1..999 with-low>
The specified prefix is set after a command which is specified in an FT request as follow-up processing. Then, the command which has been expanded with the suffix is executed as follow-up processing.

Example

– If PREFIX='/PRINT-FILE ' is defined and SUCC='filename' specified in the FT request, then FT executes the command "/PRINT-FILE filename" as follow-up processing.

– If SUFFIX=' filename' is defined and SUCC='/PRINT-FILE' specified in the FT request, then FT executes the command "/PRINT-FILE filename" as follow-up processing.

FAILURE-PROCESSING =
Restricts the follow-up processing which an FT request is permitted to initiate in your system after a failed data transfer.

FAILURE-PROCESSING = *UNCHANGED
The specifications for FAILURE-PROCESSING in this admission profile remain unchanged.

FAILURE-PROCESSING = *NOT-RESTRICTED
In FT requests which use this admission profile the operand FAILURE-PROCESSING may be used without restriction.

FAILURE-PROCESSING = *NONE
The admission profile does not permit follow-up processing after failed data transfer.

FAILURE-PROCESSING = <c-string 1..1000 with-low>
BS2000 commands which are executed in the local system after failed data transfer.
Individual commands must be preceded by a slash (/). The individual commands must be
separated by a semicolon (;). If a character string is enclosed by single or double quotes
(' or ") within a command sequence, openFT does not interpret any semicolons within this
character string as a separator.

FAILURE-PROCESSING = *EXPANSION(...)
If a FAILURE-PROCESSING was specified in an FT request which uses this admission
profile, FTAC adds the prefix or suffix specified here to this command. As follow-up
processing, the command which has been thus expanded is then executed.

If a suffix or prefix is defined at this point, then no command sequence for the follow-up
processing may be specified in FT requests which use this admission profile. This makes
the setting of prefixes and suffixes mandatory.

    PREFIX = *UNCHANGED
    The specifications for the follow-up processing prefix in this admission profile remain
    unchanged.

    PREFIX = *NOT-RESTRICTED
    Follow-up processing is not restricted by a prefix.

    PREFIX = <c-string 1..999 with-low>
    The specified prefix is set in front of a command which is specified in an FT request as
    follow-up processing. Then, the command which has been expanded with the prefix is
    executed as follow-up processing.

    SUFFIX = *UNCHANGED
    The specifications for the follow-up processing suffix in this admission profile remain
    unchanged.

    SUFFIX = *NOT-RESTRICTED
    Follow-up processing is not restricted by a suffix.

    SUFFIX = <c-string 1..999 with-low>
    The specified prefix is set after a command which is specified in an FT request as
    follow-up processing. Then, the command which has been expanded with the suffix is
    executed as follow-up processing.

WRITE-MODE =
Determines the WRITE-MODE which is valid for this FT request. WRITE MODE is only
effective if the receive file is in the same system as the admission profile definition.

WRITE-MODE = *UNCHANGED
The specifications for WRITE-MODE in this admission profile remain unchanged.

WRITE-MODE = *NOT-RESTRICTED
In an FT request which accesses this admission profile, WRITE-MODE may be used without restrictions.

WRITE-MODE = *NEW-FILE
In the FT request, *NEW-FILE, *REPLACE-FILE or *EXTEND-FILE may be entered for WRITE-MODE. If the receive file already exists, the transfer will be rejected.

WRITE-MODE = *REPLACE-FILE
In the FT request of openFT or FTAM partners, only *REPLACE-FILE or *EXTEND-FILE may be entered for WRITE-MODE. With ftp partners, *NEW-FILE may also be entered if the file does not yet exist.

WRITE-MODE = *EXTEND-FILE
In the FT request, only *EXTEND-FILE may be entered for WRITE-MODE.

FT-FUNCTION =
This operand permits the restriction of the profile validity to certain FT functions
(=file transfer and file management functions).

FT-FUNCTION = <u>*UNCHANGED</u>
The previous scope of the FT functions remains unchanged.

FT-FUNCTION = *NOT-RESTRICTED
The full scope of FT functions is available with the exception of the "remote administration" function (*REMOTE-ADMINISTRATION). This must be activated explicitly.

FT-FUNCTION = (*TRANSFER-FILE, *MODIFY-FILE-ATTRIBUTES,
*READ-DIRECTORY, *FILE-PROCESSING, *REMOTE-ADMINISTRATION)
The following file transfer functions are available:

    *TRANSFER-FILE
    The admission profile may be used for the file transfer functions "transfer files", "view file attributes" and "delete files".

    *MODIFY-FILE-ATTRIBUTES
    The admission profile may be used for the file transfer functions "view file attributes" and "modify file attributes".

    *READ-DIRECTORY
    The admission profile may be used for the file transfer functions "view directories" and "view file attributes".

    *FILE-PROCESSING
    The admission profile may be used for the "preprocessing" and "postprocessing" file transfer functions. The "transfer files" function must also be permitted.

The *FILE-PROCESSING specification is of relevance only for FTAC profiles without a filename prefix. Otherwise the first character of the filename prefix determines whether only normal data transfer (no pipe symbol "|") or only pre- and postprocessing (pipe symbol "|") are to be possible with this FTAC profile.

*REMOTE-ADMINISTRATION
The admission profile is allowed to be used for the "remote administration" function. This allows a remote administrator to administer the openFT instance using this profile. *REMOTE-ADMINISTRATION may only be specified by the FT administrator or FTAC administrator.

USER-INFORMATION =
Specifies a text in the admission profile. This text can be displayed with the SHOW-FT-PROFILE command.

USER-INFORMATION = *UNCHANGED
Any existing text remains unchanged.

USER-INFORMATION = *NONE
Any existing text is deleted.

USER-INFORMATION = <c-string 1..100 with-low>
The character string entered is accepted as user information.

DATA-ENCRYPTION =
Specifies whether user data with this profile must be transferred in encrypted form.

DATA-ENCRYPTION = *UNCHANGED
The encryption option should remain unchanged.

DATA-ENCRYPTION = *NOT-RESTRICTED
The encryption option for user data is not restricted. File transfer requests with encryption and file transfer requests without encryption are both accepted.

DATA-ENCRYPTION = *NO
Only file transfer requests that do not have encrypted user data are accepted, i.e. requests with encryption are rejected. If the request is made in a BS2000 or z/OS, DATA-ENCRYPTION=*NO must be specified there in the NCOPY request.

DATA-ENCRYPTION = *YES
Only file transfer requests that have encrypted user data are accepted, i.e. requests without encryption are rejected. If the request is made in a BS2000 or z/OS, for example, then DATA-ENCRYPTION=*YES must be specified there in the NCOPY request.

> **i** When using restrictions for FILE-NAME, SUCCESS-PROCESSING and FAILURE-PROCESSING, keep in mind that
>
> – a restriction for follow-up processing must always be made for SUCCESS- and FAILURE-PROCESSING. Otherwise, it is possible that users will avoid this step.
>
> – PREFIX of FILE-NAME, SUCCESS-PROCESSING and FAILURE-PROCESSING must correspond,
>   e.g. FILE-NAME = *EXP(XYZ.),SUCC = *EXP('/PRINT-FILE XYZ.')

Example

After Steven Miller has created an admission profile with the name *profile1*, which permits other users access to his user ID without the LOGON authorization, he decides he wants to restrict this profile so that only FT accesses are possible to files which begin with the prefix *BRANCH*.

The required command is:

```
/MODIFY-FT-PROFILE NAME = profil1,
          FILE-NAME = *EXPANSION(PREFIX = branch.)
```

A possible short form of this command is:

```
/MOD-FT-PROF profil1,FILE-N = (PRE = branch.)
```

This places heavy restrictions on the admission profile. The other specifications remain unchanged.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	FTC0051	A user ID with the same name already exists.
0	64	FTC0053	No FT profile exists which meets the criteria specified.
0	64	FTC0055	The partner restrictions were lifted.
0	0	FTC0056	Transfer admission is locked.
0	64	FTC0100	An FT profile with this name already exists.
0	64	FTC0101	An FT profile with the specified transfer admission already exists.
0	64	FTC0150	The access password is missing.
0	64	FTC0151	Modifications can only be made by the administrator or owner.
0	64	FTC0153	The owner ID entered is not the user's own ID.
0	64	FTC0170	The partner entered is unknown within the partner system available for this user.
0	64	FTC0171	The profile entered does not exist.
0	64	FTC0172	The user admission entered does not exist in the system.
0	64	FTC0173	The processing admission entered does not exist in the system.
0	64	FTC0174	The parameters "NEW-NAME", "TRANSFER-ADMISSION" and USER-ID are only allowed with unique selection criteria ("NAME" or "TRANSFER-ADMISSION").
0	64	FTC0178	The partner name entered occurs several times.
0	64	FTC0179	The maximum number of partner restrictions has been exceeded.
0	64	FTC0182	The maximum length of partner names has been exceeded.
0	64	FTC0200	The total length of the two follow-up processing commands is too long.
0	64	FTC0255	A system error has occurred.

SC1/2 = Subcode 1/2 in decimal notation

3.27 MODIFY-REMOTE-DIR-ATTR Modify remote directory attributes

Note on usage

User group: FT user

Alias name: FTMODDIR

Functional description

With the MODIFY-REMOTE-DIR-ATTR command, you can modify the attributes of a directory in an FT partner system. It is currently only possible to change the directory name.

Format

MODIFY-**REM**OTE-**DIR**-**ATTR** / **FTMODDIR**

PARTNER = <text 1..200 with-low>

,**DIR**ECTORY-NAME = ***NOT-SPECIFIED** / <filename 1..54> / <c-string 1..512 with-low>

,**PASS**WORD = ***NONE** / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
           *SECRET

,**TRANS**FER-**ADM**ISSION = ***NONE** / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                  *SECRET / ***PAR**AMETERS(...)

   *PARAMETERS(...)
       USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
       ,**ACCOUNT** = ***NONE** / <c-string 1..64 with-low> / <text 1..64>
       ,PASSWORD = ***NONE** / <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19> /
          *SECRET

,**NEW-NAME** = ***SAME** / <filename 1..54> / <c-string 1..512 with-low>

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the partner system address. For more information on address specifications, see section "Specifying partner addresses" on page 48.

DIRECTORY-NAME =
Name of the directory in the remote FT partner system.

DIRECTORY-NAME = *NOT-SPECIFIED
The name of the directory is known to the remote system because it has already been completely defined in the addressed FTAC admission profile, for instance.

DIRECTORY-NAME = <filename 1..54> / <c-string 1..512 with-low>
Name of the directory in the remote system. This must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.
If the directory name is specified with an unattached Public Volume Set then the request is rejected with error message FTR2155.

PASSWORD =
Password permitting unrestricted access to the directory in the remote system.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128>
Password making it possible to access the directory in the remote system. The password must be specified in the syntax of the remote system and must adhere to the conventions used in the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed on the screen.

TRANSFER-ADMISSION =
Contains specifications concerning the transfer admission in the remote system for the file management request.

TRANSFER-ADMISSION = *NONE
The remote system does not require or does not know any user admissions.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
If FTAC functionality is used in the remote system then the transfer admission for the remote system can be defined via an admission profile. In this case, only the TRANSFER-ADMISSION defined in the admission profile is used here. The alphanumeric input is converted to lowercase internally.

TRANSFER-ADMISSION = *SECRET
The system prompts you to input the transfer admission. However, this is not visible on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the user's identification, account number and password in the remote system. The operands in the brackets can also be used as positional operands without the associated keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
Identification of the user in the remote system. The identification must be specified in
the syntax of the remote system and must adhere to the conventions used in the remote
system.

ACCOUNT = <u>*NONE</u> / <c-string 1..64 with-low> / <text 1..64>
Account number of the user in the remote system. The account number must be
specified in the syntax of the remote system and must adhere to the conventions used
in the remote system.

PASSWORD =
Password allowing the user to access the remote system.

PASSWORD = <u>*NONE</u>
Access is possible without a password.

**PASSWORD = <c-string 1..64 with-low> / <x-string 1..128> /
<alphanum-name 1..19>**
Password allowing the user to access the remote system. The password must be
specified in the syntax of the remote system, must adhere to the conventions used in
the remote system and must be known there.

PASSWORD = *SECRET
The system prompts you to enter the password. However, your input is not displayed
on the screen.

NEW-NAME =
New name of the directory in the remote FT partner system.

NEW-NAME = <u>*SAME</u>
The directory name is unchanged.

NEW-NAME = <filename 1..54> / <c-string 1..512 with-low>
New name of the directory in the remote system. The previous directory name becomes
invalid. The directory name must be specified in the syntax of the remote system and must
adhere to the conventions used in the remote system.

Command return codes

For a list of the possible return codes, see the table as of page 451.

3.28 MODIFY-REMOTE-FILE-ATTRIBUTES
Modify remote file attributes

Note on usage

User group: FT user

Alias name: FTMOD

Functional description

The MODIFY-REMOTE-FILE-ATTRIBUTES command is used to modify the attributes of a file in an FT partner system.

Depending on the partner involved, the following file attributes can be modified:

openFT partners:

– File name
– Access rights

FTAM partners:

– File name
– Availability of the file
– Account number for file storage costs
– Future file size
– Access rights
– Legal qualifications related to the use of a file

FTP partners:

– File name

Format

MODIFY-REMOTE-FILE-ATTRIBUTES / FTMOD

PARTNER = <text 1..200 with-low>

,FILE = **<u>*NOT-SPECIFIED</u>** / <filename 1..54> / <c-string 1..512 with-low>

,PASSWORD = **<u>*NONE</u>** / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
             *SECRET

,TRANSFER-ADMISSION = **<u>*NONE</u>** / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                  *SECRET / ***PAR**AMETERS(...)

   *PARAMETERS(...)
       USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
       ,**ACCOUNT** = **<u>*NONE</u>** / <c-string 1..64 with-low> / <text 1..64>
       ,**PASS**WORD = **<u>*NONE</u>** / <c-string 1..64 with-low> / <x-string 1..128> /<alphanum-name 1..19> /
           *SECRET

,NEW-NAME = **<u>*SAME</u>** / <filename 1..54> / <c-string 1..512 with-low>

,FILE-AVAILABILITY = **<u>*UNCHA</u>**NGED / ***IMMED**IATE / ***DEFERRED**

,STORAGE-ACCOUNT = **<u>*UNCHA</u>**NGED / <c-string 1..40 with-low> / <text 1..40>

,FUTURE-FILE-SIZE = **<u>*UNCHA</u>**NGED / <integer 1..2147483647>

,ACCESS-MODE = **<u>*UNCHA</u>**NGED / ***READ-ONLY** / ***READ-WRITE** / ***REPL**ACE-**ALL-**BY(...) / ***ADD**(...)

   *REPLACE-**ALL-**BY(...)
       READ-FILE = **<u>*NO</u>** / ***YES**
       ,**INS**ERT-**DATA**-UNIT = **<u>*NO</u>** / ***YES**
       ,**REPLACE**-FILE = **<u>*NO</u>** / ***YES**
       ,**EXT**END-FILE = **<u>*NO</u>** / ***YES**
       ,**ERA**SE-**DATA**-UNIT = **<u>*NO</u>** / ***YES**
       ,**READ-ATTR**IBUTES = **<u>*NO</u>** / ***YES**
       ,**CHAN**GE-**ATTR**IBUTES = **<u>*NO</u>** / ***YES**
       ,**DEL**ETE-**FILE** = **<u>*NO</u>** / ***YES**

   *ADD(...)
       READ-FILE = **<u>*NO</u>** / ***YES**
       ,**INS**ERT-**DATA**-UNIT = **<u>*NO</u>** / ***YES**
       ,**REPLACE**-FILE = **<u>*NO</u>** / ***YES**
       ,**EXT**END-FILE = **<u>*NO</u>** / ***YES**
       ,**ERA**SE-**DATA**-UNIT = **<u>*NO</u>** / ***YES**
       ,**READ-ATTR**IBUTES = **<u>*NO</u>** / ***YES**
       ,**CHAN**GE-**ATTR**IBUTES = **<u>*NO</u>** / ***YES**
       ,**DEL**ETE-**FILE** = **<u>*NO</u>** / ***YES**

,LEGAL-QUALIFICATION = **<u>*UNCHA</u>**NGED / <c-string 1..80 with-low> / <text 1..80>

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined in the partner list by the FT administrator or the partner system address. For more information on address specifications, see section "Specifying partner addresses" on page 48.

FILE =
Name of the file in the remote FT partner system.

FILE = *NOT-SPECIFIED
The name of the file is known to the remote system because it has already been completely defined in the addressed FTAC admission profile, for instance.

FILE = <filename 1..54> / <c-string 1..512 with-low>
Name of the file in the remote system. It must be specified in the syntax of the remote system and conform to the conventions of the remote system.
If the file name is specified with unattached Public Volume Set, the request is rejected with the error message FTR2155.

PASSWORD =
The password that provides access to the file in the remote system. If the file in the remote system is password-protected, the password required for modifying file attributes in remote systems must be specified in these operands.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128>
The password that provides access to the file in the remote system. The password must be in the syntax of the remote system and conform to the conventions of the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on the screen.

TRANSFER-ADMISSION =
Contains the specifications for transfer admission to the remote system for file management requests.

TRANSFER-ADMISSION = *NONE
The remote system does not require or recognize any user authorization.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
The transfer admission for the remote system can only be defined in an admission profile if the FTAC functionality is in use in the remote system. In this case, only the TRANSFER-ADMISSION defined in the FT profile is specified. The alphanumeric entry is converted internally to lowercase characters.

TRANSFER-ADMISSION = *SECRET
The system prompts you to enter the transfer admission. However, the input is not displayed on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Specifies the identification, the account number and the password of the user in the remote system. The operands in brackets can also be used as positional operands without their keywords.

> **USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>**
> Identification of the user in the remote system. The identification must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

> **ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>**
> Account number for the user in the remote system. The account number must be specified in the syntax of the remote system and must observe its conventions.

> **PASSWORD =**
> The password that allows the user to access the remote system.

> **PASSWORD = *NONE**
> Access is possible without a password.

> **PASSWORD = <c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19>**
> The password that allows the user to access the remote system. The password must be specified in the syntax of the remote system, must conform to the conventions of the remote system, and be recognized by the remote system.

> **PASSWORD = *SECRET**
> The system prompts you to enter the password. However, the input is not displayed on the screen.

NEW-NAME =
New name of the file in the remote FT partner system.

NEW-NAME = *SAME
The previous file name remains unchanged.

NEW-NAME = <filename 1..54> / <c-string 1..512 with-low>
The new name of the file in the remote system. The previous name is no longer valid. The file name must be specified in the syntax of the remote system and conform to the conventions of the remote system.

FILE-AVAILABILITY =
Provides information on the availability of a file in an FTAM partner system. This operand has two possible values: *file available immediately* or *file not available immediately*. *File not available immediately*, for example could refer to a file stored in an archive. However, the partner can freely interpret *not available immediately*. That is why the conventions of the FTAM partner must be observed in this case.

FILE-AVAILABILITY = <u>*UNCHANGED</u>
The previous file availability remains unchanged.

FILE-AVAILABILITY = *IMMEDIATE
In a remote system, the file attribute is assigned the value *available immediately*.
In the case of requests with openFT and FTAM partners that do not support the storage group, the request is rejected.

FILE-AVAILABILITY = *DEFERRED
In a remote system, the file attribute is assigned the value *not available immediately*. The file can then be stored in the partner system.
Requests involving openFT or FTAM partners that do not support the storage group or this attribute are rejected.

STORAGE-ACCOUNT =
Account number for file storage.

STORAGE-ACCOUNT = <u>*UNCHANGED</u>
The previous account number remains unchanged.

STORAGE-ACCOUNT = <c-string 1..40 with-low> / <text 1..40>
Identifies as storage account for the FTAM partner. The file storage costs are debited to this account, insofar as the partner system supports this function. This operand must conform to the conventions of the partner system.
Requests involving openFT or FTAM partners that do not support the storage group or this attribute are rejected.

FUTURE-FILE-SIZE =
Required future file size.

FUTURE-FILE-SIZE = <u>*UNCHANGED</u>
The previous file size remains unchanged.

FUTURE-FILE-SIZE = <integer 1..2147483647>
Provides FTAM partners with information on the possible future file size. This information acts as a guideline for a system specific optimization.

Requests involving openFT or FTAM partners that do not support the storage group or this attribute are rejected.

ACCESS-MODE =
Permitted access methods.

ACCESS-MODE = *UNCHANGED
The previous access rights remain unchanged.

ACCESS-MODE = *READ-ONLY
Short form of the current access rights READ-FILE, READ-ATTRIBUTES and CHANGE-ATTRIBUTE, and thus simplifies input.

ACCESS-MODE = *READ-WRITE
Short form of the current access rights READ-FILE, REPLACE-FILE, EXTEND-FILE, READ-ATTRIBUTES, CHANGE-ATTRIBUTES, DELETE-FILE and ERASE-DATA, and thus simplifies input.

ACCESS-MODE = *REPLACE-ALL-BY(...)
The existing access rights of the file in the remote system are replaced by the specified access rights.
With FTAM partners, the access rights that are to be replaced must not be linked with any further specifications, such as, for example a file password.

   READ-FILE = *NO / *YES
   The file cannot or can be read.

   REPLACE-FILE = *NO / *YES
   The file cannot or can be overwritten.

   EXTEND-FILE = *NO / *YES
   The file cannot or can be extended.

   READ-ATTRIBUTES = *NO / *YES
   The file attributes cannot or can be read.

   CHANGE-ATTRIBUTES = *NO / *YES
   The file attributes cannot or can be modified.

   DELETE-FILE = *NO / *YES
   The file cannot or can be deleted.

   INSERT-DATA-UNIT = *NO / *YES
   Data units, such as records, cannot or can be inserted in the file.

   ERASE-DATA-UNIT = *NO / *YES
   Data units, such as records, cannot or can be deleted from the file.

ACCESS-MODE = *ADD(...)
In the case of FTAM partners, the file receives an additional set of access rights. This entry is only relevant for FTAM partners that support more than one set of access rights.

READ-FILE = *NO / *YES
The file cannot or can be read.

REPLACE-FILE = *NO / *YES
The file cannot or can be overwritten.

EXTEND-FILE = *NO / *YES
The file cannot or can be extended.

READ-ATTRIBUTES = *NO / *YES
The file attributes cannot or can be read.

CHANGE-ATTRIBUTES = *NO / *YES
The file attributes cannot or can be modified.

DELETE-FILE = *NO / *YES
The file cannot or can be deleted.

INSERT-DATA-UNIT = *NO / *YES
Data units, such as records, cannot or can be inserted in the file.

ERASE-DATA-UNIT = *NO / *YES
Data units, such as records, cannot or can be deleted from the file.

LEGAL-QUALIFICATION =
Legal qualifications.

LEGAL-QUALIFICATION = *UNCHANGED
The previous legal qualifications remain unchanged.

LEGAL-QUALIFICATION = <c-string 1..80 with-low> / <text 1..80>
In the case of FTAM partners, this defines a new legal qualification for a file (similar to a copyright). This must not exceed 80 characters.
Requests involving openFT and FTAM partners that do not support the security group or this attribute are rejected.

Command return codes

For a list of the possible return codes, see the table as of page 451.

Example

You wish to reset the access rights of the remote file MYFILE from READ-WRITE to READ-ONLY. The file is stored in the BS2000 system HUGO under the user ID JIM, with the account number A1234FT and the password C'PWD'

```
/MODIFY-REMOTE-FILE-ATTRIBUTES␣PARTNER = HUGO,FILE-NAME = MYFILE,        -
/                              TRANSFER-ADMISSION = (JIM,A1234FT,C'PWD'),-
/                              ACCESS-MODE = *READ-ONLY
```

Short form:

```
/MOD-REM-FI-ATT HUGO,MYFILE,,(JIM,A1234FT,'PWD'),,,,,*R-O
```

3.29 REMOVE-FT-PARTNER
Remove remote system from partner list

Note on usage

User group: FT administrator

Alias name: FTREMPTN

Functional description

The REMOVE-FT-PARTNER command is used to remove a remote system from the partner list of the local system.

If a partner system is deleted from the partner list then all requests involving this partner system are aborted. REMOVE-FT-PARTNER therefore represents a simple way to delete all the requests relating to a given partner. A request to a partner removed with REMOVE-FT-PARTNER is eliminated even if the request is already known in the partner system (in the same way as with CANCEL-FILE-TRANSFER .. FORCE-CANCELLATION=*YES).

Format

REMOVE-**FT-PART**NER / **FTREMPTN**

 PARTNER = \<text 1..200 with-low\>

Operands

PARTNER = \<text 1..200 with-low\>
Name of the partner system from the partner list or the address of the partner system. For details on specifying partner addresses, see section "Specifying partner addresses" on page 48.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
35	64	FTR1035	Command only permissible for FT administrator.
45	64	FTR1045	Partner name not found in partner list.
1	0	FTR1048	Active requests could not yet be deleted.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

Example

Remove the remote system PARTNER1 from the partner list of the local system:

```
/REMOVE-FT-PARTNER PARTNER=PARTNER1
```

3.30 SET-FT-INSTANCE
Set an openFT instance

Note on usage

User group: FT user

Functional description

Using this command, you select the openFT instance you would like to immediately begin working with. After successful execution of the SET-FT-INSTANCE command, all the FT and FTAC commands (with the exception of instance commands) and all calls on the program interface are processed by the specified instance.

If you do not set an instance, then you will always work with the standard instance. It is the first instance to be displayed on executing the /SHOW-FT-INSTANCE INST=*ALL command.

Format

SET-**FT**-**INST**ANCE
NAME = <alphanum-name 1..8>

Operands

NAME = <alphanum-name 1..8>
The name of the openFT instance to which all subsequent FT-/FTAC commands and program interface calls should be directed.

Command return codes

(SC2)	SC1	Maincode	Meaning/Guaranteed messages
83	32	CMD0221	Internal error.
25	64	FTR1025	Instance not found.
27	64	FTR1027	Config user ID not accessible.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

3.31 SHOW-FILE-FT-ATTRIBUTES
Display local FT file attributes

Note on usage

User group: FT User

Alias name: FTSHWF

The command is only useful in conjunction with FTAM functionality.

Functional description

With the SHOW-FILE-FT-ATTRIBUTES command you can display the FTAM attributes of
a file in the local system. Thus, you can determine the file attribute values for file transfer
and file management requests involving FTAM partners.

There are three options for outputting the attributes:

– Display the file name
– Display default information
– Display all file attributes

Format

SHOW-FILE-FT-ATTRIBUTES / **FTSHWF**

FILE-NAME = <filename 1..54>
 	
,**INF**ORMATION = ***STD** / ***ALL-ATTR**IBUTES / ***NAME-ONLY**
 	
,**OUT**PUT = ***SYSOUT**(...) / ***SYSLST**(...)
 	
   *SYSOUT(...) / ***SYSLST**(...)
     | **LAYOUT** = ***STD** / ***CSV**

Operands

FILE-NAME = <filename 1..54>
File in the local system whose attributes are to be displayed. These attributes only apply to
FTAM partners wishing to use FTAM functionality to transfer files.
The same access rules apply as for the SHOW-FILE-ATTRIBUTES command in BS2000.
If the file name is specified with an unattached Public Volume Set, the request is rejected
with the error message FTR0020.

INFORMATION =
Amount of information required. Only those attributes available for file transfer and file management requests are displayed.

INFORMATION = *STD
The default range of information is to be output.

INFORMATION = *ALL-ATTRIBUTES
All available information is output to the file.

INFORMATION = *NAME-ONLY
Only the file name is output.

OUTPUT = *SYSOUT(...)
Output is to SYSOUT.

OUTPUT = *SYSLST(...)
Output is to SYSLST.

   LAYOUT = *STD
   Output is put into a user-friendly form for reading.

   LAYOUT = *CSV
   Output occurs in **C**haracter **S**eparated **V**alues format. This is a special, tabular format, widely used in the PC world, in which the individual fields are separated by a semicolon ";" (see page 499).

Command return codes

(SC2)	SC1	Maincode	Meaning/Guaranteed messages
20	64	FTR0020	The command was not executed. Send file unknown.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
83	32	CMD0221	Internal error.
170	64	FTR2170	Request rejected. Remote system: Function not supported.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

OPS variables

The following table shows the OPS variables of the command SHOW-FILE-FT-ATTRI-BUTES with the operand INF=*ALL-ATTRIBUTES, the underlined values are valid for the output with the operand INF=*STD. For the operand input INF=*NAMES-ONLY only the element F-NAME (String) is output.

Element	Type	Output
F-NAME	String	
STOR-ACCOUNT	String	
CRE	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
MODIFY	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
READ	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
MOD-ATTR	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
DATA-TYPE	String	*CHAR / *BINARY / *DIR / *NO-INFO
CHAR-SET [1]	String	*GRAPHIC / *GENERAL / *IA5 / *VISIBLE
REC-FORM	String	*VAR / *FIXED / *UNDEF
REC-SIZE	Integer	
F-AVAIL	String	*IMMED / *DEFERRED
ACCESS-RIGHTS	Struct	
.READ-F	String	*YES / *NO
.INS-DATA-UNIT	String	*YES / *NO
.REPLACE-F	String	*YES / *NO
.EXTEND-F	String	*YES / *NO

Element	Type	Output
.ERASE-DATA-UNIT	String	*YES / *NO
.READ-ATTR	String	*YES / *NO
.MOD-ATTR	String	*YES / *NO
.DEL-F	String	*YES / *NO
.TRAVERSAL	String	*YES / *NO
.REV-TRAVERSAL	String	*YES / *NO
.RANDOM	String	*YES / *NO
F-SIZE	Integer	
MAX-F-SIZE	Integer	
LEGAL-QUALIFICATION	String	
CCS-NAME	String	Value

[1] The element CHAR-SET is only assigned if DATA-TYPE=*CHARS.

Examples

1. You wish to output detailed information on the FTAM attributes of the LOCFILE on the local BS2000 system.

```
/SHOW-FILE-FT-ATTRIBUTES FILE-NAME = LOCFILE
```

```
%*r-pxeacd--- MAIER 1234567890 Apr 30 11:55 LOCFILE
```

Short form:

```
/SH-FI-FT LOCFILE
```

2. You wish to output detailed information on the FTAM attributes of the LOCFILE on the local BS2000 system.

```
/SHOW-FILE-FT-ATTRIBUTES FILE-NAME=LOCFILE,INFORMATION=*ALL-ATTRIBUTES
```

```
%FILENAME=LOCFILE
%CRE   MAIER DATE=Nov 19 11:55
%MOD   DATE=Apr 28 15:54
%REA   DATE=Apr 30 09:01
%RECORD-FORMAT=v
%ACCESS=RIGHTS=r-pxeacd---   FILESIZE=123456
```

Short form:

```
/SH-FI-FT-AT LOCFILE,*A
```

3.32 SHOW-FILE-TRANSFER
Query status of file transfer request

Note on usage

User group: FT user and FT administrator

Alias names: SHFT / NSTATUS / FTSHWREQ

Functional description

The SHOW-FILE-TRANSFER command allows you to request information about FT requests. As with CANCEL-FILE-TRANSFER, you can specify selection criteria in order to obtain information about specific FT requests.

FT users can only obtain information about the FT requests they own.

The FT administrator can obtain information about the requests of any owner.

The owner of requests issued in the local system is the user ID under which they are submitted. The owner of requests issued in the remote system is the user ID in the local system under which the requests are executed.

The scope of information to be output can be selected. By default the following information is output by the system in response to the SHOW-FILE-TRANSFER command:
– the transfer ID of the request,
– the initiator of the request (local or remote system),
– the operating status of the request (see description of operands for more details),
– the partner system,
– the transfer direction,
– the name of the file (or library member) to be transferred in the local system,
– the number of bytes transferred.

By entering INFORMATION=*ALL in the SHOW-FILE-TRANSFER command more information can be obtained. openFT then, in addition to the standard output, outputs the values of further operands of the transfer command that was used to issue the request. Which output parameters are displayed depends on the parameters which were specified for the request.

The complete description of all possible output parameters and values is provided in the section "Description of the long output of SHOW-FILE-TRANSFER" on page 282.

The more precise your information request, the fewer irrelevant requests are output.

The specification of INFORMATION=*SUMMARY returns a small table with the number of jobs in the various request states.

Format

```
SHOW-FILE-TRANSFER / SHFT / NSTATUS / FTSHWREQ
```

```
 TRANSFER-ID = *ALL / <integer 1..2147483647>

,SELECT = *OWN / *PARAMETERS(...)

    *PARAMETERS(...)
            OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>
           ,INITIATOR = (*LOCAL, *REMOTE) / list-poss(2): *LOCAL / *REMOTE
           ,PARTNER = *ALL(...) / <text 1..200 with-low>
              *ALL(...)
                 │  PARTNER-STATE = *ALL / *ACTIVE
           ,FILE-NAME = *ALL / <filename 1..54> / <c-string 1..512 with-low> /
                        *LIBRARY-ELEMENT(...) / *POSIX(NAME=<posix-pathname 1..510>) /
                        *PUBSET(PUBSET=<cat-id 1..4>)
              *LIBRARY-ELEMENT(...)
                 │  LIBRARY = *ALL / <filename 1..54>
                 │ ,ELEMENT = *ALL / <filename 1..64 without-gen-vers>(...) /
                 │               <composed-name 1..64 with-under>(...)
                 │     <filename>(...) / composed-name>(...)
                 │        │  VERSION = *ALL / <text 1..24>
                 │ ,TYPE = *ALL / <name 1..8>
           ,MONJV = *NONE / <filename 1..54 without-gen-vers>
           ,JV-PASSWORD = *NONE / <c-string 1..4> / <x-string 1..8> / <integer -2147483648..2147483647> /
                        *SECRET
           ,STATE = *ALL / *SUSPEND / *LOCKED / *WAIT / *ACTIVE / *CANCELLED / *FINISHED / *HOLD
           ,GLOBAL-REQUEST-ID = *ALL / <alphanum-name 1..10>
,INFORMATION = *STD / *ALL / *SUMMARY

,OUTPUT = *SYSOUT(...) / *SYSLST(...)

    *SYSOUT(...) / *SYSLST(...)
       │  LAYOUT = *STD / *CSV
```

Operands

TRANSFER-ID =
Transfer ID of the FT request about which information is required.

TRANSFER-ID = *ALL
Supplies information about all the owner's FT requests.
The FT user can only obtain information about the current requests he/she owns.

The FT administrator can obtain information about all current FT requests that access his/her system.

TRANSFER-ID = <integer 1..2147483647>
Transfer ID assigned to the local system and output as part of the message confirming acceptance of the request.

SELECT =
Contains selection criteria defining the file transfer requests on which inquiries are to be made. Information on a file transfer request is output if the request satisfies all the specified criteria.

SELECT = *OWN
Provides information on all current file transfer requests for which you are designated as the owner.

SELECT = *PARAMETERS(...)

   OWNER-IDENTIFICATION =
   Owner of the FT requests. Only the FT administrator can make use of this operand unrestricted.

   OWNER-IDENTIFICATION = *OWN
   Provides information only on the file transfer requests in the user's own ID.

   OWNER-IDENTIFICATION = *ALL
   Provides information on FT requests in all user IDs.

   OWNER-IDENTIFICATION = <name 1..8>
   Specific user ID about whose file transfer requests information is required. The FT user may only enter his/her own user ID. The specification corresponds to *OWN.

   INITIATOR =
   Initiator of the file transfer requests concerned.

   INITIATOR = (*LOCAL,*REMOTE)
   Provides information on file transfer requests issued in the local system and in remote systems.

   INITIATOR = *LOCAL
   Provides information on file transfer requests issued in the local system.

   INITIATOR = *REMOTE
   Provides information on file transfer requests issued in the remote systems.

   PARTNER =
   Selects file transfer requests carried out with a specified remote system.

   PARTNER = *ALL(...)
   The partner system is not used as a selection criterion to determine the file transfer requests on which information is to be output.

PARTNER-STATE =
The status of the partner system is used as a selection criterion.

PARTNER-STATE = *ALL
The requests are selected independently of the partner system's status.

PARTNER-STATE = *ACTIVE
Only the requests to and from the active partners are selected.

PARTNER = <text 1..200 with-low>
Name or an address of a partner system. Information is required on the file transfer requests being executed with this system. For more information on address specifications, see section "Specifying partner addresses" on page 48.

FILE-NAME =
FT requests that access this file, this pubset or this library member in the local system as a send file or receive file. The file name or library member name must be specified exactly as it appears in the FT request. If %UNIQUE was specified, the file name generated by openFT must be entered as the selection criterion here.

FILE-NAME = *ALL
The file name is not used as a selection criterion to define the file transfer requests on which information is to be output.

FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)
Name of a file. Information is required on the file transfer requests that access this file.

FILE-NAME = *PUBSET(PUBSET = <cat-id 1..4>)
Information on all FT requests that access files on the specified pubset should be displayed.

FILE-NAME = *LIBRARY-ELEMENT(...)
Information is required on file transfer requests that access library members in the local system.

LIBRARY =
Selects the library concerned.

LIBRARY = *ALL
The library name is not used as a selection criterion to define the file transfer requests on which information is to be output.

LIBRARY = <filename 1..54>
Name of a library. Information is required on the file transfer requests that access this library.

ELEMENT =
Library member. Information is required on all the file transfer requests that access this member.

ELEMENT = *ALL
The name of the library member is not used as a selection criterion to define the file transfer requests.

ELEMENT = <filename 1..64 without-gen-vers>(...) /
<composed-name 1..64 with-under>(...)
Name of a library member. Information is required on the file transfer requests that access this library member.

> **VERSION =**
> Version number of the library member.
>
> **VERSION = *ALL**
> Information is required on all file transfer requests that access any version of the library member.
>
> **VERSION = <text 1..24>**
> Information is required on the file transfer requests that access a specific version of the library member.

TYPE =
The type of library member.

TYPE = *ALL
The member type is not used as a selection criterion to define the file transfer requests on which information is to be output.

TYPE = <name 1..8>
Information is required only on those file transfer requests that access library members of this type.

MONJV =
If appropriate, selects the specific file transfer request that is being monitored by this job variable.

MONJV = *NONE
A job variable is not used as a selection criterion to define the file transfer request on which information is to be output.

MONJV = <filename 1..54 without-gen-vers>
Information is required on the file transfer request that is being monitored by this job variable.

JV-PASSWORD =
If required, specifies the password needed to access the job variable.

If you have already notified the system of the password with the BS2000 command ADD-PASSWORD, you do not have to specify JV-PASSWORD.

JV-PASSWORD = *NONE
The job variable is not password-protected.

**JV-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>**
This password is required for the job variable.

JV-PASSWORD = *SECRET
The system requests you to enter the password. This input is not displayed on the
screen.

STATE =
Selects those file transfer requests that are in the specified status. The status of a
request may change in between entry of the command and information output. This is
why the output may include requests that are in a state other than the one selected with
STATE.

STATE = *ALL
The status of a request is not used as a selection criterion to define the file transfer
requests on which information is to be output.

STATE = *SUSPEND
Requests information on those file transfer requests that are currently in SUSPEND
status (= interrupted).

STATE = *LOCKED
Requests information on FT requests that are in the LOCKED operating status
(= temporarily locked as a result of a longer term resource bottleneck).

STATE = *WAIT
Requests information on those file transfer requests that are currently in WAIT status
(= waiting for resources).

STATE = *ACTIVE
Requests information on those file transfer requests that are currently in ACTIVE status
(= being processed).

STATE = *CANCELLED
Requests information on those file transfer requests that were canceled and are waiting
for negotiation with the communications partner to be concluded. These requests are
visible only to the FT administrator.

STATE = *FINISHED
Requests information on those file transfer requests that are currently in FINISHED
status (= terminated or aborted, but where the user has not yet been informed).

STATE = *HOLD
Requests information on those FT requests that are currently in HOLD status
(= awaiting the specified start time).

GLOBAL-REQUEST-ID =
Selects the FT requests on the basis of the global request identification.

GLOBAL-REQUEST-ID = *ALL
The global request identification is not a search criterion.

GLOBAL-REQUEST-ID = <alphanum-name 1..10>
Requests information on the FT request with a particular global request identification.
The global request identification is relevant only for inbound requests of openFT and
FTAM partners. It is assigned by the initiator of the request (transfer ID) and transferred
to the local system.

INFORMATION =
Scope of the output.

INFORMATION = *STD
Output is summary form and contains the following information (see "Description of the
short output of SHOW-FILE-TRANSFER" on page 280):
– Transfer ID,
– Initiator,
– State of the request,
– Partner,
– Direction of transfer,
– Byte count,
– File or library member name in the local system.

INFORMATION = *ALL
Output is in full form. In addition to the summary form data, further information is provided
on the operands used in the TRANSFER-FILE command (see "Description of the long
output of SHOW-FILE-TRANSFER" on page 282).

INFORMATION = *SUMMARY
Output is in the form of a specified sum. By specifying INFORMATION=*SUMMARY, you
can restrict the output information to a statistic of the currently existing requests. By doing
this, the display is arranged according to the conditions in which the requests find
themselves. The displayed sum can, of course, exceed the sum of the individual columns,
since all requests, even those that still have no request condition, are counted. Information
is output about the number of request in each individual processing status (see "Description
of the summary output of SHOW-FILE-TRANSFER" on page 286).

OUTPUT =
Output medium.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

LAYOUT = *STD
Output is formatted using a standard layout that can be easily read by the user.

LAYOUT = *CSV
Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used
tabular format, especially in the PC environment, in which individual fields are
separated by a delimiter, which is usually a semicolon ";" (see page 472).

If selection criteria are specified in the SHOW-FILE-TRANSFER command and no request
is found that matches all the specified criteria, the command is acknowledged with the
following message:

```
% FTR0504 No requests available for the selection criteria
```

In such a case, procedures do not branch to the next SET-JOB-STEP.

Commando return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	There are no requests that meet the specified selection criteria.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
82	32	CMD0221	Internal error. Job variable not accessible.
83	32	CMD0221	Internal error.
88	32	CMD0221	Error during OPS generation.
36	64	FTR1036	User not authorized for other user IDs
47	64	FTR1047	The request with the specified transfer ID could not be found.
226	64	FTR2226	Job variable contents inconsistent.
227	64	FTR2227	Job variable not in use by openFT.
228	64	FTR2228	Job variable not found.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

OPS variables

The following table shows the OPS variables for the command SHOW-FILE-TRANSFER with the operand INF=*ALL. The underlined values are valid for the output with the operand INF=*STD. The table on shows the OPS variables for the output with the operand INF=*SUMMARY.

Element	Type	Output
TRANS-ID	Integer	
STA	String	*SUSPEND / *LOCK / *WAIT / *ACTIVE / *FINISH / *HOLD
BYTE-COUNT	Integer	
PRIO	String	*NORM / *HIGH / *LOW
INIT	String	*LOC / *REM
TRANS-DIRECT	String	*TO-PARTNER / *FROM-PARTNER
PARTNER-NAME	String	
COMPRESS	String	*NONE / *BYTE-REPETITION / *ZIP
DATA-ENC	String	*YES / *NO
DICHECK	String	*YES / *NO
WRITE-MODE	String	* REPL-FILE / *NEW-FILE / *EXT-FILE
FILE-SIZE	String	Value
REC-SIZE	String	Value
REC-FORMAT	String	*STD / *VARIABLE / *FIXED /*UNDEFINED
START	Struct	
.DATE	String	*SOON / yyyy-mm-dd
.TIME	String	*SOON / hh:mm:ss
CANCEL	Struct	
.DATE	String	*NO / yyyy-mm-dd
.TIME	String	*NO / hh:mm:ss
OWNER	String	
DATA-TYPE	String	*CHAR / *BINARY / *NOT-SPEC
TRANSP	String	*YES / *NO
LOC-PAR	Struct	
.F-TYPE [1]	String	*FILE / *LIB
.F-NAME	String	
.LIB	String	
.ELEM	String	

Element	Type	Output
.VERSION	String	
.TYPE	String	
.TRANS-ADMIS	Struct	
.USER-ID	String	
.ACCOUNT	String	
.PROF-NAME [2]	String	
.PROCESS-ADMIS	Struct	
.USER-ID	String	
.ACCOUNT	String	
.SUCC-PROCESS	String	*SECRET / success-processing
.FAIL-PROCESS	String	*SECRET / failure-processing
.LISTING	String	*NONE / *SYSLST / *LISTFILE / *FAIL-SYSLST / *FAIL-LISTFILE
.MONJV	String	
.CCS-NAME	String	*STD / value
REM-PAR	Struct	
.F-TYPE [1]	String	*FILE / *LIB
.F-NAME	String	
.LIB	String	
.ELEM	String	
.VERSION	String	
.TYPE	String	
.TRANS-ADMIS	Struct	
.USER-ID [3]	String	*REM-PROF / user-id
.ACCOUNT [3]	String	*REM-PROF / account
.PROCESS-ADMIS	Struct	
.USER-ID	String	
.ACCOUNT	String	
.SUCC-PROCESS	String	*SECRET / success-processing
.FAIL-PROCESS	String	*SECRET / failure-processing
.CCS-NAME	String	*STD / value
TARGET	Struct	
.FILE-FORMAT	String	*SAME / *BLOCK / *SEQ

Element	Type	Output
.REC-FORMAT	String	*SAME / *UNDEF
PROTECTION	String	*STD / *SAME
GLOBAL-REQ-ID	Integer	

[1] For F-Type=*FILE, LIB, ELEM, VERSION and TYPE are not displayed.

[2] USER-ID and ACCOUNT are not assigned if an FTAC profile is specified.

[3] Since this cannot be output when a remote FTAC transfer admission is specified, USER-ID and ACCOUNT are assigned with *REM-PROFILE in this case.

The following table shows the OPS variables for the output with the operand INF=*SUMMARY.

Element	Type	Output
NUM-ACTIVE	Integer	
NUM-WAIT	Integer	
NUM-LOCK	Integer	
NUM-SUSPEND	Integer	
NUM-HOLD	Integer	
NUM-FINISHED	Integer	
NUM-SUMM [1]	Integer	

[1] Grand total of all requests including the requests that are still not validated and therefore not counted in any of the other elements.

3.32.1   Description of the short output of SHOW-FILE-TRANSFER

Example 1

Information is to be output to SYSOUT on those FT requests submitted by the remote system ALFRED which require access to the file DRAISINE and are currently active. The required command is as follows:

```
/SHOW-FILE-TRANSFER                                                      -
/               SELECT=(INITIATOR=*REMOTE,                               -
/               PARTNER=ALFRED,                                          -
/               FILE-NAME=DRAISINE,                                      -
/               STATE=*ACTIVE)
```

The recommended short form of this command is as follows:

```
/SHFT SEL=(INIT=*REM,PART-NAME=ALFRED,FILE=DRAISINE,STATE=*ACT)
```

or

```
/NSTATUS SEL=(INIT=*REM,PART-NAME=ALFRED,FILE=DRAISINE,STATE=*ACT)
```

The FT administrator must specify the operand OWNER=*ALL by SELECT if he/she is not the owner of the file DRAISINE.

The information is then output in the following format, for example:

```
%TRANS-ID   INI STATE PARTNER  DIR  BYTE-COUNT  FILE-NAME
%528184     REM ACT   ALFRED   TO   14760       DRAISINE
```

The information is output to SYSOUT, since this is the default value for the output of inquiry information.

Description of the output columns:

TRANS-ID: Transfer ID of the file transfer request

INI: Initiator of the file transfer request : *REM* for REMOTE, *LOC* for LOCAL

STATE: State of the request (here *ACT* for ACTIVE), other outputs:

                SUSP for SUSPEND,
Inbound request suspended, e.g. due to higher priority requests.

                LOCK for LOCKED,

                WAIT for WAIT,

                FIN for FINISHED,

                HOLD for HOLD

PARTNER: Symbolic name of the relevant partner system.

               If the FT request is in the STATE=WAIT state, and there is no normal
               internal resource bottleneck, then the partner name is preceded by one of
               the following characters:

               *   The FT administrator of the local system has locked a resource.

               !   An attempt to set up a connection to the partner system failed (possibly
                   because the remote system is not running, for example, or because FT
                   has not been started there or, in the case of TCP/IP connections,
                   because the port specification contains *BY-TRANSPORTSYSTEM
                   and there is no BCMAP). This can also occur, if openFT has discovered
                   an error during the internal check of transferred data integrity.

               ?   Installation error.
                   The cause can be queried with the FT administrator.
                   Possible reasons:
                   –   The PORT in BCMAP does not correspond to that in the partner
                       entry. Check the installation.
                   –   The authentication of the local or remote system has failed due to
                       an unsuitable public key.

DIR: Transfer direction

BYTE-COUNT: Number of bytes transferred up to the last restart point (in the case of data
               compression this is the number of bytes of compressed data)

FILE-NAME: Name of the relevant file or library member in the local system

3.32.2 Description of the long output of SHOW-FILE-TRANSFER

The long output is described using an example of an outbound request and an example of an inbound request.

Example 1 (Outbound request)

Full information is to be output to SYSLST on the FT request with transfer ID 721212. If the file transfer request was issued under the same user ID as that under which the inquiry is made, then the command is as follows:

```
/SHOW-FILE-TRANSFER                                                     –
/                    TRANSFER-ID=721212,                                –
/                    INFORMATION=*ALL,                                  –
/                    OUTPUT=*SYSLST
```

The recommended short form of this command is as follows:

```
/SHFT 721212,INF=*ALL,OUT=*SYSLST
```

The information output on SYSLST then has the following format, for example:

```
%TRANSFER-ID =721212       STORE  =16-12-11 14:09:35  FILESIZE=40960000
%   STATE   =WAIT          BYTECNT=2117632
%   INITIATOR=LOCAL        TRANS  =TO                 PRIO    =NORM
%   WRITE   =REPLACE       START  =SOON               CANCEL  =NO
%   COMPRESS =BYTE         DATA   =CHAR
%   TRANSP  =NO            ENCRYPT=YES                TABEXP  =NO
%   OWNER   =USER1         DICHECK=NO
%   PARTNER  =WINO1
%   FNC-MODE =TRANSPARENT
%   PARTNER-STATE =ACT
%   PARTNER-PRIO  =NORM
%   LOC: FILE    =$USER1.FILE.GR
%        TRANS-ADM=(USER1,88888)
%        ASYN-MSG =ALL
%   REM: FILE    =TEST2
%        TRANS-ADM=REMOTE-PROFILE
```

Example 2 (Inbound request)

Full information is to be output to SYSLST on the FT request with transfer ID 983050. If the file transfer request was issued under the same user ID as that under which the inquiry is made, then the command is as follows:

```
/SHOW-FILE-TRANSFER TRANSFER-ID=983050,                              −
/                   INFORMATION=*ALL,                                 −
/                   OUTPUT=*SYSLST

%TRANSFER-ID =983050      STORE  =16-12-11 14:09:36  FILESIZE=40960000
%   STATE    =WAIT        BYTECNT=1925120
%   INITIATOR=REMOTE      TRANS  =FROM              PRIO    =
%   WRITE    =REPLACE     START  =SOON              CANCEL  =NO
%   COMPRESS =BYTE        DATA   =CHAR              GLOB-ID =721212
%   TRANSP   =NO          ENCRYPT=YES               TABEXP  =NO
%   OWNER    =USER2       DICHECK=YES               RECFORM =VARIABLE
%   PARTNER  =WIN01
%   FNC-MODE =TRANSPARENT
%   PARTNER-STATE =ACT
%   PARTNER-PRIO  =NORM
%   FILE     =TEST2
%   TRANS-ADM=LAST
```

Meaning of the fields in the long output

The list below describes all fields which can occur in the long output (according to lines). Which fields are output in each particular case depends on the type and the parameters of the request.

TRANSFER-ID: Transfer ID of the request

STORE: The time at which the request was entered in the request queue

FILESIZE: The size of the file in bytes. If the output is flagged with a "K" on the right, the output is in kilobytes. If the output is flagged with "M", the output is in megabytes. The size is only shown here if the request has already been active. In the case of receive requests, a value is only shown here if the partner also sends that value.

STATE: State of the request

BYTECNT: Number of bytes transferred up to the last restart form (in the case of data compression in compressed form)

INITIATOR: Initiator of the request

TRANS: Transfer direction, as seen from local system

PRIO: Priority with which the request is to be started;
                here: NORM for NORMAL.

WRITE:	Specifies if or when the receive file is to be overwritten or extended
START:	Requested start time of the request (SOON for "as soon as possible").
CANCEL:	Requested abortion time (NO for "no abortion requested")
COMPRESS:	Specifies whether or not the file is to be transferred in compressed form
DATA:	Type of file:

      CHAR   for text file

      BIN   for binary file

      NOT–SPECIFIED
          in TRANSFER-FILE (NCOPY), no DATA-TYPE was specified

      USER   for user format

GLOB–ID:	Global request identification, displayed only in the case of inbound requests from openFT and FTAM partners (INITIATOR=REMOTE). This corresponds to the request identification (=TRANSFER-ID) on the initiator system.
TRANSP:	Specifies whether the transfer is to be done in transparent format
ENCRYPT:	Specifies whether the file content is to be transferred in encrypted form
TABEX:	Specifies whether the tabulator expansion is activated. Possible values: ON, OFF, AUTO.
TARGFORM:	Format of the transferred file in the target system:

      SEQ   Sequential file format

      BLOCK Block format

TRECFRM:	Record format of the file in the target system:

      STD   The same record format as in the sending system

      UNDEFINED
          Undefined record format

OWNER:	Owner of request in local system
DICHECK:	Specifies whether data integrity is to be checked (YES) or not (NO)
RECFORM:	Record format. Possible values: UNDEFINED, VARIABLE, FIX.
PROTECT:	Specifies whether the protection attributes of the file are transferred
PARTNER:	Symbolic name of partner system participating in the request. If the FT request is in the STATE=WAIT state, and there is no normal internal resource bottleneck, then the partner name is preceded by one of the following characters:

       *   The FT administrator of the local system has locked a resource.

       !   An attempt to set up a connection to the partner system failed (possibly because the remote system is not running, for example, or because FT has not been started there or, in the case of TCP/IP connections, because the port specification contains *BY-TRANSPORTSYSTEM and there is no BCMAP). This can also occur, if openFT has discovered an error during the internal check of transferred data integrity.

       ?   Installation error.
             The cause can be queried with the FT administrator.
             Possible reasons:
          –   The PORT in BCMAP does not correspond to that in the partner entry. Check the installation.
          –   The authentication of the local or remote system has failed due to an unsuitable public key

FNC-MODE: Encoding mode for remote file names and follow-up processing. Possible values:

    TRANSPARENT
            Encoding in transparent mode.

    CHAR   Encoding in character mode (only possible for inbound requests).

PARTNER-STATE:
            Status of the partner. Possible values:

    ACT   Activated

    DEACT   Deactivated

    NOCON   No connection, for instance because the openFT server has not been started on the remote system.

    INSTERR
            There is an installation or configuration error (for example, the local system is not known to the partner or the address of the partner in the partner list is not valid) or authentication of one of the partners has failed or encryption is not available locally or on the partner system.

PARTNER-PRIO:
            Prioritization of the partner when processing requests.
            Possible values:

    LOW   The partner has low priority.

    NORM   The partner has normal priority.

    HIGH   The partner has high priority.

LOC: Specifications on the local system (LOCAL-PARAMETER).

                  The entry can include more than in this example; the keywords correspond
                  to the recommended abbreviations of the keywords of the transfer
                  command; the meaning of the operand is also to be found there.

FILE: Local file name

ASYN-MSG:
                  Specifies which request result leads to an asynchronous termination
                  message. Possible values: ALL, FAIL.

MONJV:
                  Name of the job variable in the format :cat-id:$user-id.monjv-name if a job
                  variable has been specified in a outbound request..

REM: Specifications on the remote system (REMOTE-PARAMETER).

                  The entry can include more than in this example; the keywords correspond
                  to the recommended abbreviations of the keywords of the transfer
                  command; the meaning of the operand is also to be found there.

FILE: Remote file name

The following parameters are only output for locally issued requests.

TRANS-ADM:
                  Transfer admission (here for the remote system. Instead of the triplet user
                  ID, account number and password where appropriate, REMOTE-PROFILE
                  can also be output here if a remote FTAC FT profile is addressed. The
                  equivalent also applies to entries in the local system.

CCSN: CCS name used in the local and/or remote system when reading the file.

3.32.3 Description of the summary output of SHOW-FILE-TRANSFER

You want to output information about the number of requests in each individual processing
status.

```
/SHFT INF=*SUMMARY
% ACT    WAIT    LOCK    SUSP    HOLD    FIN     TOTAL
%  3       5       0       0       0      0        10
```

There are three requests in the ACTIVE condition, and five in the WAIT condition. Two
requests are still in protocol handling, therefore the sum is 10.

3.33 SHOW-FTAC-ENVIRONMENT
Display saved admission profiles and sets

Note on usage

User group: FTAC administrator

openFT-AC must be installed to use this command.

Functional description

The FTAC administrator can use the command SHOW-FTAC-ENVIRONMENT to view
admission profiles and sets which have been written in an export file using the command
EXPORT-FTAC-ENVIRONMENT (see page 146). This function is particularly useful before
the importing of the admission profiles and sets (see page 160).

Format

SHOW-FTAC-ENVIRONMENT

FROM-FILE = <filename 1..54>

,USER-IDENTIFICATION = ***ALL** / list-poss(100): <name 1..8>

,SELECT-PARAMETER = ***ALL** / ***PAR**AMETERS(...)

   *PARAMETERS(...)
      │ **PROFILE-NAME** = ***ALL** / ***NONE** / ***STD** / list-poss(100): <alphanum-name 1..8>
      │ **,ADMISSION-SET** = ***YES** / ***NO**

,INFORMATION = ***ONLY**-NAMES / ***ALL**

,OUTPUT = ***SYSOUT**(...) / ***SYSLST**(...)

   *SYSOUT(...) / ***SYSLST**(...)
      │ **LAYOUT** = ***STD** / ***CSV**

Operands

FROM-FILE = <filename 1..54>
Name of the file (not a temporary file) from which the admission profiles and sets are to be
displayed. If the file contains invalid data or access to the file is unsuccessful, the command
is rejected with the message FTC0103.

USER-IDENTIFICATION =
User ID whose admission profiles and sets are to be displayed.

USER-IDENTIFICATION = <u>*ALL</u>
The admission profiles and sets of all users are to be displayed.

USER-IDENTIFICATION = list-poss(100): <name 1..8>
The admission profiles and sets of the user IDs specified (maximum 100) are to be
displayed.

SELECT-PARAMETER =
Specifies whether only admission profiles, only admission sets or both are to be displayed.
For the admission profiles, you can specify which ones are to be displayed.

SELECT-PARAMETER = <u>*ALL</u>
All admission profiles and sets associated with the user ID specified under USER-
IDENTIFICATION are to be output on file.

SELECT-PARAMETER = *PARAMETERS(...)
Specifies which of the admission sets associated with the USER-IDENTIFICATION are to
be specified.

    PROFILE-NAME = <u>*ALL</u>
    All admission profiles are displayed.

    PROFILE-NAME = *NONE
    No admission profiles are displayed.

    PROFILE-NAME = *STD
    Displays the standard admission profile.

    PROFILE-NAME = list-poss(100): <alphanum-name 1..8>
    Only the specified profiles are displayed (maximum 100).

    ADMISSION-SET = <u>*YES</u>
    All admission sets are displayed.

    ADMISSION-SET = *NO
    No admission sets are displayed.

INFORMATION =
Scope of the information to be displayed.

INFORMATION = <u>*ONLY-NAMES</u>
Only the names of the admission profiles are to be displayed.

INFORMATION = *ALL
The entire contents of the admission profiles, excluding any passwords and transfer
admissions, are displayed.

OUTPUT =
Output medium.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

LAYOUT = *STD
Output is formatted using a standard layout that can be easily read by the user

LAYOUT = *CSV
Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used tabular format, especially in the PC environment, in which individual fields are separated by a delimiter, which is usually a semicolon ";" (see).

Example

The FTAC administrator Jack John backs up the admission set and the admission profiles of the user ID STEVEN in the file STEVEN.FTAC.BKUP.

```
/EXPORT-FTAC-ENVIRONMENT␣TO-FILE=STEVEN.FTAC.BKUP,
                    USER-IDENTIFICATION=STEVEN
```

A possible short form of this command would be:

```
/EXP-FTAC-ENV␣STEVEN.FTAC.BKUP,STEVEN
```

As a conscientious FTAC administrator, Jack checks if the desired back-up is in the file STEVEN.FTAC.BKUP

```
/SHOW-FTAC-ENVIRONMENT␣FROM-FILE=STEVEN.FTAC.BKUP
```

He receives the following output:

```
                MAX. USER LEVELS              MAX. ADM LEVELS
ATTR
% USER-ID  OBS  OBR  IBS  IBR  IBP  IBF   OBS  OBR  IBS  IBR  IBP  IBF
% STEVEN    1    1    0    1    0    0     1    1    0    0    0    0
% OWNER     NAME
% STEVEN    *UMSAWARE
```

USER-ID and OWNER can be used to determine the user ID with which the admission sets and profiles defined under NAME are associated.

In addition, the maximum security levels set for each user are displayed, as in the command SHOW-FT-ADMISSION-SET. An explanation of these entries can be found in the section for this command ().

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	FTC0054	No information exists which meets the specified criteria.
0	64	FTC0103	The file is not an FTAC export file or access is not permitted.
0	64	FTC0104	Access to the user ID denied or the user ID doesn't exist.
0	64	FTC0105	Access to the file denied.
0	64	FTC0106	Access to the temporary file denied.
0	64	FTC0156	The command may only be issued by the FTAC adminis-trator.
0	64	FTC0177	The filename entered is unknown.
0	64	FTC0180	The USER-ID entered occurs several times.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

OPS variables

3.34 SHOW-FT-ADMISSION-SET
Display admission sets

Note on usage

User group: FTAC user and FTAC administrator

Prerequisite for using this command is the use of openFT-AC.

Functional description

You use the SHOW-FT-ADMISSION-SET command to display admission sets. You can output the following information on either SYSOUT or SYSLST:

– if the admission set is privileged (if so, then you are the FTAC administrator).

– if a password is required to use FTAC commands on this user ID. The password itself is not displayed.

– the limiting values for accessible security levels which have been set by the owner of this user ID.

– the limiting values for accessible security levels which have been pre-set by the FTAC administrator.

Format

SHOW-**FT-ADM**ISSION-**S**ET

USER-IDENTIFICATION = **<u>*OWN</u>** / ***ALL** / ***STD** / \<alphanum-name 1..8>
 ,OUTPUT = **<u>*SYSOUT</u>**(...) / ***SYSLST**(...)
    <u>*SYSOUT</u>(...) / ***SYSLST**(...)
    │   **LAYOUT** = **<u>*STD</u>** / ***CSV**

Operands

USER-IDENTIFICATION =
User ID whose admission set you wish to view. FTAC users can only obtain information about their own admission set and the standard admission set. The FTAC administrator can obtain information about any admission set.

USER-IDENTIFICATION = <u>*OWN</u>
FTAC outputs your own user ID's admission set.

USER-IDENTIFICATION = *ALL
FTAC outputs the standard admission set and the admission set of your own user ID.
For the FTAC administrator, all admission sets are output which differ from the standard
admission set.

USER-IDENTIFICATION = *STD
FTAC only outputs the standard admission set.

USER-IDENTIFICATION = <alphanum-name 1..8>
FTAC outputs the admission set that belong to the user ID specified. The FTAC user can
only enter his/her own user ID here. The FTAC administrator can enter any user ID.

OUTPUT =
Output medium for the information requested.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

   LAYOUT = *STD
   Output is formatted using a standard layout that can be easily read by the user.

   LAYOUT = *CSV
   Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used
   tabular format, especially in the PC environment, in which individual fields are
   separated by a delimiter, which is usually a semicolon ";" (see page 476).

Command return codes

(SC2)	SC1	Maincode	Meaning
0	64	FTC0052	The information output was interrupted.
0	64	FTC0152	The user ID entered is not the user's own ID.
0	64	FTC0181	The FT profile name entered occurs several times.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

OPS variables

Element	Type	Output
USER-ID	String	
USER-LEV	Struct	
.MAX-OBS	Integer	
.MAX-OBS-STD	String	*YES / *NO
.MAX-OBR	Integer	
.MAX-OBR-STD	String	*YES / *NO
.MAX-IBS	Integer	
.MAX-IBS-STD	String	*YES / *NO
.MAX-IBR	Integer	
.MAX-IBR-STD	String	*YES / *NO
.MAX-IBP	Integer	
.MAX-IBP-STD	String	*YES / *NO
.MAX-IBF	Integer	
.MAX-IBF-STD	String	*YES / *NO
ADM-LEV	Struct	
.MAX-OBS	Integer	
.MAX-OBS-STD	String	*YES / *NO
.MAX-OBR	Integer	
.MAX-OBR-STD	String	*YES / *NO
.MAX-IBS	Integer	
.MAX-IBS-STD	String	*YES / *NO
.MAX-IBR	Integer	
.MAX-IBR-STD	String	*YES / *NO
.MAX-IBP	Integer	

Element	Type	Output
.MAX-IBP-STD	String	*YES / *NO
PRIV	String	*YES / *NO
.MAX-IBF	Integer	
.MAX-IBF-STD	String	*YES / *NO
PASSWORD	String	*YES / *NO

3.34.1 Output of SHOW-FT-ADMISSION-SET

Example

Jack John, the FTAC administrator of the Dack Bank, wants to obtain information about the admission sets in his system. He enters the following command:

```
/SHOW-FT-ADMISSION-SET␣USER-IDENTIFICATION=*ALL
```

Short form:

```
/SHOW-FT-ADM␣*ALL
```

He receives the following output:

```
%                 MAX. USER LEVELS          MAX. ADM LEVELS          ATTR
% USER-ID OBS OBR IBS IBR IBP IBF  OBS OBR IBS IBR IBP IBF
% *STD      10  10  10  10   0   0   10  10  10  10   0   0
% JACK     100 100   0   0   0*  0* 100 100   0   0   0*  0*   PRIV
% GRACE     50  50 10*  50  50  50   50  50  50  50  50  50   PW
% DANIEL     0  10   0   0   0   0   10  10   0   0   0   0   PW
% STEVEN    50 100   0 10*   0   0   50 100  10  50   0   0
```

These can be explained as follows:

The user ID of each admission set is in the column USER-ID. In this example, there is a standard admission set as well as admission sets for the user IDs JACK, GRACE, DANIEL and STEVEN.
The FTAC user sees the standard admission set and his/her own admission set.

The column ATTR indicates the privileged admission set. We can see that JACK is the FTAC administrator. The column ATTR also indicates whether an FTAC password has been defined (with PW). GRACE and DANIEL have done this to prevent others from using FTAC commands on their user ID which could be used to make modifications.

In the six columns under MAX-USER-LEVELS, the limiting values are output which the FTAC users have set for their admission sets. The six columns under MAX-ADM-LEVELS show the limiting values which the FTAC administrator has set. The smaller of the two values indicates up to which security level the owner of the admission set may use each basic function. The basic functions are abbreviated in the output as follows:

OBS	=	**O**UT**B**OUND-**S**END
OBR	=	**O**UT**B**OUND-**R**ECEIVE
IBS	=	**I**N**B**OUND-**S**END
IBR	=	**I**N**B**OUND-**R**ECEIVE
IBP	=	**I**N**B**OUND-**P**ROCESSING
IBF	=	**I**N**B**OUND-**F**ILEMANAGEMENT

The standard admission set is configured such that it permits file transfers with systems which have the security level of 10 or lower, but does not permit any follow-up processing initiated by external sources (IBP=0). JACK may contact all available partner systems (OBS=100,OBR=100), but does not permit any file transfer accesses from outside onto his user ID (IBS=0,IBR=0,IBP=0).

The user ID GRACE is permitted to communicate with all partner systems with the security level of 50, according to the FTAC administrator's specifications. To better protect her files from strangers, GRACE has only made the function "inbound send" available to partner systems with the security level 10 or lower.

The user ID DANIEL is heavily protected. Only files from partner systems with a maximum security level of 10 may be requested. A * after a number indicates that this value was taken from the standard admission set and will change if any modifications are made to the standard admission set.

3.35 SHOW-FT-INSTANCE
Display an openFT instance

Note on usage

User group: FT user

Functional description

With the command SHOW-FT-INSTANCE you can display information regarding openFT instances.

Format

SHOW-**FT**-**INST**ANCE
INSTANCES = **<u>*CURRENT</u>** / ***ALL**

Operands

INSTANCES =
Scope of the desired information.

INSTANCES = <u>*CURRENT</u>
Information on the currently set openFT instance.

INSTANCES = *ALL
Information on all openFT instances.

OPS variables

The following table shows the OPS variables of the SHOW-FT-INSTANCE command.

Element	Type	Output
NAME	String	
HOST	String	
CONFIG-USERID	String	
AUTO-START	String	*ON / *OFF

Example

```
/SHOW-FT-INST INST=*ALL
%NAME     HOST     CONFIG-USERID   AUTO-START
%STD      -        :V7OA:$SYSFJAM  OFF
%TEST     PC17QD3  :V7OA:$HUGO     OFF
```

3.36 SHOW-FT-KEY
Show properties of RSA keys

Note on usage

User group: FT administrator

Alias name: FTSHWKEY

Functional description

You can use the SHOW-FT-KEY command to output the properties of RSA keys. You can display the RSA keys of your own instance as well as the RSA keys of partners.

Format

```
SHOW-FT-KEY / FTSHWKEY

 SELECT = *ALL / *OWN / *PARAMETERS (...)

    *PARAMETERS(...)
        PARTNER-NAME = *ALL / <name 1..8>
        ,EXPIRATION-DATE = *NOT-SPECIFIED / *NONE / *EXCEEDED / *UNTIL(DATE = <date 8..10>) /
                *WITHIN(DAYS = <integer 1..1000>)
,OUTPUT = *SYSOUT(...) / *SYSLST(...)

    *SYSOUT(...) / *SYSLST(...)
        LAYOUT = *STD / *CSV
```

Operands

SELECT =
Selects which keys are to be displayed.

SELECT = *ALL
Displays the keys of your own instance and the installed keys of all the partner systems.

SELECT = *OWN
Displays the keys of your own instance.

SELECT = *PARAMETERS(...)
Specifies selection criteria for the keys which are to be displayed.

   PARTNER-NAME =
   Partner whose key is to be displayed.

PARTNER-NAME = *ALL
Displays the installed keys of all partners.

PARTNER-NAME = <name 1..8>
Name of the partner whose key is to be displayed.

EXPIRATION-DATE =
Selects keys on the basis of their expiration date.

EXPIRATION-DATE = *NOT-SPECIFIED
The keys of the partners are displayed irrespective of their expiration date.

EXPIRATION-DATE = *NONE
Displays all partner keys that do not have an expiration date.

EXPIRATION-DATE = *EXCEEDED
Displays all partner keys that have already expired.

EXPIRATION-DATE = *UNTIL(...)
Displays all partner keys that will become invalid by a particular date.

    DATE=<date 8...10>
    Date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2018-03-31 or 18-03-31 for March
    31, 2018, by which date the keys will become invalid. The time on the specified day
    is 00:00 local time.

EXPIRATION-DATE = *WITHIN(...)
Displays all partner keys that will expire within the specified number of days.

    DAYS = <integer 1...1000>
    Number of days within which the keys will become invalid. The time on the last day
    of the period is 00:00 local time.

OUTPUT =
Output medium for the requested information.

OUTPUT = *SYSOUT(...)
Output is written to SYSOUT.

OUTPUT = *SYSLST(...)
Output is written to SYSLST.

    LAYOUT = *STD
    Output takes place in a format which is easy for the user to read.

    LAYOUT = *CSV
    Output takes place in **C**haracter **S**eparated **V**alues format. This is a table-type format
    which is widely used, especially in the PC environment, and in which the individual
    fields are separated by a semicolon ";" (see).

OPS variables

The following table shows the OPS variables of the SHOW-FT-KEYS command.

Element	Type	Output
REF	Integer	Value
IDENTIFICATION	String	Value / *OWN
PARTNER-NAME	String	Value / *OWN
CRE-DATE	String	yyyy-mm-dd
EXP-DATE	String	yyyy-mm-dd / *NONE
EXPIRED	String	*YES / *NO
KEY-LENGTH	Integer	Value
AUTH-LEV	Integer	Value

Example

```
/SHOW-FT-KEY
CRE-DATE   EXP-DATE   KEY-LEN KEY-REF   AUTHL  PARTNER IDENTIFICATION
2016-08-31            768     2         2
2016-08-31            1024    2         2
2016-08-31            2048    2         2
2016-10-31            1024    3         2
2016-11-29            2048    4         2
2016-08-28 2018-03-31 2048    7         2      MYOWN   MYOWNID.DOMAIN.NET
2015-03-12 EXPIRED    768     12        2      PC17QD  PC17QD.DOMAIN.NET
2016-06-14            1024    1036      1      PC27ABC PC27ABC.DOMAIN.NET
```

Explanation:

CRE-DATE
> Date on which the key was generated.

EXP-DATE
> Date on which the key expires. The time on the specified day is 00:00 local time. EXPIRED means that the key has already expired.
>
> If there is no specification here then there is no expiration date.

KEY-LEN
> Key length in bits: 768, 1024 or 2048

KEY-REF
> Key reference

AUTHL Authentication level: 1 or 2

PARTNER
> Partner's name. This field is left empty for keys belonging to your own instance.

IDENTIFICATION
> Partner's instance ID. This field is left empty for keys belonging to your own instance.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
88	32	CMD0221	Error during OPS generation.
89	32	CMD0221	Error in key file.
35	64	FTR1035	Command only permissible for FT administrator.
76	64	FTR1076	Selected key file not found.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

3.37 SHOW-FT-LOGGING-RECORDS
Display log records and offline log files

Note on usage

User group: FT user, FT administrator and FTAC administrator

Alias name: FTSHWLOG

Functional description

With the SHOW-FT-LOGGING-RECORDS command, you can obtain information on all FT
requests logged by openFT. An important prerequisite is that the FT administrator has
switched on the FT logging function. The logging records are marked as FT or FTAC or
ADM, enabling you to identify the type of logging record.

SHOW-FT-LOGGING-RECORDS also enables the name of the current log file and the
names of the offline log files to be displayed.

FT logging

The FT user can view all log records which relate to his/her user ID. The FT administrator
can display all the FT log records in the system.

If no options are specified, openFT outputs the most recent log record. When requested,
openFT outputs all the log records which correspond to the selection criterion defined in the
command.

Command execution may take several minutes, depending on the size of the log file! The
output can be interrupted using the K2 key.

There are three types of output: short output and long output and CSV format.

FTAC logging

With FTAC functionality, SHOW-FT-LOGGING-RECORDS can be used to display the
FTAC log records. The FT user can view all FTAC log records, of which he/she is the owner.
FT and FTAC administrators may view all FTAC log records.

If the access check was positive and openFT accepted the request, a second logging
record is created in openFT, indicating whether the request was completed successfully,
and if not, why it was terminated.

A precise description of output can be found starting on .

ADM logging

If your openFT instance is administered via a remote administration server or if you administer other instances yourself using EXECUTE-REMOTE-FTADM-CMD, ADM log records are written (assuming that the appropriate logging settings have been made). You can also view these log records.

Format

(part 1 of 2)

```
SHOW-FT-LOGGING-RECORDS / FTSHWLOG

 SELECT = *OWN / *ALL / *PARAMETERS(...)

    *PARAMETERS(...)
          LOGGING-ID = *ALL / <alphanum-name 1..12> / *INTERVAL(...)
             *INTERVAL(...)
                   FROM = 1 / <alphanum-name 1..12>
                  ,TO = *HIGHEST-EXISTING / <alphanum-name 1..12>
         ,OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>
         ,CREATION-TIME = *INTERVAL(...) / *DAYS(...)
             *INTERVAL(...)
                   FROM = 1970-01-01(...) / <date 8..10>(...)
                      <date 8..10>(...)
                         TIME = 00:00 / <time 1..8>
                  ,TO = *TOMORROW(...) / *TODAY(...) / <date 8..10>(...)
                      <date 8..10>(...)
                         TIME = 00:00 / <time 1..8>
             *DAYS(...)
                   NUMBER = <integer 1..1000>
         ,RECORD-TYPE = *ALL / *PARAMETERS(...)
             *PARAMETERS(...)
                   FT = *TRANSFER-FILE / *NONE / list-poss(1): *TRANSFER-FILE
                  ,FTAC = (*TRANSFER-FILE, *READ-FILE-ATTRIBUTES, *DELETE-FILE,
                              *CREATE-FILE, *MODIFY-FILE-ATTRIBUTES,
                              *READ-DIRECTORY, *MOVE-FILE, *CREATE-DIRECTORY,
                              *DELETE-DIRECTORY, *MODIFY-DIRECTORY. *LOGIN) / *NONE /
                          list-poss(11): *TRANSFER-FILE / *READ-FILE-ATTRIBUTES / *DELETE-FILE /
                              *CREATE-FILE / *MODIFY-FILE-ATTRIBUTES / *READ-DIRECTORY /
                              *MOVE-FILE / *CREATE-DIRECTORY / *DELETE-DIRECTORY /
                              *MODIFY-DIRECTORY / *LOGIN
                  ,ADM = *ADMINISTRATION / *NONE / list-poss(1): *ADMINISTRATION
         ,INITIATOR = (*LOCAL, *REMOTE) / list-poss(2): *LOCAL / *REMOTE
         ,PARTNER = *ALL / <text 1..200 with-low>
         ,FILE-NAME = *ALL / <filename 1..54> / <filename-prefix 2..53> /
                     <c-string 1..512 with-low> / *DIRECTORY(...) / *POSIX(NAME=<posix-pathname 1..510>)
             *DIRECTORY(...)
                   NAME = *ALL / <partial-filename 1..53> / <c-string 1..512 with-low>
         ,REASON-CODE = *ALL / *FAILURE / <text 1..4>
```

(part 2 of 2)

```
            ,ROUTING-INFO = *ALL / <text 1..200 with-low>
            ,TRANSFER-ID = *ALL / <integer 1.. 2147483647>
            ,GLOBAL-REQUEST-ID = *ALL / <alphanum-name 1..10>
            ,LOGGING-FILE = *CURRENT / <filename 1..54> / *ACTIVE-AT(...)
               *ACTIVE-AT(...)
                  │  DATE = <date 8..10>
                  │  ,TIME = 00:00 / <time 1..8>
            ,PREVIOUS-FILES = *STD / <integer 0..3>
,NUMBER = 1 / *ALL / <integer 1..99999999> / *POLLING(...)

   *POLLING(...)
      │  INTERVAL = 1 / <integer 1..600>
      │  ,NUMBER = *UNLIMITED / <integer 1..3600>
,INFORMATION = *STD / *ALL / *LOGGING-FILES

,OUTPUT = *SYSOUT(...) / *SYSLST(...)

   *SYSOUT(...) / *SYSLST(...)
      │  LAYOUT = *STD / *CSV
```

Operands

SELECT =
Selects a group of logging records.

SELECT = *OWN
Selects logging records under the user's own login.

SELECT = *ALL
Displays all users' logging records to the administrator. As user you receive only logging records of your own ID (same as *OWN).

SELECT = *PARAMETERS(...)

   LOGGING-ID =
   Number of the logging record.

   LOGGING-ID = *ALL
   The number of the logging record is not a selection criterion.

   LOGGING-ID = <alphanum-name 1..12>
   Number of the logging record to be output. The value range for the logging ID is from 1 through 999999999999.

   LOGGING-ID = *INTERVAL(...)
   Range of logging records to be output.

FROM = <alphanum-name 1..12>
First logging record to be output. The value range for the logging ID is from 1 through 999999999999.

TO = *HIGHEST-EXISTING / <alphanum-name 1..12>
Last logging record to be output. The value range for the logging ID is from 1 through 999999999999.

OWNER-IDENTIFICATION =
User ID whose logging records are to be displayed.

OWNER-IDENTIFICATION = *OWN
Logging records of your user ID are displayed.

OWNER-IDENTIFICATION = *ALL
The logging records of all user IDs are displayed. The FT or FTAC administrator can thus display the FT logging records of any user ID.
Normal FT users receive information only on the logging records of their own ID even if *ALL is specified.

OWNER-IDENTIFICATION = <name 1..8>
Any user ID whose logging records should be displayed.
FT users may only specify their own ID.

CREATION-TIME =
The range of the logging records to be output, selected by their date or time of creation.

CREATION-TIME = *INTERVAL(...)
The range is specified as a time interval using the date and/or time.

FROM = 1970-01-01(...) / <date 8..10>(...)
Date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2016-08-18 or 16-08-18 for 18 August, 2016. openFT then displays all logging records written after the specified date and time.

TIME = 00:00 / <time 1..8>
Time for the day specified with CREATION-TIME. openFT displays all logging records written after the specified time. The time is entered in the format *hh:mm:ss*, e.g. 14:30:10.

TO = *TOMORROW / *TODAY(...) / <date 8..10>(...)
Creation date up to which the log records are to be displayed.

TO = *TOMORROW
Outputs all log records which were created by the time of the command output.

TO = *TODAY
When CREATION-TIME is used to explicitly specify a time, all log records which
were written up to this time are displayed. If no time was specified, openFT displays
all log records which were written up to and including at midnight on the previous
day.

TO=<date 8..10>(...)
Date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2016-08-18 or 16-08-18 for
18 August, 2016. openFT then displays all logging records up to the specified time.

TIME = <u>00:00</u> / <time 1..8>
Time for the day specified with CREATION-TIME. openFT displays all logging
records written up to the specified time. The time is entered in the format
hh:mm:ss, e.g. 14:30:10.

CREATION-TIME = *DAYS(NUMBER=<integer 1..1000>)
This field is specified in number of days. All logging records that were created in the last
n calendar days, including today, are output.

RECORD-TYPE =
Type of logging record to be displayed.

RECORD-TYPE = <u>*ALL</u>
The record type is not a selection criterion.

RECORD-TYPE = *PARAMETERS(...)
Type of the logging record.

FT = <u>*TRANSFER-FILE</u> / *NONE / list-poss(1): *TRANSFER-FILE
Specifies whether or not the FT logging records are to be displayed.

FTAC =
(<u>*TRANSFER-FILE, *READ-FILE-ATTRIBUTES, *DELETE-FILE,</u>
<u>*CREATE-FILE, *MODIFY-FILE-ATTRIBUTES, *READ-DIRECTORY,</u>
<u>*MOVE-FILE, *CREATE-DIRECTORY, *DELETE-DIRECTORY,</u>
<u>*MODIFY-DIRECTORY, *LOGIN</u>) / *NONE / list-poss(11): *TRANSFER-FILE /
*READ-FILE-ATTRIBUTES / *DELETE-FILE / *CREATE-FILE /
*MODIFY-FILE-ATTRIBUTES / *READ-DIRECTORY / *MOVE-FILE /
*CREATE-DIRECTORY / *MODIFY-DIRECTORY / *DELETE-DIRECTORY /
*LOGIN
Specifies whether or not FTAC logging records are to be displayed. If they are to be
displayed, the FT function for which the FTAC logging records are to be displayed
can also be specified. The following values are possible:

*TRANSFER-FILE
All logging records for the function "Transfer files" are displayed.

*READ-FILE-ATTRIBUTES
All logging records for the function "Read file attributes" are displayed.

*DELETE-FILE
All logging records for the function "Delete files" are displayed.

*CREATE-FILE
All logging records for the function "Create files" are displayed.

*MODIFY-FILE-ATTRIBUTES
All logging records for the function "Modify file attributes" are displayed.

*READ-DIRECTORY
All logging records for the function "Read file directory" are displayed.

*MOVE-FILE
All logging records for the function "Copy and delete files" are displayed.

*CREATE-DIRECTORY
All logging records for the function "Create directory" are displayed.

*DELETE-DIRECTORY
All logging records for the function "Delete directory" are displayed.

*MODIFY-DIRECTORY
All logging records for the function "Modify directory" are displayed.

*LOGIN
All logging records for the function "Inbound FTP access" are displayed. Log
records of the type *LOGIN are only written in the case of an incorrect transfer
admission.

ADM = *ADMINISTRATION / *NONE / list-poss(1): *ADMINISTRATION
Specifies whether ADM log records are output.

ADM = *ADMINISTRATION
ADM log records are output. For further details, refer to the manual "openFT
(BS2000) - Installation and Operation".

ADM = *NONE
No ADM log records are output.

INITIATOR =
Logging records according to the initiator.

INITIATOR = (*LOCAL,*REMOTE)
The initiator is not a selection criterion.

INITIATOR = *LOCAL
Only those logging records that belong to requests issued locally are displayed.

INITIATOR = *REMOTE
Only those logging records belonging to requests made from a remote system are
displayed.

PARTNER =
The partner system.

PARTNER = <u>*ALL</u>
The partner system is not a selection criterion.

PARTNER = <text 1..200 with-low>
Name or address of the partner system for which the logging records are to be
displayed. For more information on address specifications, see section "Specifying
partner addresses" on page 48.

For the partner name, you can also use the wildcard symbols '*' (asterisk) and '?'
(question mark). '*' stands for any string and '?' stands for any single character. The
question mark may not, however, be in first place.

FILE-NAME =
File name.

FILE-NAME = <u>*ALL</u>
The file name is not a selection criterion.

FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)
Fully qualified name of the files for which you wish to view the logging records.

FILE-NAME = <filename-prefix 2..53>
Partially qualified name of the files for which you want to view the logging records.

FILE-NAME = *DIRECTORY(...)
Name of the directory.

> ***DIRECTORY(...)**
> Here you specify the directory in the same format as used on the partner computer
> in one of the openFT user commands CREATE-/MODIFY-/DELETE-REMOTE-DIR
> or SHOW-REMOTE-FILE-ATTRIBUTES (see page 371).
>
> **NAME = <u>*ALL</u>**
> The directory is not a selection criterion
>
> **NAME = <partial-filename 1..53> / <c-string 1..512 with-low>**
> Name of the directory.
> In BS2000, directories are represented by partially qualified file names in DVS.

REASON-CODE =
Selection by the reason code of the logging records.

REASON-CODE = <u>*ALL</u>
The reason code is not a selection criterion; all records are output.

REASON-CODE = *FAILURE
All logging records with error codes are output.

REASON-CODE = <text 1..4>
Logging records to be output by the error codes. Leading zeros can be omitted (e.g. 14 for FTR0014).

ROUTING-INFO = *ALL / <text 1..200 with-low>
Selects the ADM log records on the basis of the routing information. The routing information describes the administered instance in the case of remote administration requests issued locally.

ROUTING-INFO = *ALL
The routing information is not used as a selection criterion.

ROUTING-INFO = <text 1..200 with-low>
Routing information for which the ADM log records are to be output.

TRANSFER-ID =
Selection on the basis of the request ID.

TRANSFER-ID = *ALL
The request ID is not used as a selection criterion.

TRANSFER-ID = <integer 1..2147483647>
Only outputs log records for the specified request ID.

GLOBAL-REQUEST-ID = *ALL / <alphanum-name 1..10>
Selects the log records on the basis of the global request ID.

GLOBAL-REQUEST-ID = *ALL
The global request identification is not a search criterion.

GLOBAL-REQUEST-ID = <alphanum-name 1..10>
Outputs log records for the specified global request identification. The global request identification is relevant only for inbound requests of openFT and FTAM partners. It is assigned by the initiator of the request (transfer ID) and transferred to the local system.

LOGGING-FILE =
Selects the log file whose logging records or name are to be output. This means that you can also view offline log records.

LOGGING-FILE = *CURRENT
The current log file is selected.

LOGGING-FILE = <filename 1..54>
Specifies the name of the log file which is to be searched. If you specify a value > 0 in the PREVIOUS-FILES operand, further, older offline log files are also searched (if any exist).

LOGGING-FILE = *ACTIVE-AT(...)
Selects the log file using its creation time (local time). The log file which was created on or before the specified time is selected. If more than one log file matches the specified time, the most recent of these log files is selected. If you specify a value > 0 in the PREVIOUS-FILES operand, further, older offline log files are also searched (if any exist).

DATE = <date 8..10>
Creation date in the format *yyyy-mm-dd* or *yy-mm-dd*, e.g. 2017-01-31 or 17-01-31 for Januray 31, 2017.

TIME = 00:00 / <time 1..8>
Creation time on the date specified with DATE. You specify the time in the format *hh:mm:ss*, e.g. 14:30:10.

PREVIOUS-FILES =
Specifies the number of preceding offline log files that are to be selected in addition to the current file or the file specified with LOGGING-FILE.

PREVIOUS-FILES = *STD
The effect depends on the specification in the INFORMATION operand:

–   INFORMATION = *STD (default value) or *ALL: The current lo file or the log file specified with LOGGING-FILE is searched for log records.

–   INFORMATION = *LOGGING-FILES: The names of all log files are output (maximum of 1024).

PREVIOUS-FILES = <0..3>
Specifies the number of preceding offline log files (0 to 3) that are to be searched in addition to the current file or the file specified with LOGGING-FILE or whose names are to be output.

NUMBER =
Maximum number of log records or polling intervals for outputting log records.

NUMBER = 1 / <integer 1..99999999>
The maximum number of logging records that are to be displayed. The default value is 1.

NUMBER = *ALL
All logging records are displayed.

NUMBER = *POLLING(...)
Specifies that the output of log records will be repeated at regular intervals. You can define the polling interval and the number of repetitions. Irrespective of the specifications in INTERVAL and NUMBER, the most recent log record which exists is always output first.

INTERVAL = 1 / <integer 1...600>
Polling interval in seconds. On each repetition, all the new log records are filtered in accordance with the specified selection criteria and the detected records are output. By default the output is repeated every second.

NUMBER =
Number of repetitions.

NUMBER = *UNLIMITED
The output is repeated without restriction. You can, for example, cancel the output using key K2.

NUMBER = <integer 1..3600>
Specifies the number of repetitions.

> **i** NUMBER = *POLLING may not be combined with the following specifications:
> – LOGGING-FILE = <filename ..>
> – LOGGING-FILE = *ACTIVE-AT(...)
> – INFORMATION = *LOGGING-FILES
> – TRANSFER-ID = <integer 1..2147483647>
> – GLOBAL-REQUEST-ID = <alphanum-name 1..10>
> – LOGGING-ID = <alphanum-name 1..12> / *INTERVAL(...)
> – CREATION-TIME = *INTERVAL(...) / *DAYS(...)
> – PREVIOUS-FILES = <integer 0..3>

INFORMATION =
Scope of the requested information.

INFORMATION = *STD
The logging records are displayed in a standard format (see page 315).

INFORMATION = *ALL
The logging records are displayed in a detailed format (see page 318).

INFORMATION = *LOGGING-FILES
Outputs only the names of the log file(s). INFORMATION = *LOGGING-FILES can only be combined with the following parameters:
– LOGGING-FILE in SELECT=*PARAMETERS(…)
– PREVIOUS-FILES in SELECT=*PARAMETERS(…)
– OUTPUT

OUTPUT =
Output medium.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

LAYOUT = ***STD**
Output is formatted using a standard layout that can be easily read by the user.

LAYOUT = *CSV
Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used tabular format, especially in the PC environment, in which individual fields are separated by a delimiter, which is usually a semicolon ";" (see page 479).

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	No log records available for the selection criteria.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
83	32	CMD0221	Internal error.
88	32	CMD0221	Error during OPS generation.
36	64	FTR1036	User not authorized for other user IDs.
2	0	FTR2225	Information output cancelled.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

OPS variables

The following table shows the OPS variables for the command SHOW-FT-LOGGING-RECORDS with the operand INF=*ALL. The underlined values are valid for the output with the operand INF=*STD. The output for INF = *LOGGING-FILES has its own format, see page 315.

i Depending on the type of log record, not all elements are output.

Element	Type	Output
LOG-ID	Integer	
REASON-CODE [1]	Integer	
LOG	Struct	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
INIT-USER-ID	String	USER-ID of request initiator / *REM
INIT-TSN [2]	String	TSN of request initiator
PARTNER-NAME	String	
PARTNER-ADDRESS [3]	String	

Element	Type	Output
TRANS-DIRECT	String	*TO-PARTNER / *FROM-PARTNER / *NOT-SPECIFIED
REC-TYPE	String	*FT / *FTAC
FUNC	String	*TRANS-FILE / *READ-FILE-ATTR / *DEL-FILE / *CRE-FILE / *MOD-FILE-ATTR / *READ-DIR / *CRE-DIR / *MOD-DIR / *DEL-DIR / *MOVE-FILE / *LOGIN
USER-ADMIS	String	
WRITE-MODE	String	*REPL-FILE / *NEW-FILE / *EXT-FILE
RESULT-PROCESS	String	*NONE / *STARTED / *NOT-STARTED
START	Struct	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
TRANS-ID	Integer	
STORE	Struct	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
BYTE-NUM	String / Integer	*NONE / Value
PRIVIL [4]	String	*NO / *YES
PROF-NAME [3]	String	
F-NAME	String	
SEC	Struct	
.PROT.ENC	String	*NO / *YES
.PROT.INT-CHECK	String	*NO / *YES
.USER-DATA.ENC	String	*NO / *YES
.USER-DATA.INT-CHECK	String	*NO / *YES
.LOC-AUTH	String	*NO / *YES
.REM-AUTH	String	*NO / *YES
.AUTH-LEV	Integer	1 / 2 / empty
RSA-KEY-LEN	Integer	
SYMM-ENC-ALG	String	*DES / *AES
PROTECTION [5]	String	*STD / *SAME
ADMINISTRATOR-ID [6]	String	Value
ADM-CMD [5]	String	Value

Element	Type	Output
ROUTING [5]	String	Value
CHANGE-DATE	String	*STD / *SAME
GLOBAL-REQ-ID	Integer	global request identification / empty
FNC-MODE	String	*CHAR / *TRANSPARENT
FNCCS	String	CCS name

[1] The reason code is always given in decimal form. To determine the meaning of FTAC logging records using the manual, the value must be converted to hexadecimal form.

[2] For INIT-USER-ID=*REM, INIT-TSN is not assigned.

[3] Only for inbound requests

[4] Only for REC-TYPE=*FTAC and specification of a profile.

[5] Only with FT log records, not with FTAC or ADM log records.

[6] Only for REC-TYPE = ADM

When you specify the INF=*LOGGING-FILES operand, only the two elements below are output:

Element	Type	Output
TIME-STAMP	String	yyyy-mm-dd hh:mm:ss
FILE-NAME	String	Value

3.37.1 Description of the short output of SHOW-FT-LOGGING-RECORDS

Short output form of FT logging records (example)

```
/SHOW-FT-LOGGING-RECORDS NUMBER = 2

%TYP LOGG-ID  TIME     RC    PARTNER   INITIATOR INIT USER-ADM FILENAME
%2017-04-26
%T      5333 14:18:24 0014 <G133H301 FT2V292   1TCL FT2V292  TEST2
%T      5284 14:08:12 0000 >G133H301 FT2V292   1TCL FT2V292  TEST1
```

Short output format for ADM log records (examples)

ADM log for a remote administration request that has been issued locally and its corre-
sponding FTAC log record:

```
/SHOW-FT-LOGGING-RECORDS NUMBER=2

%TYP LOGG-ID TIME     RC     PARTNER   INITIATOR INIT USER-ADM FILENAME
%2017-04-03
%A      388 17:15:11 0000 <ftadm:/* TSOS      8HVC TSOS
%C      387 17:15:09 0000 <ftadm:/* TSOS      8HVC TSOS     *STDERR
```

ADM log record on the administered openFT instance:

```
/SHOW-FT-LOGGING-RECORDS NUMBER=1

%TYP LOGG-ID TIME     RC     PARTNER   INITIATOR INIT USER-ADM FILENAME
%2017-04-27
%A     9006 11:32:51 0000 >ftadm:/* *REMOTE        ftadmin
```

Explanation

Not all values are displayed for all log record types and request types. The table below also
describes values that can occur only in ADM log records.

Name	Explanation
TYP (column 1)	Specifies if it is an FT or FTAC or ADM or FTP log record. T indicates the FT logging record, C indicates the FTAC logging record, A indicates the ADM logging record, P indicates the FTP logging record written by the FTP server from the product „interNet Services in BS2000".
TYP (columns 2-3)	Definition of FT function: <table><tr><td>␣</td><td>transfer file</td></tr><tr><td>V</td><td>transfer file and delete send file (only inbound possible)</td></tr><tr><td>A</td><td>read file attributes</td></tr><tr><td>D</td><td>delete file</td></tr><tr><td>C</td><td>create file</td></tr><tr><td>M</td><td>modify file attributes</td></tr><tr><td>R</td><td>read directory</td></tr><tr><td>CD</td><td>create director</td></tr><tr><td>MD</td><td>modify directory</td></tr><tr><td>DD</td><td>delete directory</td></tr><tr><td>L</td><td>login (inbound FTP access)</td></tr></table>
LOGG-ID	Number of the log record (up to twelve digits)
TIME	Time when the logging record was written

Name	Explanation		
RC	Reason Code. Indicates if a request was successfully executed, or if not, why it was rejected or terminated. If an FT request is rejected for "FTAC reasons" (e.g. 0014), the exact reason behind the termination can be found in the FTAC logging record of the system that rejected the request. Further information on the reason code can be obtained using the BS2000 command HELP-MSG-INFORMATION (FTCxxxx for FTAC type or FTRxxxx for FT type).		
PARTNER	Provides information about the partner system. The output in the case of named partners consists of the symbolic name, and in the case of dynamic partners of the address (up to 8 characters; if the address is longer, the last character is an'*'). The partner system is prefixed by an identifier from which you can determine the request direction.		
	>	The request direction is to the partner system. This direction is specified for a – send request, i.e. the data is transferred to the partner – request to view remote file attributes – request to view remote directories	
	<	The request direction is to the local system. This direction is specified for a – receive request, i.e.the data is transferred to the local system – request to modify remote file attributes[1] – request to delete remote files	
INITIATOR	Initiator (user ID) in the case of requests issued locally issued; if initiative is from remote system: *REMOTE		
INIT	TSN from which the request came. If the INITIATOR was *REMOTE, the field is empty.		
USER-ADM	User ID in the local system used by the requests		
FILENAME	Filename resp. preprocessing or postprocessing in the local system. In the case of ADM logging records, this field is empty.		

[1] When modifying the access rights of a file from an FTAM partner system, two logging records are written. In this case, no direction is specified before the PARTNER output.

3.37.2 Description of the long output of SHOW-FT-LOGGING-RECORDS

Long output form outbound (example)

```
%LOGGING−ID = 38735    RC     = 0000      TIME    = 2016−07−11 13:58:21
%   TRANS   = TO        REC−TYPE= FT       FUNCTION = TRANSFER−FILE
%   PROFILE =           PCMD   = NONE      STARTTIME= 2016−07−11 13:58:21
%   TRANS−ID = 721206   WRITE  = REPLACE   REQUESTED= 2016−07−11 13:58:21
%   TRANSFER =        0 kB                 CCS−NAME =
%   SEC−OPTS = ENCR+DICHK, RSA−1024 / AES−256
%   INITIATOR= TSOS                        INITSN  = 83VV
%   USER−ADM = TSOS
%   PARTNER  = LINUX01
%   FILENAME = $USER1.FILE.TEST
%   FNC−MODE = *TRANSPARENT

%LOGGING−ID = 38734    RC     = 0000      TIME    = 2016−07−11 13:58:21
%   TRANS   = TO        REC−TYPE= FTAC     FUNCTION = TRANSFER−FILE
%   PROFILE =           PRIV   =
%   INITIATOR= TSOS                        INITSN  = 83VV
%   USER−ADM = TSOS
%   PARTNER  = LINUX01
%   FILENAME = $USER1.FILE.TEST
```

Long output form inbound (example)

```
LOGGING−ID  = 38733    RC     = 0000      TIME    = 2016−07−11 13:49:44
%   TRANS   = FROM      REC−TYPE= FT       FUNCTION = TRANSFER−FILE
%   PROFILE =           PCMD   = NONE      STARTTIME= 2016−07−11 13:49:44
%   TRANS−ID = 721204   WRITE  = REPLACE   STORETIME= 2016−07−11 13:49:44
%   TRANSFER =        1 kB                 CCS−NAME =
%                                          CHG−DATE = SAME
%   SEC−OPTS = ENCR+DICHK+DENCR+DDICHK, RSA−1024 / AES−256
%   INITIATOR= *REMOTE                     GLOB−ID = 66277
%   USER−ADM = USER1
%   PARTNER  = LINUX01
%   PTNR−ADDR= LINUX01
%   FILENAME = TEST1
%   FNC−MODE = *CHAR, FNCCS=iso88591

LOGGING−ID  = 38732    RC     = 0000      TIME    = 2016−07−11 13:49:44
%   TRANS   = FROM      REC−TYPE= FTAC     FUNCTION = TRANSFER−FILE
%   PROFILE = PROF1     PRIV   = NO
%   INITIATOR= *REMOTE                     GLOB−ID = 66277
%   USER−ADM = USER1
%   PARTNER  = LINUX01
%   PTNR−ADDR= LINUX01
%   FILENAME = TEST1
```

Long output format for an ADM log record (example)

```
LOGGING-ID = 45067      RC      = 0000       TIME    = 2016-08-29 09:43:57
   TRANS    = TO        REC-TYPE= ADM        FUNCTION = REM-ADMIN
   TRANS-ID = 156730    PROFILE = Profil04
   SEC-OPTS = ENCR+DICHK, RSA-2048 / AES-256
   INITIATOR= *REMOTE                        GLOB-ID  = 192929
   USER-ADM = FTADMIN8
   PARTNER  = REMADMIN
   ADM-CMD  = SHOW-FT-LOGGING-RECORDS
   ADMIN-ID =
   ROUTING  =
```

Explanation of long output form (column-wise)

The table below also describes fields and values that can only occur in ADM log records.

Name	Explanation	
LOGGING-ID	Number of the log record (up to twelve digits)	
TRANS	Transfer direction:	
	TO	The request direction is to the partner system. This direction is specified for a – send request, i.e. the data is transferred to the partner. – request to view remote file attributes – request to view remote directories
	FROM	The request direction is to the local system (inbound). This direction is specified for a – receive request, i.e. the data are transferred to the local system – request to modify remote file attributes [1] – request to delete remote files
	BOTH	File management request with two-way data transfer.
PROFILE	Name of the profile to be used for the transfer (empty in the FT logging record)	
TRANS-ID	Transfer ID number	
TRANSFER	Amount of data transferred	
PROTECT	Specifies whether the protection attributes are transferred. Is only output if this option was specified in the transfer request.	
	SAME	The protection attributes of the file were transferred.

Name	Explanation	
SEC-OPTS	Security options and encryption algorithms used. This line is only output if at least one of the options is used.	
	ENCR	Encryption of the request queue
	DICHK	Data integrity check of the request queue
	DENCR	Encryption of data content during the transfer
	DDICHK	Data integrity check of the file data to be transferred
	LAUTH	Authentication of the local system on a partner (authentication level 1)
	LAUTH2	Authentication of the local system on a partner (authentication level 2)
	RAUTH	Authentication of the partner on a local system (authentication level 1)
	RAUTH2	Authentication of the partner on a local system (authentication level 2)
	RSA-nnnn	Length of the RSA key
	DES / AES-128 / AES-256	Encryption algorithm used
INITIATOR	Initiator (user ID) in the case of requests issued locally issued; if initiative is from remote system: *REMOTE	
USER-ADM	User ID in the local system used by the requests	
PARTNER	Provides information about the partner system. The output includes the symbolic name under which the system administrator has entered the partner system in the partner list. If dynamic partners are admitted, the partner system can be output as partner address.	
PTNR-ADDR	Address of the partner system, only output for inbound requests via FTP protocol. For requests using the openFT or FTAM protocol the BCAM processor name is output.	
FILENAME	Filename resp. preprocessing or postprocessing in local system.	
FNC-MODE	Encoding mode for file names and follow-up processing:	
	*TRANSPARENT	File names and follow-up processing are represented in a fixed binary code, independent of local character code settings (transparent mode).
	*CHAR, FNCCS=ccs	File names and follow-up processing are seen in their character presentation (character mode). ccs specifies the character set that was relevant for the creation of the FT request, e.g. iso88591 on Unix systems.

Name	Explanation	
ADM-CMD	Only output for an ADM log record: Administration command without parameters	
ADMIN-ID	Only output for an ADM log record: Remains always empty in BS2000 because only relevant on the remote administration server	
ROUTING	Only output for an ADM log record: Routing information on the openFT instance to be administered	
RC	Reason-Code. Indicates if a request was successfully executed, or if not, why it was rejected or terminated. If an FT request is rejected for "FTAC reasons" (e.g. 2169), the exact reason behind the termination can be found in the FTAC logging record of the system that rejected the request. Further information on the reason code can be obtained using the BS2000 command HELP-MSG-INFORMATION (FTCxxxx for FTAC type or FTRxxxx for FT type).	
REC-TYPE	Specifies if this is an FT or FTAC or ADM logging record.	
PCMD	Status of follow-up processing:	
	NONE	No follow-up processing defined.
	STARTED	Follow-up processing was started.
	NOT-STARTED	Follow-up could not be started.
PRIV	specifies whether the admission profile is privileged.	
WRITE	Write rules:	
	NEW	A new file is created. If a file with the same name already exists, the transfer will be aborted.
	EXT	An existing file is extended and stored as new.
	REPLACE	An existing file is extended.
TIME	Time when the logging record was written	
FUNCTION	Definition of FT function:	
	– TRANSFER-FILE: transfer file – MOVE-FILE: transfer file and delete send file (only inbound possible) – READ-FILE-ATTRIBUTES: read file attributes – DELETE-FILE: delete file – CREATE-FILE: create new file – MODIFY-FILE-ATTRIBUTES: modify file attributes – READ-DIRECTORY: read directory – CREATE-DIRECTORY: create directory – MODIFY-DIRECTORY: modify directory – DELETE-DIRECTORY: delete directory – LOGIN: inbound FTP access – REM-ADMIN: remote administrator	

Name	Explanation	
STARTTIME	Time request was started	
STORETIME	Time request was accepted (inbound)	
REQUESTED	Time request was accepted (outbound)	
CCS-NAME	Name of the character set, used for code conversion as necessary.	
CHG-DATE	Specifies whether the change date of the send file is taken over for the receive file.	
	SAME	The change date of the send file is take over.
INITSN	TSN from which the request came, entered only in the case of outbound requests.	
GLOB-ID	Global request identification, displayed only in the case of inbound requests from openFT and FTAM partners (INITIATOR=REMOTE). This corresponds to the request identification (=TRANSFER-ID) on the initiator system.	

[1] When modifying the access rights of a file from an FTAM partner system, two logging records are written. In this case, no direction is specified before the PARTNER output.

Examples

1. The FT administrator wants to display all logging records that were created for the user
   ID *Smith* and logged between 01.09.2016 and 31.12.2016. If you are the owner of the
   User ID *Smith*, you can omit the parameter OWNER-IDENTIFICATION=.

```
/SHOW-FT-LOGGING-RECORDS SELECT=*PARAMETERS(OWNER-IDENTIFICATION=Smith, -
/                   CREATION-TIME=*INTERVAL(FROM=2016-09-01(00:00), -
/                        TO=2016-12-31(23:59))),NUMBER=*ALL
```

You want to see the first record of the output in detail.

```
/SHOW-FT-LOG-REC (OWN=Smith,CRE-TIME=*INTERVAL(FROM=2016-09-01(00:00),  -
/                        TO=2016-12-31(00:00))),INF=*ALL
```

2. An (FT or FTAC) administrator wants to view all log records. He/She wants all the infor-
   mation to be output in the most compact possible form because he/she wants to back
   up the log records before deleting them. To do this, he/she combines the specifications
   for "comprehensive output" and "output in CSV format". This is achieved using the
   following command:

```
/SHOW-FT-LOG-REC SELECT=*ALL,NUMBER=*ALL,INF=*ALL,OUTPUT=*SYSLST(*CSV)
```

This command may take a few minutes to output comprehensive information.

3. The FT or FTAC administrator wishes to display the names of the current log file and
   and current offline log files:

```
/SHOW-FT-LOG-REC INF=*LOGGING-FILES
% $SYSFJAM.SYSLOG.L160806.L132626
% $SYSFJAM.SYSLOG.L160806.L132615
```

1.

3.38 SHOW-FT-MONITOR-VALUES
Show monitoring data

Note on usage

User group: FT user and FT administrator

Alias: FTSHWMON

Description of the function

The SHOW-FT-MONITOR-VALUES command allows you to output the monitoring values
from openFT operation on the local system. To do this, monitoring must be activated (see
MODIFY-FT-OPTIONS command) and openFT must be activated.

Format

SHOW-FT-MONITOR-VALUES / **FTSHWMON**
NAME = ***STD** / ***ALL** /\<list-poss(100): alphanum-name 1..12\>

,POLLING =***NONE** / ***PAR**AMETERS(...)
 	
   *PARAMETERS(...)
      │ **INTERVAL**=**1** /\<integer 1..600\>
      │ **,NUMBER**=***UNLIMITED** / \<integer 1..3600\>

,INFORMATION=***VALUES**(...) / ***TYPE**
 	
   *VALUES(...)
      │ **DATA**=***FORMATTED** / ***RAW**

,OUTPUT= ***SYSOUT**(...) / ***SYSLST**(...)
 	
   *SYSOUT(...) / ***SYSLST**(...)
      │ **LAYOUT** = ***STD** / ***CSV**

Operands

NAME =
Specifies what monitoring values are to be output.

NAME = *STD
A predefined default set of monitoring values is output, see "Examples" on page 335.

NAME = *ALL
All monitoring values are output.

NAME = <list-poss(100): alphanum-name 1..12>
Here you can enter a list of up to 100 names of monitoring values that are to be output. The
name must be one of the short names (see the table in the section "Description of the
monitoring values" on page 330).

POLLING =
Specifies the interval at which the monitoring values are to be polled.

POLLING =*NONE
The monitoring values are only polled once.

POLLING =*PARAMETERS
In this structure you specify a time interval and a repetition factor for polling the monitoring
values. If an error occurs during polling, further repeated output is canceled.

   INTERVAL = 1
   The time interval for polling the monitoring values is 1 second.

   INTERVAL = <integer 1..600>
   Time interval in seconds for polling the monitoring values.

   NUMBER = *UNLIMITED
   There is no limit to the number of times the monitoring values are polled. You terminate
   the command by canceling output by pressing K2.

   NUMBER = <integer 1..3600>
   Here you specify how often the monitoring values are to be polled.

INFORMATION =
Specifies whether the monitoring values themselves or the type of the monitoring values is
to be output.

INFORMATION = *VALUES(...)
The measured value is output. You can specify whether the monitoring values are to be
output in formatted form or as raw data.

   DATA =*FORMATTED
   The monitoring values are formatted for visual display, e.g. as throughput, maximum or
   average.

   DATA =*RAW
   Raw, unformatted data is output. Monitoring values for the duration of an action are not
   output.

INFORMATION = *TYPE
Outputs the type and, where applicable, the scaling factor of the monitoring value or the
type of the metadata.

The scaling factor is only of significance for some monitoring values and in CSV format if
*RAW is not specified. In this case, the output value must be divided by the scaling factor
to get the real value. In the case of formatted data in tabular format, the scaling factor 100
specifies that the number is output to 2 decimal places.

The following output values are possible for *TYPE:

*BOOL	Boolean value
*PERCENT	Percentage
*INT	Integer number (corresponds to *INT(1))
*INT(100)	Integer value with a scaling factor of 100
*TIME	Timestamp
*STRING	Text output for the selection

OUTPUT =
Output medium.

OUTPUT = *SYSOUT(...)
The data is output to SYSOUT.

OUTPUT = *SYSLST(...)
The data is output to SYSLST.

LAYOUT = *STD
Output is formatted in a form readable by the user.
If the monitoring configuration changes (filters), a new header and a new start time for
monitoring is output in standard output format.

LAYOUT = *CSV
Data is output in Character Separated Values format. This is a quasi-tabular format that
is in widespread use in the field of PCs and in which the individual fields are separated
by semicolons ";" (see page 482).

If the monitoring configuration changes (filters), the new start time for monitoring is
shown in a separate column in CSV format.

Command return codes

(SC2)	SC1	Maincode	Meaning
51	32	CMD0221	Internal error.
88	32	CMD0221	Error on OPS output.
1	0	FTR1039	openFT not active.
59	64	FTR1059	Monitoring is not active.
2	0	FTR2225	Information output cancelled.

SC1/2 = subcode 1/2 in decimal format
For additional information refer to the .

OPS variables

The following table shows the OPS variables for the SHOW-FT-MONITOR-VALUES command, which are output with the operand NAME = *ALL. Values shown in bold are also output with the operand NAME = *STD.

Element	Type	Output
CURRENT	Struct	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
MON-START	Struct	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
PARTNER-SEL	Struct	
.OPENFT	String	*YES / *NO
.FTAM	String	*YES / *NO
.FTP	String	*YES / *NO
REQUEST-SEL	Struct	
.ASYNC	String	*YES / *NO
.SYNC	String	*YES / *NO
.LOCAL	String	*YES / *NO
.REMOTE	String	*YES / *NO
THROUGHPUT	Struct	
.NET-BYTES-TOTAL	String	Value
.NET-BYTES-SEND	String	Value
.NET-BYTES-RCV	String	Value
.NET-BYTES-TEXT	String	Value

Element	Type	Output
.NET-BYTES-BIN	String	Value
.DISK-TOTAL	String	Value
.DISK-SEND	String	Value
.DISK-RCV	String	Value
.DISK-TEXT	String	Value
.DISK-BIN	String	Value
.REQ-TOTAL	String	Value
.REQ-F-TRANS	String	Value
.REQ-F-MANAG	String	Value
.REQ-SUCC	String	Value
.REQ-ABORT	String	Value
.REQ-INTR	String	Value
.ADMIS-FAIL	String	Value
.FOLLOWUP	String	Value
.CONN-SUCC	String	Value
.CONN-FAIL	String	Value
.CONN-ABORT	String	Value
DURATION	Struct	
.REQ-TOTAL-OUTB	String	Value
.REQ-TOTAL-INB	String	Value
.REQ-F-TRANS-OUTB	String	Value
.REQ-F-TRANS-INB	String	Value
.REQ-F-MANAG-OUTB	String	Value
.REQ-F-MANAG-INB	String	Value
.REQ-WAIT	String	Value
.DNS-OUTB	String	Value
.DNS-INB	String	Value
.CONN-ESTABL	String	Value
.F-OPEN-OUTB	String	Value
.F-OPEN-INB	String	Value
.F-CLOS-OUTB	String	Value
.F-CLOS-INB	String	Value
.ADMIS-CHECK-OUTB	String	Value

Element	Type	Output
.ADMIS-CHECK-INB	String	Value
STATE	Struct	
.NUM-REQ-ACT-ASYN	String	Value
.NUM-REQ-ACT-SYN	String	Value
.NUM-REQ-WAIT	String	Value
.NUM-REQ-HOLD	String	Value
.NUM-REQ-SUSPEND	String	Value
.NUM-REQ-LOCK	String	Value
.NUM-REQ-FINISH	String	Value
.CONN-LIM	String	Value
.NUM-CONN-ACT	String	Value
.REQ-LIM	String	Value
.NUM-REQ-QUEUE	String	Value
.OPENFT-ACT	String	Value
.FTAM-ACT	String	Value
.FTP-ACT	String	Value
.TRACE	String	Value

3.38.1   Description of the monitoring values

The table below shows all the monitoring values output when NAME=*ALL is specified. Under NAME=, you can also specify a list of any of the parameters shown in the table.

The first two letters of the name indicate the data object that the monitoring value belongs to.

– Th = Throughput
– Du = Duration
– St = State

The second component of the name indicates the performance indicator, e.g. Netb for net bytes. In the case of monitoring values for the Throughput or Duration data object, the last 3 letters of the name indicate the types of requests from which the monitoring value originates, e.g.

– Ttl = FT Total
– Snd = FT Send requests
– Rcv = FT Receive requests
– Txt = Transfer of text files
– Bin = Transfer of binary files
– Out = FT Outbound
– Inb = FT Inbound

> **i**   If monitoring is deactivated for all partners (PARTNER-SELECTION=*NONE with MODIFY-FT-OPTIONS ...,MONITORING), only the following values are provided:
>
> Status: StCLim, StCAct, StRqLim, StRqAct, StOftr, StFtmr, StFtpr, StTrcr
>
> All the other values are set to 0.

Name	Meaning	Output with	Output unit	
			FORMATTED	**RAW**
ThNetbTtl	Throughput in net bytes: Number of bytes transferred	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThNetbSnd	Throughput in net bytes (send requests): Number of bytes transferred with send requests	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThNetbRcv	Throughput in net bytes (receive requests): Number of bytes transferred with receive requests	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThNetbTxt	Throughput in net bytes (text files): Number of bytes transferred when transferring text files	*ALL	Number of bytes per second	Bytes, accumulated

Name	Meaning	Output with	Output unit	
			FORMATTED	**RAW**
ThNetbBin	Throughput in net bytes (binary files): Number of bytes transferred when transferring binary files	*ALL	Number of bytes per second	Bytes, accumulated
ThDiskTtl	Throughput in disk bytes: Number of bytes read from files or written to files with transfer requests	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThDiskSnd	Throughput in disk bytes (send requests): Number of bytes read from files with send requests	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThDiskRcv	Throughput in disk bytes (receive requests): Number of bytes written to files with receive requests	*STD/ *ALL	Number of bytes per second	Bytes, accumulated
ThDiskTxt	Throughput in disk bytes (text files): Number of bytes read from text files or written to text files with transfer requests	*ALL	Number of bytes per second	Bytes, accumulated
ThDiskBin	Throughput in disk bytes (binary files): Number of bytes read from binary files or written to binary files with transfer requests	*ALL	Number of bytes per second	Bytes, accumulated
ThRqto	openFT requests: Number of openFT requests received	*STD/ *ALL	Number per second	Accumulated number
ThRqft	File transfer requests: Number of file transfer requests received	*ALL	Number per second	Accumulated number
ThRqfm	File management requests: Number of file management requests received	*ALL	Number per second	Accumulated number
ThSuct	Successful requests: Number of successfully completed openFT requests	*STD/ *ALL	Number per second	Accumulated number
ThAbrt	Aborted requests: Number of aborted openFT requests	*STD/ *ALL	Number per second	Accumulated number
ThIntr	Interrupted requests: Number of interrupted openFT requests	*STD/ *ALL	Number per second	Accumulated number
ThUsrf	Requests from non-authorized users: Number of openFT requests in which the user check was terminated with errors	*STD/ *ALL	Number per second	Accumulated number

Name	Meaning	Output with	Output unit	
			FORMATTED	**RAW**
ThFoll	Started follow-up processing operations: Number of follow-up processing operations started	*ALL	Number per second	Accumulated number
ThCosu	Connections established: Number of connections successfully established	*ALL	Number per second	Accumulated number
ThCofl	Failed connection attempts: Number of attempts to establish a connection that failed with errors	*STD/ *ALL	Number per second	Accumulated number
ThCobr	Disconnections: Number of disconnections as a result of connection errors	*STD/ *ALL	Number per second	Accumulated number
DuRqtlOut	Maximum outbound request duration: Maximum request duration of an outbound request	*ALL	Milliseconds [1]	-
DuRqtlInb	Maximum inbound request duration: Maximum request duration of an inbound request	*ALL	Milliseconds [1]	-
DuRqftOut	Maximum outbound transfer request duration: Maximum duration of an outbound file transfer request	*ALL	Milliseconds [1]	-
DuRqftInb	Maximum inbound transfer request duration: Maximum duration of an inbound file transfer request	*ALL	Milliseconds [1]	-
DuRqfmOut	Maximum outbound file management request duration: Maximum duration of an outbound file management request	*ALL	Milliseconds [1]	-
DuRqfmInb	Maximum inbound file management request duration: Maximum duration of an inbound file management request	*ALL	Milliseconds [1]	-
DuRqesOut	Maximum outbound request waiting time: Maximum waiting time before an outbound request is processed (for requests without a specific start time)	*ALL	Milliseconds [1]	-

Name	Meaning	Output with	Output unit	
			FORMATTED	**RAW**
DuDnscOut	Maximum duration of an outbound DNS request Maximum time an outbound openFT request was waiting for partner checking	*ALL	Milliseconds [1]	-
DuDnscInb	Maximum duration of an inbound DNS request Maximum time an inbound openFT request was waiting for partner checking	*ALL	Milliseconds [1]	-
DuConnOut	Maximum duration of establishment of a connection: Maximum time between requesting a connection and receiving confirmation of a connection for an outbound openFT request	*ALL	Milliseconds [1]	-
DuOpenOut	Maximum file open time (outbound): Maximum time an outbound openFT request required to open the local file	*ALL	Milliseconds [1]	-
DuOpenInb	Maximum file open time (inbound): Maximum time an inbound openFT request required to open the local file	*ALL	Milliseconds [1]	-
DuClosOut	Maximum file close time (outbound): Maximum time an outbound openFT request required to close the local file	*ALL	Milliseconds [1]	-
DuClosInb	Maximum file close time (inbound): Maximum time an inbound openFT request required to close the local file	*ALL	Milliseconds [1]	-
DuUsrcOut	Maximum user check time (outbound): Maximum time an outbound openFT request required to check the user ID and transfer admission	*ALL	Milliseconds [1]	-
DuUsrcInb	Maximum user check time (inbound): Maximum time an inbound openFT request required to check the user ID and transfer admission	*ALL	Milliseconds [1]	-
StRqas	Number of synchronous requests in the ACTIVE state	*STD/ *ALL	Average [2]	Current number
StRqaa	Number of asynchronous requests in the ACTIVE state	*STD/ *ALL	Average value [2]	Current number
StRqwt	Number of requests in the WAIT state	*STD/ *ALL	Average value [2]	Current number

Name	Meaning	Output with	Output unit	
			FORMATTED	**RAW**
StRqhd	Number of requests in the HOLD state	*STD/ *ALL	Average value [2]	Current number
StRqsp	Number of requests in the SUSPEND state	*STD/ *ALL	Average value [2]	Current number
StRqlk	Number of requests in the LOCKED state	*STD/ *ALL	Average value [2]	Current number
StRqfi	Number of requests in the FINISHED state	*ALL	Average value [2]	Current number
StCLim	Maximum number of connections: Upper limit for the number of connections established for asynchronous requests.	*STD/ *ALL	Value currently set	
StCAct	Number of occupied connections for asynchronous requests	*STD/ *ALL	Share of StCLim in % [3]	Current number
StRqLim	Maximum number of requests: Maximum number of asynchronous requests in request management	*STD/ *ALL	Value currently set	
StRqAct	Entries occupied in request management	*STD/ *ALL	Share of StRqLim in % [3]	Current number
StOftr	openFT protocol activated/deactivated	*STD/ *ALL	ON (activated) OFF (deactivated)	
StFtmr	FTAM protocol activated/deactivated	*STD/ *ALL	ON (activated) OFF (deactivated)	
StFtpr	FTP protocol activated/deactivated	*STD/ *ALL	ON (activated) OFF (deactivated)	
StTrcr	Trace activated/deactivated	*ALL	ON (activated) OFF (deactivated)	

[1] Maximum value during the last monitoring interval (= time elapsed since the last time the monitoring values were queried or since the start of monitoring). The minimum time interval output is 1 millisecond if a relevant measurement has been completed during the interval since the last query. A value of 0 specifies that no measurement has been made in this interval.

[2] Average value during the monitoring interval (= time elapsed since the last time the monitoring values were queried or since the start of monitoring). The format is n.mm, where n is an integer and mm are to be interpreted as decimal places.

[3] If the reference value is reduced in live operation, it is possible for the value output to lie above 100 (%) temporarily.

3.38.2 Examples

1. Monitoring values are to be output in default output format.

```
/SHOW-FT-MONITOR-VALUES
openFT(STD)  Monitoring (formatted)
MonOn=2016-12-17 15:36:12 PartnerSel=OPENFT  RequestSel=ONLY-ASYNC,ONLY-LOCAL
2016-12-17 15:40:01

  Name      Value
  ---------------
  ThNetbTtl 38728
  ThNetbSnd 38728
  ThNetbRcv 0
  ThDiskTtl 16384
  ThDiskSnd 16384
  ThDiskRcv 0
  ThRqto    1
  ThSuct    0
  ThAbrt    0
  ThIntr    0
  ThUsrf    0
  ThCofl    0
  ThCobr    0
  StRqas    0.00
  StRqaa    8.66
  StRqwt    1.66
  StRqhd    0.00
  StRqsp    0.00
  StRqlk    0.00
  StCLim    16
  StCAct    37
  StRqLim   1000
  StRqAct   1
  StOftr    ON
  StFtmr    OFF
  StFtpr    OFF
```

Explanation

The default output format begins with a header containing the following specifications:
– Name of the openFT instance and selected data format (raw or formatted)
– Monitoring start time and partner and request selection
– Current timestamp

This is followed by the list of default values. See the section "Description of the monitoring values" on page 330 for the meanings.

2. Only the data types are to be output in default output format.

```
/SHOW-FT-MONITOR-VALUES INFORMATION=*TYPE
openFT(STD)  Monitoring (formatted)
MonOn=2016-12-17 15:36:12 PartnerSel=OPENFT  RequestSel=ONLY-ASYNC,ONLY-LOCAL
2016-12-17 15:40:01

 Name       Value
 ---------------
 ThNetbTtl INT
 ThNetbSnd INT
 ThNetbRcv INTs
 ThDiskTtl INT
 ThDiskSnd INT
 ThDiskRcv INT
 ThRqto    INT
 ThSuct    INT
 ThAbrt    INT
 ThIntr    INT
 ThUsrf    INT
 ThCofl    INT
 ThCobr    INT
 StRqas    INT(100)
 StRqaa    INT(100)
 StRqwt    INT(100)
 StRqhd    INT(100)
 StRqsp    INT(100)
 StRqlk    INT(100)
 StCLim    INT
 StCAct    PERCENT
 StRqLim   INT
 StRqAct   PERCENT
 StOftr    BOOL
 StFtmr    BOOL
 StFtpr    BOOL
```

Explanation

The types in the Value column have the following significance:

INT	Integer number (corresponds to INT(1))
INT(100)	Numeric value with a scaling value of 100 in the format n.mm, where n is an integer and mm are decimal places.
PERCENT	Percentage
BOOL	Boolean value, ON / OFF

3. The monitoring value "throughput in netbytes" (ThNetbTtl) is to be displayed. The display is to be updated every 60 seconds and repeated three times (polling).

```
/SHOW-FT-MONITOR-VALUES
NAME=ThNetbTtl,POLLING=*PAR(INTERVAL=60,NUMBER=3)

openFT(STD)   Monitoring (formatted)
MonOn=2016-12-16 10:44:09 PartnerSel=OPENFT,FTP  RequestSel=ONLY-ASYNC,ONLY-
LOCAL
2016-12-16 12:45:33
 Name      Values
 ---------------
 ThNetbTtl 780107

2016-12-16 12:46:33
 ThNetbTtl 993051

2016-12-16 12:47:33
 ThNetbTtl 1049832
```

The repetitions are separated by intermediate header containing the current polling time.

3.39 SHOW-FT-OPTIONS
Display operating parameters

Note on usage

User group: FT user and FT administrator

Alias name: FTSHWOPT

Functional description

The command SHOW-FT-OPTIONS can be used at any time to obtain the information listed below on the operating parameters of your FT system:

- Information on whether or not openFT has been started

- Name of the BCAM host

- Instance identification

- Maximum values for operation (maximum number of file transfer requests in the request file, maximum lifetime of requests, maximum number of processes and transport connections, maximum size of a transport unit)

- Security settings (FTAC security level of the partner systems, extended sender verification)

- Logging settings (scope, intervals for automatic deletion)

- Trace settings

- Settings for traps (console traps, SNMP traps, ADM traps)

- Settings for the monitoring functions

Format

SHOW-FT-OPTIONS / **FTSHWOPT**
OUTPUT = **<u>*SYSOUT</u>**(...) / ***SYSLST**(...)
<u>*SYSOUT</u>(...) / ***SYSLST**(...)   │   **LAYOUT** = **<u>*STD</u>** / ***CSV** / ***BS2-PROC** / ***ZOS-PROC**

Operands

OUTPUT =
Output medium.

OUTPUT = <u>*SYSOUT</u>(...)
Output takes place on SYSOUT.

OUTPUT = *SYSLST(...)
Output takes place on SYSLST.

   LAYOUT = <u>*STD</u>
   Output is put into a user-friendly form for reading.

   LAYOUT = *CSV
   Output takes place in **C**haracter **S**eparated **V**alues format. This is a special tabular
   format, widely used in the PC world, where the individual fields are separated by
   semicolons ";" (see page 486).

   LAYOUT = *BS2-PROC
   The operating parameters are output as a command sequence. This can be called as
   an SDF procedure at BS2000 systems in order to recreate the identical operating
   parameters.
   If this output is redirected to a file using the SYSFILE command, you should note that
   the BS2000 SYSFILE management prefixes each line with the space (printer feed
   control character). The first column of the file must therefore be removed before the
   procedure generated in this way can be called.

   LAYOUT = *ZOS-PROC
   The operating parameters are output as a command sequence. This can be called as
   a Clist procedure at z/OS systems in order to recreate the identical operating
   parameters.

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
88	32	CMD0221	Error during OPS generation.
35	64	FTR1035	Command only permissible for FT administrator.
2	0	FTR2225	Information output canceled.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see section "Command return codes" on page 45.

OPS variables

The following table shows the OPS variables for the command SHOW-FT-OPTIONS.

Element	Type	Output
REQ-LIM	Integer	
TASK-LIM	String	
CONN-LIM	Integer	
TRANSPORT-UNIT-SIZE	Integer	
PARTNER-CHECK	String	*STD / *TRANSP-ADDR
SEC-LEV	String	Value / *BY-PARTNER-ATTRIBUTES
TRACE	Struct	
.STATE	String	*ON / *OFF
.OUT	String	*FILE / empty
.PARTNER-SEL	Struct	
.OPENFT	String	*YES / *NO
.FTAM	String	*YES / *NO
.FTP	String	*YES / *NO
.ADM	String	*YES / *NO
.REQUEST-SEL	Struct	
.SYNC	String	*YES / *NO
.ASYNC	String	*YES / *NO
.LOCAL	String	*YES / *NO
.REMOTE	String	*YES / *NO
.OPTIONS	Struct	
.BULK-DATA	String	*YES / *NO
LOG	Struct	
.TRANS-F	String	*ON / *OFF / *FAILURE

Element	Type	Output
.FTAC	String	*ON / *REJECTED / *MODIFICATIONS
.ADM	String	*ON / *OFF / *FAILURE / *MODIFICATIONS
MAX-REQ-LIFETIME	String	*UNLIMITED / max-request-lifetime
SNMP-TRAPS	Struct	
.SUBSYSTEM-STATE	String	*OFF / *ON
.FT-STATE	String	*OFF / *ON
.PARTNER-STATE	String	*OFF / *ON
.PARTNER-UNREACHABLE	String	*OFF / *ON
.REQUEST-QUEUE-STATE	String	*OFF / *ON
.TRANSFER-SUCCESS	String	*OFF / *ON
.TRANSFER-FAILURE	String	*OFF / *ON
CONSOLE-TRAPS[1]	String	*OFF / *ON
CONS-TRAPS	Struct	
.SUBSYSTEM-STATE	String	*OFF / *ON
.FT-STATE	String	*OFF / *ON
.PARTNER-STATE	String	*OFF / *ON
.PARTNER-UNREACHABLE	String	*OFF / *ON
.REQUEST-QUEUE-STATE	String	*OFF / *ON
.TRANSFER-SUCCESS	String	*OFF / *ON
.TRANSFER-FAILURE	String	*OFF / *ON
ADM-TRAPS	Struct	
.DESTINATION	Struct	
. PARTNER	String	Value
.SELECTION	Struct	
.FT-STATE	String	*OFF / *ON
.PARTNER-STATE	String	*OFF / *ON
.PARTNER-UNREACHABLE	String	*OFF / *ON
.REQUEST-QUEUE-STATE	String	*OFF / *ON
.TRANSFER-SUCCESS	String	*OFF / *ON
.TRANSFER-FAILURE	String	*OFF / *ON
ADM-CONN-LIM	Integer	Value
HOST-NAME	String	Name of the BCAM host
IDENTIFICATION	String	Identification of the local openFT instance

Element	Type	Output
DYNAMIC-PARTNERS	String	*ON / *OFF
KEY-LEN	Integer	Value
RSA-MINIMUM	Integer	0 / 768 / 1024 / 2048
AES-MINIMUM	String	*NONE / 128 / 256
STARTED	String	*YES / *NO
OPENFT-APPLICATION	String	*STD / Value
FTAM-APPLICATION	String	*STD / Value
FTP-PORT	String	*NONE / Value
OPENFT-STD	String	*STD / Value
ADM-PORT	String	Value
OPENFT-APPL-STATE	String	*DISABLED / *ACTIVE / *INACTIVE
FTAM-APPL-STATE	String	*NAVAIL / *DISABLED / *ACTIVE / *INACTIVE
FTP-STATE	String	*NAVAIL / *DISABLED / *ACTIVE / *INACTIVE
ADM-STATE	String	*DISABLED / *ACTIVE / *INACTIVE
MONITORING	Struct	
.STATE	String	*ON / *OFF
.PARTNER-SEL	Struct	
.OPENFT	String	*YES / *NO
.FTAM	String	*YES / *NO
.FTP	String	*YES / *NO
.REQUEST-SEL	Struct	
.SYNC	String	*YES / *NO
.ASYNC	String	*YES / *NO
.LOCAL	String	*YES / *NO
.REMOTE	String	*YES / *NO
ACTIVE-APPLICATIONS	Struct	
.OPENFT	String	*ON / *OFF
.FTP	String	*ON / *OFF
.ADM	String	*ON / *OFF
DEL-LOG	Struct	
.STATE	String	*ON / *OFF
.RETENTION	Integer	Value
.REPEAT	String	*DAILY / *WEEKLY / *MONTHLY

Element	Type	Output
.DAY	Integer	Value
.TIME	String	hh:mm:ss
ENC-MAND	Struct	
.IN	String	*YES / *NO
.OUT	String	*YES / *NO
RECOVERY-OUTBOUND	String	*ON / *OFF
RECOVERY-INBOUND	String	*ON / *OFF

[1] Now only support for reasons of compatibility. The value is only set if all the console traps are activated (*ON) or if all the console traps are deactivated (*OFF).

Meaning of the output of the OPS variables

Only the OPENFT-STD variable is described below. The meanings of the other variables correspond to the associated output parameters of SHOW-FT-OPTIONS, see page 344.

OPENFT-STD
Port number used to address openFT partners if these are addressed via their host names without any port number specification.
*STD means that the default port number 1100 is used.
The value can be modified using the OPENFT-STD operand in the MODIFY-FT-OPTIONS command
Default setting following installation: *STD

3.39.1 Description of the output of SHOW-FT-OPTIONS

Example

Default of the SHOW-FT-OPTIONS command, i.e. the operating parameters have not been modified since installation.

```
/SHOW-FT-OPTIONS
STARTED PROC-LIM CONN-LIM ADM-CLIM RQ-LIM MAX-RQ-LIFE TU-SIZE
   YES        2       16        8   2000          30     65535
PTN-CHK DYN-PART SEC-LEV  FTAC-LOG FT-LOG ADM-LOG
   STD       ON B-P-ATTR      ALL    ALL     ALL
OPENFT-APPL      FTAM-APPL        FTP-PORT          ADM-PORT
*STD             *STD             21                11000
ACTIVE           ACTIVE           ACTIVE            ACTIVE
RSA-PROP  RSA-MIN AES-MIN ENC-MAND
2048        0     NONE     NO
HOST-NAME         IDENTIFICATION
*NONE            BS2FTPC


DEL-LOG  ON  AT     RETPD   RECOVERY   ADM-TRAP-SERVER
 OFF    DAILY 00:00   14    IN+OUT        *NONE


TRAP: SS-STATE FT-STATE PART-STATE PART-UNREA RQ-STATE TRANS-SUCC TRANS-FAIL
CONS     OFF      OFF       OFF        OFF       OFF       OFF        OFF
SNMP     OFF      OFF       OFF        OFF       OFF       OFF        OFF
ADM               OFF       OFF        OFF       OFF       OFF        OFF


FUNCT:  SWITCH PARTNER-SELECTION   REQUEST-SELECTION   OPTIONS
MONITOR  OFF ALL                   ALL
TRACE    OFF ALL                   ALL                 NONE
```

Meaning of the output fields

STARTED
Specifies whether openFT is activated (via START-FT or automatically) or not.

PROC-LIM
Maximum number of tasks that can be reserved simultaneously for the execution of FT requests. The value is defined by the PROCESS-LIMIT operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: 2

CONN-LIM
Maximum number of transport connections that can be reserved for asynchronous file transfer requests. Since each transport connection can only process one request at a time, CONN-LIMIT also defines the maximum number of requests that can be processed

simultaneously. One third of the transport connections are reserved for requests from remote systems. The value of CONN-LIMIT is defined by the CONNECTION-LIMIT operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: 8

ADM-CLIM
Maximum number of asynchronous administration requests including ADM traps that can be processed simultaneously. The value of ADM-CLIM is specified with the operand ADM-CONNECTION-LIM in the command MODIFY-FT-OPTIONS.
Default setting following installation: 8

RQ-LIM
Maximum number of FT requests that can be entered at the same time in the request queue of the local system. The value can be modified using the REQUEST-LIMIT operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: 2000

MAX-RQ-LIFE
Maximum number of days that an FT request is stored in the request file after its start time. When this period expires, the FT request is automatically removed from the request file. The value is defined in the MAX-REQUEST-LIFETIME operand of the MODIFY-FT-OPTIONS command.
Default setting following installation: 30

TU-SIZE
Maximum size of a transport unit in bytes. The value is defined with the TRANSPORT-UNIT-SIZE operand in the MODIFY-FT-OPTIONS command. The load placed on the transport system by openFT can be controlled using this operand.
Default setting following installation: 65535

PTN-CHK
Defines whether or not enhanced sender checking is activated. The value is defined with the PARTNER-CHECK operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: STD

DYN-PART
specifies whether dynamic partners are permitted (*ON) or not (*OFF). The value is defined with the DYNAMIC-PARTNERS operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: ON

SEC-LEV
Local default value for the security level of the partner systems. This operand is only effective if FTAC functionality is being used. An important part of the access protection functions provided by this product lies in the allocation of security levels to remote systems. To this end, each system is allocated a security level designated using an integer in the range 1 to 100.

A default value for all remote systems is set by means of an operating parameter using the SECURITY-LEVEL operand in the MODIFY-FT-OPTIONS command. All partners in the partner list for which the value STD is specified in the output of the SHOW-FT-PARTNERS command for SECLEV refer to this value.

This value is irrelevant for free dynamic partners (i.e. partner not entered in the partner list).
Default setting following installation: B-P-ATTR

FTAC-LOG
Scope for FTAC logging (ALL, MODIFY, REJECTED).
The scope of FTAC logging is specified in the LOGGING operand of the MODIFY-FT-OPTIONS command.
Default setting following installation: ALL

FT-LOG
Scope for FT logging (ALL, FAIL, NONE).
The scope of FT logging is specified in the LOGGING operand of the MODIFY-FT-OPTIONS command.
Default setting following installation: ALL

ADM-LOG
Scope of ADM logging (ALL, FAIL, MODIFY, NONE).
The scope of ADM logging is specified in the LOGGING operand of the MODIFY-FT-OPTIONS command.
Default setting following installation: ALL

OPENFT-APPL
Port number used by the local openFT. *STD means that the default port number 1100 is used. The value is specified with the OPENFT-APPLICATION operand in the command MODIFY-FT-OPTIONS.
The second line specifies whether the asynchronous inbound server is activated for openFT (ACTIVE), deactivated (DISABLED) or unavailable (INACT). The ACTIVE-APPLICATIONS operand in the command MODIFY-FT-OPTIONS is used for activation and deactivation.
Default setting following installation: *STD

FTAM-APPL
Port number of the local FTAM server, where necessary supplemented by the transport selector, session selector and presentation selector. *STD means that the default value is used (port number 4800 and $FTAM as the transport selector).
The value can be modified with the FTAM-APPLICATION operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: *STD

FTP-PORT
Port number used by the local FTP server. The value is specified with the FTP-PORT operand in the command MODIFY-FT-OPTIONS.

The second line specifies whether the asynchronous inbound server is activated for FTP (ACTIVE/DISABLED) or is unavailable or not installed (INACT/NAVAIL). The ACTIVE-APPLICATIONS operand in the command MODIFY-FT-OPTIONS is used for activation and deactivation.
Default setting following installation: 21

ADM-PORT
Specifies the port number used by the local FT for remote administration. The default value is 11000. The value is specified with the ADM-PORT operand in the command MODIFY-FT-OPTIONS.
The second line specifies whether the asynchronous inbound server is activated for remote administration requests (ACTIVE), deactivated (DISABLED) or unavailable (INACT). The ACTIVE-APPLICATIONS operand in the command MODIFY-FT-OPTIONS is used for activation and deactivation.
Default setting following installation: 11000

RSA-PROP
Specifies the length of the RSA key used for encryption. This key is only used for the encryption of the AES key which the two partners have agreed upon (or the DES key). openFT uses the AES key to encrypt the request description data and possibly the file contents. The value is specified with the RSA-PROPOSED operand in the command MODIFY-FT-OPTIONS.
Default setting following installation: 2048

RSA-MIN
Specifies the minimum RSA key length (in bits) that is accepted by the communication partner for the transfer of the AES key of the session. The value is specified with the RSA-MINIMUM operand in the command MODIFY-FT-OPTIONS.
Default setting following installation: 0

AES-MIN
Specifies the minimum AES key length (in bits) that is required from a communication partner. The value is specified with the AES-MINIMUM operand in the command MODIFY-FT-OPTIONS.
Default setting following installation: NONE

ENC-MAND
Specifies whether user data encryption is mandatory for openFT requests.
The value can be modified with the ENCRYPTION-MANDATORY operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: NO

HOST-NAME
Name of the BCAM host. The default value is *NONE, i.e. the real BCAM host is used.
The value can be modified with the HOST-NAME operand in the MODIFY-FT-OPTIONS command.
Default setting following installation: *NONE

IDENTIFICATION
Instance identifier of the openFT instance currently set and the name of the local system.
The instance identifier is defined with the IDENTIFICATION operand of the MODIFY-FT-
OPTIONS command and is used to identify the instance in the partner systems.
Default setting following installation: Name of the local BCAM host

DEL-LOG
Specifies whether automatic deletion of log records is activated.
The values can be modified using the DELETE-LOGGING operand in the MODIFY-FT-
OPTIONS command.
Default setting following installation: OFF
– ON: Day on which the records are to be deleted. A weekday (MON, TUE, WED, THU,
   FRI, SAT, SUN), a day of the month (1 through 31) or DAILY for daily deletion must be
   entered here.
   Default setting following installation: DAILY
– AT: Time (*hh:mm*) at which the records are to be deleted.
   Default setting following installation: 00:00
– RETPD: Minimum age of the records which are to be deleted (in days).
   Default setting following installation: 14

RECOVERY
Specifies the global activation or deactivation of the recovery of outbound and inbound
requests. The value can be modified with the RECOVERY-OUTBOUND and RECOVERY-
INBOUND operands in the command MODIFY-FT-OPTIONS.
Default setting following installation: IN+OUT

ADM-TRAP-SERVER
Name or address of the partner to which the ADM traps are sent.
*NONE means that the sending of ADM traps is deactivated.
The value is specified with the ADM-TRAPS=(DESTINATION=...) operand in the command
MODIFY-FT-OPTIONS.
Default setting following installation: *NONE

TRAP
This section with the rows CONS, SNMP and ADM specifies the trap settings. The columns
identify the events for which traps may be generated.
– SS-STATE: Subsystem state change (not for ADM traps)
– FT-STATE: State change of the openFT control process
– PART-STATE: Partner system state change
– PART-UNREA: Partner not reachable
– RQ-STATE: Request management state change
– TRANS-SUCC: Successfully completed requests
– TRANS-FAIL: Failed requests

   The possible values are ON or OFF.
   Default setting following installation: OFF (for all columns)

The following rows specify the settings for the various trap types:

CONS
Settings for console traps FTR03XXX. This is specified with the CONSOLE-TRAPS
operand in the command MODIFY-FT-OPTIONS.

SNMP
Setting for SNMP traps. This is specified with the SNMP-TRAPS operand in the
command MODIFY-FT-OPTIONS.

ADM
Setting for ADM traps to be output to the ADM trap server. This is specified with the
ADM-TRAPS=(SELECTION=...) operand in the command MODIFY-FT-OPTIONS.

FUNCT
This section specifies the settings for monitoring (MONITOR) and tracing (TRACE).
The columns have the following meanings:
–   SWITCH: Function activated (ON) or deactivated OFF
    Default setting following installation: OFF
–   PARTNER-SELECTION: Selection according to protocol type of the partner system:
    ALL, OPENFT, FTAM, FTP, ADM (only with TRACE), NONE
    Default setting following installation: ALL
–   REQUEST-SELECTION: Selection according to request type: ALL, ONLY-ASYNC,
    ONLY-SYNC, ONLY-LOCAL, ONLY-REMOTE
    Default setting following installation: ALL
–   OPTIONS (only with TRACE): NONE, NO-BULK-DATA (= minimal trace, i.e. no bulk
    data)
    Default setting following installation: NONE

The following rows specify what the settings apply to:

MONITOR
Setting for monitoring. This is specified with the MONITORING operand in the
command MODIFY-FT-OPTIONS.
Default setting following installation: OFF

TRACE
Setting for trace function. This is specified with the TRACE operand in the command
MODIFY-FT-OPTIONS.
Default setting following installation: OFF

3.40 SHOW-FT-PARTNERS
Display partner systems

Note on usage

User group: FT user and FT administrator

Alias name: FTSHWPTN

Functional description

The SHOW-FT-PARTNERS command is used to obtain the following information on partner systems included in the partner list :

– the names of the remote systems in the partner list,

– the status of the remote systems (activated or deactivated),

– priority assigned to the partner system,

– the setting for the openFT trace function on the partner system,

– the security level assigned to the remote system. This security level applies only if FTAC functionality is used. The information can then also be obtained using the SHOW-FT-RANGE command.

– the number of not yet completed file transfer requests submitted in the local system,

– the number of file transfer requests submitted in the remote systems for the local system,

– the partner address,

– the type of sender checking,

– the recovery of outbound requests,

– in the case of output in CSV format or to an OPS variable: also the time of the last access and the authentication level.

> **i** SHOW-FT-PARTNERS with the PARTNER=*ALL operand (default value) displays all **entered** dynamic partners. These can be recognized from the fact that they have no name. If you only want to output detailed information on one entered dynamic partner, you must specify the partner's address in the PARTNER operand.
> In the case of the SHOW-FT-PARTNERS command openFT does not check whether an address is valid. If, for example, you specify a random address of a free dynamic partner, this will be displayed with the default properties of a free dynamic partner.

Format

SHOW-FT-PARTNERS / **FTSHWPTN**

 PARTNER = ***ALL** / <text 1..200 with-low>

,OUTPUT = ***SYSOUT**(...) / ***SYSLST**(...)

   *SYSOUT(...) / ***SYSLST**(...)

     | **LAYOUT** = ***STD** / ***CSV** / ***BS2-PROC** / ***ZOS-PROC**

,STATE = ***ALL** / ***ACTIVE** / ***DEACT** / ***INSTALLATION-ERROR** / ***NO-CONNECTION** / ***NOT-ACTIVE** /
        *AUTOMATIC-DEACTIVATION / ***INACTIVE-BY-AUTOMATIC-DEACT**

,INFORMATION = ***STD** / ***ALL**

Operands

PARTNER =
Partner system or systems about which information is to be output.

PARTNER = *ALL
Information on all partner systems is output.

PARTNER = <text 1..200 with-low>
Name or address of the partner system or group of partner systems about which information
is to be output.
If you enter a name then you have two options:
You can either enter a unique partner name (1 - 8 alphanumeric characters) or a group of
partners identified by a 1 to 7-character specification followed by an asterisk (*).
For more information on partner addresses, see

OUTPUT =
Output medium.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

   LAYOUT = *STD
   Output is formatted using a standard layout that can be easily read by the user.

   LAYOUT = *CSV
   Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used
   tabular format, especially in the PC environment, in which individual fields are
   separated by a delimiter, which is usually a semicolon ";" (see page 491).

LAYOUT = *BS2-PROC
Output is supplied in the form of MODIFY-FT-PARTNER commands, which precisely
define the partners involved. This enables the partner entries to be saved for a later
reconstruction, to use them for an openFT operation on BS2000.
If this output is redirected to a file by using the SYSFILE command, it should be noted
that the BS2000 Sysfile Management inserts a blank (i.e., a linefeed character) before
each line. The first column of the file must hence be stripped before the procedure
generated by this method can be called. We therefore recommend that you use the
START-OPENFTPART command, which performs this task for the user.

LAYOUT = *ZOS-PROC
Output is supplied in the form of FTMODPTN commands, which precisely define the
partners involved. This enables the partner entries to be saved for a later recon-
struction, to use them for an openFT operation on z/OS.

STATE =
The scope of the output can be limited by the optional selection criteria in STATE. For an
explanation of the selection criteria see .

STATE = *ALL
The output is not limited by selection criteria.

STATE = *ACTIVE
All partner systems in the ACTIVE state are displayed.

STATE = *DEACT
All partner systems in the DEACT state are displayed.

STATE = *INSTALLATION-ERROR
All partner systems in the LUNK, RUNK, LAUTH, RAUTH, NOKEY and IDREJ state are
displayed.

STATE = *NO-CONNECTION
All partner systems in the NOCON and DIERR state are displayed.

STATE = *NOT-ACTIVE
All partner systems not in the ACTIVE state are displayed.

STATE = *AUTOMATIC-DEACTIVATION
All partner systems are output which were assigned AUTOMATIC-DEACTIVATION.

STATE = *INACTIVE-BY-AUTOMATIC-DEACT
All partner systems are output which were actually deactivated using the option
AUTOMATIC-DEACTIVATION.

INFORMATION = *STD / *ALL
Use this operand to control the scope of the information output. On *ALL, expanded
address information is output, in addition to the standard information.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	No partner available for the selection criteria.
83	32	CMD0221	Internal error.
88	32	CMD0221	Error during OPS generation.
35	64	FTR1035	The user is not authorized to use this command.
45	64	FTR1045	No partner found in partner list.
2	0	FTR2225	Information output cancelled.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

OPS variables

The following table shows the OPS variables for the command SHOW-FT-PARTNERS.

Element	Type	Output
PARTNER-NAME	String	
STA	String	*ACTIVE / *INACTIVE / *NO-CONN / *LOC-UNKNOWN /*REM-UNKNOWN /*ACTIVE (AUTO-DEACTIVATE) / *INACTIVE (BY- AUTOMATIC-DEACTIVATION) / *LOC-AUTH-FAIL / *REM-AUTH-FAIL / *DATA-INTEGRITY-ERROR / *NO-KEY / *ID-REJ
SEC-LEV	Integer/ String	VALUE / *B-P-ADDR
TRACE	String	*ON / *OFF / *BY-FT-OPT
LOC	Integer	Value
REM	Integer	Value
PARTNER-ADDR	String	Value
PRIO	String	*NORM / *HIGH / *LOW
AUTHENTICATION-LEVEL	Integer	1 / 2 / empty
LAST-ACCESS-DATE	String	Value / empty
ADDR-TYPE [1]	String	*OPENFT / *PRESENTATION / *TCP-IP
OPENFT-ADDR [2]	Struct	
.PROCESSOR	String	Value
.ENTITY	String	Value
.NETWORK-ADDR	String	Value
.TRANS-SEL	String	Value
.PORT	String	port number

Element	Type	Output
.PARTNER-CHECK	String	*FTOPT / *STD / *TRANSP-ADDR / *AUTH
.AUTH-MAND	String	*YES / *NO
.IDENTIFICATION	String	Value
.SESSION-ROUTING	String	*ID or empty
PRESENTATION-ADDR [3]	Struct	
.NETWORK-ADDR	String	Value
.TRANSPORT-SEL	String	Value
.SESSION-SEL	String	Value
.PRESENTATION-SEL	String	Value
.PORT	String	Value
TCP-IP-ADDR [4]	Struct	
.PORT	String	Value
ADM-ADDR [5]	Struct	
.PROCESSOR	String	Value
.ENTITY	String	Value
.NETWORK-ADDR	String	Value
.TRANS-SEL	String	Value
.PORT	String	Port number
.PARTNER-CHECK	String	*FTOPT / *STD / *TRANSP-ADDR /*AUTH
.AUTH-MAND	String	*YES / *NO
.IDENTIFICATION	String	Value
.SESSION-ROUTING	String	*ID / empty
INBOUND-STATE	String	*ACTIVE / *INACTIVE
REQ-PROC	String	*STD / *SERIAL
RECOVERY-OUTBOUND	String	*ON / *OFF / *BY-FT-OPT

[1] Only the address structure corresponding to the ADDR-TYPE element is displayed.

[2] Only applies to openFT partners.

[3] Only applies to FTAM partners.

[4] Only applies to FTP partners.

[5] Only applies to ADM partners.

3.40.1 Description of the output of SHOW-FT-PARTNERS

Example

Request information on all remote systems entered in the partner list:

Short output:
```
/SHOW-FT-PARTNERS INF=*STD
NAME      STATE SECLEV   PRI   TRACE   LOC    REM P-CHK ADDRESS
          ACT   90       NORM  FTOPT    0      0  FTOPT TEST011N
HOSTABS2  ACT   B-P-ATTR NORM  FTOPT    0      0  FTOPT HOSTABS2
HOSTBBS2  ACT   STD      NORM  FTOPT    0      0  FTOPT HOSTBBS2
FOREIGN   ACT   10       NORM  FTOPT    0      0        ftam://PC3:102.ftam.
                                                       ftam.ftam
FTAMPC    ACT   30       NORM  FTOPT    0      0        ftam://PC2:.$ftam
FTAMUX    ACT   30       NORM  FTOPT    0      0        ftam://UNIX3
PCUSER    ACT   40       LOW   FTOPT    0      0  FTOPT %IP123.23.99.120
PC1       ACT   40       LOW   FTOPT    0      0  FTOPT PC1
UNIX1     ACT   50       HIGH  FTOPT    0      0  FTOPT UNIX1
UNIX2     ACT   50       HIGH  FTOPT    0      0  FTOPT UNIX2:102
FTPUX1    ACT   STD      NORM  FTOPT    0      0        ftp://%IP132.19.122.50
```

Long output:
```
/SHOW-FT-PARTNERS INF=*ALL

NAME      STATE SECLEV   PRI   TRACE  LOC  REM P-CHK ADDRESS
          INBND REQU-P         RECOV                 ROUTING      IDENTIFICATION
          ACT   90       NORM  FTOPT   0    0  FTOPT TEST011N
          ACT   STD            FTOPT                              TEST011N
HUGO      ACT   STD      NORM  FTOPT   0    0  FTOPT HUGO
          ACT   STD            FTOPT                              %.HUGO.$FJAM
HOSTABS2  ACT   B-P-ATTR NORM  FTOPT   0    0  FTOPT HOSTABS2
          ACT   STD            ON                                 HOSTABS2.FUJI.NET
HOSTBBS2  ACT   STD      NORM  FTOPT   0    0  FTOPT HOSTBBS2
          ACT   STD            OFF                                HOSTBBS2.CLOUD.NET
FOREIGN   ACT   10       LOW   FTOPT   0    0        ftam://PC3:102.ftam.
          ACT   STD            FTOPT                              ftam.ftam
FTAMPC    ACT   30       NORM  FTOPT   0    0        ftam://PC2:.$ftam
          ACT   STD            FTOPT                              ftamw.ftam2
FTAMUX    ACT   30       NORM  FTOPT   0    0        ftam://UNIX3
          ACT   STD            OFF                                ftamx.ftam3
PCUSER    ACT   40       LOW   FTOPT   0    0  FTOPT %IP123.23.99.120
          ACT   STD            FTOPT                              %IP123.23.99.120
PC1       ACT   40       LOW   FTOPT   0    0  FTOPT PC1
          ACT   STD            ON                                 PC1.FUSI.NET
UNIX1     ACT   50       HIGH  FTOPT   0    0  FTOPT UNIX1
          ACT   STD            FTOPT                              UNIX1.DREAM.NET
UNIX2     ACT   50       HIGH  FTOPT   0    0  FTOPT UNIX2:102
```

```
         ACT   STD         OFF                          %.UNIX2.$FJAM
FTPUX1   ACT   STD    NORM FTOPT   0    0      ftp://%IP132.19.122.50
         ACT   STD         FTOPT
```

The information displayed is explained below:

NAME
Symbolic names of the remote systems entered in the partner list.
This field remains empty for dynamic partners (see the first line in the example).

STATE
Status of the partner system.

ACT
The partner system is active.

DEACT
The partner system is deactivated.

NOCON
The transport connection setup failed.

LUNK
The local system is unknown on the remote FT system.

RUNK
The partner system is unknown on the local transport system.

ADEAC
The partner system is active. It is deactivated if the connection cannot be established.
This state is only displayed if STATE=*AUTOMATIC-DEACTIVATION has been
specified; otherwise, these partner systems are maintained under the ACT status.

AINAC
The partner system was deactivated following several unsuccessful attempts to
establish a connection. This status is only possible if STATE=*AUTOMATIC-
DEACTIVATION has been specified.

LAUTH
The local system could not be authenticated in the partner system. A current, public key
of the local openFT instance must be made available to the partner system.

RAUTH
The partner system could not be authenticated in the local system. A current, public key
of the partner system must be imported to the SYSKEY library.

DIERR
A data integrity error was detected on the connection to the partner system. This can be due either to an error in the transport system, or to manipulation attempts along the transfer route. The connection was terminated but the affected request was not (if it is restartable).

NOKEY
The partner does not accept a connection without encryption, but no key is present in the local system. A new key must be created using CREATE-FT-KEY-SET.

IDREJ
The partner or a go-between instance does not accept the instance ID sent from the local system. You must check to see if the local instance ID is consistent with the entry in the partner's partner list.

SECLEV
Security level assigned to the remote system when it was entered in the partner list. These security levels apply only if the FTAC-BS2000 is also implemented. STD stands for the default security level set with the MODIFY-FT-OPTIONS command.

PRI
Priority of a partner with respect to the processing of requests. The possible values are NORM, LOW and HIGH.

TRACE
Trace setting. You may specify the values ON, OFF and FTOPT (if MODIFY-FT-PARTNER is specified, TRACE=*BY-FT-OPTIONS).

LOC
Number of FT requests that have been submitted in the local system and that address the FT system specified with PARTNER.

REM
Number of FT requests that have been submitted in the remote FT system and addressed to the local FT system. The remote system is specified in PARTNER.

P-CHK
Type of sender checking for the current partner:

FTOPT
The global setting is valid.

T-A
The expanded sender checking is enabled for specific partners.

STD
The expanded sender checking is disabled for specific partners.

AUTH

With the aid of its public key in the SYSKEY library, the partner is subjected to an identity check ("authenticated") by cryptographic means. The partner support the authentication level 2.

AUTH!

With the aid of its public key in the SYSKEY library, the partner is subjected to an identity check ("authenticated") by cryptographic means. The partner support the authentication level 1.

NOKEY

No valid key is available from the partner system although authentication is required.

AUTHM

Authentication must be used.

ADDRESS

Partner address under which the remote system can be accessed. For more information on partner addresses, see section "Specifying partner addresses" on page 48.

IDENTIFICATION

Instance ID of the partner (also see the ADD-FT-PARTNER command on page 68).

ROUTING

SESSION-ROUTING-INFO of the partner, where required (also see the ADD-FT-PARTNER command on page 68.

INBND

State of the partner for inbound requests:

ACT

Inbound function is activated, i.e. requests issued remotely are processed.

DEACT

Inbound function is deactivated, i.e. requests issued remotely are rejected.

REQU-P

Operating mode for asynchronous outbound requests:

STD

Requests to this partner can be processed in parallel.

SERIAL

Requests to this partner are always processed serially.

RECOV
Restart function (recovery) for outbound requests:

FTOPT
The global setting is valid.

ON
The restart function for outbound requests to this partner system is activated.

OFF
The restart function for outbound requests to this partner system is deactivated.

3.41 SHOW-FT-PROFILE
Display admission profile

Note on usage

User group: FTAC user and FTAC administrator

Prerequisite for using this command is the use of openFT-AC.

Functional description

With the command SHOW-FT-PROFILE, FTAC users can obtain information about their
admission profiles. The FTAC administrator can obtain information about all the admission
profiles in his/her system.

Either the contents of the selected admission profile or only its name can be output. It is not
possible to use SHOW-FT-PROFILE to access passwords or transfer admissions defined
in the profile! If a transfer admission is forgotten, a new one must be specified using
MODIFY-FT-PROFILE.

Format

```
SHOW-FT-PROFILE

 NAME = *ALL / <alphanum-name 1..8> / *STD

,SELECT-PARAMETER = *OWN / *PARAMETERS(...)

   *PARAMETERS(...)
        TRANSFER-ADMISSION = *ALL / *NOT-SPECIFIED / <alphanum-name 8..32> /
                                    <c-string 8..32 with-low> / <x-string 15..64> / *SECRET
        ,OWNER-IDENTIFICATION = *OWN / *ALL / <name 1..8>

,INFORMATION = *ONLY-NAMES / *ALL

,OUTPUT = *SYSOUT(...) / *SYSLST(...)

   *SYSOUT(...) / *SYSLST(...)
        LAYOUT = *STD / *CSV
```

Operands

NAME =
Name of the admission profile you wish to view.

NAME = *ALL
Views all admission profiles.

NAME = <alphanum-name 1..8>
Views the admission profile with the specified name.

NAME = *STD
Displays the standard admission profile for your own user ID.

SELECT-PARAMETER =
Selection criteria for the admission profiles you wish to view.

SELECT-PARAMETER = *OWN
Views all the admission profiles of which you are the owner. This means that you can view all the admission profiles which are assigned to your user ID.

SELECT-PARAMETER = *PARAMETERS(...)
Selection criteria with which you can access your admission profiles.

TRANSFER-ADMISSION =
Transfer admission defined in an admission profile as a selection criterion. Only the FTAC administrator can enter the transfer admission of other users.

TRANSFER-ADMISSION = *ALL
The transfer admission is not used as a selection criterion.

TRANSFER-ADMISSION = *NOT-SPECIFIED
Only admission profiles for which no transfer admission has been specified are displayed.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
Views the admission profile which can be addressed with this transfer admission.

TRANSFER-ADMISSION = *SECRET
The system prompts you to enter the transfer admission. However, this does not appear on the screen.

OWNER-IDENTIFICATION =
Specifies, whose admission profiles you wish to view.

OWNER-IDENTIFICATION = *OWN
Views only your own admission profile.

OWNER-IDENTIFICATION = *ALL
The FTAC administrator can view all admission profiles, regardless of who the owner is.

OWNER-IDENTIFICATION = <name 1..8>
The FTAC user can only access his/her own admission profiles; the output corresponds to *OWN. The FTAC administrator can view the admission profiles of any FTAC user with this parameter.

INFORMATION =
Scope of information desired.

INFORMATION = *ONLY-NAMES
FTAC only outputs the name of the admission profile and indicates whether it is privileged or locked. An "∗" is output for privileged profiles and a "!" for locked profiles.

INFORMATION = *ALL
FTAC outputs the contents of the admission profile, excluding any passwords and the transfer admission.

OUTPUT =
Output medium for the information.

OUTPUT = *SYSOUT(...)
Output is sent to SYSOUT.

OUTPUT = *SYSLST(...)
Output is sent to SYSLST.

LAYOUT = *STD
Output is formatted using a standard layout that can be easily read by the user.

LAYOUT = *CSV
Output is supplied in CSV (**C**haracter **S**eparated **V**alues) format. This is a widely used tabular format, especially in the PC environment, in which individual fields are separated by a delimiter, which is usually a semicolon ";" (see page 493).

Command return codes

(SC2)	SC1	Maincode	Meaning
0	64	FTC0052	The information output was interrupted.
0	64	FTC0053	No FT profile exists which meets the specified criteria.
0	0	FTC0054	No information exists for the specified criteria.
0	64	FTC0153	The owner identification entered is not the user's own ID.
0	64	FTC0171	The profile entered does not exist.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

OPS variables

The following table shows the OPS variables of the SHOW-FT-PROFILE command with the operand INF=*ALL. The underlined values apply to the output with INF=*ONLY-NAMES.

Element	Type	Output
PROF-NAME	String	
PRIV	String	*YES / *NO
TRANS-ADM	String	*NSPEC / *SECRET
DUPLICATED	String	*YES / *NO
LOCKED-BY	Struct	
.IMPORT	String	*YES / *NO
.ADM	String	*YES / *NO
.USER	String	*YES / *NO
EXPIRED	String	*YES / *NO
USER-ADM	Struct	
.USER-ID	String	User-ID
.ACC	String	Account number / *FIRST / *NSPEC / *NONE / *NRES
.PASSWORD	String	*OWN / *NSPEC / *NONE / *YES
EXP-DATE	String	yyyy-mm-dd / *NRES
USAGE	String	*PUBLIC / *PRIVATE / *NSPEC
IGNORE	Struct	
.OBS	String	*YES / *NO
.OBR	String	*YES / *NO
.IBS	String	*YES / *NO

Element	Type	Output
.IBR	String	*YES / *NO
.IBP	String	*YES / *NO
.IBF	String	*YES / *NO
INITIATOR	String	*LOC / *REM / *NRES
TRANS-DIR	String	*FROM / *TO / *NRES
MAX-PART-LEV	String	Maximum security level / *NRES
PARTNERS	Array (1-50)	One or several partners / *NRES
FILE-NAME	String	File name / *NRES
LIBRARY	String	*YES / *NO / *NRES / Library
FILE-NAME-PREFIX	String	*YES / *NO
ELEM	Struct	
.NAME	String	Name / *NRES / *NONE
.PREFIX	String	*YES / *NO
.VERSION	String	Version / *STD / *NONE / *NRES
.TYPE	String	Type / *NRES / *NONE
FILE-PASSWORD	String	*YES / *NRES / *NONE
WRITE	String	*NEW / *EXT / *REPL / *NRES
PROC-ADM	Struct	
.USER-ID	String	User-ID / *NRES / *SAME
.ACC	String	Account number / *NRES / *SAME / *NONE
.PASSWORD	String	*NONE / *YES / *NRES / *SAME
SUCC	Struct	
.PROC	String	Commands / *NONE / *NRES / *EXPANSION
.PREFIX	String	Prefix / *NONE
.SUFFIX	String	Suffix / *NONE
FAIL	Struct	
.PROC	String	Commands / *NONE / *NRES / *EXPANSION
.PREFIX	String	Prefix / *NONE
.SUFFIX	String	Suffix / *NONE
TRANS-FILE	String	*ALLOWED / *NOT-ALLOWED
MOD-FILE-ATTR	String	*ALLOWED / *NOT-ALLOWED
READ-DIR	String	*ALLOWED / *NOT-ALLOWED
FILE-PRO^C	String	*ALLOWED / *NOT-ALLOWED

Element	Type	Output
ACC-ADM	String	*ALLOWED / *NOT-ALLOWED
REM-ADM	String	*ALLOWED / *NOT-ALLOWED
ADM-TRAP-LOG	String	*ALLOWED / *NOT-ALLOWED
TEXT	String	Text / *NONE
DATA-ENC	String	*YES / *NO / *NRES
LAST-MOD	Struct	
.DATE	String	yyyy-mm-dd / *NONE
.TIME	String	hh:mm:ss / *NONE

3.41.1 Description of the output of SHOW-FT-PROFILE

Example 1

The FTAC administrator wishes to view the admission profile UMSAWARE of the user
STEVEN with the command SHOW-FT-PROFILE to determine if the profile might
endanger data protection:

```
/SHOW-FT-PROFILE␣NAME=UMSAWARE, -
/    SELECT-PARAMETER=(OWNER-IDENTIFICATION=STEVEN),INFORMATION=*ALL
```

Short form:

```
/SHOW-FT-PROF␣UMSAWARE,(,STEVEN),*ALL
```

The output takes the following form:

```
%UMSAWARE
% EXP-DATE    = 20171031
% IGN-MAX-LEV = (IBR)
% FILE        = PROFIT
% USER-ADM    = (STEVEN,M4711,OWN)
% PROC-ADM    = SAME
% SUCC-PROC   = NONE
% FAIL-PROC   = NONE
% FT-FUNCTION = (TRANSFER-FILE, MODIFY-FILE-ATTRIBUTES,
%               READ-FILE-DIRECTORY, FILE-PROCESSING)
% DATA-ENC    = YES
% LAST-MODIF  = 2016-10-11 13:38:11
```

The first line shows the name of the admission profile. EXP-DATE shows the expiration date of the admission profile. The next two lines show the settings which Steven made in the command CREATE-FT-PROFILE using the parameter IGNORE-MAX-LEVELS=(INBOUND-RECEIVE=*YES) and FILE-NAME= PROFIT. The values for USER-ADMISSION and PROCESSING-ADMISSION have not been set by Steven, but rather the default values have been used. The output SUCC-PROC=*NONE and FAIL-PROC=*NONE means that no follow-up processing is permitted. The output DATA-ENC=YES shows that Steven is especially careful, because this means that requests are only accepted if the user data is encrypted. Steven set this by using DATA-ENCRYPTION=*YES in the CREATE-FT-PROFILE command. The timestamp of the most recent change is shown under LAST-MODIF.

The timestamp is also updated if you do not change the properties of the profile, i.e. if you enter MODIFY-FT-PROFILE only with the parameter NAME, but no other parameters.

> **i** Please note that as a rule not all properties of a profile are displayed. For example, optional parameters which do not differ from the default are not shown.

Example 2

The FTAC administrator examines the admission profile TESTPROF using the SHOW-FT-PROFILE command to determine whether file processing is possible with this profile. The command is as follows:

```
/SHOW-FT-PROFILE NAME=TESTPROF, -
/     SELECT-PARAMETER=(OWNER-IDENTIFICATION=STEVEN),INFORMATION=*ALL
```

Short form:

```
/SHOW-FT-PROF TESTPROF,(,STEVEN),INF=*ALL
```

The output has the following form:

```
%TESTPROF
% INITIATOR  = REMOTE
% USER-ADM   = (STEVEN,*FIRST,OWN)
% PROC-ADM   = SAME
% FT-FUNCTION = (TRANSFER-FILE,FILE-PROCESSING)
% LAST-MODIF  = 2016-07-31 15:03:44
```

The first line of the output displays the name of the admission profile. The second line indicates that the profile can only be used for requests initiated in the remote system. Steven has specified the value *FIRST for ACCOUNT in USER-ADMISSION; this means that the first account number assigned to the home pubset of the specified user ID in the system is used for account assignment in the case of transfer requests. As a result, it is unaffected by any changes to the account number. However, Steven has not specified a value for PROCESSING-ADMISSION and the default value SAME is

therefore used. This means that the values are taken over from USER-ADMISSION. The FT-FUNCATION line indicates that the examined profile supports both prepro-cessing and file transfer requests. The last row specifies when the profile was last modified. The timestamp is also updated if you do not change the properties of the profile, i.e. if you enter MODIFY-FT-PROFILE only with the parameter NAME, but no other parameters.

Example 3

The FT administrator wishes to view the profile REMADMIN that has been set up for remote administration by a remote administrator.

```
/SHOW-FT-PROFILE NAME=REMADMIN,INFORMATION=*ALL
```

Output has the following form:

```
%REMADMIN
% USER-ADM    = (BS2ADMIN,,YES)
% FT-FUNCTION = (REMOTE-ADMINISTRATION)
% LAST-MODIF  = 2016-06-30 15:31:29
```

The output REMOTE-ADMINISTRATION for FT-FUNCTION indicates that the profile is permitted to perform remote administration. This means that the profile can be used by remote administrators to administer the local openFT instance. These remote adminis-trators must also be configured in the remote administration server.

3.42 SHOW-FT-RANGE
List partner systems

Note on usage

User group: FTAC user and FTAC administrator

Prerequisite for using this command is the use of openFT-AC.

Functional description

The command SHOW-FT-RANGE is used to list the partner systems with which you can communicate by file transfer. In addition to indicating the name of the partner system, the security level is output which the FT administrator assigned to this system in the partner list. To determine which basic functions you are permitted to use, you must use the command SHOW-FT-ADMISSION-SET to obtain information on your admission set (see page 291).

The FTAC administrator can use SHOW-FT-RANGE to list all partner systems with which his/her FT system can communicate using file transfer. Furthermore, he/she can find out for any user in his/her system which partner systems can be accessed by this user.

Format

SHOW-FT-RANGE

 USER-IDENTIFICATION = ***OWN** / <name 1..8>

,**SELECT-P**A**RAMETER** = ***ALL** / ***PAR**AMETERS(...)

   ***PARA**METERS(...)
     │   **PART**NER = ***ALL** / <text 1..200 with-low>

,**OUTPUT** = ***SYSOUT**(...) / ***SYSLST**(...)

   *SYSOUT(...) / ***SYSLST**(...)
     │   **LAYOUT** = ***STD** / ***CSV**

Operands

USER-IDENTIFICATION =
User ID for which you would like to have a list of accessible partner systems.

USER-IDENTIFICATION = *OWN
The FTAC user receives all the partner systems with which he/she can use at least one basic function.
The FTAC administrator receives all accessible partner systems.

USER-IDENTIFICATION = <name 1..8>
The FTAC user can only enter his/her own user ID here, the output corresponds to *OWN.
The FTAC administrator can enter any user ID for which he/she would like to view the accessible partner systems.

SELECT-PARAMETER =
Specifies selection criteria for the partner systems.

SELECT-PARAMETER = *ALL
Obtains information on all partner systems which can be reached.

SELECT-PARAMETER = *PARAMETERS(PARTNER = <text 1..200 with-low>)
Obtains information on this partner system. You can specify the name from the partner list or the address of the partner system. The following information is supplied:
–   if you are permitted to communicate with this partner system.
–   the security level assigned to this partner system.
–   if no authorization exists for the partner system, FTC0170 is displayed.
For additional information to partner addresses, see section "Specifying partner addresses" on page 48.

OUTPUT =
Output medium for the partner system listing.

OUTPUT = *SYSOUT(...)
The list is output on SYSOUT.

OUTPUT = *SYSLST(...)
The list is output on SYSLST.

   LAYOUT = *STD
   Output is put into a user-friendly form for reading.

   LAYOUT = *CSV
   Output is in **C**haracter **S**eparated **V**alues format. This is a special tabular format, widely used in the PC world, where the individual fields are separated by a semicolon ";" (see page 497).

Example

Steven Miller would like to find out about the security level of the computer BUYDACK.
To do this, he uses the following command:

```
/SHOW-FT-RANGE␣SELECT-PARAMETER=(PARTNER=BUYDACK)
```

Short form:

```
/SHOW-FT-RANGE␣SEL=(BUYDACK)
```

He receives the following output:

```
%SECLEV   PARTNER-NAME
%  50     BUYDACK
```

The column SECLEV contains the security level of the partner system whose name
appears in the PARTNER-NAME column.
If Steven had entered SELECT-PARAMETER=*ALL (or left out this parameter
altogether), he would have received a similar but longer list of all accessible partner
systems.

Command return codes

(SC2)	SC1	Maincode	Meaning
0	64	FTC0052	The output of information was interrupted.
0	0	FTC0054	There is no information which meets the specified criteria.
0	64	FTC0070	The command cannot be executed on the basis of inadequate operating resources.
0	64	FTC0152	The user ID entered is not the user's own ID.
0	64	FTC0170	The partner entered is unknown within the partner systems possible for this user.
0	64	FTC0255	A system error occurred.

SC1/2 = Subcode 1/2 in decimal notation

OPS variables

Element	Type	Output
SEC-LEV	Integer	Security level
PARTNER-NAME	String	Partner name

3.43 SHOW-REMOTE-FILE-ATTRIBUTES
Display remote file attributes

Note on usage

User group: FT user

Alias name: FTSHW

Functional description

With the SHOW-REMOTE-FILE-ATTRIBUTES command, you can display the appropriate file or files in a directory on a remote partner system.

There are three options for displaying attributes:
– List the name(s) of the file(s) in a directory
– Display a default selection of attributes returned by the partner system
– Display all attributes of a file or files in a directory, as returned by the partner system on request.

Format

```
SHOW-REMOTE-FILE-ATTRIBUTES / FTSHW

 PARTNER = <text 1..200 with-low>

,FILE = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> / *DIRECTORY(...)

   *DIRECTORY(...)
   │  NAME = *NOT-SPECIFIED / <c-string 1..512 with-low> / <partial-filename 2..53>

,PASSWORD = *NONE / <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128> /
            *SECRET

,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64> /
                      *SECRET / *PARAMETERS(...)

   *PARAMETERS(...)
   │   USER-IDENTIFICATION = <name 1..8> / <c-string 1..67 with-low>
   │  ,ACCOUNT = *NONE / <c-string 1..64 with-low> / <text 1..64>
   │  ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> <alphanum-name 1..19> /
   │             *SECRET

,INFORMATION = *STD / *ALL-ATTRIBUTES / *NAMES-ONLY

,OUTPUT = *SYSOUT(...) / *SYSLST(...)

   *SYSOUT(...) / *SYSLST(...)
   │  LAYOUT = *STD / *CSV
```

Operands

PARTNER = <text 1..200 with-low>
Name of the partner system as defined by the FT administrator in the partner list or the
address of the partner system. For more information on address specifications, see section
"Specifying partner addresses" on page 48.

FILE =
Name of the file in the remote FT partner system.

FILE = *NOT-SPECIFIED
The name of the file is known to the remote system because it has already been completely
defined in the addressed FTAC admission profile, for instance.

FILE = <filename 1..54> / <c-string 1..512 with-low>
Name of the file in the remote system. The file name must be specified in the syntax of the
remote system and conform to the conventions of the remote system.
If the file name is specified with an unaccessible Public Volume Set, the request is rejected
with the error message FTR2202.

FILE = *DIRECTORY(...)
Name of the directory.

NAME =
Name of the directory in the remote FT partner system.

NAME = *NOT-SPECIFIED
The name of the directory is known to the remote system because it has already been completely defined in the addressed FTAC admission profile, for instance.

NAME = <c-string 1..512 with-low> / <partial-filename 2..53>
Name of the directory in the remote FT partner system. The directory name must be specified in the syntax of the remote system and must conform to the conventions of the remote system
If the remote system is a BS2000 or z/OS system, you can specify a partially qualified file name, e.g. HUGO. All file names addressed by the partial qualification (e.g. HUGO.MAIER, HUGO.MULLER) are output.

> **i** If the partner is a BS2000 system and the file name is the name of a file generation group then the request is rejected with message FTR2148:
> `Remote system: Transfer of file generation groups not supported`

PASSWORD =
Password that allows the user to access the file attributes in the remote system. If the file in the remote system is protected by a password, the password must be specified in the operands required to read file attributes in the remote system. If the remote system is a Windows or Unix system, no password is required.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <integer -2147483648..2147483647> / <c-string 1..64 with-low> / <x-string 1..128>
Password that allows the user to access the file in the remote system. The password must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on the screen.

TRANSFER-ADMISSION =
Transfer admission in the remote system for the file management request.

TRANSFER-ADMISSION = *NONE
The remote system does not require or recognize any user authorization.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>
The transfer admission for the remote system can only be defined in an FT profile if FTAC functionality has been installed on the remote system. In this case, only the TRANSFER-ADMISSION defined in the FT profile is specified. The alphanumeric entry is converted internally to lowercase characters.

TRANSFER-ADMISSION = *SECRET
The system prompts you to enter the transfer admission. However, the input is not displayed on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)
Identification, account number and password of the user in the remote system. The operands in brackets can also be used as positional operands without their keywords.

USER-IDENTIFICATION = <name 1..8> / <c-string 1..64 with-low>
Identification of the user in the remote system. The identification must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

ACCOUNT = <u>*NONE</u> / <c-string 1..64 with-low> / <text 1..64>
Account number of the user in the remote system. The account number must be specified in the syntax of the remote system and must conform to the conventions of the remote system.

PASSWORD =
Password that allows the user to access the remote system.

PASSWORD = <u>*NONE</u>
Access is possible without a password.

PASSWORD =
<c-string 1..64 with-low> / <x-string 1..128> / <alphanum-name 1..19>
Password that allows the user to access the remote system. The password must be specified in the syntax of the remote system, must conform to the conventions of the remote system, and must be recognized by the remote system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on the screen.

INFORMATION =
Amount of information required. The amount of information is also dependent on the amount of information supplied by the partner. Therefore, only some attributes may be displayed, even if you requested full information.

INFORMATION = <u>*STD</u>
The default range of information is output.

INFORMATION = *ALL-ATTRIBUTES
All available information is requested on the file in the partner system. However, only attribute values returned by the partner system can be displayed.

INFORMATION = *NAMES-ONLY
Only the names of the directory files or the name of the file is listed.

OUTPUT =
Output medium.

OUTPUT = <u>*SYSOUT</u>(...)
Output is send to SYSOUT.

OUTPUT = *SYSLST(...)
Output is send to SYSLST.

LAYOUT = <u>*STD</u>
Output is put into a user-friendly form for reading.

LAYOUT = *CSV
Output is in **C**haracter **S**eparated **V**alues format. This is a special, tabular format, widely used in the PC world, in which the individual fields are separated by a semicolon ";" (see).

Command return codes

(SC2)	SC1	Maincode	Meaning
0	130	FTR0108	Request rejected. Remote system not accessible.
33	32	CMD0221	Request rejected. Internal error.
36	32	CMD0221	Request rejected. Request data inconsistent.
83	32	CMD0221	Internal error.
37	64	FTR2037	File is read only.
43	64	FTR2043	Access denied.
120	64	FTR2120	Remote system unknown in the local system.
123	64	FTR2123	Request rejected. OSS call error. The command was not executed because the session instance detected a communication error.
148	64	FTR2148	Request rejected. Remote system: Transfer of file generation groups not supported.
152	64	FTR2152	Request rejected. Remote system: No file name specified.
153	64	FTR2153	Request rejected. Remote system: Invalid management password.
155	64	FTR2155	Request rejected. Remote system: File not found.
169	64	FTR2169	Request rejected. Remote system: Transfer admission invalid. Transfer admission incorrect or insufficient FTAC authorizations.
170	64	FTR2170	Request rejected. Remote system: Function not supported.

SC1/2 = Subcodes 1/2 in decimal notation
For additional information, see .

OPS variables

The following table shows the OPS variables for the command SHOW-REMOTE-FILE-ATTRIBUTES with the operand INF=*ALL-ATTRIBUTES, the underlined values are only valid for the output with the operand INF=*STD. For the operand input INF=*NAMES-ONLY only the element F-NAME (string) will be output.

Element	Type	Output
F-NAME	String	
STOR-ACCOUNT	String	
CRE	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
MODIFY	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
READ	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
MOD-ATTR	Struct	
.USER	String	
.DATE	String	yyyy-mm-dd
.TIME	String	hh:mm:ss
DATA-TYPE	String	*CHAR / *BINARY / *DIR / *NO-INFO
CHAR-SET [1]	String	*GRAPHIC / *GENERAL / *IA5 / *VISIBLE
REC-FORM	String	*VAR / *FIXED / *UNDEF
REC-SIZE	Integer	
F-AVAIL	String	*IMMED / *DEFERRED
ACCESS-RIGHTS	Struct	
.READ-F	String	*YES / *NO
.INS-DATA-UNIT	String	*YES / *NO
.REPLACE-F	String	*YES / *NO
.EXTEND-F	String	*YES / *NO

Element	Type	Output
.ERASE-DATA-UNIT	String	*YES / *NO
.READ-ATTR	String	*YES / *NO
.MOD-ATTR	String	*YES / *NO
.DEL-F	String	*YES / *NO
.TRAVERSAL	String	*YES / *NO
.REV-TRAVERSAL	String	*YES / *NO
.RANDOM	String	*YES / *NO
F-SIZE	Integer	
MAX-F-SIZE	Integer	
LEGAL-QUALIFICATION	String	
CCS-NAME	String	Value

[1] The element CHAR-SET is only assigned if DATA-TYPE=*CHAR.

3.43.1   Output of SHOW-REMOTE-FILE-ATTRIBUTES

Default output


```
tr-pxeacd--- IDENTITY STORAGE-ACCOUNT 1234567890 Apr 30 11:55  FILENAME
```

filename

date / time
of last modification

current size of file

account number

file creator

access rights
file type

Long output form

```
FILENAME=REMDATEI
STORAGE-ACCOUNT=a1234ft
CRE    MAIER DATE=Nov 19 11:55
MOD    DATE=Apr 28 15:54
REA    DATE=Apr 30 09:01
CHARACTERSET=g   RECORD-FORMAT=v   RECORD=SIZE=1200
FILE-AVAILIBILITY=I ACCESS=RIGHTS=r-pxeacd---     FILESIZE=123456
MAX-FILESIZE=1234567 LEGAL-QUALIFICATION=STRING
```

3.43.2   Description of output fields of SHOW-REMOTE-FILE-ATTRIBUTES

CHARACTERSET – File type

This specifies the file type. This field can have the following values in the default output:

- t   file contains text
- b   file contains binary data
- d   directory
- *   no information on data structure available

The long output form is as follows:

BINARY-FILE   binary file
DIRECTORY   directory
CHARACTERSET text file *

For text files (CHARACTERSET=), the character set of the characters of the text file is indicated. The field can have the following values:

g   graphic string *)
    The file can contain characters from the G0 set of ISO646 or from the G0 set of ISO8859-1 and the G1 set of ISO8859-1.
c   general string *)
    The file can contain characters from the C0 set of ISO646 and either from the G0 set of ISO646 or ISO8859-1 and from the G1 set of ISO8859-1.
i   IA5 string *)
    The file can contain characters from the C0 set and G0 set of ISO646.
v   visible string *)
    The file can contain characters from the G0 set of ISO646.

Values marked with * are only relevant for FTAM.

ACCESS-RIGHTS – Access rights

Contains information about how a file can be accessed. The field can contain the following values:

r   file can be sent.
i   data units can be entered. *)
p   file can be overwritten.
x   file can be expanded, i.e. data can be added to the file.
e   data units can be deleted from the file.
a   file attributes can be read.
c   file attributes can be modified.
d   file can be deleted.
t   access direction forwards (traversal) *)
v   access direction backwards (reverse traversal) *
r   random access *)

Values marked with * are only relevant for FTAM.

File creator

Identity of the person who created the file. In BS2000, the information consists of the user ID under which the file is created. In Unix systems, this value generally indicates the owner of the file. The field can be up to 32 characters long.

STORAGE-ACCOUNT – Account number

FTAM-specific value. It contains the account number for which the costs are calculated for saving the file in the remote system.

FILESIZE – Current file size in bytes

This contains the current size of the file in bytes. The output is only as accurate as the information returned by the partner system. Since the files can be set up differently in different systems, files of the same size may have different values in this field, depending on the system. Some memories assign multiples of basic units, or blocks, for file storage. Therefore, it is important that the value indicated here not be taken as the actual size, but rather be treated as a guideline.

In the case of LMS library members, it is particularly important to note that the displayed size is generally smaller than the file resulting from the transfer since library members can always be stored in compressed form (see the section "Structure of a library" in the LMS manual).

Date and time of last modification of file contents

This contains information on the time of the last modification. For modifications which have been made in the past six months, the output takes the form *MonthDayTime* (e.g. Apr 25 15:13); for modifications which were made over six months ago, the form is *MonthDayYear* (e.g. Apr 30 2017).

FILENAME – File name

This contains the file name.

The following values are only included in the long output form:

CRE, MOD, REA, ATM – Type of last file use

This contains information about how the file was last accessed. The following actions can be displayed:

CRE   file creation
MOD   modification of file contents (overwriting, expansion)
REA *   read file (send)
ATM *   modification of file attributes
Values marked with * are only relevant for FTAM.

It must be noted that it is left to the remote system to determine what information will be returned. Therefore, the lines with the information on the file use may look different for each partner system and contain different information. Generally, the information about the creation of the file is supplied, if nothing else.

Information about the modification of file contents or file attributes, about sending a file, or about when the file was last used may not be included.

Name of last file user

Identity of the last user who accessed the file in a particular way.

RECORD-FORMAT – Record format

This contains the format of the transferred records. Possible values are:

v   variable length records
f   uniform length records
u   no record structure or variable length records, all of which are terminated by CRLF (carriage return line feed) for transfer.

RECORD-SIZE – Maximum record length

This contains the maximum length of the transferred records.

FILE-AVAILABILITY – File availability

FTAM-specific value. The field can have the following values:

i   the file is available immediately (immediate).
d   the file is not available immediately (deferred).
    The meaning of the word "deferred" is determined by the partner system.

MAX-FILESIZE – Possible file size in bytes

FTAM-specific value. It contains the possible file size. The specification is only as accurate as the information sent by the partner system. Since the files can be set up differently in different systems, files of the same size may have different values in this field, depending on the system. Therefore, it is important that the value indicated here not be taken as the actual size, but rather be treated as a guideline.

LEGAL-QUALIFICATION – Legal qualification

FTAM-specific value which contains the legal qualifications for a file (in lieu of a copyright).

Examples

1. You wish to output the standard information on the REMFILE in the BS2000 computer with the symbolic name HUGO under the login JIM with account number A1234FT and password C'PWD'.

```
/SHOW-REMOTE-FILE-ATTRIBUTES PARTNER = HUGO,FILE-NAME = REMFILE,     -
/                           TRANSFER-ADMISSION = (JIM,A1234FT,C'PWD')

%*r-pxeacd--- JIM              1234567890 Apr 30 11:55 REMFILE
```

Short form:

```
/SH-REM-FI-ATT HUGO,REMFILE,,(JIM,A1234FT,'PWD')
```

2. You wish to output detailed information on the attributes of the REMFILE file on the FTAM partner system with the symbolic name HUGO under the login JIM with the account number A1234FT and password C'PWD':

```
/SHOW-REMOTE-FILE-ATTRIBUTES PARTNER = HUGO,FILE-NAME = REMFILE,        -
/                           TRANSFER-ADMISSION = (JIM,A1234FT,C'PWD'),  -
/                           INFORMATION = *ALL-ATTRIBUTES

%FILENAME=REMFILE
%CRE    JIM
%MOD    DATE=Apr 28 15:54
%RECORD-FORMAT=v
%ACCESS=RIGHTS=r-pxeacd---    FILESIZE=123456
```

Short form:

```
/SH-REM-FI-ATT HUGO,REMFILE,,(JIM,A1234FT,'PWD'),*ALL
```

3. You wish to obtain comprehensive information concerning the attributes of the POSIX
    files in the remote system *compute1*. The transfer admission for the remote system is
    number13.

    a) The output relates to the POSIX directory file:

    ```
    /SHOW-REMOTE-FILE-ATTRIBUTES compute1,*DIR('./file'),,number13

    %*r-pxeacd--- AXL                     2416640 Feb 13 10:18 FUTURE-E.28
    %*r-pxeacd--- AXL                    26365952 Feb 09 09:36 FUTURE-E.26
    %tr-pxeacd--- AXL                        2048 Feb 16 15:24 TEST
    %*r-pxeacd--- AXL                      524288 Jan 26 10:11 NSTD
    ```

    b) Output is requested for the POSIX file named file.test:

    ```
    /SHOW-REMOTE-FILE-ATTRIBUTES compute1,'./file.test',,number13

    %*r-pxeacd--- axl                        2048 Feb 17 15:50 ./file.test
    ```

    c) The output is requested for the entire directory:

    ```
    /SHOW-REMOTE-FILE-ATTRIBUTES compute1,*DIR('./.'),,number13

    %*r-pxeacd--- axl                           0 Feb 17 16:55 Z1.FUTURE-F.780
    %*r-pxeacd--- axl                           0 Feb 22 10:05 Z1.FUTURE-F.1060
    %*r-pxeacd--- axl                      261389 Feb 17 11:32 F-703-0BUP
    %*r-pxeacd--- axl                           0 Feb 20 10:39 SCRATCH
    %*r-pxeacd--- axl                       21511 Feb 22 10:46 Z3.FUTURE-F.107
    %*r-pxeacd--- axl                      199355 Feb 17 11:20 Z1.FUTURE-F.739
    %*r-pxeacd--- axl                       19899 Feb 17 10:23 Z1.FUTURE-F.693
    %*r-pxeacd--- axl                           0 Feb 15 20:40 F-291-0BM8
    %*r-pxeacd--- axl                           0 Feb 15 16:28 F-172-0BM7
    %*r-pxeacd--- axl                        2048 Feb 17 15:50 file.test
    ```

4. All files that start with FILE. are to be displayed:

    ```
    /SHOW-REMOTE-FILE-ATTRIBUTES compute1,*DIR(file.),,number13

    %*r-pxeacd--- AXL                     2416640 Feb 13 10:10 INCOMING
    %*r-pxeacd--- AXL                    26365952 Feb 09 09:36 OUTGOING
    ```

5. All characteristics of the file FILE.TEST should be displayed in CSV format at the
    system PARTBS2:

    ```
    /SH-REM-FI PARTBS2,FILE.TEST,,transadm,OUT=*SYSOUT(*CSV),INF=*ALL

    FileName;StorageAccount;CreIdentity;CreTime;ModIdentity;ModTime;
    ReaIdentity;ReaTime;AtmIdentity;AtmTime;FileType;CharSet;RecFormat;
    RecSize;FileAvail;AccessRights;FileSize;MaxFileSize;LegalQualif;CcsName
    "FILE.TEST";*NSPEC;"UID";*NSPEC;*NSPEC;2012-07-05 14:43:13;*NSPEC;
    *NSPEC;*NSPEC;*NSPEC;*NSPEC;*NSPEC;*VAR;*NSPEC;*NSPEC;r-pxeacd---;2048;
    *NSPEC;*NSPEC;*NSPEC
    ```

6. The properties of the PLAM library TESTLIB are to be displayed.

   PLAM libraries are addressed as directory structures:
   Library/Type/Member or Library/Type/Member()/Member(Version)

   a) To list all types of a library:

   ```
   /SHOW−REM−FIL−ATTR PCVQ7C2,*DIR('TESTLIB'),,TRANSADM

   %dr−pxeacd−−− TSOS                       Jul 25 13:06 s
   %dr−pxeacd−−− TSOS                       Jul 25 13:06 x
   ```

   b) To list all members of a type:

   ```
   /SHOW−REM−FIL−ATTR PCVQ7C2,*DIR('TESTLIB/S'),,TRANSADM
   *r−pxeacd−−− TSOS              2048  Jul 25 13:05 test
   dr−pxeacd−−− TSOS                    Jul 25 13:06 test()
   *r−pxeacd−−− TSOS              2048  Jul 25 13:06 test.outfile
   ```

   Note:
   All members of a type are listed as files in the directory of this type. When transfer
   takes place, the highest version (or Version @) is supplied. If more than one version
   of a member exists, a Member() directory is also displayed in which the other
   versions of the member are contained.

   c) To list all additional versions of the member test:

   ```
   /SHOW−REM−FIL−ATTR PCVQ7C2,*DIR('TESTLIB/S/test()'),,TRANSADM
   *r−pxeacd−−− TSOS              2048  Jul 25 13:06 test(12)
   ```

   d) To display the highest version of the member test:

   ```
   /SHOW−REM−FIL−ATTR PCVQ7C2,'TESTLIB/S/test',,TRANSADM
   *r−pxeacd−−− TSOS              2048  Jul 25 13:05 testlib/s/test
   ```

   e) To display Version 12 of the member test:

   ```
   /SHOW−REM−FIL−ATTR PCVQ7C2,'TESTLIB/S/test()/test(12)',,TRANSADM

   *r−pxeacd−−− TSOS              2048  Jul 25 13:06
   testlib/s/test()/test(12)
   ```

3.44 START-FT
Activate openFT

Note on usage

User group: FT administrator

Alias name: FTSTART

Functional description

The START-FT command is used to activate the specified openFT instance. If you have not selected another openFT instance using SET-FT-INSTANCE, then you start the standard instance.

The command is only executed if openFT is not already active.

If the request queue contains file transfer requests for which the corresponding (remote) FT systems have also been started, these requests are started directly after openFT starts – provided the resources are available and no other start time has been defined.

It is possible to send SNMP traps, Console traps and ADM traps on START-FT.

Adequate steps must also be taken to ensure that all pubsets are available. Otherwise locally submitted requests that require unavailable pubsets are terminated with an error message. If this happens, the user cannot be notified by a result list or job variable.

If, in BCAM, the MAXMAP parameter of the BCMAP FUNCT=INIT command is used, the command must be unconditionally created before starting openFT.

If the openFT instance is to run under a virtual host name, the virtual host name must first be entered using MODIFY-FT-OPTIONS before the START-FT.

Format

START-FT / FTSTART

Without operands

Correct execution of the START-FT command is acknowledged with the following message:

FTR0500 openFT 12.1A00 starting. Protocols: openFT,FTAM, FTP, ADM

or

FTR0500 openFT 12.1A00 starting. Protocols: openFT,FTAM

(Here only the installed products or the activated protocols are displayed.)

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	openFT system activated. The SYSOUT message contains the openFT version as an insert.
83	32	CMD0221	Internal error.
1	0	FTR1020	Command rejected. openFT already started.
35	64	FTR1035	Command only permissible for FT administrator.
42	64	FTR1042	openFT could not be started.

SC1/2 = Subcode 1/2 in decimal notation
For additional information, see .

3.45 START-OPENFTPART List partner systems as command procedure

Note on usage

User group: FT administrator

Functional description

The START-OPENFTPART command can be used to have all partner systems listed as a command procedure. MODIFY-FT-PARTNER commands are generated. This procedure can then be used to back up and maintain the partner list.

Format

START-OPENFTPART

OUTPUT = <filename>

,**PARTNER** = ***ALL** / <text 1..8>

Operands

OUTPUT = <filename>
Name of the file to be created.

PARTNER = *ALL
All partner systems are included in the command procedure.

PARTNER = <text 1..8>
Name of the partner system (or partner systems) that is to be included in the command procedure.
This entry may be specified as a unique partner name (1 - 8 alphanumeric characters) or as a group of partners (1 - 7 characters, which must end with an asterisk "∗").

3.46 STOP-FT
Deactivate openFT

Note on usage

User group: FT administrator

Alias name: FTSTOP

Functional description

The STOP-FT is used to initiate deactivation of the specified openFT instance and stop openFT.

The command is only executed if the instance has been started.

It is possible to send SNMP traps on STOP-FT.

Format

STOP-FT / **FTSTOP**

Without operands

Correct execution of the STOP-FT command is acknowledged with the following message:

```
%  FTR0501 openFT terminated
```

Command return codes

(SC2)	SC1	Maincode	Meaning
0	0	CMD0001	openFT system is terminated.
83	32	CMD0221	Internal error.
35	64	FTR1035	Command only permissible for FT administrator.
1	0	FTR1039	Command rejected. openFT is not active.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

Example

Activate the local openFT system and subsequently deactivate the FT system:

```
/START-FT
FTR0500 openFT 12.1A00 starting. Protocols: openFT,FTAM,FTP,ADM
.
.
/STOP-FT
FTR0501 openFT terminated
.
.
FTR0361 openFT control process terminated
```

Output from the console message FTR0361 can be controlled using MODIFY-FT-OPTIONS ...CONSOLE-TRAPS, e.g. with FT-STATE=*ON.

3.47 TRANSFER-FILE
Transfer file asynchronously

Note on usage

User group: FT user

Alias names: TFF / NCOPY / FTACOPY

Functional description

The TRANSFER-FILE command can be used to transfer a file or a library member to or from a partner system.

The local system is regarded as the system in which the command is issued, or in this case, the BS2000 computer. The partner system is designated as the remote system.

3.47.1 Introduction to the TRANSFER-FILE command

If you wish to transfer a file, you must first indicate whether you wish to send (TO) the file or receive (FROM) it by using the operand TRANSFER-DIRECTION.

Following this the PARTNER operand is used to define the system with which the transfer is to take place.

The next step is to define the characteristics of the local system by using the LOCAL-PARAMETER operand. The structure specifications for the LOCAL-PARAMETER are to be entered in parentheses, i.e. LOCAL-PARAMETER=(...).

The REMOTE-PARAMETER operand contains details of the remote system. The structure specifications for the REMOTE-PARAMETER must also be entered in parentheses, i.e. REMOTE-PARAMETER=(...). In addition, the partner system type may also be specified before these parentheses; the possible entries are *BS2000, *MSP (for a partner system with z/OS) or *ANY (see page 406).

The remaining "optional" operands (see page 421) are used to define the other characteristics of the file transfer, such as compressed or encrypted transfer or the starting time for the transfer.

3.47.1.1   The shortest form of the command

The mandatory parameters for the TRANSFER-FILE command are the entries for
–   direction of transfer
–   name of the remote system
–   name of the file in the local system (mandatory if FTAC is not implemented)

A file transfer can be effected using these three parameters alone, if:
–   the user ID for the data transfer is the same in both systems
–   the user ID is not password-protected
–   the FT user issues the command under this user ID
–   the file name is the same in both systems
–   the send and receive files are not password-protected

3.47.1.2   How to find out if the file transfer request has been executed

The command SHOW-FILE-TRANSFER can be used to establish the status of file transfer requests that are not yet complete. On completion of a transfer, the result is stored in a logging record.

It is also possible to use the TRANSFER-FILE command to request that a result message be generated. There are three ways of generating such a message:

–   allow the result message to be created by the system
–   have a user-generated result message output as follow-up processing
–   use a job variable to monitor the FT request (not for requests with FTAM partners)

A system-generated message can only be requested in the local system. This is achieved using the LISTING operand which enables you for example to order a result list in all cases (LISTING=*PARAMETER(CONDITION=ANY)), or to order a result list only when the file transfer is aborted due to an error (LISTING=*PARAMETER(CONDITION=ON-FAILURE-ONLY)). The result list can be output to SYSLST or to a file. By default, no result list is created.

Follow-up processing can also be requested in the TRANSFER-FILE command. There are four types of follow-up processing:

–   follow-up processing in the local system if the file transfer has been successfully completed

– follow-up processing in the remote system if the file transfer has been successfully completed
– follow-up processing in the local system if the file transfer has been aborted because of an error
– follow-up processing in the remote system if the file transfer has been aborted because of an error.

Follow-up processing after a successful file transfer can be defined for both systems by the operand SUCCESS-PROCESSING, while that following a failed file transfer is defined by FAILURE-PROCESSING.

If follow-up processing is to take place under a different user ID from that specified by TRANSFER-ADMISSION, then that user ID can be specified using the PROCESSING-ADMISSION operand.

3.47.2 Full form of the TRANSFER-FILE command

Format

(part 1 of 6)

TRANSFER-**FILE** / **TFF** / **NCOPY** / **FTACOPY**
TRANSFER-**DIR**ECTION = **TO-**PARTNER / **FROM-**PARTNER ,**PART**NER = \<text 1..200 with-low>

```
,LOCAL-PARAMETER = *PARAMETERS(...)

   *PARAMETERS(...)
        FILE-NAME = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> /
              *LIBRARY-ELEMENT(...) / *POSIX(NAME=<posix-pathname 1..510>)
           *LIBRARY-ELEMENT(...)
                 LIBRARY = *NOT-SPECIFIED / <filename 1..54>
                 ,ELEMENT = *NOT-SPECIFIED / <filename 1..64 without-gen-vers>(...) /
                            <composed-name 1..64 with-under>(...)
                      <filename>(...) / composed-name>(...)
                         VERSION = *STD / <text 1..24>
                 ,TYPE = *NOT-SPECIFIED / <alphanum-name 1..8>
        ,PASSWORD = *NONE / <c-string 1..4> / <x-string 1..8> /
                    <integer -2147483648..2147483647> / *SECRET
        ,TRANSFER-ADMISSION = *SAME / <alphanum-name 8..32> / <x-string 15..64> /
                                   <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)
           *PARAMETERS(...)
                 USER-IDENTIFICATION = <name 1..8>
                 ,ACCOUNT = *NONE / <alphanum-name 1..8>
                 ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
           *PARAMETERS(...)
                 USER-IDENTIFICATION = <name 1..8>
                 ,ACCOUNT = *NONE / <alphanum-name 1..8>
                 ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
        ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
        ,LISTING = *NONE / *SYSLST / *LISTFILE / *PARAMETERS(...)
           *PARAMETERS(...)
                 OUTPUT = *SYSLST / *LISTFILE
                 ,CONDITION = *ANY / *ON-FAILURE-ONLY
        ,MONJV = *NONE / <filename 1..54>
        ,JV-PASSWORD = *NONE / <c-string 1..4> / <x-string 1..8> /
                    <integer -2147483648..2147483647> / *SECRET
        ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

(part 3 of 6)

```
,REMOTE-PARAMETER = *BS2000(...) / *MSP(...) / *ANY(...)

   *BS2000(...)
        FILE-NAME = *SAME / *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> /
                    *LIBRARY-ELEMENT(...) / *POSIX(NAME=<posix-pathname 1..510>)

           *LIBRARY-ELEMENT(...)
                LIBRARY = *SAME / *NOT-SPECIFIED / <filename 1..54>
                ,ELEMENT = *SAME / *NOT-SPECIFIED /
                           <filename 1..64 without-gen-vers>(...) / <composed-name 1..64 with-under>(...)
                   <filename>(...) / <composed-name>(...)
                        VERSION = *SAME / *STD / <text 1..24>
                ,TYPE = *SAME / *NOT-SPECIFIED / <alphanum-name 1..8>
        ,PASSWORD = *SAME / *NONE / <c-string 1..4> / <x-string 1..8> /
                    <integer -2147483648..2147483647> / *SECRET
        ,TRANSFER-ADMISSION = *SAME / <alphanum-name 8..32> / <x-string 15..64> /
                              <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)

           *PARAMETERS(...)
                USER-IDENTIFICATION = <name 1..8>
                ,ACCOUNT = *NONE / <alphanum-name 1..8>
                ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)

           *PARAMETERS(...)
                USER-IDENTIFICATION = <c-string 1..8>
                ,ACCOUNT = *NONE / <alphanum-name 1..8>
                ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,SUCCESS-PROCESSING = *NONE / <c-string 1..1000 with-low>
        ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
        ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
        ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)

           *PARAMETERS(...)
                READ-FILE = *NO / *YES
                ,INSERT-DATA-UNIT = *NO / *YES
                ,REPLACE-FILE = *NO / *YES
                ,EXTEND-FILE = *NO / *YES
                ,ERASE-DATA-UNIT = *NO / *YES
                ,READ-ATTRIBUTES = *NO / *YES
                ,CHANGE-ATTRIBUTES = *NO / *YES
                ,DELETE-FILE = *NO / *YES
        ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

```
*MSP(...)
    FILE-NAME = *NOT-SPECIFIED / <text 1..56>
    ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
    ,TRANSFER-ADMISSION = <alphanum-name 8..32> / <x-string 15..64> / <c-string 8..32 with-low> /
                          *SECRET / *PARAMETERS(...)
        *PARAMETERS(...)
            USER-IDENTIFICATION = <name 1..7>
            ,ACCOUNT = *NONE /<text 1..43>
            ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
    ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
        *PARAMETERS(...)
            USER-IDENTIFICATION = <name 1..7>
            ,ACCOUNT = *NONE /<text 1..43>
            ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
    ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
    ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
    ,CODED-CHARACTER-SET = *STD / <name 1..8>
*ANY(...)
    FILE-NAME = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> /
                *LIBRARY-ELEMENT(...)
        *LIBRARY-ELEMENT(...)
            LIBRARY = *NOT-SPECIFIED / <c-string 1..63 with-low>
            ,ELEMENT = *NOT-SPECIFIED / <c-string 1..64 with-low>(...)
                <c-string 1..64 with-low>(...)
                    VERSION = *NONE / *STD / <c-string 1..24 with-low>
            ,TYPE = *NONE / *NOT-SPECIFIED / <c-string 1..8 with-low>
    ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / *SECRET
    ,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <x-string 15..64> /
                          <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)
        *PARAMETERS(...)
            USER-IDENTIFICATION = <c-string 1..67 with-low>
            ,ACCOUNT = *NONE / <c-string 1..64 with-low>
            ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
    ,PROCESSING-ADMISSION = *SAME / *NONE / *PARAMETERS(...)
        *PARAMETERS(...)
            USER-IDENTIFICATION = <c-string 1..67 with-low>
            ,ACCOUNT = *NONE / <c-string 1..64 with-low>
            ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
```

```
              ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
              ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
              ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
              ,STORAGE-ACCOUNT = *NONE / <c-string 1..40 with-low> / <text 1..40>
              ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)
                 *PARAMETERS(...)
                      READ-FILE = *NO / *YES
                     ,INSERT-DATA-UNIT = *NO / *YES
                     ,REPLACE-FILE = *NO / *YES
                     ,EXTEND-FILE = *NO / *YES
                     ,ERASE-DATA-UNIT = *NO / *YES
                     ,READ-ATTRIBUTES = *NO / *YES
                     ,CHANGE-ATTRIBUTES = *NO / *YES
                     ,DELETE-FILE = *NO / *YES
              ,LEGAL-QUALIFICATION = *NONE / <c-string 1..80 with-low> / <text 1..80>
              ,CREATE-PASSWORD = *NONE / <c-string 1..64 with-low> /  <x-string 1..128> / *SECRET
              ,CODED-CHARACTER-SET = *STD / <name 1..8>
,COMPRESS = *NONE / *BYTE-REPETITION / *ZIP

,WRITE-MODE = *REPLACE-FILE / *NEW-FILE / *EXTEND-FILE

,DATA-TYPE = *NOT-SPECIFIED / *CHARACTER (...) / *BINARY (...) / *USER

   *CHARACTER(...)
      │ TRANSPARENT = *NO / *YES

   *BINARY(...)
      │ TRANSPARENT = *NO / *YES

,PRIORITY = *NORMAL / *HIGH / *LOW

,START = *SOON / *EARLIEST(...)

   *EARLIEST(...)
      │ DATE = *TODAY / *TOMORROW / <date 8..10>
      │ ,TIME = 00:00 / <time 1..8>

,CANCEL = *NO / *AT(...)

   *AT(...)
      │ DATE = *TODAY / *TOMORROW / <date 8..10>
      │ ,TIME = 23:59 / <time 1..8>

,DATA-ENCRYPTION = *NO / *YES / *ONLY-DATA-INTEGRITY

,RECORD-SIZE = *NOT-SPECIFIED /<integer 1..32756>
      │ ,RECORD-FORMAT = *STD / *FIXED / *VARIABLE / *UNDEFINED
```

(part 6 of 6)

```
,TARGET-FILE-FORMAT = *SAME / *BLOCK-ORIENTED / *SEQUENTIAL(...)

   *SEQUENTIAL(…)
   │  RECORD-FORMAT = *SAME / *UNDEFINED

,PROTECTION = *STD / *SAME

,LAST-CHANGE-DATE = *STD / *SAME
```

Operands

TRANSFER-DIRECTION =
Direction of transfer.

TRANSFER-DIRECTION = TO-PARTNER
The local system is the send system. The files are dispatched to the partner system.

TRANSFER-DIRECTION = FROM-PARTNER
The local system is the receive system. The files are obtained from the partner system.

PARTNER = <text 1..200 with-low>
Name of the partner system as defined by the FT administrator in the partner list or the
address of the partner system. For more information on address specifications, see section
"Specifying partner addresses" on page 48.

Specifications for the local system (LOCAL-PARAMETER)

LOCAL-PARAMETER = *PARAMETERS(...)
Specifications for the local system.

   FILE-NAME =
   Name of the file or the library in the local system (send file or receive file).

   FILE-NAME = *NOT-SPECIFIED
   The name of the file is known locally because it has already been completely defined in
   the FTAC admission profile addressed locally.

   FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
   *POSIX(NAME = <posix-pathname 1..510>)
   When sending, the name of the file or preprocessing command, or, when receiving, the
   name of the postprocessing command. The specifications differ for with and without
   pre- and postprocessing.

*Specifications **without** pre- or postprocessing on FILE-NAME*

At this point, you must specify the name of the (DVS/POSIX) file in the local system:

– The DVS file name must be specified with a user ID ($userid.filename) if the file is
not cataloged under the user ID for which the file transfer is being executed (see
TRANSFER-ADMISSION operand). In this case, SHARE=YES must be set for the
file.

If the file name is specified in the form *$filename*, openFT adds the system default
user ID in BS2000 (usually $TSOS) to form *$defaultuserid.filename*.

– openFT offers an option with which unique file names can be generated automati-
cally in order to easily prevent conflict situations. This is achieved specifying the
string %UNIQUE in the file name.

– The POSIX file name can be specified relative to the HOME directory (entry: ./file)
if the file is cataloged in the directory associated with the user ID for which the file
transfer is being performed (see also the TRANSFER-ADMISSION operand). If the
file for which the file transfer is being executed is not cataloged in the directory of
the user ID, the POSIX file name must be entered with the full pathname
(entry: /file).

*Specifications **with** pre- or postprocessing on FILE-NAME*

– If you specify a preprocessing command when sending, the output from the prepro-
cessing command is sent to the standard output (SYSLST) before being trans-
ferred. You can also address the output from the preprocessing command via the
%TEMPFILE variable. The advantage of this is that the output can have any file
format and the file is transferred in this format. If you do not specify %TEMPFILE
then the output must take the form of a SAM-V file. Since the file attributes are not
known at the time the request is accepted, you should note the following if using
%TEMPFILE:
  – either the future file attributes must be specified as request attributes,
  – or the file must be transferred in transparent format (homogeneous).

– If you specify a postprocessing command when receiving, the received file is used
as input for the postprocessing command. This file can be addressed using the
variable %TEMPFILE. If %TEMPFILE is not specified, then read-in is done via
SYSDTA. In this case, the file must be a SAM-V or ISAM-V file.

For both pre- and postprocessing, a c-string must be specified on FILE-NAME. The first
character must be a pipe symbol '|', followed by the command string. If several
commands are specified, they must be separated by a semicolon (';'). If the pre-
/postprocessing is running in BS2000, a slash '/' must be placed in front of each
individual command. There must not be any blanks between the semicolon and the
slash.

Example
```
FILE-NAME=C'|/Command1;/Command2;/Command3; ...'
```

The total maximum length of commands is restricted to the maximum file name length. For more information refer to the section "Preprocessing and postprocessing" on page 55. Also refer to the topic "Preprocessing" at the example starting on page 429.

If an error occurs during command execution (in BS2000/JOB-STEP), transfer is aborted with message FTR2083 or FTR2084.

If a transfer request with preprocessing and postprocessing is to be restartable, the characters '|&' must be specified instead of '|'. For more details, also see section "Preprocessing and postprocessing" on page 55.

Example
```
FILE-NAME = C'|&/command1;/command2;/command3; ...'
```

FILE-NAME = *LIBRARY-ELEMENT(...)
A library member is to be transferred.
The operands in these parentheses can be used as positional operands without their keywords.

>   **LIBRARY =**
>   Name of the library in the local system.
>
>   **LIBRARY = *NOT-SPECIFIED**
>   If the FTAC functionality is used the name of the library can be predefined in an FT profile. The name of the library must not then be made known to the request submitter, nor may it be specified in the command.
>
>   **LIBRARY = <filename 1..54>**
>   Name of the library in the local system.
>
>   **ELEMENT =**
>   Name of the library member in the local system.
>
>   **ELEMENT = *NOT-SPECIFIED**
>   If the FTAC functionality is used the name of the library member can be predefined in an FT profile. The name of the library member must not then be made known to the request submitter, nor may it be specified in the command.
>
>   **ELEMENT = <filename 1..64 without-gen-vers>(...)**
>   **<composed-name 1..64 with-under>(...)**
>   Name of the library member in the local system.
>
>   >   **VERSION =**
>   >   Version of the element in the local system.
>   >
>   >   **VERSION = *STD**
>   >   Highest version of the member.

VERSION = <text 1..24>
Version of the member.

TYPE =
Type of the member in the local system.

TYPE = *NOT-SPECIFIED
If the FTAC functionality is used the name of the library member type can be
predefined in an FT profile. The type of library member does not have to be
specified in the command.

TYPE = <name 1..8>
Type of the member in the local system.

PASSWORD =
Password authorizing access to the file in the local system. If the file in the local system
is password-protected, the password must be specified in this operand as:

– a write password for a receive file, or
– a read password for a send or receive file that is not protected by a write password
  but by a read password, or
– a password for the execution of a send or receive file that is protected neither by a
  read nor by a write password but by an execute password.

Newly created receive files are not given a password by this operand. PASSWORD is
ignored in such cases.

PASSWORD = *NONE
Access is possible without a password.

**PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>**
Password authorizing access to the file in the local system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on
the screen.

TRANSFER-ADMISSION =
Transfer admission of the user for the local system.

TRANSFER-ADMISSION = *SAME
The ID of the user entering the command is valid for the file transfer.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <c-string 8..32 with-low> / <x-string 15..64>

If the FTAC functionality is used the file name for the local system can be defined in an FT profile. The transfer admission defined in the FT profile must be specified here. From this transfer admission the access rights in the local system can be defined. These access rights are also defined in the FT profile. The alphanumeric entry is converted internally to lowercase characters.

TRANSFER-ADMISSION = *SECRET

The system prompts you to enter the transfer admission. However, the input is not displayed on the screen.

TRANSFER-ADMISSION = *PARAMETERS(...)

User ID, account number and password under which file transfer in the local system is to be performed. The operands in parentheses can also be used a positional operands without their keywords.

USER-IDENTIFICATION = <name 1..8>

User ID in the local system.

ACCOUNT =

Account number under which file transfer is performed in the local system.

ACCOUNT = *NONE

The default account number of the user ID is used.

ACCOUNT = <alphanum-name 1..8>

Account number of the user in the local system.

PASSWORD =

Password authorizing the user to access the local system.

PASSWORD = *NONE

Access is possible without a password.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>

Password that authorizes the user to access the local system.

PASSWORD = *SECRET

The system prompts you to enter the password. However, the input is not displayed on the screen.

PROCESSING-ADMISSION =

Contains information concerning the authorization of a user in the local system to perform follow-up processing.

PROCESSING-ADMISSION = *SAME

The relevant TRANSFER-ADMISSION values (see above) of the local system apply.

PROCESSING-ADMISSION = *NOT-SPECIFIED
Only if FTAC functionality is used can the entry for PROCESSING-ADMISSION be
predefined by an FT profile. This entry must not be specified in the FT request.

PROCESSING-ADMISSION = *PARAMETERS(...)
User ID, account number and password of the user for whom the follow-up processing
is to be performed. The operands in parentheses can also be used as positional
operands without their keywords.

USER-IDENTIFICATION = <name 1..8>
User ID in the local system. This ID must be specified in the syntax of the local
BS2000 system.

ACCOUNT = *NONE
The default account number of the user ID specified in the USER-IDENTIFICATION
is used.

ACCOUNT = <alphanum-name 1..8>
Account number of the user in the local system. The account number must be
specified in the syntax of the local system

PASSWORD =
Password authorizing the user to access the local system.

PASSWORD = *NONE
Access is possible without a password.

PASSWORD = <c-string 1..8> / <c-string 9..32> / <x-string 1..16>
Password that authorizes the user to access the local system.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed
on the screen.

Follow-up processing in the local system

A command sequence can also be input for SUCCESS-PROCESSING and FAILURE-
PROCESSING. Each individual command must be preceded by a slash (/). The individual
commands must be separated by a semicolon. If a character string is enclosed in single or
double quotes (' or ") within a command sequence, openFT will not interpret any semicolon
present within this character string as a separator.

Example

```
SUCC = '/command1;/command2;/command3'
```

The entries for the operands SUCCESS-PROCESSING and FAILURE-PROCESSING may total up to 1000 characters. If the length limit for follow-up processing data is exceeded due to variable replacement, openFT ends the request and returns an error message.

Please refer to for details on follow-up processing such as using variables, for example.

SUCCESS-PROCESSING =
Follow-up processing to be executed in the local system after a successful file transfer.

SUCCESS-PROCESSING = *NONE
No follow-up processing to be executed.

SUCCESS-PROCESSING = <c-string 1..1000 with-low>
BS2000 commands to be executed in the local system after successful file transfer.

FAILURE-PROCESSING =
Follow-up processing to be carried out in the local system if an error is detected after setting up the link or during the file transfer.

FAILURE-PROCESSING = *NONE
No follow-up processing to be executed.

FAILURE-PROCESSING = <c-string 1..1000 with-low>
BS2000 commands to be executed in the local system after unsuccessful file transfer. The same specifications are hold for FAILURE-PROCESSING as for SUCCESS-PROCESSING, see above.

LISTING =
Requests a result list in the local system. This listing is generated for the user for whom file transfer is performed. The default setting for LISTING in the local parameters is *NONE.

LISTING = *NONE
No result list is generated.

LISTING = *SYSLST
A result list is printed out.

LISTING = *LISTFILE
openFT creates a result list and stores it under the ID specified in the local TRANSFER-ADMISSION operand. This file has the following name:

S.FT-BS2.*instance name*.*transfer-id*.LST

Here, *inst* stands for the instance name of the current openFT instance and t*ransfer-id*. for the identification number of the FT request.
This reference is output to the screen when acceptance of the request is confirmed.

LISTING = *PARAMETERS(...)
Requests a result list in the local system. The list is created for the user for whom file transfer is performed.

OUTPUT =
Output medium.

OUTPUT = *SYSLST
The result list is printed out.

OUTPUT = *LISTFILE
openFT stores the result list under the ID specified in the local TRANSFER-ADMISSION operand. This file has the following name:

S.FT-BS2.*instance name.transfer-id*.LST

For more information see LISTING=*LISTFILE on .

CONDITION =
Condition under which a result list should be generated.

CONDITION = *ANY
A result list is generated in every case.

CONDITION = *ON-FAILURE-ONLY
A result list is only generated when the file transfer is aborted with an error.

MONJV =
Specifies whether the FT request is to be monitored using a job variable.

MONJV = *NONE
The FT request is not monitored using a job variable.

MONJV = <filename 1..54>
Name of the job variable that is to monitor the transfer.

JV-PASSWORD =
Specifies whether a password is required in order to access the job variable.

JV-PASSWORD = *NONE
No password is required for the job variable.

JV-PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
Password that is required for the job variable.

JV-PASSWORD = *SECRET
The system prompts you to enter the password. However, the input is not displayed on the screen.

CODED-CHARACTER-SET =
Coding (character set) that is to be used to read or write the local file.

CODED-CHARACTER-SET = *STD
The character set used by default to read or write the local file is the character set predefined by XHCS.

CODED-CHARACTER-SET = <name 1..8>
Coding that is to be used to read or write the local file. The character set must be known in the local system.

Specifications for the remote system (REMOTE-PARAMETER)

REMOTE-PARAMETER =
Contains information about or for the remote system. This entry specifies the type of remote system. It also defines the syntax in which the remote system expects the value assignments.

REMOTE-PARAMETER = *BS2000(...)
The value assignments for the remote system are given in BS2000 syntax. The local system checks whether the specified values conform to this syntax.
In this case the default values of the operands for the remote system correspond to those specified for the local system. LOGON passwords are not defaulted, however.

REMOTE-PARAMETER = *MSP(...)
The value assignments for the remote system are in the syntax of the z/OS system. The local system checks if the values specified conform to this syntax.

REMOTE-PARAMETER = *ANY(...)
The local system does not check the syntax in which the value assignments for the remote system are specified. Value assignments for the local system cannot be used as default values for the remote system. The value assignments must be in single quotes. The single quotes within a value assignment must be doubled (e.g. PASSWORD= 'C''ABCD''').

FILE-NAME =
Name of the file or the library in the remote system (send file or receive file). It must be specified in the syntax and conform to the conventions of the remote system.

REMOTE-PARAMETER=	*BS2000	*MSP	*ANY
relevant for:	X	X	X
default value:	*SAME	*NOT-SPECIFIED	*NOT-SPECIFIED

openFT partners offer an option with which unique file names can be generated automatically in order to easily prevent conflict situations. This is achieved specifying the string %UNIQUE in the file name.

FILE-NAME = *SAME
relevant for *BS2000.

The file or the library member in the remote system has the same name as the file in the local system.

FILE-NAME = *NOT-SPECIFIED
relevant for *BS2000, *MSP and *ANY:
Only if FTAC functionality is used in the remote system can the file name be predefined, either partially or completely, in an FT profile. The file name or partial file name does not then have to be known to the request submitter. The file name may not be specified in the command.
relevant for *MSP:
The entry FILE-NAME=*NOT-SPECIFIED is only useful if an exit routine is installed in the remote system and the TRANSFER-ADMISSION for the remote system is an FT transfer admission. *NOT-SPECIFIED means in this case that the file name is taken from this exit routine and must not be specified in the command.
Default value if the remote system is an z/OS computer.

FILE-NAME = <filename 1..54> / <c-string 1..512 with-low> /
*POSIX(NAME = <posix-pathname 1..510>)
Name of the file or preprocessing command, when receiving, or of the postprocessing command, when sending. The specifications differ for **with** and **without** pre- and postprocessing.

*Specifications **without** pre- or postprocessing on FILE-NAME*

relevant for *BS2000 and *ANY
*POSIX syntax can only be used for BS2000 partners.

For DVS file names in the remote BS2000 system (send or receive file), the following applies:

– With *BS2000, this file name can be specified without a user ID if the file is cataloged under the user ID for which the file transfer is performed (TRANSFER-ADMISSION operand).
– This file name must be specified with a user ID ($userid.filename) if the file is not cataloged under the user ID for which the file transfer is performed (TRANSFER-ADMISSION operand).
– If an FT product is used in the remote BS2000 and this product carries out the customary BS2000 extension of file names of the form *$filename* to include the standard user ID, the file name may be specified in this form. If this is not the case an error will result.

For POSIX file names in the remote BS2000 system (send or receive file), the following applies:

– The POSIX file name can be specified relative to the HOME directory (entry: ./file) if the file is cataloged in the directory associated with the user ID for which the file transfer is being performed. If the file for which the file transfer is being executed is

not cataloged in the directory of the user ID, the POSIX file name must be entered with the full pathname (entry: /file) (see also the TRANSFER-ADMISSION operand).

*Specifications **with** pre- and postprocessing on FILE-NAME*

If you specify a preprocessing command when receiving, the result from the preprocessing command is sent to the remote system's standard output (BS2000 systems: SYSLST; z/OS: SYSPRINT) before being transferred. You can also address the output from the preprocessing command via the %TEMPFILE variable. The advantage of this is that the output can have any file format and the file is transferred in this format. If you do not specify %TEMPFILE then the output must have a format which is permitted at the remote system's standard output, i.e. in BS2000 systems it must take the form of a SAM-V file. On z/OS, this is a PS file with a variable block size.

Since the file attributes are not known at the time the request is accepted, you should note the following if using %TEMPFILE:
–   either the future file attributes must be specified as request attributes,
–   or the file must be transferred in transparent format (homogeneous).

If you specify a postprocessing command when sending, the transferred file is used as input for the postprocessing command. This file can be addressed with the variable %TEMPFILE. If %TEMPFILE is not specified, read-in is done via the standard input (BS2000: SYSDTA, z/OS:SYSUT1). If the remote system is a BS2000-System, the file must be a SAM-V or ISAM-V file. On z/OS, this is a PS file with a variable block size.

For both pre- and postprocessing, a c-string must be specified on FILE-NAME. The first character must be a pipe symbol '|', followed by the command string. If several commands are specified, they must be separated by a semicolon (';'). If the pre-/postprocessing is running in BS2000, a slash '/' must be placed in front of each individual command. There must not be any blanks between the semicolon and the slash.

Example
```
FILE-NAME=C'|/Command1;/Command2;/Command3; ...'
```

The maximum length of the entire command is limited to the maximum length of the file name. You will find more detailed information on this in the examples starting on

If an error occurs while executing the individual commands (in BS2000 /JOB-STEP), the transfer is aborted and the message FTR2206 or FTR2207 appears.

If a transfer request with preprocessing and postprocessing is to be restartable, the characters '|&' must be specified instead of '|'. For more detailed information, also see

Example
```
FILE-NAME = C'|&/Command1;/Command2;/Command3; ...'
```

FILE-NAME = <text 1..56>
relevant for *MSP.
Name of the file in remote z/OS system (send or receive file):

– This file name can be specified without a user ID if the file is cataloged under the user ID for which the file transfer is performed (TRANSFER-ADMISSION operand).
– This file name must be specified with a user ID ($userid.filename) if the file is not cataloged under the user ID for which the file transfer is performed (TRANSFER-ADMISSION operand).
– With FILE-NAME =<text 1..56>, library members in z/OS can also be addressed, if the FT products used in the partner system support the transfer of library members.

FILE-NAME = *LIBRARY-ELEMENT(...)

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
only relevant for:	X	[1]	X
default value:	*SAME		*NOT-SPECIFIED

[1] For z/OS systems, library members must be defined with FILE-NAME=.

Specifies that a library member is to be transferred. *NOT-SPECIFIED for all three operands is invalid, because the entry would not guarantee access to a library member in the remote system.
If library members are transferred onto library members, and if these members are administered in both systems with the library management program LMS, then the FT request must contain the same member type for both the local and the remote system.

Furthermore, the remote system must be capable of processing library members.

LIBRARY =
Name of the library in the remote system.
For file transfer with FTAM partners, only library members in the local BS2000 system can be accessed.

LIBRARY = *SAME
relevant for BS2000.
The library name in the remote system is the same as the library name in the local system. This entry is only permitted if the operand LIBRARY-ELEMENT was specified in the local system.

LIBRARY = *NOT-SPECIFIED
relevant for *BS2000 and *ANY.

Only when FTAC functionality is used in the remote system can the name of the library be predefined in an FT profile. The name of the library must not then be made known to the request submitter, nor may it be specified in the command.

LIBRARY = <filename 1..64> / <c-string 1..512 with-low>
relevant for *ANY.
Name of the library in the remote system. It must be specified in the conventions of the remote system.

LIBRARY = <filename 1..54> / <c-string 1..512 with-low>
relevant for *BS2000.
Name of the library in the remote system. It must be specified in the conventions of the remote system.

ELEMENT =
Name of the library member in the remote system.

ELEMENT = *<u>SAME</u>
relevant for *BS2000.
The member name in the remote system is identical to the member name in the local system. This entry is only permitted for BS2000 systems, and only if the operand LIBRARY-ELEMENT was specified in the local system.

ELEMENT = *NOT-SPECIFIED
relevant for *BS2000 and *ANY.
Only when FTAC functionality is used in the remote system can the name of the library member be predefined in an FT profile. The name of the library member must not then be made known to the request submitter, nor may it be specified in the command.

**ELEMENT = <filename 1..64 without-gen-vers>(...) /
<composed-name 1..64 with-under>**
relevant for *BS2000.
Name of the library member in the remote system. It must be specified in the conventions of the remote system.

ELEMENT = <c-string 1..64 with-low>(...)
relevant for *ANY.
Name of the library member in the remote system. It must be specified in the conventions of the remote system.

   VERSION =
   Version of the member in the remote system.

   VERSION = *<u>SAME</u>
   relevant for *BS2000.

The version in the remote system is identical to the version in the local system. If a file name has been specified in the local system, then the highest version of the member is assumed as the entry for the remote system.

VERSION = *NONE
relevant for *ANY.
No specification of the version in the remote system must be made.

VERSION = *STD
relevant for *BS2000 and *ANY.
Highest version of the member

VERSION = <text 1..24>
relevant for *BS2000.
Version of the member.

VERSION = <c-string 1..24 with-low>
relevant for *ANY.
Version of the member. It must conform to the conventions of the remote system.

TYPE =
Member type in the remote system.

TYPE = *SAME
relevant for *BS2000.
The member type in the remote system is identical to the member type in the local system. If a file name is specified in the local system, then TYPE must not be specified.

TYPE = *NONE
relevant for *ANY.
The member type does not have to be specified in the remote system.

TYPE = *NOT-SPECIFIED
relevant for *BS2000 and *ANY.
Only when FTAC functionality is used in the remote system can the library member type be predefined in an FT profile. The type of the library member must not then be made known to the request submitter, nor may it be specified in the command.

TYPE = <name 1..8>
relevant for *BS2000.
Member type in the remote system. It must be specified in the conventions of the remote system.

TYPE = <c-string 1..8 with-low>
relevant for *ANY.
Member type in the remote system. It must be specified in the conventions of the remote system.

PASSWORD =

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
relevant for:	X	X	X
default value:	*SAME	*NONE	*NONE

Password authorizing access to the file in the remote system. The file password must be specified in the remote system's syntax and conform to the conventions of the remote system.

If the file in the remote system is protected with a password, the password must be specified in this operand as:

– a write password for a receive file, or
– a read password for a send or receive file that is not protected by a write password but by a read password, or
– a password for the execution of a send or receive file that is protected neither by a read nor by a write password but by an execute command.

Newly-created receive files are not given a password by this operand. PASSWORD is ignored in such cases.

PASSWORD = <u>*SAME</u>
relevant for *BS2000.
The same password applies in the remote system as in the local system.

PASSWORD = *NONE
relevant for *BS2000, *MSP and *ANY.
Access is possible without a password.

PASSWORD = *SECRET
relevant for *BS2000, *MSP and *ANY.
The system prompts you to enter the password. However, this does not appear on the screen.

PASSWORD = <c-string 1..4> / <x-string 1..8> /
<integer -2147483648..2147483647>
relevant for *BS2000.
BS2000 file password.

PASSWORD = <alphanum-name 1..8>
relevant for *MSP.
z/OS file password.

PASSWORD = <c-string 1..64 with-low> / <x-string 1..128>
relevant for *ANY.
With *ANY, the file password must always be in inverted commas.

TRANSFER-ADMISSION =
Contains information on authorization to perform file transfers in the remote system.

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
relevant for:	X	X	X
default value:	*SAME	[1]	*NONE

[1] For z/OS systems, there is no default value due to the lack of FTAC functionality. As a rule, the entry TRANSFER-ADMISSION=*PARAMETERS(...) will be necessary.

TRANSFER-ADMISSION = *SAME
relevant for *BS2000.
The relevant values from the local system apply. A password, however, is only accepted if it is explicitly specified in the LOCAL-PARAMETER structure.

TRANSFER-ADMISSION = *NONE
relevant for *ANY.
The remote system does not require/recognize any transfer admission.

TRANSFER-ADMISSION = *SECRET
relevant for *BS2000, *MSP and *ANY.
The system prompts you to enter the transfer admission. However, the input is not displayed on the screen.

TRANSFER-ADMISSION = <alphanum-name 8..32> / <x-string 15..64> /
<c-string 8..32 with-low>
relevant for *BS2000, *MSP and *ANY.
When FTAC functionality is used in the remote system, only the TRANSFER-ADMISSION predefined in the admission profile may be specified. The alphanumeric entries are converted internally to lowercase letters.
If an exit routine exists in the remote z/OS system which offers an FTAC transfer admission, this can be specified using TRANSFER-ADMISSION.

TRANSFER-ADMISSION = *PARAMETERS(...)
Identification, account number and password of the user in the remote system for which the follow-up processing is to be performed. The operands in parentheses can be used as positional operands without their keywords.

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
USER-IDENTIFICATION =	<alphanum-name 1..8>	<name 1..7>	<c-string 1..67 with-low>
ACCOUNT=	*NONE <alphanum-name 1..8>	*NONE <text 1..43>	*NONE <c-string 1..64 with-low>

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
PASSWORD=	*NONE <c-string 1..8> / <c-string 9..32> <x-string 1..16>	*NONE <alphanum-name 1..8>	*NONE <c-string 1..64 with-low> / <x-string 1..128>

USER-IDENTIFICATION =
relevant for *BS2000, *MSP and *ANY.
Identification of the user (user ID) in the remote system.

ACCOUNT =
relevant for *BS2000, *MSP and *ANY.
Account number of the user in the remote system.

ACCOUNT = *NONE
relevant for *BS2000, *MSP and *ANY.
The remote system does not require an account number.

PASSWORD =
relevant for *BS2000, *MSP and *ANY.
Password authorizing the user to access the remote system.

PASSWORD = *NONE
relevant for *BS2000, *MSP and *ANY.
Access is possible without a password.

PASSWORD = *SECRET
relevant for *BS2000, *MSP and *ANY.
The system prompts you to enter the password. However, the entry does not
appear on the screen.

PROCESSING-ADMISSION =
relevant for *BS2000, *MSP and *ANY.
Contains information about a user's authorization to perform follow-up processing in the
remote system.

> **i** FTP partners do not support remote follow-up processing.
>
> In file transfer with FTAM partners follow-up processing cannot be started in the
> remote system.
> **Exception:** an admission profile defines follow-up processing and is addressed
> via the TRANSFER-ADMISSION. Thus the PROCESSING-ADMISSION
> operand is not effective for FTAM partners.

PROCESSING-ADMISSION = *SAME
The relevant REMOTE TRANSFER-ADMISSION values apply.

PROCESSING-ADMISSION = *NONE
relevant for *ANY.
No transfer admission is required for follow-up processing. See also the description of
PROCESSING-ADMISSION=*NOT-SPECIFIED.

PROCESSING-ADMISSION = *NOT-SPECIFIED
Only if FTAC functionality is used in the remote system can the PROCESSING-
ADMISSION be predefined in an FT profile. It must not then be made known to the
request submitter, nor may it be specified in the command.

PROCESSING-ADMISSION = *PARAMETERS(...)
Identification, account number and password of the user in the remote system, for
which the follow-up processing is to be performed. The parameters in parentheses can
be used as positional operands without their keywords.

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
USER-IDENTIFICATION =	\<alphanum-name 1..8>	\<name 1..7>	\<c-string 1..67 with-low>
ACCOUNT =	*NONE \<alphanum-name 1..8>	*NONE \<text 1..43>	*NONE \<c-string 1..64 with-low>
PASSWORD =	*NONE \<c-string 1..32> / \<x-string 1..16>	*NONE \<alphanum-name 1..8>	*NONE \<c-string 1..64 with-low> / \<x-string 1..128>

USER-IDENTIFICATION =
Identification of the user (user ID) in the remote system.

ACCOUNT =
Account number of the user in the remote system.

ACCOUNT = *NONE
relevant for *BS2000, *MSP and *ANY.
The remote system does not require an account number.

PASSWORD =
Password authorizing the user to access the remote system.

PASSWORD = *NONE
relevant for *BS2000, *MSP and *ANY.
Access is possible without a password.

PASSWORD = *SECRET
The system prompts you to enter the password. However, the entry does not
appear on the screen.

Follow-up processing in the remote system

A command sequence can also be input for SUCCESS-PROCESSING and FAILURE-PROCESSING.
Each individual command must be preceded by a slash (/).
The individual commands must be separated by a semicolon. If a character string is enclosed in single or double quotes (' or ") within a command sequence, openFT will not interpret any semi-colon present within this character string as a separator.

Example

```
SUCC='/command1;/command2;/command3'
```

The entries for the operands SUCCESS-PROCESSING and FAILURE-PROCESSING may total up to 1000 characters. If the length limit for follow-up processing data is exceeded due to variable replacement, openFT ends the request and returns an error message.

Please refer to section "Follow-up processing" on page 57 for details on follow-up processing like using variables, for example.

SUCCESS-PROCESSING =
Follow-up processing to be executed in the remote system after a successful file transfer.

i FTP partners do not support follow-up processing.

Follow-up processing data cannot be transferred to FTAM partners. Exception: SUCC=' *DELETE' for receive requests and openFT-AC is used. If FTAC is used in the remote system, this restriction can be avoided by creating an admission profile in the remote system that defines follow-up processing.

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
relevant for:	X	X	X
default value:	*NONE	*NONE	*NONE

SUCCESS-PROCESSING = *NONE
No follow-up processing is to be executed.

SUCCESS-PROCESSING = <c-string 1..1000 with-low>
Command to be executed in the remote system after a successful file transfer. It must be specified in quotes according to the syntax and conventions of the remote system.

FAILURE-PROCESSING =
Follow-up processing to be executed in the remote system after an unsuccessful file transfer. This follow-up processing is only started if a file transfer that has already commences is terminated due to an error.

i FTP partners do not support follow-up processing.

No follow-up processing data can be transferred to FTAM partners. If FTAC is used in the remote system, this restriction can be avoided by creating an admission profile in the remote system that defines follow-up processing.

REMOTE-PARAMETER =	*BS2000	*MSP	*ANY
relevant for:	X	X	X
default value:	*NONE	*NONE	*NONE

FAILURE-PROCESSING = *NONE
No follow-up processing is to be executed.

FAILURE-PROCESSING = <c-string 1..1000 with-low>
Command to be executed in the remote system if the file transfer is aborted because of an error. It must be specified in quotes according to the syntax and conventions of the remote system.

The same specifications are valid for FAILURE-PROCESSING as for SUCCESS-PROCESSING, see above.

CODED-CHARACTER-SET=
Coding (character set) that is to be used to read or write the remote file.

CODED-CHARACTER-SET= *STD
The character set used by default to read or write the remote file is the character set defined as the default in the remote system.

CODED-CHARACTER-SET= <name 1..8>
Coding (CCS) that is to be used to read or write the remote file. The character set must be known in the remote system.

FTAM-specific operands

Due to the support of the FTAM protocol, the number of different partner systems is considerably larger when FTAM functionality is used for openFT. For each case, a check should be carried out before the first "productive" file transfer to determine the interoperability between the local system and the partner system (the degree to which they can work together). It is also advisable to perform this check even if the partner system has passed the conformance test.

For an FTAM partner, it is advisable to enter REMOTE-PARAMETER=*ANY(...) in the TRANSFER-FILE command. In this case, openFT will not check the syntax of the entries for the remote system. Of course, these entries must conform to the syntax rules of the remote system. All value assignments in round brackets must be enclosed by quotes.

The operands ACCESS-MODE, FILE-AVAILABILITY, LEGAL-QUALIFICATION and CREATE-PASSWORD are only for communication with FTAM partners. openFT thus supports the operands prescribed in the FTAM norm. With these operands, you can set the attributes of the target file when you make a file transfer request.

These operands are ignored for requests with openFT partners. The file transfer is executed, however.

Functions which cannot be used with FTAM partners

The following functions may not be used for communication with FTAM partners:

– transfer of library members in the remote system.
– transfer of follow-up data into the remote system.
– transfer of ISAM and PAM files.

If you attempt to use such a function in a file transfer request, the request is rejected with the message FTR2170:

```
FTR2170  Request (&00). Remote system: Function not supported(&02)
```

FILE-AVAILABILITY =
Availability of the destination file.
The parameter *availability* can have one of two values: *immediate* or *deferred*. A file may be *deferred* if it has been archived, for example. The partner is responsible for interpreting the term *deferred*. The FTAM partner conventions must therefore be observed here.
Requests involving FTAM partners that do not support the storage group are rejected. In this case, the request is executed, but the entry for FILE-AVAILABILITY is ignored.

FILE-AVAILABILITY = <u>*BY-RECEIVING-SYSTEM</u>
The FILE-AVAILABILITY file attribute is set to a system-specific default value. In BS2000, this is the value IMMEDIATE.

FILE-AVAILABILITY = *IMMEDIATE
The destination file attribute is set to *immediate*.

FILE-AVAILABILITY = *DEFERRED
The destination file attribute is set to *deferred*.

STORAGE-ACCOUNT =
Account number for file storage.
The operand is not available for requests involving FTAM partners that do not support the storage group. In this case, the request is executed, but the entry for STORAGE-ACCOUNT is ignored.

STORAGE-ACCOUNT = *NONE
No account number is specified.

STORAGE-ACCOUNT = <c-string 1..40 with-low> / <text 1..40>
With FTAM partners, this indicates the storage account. File storage fees are to be charged to this account. This operand must be set in accordance with partner system conventions.

ACCESS-MODE =
This sets the access rights of the destination file, provided the security group is available. It is possible to restrict certain access rights in the generated file. The file transfer is only executed if this is permitted by the newly set access rights. If this is not the case, the receive file is created in the remote system, but the transfer is not carried out.
If the access rights cannot be set, or cannot be set in the specified combination, the remote partner may nonetheless be able to carry out the file transfer.

ACCESS-MODE = *BY-RECEIVING-SYSTEM
The default values of the FTAM partner system apply.

ACCESS-MODE = *PARAMETERS(...)
Indicates permitted access methods.

    READ-FILE = *NO / *YES
    The file cannot or can be read.

    INSERT-DATA-UNIT = *NO / *YES
    Data units, such as records, cannot or can be inserted in the file.

    REPLACE-FILE = *NO / *YES
    The file cannot or can be overwritten.

    EXTEND-FILE = *NO / *YES
    The file cannot or can be extended.

    ERASE-DATA-UNIT = *NO / *YES
    Data units, such as records, cannot or can be deleted from the record.

READ-ATTRIBUTES = *NO / *YES
The file attributes cannot or can be read.

CHANGE-ATTRIBUTES = *NO / *YES
The file attributes cannot or can be changed.

DELETE-FILE = *NO / *YES
The file cannot or can be deleted.

LEGAL-QUALIFICATION =
Legal qualification.
The operand is not available for requests involving FTAM partners that do not support
the security group. In this case, the request is executed, but the LEGAL-QUALIFI-
CATION entry is ignored.

LEGAL-QUALIFICATION = *NONE
There are no legal agreements.

LEGAL-QUALIFICATION = <c-string 1..80 with-low> / <text 1..80>
With FTAM partners, this specifies a legal qualification for the file (similar to a
copyright). This must not exceed 80 characters.

CREATE-PASSWORD =
You can use CREATE-PASSWORD to assign a password to send requests for systems
which demand password authorization prior to file creation.

CREATE-PASSWORD = *NONE
Creates a file without a password.

CREATE-PASSWORD = <c-string 1..64 with-low> / <x-string 1..128>
Password authorizing a user to create a file in a remote system.
The password must be specified in quotes.

CREATE-PASSWORD = *SECRET
When the system prompts you to enter a password. The input is not echoed on screen.

Optional entries

The optional entries permit you to set special conditions for the operation and time frame of your file transfers. The optional entries deal with the type of data transfer:

– compressed (COMPRESS)
– encrypted (DATA-ENCRYPTION)
– coding of the send file (DATA-TYPE)
– write rules for the receive file (WRITE-MODE)
– maximum record length (RECORD-SIZE)

COMPRESS =
Defines whether the data in the send file is to be transferred in compressed form.

COMPRESS = *NONE
The data in the send file is transferred uncompressed.

COMPRESS = *BYTE-REPETITION
The data in the send file is transferred in compressed form. Compression affects consecutive bytes with identical contents. If file transfer in compressed form is not possible (e.g. with FTAM partners), the data is transferred in uncompressed form.

COMPRESS = *ZIP
The data in the send file is transferred in compressed form. Compression affects consecutive bytes with identical contents. If file transfer in compressed form is not possible (e.g. with FTAM partners), the data is transferred in uncompressed form.

WRITE-MODE =
Determine how the data is to be written into the receive file. Three options are available. You can

– overwrite an already existing file in the receiving system.
– set up a new file in the receiving system. If a file with the same name already exists in the receiving system, it will not be overwritten.
– attach the transferred file to a file which already exists in the receiving system (this is only possible with SAM files in BS2000).

WRITE-MODE = *REPLACE-FILE
Overwrites the receive file from start of file. If the receive system already contains a file with this name, this file and where necessary its file attributes are overwritten. The previous contents of this file are thus completely erased. If the destination does not already exist, it is newly created.

WRITE-MODE = *NEW-FILE
Writes the receive file from start of file. If the receive system already contains a file with this name, this file is not overwritten and the send file is not transferred.

It should be noted that the receive file can already exist following the abortion of a file transfer request. It is not deleted in this case. If a new attempt is made, the request is rejected in the case of WRITE-MODE=*NEW-FILE, as the file already exists.

WRITE-MODE = *EXTEND-FILE
The receive file is extended from the end of file and written to end of file from this point. If the receive system does not yet include a file with this name, a new receive file is created. If the partner is a BS2000 system, then it depends on the system characteristic whether a request with the specification WRITE-MODE=EXTEND-FILE will be accepted or not.

The specification WRITE-MODE=EXTEND-FILE is permitted in BS2000 partners if:

– the send file is a SAM file,
– send file and receive file have the same record formats,
– for send files and receive files with fixed-length records the record length is the same, and
– the buffer of the receive file can accept the largest record in the send file.

If a file transfer with WRITE-MODE=EXTEND-FILE is aborted permanently, the receive file retains the contents it had at the moment the transfer was terminated.

DATA-TYPE =
Coding used for data in the send file.

DATA-TYPE = *NOT-SPECIFIED
For openFT partners:
The specification is interpreted in the same way as DATA-TYPE=*BINARY if the partner system is an openFT (BS2000) system and the transferred file is neither a POSIX file nor a library member. Otherwise the specification is interpreted in the same way as DATA-TYPE=*CHARACTER.
For FTAM partners:
The send file type is unknown and is defined by the send system.

DATA-TYPE = *USER
The send file contains structured binary data of variable record length. A 2-byte field specifying the record length precedes each record. The maximum record length is 32767 bytes.

DATA-TYPE = *CHARACTER(...)
The send file is transferred as a text file. The receive system stores the file in its character code as text (i.e. a code conversion is performed on the file if necessary).
Only SAM files and PLAM library members can be transferred with DATA-TYPE= *CHARACTER.

DATA-TYPE = *BINARY(...)
The send file is transferred as a binary file. The receive system stores the file as it was supplied by the send system. No code conversion takes place.

Any file that is not a SAM file or a PLAM library member is always transferred as a binary file.

TRANSPARENT =
Specifies if the file is to be converted to a transparent format.
If a file is received in transparent format then openFT (BS2000) ≥ V6.0 automatically sets it up with its original attributes.

TRANSPARENT = *NO
No transparent format should be generated.

TRANSPARENT = *YES
The file should be sent transparently. openFT will reject the transfer of a file in transparent format in the following cases:
– with simultaneous specification of WRITE-MODE=*EXT (FTR2042 or FTR2166)
– if a file in transparent format is to be picked up and the partner system doesn't support this function (FTR2040),
– if the receive file is a library member (FTR2087 or FTR2210).
– if a file is transferred in transparent format to a library member (FTR2216 or FTR2096).

PRIORITY =
Priority with which the file transfer is initiated relative to other file transfers to the same remote system.

PRIORITY = *NORMAL
The file transfer has normal priority.

PRIORITY = *HIGH
The file transfer has high priority.
This entry is valid if the user has the appropriate authorization for the entry.
Requests with high priority executed via openFT protocols can interrupt normal priority requests for the time it takes to terminate those high priority requests. The interrupted requests are then restarted.

PRIORITY = *LOW
The file transfer has low priority.

START =
Time when the file transfer is to start. The application of the operand is accurate to approximately 5 minutes.

START = *SOON
The file transfer starts as soon as the resources required are available.

START = *EARLIEST(...)
The file transfer starts as soon as the resources required are available and not prior to the time specified. Up to this point the file transfer request is kept in a HOLD state. The date and time specified must not be further ahead than 22 days and 14 hours at the most. If the date and time specified have already passed, the file transfer is executed as if START=*SOON had been specified.

> **DATE =**
> Day when the file transfer is to be initiated.
>
> **DATE = *TODAY**
> The file transfer is initiated at the earliest on the day the command is issued.
>
> **DATE = *TOMORROW**
> The file transfer is initiated at the earliest on the day following issue of the command.
>
> **DATE = <date 8..10>**
> The file transfer is initiated on the calendar day specified. If the year is defined by four digits, it must be a year between 1960 and 2059. If only two digits are entered, an internal procedure extends the figure to four digits to denote a year between 1960 and 2059.
>
> **TIME = 00:00 / <time 1..8>**
> The file transfer is initiated at the earliest on the day following issue of the command.

CANCEL =
Specifies whether and when the file transfer is to be aborted. The application of the operand is accurate to approximately 5 minutes.

CANCEL = *NO
The file transfer is not to be deliberately aborted.

CANCEL = *AT(...)
The file transfer is to be aborted at a specific point in time.
The time specified must not
– have already passed,
– be more than 22 days and 14 hours after the specified start time,
– be before or the same as the time specified in the START operand.

> **DATE =**
> Day when the file transfer is to be aborted.
>
> **DATE = *TODAY**
> The file transfer is aborted on the day the command is issued.
>
> **DATE = *TOMORROW**
> The file transfer is aborted on the day following issue of the command.

DATE = <date 8..10>
The file transfer is aborted on the calendar day specified. If the year is defined by four digits, it must be a year between 1960 and 2059. If only two digits are entered, an internal procedure extends the figure to four digits to denote a year between 1960 and 2059.

TIME = <u>23:59</u> / <time 1..8>
The file transfer is aborted at the specified time on the chosen calendar day.

DATA-ENCRYPTION =
Determines whether or not the file transfer is to be encrypted.

DATA-ENCRYPTION = <u>*NO</u>
The file contents are not transmitted in encrypted form.

DATA-ENCRYPTION = *YES
The file contents are transmitted in encrypted form. If encryption is not available in the local system, the request is rejected with the error message FTR2111. If the partner system does not permit encryption, the request is rejected with the error message FTR2113.

DATA-ENCRYPTION = *ONLY-DATA-INTEGRITY
The data integrity of the transferred file content is checked using cryptographic means. In the case of openFT partners, this ensures that malevolent attempts to manipulate data during transfer are detected. If an error occurs, openFT performs a restart for asynchronous transfer requests.
If the partner system does not support data integrity checking (e.g. openFT < V8.1), the request is rejected.

In the case of requests with data encryption (*YES), data integrity is also automatically checked. Transfer errors in the network are automatically detected by the checking mechanisms of the transfer protocols used. Data integrity checking is not necessary for this.

RECORD-SIZE =
Maximum record length of the data that is to be transferred. If the maximum record length is specified explicitly then this value is used even if the record length is known from the catalog. If a record is transferred that exceeds this maximum record size, the request is aborted with

```
% FTR2087 Request (&00). File structure error(&02) or
% FTR2210 Request (&00). Remote system: File structure error(&02)
```

RECORD-SIZE = <u>*NOT-SPECIFIED</u>
The maximum record length is automatically determined from the catalog.

RECORD-SIZE = <integer 1..32756>
Maximum record length of the data that is to be transferred.

RECORD-FORMAT =
Indicates how the data is transferred on a file transfer to or from a partner.

RECORD-FORMAT = *<u>STD</u>
The record format specification is unchanged.

RECORD-FORMAT = *FIXED
The data is transferred in fixed length records.
Binary files with fixed record lengths (in which the file consists of records of equal lengths) can only be transferred to an FTAM partner if this supports variable length records for binary files.

RECORD-FORMAT = *VARIABLE
The data is transferred in variable length records.
Binary files in user format (in which a record consists of a record length field and the data itself) can only be transferred in the form of variable length records to an FTAM partner if this supports variable length records for binary files.

RECORD-FORMAT = *UNDEFINED
The record length used for data transfer is not mapped to the real system. This means that the record length used for transfer is not identical to the record length in the real file.
In the case of text files, each record is terminated with an end-of-record character both during transfer and then in the real system. Binary files are stored as bit strings in the real system (as SAM-U files in BS2000 systems).

TARGET-FILE-FORMAT =
This operand allows the format of the target file to be specified.

TARGET-FILE-FORMAT = <u>*SAME</u>
The format of the target file is to be the same as that of the send file.

TARGET-FILE-FORMAT = *BLOCK-ORIENTED
The file is to be stored with a block structure. As of openFT V11.0, support is only offered for creating a block-structure file in BS2000 and in PAM format. Creation of a block-structure file in the remote system is only supported with the openFT protocol. Transfer must be performed in binary format. If the file type is specified neither in the command (DATA-TYPE) nor in the file catalog, binary transfer is automatically assumed.

The PAM file created depends on the pubset type (PAMKEY, DATA, DATA-4K). Each of the blocks is completely filled with the binary data stream received. If the data originally comes from a PAM file, the PAM keys are lost during transfer, and the file structure may be lost if the formats of the sending and receiving pubsets differ.

If openFT V10 is running on the receiving system, the file is created as a sequential file with an undefined record format. If older openFT versions are used in the receiving system, the request is rejected.

TARGET-FILE-FORMAT = *SEQUENTIAL (...)
The format of the target file is to be sequential. This also makes it possible to read block-structure files and index sequential files sequentially. The reading of PAM files and ISAM files in BS2000 is supported in openFT version 11.0:

– A PAM file is mapped to a binary sequential file with an undefined record format. The transfer is compatible with standard FTP transfer in BS2000.

– An ISAM file is mapped to the corresponding sequential format (fixed or variable record format). The contents of the ISAM keys is retained in the records, but the key positions are lost.

Specifying *SEQUENTIAL for a sequential send file has no effect.

RECORD-FORMAT =
The record format can be specified for a sequential target file.

RECORD-FORMAT = *SAME
The record format of the target file is to be the same as that of the send file.

RECORD-FORMAT = *UNDEFINED
The record format of the target file is to be undefined. The record structure of the send file is lost. At least one block is written for each transfer unit on target systems running BS2000 or z/OS. This can significantly increase the required disk storage space, for instance if the send file is made up of variable length records.

PROTECTION =
Controls the transfer of protection attributes if the partner is a BS2000 system.

PROTECTION =*STD
Only the default file attributes are transferred (behavior up to V10).

PROTECTION =*SAME
The protection attributes USER-ACCESS, ACCESS, BASIC-ACL, EXPIRATION-DATE, FREE-FOR-DELETION and DESTROY are additionally transferred. This requires openFT as of V11 to be used in the partner system.

If the openFT instances of the two partners are using different versions, only those file attributes are transferred that are supported in both versions.

In all cases, the following requirements apply
– the openft protocol is used for transfer
– the source and target file are DMS files
– the target file is not a file generation
– the target file is created or overwritten
– the transfer is not carried out in transparent mode.

LAST-CHANGE-DATE =
Controls whether the last change date of the send file (i.e. date+time) is accepted for the receive file.

LAST-CHANGE-DATE = *STD
The current time is accepted as the change date of the receive file. This corresponds to the behavior up to openFT V11.0.

LAST-CHANGE-DATE =***SAME**
The change date of the send file is accepted as the change date of the receive file. This
function is supported only for the openFT protocol. In BS2000 systems it is also necessary
to use OSD V8.0 or higher.

If the target system does not support acceptance of the change date or if no modification
date is sent be the source system, no request with LAST-CHANGE-DATE=*SAME is
executed and an error is reported.

If acceptance of the change date matches the default behavior of the target system, the
parameter is ignored.

If the FT request is free of errors from the perspective of the local system, then the FT
system outputs the following report as an FT request confirmation:

```
FTR0000 OPENFT: Request (&00) accepted
```

(&00) in this case, is the Identification of the FT request that assigns the local FT system to
each FT request. Using this FT request ID, you can cancel the FT request (CANCEL-FILE-
TRANSFER command), or you can get information on the status of the FT request (SHOW-
FILE-TRANSFER command). The FT request ID may consist of a maximum of ten
decimals. You can, of course, access your FT requests, even if you do not know the FT
request ID (see the information following page 280).

If the file transfer was successful, openFT outputs an the following asynchronous message
as a result message (if the user process is still active and allows asynchronous messages):

```
% FTR0005 Request (&00). File '(&02)' transferred
```

Command return codes

For a list of the possible return codes, see the tables as of page 451.

3.47.3 Examples of the TRANSFER-FILE command

This section provides sample applications of the TRANSFER-FILE command.

1. TRANSFER-FILE command for openFT with mandatory operands only

   When the conditions on page 392 apply, the TRANSFER-FILE command can be
   entered only with the mandatory operands.

   In the following example the file DATA is to be transferred from the local computer to
   the partner computer HOST001.
   The command is entered in the recommended short form.

```
/TFF TO,HOST001,(DATA)
%  FTR0000 Request (&00) accepted
/
```

   The long form of this command is as follows:

```
/TRANSFER-FILE TRANSFER-DIRECTION=TO,                              -
/              PARTNER=HOST001,                                    -
/              LOCAL-PARAMETER=(FILE-NAME=DATA)
```

   If the user operating under this user ID continues to operate in interactive mode, he/she
   receives the following asynchronous message after successful file transfer:

```
%MESS %  FTR0005 (&01'')Request (&00). File '(&02)' transferred
```

2. Transfer of a file with password protection cataloged under another user ID in the remote system.

    The file LIST is stored in computer HOST002 under the user ID SHIPPING and protected by the password C'XX'. The user ID SHIPPING has the account number SHIP002 and the password PASS1492.

    The example below shows both the short form and the long form of the command used to transfer the file LIST to the local system and store it there in the file *LIST.002*, which has not yet been created. If this file already exists, the LIST file should not be transferred.

    Recommended short form of the command:

    ```
    /TRANS-FILE FROM,HOST002,                                          -
    /           (LIST.002),                                            -
    /           (LIST,'XX',TRANS-AD=(SHIPPING,SHIP002,'PASS1492')),WRITE=NEW
    %  FTR0000 Request (&00) accepted
    ```

    Long form of the command:

    ```
    /TRANSFER-FILE TRANSFER-DIRECTION=FROM-PARTNER,PARTNER=HOST002,    -
    /              LOCAL-PARAMETER=(FILE-NAME=LIST.002),               -
    /              REMOTE-PARAMETER=*BS2000(FILE-NAME=LIST,PASSWORD=C'XX',  -
    /              TRANSFER-ADMISSION=(USER-IDENTIFICATION=SHIPPING,   -
    /              ACCOUNT=SHIP002,PASSWORD='PASS1492')),WRITE-MODE=*NEW-FILE
    %  FTR0000 Request (&00) accepted
    ```

3. Collection of files

    A central office has to collect the monthly reports from its 5 branch offices on the first of
    every month. These monthly reports are edited ready for printing in each of the branch
    offices and contained in a file called REPORT.*month* and are each to be transferred into
    a file in the central location called REPORT.*month.branch-office* and printed out there.
    For retrieval of the data, the transfer admission GETREPORT has been set up on each
    branch computer.

    The transfer of these files is carried out with the following procedure:

```
/BEGIN-PROCEDURE LOGGING=NO,PARAMETERS=YES(PROCEDURE-PARAMETERS=          -
/(&MONTH=),ESCAPE-CHARACTER='&')
/REMARK PLEASE SPECIFY THE PREVIOUS MONTH FOR &MONTH !
/TRANS-FILE FROM,BRANCH1,                                                 -
/(REPORT.&MONTH..BRANCH1,                                                 -
/SUCC='/PRINT-FILE FILE-NAME=REPORT.&MONTH..BRANCH1,                      -
/SPOOLOUT-NAME=BRANCH1,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),      -
/(REPORT.&MONTH,TRANS-AD=GETREPORT)
/TRANS-FILE FROM,BRANCH2,                                                 -
/(REPORT.&MONTH..BRANCH2,                                                 -
/SUCC='/PRINT-FILE FILE-NAME=REPORT.&MONTH..BRANCH2,                      -
/SPOOLOUT-NAME=BRANCH2,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),      -
/(REPORT.&MONTH,TRANS-AD=GETREPORT)
/TRANS-FILE FROM,BRANCH3,                                                 -
/(REPORT.&MONTH..BRANCH3,                                                 -
/SUCC='/PRINT-FILE FILE-NAME=REPORT.&MONTH..BRANCH3,                      -
/SPOOLOUT-NAME=BRANCH3,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),      -
/(REPORT.&MONTH,TRANS-AD=GETREPORT)
/TRANS-FILE FROM,BRANCH4,                                                 -
/(REPORT.&MONTH..BRANCH4,                                                 -
/SUCC='/PRINT-FILE FILE-NAME=REPORT.&MONTH..BRANCH4,                      -
/SPOOLOUT-NAME=BRANCH4,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),      -
/(REPORT.&MONTH,TRANS-AD=GETREPORT)
/TRANS-FILE FROM,BRANCH5,                                                 -
/(REPORT.&MONTH..BRANCH5,                                                 -
/SUCC='/PRINT-FILE FILE-NAME=REPORT.&MONTH..BRANCH5,                      -
/SPOOLOUT-NAME=BRANCH5,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),      -
/(REPORT.&MONTH,TRANS-AD=GETREPORT)
/END-PROCEDURE
```

This call procedure (name: DO.MONTH) is called as follows:

```
/CALL-PROCEDURE DO.MONTH
%/REMARK PLEASE SPECIFY THE PREVIOUS MONTH FOR &MONTH !
%&MONTH=november
%  FTR0000 Request 194577 accepted
%  FTR0000 Request 194987 accepted
%  FTR0000 Request 195442 accepted
%  FTR0000 Request 196099 accepted
%  FTR0000 Request 196583 accepted
/
```

4. Distribution of files

A central office distributes guidelines to its five branch offices.
It has the guidelines printed out as soon as they are received in the branch. All user IDs
concerned in the central office and in the branch offices are CENTRAL, have the
account number CENTR01 and the password C'CEN'.

To distribute the guidelines the central office uses the following ENTER-JOB procedure:

```
/LOGON
/TRANS-FILE TO,BRANCH1,                                                 -
/(GUIDELINE,TRANS-AD=(CENTRAL,CENTR01,C'CEN')),                         -
/(SUCC='/PRINT-FILE FILE-NAME=GUIDELINE,SPOOLOUT-NAME=IMPORTNT,         -
/LAYOUT-CONTROL=(CONTROL-CHARACTER=EBCDIC)')
/TRANS-FILE TO,BRANCH2,                                                 -
/(GUIDELINE,TRANS-AD=(CENTRAL,CENTR01,C'CEN')),                         -
/(SUCC='/PRINT-FILE FILE-NAME=GUIDELINE,SPOOLOUT-NAME=IMPORTNT,         -
/LAYOUT-CONTROL=(CONTROL-CHARACTER=EBCDIC)')
/TRANS-FILE TO,BRANCH3,                                                 -
/(GUIDELINE,TRANS-AD=(CENTRAL,CENTR01,C'CEN')),                         -
/(SUCC='/PRINT-FILE FILE-NAME=GUIDELINE,SPOOLOUT-NAME=IMPORTNT,         -
/LAYOUT-CONTROL=(CONTROL-CHARACTER=EBCDIC)')
/TRANS-FILE TO,BRANCH4,                                                 -
/(FILE=GUIDELINE,TRANS-AD=(CENTRAL,CENTR01,C'CEN')),                    -
/(SUCC='/PRINT-FILE FILE-NAME=GUIDELINE,SPOOLOUT-NAME=IMPORTNT,         -
/LAYOUT-CONTROL=(CONTROL-CHARACTER=EBCDIC)')
/TRANS-FILE TRANS=TO,PARTNER=BRANCH5,                                   -
/(GUIDELINE,TRANS-AD=(CENTRAL,CENTR01,C'CEN')),                         -
/(SUCC='/PRINT-FILE FILE-NAME=GUIDELINE,SPOOLOUT-NAME=IMPORTNT,         -
/LAYOUT-CONTROL=(CONTROL-CHARACTER=EBCDIC)')
/LOGOFF
```

This ENTER-JOB procedure (name: ENTER.GUIDELINE) is called as follows:

```
/.CENTRAL ENTER-JOB ENTER.GUIDELINE,TIME=99
%  JMS0066 JOB ACCEPTED. TSN=2083
```

The BS2000 command SHOW-USER-STATUS can be used to trace the sequence of this ENTER process and the file transfer operations:

```
/SHOW-USER-STATUS
NAME      TSN TYPE   PRI    CPU-USED CPU-MAX ACCOUNT#
CENTRAL   2083 1      210      0.0        99 CENTRO1
GP46518   2065 3 DIA  210      0.4595  32767 CENTRO1
/SHOW-USER-STATUS
NAME      TSN TYPE   PRI    CPU-USED CPU-MAX ACCOUNT#
OPENFT    2088 1      210      0.0         1 CENTRO1
GP46518   2065 3 DIA  210      0.6868  32767 CENTRO1
NAME      TSN TYPE   PRI    SIZE  COPIES CPU-USED
CENTRAL   2083 4 PR   210       2       0
/SHOW-USER-STATUS
NAME      TSN TYPE   PRI    CPU-USED CPU-MAX ACCOUNT#
GP46518   2065 3 DIA  210      0.7957  32767 CENTRO1
OPENFT    2099 2 BAT  210      0.0938      1 CENTRO1
OPENFT    2100 2 BAT  210      0.0548      1 CENTRO1
NAME      TSN TYPE   PRI    SIZE  COPIES CPU-USED
CENTRAL   2083 4 PR   210       2       0
OPENFT    2091 4 PR   210       1       0
OPENFT    2096 4 PR   210       1       0
OPENFT    2097 4 PR   210       1       0
/SHOW-USER-STATUS
NAME      TSN TYPE   PRI    CPU-USED CPU-MAX ACCOUNT#
GP46518   2065 3 DIA  210      0.8545  32767 CENTRO1
NAME      TSN TYPE   PRI    SIZE  COPIES CPU-USED
CENTRAL   2083 4 PR   210       2       0
OPENFT    2091 4 PR   210       1       0
OPENFT    2096 4 PR   210       1       0
OPENFT    2097 4 PR   210       1       0
OPENFT    2101 4 PR   210       1       0
OPENFT    2102 4 PR   210       1       0
```

5. Job transfer and job processing

    To reduce the load on the central office host computer an ASSEMBLER program is to
    be compiled in the host computer of a branch office. To do this, the program is compiled
    within a CALL-PROCEDURE procedure file that is started as a follow-up processing
    operation. After processing of the FT request has been completed, the compiled
    program is stored in a module library. The module library is then to be transferred back
    to the central host computer.

    The CALL-PROCEDURE procedure DO.JOB could look as follows:

    ```
    /BEGIN-PROCEDURE LOGGING=COMMANDS
    /DELETE-FILE FILE-NAME=*
    /ASSIGN-SYSDTA TO-FILE=*SYSCMD
    /START-ASSEMBH
        .
        .    Program to be compiled!
        .
    /START-LMS
    //OPEN-LIB CENTRAL.MODLIB,MODE=*UPDATE
    //ADD-ELEMENT FROM-FILE=*OMF,TO-ELEMENT=*LIB-ELEM(TYPE=R)
    //END
    /ASSIGN-SYSDTA TO-FILE=*PRIMARY
    /TRANS-FILE TRANS=TO,PARTNER=CENTRAL,LOC=(FILE-NAME=CENTRAL.MODLIB,      -
    /          TRANS-AD=(CENTRAL,CENTRO1,C'CEN'))
    /END-PROCEDURE
    ```

    This CALL-PROCEDURE procedure is transferred to the computer in branch office 1
    using the following command and started there. The request is to be monitored in the
    central host by job variable XYZ.

    ```
    /TRANS-FILE TO,BRANCH1,(DO.JOB,MONJV=XYZ)REM=,                          -
    /       (TRANS-AD=(CENTRAL,CENTRO1,C'CEN'),SUCC='/CALL-PROCEDURE DO.JOB')
    %  FTR0000 Request 194572 accepted
    ```

6. Chaining of files

A central office collects SAM files (e.g. transaction files) from its 3 branch offices. The files are to be concatenated and are not to be processed until all the files to be collected have been transferred. The files have the name SAM.FILE in the example and are to be stored consecutively in the file SAM.ALL.
The files to be collected are password-protected. The user IDs are not password-protected (The operating system BS2000 has been generated with system parameter SSMCOPT=Y.

The files are transferred using the following CALL-PROCEDURE procedure (name: *DO.CHAIN*):

```
/BEGIN-PROCEDURE LOGGING=COMMANDS
/TRANS-FILE TRANS=FROM,PARTNER=BRANCH1,WRITE=EXT,                 -
/REM=(FILE-NAME=SAM.FILE,PASS='FIL1',TRANS=GETFILES),            -
/LOC=(FILE-NAME=SAM.ALL,                                         -
/SUCC='/TRANS-FILE TRANS=FROM,PARTNER=BRANCH2,WRITE=EXT,         -
/REM=(FILE-NAME=SAM.FILE,PASS=''FIL2'',TRANS=GETFILES),          -
/LOC=(FILE-NAME=SAM.ALL,                                         -
/SUCC=''/TRANS-FILE TRANS=FROM,PARTNER=BRANCH3,WRITE=EXT,        -
/LOC=(FILE-NAME=SAM.ALL),                                        -
/REM=(FILE-NAME=SAM.FILE,PASS=''''FIL3'''',TRANS=GETFILES)'')')
/END-PROCEDURE
```

The procedure is called as follows:

```
/CALL-PROCEDURE DO.CHAIN
%/BEGIN-PROCEDURE LOGGING=COMMANDS
%/TRANS-FILE TRANS=FROM,PARTNER=BRANCH1,WRITE=EXT,
REM=(FILE-NAME=SAM.FILE,PASS='FIL1',TRANS=GETFILES),
LOC=(FILE-NAME=SAM.ALL,SUCC='/TRANS-FILE TRANS=FROM,
PARTNER=BRANCH2,WRITE=EXT,REM=(FILE-NAME=SAM.FILE,
PASS=''FIL2'',TRANS=GETFILES),
LOC=(FILE-NAME=SAM.ALL),
SUCC=''/TRANS-FILE TRANS=FROM,PARTNER=BRANCH3,WRITE=EXT,
LOC=(FILE-NAME=SAM.ALL),
REM=(FILE-NAME=SAM.FILE,PASS=''''FIL3'''',TRANS=GETFILES)'')')
%  FTR0000 Request 164572 accepted
%/END-PROCEDURE
```

7. File transfer between openFT (BS2000) and another FT system

The file FILE is to be transferred to another system using openFT(BS2000). In the other system (SYS) the user ID BROOKLYN with the password 20000 is to be used. The file is to be given the name f/i/l/e in this system. The short form of the command is used:

```
/TRANS-FILE TO,SYS,(FILE),                                       -
/*ANY('f/i/l/e',TRANS-AD=('BROOKLYN',,'20000'))
%  FTR0000 Request 165572 accepted
```

8. Transfer of POSIX files between two openFT (BS2000) systems

   The POSIX file named 'file' is to be transferred to the home directory /home/JIMMY in
   the BS2000 computer HOST12 using openFT. The user ID JIMMY with the account
   number 12345678 and password 20000 are used in HOST12. As the user ID for the
   remote system is specified, it would have been sufficient to specify the relative path
   name. The short form of the command is used:

   ```
   /TRANS-FILE TO,HOST12,('./file'), -
   /(c'/home/JIMMY/file',TRANS-ADM=(JIMMY,12345678,'20000'))
   %  FTR0000 Request 165581 accepted

   Command with *POSIX:

   /TRANS-FILE TO,HOST12,(*POSIX(file)), --
   /(*POS(/home/JIMMY/file),TRANS-ADM=(JIMMY,12345678,'20000'))
   %  FTR0000 Request 165581 accepted
   ```

9. File transfer to z/OS systems

   The file FILE is to be transferred from a BS2000 computer to the z/OS computer IBM1.
   The file is held in the local system under the user ID CENTRBS2 and has the password
   C'ZZZZ'. The user ID has the account number CENTR01 and is protected by the
   password C'CEN1'. The file is to be called FILE in the z/OS computer, have the
   password FILE01, and be stored under the user ID CENMSP with the account number
   CENTRAL02 and password CEN2. The command is entered in the short form.

   ```
   /TRANS-FILE TO,IBM1,                                     -
   /(FILE,C'ZZZZ',TRANS-AD=(CENTRBS2,CENTR01,C'CEN1')),     -
   /*MSP(FILE,FILE01,TRANS-AD=(CENMSP,CENTRAL02,CEN2))
   %  FTR0000 Request 143581 accepted
   ```

10. File transfer using openFT (Unix systems)

    The file mailbag is to be obtained from the Unix system ALFRED and transferred to the
    local BS2000 system. The file is held by ALFRED under the user ID „flyte" with a
    password of 144002 and is to be given the name NOHURRY in the local system. An
    abbreviated command for this request is as follows:

    ```
    /TRANS-FILE FROM,ALFRED,(NOHURRY),*ANY('mailbag',       -
    /TRANS-AD=('flyte',,'144002'))
    %  FTR0000 Request 122181 accepted
    ```

11. File transfer with subsequent follow-up processing, but with no report on the execution of the follow-up processing

The file COBOL.LIST is to be transferred from the computer with the name COMPILER to the local system and printed out there four times. This file is stored in the COMPILER computer under the user ID COBOL with account number COBACC and the password PASSWORD. The report on the execution of the print process is to be suppressed if the operation is successful. There are two ways of carrying out these operations. In the first, more detailed method a procedure FT.PRINT.PROC is initially set up in the local system containing the following:

```
/BEGIN-PROCEDURE LOGGING=NO,PARAMETERS=YES(PROCEDURE-PARAMETERS=    -
/(&FILE=,&.COPIES=0)
/PRINT-FILE FILE-NAME=&FILE,REPEAT=&COPIES,                         -
/LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)
/END-PROCEDURE
```

The actual file transfer request has the format

```
/TRANS-FILE FROM,COMPILER,                                          -
/           (COBOL.LIST,                                            -
/           SUCC='/CALL-PROC FT.PRINT.PROC,                         -
/           (FILE=COBOL.LIST,COPIES=3)'),                           -
/           (TRANS-AD=(COBOL,COBACC,'PASSWORD'))
```

However, the CALL-PROCEDURE procedure is not required if a command is specified in the TRANS-FILE command for the follow-up processing. The file transfer request then has the following format:

```
/TRANS-FILE FROM,COMPILER,                                          -
/           (COBOL.LIST,SUCC='/PRINT-FILE FILE-NAME=%FILENAME,      -
/           REPEAT=3,LAYOUT-CONTROL=(CONTROL-CHARACTERS=EBCDIC)'),  -
/           (TRANS-AD=(COBOL,COBACC,'PASSWORD'))
```

12. Procedure file transfer with subsequent execution of the procedure as follow-up processing and finally deletion of the transferred file

    The procedure file PROC.JOB, which is constructed in exactly the same way as the file DO.JOB in example 5, is to be transferred to the computer BRANCH1 and executed there under the user ID CENTRAL with the account number CENTR01 and the password CEN. Then the file is to be deleted in the remote system.

    The requisite command is as follows:

```
/TRANSFER-FILE                                                    -
/            TRANSFER-DIRECTION=TO,                               -
/            PARTNER=BRANCH1,                                     -
/            LOCAL-PARAMETER=(FILE-NAME=PROC.JOB),               -
/            REMOTE-PARAMETER=(TRANSFER-ADMISSION=(CENTRAL,CENTR01, -
/            'CEN'),SUCCESS-PROCESSING='/CALL-PROCEDURE %FILENAME;  -
/            /DELETE-FILE %FILENAME')
```

    A possible short form of this command would be:

```
/TRANS-FILE TO,BRANCH1,(PROC.JOB),(TRANS-AD=(CENTRAL,CENTR01,'CEN'),-
/SUCC='/CALL-PROC %FILENAME;/DEL-FILE %FILENAME')
```

13. File transfer using FTAC

    The file TURNOVER is to be transferred to the computer JACKJOHN. On this computer openFT (BS2000) is installed along with FTAC functionality for enhanced data protection and access control. An FT profile is provided in the computer JACKJOHN for the file transfer request.

    In order to be able to work with this FT profile, the TRANSFER-ADMISSION 'Fordearsteven' must be specified as transfer admission for the computer JACKJOHN. Specifying this gives direct access to the FT profile in the computer JACKJOHN. This FT profile contains the predetermined name that the file is to receive in the computer JACKJOHN and the predetermined details concerning follow-up processing (SUCCESS-PROCESSING and FAILURE-PROCESSING) in this computer. The value *SAME is defined for the PROCESSING-ADMISSION.

    The file transfer request must therefore contain the value *NOT-SPECIFIED for the file name.
    The specification *NONE that is required for SUCCESS-PROCESSING and FAILURE-PROCESSING in this example also corresponds to the default value and can therefore be omitted. The default value *SAME for PROCESSING-ADMISSION is accepted by FTAC even if it is prespecified in the admission profile and can therefore **also** be omitted.

The long form of the command for the file transfer is thus as follows:

```
/TRANSFER-FILE                                                  —
/              TRANSFER-DIRECTION=TO,                           —
/              PARTNER=JACKJOHN,                                —
/              LOCAL-PARAMETER=(FILE-NAME=TURNOVER),            —
/              REMOTE-PARAMETER=*BS2000(FILE-NAME=*NOT-SPECIFIED,  —
/              TRANSFER-ADMISSION='Fordearsteven')
```

There is of course a short form:

```
/TFF TO,JACKJOHN,(TURNOVER),(*NOT-SPEC,              —
/           TRANS-AD='Fordearsteven')
```

14. Time-driven file transfer

    A user from the West End,
    was really at his wits' end.
    He wanted his FT
    to be at ten fifty
    and so this command he did send:

```
/TRANSFER-FILE TO,WESTEND2,(FILE),START=(,10:50)
/    TRANS-ADMISSION='GreetingsFromWestEnd'
```

With this command the file FILE is transferred to computer WESTEND2 and stored there under the same name with the same ID as in the local system. The start time for this request is set at the earliest for 10:50 on the day the request is issued. This is why there is a comma first in the parentheses after START. It indicates that for the DATE operand that should come first in the parentheses, the default value *TODAY has been taken.

Since the ID is password-protected, it is necessary to specify the transfer admission GreetingsFromWestEnd. If the IDs are not password-protected then this operand is omitted from the command.

15. Local file processing between two openFT (BS2000) systems

A list of the names of files for the local ID is to be transferred to the remote file SFA-FILE.LOCAL.

```
/TRANSFER-FILE                                                  –
/   TRANSFER-DIRECTION=*TO-PARTNER, PARTNER=BS2PART,            –
/   LOCAL-PARAMETER=(FILE-NAME=                                 –
/   C'|/SHOW-FILE-ATTRIBUTES OUT=*SYSLST'),                     –
/   REMOTE-PARAMETER=*BS2000(FILE-NAME=SFA-FILE.LOCAL,          –
/   TRANSFER-ADMISSION=PROFBS2PART)
%  FTR0000 Request 172281 accepted
```

Short form:

```
/TFF TO,BS2PART,('|/SHOW-FI-ATTR OUT=*SYSLST'),                –
/   (SFA-FILE.LOCAL,,PROFBS2PART)
```

16. Remote preprocessing between two openFT (BS2000) systems

A list of the FT partner systems in the remote system is to be transferred to the local file INFO.BS2PART.

> **i** In openFT versions <10 the remote ID must possess the FT ADMINISTRATION privilege in order to be able to obtain information about the partner systems. If this is not the case then the request is aborted with message FTR2140.

```
/TRANSFER-FILE                                                 –
/   TRANSFER-DIRECTION=*FROM-PARTNER, PARTNER=BS2PART,          –
/   LOCAL-PARAMETER=(FILE-NAME=INFO.BS2PART),                   –
/   REMOTE-PARAMETER=*BS2000(FILE-NAME=                         –
/   C'|/SH-FT-PART OUT=*SYSLST',        –
/   TRANSFER-ADMISSION=PROFBS2PART)
%  FTR0000 Request 132281 accepted
```

Short form:

```
/TFF FROM,BS2PART,(INFO.BS2PART),                              –
/ ('|/SH-FT-PART OUT=*SYSLST'        –
/ ,,PROFBS2PART)
```

17. FTINFO command for remote preprocessing

   You want to determine what openFT version is installed on a remote computer.

   ```
   /TRANSFER-FILE                                                 –
   /   TRANSFER-DIRECTION=*FROM-PARTNER, PARTNER=UNKNOWN,         –
   /   LOCAL-PARAMETER=(FILE-NAME=FTINFO.UNKNOWN),               –
   /   REMOTE-PARAMETER=*BS2000(FILE-NAME=                        –
   /   C'|ftinfo -csv',                                           –
   /   TRANSFER-ADMISSION=PROFUNKNOWN)
   %  FTR0000 Request 132274 accepted
   ```

   Short form:

   ```
   /TFF FR,UNKNOWN,(FTINFO.UNKNOWN),('|ftinfo -csv',,PROFUNKNOWN)
   ```

18. Local preprocessing and remote postprocessing

   Information on the last 100 locally written logging records should be stored in the remote BS2000 system PARTBS2, in the file FILE.LOG under the transfer admission TRANSADM. The FILE.LOG file should be write-protected after the transfer.

   ```
   /TFF TO,PARTBS2,('|/SH-FT-LOG ,100,OUT=*SYSLST'),            –
   /    ('|/CPF %TEMPFILE,FILE.LOG;/MDFA FILE.LOG,PROT=(,*READ)' –
   /     ,,TRANSADM)
   ```

3.48 TRANSFER-FILE-SYNCHRONOUS
Transfer file synchronously

Note on usage

User group: FT user

Alias name: FTSCOPY

Functional description

With the TRANSFER-FILE-SYNCHRONOUS command, you issue a synchronous request to send one or more files to the remote system or to retrieve one or more files from the remote system.

With a few exceptions, the operands are identical to those of the TRANSFER-FILE command. Consequently only the syntax is described.

TRANSFER-FILE-SYNCHRONOUS differs from TRANSFER-FILE in the following points:

– There is no local follow-up processing. The local parameters PROCESSING-ADMISSION, SUCCESS-PROCESSING and FAILURE-PROCESSING are therefore omitted.

– The local parameters LISTING, MONJV and JV-PASSWORD are not supported.

– The general parameters PRIORITY, START and CANCEL are not used, because they do not have any significance for synchronous transfer.

– For the FTAM protocol applies: It is also possible to fetch or send multiple files for each FTSCOPY command. This is controlled via using a file name starting with two commas. Please refer to the openFT manual "Concepts and Functions", section "Special points for file transfer with FTAM partners" for details.

The name of the command procedure which previously had the identical name has changed to START-TRANSFER-FILE-SYNCH.

Format

(part 1 of 4)

TRANSFER-**FILE-SYN**CHRONOUS / **FTSCOPY**

 TRANSFER-**DIR**ECTION = **TO**-PARTNER / **FROM-**PARTNER

,**PART**NER = <text 1..200 with-low>

,**LOC**AL-PARAMETER = ***PAR**AMETERS(...)

   *PARAMETERS(...)

       FILE-NAME = ***NOT-SPECIFIED** / <filename 1..54> / <c-string 1..512 with-low> /

           *LIBRARY-**ELEM**ENT(...) / ***POS**IX(NAME=<posix-pathname 1..510>)

         *LIBRARY-**ELEM**ENT(...)

            LIBRARY = ***NOT-SPECIFIED** / <filename 1..54>

            ,**ELEM**ENT = ***NOT-SPECIFIED** / <filename 1..64 without-gen-vers>(...) /

                   <composed-name 1..64 with-under>(...)

             <filename>(...) / composed-name>(...)

                VERSION = ***STD** / <text 1..24>

          ,**TYPE** = ***NOT-SPECIFIED** / <alphanum-name 1..8>

       ,**PASS**WORD = ***NONE** / <c-string 1..4> / <x-string 1..8> /

             <integer -2147483648..2147483647> / ***SECRET**

       ,**TRANS**FER-**ADM**ISSION = ***SAME** / <alphanum-name 8..32> / <x-string 15..64> /

                    <c-string 8..32 with-low> / ***SECRET** / ***PAR**AMETERS(...)

         *PARAMETERS(...)

            USER-IDENTIFICATION = <name 1..8>

            ,**ACCOUNT** = ***NONE** / <alphanum-name 1..8>

            ,**PASS**WORD = ***NONE** / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / ***SECRET**

       ,**CODED-CHAR**ACTER-**SET** = ***STD** / <name 1..8>

(part 2 of 4)

```
,REMOTE-PARAMETER = *BS2000(...) / *MSP(...) / *ANY(...)

   *BS2000(...)
        FILE-NAME = *SAME / *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> /
                    *LIBRARY-ELEMENT(...) / *POSIX(NAME=<posix-pathname 1..510>)
           *LIBRARY-ELEMENT(...)
                LIBRARY = *SAME / *NOT-SPECIFIED / <filename 1..54>
                ,ELEMENT = *SAME / *NOT-SPECIFIED / <filename 1..64 without-gen-vers>(...) /
                           <composed-name 1..64 with-under>(...)
                    <filename>(...) / <composed-name>(...)
                         VERSION = *SAME / *STD / <text 1..24>
                ,TYPE = *SAME / *NOT-SPECIFIED / <alphanum-name 1..8>
        ,PASSWORD = *SAME / *NONE / <c-string 1..4> / <x-string 1..8> /
                    <integer -2147483648..2147483647> / *SECRET
        ,TRANSFER-ADMISSION = *SAME / <alphanum-name 8..32> / <x-string 15..64> /
                              <c-string 8..32 with-low>/ *SECRET / *PARAMETERS(...)
           *PARAMETERS(...)
                USER-IDENTIFICATION = <name 1..8>
                ,ACCOUNT = *NONE / <alphanum-name 1..8>
                ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
           *PARAMETERS(...)
                USER-IDENTIFICATION = <name 1..8>
                ,ACCOUNT = *NONE / <alphanum-name 1..8>
                ,PASSWORD = *NONE / <c-string 1..8> / <c-string 9..32> / <x-string 1..16> / *SECRET
        ,SUCCESS-PROCESSING = *NONE / <c-string 1..1000 with-low>
        ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
        ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
        ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)
           *PARAMETERS(...)
                READ-FILE = *NO / *YES
                ,INSERT-DATA-UNIT = *NO / *YES
                ,REPLACE-FILE = *NO / *YES
                ,EXTEND-FILE = *NO / *YES
                ,ERASE-DATA-UNIT = *NO / *YES
                ,READ-ATTRIBUTES = *NO / *YES
                ,CHANGE-ATTRIBUTES = *NO / *YES
                ,DELETE-FILE = *NO / *YES
        ,CODED-CHARACTER-SET = *STD / <name 1..8>
```

(part 3 of 4)

```
*MSP(...)
   FILE-NAME = *NOT-SPECIFIED / <text 1..56>
   ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
   ,TRANSFER-ADMISSION = <alphanum-name 8..32> / <x-string 15..64> / <c-string 8..32 with-low> /
                         *SECRET / *PARAMETERS(...)
      *PARAMETERS(...)
         USER-IDENTIFICATION = <name 1..7>
         ,ACCOUNT = *NONE / <text 1..43>
         ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
   ,PROCESSING-ADMISSION = *SAME / *NOT-SPECIFIED / *PARAMETERS(...)
      *PARAMETERS(...)
         USER-IDENTIFICATION = <name 1..7>
         ,ACCOUNT = *NONE / <text 1..43>
         ,PASSWORD = *NONE / <alphanum-name 1..8> / *SECRET
   ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
   ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
   ,CODED-CHARACTER-SET = *STD / <name 1..8>
*ANY(...)
   FILE-NAME = *NOT-SPECIFIED / <filename 1..54> / <c-string 1..512 with-low> /
               *LIBRARY-ELEMENT(...)
      *LIBRARY-ELEMENT(...)
         LIBRARY = *NOT-SPECIFIED / <c-string 1..63 with-low>
         ,ELEMENT = *NOT-SPECIFIED / <c-string 1..64 with-low>(...)
            <c-string 1..64 with-low>(...)
               VERSION = *NONE / *STD / <c-string 1..24 with-low>
         ,TYPE = *NONE / *NOT-SPECIFIED / <c-string 1..8 with-low>
   ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / *SECRET
   ,TRANSFER-ADMISSION = *NONE / <alphanum-name 8..32> / <x-string 15..64> /
                         <c-string 8..32 with-low> / *SECRET / *PARAMETERS(...)
      *PARAMETERS(...)
         USER-IDENTIFICATION = <c-string 1..67 with-low>
         ,ACCOUNT = *NONE / <c-string 1..64 with-low>
         ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
   ,PROCESSING-ADMISSION = *SAME / *NONE / *PARAMETERS(...)
      *PARAMETERS(...)
         USER-IDENTIFICATION = <c-string 1..67 with-low>
         ,ACCOUNT = *NONE / <c-string 1..64 with-low>
         ,PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128 with-low> / *SECRET
```

```
         ,SUCCESS-PROCESSING = *NONE /<c-string 1..1000 with-low>
         ,FAILURE-PROCESSING = *NONE / <c-string 1..1000 with-low>
         ,FILE-AVAILABILITY = *BY-RECEIVING-SYSTEM / *IMMEDIATE / *DEFERRED
         ,STORAGE-ACCOUNT = *NONE / <c-string 1..40 with-low> / <text 1..40>
         ,ACCESS-MODE = *BY-RECEIVING-SYSTEM / *PARAMETERS(...)
            *PARAMETERS(...)
                 READ-FILE = *NO / *YES
                ,INSERT-DATA-UNIT = *NO / *YES
                ,REPLACE-FILE = *NO / *YES
                ,EXTEND-FILE = *NO / *YES
                ,ERASE-DATA-UNIT = *NO / *YES
                ,READ-ATTRIBUTES = *NO / *YES
                ,CHANGE-ATTRIBUTES = *NO / *YES
                ,DELETE-FILE = *NO / *YES
         ,LEGAL-QUALIFICATION = *NONE / <c-string 1..80 with-low> / <text 1..80>
         ,CREATE-PASSWORD = *NONE / <c-string 1..64 with-low> / <x-string 1..128> / *SECRET
         ,CODED-CHARACTER-SET = *STD / <name 1..8>
 ,COMPRESS = *NONE / *BYTE-REPETITION / *ZIP

 ,WRITE-MODE = *REPLACE-FILE / *NEW-FILE / *EXTEND-FILE

 ,DATA-TYPE = *NOT-SPECIFIED / *CHARACTER (...) / *BINARY (...) / *USER

    *CHARACTER(...)
       │ TRANSPARENT = *NO / *YES

    *BINARY(...)
       │ TRANSPARENT = *NO / *YES

 ,DATA-ENCRYPTION = *NO / *YES / *ONLY-DATA-INTEGRITY

 ,RECORD-SIZE = *NOT-SPECIFIED /<integer 1..32756>

 ,RECORD-FORMAT = *STD / *FIXED / *VARIABLE / *UNDEFINED

 ,TARGET-FILE-FORMAT = *SAME / *BLOCK-ORIENTED / *SEQUENTIAL(...)

    *SEQUENTIAL(…)
       │ RECORD-FORMAT = *SAME / *UNDEFINED

 ,PROTECTION = *STD / *SAME

 ,LAST-CHANGE-DATE = *STD / *SAME
```

Operands

The meaning of the operands is the same as for asynchronous file transfer, see the operand
description for TRANSFER-FILE as of .

Example

The POSIX file *file.posix* is to be transferred to the remote Unix system PUX. Here, it is to be stored in the directory dir (subdirectory of the HOME directory) under the transfer admission ForUXSys. ZIP compression is to be used for transfer.

```
/TRANS-FILE-SYNC TRANS-DIR=TO,PARTNER=PUX,              -
/ LOCAL=*PAR(FILE-NAME=*POS(file.posix)),               -
/ REM=*ANY(FILE-NAME='dir/file.ux',TRANS='ForUXSys'), -
/ COMP=*ZIP
FTR0005 Request 91339. File './file.posix' transferred
```

Short form:

```
FTSCOPY TO,PUX,('./file.posix'),*a('dir/file.ux',,'ForUXSys'),*ZIP
```

3.49 UPDATE-FT-PUBLIC-KEYS
Update public keys

Note on usage

User group: FT administrator

Alias name: FTUPDKEY

Functional description

Using the UPDATE-FT-PUBLIC-KEYS command, you can newly create the public key files of the key pair sets present in your openFT instance. This may become necessary if the existing public key files are unintentionally deleted. In addition, the command imports updated comments from SYSPKF.COMMENT to the public key files (see below).

The key pair consists of a private key, which is administered internally by openFT, and a public key.

Public keys are stored on the configuration user ID of the openFT instance (default: $SYSFJAM) under the name:

 SYSPKF.R<key reference>.L<key length>:

The key reference is a numeric designator for the version of the key pair. Following installation, the key length is 2048 bits by default. The public key files are text files that are created in the character code of the respective operating system, i.e. EBCDIC.DF04-1 for BS2000, IBM1047 for z/OS, ISO8859-1 for Unix systems and CP1252 for Windows systems.

In a file SYSPKF.COMMENT on the configuration user ID of the openFT instance, you can store comments that are written in the first lines of this file when an existing public key file is updated. Such comments might contain, for example, the communications partner and the telephone number of the FT administrator on duty. The lines in the SYSPKF.COMMENT file may be a maximum of 78 characters in length.

Public key files with invalid key reference are automatically deleted (for example, public keys, for which openFT no longer has an internal private key).

Format

UPDATE-**FT-PUB**LIC-**KEYS** / **FTUPDKEY**

Without operands

Command return codes

(SC2)	SC1	Maincode	Meaning
83	32	CMD0221	Internal error.
33	64	FTR1033	The public key files could not be updated.
35	64	FTR1035	The user is not authorized to use this command.

SC1/2 = Subcode 1/2 in decimal notation

For additional information, see section "Command return codes" on page 45.

4 Command return codes for file transfer and file management

The command return codes listed in the table below may occur in connection with file transfer and file management. They apply to the following commands

CREATE-REMOTE-DIR
DELETE-REMOTE-DIR
DELETE-REMOTE-FILE
GET-REMOTE-FILES
MODIFY-FILE-ATTRIBUTES
MODIFY-REMOTE-DIR-ATTR
MODIFY-REMOTE-FILE-ATTRIBUTES
TRANSFER-FILE
TRANSFER-FILE-SYNCHRONOUS

(SC2)	SC1	Maincode	Meaning
0	0	FTR0000	Request accepted. The request ID is present as an insert in the SYSOUT message.
0	0	CMD0001	The file transfer request has been successfully completed. Follow-up processing has been started for both the local system and the remote system, as requested, provided no error occurred. Local errors are indicated a message.
20	64	FTR0020	The command was not executed. Send file unknown.
35	128	FTR0035	File locked to prevent multiple access. The send file or the receive file is already locked by another process to prevent it from being updated simultaneously.
41	128	FTR0041	Request queue full.
108	128	FTR0108	Remote system not accessible.
32	32	CMD0221	Request rejected. Internal error. Job variable not accessible.
33	32	CMD0221	Request rejected. Internal error.
34	32	FTR0802	Warning: Job variable contents inconsistent.

(SC2)	SC1	Maincode	Meaning
35	64	FTR0803	Request rejected. Follow-up processing could not be started. Incorrect specifications for the admission to perform follow-up processing (processing admission).
865	32	FTR0865	Not all files transferred successfully.
36	32	CMD0221	Request rejected. Request data inconsistent.
82	32	CMD0221	Internal error. Job variable not accessible.
83	32	CMD0221	Internal error.
84	32	CMD0221	Internal error. Current instance incompatible.
85	32	CMD0221	Internal error. The command could not be executed because openFT code could not be loaded.
86	32	CMD0221	Writing of log records no more possible. Process terminated.
87	32	CMD0221	No space left on device for internal files.
88	32	CMD0221	Error during ops generation.
89	32	CMD0221	Error in key file '>>1<<'.
90	32	CMD0221	Internal error. Set / release file-locks not possible.
94	32	CMD0221	Protocol stack '>>1<<' not installed.
95	32	CMD0221	FTAC subsystem not available.
231	32	CMD0221	openFT panic >>1<<. Abnormal termination.
2	0	FTR2014	No file attribute changes requested.
15	64	FTR2015	openFT is not authorized to execute requests for this user.
16	64	FTR2016	The specified directory is not empty.
17	64	FTR2017	File attributes do not match request parameters.
18	64	FTR2018	Attributes could not be modified.
19	64	FTR2019	File could not be created.
21	64	FTR2021	CCS name unknown.
22	64	FTR2022	Higher-level directory not found.
23	64	FTR2023	The command was not executed. Receive file already exists.
24	64	FTR2024	Transfer of file generation groups not supported.
25	64	FTR2025	Error accessing. DMS error, possibly the transfer ID.
26	64	FTR2026	Resulting file name too long. The relative file name was specified in the transfer request. The absolute file name completed by openFT is longer than permitted.
27	64	FTR2027	No file name specified. Request ID present as insert in the SYSOUT message.
28	64	FTR2028	Invalid management password.

(SC2)	SC1	Maincode	Meaning
29	128	FTR2029	The volume for either the send file or the receive file is not mounted.
30	64	FTR2030	Home directory not found.
31	64	FTR2031	Renaming not possible.
128	32	FTR2032	The command was not (fully) executed. Not enough space.
33	64	FTR2033	The command was not executed. The owner of the file is unknown in the system.
34	64	FTR2034	Invalid file password.
36	64	FTR2036	Retention period of file not yet expired.
37	64	FTR2037	File is read only.
38	64	FTR2038	File structure not supported.
39	64	FTR2039	Syntax error in resulting file name.
42	64	FTR2042	Extension of file not possible for transparent transfer.
43	64	FTR2043	Access to file denied.
44	64	FTR2044	Follow-up processing exceeds length limit.
45	64	FTR2045	Processing admission invalid.
46	64	FTR2046	Local transfer admission invalid.
47	64	FTR2047	Request rejected by local FTAC.
48	64	FTR2048	The function is not available for the selected protocol.
49	64	FTR2049	Remote follow-up processing not supported.
50	64	FTR2050	Data integrity check not supported.
51	64	FTR2051	User data encryption not possible for this request.
70	64	FTR2070	openFT is no longer authorized to execute requests for this user.
71	64	FTR2071	User data encryption not installed.
72	64	FTR2072	The FT request was canceled because, for example, the command CANCEL-FILE-TRANSFER was specified, or the time specified in TRANSFER-FILE has been reached.
73	64	FTR2073	Encryption error.
74	64	FTR2074	Request rejected. The file could not be created.
75	64	FTR2075	Higher-level directory no longer found.
76	64	FTR2076	Request rejected. I/O error. Receive file may have been deleted.
77	128	FTR2077	File now locked to prevent multiple access The command was not executed because the send file or the receive file is already locked by another process so that it cannot be simultaneously updated.

(SC2)	SC1	Maincode	Meaning
78	128	FTR2078	Request rejected. the volume for either the send file or the receive file is not available.
79	64	FTR2079	File no longer found. The local send or receive file can no longer be accessed because, for example, it was deleted during an interruption of the openFT system.
80	64	FTR2080	Home directory no longer found.
81	128	FTR2081	The command was not executed (any further) executed. Not enough space.
82	64	FTR2082	File owner no longer known.
83	64	FTR2083	Request rejected. Pre-/postprocessing error.
84	64	FTR2084	Request rejected. An exit code for pre-/postprocessing is returned.
85	64	FTR2085	Request rejected. File password no longer valid.
86	64	FTR2086	File is now read only.
87	64	FTR2087	Request rejected. File structure error. Request ID is present as an insert in the SYSOUT message.
88	128	FTR2088	NDMS error. The request was rejected because the partner system currently does not have the resources available to accept requests.
89	64	FTR2089	The restart attempts were unsuccessful, for example, a pre-/postprocessing command could not be completed before the termination of openFT.
90	64	FTR2090	Error in file transfer completion. An error occurred during the final phase of the file transfer. If it was a long transfer, the recipient is advised to check if the file has still been transferred correctly. However, error follow-up processing will be started if it was specified.
2	0	FTR2091	Requests only partially completed; 'n' of 'm' files were transferred. In the case of a synchronous send request with wildcards, not all files were successfully transferred.
92	64	FTR2092	Access to 'file' no longer permissible. The command was not executed because either the send file or the receive file only permits certain access modes (e.g. read only) or because a directory was specified as either the source or destination of a file transfer.
93	128	FTR2093	FTAM error 'error_code'.
94	64	FTR2094	Retention period of file not yet expired.

(SC2)	SC1	Maincode	Meaning
95	64	FTR2095	Extension of file not possible for transparent transfer.
96	64	FTR2096	File structure not supported.
109	64	FTR2109	Connection setup rejected by local transport system.
110	64	FTR2110	Data integrity check indicates an error.
111	64	FTR2111	Encryption/data integrity check not possible. Encryption switched off.
112	64	FTR2112	Data integrity check not supported by partner.
113	64	FTR2113	Request rejected. User data encryption not possible for this request.
114	64	FTR2114	Identification of local system rejected by remote system.
115	64	FTR2115	Interrupted by remote system.
116	64	FTR2116	The local application is not defined in the transport system.
117	64	FTR2117	Local application not available.
118	64	FTR2118	Authentication of local system failed.
119	64	FTR2119	Local system unknown in remote system.
120	64	FTR2120	Remote system unknown.
121	64	FTR2121	Authentication of partner failed.
122	64	FTR2122	FT session rejected or disconnected. Reason 'error'.
123	64	FTR2123	OSS call error.
124	128	FTR2124	No free connection.
125	128	FTR2125	Request rejected. Connection lost.
126	64	FTR2126	Transport system error. Error code 'error_code'
127	128	FTR2127	No data traffic within 'n' seconds.
129	64	FTR2129	No further files will be transferred.
140	64	FTR2140	Remote system: openFT is not authorized to execute requests for this user.
141	64	FTR2141	Remote system: Directory is not empty.
142	64	FTR2142	Remote system: File attributes do not match the request parameters.
143	64	FTR2143	Remote system: Attributes could not be modified.
144	64	FTR2144	Remote system: File/directory could not be created.
145	64	FTR2145	Remote system: CCS name unknown or not supported.
146	64	FTR2146	Remote system: Higher-level directory not found.
147	64	FTR2147	Remote system: File/directory already exists.
148	64	FTR2148	Remote system: Transfer of file generation groups not supported.

(SC2)	SC1	Maincode	Meaning
149	64	FTR2149	Remote system: Access error . DMS error, possibly the transfer ID. The FT system continues to run after output of the message
150	64	FTR2150	Request rejected. Remote system: Resulting file name too long.
151	128	FTR2151	Remote system: File locked to prevent multiple access.
152	64	FTR2152	Remote system: No file or directory name specified.
153	64	FTR2153	Remote system: Invalid management password.
154	128	FTR2154	Remote system: File/directory not available.
155	64	FTR2155	Remote system: File/directory not found. On deletion, the return code SC2=1 and SC1=0 is output, otherwise SC2=155 and SC1=64.
156	64	FTR2156	Remote system: Home directory not found.
157	64	FTR2157	Remote system: Renaming not possible.
158	128	FTR2158	The command was not executed (any further). Remote system: Not enough space.
159	64	FTR2159	Remote system: File owner unknown.
160	64	FTR2160	Remote system: Invalid file password.
161	64	FTR2161	Remote system: Retention period of file not yet expired.
162	64	FTR2162	Remote system: File/directory is read only.
163	64	FTR2163	Remote system: File structure not supported.
164	64	FTR2164	Request rejected. Remote system: Syntax error in resulting file name.
165	64	FTR2165	Remote system: Transparent file transfer not supported
166	64	FTR2166	Remote system: Extension of file not possible for transparent transfer.
167	64	FTR2167	Remote system: Access to denied.
168	64	FTR2168	Remote system: Follow-up processing exceeds length limit.
169	64	FTR2169	Request rejected. Remote system: Transfer admission invalid. Transfer admission incorrect or insufficient FTAC authorizations.
170	64	FTR2170	Request rejected. Remote system: Function not supported.
171	64	FTR2171	Remote system: Processing admission invalid.
172	128	FTR2172	Remote system: Request queue full.
174	64	FTR2174	No files corresponding to specified pattern found.
195	64	FTR2195	Remote system: openFT is not longer authorized to execute requests for this user.

(SC2)	SC1	Maincode	Meaning
196	64	FTR2196	The request has been canceled in the remote system.
197	64	FTR2197	Request rejected. Remote system: File/directory could not be created.
198	64	FTR2198	Remote system: Higher-level directory no longer found.
199	64	FTR2199	Remote system: I/O error, e.g. DMS error, possibly the transfer ID. The file was deleted during transfer.
200	128	FTR2200	Remote system: File now locked to prevent multiple access.
201	128	FTR2201	Request rejected. Remote system: File/directory no longer available.
202	64	FTR2202	Remote system: File/directory no longer found.
203	64	FTR2203	Remote system: Home directory no longer found.
204	128	FTR2204	The command was not executed (any further). Remote system: File/directory gets no more space.
205	64	FTR2205	Remote system: File owner no longer known.
206	64	FTR2206	Request rejected. Remote system: Pre-/postprocessing error.
207	64	FTR2207	Request rejected. Remote system: Exit code is returned during pre-/postprocessing.
208	64	FTR2208	Request rejected. Remote system: File password no longer valid.
209	64	FTR2209	Remote system: File/directory is now read only.
210	64	FTR2210	Request rejected. Remote system: File structure error.
211	128	FTR2211	Remote system: NDMS error.
212	64	FTR2212	Recovery failed.
213	128	FTR2213	Remote system: Resource bottleneck.
214	64	FTR2214	Remote system: Access to 'file' is no longer permissible.
215	128	FTR2215	FTAM error.
216	64	FTR2216	Remote system: File structure not supported.
217	64	FTR2217	Remote system: Retention period of file not yet ex.
218	64	FTR2218	Remote system: Extension of file not possible for transparent transfer.
2	0	FTR2225	Information output canceled.
226	64	FTR2226	Job variable contents inconsistent.
227	64	FTR2227	Job variable not in use by openFT.
228	64	FTR2228	Job variable not found

SC1/2 = Subcodes 1/2 in decimal notation
See the section entitled Messages for additional information.

5 What to do if ...?

The error FTR2046 or FTR2047 is displayed as a direct response to TRANSFER-FILE (NCOPY)

Possible cause	Suggested action
Incorrect transfer admission in the local system	Enter a valid transfer admission
If openFT-AC is installed:	
Transfer admission in the local system does not grant access to the desired request	Use /SHOW-FT-LOGGING-RECORDS␣ (RECORD-TYPE= (FT=NONE)),NUMBER=n to output the return code (RC) of the FTAC logging record, and then check the reason for the rejection using /HELP-MSG␣MSG-ID= FTCxxxx, LANG=E (xxxx=RC)

The error FTR2169 as a response to TRANSFER-FILE and in other situations

Possible cause	Suggested action
Incorrect transfer admission in the remote system	Enter a valid transfer admission
Transfer admission in the remote system does not grant access to the required request	Determine the grounds for rejection in the remote system; With BS2000 partners: /SHOW-FT-LOGGING-RECORDS␣ (RECORD-TYPE= (FT=NONE)),NUMBER=n and /HELP-MSG␣MSG-ID= FTCxxxx, LANG=E (xxxx=RC from logging record) With z/OS partners: FTSHWLOG␣(RECORD-TYPE=(FT=NONE)),NUMBER=n and FTHELP xxxx With Unix or Windows partners: ftshwl␣-rt=c and fthelp␣xxxx (xxxx=RC from logging record)

The error FTRxxxx is displayed as a direct response to TRANSFER-FILE (NCOPY)

Possible cause	Suggested action
Error in the local system	Use /HELP-MSG␣MSG-ID=FTRxxxx, LANG=E to request additional information or refer to the manual.

The error FTR2212 is displayed following a TRANSFER-FILE command with preprocessing or postprocessing

Possible cause	Suggested action
Problem in the remote system: remote system is not active	Contact system administrator of remote system
FT not started in the remote system	
FT limits in the remote system have been reached, e.g. CONN-LIM in a remote BS2000 system	
Network problems	Inform network administrator

The error FTR2109 (openFT protocol) resp. FTR0108 (FTAM) is displayed following the file management command

Possible cause	Suggested action
No BCIN or BCACT was entered for the remote system	Inform the system administrator

The error FTR2025, FTR2076 or FTR2199 is displayed following the file management command to an FTAM partner

Possible causes	Suggested action
The local or remote file management system reports an error which cannot be mapped onto any significant FTR message. The return code output is reported by the protocol, not by the file management system in question.	Try to use a normal COPY command to copy the (send) file to the specified receive file. Any error message which occurs in the process can be related to the FT command.

The error FTRxxxx in other situations

Possible cause	Suggested action
Error in the remote system (in most cases) Error in the local system (less common)	Use /HELP-MSG␣MSG-ID=FTRxxxx, LANG=E to request additional information.
Exception with the error: FTR0035 / FTR 2077 / FTR 2200 FILE LOCKED Both the local and the remote file may be locked.	
FTR2043 and FTAM partner: rights for permitted actions may be missing in local system.	Use /MODIFY-FILE-FT-ATTRIBUTES to change rights

The follow-up processing should always be printed

Possible cause	Suggested action
	Define follow-up processing as an ENTER procedure using /LOGOFF or use the corresponding command sequence

Follow-up processing is not executed

Possible cause	Suggested action
– Error in follow-up processing command and follow-up processing log was intercepted and suppressed. – A space character after a semicolon, if several follow-up processing sessions were specified.	Check follow-up processing commands or prevent error interception in order to receive a log indicating the cause of the problem.

Problems during the execution of preprocessing or postprocessing commands

Possible cause	Suggested action
Error in the pre- or postprocessing command or a space character after a semicolon, if several pre-/postprocessing commands were specified.	Check the pre-/postprocessing commands.

Possible cause	Suggested action
The job class, in which the processing job is to be started does not allow processing to be immediately carried out	
The SPOOL sub-system has not started	Start the subsystem SPOOL (have it started)
The instance-specific jobs TSOVVJOB or TSONVJOB are incorrectly structured	Ask the FT administrator if there are fundamental problems with preprocessing or postprocessing

Remote follow-up processing in event of error (FAILURE PROCESSING) is not executed

Possible cause	Suggested action
The file transfer command was accepted (FTR0000), but an error was discovered before file transfer started (e.g. receive file locked)	

No result information is displayed at the terminal

Possible cause	Suggested action
No input after the TRANSFER-FILE (NCOPY) command	Enter data at the system
Message overlooked, or a LOGOFF/ LOGON command was entered after the TRANSFER-FILE (NCOPY) command	View logging records
Asynchronous messages have been suppressed with MODIFY-MSG-OPTIONS␣ OPERATOR-MSG=NO	Specify /MODIFY-MSG-OPTIONS␣OPERATOR-MSG=YES
A program has been loaded as a background task	Terminate the program
	Wait

A cancelled request is still in the request queue

Possible cause	Suggested action
The request was already active when the connection to the remote system was lost	Wait until the connection is restored so that openFT can notify the partner system about the cancellation. If the request does not "disappear" after restoring the connection, it can ultimately be deleted by the FT administrator using CNFT with FORCE-CANCELLATION=*YES.

Despite issuing the CANCEL-FILE-TRANSFER (NCANCEL) command, the request has been executed

Possible cause	Suggested action
CANCEL-FILE-TRANSFER (NCANCEL) came too late; the request had already been executed	

A very large file cannot be transferred

Possible cause	Suggested action
There is not enough contiguous disk space on a public volume set.	Discuss the problem with the system administrator.

No information on a TRANSFER-FILE (NCOPY) request

Possible cause	Suggested action
	Check using /SHOW-FT-LOGGING-RECORDS␣NUMBER=n

No result list

Possible cause	Suggested action
Specify LIST=*NONE (default value)	
Printout lost	
The default public volume set of the request initiator was not attached at the end of transfer	
The instance-specific job PRTJOB is incorrectly structured	Ask the FT administrator if there are fundamental problems with result lists

The file is locked, though the file transfer was completed

Possible cause	Suggested action
	Contact the system administrator; the file lock can be reset by the administrator with the VERIFY command

The request is not displayed with the SHOW-FILE-TRANSFER (NSTATUS) command, although MONJV is set to W or R

Possible cause	Suggested action
JV was changed illegally	Check in the dialog or the result list for the warning FTR0802
The public volume set for MONJV was not available during the update	

The request marked with * remains in WAIT status

Possible cause	Suggested action
Partner deactivated by the FT administrator	If necessary, inform the system administrator

The request marked with ! remains in WAIT status

Possible cause	Suggested action
Connection setup failed	
remote system not active	Contact system administrator of remote system
FT not active in the remote system	Contact system administrator of remote system
In a BS2000 system there was no BCIN/BCACT for the local system	Contact system administrator of remote system
Maximum number of connections permitted in remote system currently reached.	

The request marked with ? remains in WAIT status

Possible cause	Suggested action
There is no BCIN/BCACT for the remote system (in the local system)	If necessary, inform the system administrator

Possible cause	Suggested action
The local system is not entered in the remote FT system	Contact system administrator of remote system.
No valid partner key is stored in the local system (STATE RAUTH in SHOW-FT-PARTNERS)	The FT administrator must store a current, public partner system key in the SYSKEY library on the configuration user ID of the local instance (element type D, name: symbolic name of the partner system as in the network descriptions file.
No valid local system key is stored in the remote system (STATE LAUTH in SHOW-FT-PARTNERS)	The local FT administrator must transmit a current, public key to the FT administrator of the partner system, which then must be stored in the appropriate location.

The request not marked remains in WAIT status

Possible cause	Suggested action
Normal waiting time for system resources	wait

5.1 Frequently asked questions

What is the shortest form of the NCOPY command?

In order to send a file to a partner system, it is usually sufficient to issue the following command. The entries to be replaced begin with lowercase letters:

```
/TFF TO,partner,(file),(,,transAd)
```

TFF is an abbreviation for the TRANSFER-FILE (NCOPY) command. The same effect is, of course, also achieved with the alias NCOPY, for example.

Any FTAC transfer admission defined in the remote system (e.g. TRANSADM) may be entered for transAd. Alternative input: (user,acc,passwd).

You can also use the same entry for partners on Unix systems, provided, of course, that you do not object to entering the file name in uppercase letters in Unix systems.

The entry will also work for Windows partners, provided the file name is syntactically allowed there.

And what if a library member is to be transferred?

```
/TFF TO,partner,((lib,elem,type)),(,,transAd)
```

The file name must be replaced by (lib,elem,type). Note, however, that this input form does not apply to Unix and Windows partners, since no libraries are present there. You should therefore enter the following:

```
/TFF TO,partner,((lib,elem,type)),(file,,transAd)
```

or

```
/TFF TO,partner,((lib,elem,type)),A('file',,'transAd')
```

Please note that you should generally always specify only guaranteed abbreviations in procedures (e.g. *ANY instead of A) to remain independent of the current FT version being used.

Do I need to specify LIST=*NONE in NCOPY?

No. This entry is the default setting to suppress the result list.

How do I determine which FT requests have succeeded and which ones have failed?

The logging records output by:

```
/SHOW-FT-LOG
```

shows you the result of the last transfer.

If you want to view the last *n* entries, specify:

```
/SHOW-FT-LOG ,n
```

The most recent entry is displayed first.

You can also select logging records using different criteria (e.g. partner, file name, etc.). Note that when openFT-AC is used, two entries are recorded for each TRANSFER-FILE request: the first entry is the FTAC entry, which is identified by a C in the first column, and the second entry, which follows the first, contains the result of the transfer (identified with T).

If you want to see only the results of the transfer, enter:

```
/SHOW-FT-LOG (REC-TYPE=(,N)),n
```

The messages FTR2025, FTR2076 or FTR2199 DMS ERROR return a non-DMS RC as the return code. Why?

These messages are issued whenever the local or remote file management system issues a return code (on a file access error) that cannot be mapped to one of the more informative FTR messages (e.g. FILE UNKNOWN, FILE NOT SHAREABLE). This may be potentially caused by two problems:

The remote file management system need not be the BS2000 DMS (it may be a Unix system or a Windows system, for example).

The transmission protocol only provides for standardized return codes, so your file transfer does not receive the original return code generated on the partner - even if the remote system happens to be a BS2000 system.

Consequently: DMS error simply means an error from the (respective!) file management system, and the return code contains the code forwarded by the transmission protocol.

In such cases, it is often worth trying to copy the file with a normal COPY command (possibly on the local and remote system), since the internal system RC would then be received in the event of an error.

How does one detect whether an error has occurred on the local or remote system?

The following rules apply:

If the TRANSFER-FILE command is not accepted with FTR0000, but is rejected immediately instead, the error always lies on the local system.

For TRANSFER-FILE commands that are rejected after being accepted with FTR0000, the error is almost always on the remote system. As of openFT V10, it is also possible to identify the origin of the problem from the message. If the reason for the rejection is `FTR2169 Remote system: Transfer admission invalid`, the cause in this case always lies in the remote system.

In cases where the partner cannot be reached at all (e.g. FTR0108), the situation is more ambiguous, and there is generally no way of knowing on which side the problem occurred.

How can I easily determine whether or not a partner can be reached?

It is generally not advisable to test an FT connection using the NCOPY command, since the request is processed asynchronously, and the result is therefore not immediately visible. A much simpler test can be performed using:

```
/SHOW-REM-FILE partner
```

If the partner cannot be reached, you will immediately receive a corresponding message.

If the partner can be reached, your request will be rejected by the partner with FTR2169 (since you did not specify a transfer admission or specified an invalid transfer admission), with FTR0020 or FTR2027 (since no file was specified) or with FTR2170 (since the partner does not support file management).

This test can be performed independently of the operating system.

Can I determine the name of a file on the remote system?

Yes. The command

```
/SHOW-REM-FILE partner,*DIR('.'),,transAdm
```

shows you all files on the partner system, or more precisely, all files that you may access under the specified transfer admission transAdm.

Restriction: The '.' entry is not supported by older FT-BS2000 versions. Use *DIR($userid.) in such cases.

If desired, you can also have all members of a library displayed with:

```
/SHOW-REM-FILE partner,*DIR('lib/typ'),,transAdm
```

How can I wait for the result of a transfer before proceeding with a procedure?

By specifying a MONJV, assuming, of course, that your system has monitoring job variables. Enter the command:

```
/NCOPY TO,partner,(file,MONJV=jv),(,,transAd)
```

```
/WAIT (jv,2,1) EQ 'T' OR (jv,2,1) EQ 'A',TIME=sec
```

NCOPY starts the transmission. The WAIT command then waits for a maximum of sec seconds for the transmission to complete. If the operation terminates normally, the job variable is assigned a 'T' at the second position; if an abort occurs, an 'A'.

Another possibility is to use synchronous transfer with FTSCOPY (TRANSFER-FILE-SYNCHRONOUS).

Why was my FT request rejected even though I entered a correct transfer admission?

It is indeed possible for a request to be rejected despite a correctly specified transfer admission (in the form (user,accout,password), for example) or TRANSADM. This is because your request could also be rejected if the transfer admission does not allow you to execute all the actions you want. Here are some potential reasons:

– The user ID is locked on the remote system (e.g. by SEVER/LOCK-USER in BS2000).

– The remote system is not allowing any requests which use transfer admissions of the form (user, account,password), since all levels in the FTAC admission set have been set to 0.

– The desired direction of transfer or your system was rejected by the partner.

– The partner system does not allow the desired function, e.g. follow-up processing or even file management.

In addition, the transfer admission is often specified in uppercase instead of lowercase, and vice versa, especially when given over the phone. Uppercase letters can be effectively specified only within quotes.

Finally, it is possible that the transfer admission you specified was really invalid.

My call was rejected with FTR2169 Remote system: Transfer admission invalid. How do I find out the reason?

The rejection comes from the partner system. Consequently, the cause can only be determined there.

With openFT products, the reason can be easily determined from the FTAC logging record.

To do this, ask your partner to display the last logging record or the last *n* logging records under the receiving ID:

– In BS2000 with /SHOW-FT-LOG [,n]

– In z/OS with FTSHWLOG [,n]

– In a Unix system and a Windows system with ftshwl [-nb=n] or via the respective graphical user interface.

Using the partner, file name, time, etc., as reference points, you will first need to look for the matching FTAC entry (type C or FTAC). The reason for the rejection will be given in the RC column. The meaning of the RC is output directly on a graphical user interface; it can be explicitly requested with /HELP FTCnnnn in BS2000 and with fthelp nnnn in Unix system or Windows system (where nnnn is the RC).

If your partner cannot find any logging record for your request, you have either not contacted the correct partner, or the specified transfer admission does not belong to the expected receiving ID. This could be primarily because the transfer admission does not exist (especially if you entered it incorrectly, for example).

What is an FTAC transfer admission and how can I set one up?

The normal way to identify oneself on a remote system is via the logon entries, i.e., the user ID, account number (only under BS2000 and z/OS) and password:
Operand TRANSFER-ADMISSION=(user-id,account,password).

A simpler method is to use a special authorization exclusively for the file transfer. This is named FTAC transfer admission or shortly transfer admission (TRANSFER-ADMISSION=transAdm). In order to avoid exposing all the details of his/her entire logon authorization, the owner of the transfer admission sets up a so-called admission profile as follows:

– In BS2000: `/CREATE-FT-PROFILE name,,transAdm`

– In z/OS: `FTCREPRF name,,transAdm`

– In a Unix system or a Windows system with `ftcrep name transAdm` or via the respective graphical user interface with File / New / Admission Profile.

In the above entries, name is the name under which the profile can be administered (e.g. deleted again) and may be up to 8 characters in length. transAdm is the admission which is assigned by the partner and which you specify in your FT command, and must be at least 8 characters. If blanks or other special characters appear in it or if a distinction between uppercase and lowercase letters is to be made, the entry must be enclosed within single quotes.

Under BS2000 and z/OS, admission profiles can be set up only on systems with openFT-AC.

6 CSV output

The output format for all commands corresponds to the following rules:

– Each record is output in a separate line. A record contains all the information to be displayed on an object.

– The first line is a header and contains the field names of the respective columns. **Only the field names are guaranteed, not the order of fields in the record.** In other words, the order of columns is determined by the order of the field names in the header line.

– Two tables, with their own respective headers, are output sequentially for the command SHOW-FTAC-ENVIRONMENT. If one of the tables is empty, the corresponding header is also dropped.

– Individual fields within an output line are delimited by a semicolon ";".

The following data types are differentiated in the output:

– Number

Integer

– String

Since ";" is a metacharacter in the CSV output, any text that contains ";" is enclosed in double quotes ("). Double quotes within a text field are doubled in order to differentiate them from text delimiters. When imported into a program, the doubled quotes are automatically removed and the text delimiters removed. Keywords are output in uppercase with a leading asterisk (*) and are not enclosed in double quotes.

– Date

The date and time are output in the form yyyy-mm-dd hh:mm:ss. In some cases, only the short form yyyy-mm-dd is ouput, i.e. the date alone.

– Time

The time is output in the form yyyy-mm-dd hh:mm:ss or only hh:mm:ss.

6.1 SHOW-FILE-TRANSFER

The following table indicates the CSV output format of a request.

Short output is also possible with SHOW-FILE-TRANSFER, see .

The **Parameter** column contains the name of the output parameter during long output, see .

Column	Type	Values and Meaning	Parameter
TransId	Number	Request ID	TRANSFER-ID
Initiator	String	*LOC / *REM Initiator is local / remote	INITIATOR
State	String	*LOCK / *WAIT / *HOLD / *FIN / *ACT / *CANC / *SUSP Request status	STATE
PartnerName	String	Name or address of the partner enclosed in double quotes	PARTNER
PartnerState	String	*ACT / *INACT / *NOCON / *INSTERR Partner status	PARTNER-STATE
TransDir	String	*TO / *FROM Transfer direction	TRANS
ByteNum	Number	Number of bytes transferred / empty	BYTECNT
LocFileName	String	File name or library name in the local system enclosed in double quotes	LOC: FILE or LIBRARY
LocElemName	String	Name of the library element in the local system enclosed in double quotes / *NSPEC	LOC: ELEMENT
LocElemType	String	Type of the library element in the local system enclosed in double quotes / *NSPEC / *NONE	LOC: TYPE
LocElemVersion	String	Version of the library element in the local system enclosed in double quotes / *NSPEC / *NONE	LOC: VERSION
Prio	String	*NORM / *LOW Priority of the request	PRIO
Compress	String	*NONE / *BYTE / *ZIP Compressed transfer	COMPRESS
DataEnc	String	*YES / *NO User data is transferred encrypted / unencrypted	ENCRYPT
DiCheck	String	*YES / *NO Data integrity is checked / is not checked	DICHECK
Write	String	*REPL / *EXT / *NEW Write rules	WRITE

Column	Type	Values and Meaning	Parameter
StartTime	String	Time at which the request is started (format yy-mm-dd hh:mm:ss) / *SOON (request is started as soon as possible)	START
CancelTime	String	Time at which the request is deleted from the request queue (format yy-mm-dd hh:mm:ss) / *NO (no delete time)	CANCEL
Owner	String	Local user ID enclosed in double quotes	OWNER
DataType	String	*CHAR / *BIN / *USER Data type	DATA
Transp	String	*YES / *NO Transfer transparent / not transparent	TRANSP
LocTransAdmId	String	User ID for accessing the local system, enclosed in double quotes / *NONE	LOC: TRANS-ADM (USER)
LocTransAdmAcc	String	Account number for the local system / *NONE	LOC: TRANS-ADM=(...account)
LocProfile	String	Name of the admission profile for accessing the local system enclosed in double quotes / *NONE	LOC: TRANS-ADM=(profile)
LocProcAdmId	String	Transfer admission for follow-up processing in the local system enclosed in double quotes / *NONE	LOC: PROC-ADM=(user...)
LocProcAdmAcc	String	Account number for follow-up processing in the local system / *NONE	LOC: PROC-ADM=(...account)
LocSuccProc	String	Local follow-up processing on success, enclosed in double quotes / *NONE / *SECRET / empty	LOC: SUCC-PROC
LocFailProc	String	Local follow-up processing on error, enclosed in double quotes / *NONE / *SECRET / empty	LOC: FAIL-PROC
LocListing	String	*SYSLST / *LISTFILE / *NONE Result list in the local system	LOC: LIST
LocMonjv	String	Name of the job variable enclosed in double quotes / *NONE	LOC: MONJV
LocCcsn	String	Name of the character set in the local system enclosed in double quotes / *STD	LOC: CCSN
RemFileName	String	File name in the remote system enclosed in double quotes / *NSPEC / *NONE / empty	REM: FILE or LIBRARY
RemElemName	String	Element name enclosed in double quotes / *NSPEC / *NONE	REM: ELEMENT
RemElemType	String	Element type enclosed in double quotes / *NSPEC / *NONE	REM: TYPE

Column	Type	Values and Meaning	Parameter
RemElemVersion	String	Element version enclosed in double quotes / *STD / *NONE	REM: VERSION
RemTransAdmId	String	User ID in the remote system enclosed in double quotes / *NONE	REM: TRANS-ADM=(user-id,...)
RemTransAdmAcc	String	Account number in the remote system enclosed in double quotes / empty	REM: TRANS-ADM=(...,account)
RemTransAdmAccount[1]	String	Account number in the remote system enclosed in double quotes / empty	REM: TRANS-ADM=(...,account)
RemProfile	String	*YES / *NONE *YES means access via FTAC admission profile	REM: TRANS-ADM=REMOTE-PROFILE
RemProcAdmId	String	Transfer admission for follow-up processing in the remote system enclosed in double quotes / *NONE	REM: PROC-ADM=(user-id,...)
RemProcAdmAcc	String	Account number for follow-up processing in the remote system enclosed in double quotes / *NONE	REM: PROC-ADM=(...,account)
RemSuccProc	String	Remote follow-up processing on success, enclosed in double quotes / *SECRET / *NONE / empty	REM: SUCC-PROC
RemFailProc	String	Remote follow-up processing on error, enclosed in double quotes / *SECRET / *NONE / empty	REM: FAIL-PROC
RemCcsn	String	Name of the character set used in the remote system, enclosed in double quotes / *STD	REM: CCSN
FileSize	Number	Size of the file in bytes / empty	FILESIZE
RecSize	Number	Maximum record size in bytes / empty	RECSIZE
RecFormat	String	*STD / *VARIABLE / *FIX / *UNDEFINED Record format	RECFORM
StoreTime	Date	Time at which the request was entered in the request queue	STORE
ExpEndTime	Date	empty	---
TranspMode	String	*YES / *NO Transfer transparent / not transparent	TRANSP
DataEncrypt	String	*YES / *NO User data transferred encrypted / unencrypted	ENCRYPT
TabExp	String	*AUTO / *YES / *NO Tabulator expansion	TABEXP
Mail	String	*ALL / *FAIL / *NO Result messages	LOC: MAIL

Column	Type	Values and Meaning	Parameter
DiagCode	String	empty	---
FileAvail	String	*NSPEC	
StorageAccount	String	empty	
AccessRights	String	empty	
LegalQualif	String	empty	
PartnerPrio	String	*LOW / *NORM / *HIGH Partner priority	PARTNER-PRIO
TargetFileForm	String	*STD / *BLOCK / *SEQ File format in the target system	TARGFORM
TargetRecForm	String	*STD / *UNDEFINED Record format in the target system	TRECFRM
Protection	String	*STD / *SAME Transfer of protection attributes	PROTECT
GlobReqId	Number	Global request identification For locally issued requests, same as request ID; for globally issued requests, same as the request ID in the initiating system	TRANSFER-ID or GLOB-ID
FNCMode	String	*TRANSPARENT / *CHAR Encoding mode for remote file names and follow- up processing	FNC-MODE

[1] RemTransAdmAcc and RemTransAdmAccount have the same meaning and the same content. For reasons of compatibility, both parameters are present in the CSV output.

Short output from SHOW-FILE-TRANSFER in CSV format

INF=*SUMMARY outputs a table with two rows indicating the number of requests that have the corresponding status, see also .

Column	Type	Values
Act	Number	Number of requests with the status ACTIVE
Wait	Number	Number of requests with the status WAIT
Lock	Number	Number of requests with the status LOCK
Susp	Number	Number of requests with the status SUSPEND
Hold	Number	Number of requests with the status HOLD
Fin	Number	Number of requests with the status FINISHED
Total	Number	Total number of requests

6.2 SHOW-FT-ADMISSION-SET

The following table indicates the CSV output format of an admission set.

The **Parameter** column contains the name of the output parameter during normal output, see .

Column	Type	Values and Meaning	Parameter
UserId	String	User ID, enclosed in double quotes / *STD *STD means standard admission set	USER-ID
UserMaxObs	Number	0 ... 100 Maximum user level for OUTBOUND-SEND	MAX. USER LEVELS OBS
UserMaxObsStd	String	*YES / *NO *YES means same value as standard admission set [1]	
UserMaxObr	Number	0 ... 100 Maximum user level for OUTBOUND-RECEIVE	MAX. USER LEVELS OBR
UserMaxObrStd	String	*YES / *NO *YES means same value as standard admission set[1]	
UserMaxIbs	Number	0 ... 100 Maximum user level for INBOUND-SEND	MAX. USER LEVELS IBS
UserMaxIbsStd	String	*YES / *NO *YES means same value as standard admission set [1]	
UserMaxIbr	Number	0 ... 100 Maximum user level for INBOUND-RECEIVE	MAX. USER LEVELS IBR
UserMaxIbrStd	String	*YES / *NO *YES means same value as standard admission set [1]	
UserMaxIbp	Number	0 ... 100 Maximum user level for INBOUND-PROCESSING	MAX. USER LEVELS IBP
UserMaxIbpStd	String	*YES / *NO *YES means same value as standard admission set [1]	
UserMaxIbf	Number	0 ... 100 Maximum user level for INBOUND-FILE-MANAGEMENT	MAX. USER LEVELS IBF
UserMaxIbfStd	String	*YES / *NO *YES means same value as standard admission set [1]	
AdmMaxObs	Number	0 ... 100 Maximum level of FTAC administrator for OUTBOUND-SEND	MAX. ADM LEVELS OBS
AdmMaxObsStd	String	*YES / *NO *YES means same value as standard admission set [1]	

Column	Type	Values and Meaning	Parameter
AdmMaxObr	Number	0 ... 100 Maximum level of FTAC administrator for OUTBOUND-RECEIVE	MAX. ADM LEVELS OBR
AdmMaxObrStd	String	*YES / *NO *YES means same value as standard admission set [1]	
AdmMaxIbs	Number	0 ... 100 Maximum level of FTAC administrator for INBOUND-SEND	MAX. ADM LEVELS IBS
AdmMaxIbsStd	String	*YES / *NO *YES means same value as standard admission set [1]	
AdmMaxIbr	Number	0 ... 100 Maximum level of FTAC administrator for INBOUND-RECEIVE	MAX. ADM LEVELS IBR
AdmMaxIbrStd	String	*YES / *NO *YES means same value as standard admission set [1]	
AdmMaxIbp	Number	0 ... 100 Maximum level of FTAC administrator for INBOUND-PROCESSING	MAX. ADM LEVELS IBP
AdmMaxIbpStd	String	*YES / *NO *YES means same value as standard admission set [1]	
AdmMaxIbf	Number	0 ... 100 Maximum level of FTAC administrator for INBOUND-FILE-MANAGEMENT	MAX. ADM LEVELS IBF
AdmMaxIbfStd	String	*YES / *NO *YES means same value as standard admission set [1]	
Priv	String	*YES / *NO *YES means admission set of FTAC administrator	ATTR
Password	String	*YES / *NO *YES means that an FTAC password has been defined	ATTR
AdmPriv	String	*NO	ATTR

[1] Relevant only if UserId is not *STD, *NO is always output in the case of the standard admission set. In the normal output, *YES corresponds to an asterisk (*) after the value.

6.3 SHOW-FT-KEY

The table below indicates the CSV format for the output of the properties of the RSA keys.

The **Parameter** column contains the name of the output parameter during normal output, see page 298.

Column	Type	Values and Meaning	Parameter
Reference	Number	Key reference	KEY-REF
Identification	String	Identification of the partner enclosed in double quotes / *OWN *OWN means the private key for the user's own instance	IDENTIFICATION
PartnerName	String	Name of partner / *OWN *OWN means the private key for the user's own instance	PARTNER
CreDate	Date	Date on which the key was generated	CRE-DATE
ExpDate	String	Date on which the key expires / *NONE	EXP-DATE
Expired	String	*YES / *NO Key has expired / not expired	EXP-DATE (EXPIRED)
KeyLen	Number	768 / 1024 / 2048 Key length in bits	KEY-LEN
AuthLev	Number	1 / 2 Authentication level	AUTHL

6.4 SHOW-FT-LOGGING-RECORDS

The following table indicates the CSV output format of a log record if the INF=*LOGGING-FILES has not been specified. If INF=*LOGGING-FILES is specified then the output has a different format, see page 481.

The values that are indicated by an "x" in the **Std** column are also output if INF=*STD.

The **Parameter** column contains the name of the output parameter during long output, see page 318.

Column	Type	Values and Meaning	Parameter	Std
LogId	Number	Number of the log record (up to twelve digits)	LOGGING-ID	x
ReasonCode	String	Reason code enclosed in double quotes to prevent interpretation as a number. FTAC Reason Codes are output as hexadecimal strings	RC	x
LogTime	Date	Time at which the log record was written	TIME	x
InitUserId	String	Initiator of the request enclosed in double quotes / *REM	INITIATOR	x
InitTsn	String	TSN of the initiator / *NONE	INITSN	x
PartnerName	String	Partner name enclosed in double quotes (name or address)	PARTNER	x
TransDir	String	*TO / *FROM / *NSPEC Transfer direction	TRANS	x
RecType	String	*FT / *FTAC / *ADM Type of log record	REC-TYPE	x
Func	String	*TRANS-FILE / *READ-FILE-ATTR / *DEL-FILE / *CRE-FILE / *MOD-FILE-ATTR / *READ-DIR / *MOVE-FILE / *CRE-FILE-DIR / *DEL-FILE-DIR / *LOGIN / *MOD-FILE-DIR / *REM-ADMIN FT function	FUNCTION	x
UserAdmisId	String	User ID to which the requests in the local system relate, enclosed in double quotes	USER-ADM	x
FileName	String	Local file name enclosed in double quotes	FILENAME	x
Priv	String	*YES / *NO / *NONE Profile is privileged / not privileged / not relevant because no profile was used or no FTAC log record is present	PRIV	
ProfName	String	Name of the admission profile enclosed in double quotes / *NONE	PROFILE	
ResultProcess	String	*STARTED / *NOT-STARTED / *NONE Status of follow-up processing	PCMD	
StartTime	Date	Start time of transfer	STARTTIME	
TransId	Number	Number of transfer request	TRANS-ID	

Column	Type	Values and Meaning	Parameter	Std
Write	String	*REPL / *EXT / *NEW / *NONE Write rules	WRITE	
StoreTime	Date	Acceptance time of request – If initiated in the local system: time the request was issued – If initiated in the remote system: time of entry in the request queue	REQUESTED STORETIME	
ByteNum	Number	Number of bytes transferred	TRANSFER	
DiagInf	String	Diagnostic information / *NONE	---	
ErrInfo	String	Additional information on the error message, enclosed in double quotes / *NONE	ERRINFO	
Protection	String	*SAME / *STD Protection attributes are transferred / not transferred	PROTECTION ---	
ChangeDate	String	*SAME / *STD Take over modification date of send file for receive file / do not take over modification date	CHG-DATE	
SecEncr	String	*YES / *NO Encryption of request description activated / deactivated	SEC-OPTS	
SecDichk	String	*YES / *NO Data integrity check of request description activated / deactivated	SEC-OPTS	
SecDencr	String	*YES / *NO Encryption of transferred file content activated / deactivated	SEC-OPTS	
SecDdichk	String	*YES / *NO Data integrity check of transferred file content activated / deactivated	SEC-OPTS	
SecLauth	String	*YES / *NO Authentication of the local system in the remote system activated / deactivated	SEC-OPTS	
SecRauth	String	*YES / *NO Authentication of the remote system in the local system activated / deactivated	SEC-OPTS	
RsaKeyLen	Number	768 / 1024 / 2048 / empty Length of the RSA key used for the encryption in bit or empty if SecEncr does not have the value *YES	SEC-OPTS	
SymEncrAlg	String	*DES / *AES-128 / *AES-256 / empty The encryption algorithm used or empty if SecEncr does not have the value *YES	SEC-OPTS	
CcsName	String	Name of the character set enclosed in double quotes / empty	CCS-NAME	
AdminId	String	empty	ADMIN-ID	

Column	Type	Values and Meaning	Parameter	Std
Routing	String	Routing information enclosed in double quotes / empty	ROUTING	
AdmCmd	String	Administration command enclosed in double quotes / empty	ADM-CMD	
As3Type	String	empty (internal function)	---	
As3MsgTid	String	empty (internal function)	---	
As3RcpStat	String	empty (internal function)	---	
AuthLev	Number	1 / 2 / empty Authentication level	SEC-OPTS	
GlobReqId	Number	Global request identification (requests issued remotely) / empty (requests issued locally)	GLOB-ID	
FileNameCMode	String	*TRANSPARENT / *CHAR Encoding mode for file names	FNC-CODE	
FileNameCcs	String	Name of the character set enclosed in double quotes (FileNameCMode=*CHAR) / empty	FNCCS	
PtnrAddr	String	Address of the partner system in the case of inbound FT requests	PTNR-ADDR	

CSV output on INF=*LOGGING-FILES

If the option INF=*LOGGING-FILES is specified then only the following columns are output:

Column	Type	Values and Meaning	Parameter
TimeStamp	Date	Creation time of the log file	---
LoggingFileName	String	Fully qualified name of the log file	(file name)

6.5 SHOW-FT-MONITOR-VALUES

The following table shows the CSV output format for the monitoring values for openFT operation if all the monitoring values are output (NAME=*ALL,INF=*VALUES(..)).

If DATA=*RAW is specified, the duration values are not output (*Duxxx*, see footnote).

The default values are marked with "x" in the **Std** column. These are output if INF=*STD is specified.

For a detailed description of the monitoring values, refer to the section "Description of the monitoring values" on page 330.

The individual monitoring values (ThNetbTtl ... StTrcr) have the same names in all the output formats (normal output, long output and CSV output).

Column	Type	Values prepared	Values not prepared	Meaning	Std
CurrTime	Date	Time	Time	Current time	x
MonOn	Date	Time	Time	Start time of measurement date recording or last change of configuration (a modification of PartnerSel/ReqSel has the same effect as a new start)	x
PartnerSel	String	*ALL / *NONE / OPENFT / FTP		Partner type selected	x
ReqSel	String	*ALL / ONLY-SYNC / ONLY-ASYNC / ONLY-LOCAL / ONLY-REMOTE		Request type selected	x
Data	String	FORM	RAW	Output format (prepared / not prepared)	x
ThNetbTtl	Number	Number of bytes per second	Bytes, accumulated	Throughput in net bytes	x
ThNetbSnd	Number	Number of bytes per second	Bytes, accumulated	Throughput in net bytes, send requests	x
ThNetbRcv	Number	Number of bytes per second	Bytes, accumulated	Throughput in net bytes, receive requests	x
ThNetbTxt	Number	Number of bytes per second	Bytes, accumulated	Throughput in net bytes, text files	
ThNetbBin	Number	Number of bytes per second	Bytes, accumulated	Throughput in net bytes, binary files	
ThDiskTtl	Number	Number of bytes per second	Bytes, accumulated	Throughput in disk bytes	x
ThDiskSnd	Number	Number of bytes per second	Bytes, accumulated	Throughput in disk bytes, send requests	x

Column	Type	Values prepared	Values not prepared	Meaning	Std
ThDiskRcv	Number	Number of bytes per second	Bytes, accumulated	Throughput in disk bytes, receive requests	x
ThDiskTxt	Number	Number of bytes per second	Bytes, accumulated	Throughput in disk bytes, text files	
ThDiskBin	Number	Number of bytes per second	Bytes, accumulated	Throughput in disk bytes, binary files	
ThRqto	Number	Number per second	Number, accumulated	openFT requests received	x
ThRqft	Number	Number per second	Number, accumulated	File transfer requests received	
ThRqfm	Number	Number per second	Number, accumulated	file management requests received	
ThSuct	Number	Number per second	Number, accumulated	Successfully completed openFT requests	x
ThAbrt	Number	Number per second	Number, accumulated	Aborted openFT requests	x
ThIntr	Number	Number per second	Number, accumulated	Interrupted openFT requests	x
ThUsrf	Number	Number per second	Number, accumulated	Requests from non-authorized users	x
ThFoll	Number	Number per second	Number, accumulated	Follow-up processing operations started	
ThCosu	Number	Number per second	Number, accumulated	Connections established	
ThCofl	Number	Number per second	Number, accumulated	Failed connection attempts	x
ThCobr	Number	Number per second	Number, accumulated	Disconnections as a result of connection errors	x
DuRqtlOut[1]	Number	Milliseconds	---	Maximum request duration Outbound	
DuRqtlInb[1]	Number	Milliseconds	---	Maximum request duration Inbound	
DuRqftOut[1]	Number	Milliseconds	---	Maximum request duration Outbound transfer	
DuRqftInb[1]	Number	Milliseconds	---	Maximum request duration Inbound transfer	
DuRqfmOut[1]	Number	Milliseconds	---	Maximum request duration Outbound file management	

Column	Type	Values prepared	Values not prepared	Meaning	Std
DuRqfmInb[1]	Number	Milliseconds	---	Maximum request duration Inbound file management	
DuRqesOut[1]	Number	Milliseconds	---	Maximum outbound request waiting time	
DuDnscOut[1]	Number	Milliseconds	---	Maximum time an outbound openFT request was waiting for partner checking	
DuDnscInb[1]	Number	Milliseconds	---	Maximum time an inbound openFT request was waiting for partner checking	
DuConnOut[1]	Number	Milliseconds	---	Maximum duration time of establishment of a connection for an outbound openFT request	
DuOpenOut[1]	Number	Milliseconds	---	Maximum file open time (outbound)	
DuOpenInb[1]	Number	Milliseconds	---	Maximum file open time (inbound)	
DuClosOut[1]	Number	Milliseconds	---	Maximum file close time (outbound)	
DuClosInb[1]	Number	Milliseconds	---	Maximum file close time (inbound)	
DuUsrcOut[1]	Number	Milliseconds	---	Maximum user check time (outbound)	
DuUsrcInb[1]	Number	Milliseconds	---	Maximum user check time (ínbound)	
StRqas	Number $(100)^2$	Average value	Current number	Number of synchronous requests in the ACTIVE state	x
StRqaa	Number $(100)^2$	Average value	Current number	Number of asynchronous requests in the ACTIVE state	x
StRqwt	Number $(100)^2$	Average value	Current number	Number of requests in the WAIT state	x
StRqhd	Number $(100)^2$	Average value	Current number	Number of requests in the HOLD state	x
StRqsp	Number $(100)^2$	Average value	Current number	Number of requests in the SUSPEND state	x
StRqlk	Number $(100)^2$	Average value	Current number	Number of requests in the LOCKED state	x
StRqfi	Number $(100)^2$	Average value	Current number	Number of requests in the FINISHED state	
StCLim	Number	Value currently set		Maximum number of connections established for asynchronous requests.	x

Column	Type	Values prepared	Values not prepared	Meaning	Std
StCAct	Percent	Share of StCLim in %	Current number	Number of occupied connections for asynchronous requests	x
StRqLim	Number	Value currently set		Maximum number of asynchronous requests in request management	x
StRqAct	Percent	Share of StRqLim in %	Current number	Entries occupied in request management	x
StOftr	BOOL	1 / 0		openFT Protocol activated / deactivated	x
StFtmr	BOOL	1 / 0		FTAM Protocol activated / deactivated	x
StFtpr	BOOL	1 / 0		FTP Protocol activated / deactivated	x
StTrcr	BOOL	1 / 0		Trace activated / deactivated	

[1] is not output with DATA=*RAW

[2] number is the measured value multiplied by 100 (e.g. output 225 corresponds to value 2.25)

Examples

```
/SHOW-FT-MONITOR-VALUES NAME=*ALL,OUTPUT=*SYSOUT(*CSV)
```

```
CurrTime;MonOn;PartnerSel;ReqSel;Data;ThNetbTtl;ThNetbSnd;ThNetbRcv;ThNetbTxt
;ThNetbBin;ThDiskTtl;ThDiskSnd;ThDiskRcv;ThDiskTxt;ThDiskBin;ThRqto;ThRqft;Th
Rqfm;ThSuct;ThAbrt;ThIntr;ThUsrf;ThFoll;ThCosu;ThCofl;ThCobr;DuRqtlOut;DuRqtl
Inb;DuRqftOut;DuRqftInb;DuRqfmOut;DuRqfmInb;DuRqesOut;DuDnscOut;DuDnscInb;DuC
onnOut;DuOpenOut;DuOpenInb;DuClosOut;DuClosInb;DuUsrcOut;DuUsrcInb;StRqas;StR
qaa;StRqwt;StRqhd;StRqsp;StRqlk;StRqfi;StCLim;StCAct;StRqLim;StRqAct;StOftr;S
tFtmr;StFtpr;StTrcr
```

```
2017-03-13 10:44:24;2017-03-13 10:35:46;*ALL;*ALL;FORM;0;0;0;0;0;0;0;0;0;
0;0;0;0;0;0;0;0;0;0;0;0;5129;0;5129;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;0;1
6;0;2000;0;1;0;1;0
```

6.6 SHOW-FT-OPTIONS

The following table indicates the CSV output format of the operating parameters.

The **Parameter** column contains the name of the output parameter during normal output, see page 344. Some parameters have fixed values because they are supported only for reasons of compatibility or have been replaced by other parameters.

Column	Type	Values and Meaning	Parameter
PartnerLim	Number	0	---
ReqLim	Number	Maximum number of requests	RQ-LIM
TaskLim	Number	Maximum number of processes	PROC-LIM
ConnLim	Number	Maximum number of connections	CONN-LIM
ReqWaitLev	Number	1	---
TransportUnitSize	Number	Maximum length of a transport unit	TU-SIZE
PartnerCheck	String	*STD / *TRANSP-ADDR / Partner check: Identification / transport address	PTN-CHK
SecLev	Number	0... 100 / *B-P-ATTR Default value for the security level of partners	SEC-LEV
TraceOpenft	String	*STD / *OFF Trace function for openFT partner activated / deactivated	FUNCT, line TRACE PARTNER-SELECTION
TraceOut	String	empty	---
TraceSession	String	*OFF	---
TraceFtam	String	*STD / *OFF Trace function for FTAM partner activated / deactivated	FUNCT, line TRACE PARTNER-SELECTION
LogTransFile	String	*ON / *OFF FT logging activated / deactivated	FT-LOG
MaxInboundReq	Number	Maximum number of requests	(same as RQ-LIM)
MaxReqLifetime	String	Maximum lifetime of requests in the request queue / *UNLIMITED	MAX-RQ-LIFE
SnmpTrapsSubsystem-State	String	*ON / *OFF SNMP traps on subsystem status change activated / deactivated	TRAP, line SNMP SS-STATE
SnmpTrapsFtState	String	*ON / *OFF SNMP traps on asynchronous server status change activated / deactivated	TRAP, line SNMP FT-STATE

Column	Type	Values and Meaning	Parameter
SnmpTrapsPartnerState	String	*ON / *OFF SNMP traps on partner status change activated / deactivated	TRAP, line SNMP PART-STATE
SnmpTrapsPartnerUn-reach	String	*ON / *OFF SNMP traps on unreachable partner systems activated / deactivated	TRAP, line SNMP PART-UNREA
SnmpTrapsReq-QueueState	String	*ON / *OFF SNMP traps on request management status change activated / deactivated	TRAP, line SNMP RQ-STATE
SnmpTrapsTransSucc	String	*ON / *OFF SNMP traps on successfully terminated requests activated / deactivated	TRAP, line SNMP TRANS-SUCC
SnmpTrapsTransFail	String	*ON / *OFF SNMP traps on failed requests activated / deacti-vated	TRAP, line SNMP TRANS-FAIL
ConsoleTraps	String	*ON / *OFF Console traps (for at least one criterion) activated / deactivated	TRAP, line CONS
TeleService	String	empty	
HostName	String	Host name of the local computer / *NONE	HOST-NAME
Identification	String	Instance identification enclosed in double quotes	IDENTIFICATION
UseTns	String	*NO	---
ConsTrapsSubsystemState	String	*ON / *OFF Console traps on subsystem status change activated / deactivated	TRAP, line CONS SS-STATE
ConsTrapsFtState	String	*ON / *OFF Console traps on asynchronous server status change activated / deactivated	TRAP, line CONS FT-STATE
ConsTrapsPartnerState	String	*ON / *OFF Console traps on partner status change activated / deactivated	TRAP, line CONS PART-STATE
ConsTrapsPartnerUnreach	String	*ON / *OFF Console traps on unreachable partner systems activated / deactivated	TRAP, line CONS PART-UNREA
ConsTrapsReqQueueState	String	*ON / *OFF Console traps on request management status change activated / deactivated	TRAP, line CONS RQ-STATE
ConsTrapsTransSucc	String	*ON / *OFF Console traps on successfully terminated requests activated / deactivated	TRAP, line CONS TRANS-SUCC

Column	Type	Values and Meaning	Parameter
ConsTrapsTransFail	String	*ON / *OFF Console traps on failed requests activated / deactivated	TRAP, line CONS TRANS-FAIL
FtLog	String	*ALL / *FAIL / *NONE Scope of FT logging	FT-LOG
FtacLog	String	*ALL / *FAIL / *MODIFY Scope of FTAC logging	FTAC-LOG
Trace	String	*ON / *OFF Trace function activated / deactivated	FUNCT, line TRACE SWITCH
TraceSelp	String	*ALL / OPENFT / FTP / ADM / empty [1] Trace selection based on partner type	FUNCT, line TRACE PARTNER-SELECTION
TraceSelr	String	*ALL / ONLY-SYNC / ONLY-ASYNC / ONLY-LOCAL / ONLY-REMOTE [1] Trace selection based on request type	FUNCT, line TRACE REQUEST-SELECTION
TraceOpt	String	*NO-BULK-DATA / *NONE Minimum trace / no trace options	FUNCT, line TRACE OPTIONS
KeyLen	Number	768 / 1024 / 2048 RSA key length in bit	RSA-PROP
CcsName	String	empty	---
AppEntTitle	String	*YES	---
StatName	String	$FJAM	---
SysName	String	Name of the local system (host name)	---
FtStarted	String	*YES / *NO openFT started / not started	STARTED
openftAppl	String	*STD / port number Port number of the local openFT server	OPENFT-APPL
ftamAppl	String	*STD / port number Port number of the local FTAM server	FTAM-APPL
FtpPort	Number	Port number Port number of the local FTP server	FTP-PORT
ftpDPort	Number	Value / empty (internal function)	---
ftstdPort	String	*STD / port number Default port for dynamic partners	---
DynPartner	String	*ON / *OFF Dynamic partner entries activated / deactivated	DYN-PART
ConTimeout	Number	Value (internal function)	---
ChkpTime	Number	Value (internal function)	---

Column	Type	Values and Meaning	Parameter
Monitoring	String	*ON / *OFF Monitoring data activated / deactivated	FUNCT, line MONITOR SWITCH
MonSelp	String	*ALL / OPENFT / FTP / empty [1] Selection based on type of partner system	FUNCT, line MONITOR PARTNER-SELECTION
MonSelr	String	*ALL / ONLY-SYNC / ONLY-ASYNC / ONLY-LOCAL / ONLY-REMOTE [1] Selection based on type of request	FUNCT, line MONITOR REQUEST-SELECTION
AdmTrapServer	String	Name of the ADM-TRAP server / *NONE	ADM-TRAP-SERVER
AdmTrapsFtState	String	*ON / *OFF ADM traps on asynchronous server status change activated / deactivated	TRAP, line ADM FT-STATE
AdmTrapsPartnerState	String	*ON / *OFF ADM traps on partner status change activated / deactivated	TRAP, line ADM PART-STATE
AdmTrapsPartnerUnreach	String	*ON / *OFF ADM traps on unreachable partner systems activated / deactivated	TRAP, line ADM PART-UNREA
AdmTrapsReqQueueState	String	*ON / *OFF ADM traps on request management status change activated / deactivated	TRAP, line ADM RQ-STATE
AdmTrapsTransSucc	String	*ON / *OFF ADM traps on successfully terminated requests activated / deactivated	TRAP, line ADM TRANS-SUCC
AdmTrapsTransFail	String	*ON / *OFF ADM traps on failed requests activated / deactivated	TRAP, line ADM TRANS-FAIL
AdminConnLim	String	Maximum number of administration connections	ADM-CLIM
AdmPort	String	Port number / *NONE Port number for remote administration	ADM-PORT
OpenftApplState	String	*ACTIVE / *INACT / *DISABLED / *NAVAIL Status of the openFT server	OPENFT-APPL, 2nd line
FtamApplState	String	*NAVAIL Status of the FTAM server	FTAM-APPL, 2nd line
FtpState	String	*ACTIVE / *INACT / *DISABLED / *NAVAIL Status of the FTP server	FTP-PORT, 2nd line
AdmState	String	*ACTIVE / *INACT / *DISABLED Status for inbound remote administration	ADM-PORT, 2nd line
AdminLog	String	*ALL / *FAIL / *MODIFY / *NONE Scope of ADM logging	ADM-LOG

Column	Type	Values and Meaning	Parameter
CentralAdminServer	String	*NO	---
ActiveAppl	String	*ALL / *NONE / OPENFT / FTP / ADM[1] active servers	see 2nd line of OPENFT-APPL, FTAM-APPL, FTP-PORT, ADM-PORT
UseCmx	String	*NO	---
TraceOptLowerLayers	String	*OFF	---
EncMandIn	String	*YES / *NO Inbound encryption activated / deactivated	ENC-MAND (IN)
EncMandOut	String	*YES / *NO Outbound encryption activated / deactivated	ENC-MAND (OUT)
DelLog	String	*ON / *OFF Automatic deletion of log records activated / deactivated	DEL-LOG
DelLogRetpd	Number	Minimum age, in days, of the log records to be deleted. 0 means current day.	RETPD
DelLogRepeat	String	*MONTHLY / *WEEKLY / *DAILY Repeat interval for deletion of log records.	DEL-LOG ON
DelLogDay	Number	1..31 / 1..7 / 0 Day on which deletion is to be repeated. In case of DelLogRepeat = *MONTHLY then this is the day of the month, if DelLogRepeat = *WEEKLY then it is the day of the week (1 = Monday), if DelLogRepeat = *DAILY then 0 is output	DEL-LOG ON
DelLogTime	Time	Time of deletion	DEL-LOG AT
OutboundRecovery	String	*ON / *OFF Restart function for outbound requests	RECOVERY
InboundRecovery	String	*ON / *OFF Restart function for inbound requests	RECOVERY
ApplicationEntityTitle	String	*NSPEC	---
RSAMinimum	Number	0 / 768 / 1024 / 2048 Minimum length of the RSA key	RSA-MIN
FileNameCcs	String	empty	---
AESMinimum	String	*NONE / 128 / 256 Minimum length of AES key	AES-MIN

[1] Combinations of multiple values are also possible (not with *ALL or *NONE)

6.7 SHOW-FT-PARTNERS

The following table indicates the CSV output format of a partner in the partner list.

The **Parameter** column contains the name of the output parameter during long output, see page 355.

Column	Type	Values and Meaning	Parameter
PartnerName	String	Partner name enclosed in double quotes	NAME
Sta	String	*ACT / *DEACT / *NOCON / *LUNK / *RUNK / *ADEAC / *AINAC / *LAUTH / *RAUTH / *NOKEY / *DIERR / *IDREJ Partner status	STATE
SecLev	String	*STD / *B-P-ATTR / 1...100 Global security level / attribute-specific security level / fixed security level	SECLEV
Trace	String	*FTOPT / *STD / *ON / *OFF Trace setting	TRACE
Loc	Number	Number of locally issued file transfer requests to this partner	LOC
Rem	Number	Number of file transfer requests issued by this partner	REM
Processor	String	empty	---
Entity	String	empty	---
NetworkAddr	String	Partner address (network address without port number/selectors) enclosed in double quotes	ADDRESS
Port	Number	Port number	ADDRESS (port number)
PartnerCheck	String	*FTOPT / *STD / *TRANSP-ADDR / *AUTH / *AUTHM / *NOKEY Sender verification	P-CHK
TransportSel	String	Transport selector enclosed in double quotes / empty	ADDRESS (transport selector)
LastAccessDate	Date	Time of last access in short format yyyy-mm-dd	---
SessionSel	String	Session selector enclosed in double quotes / empty	ADDRESS (session selector)
PresentationSel	String	Presentation selector enclosed in double quotes / empty	ADDRESS (presentation selector)
Identification	String	Identification enclosed in double quotes / empty	IDENTIFICATION
SessRout	String	Routing information enclosed in double quotes / *ID / empty *ID means routing information same as identification	ROUTING

Column	Type	Values and Meaning	Parameter
PartnerAddr	String	Partner address (including port number und selectors) enclosed in double quotes	ADDRESS
Check	String	*FTOPT / *STD / *TRANSP-ADDR Partner check	P-CHK
AuthMand	String	*YES / *NO Authentication is mandatory / not mandatory	P-CHK
Priority	String	*LOW / *NORM / *HIGH Priority	PRI
AS3	String	*NO (internal function)	---
AuthLev	Number	1 / 2 / empty Authentication level	P-CHK
InboundSta	String	*ACT / *DEACT Inbound function activated / deactivated	INBND
RequProc	String	*STD / *SERIAL The processing mode for asynchronous outbound requests is parallel / is serial	REQU-P
OutboundRecovery	String	*FTOPT / *ON / *OFF Partner-specific restart function for asynchronous outbound requests	RECOV
ForeignPartner	String	*YES / *NO (internal function)	---
ScopeId	String	Scope ID (for IPv6) / empty	ADDRESS

6.8 SHOW-FT-PROFILE

The following table indicates the CSV output format of an admission profile.

The values that are marked by an "x" in the **Std** column are also output if INF=*ONLY-NAMES is specified.

The **Parameter** column contains the name of the output parameter during long output, see also .

Column	Type	Values and Meaning	Parameter	Std
ProfName	String	Name of the profile enclosed in double quotes	(Profile name)	x
Priv	String	*YES / *NO Profile is privileged / not privileged	PRIVILEGED	x
TransAdm	String	*SECRET / *NSPEC Transfer admission has been assigned / not assigned	TRANS-ADM NOT-SPECIFIED	x
Duplicated	String	*YES / *NO *YES means: profile is locked due to attempt to assign the transfer admission twice	TRANS-ADM DUPLICATED	x
LockedByImport	String	*YES / *NO *YES means: profile is locked because it was imported	TRANS-ADM LOCKED (by_import)	x
LockedByAdm	String	*YES / *NO *YES means: profile locked by FTAC administrator	TRANS-ADM LOCKED (by_adm)	x
LockedByUser	String	*YES / *NO *YES means: profile locked by user	TRANS-ADM LOCKED (by_user)	x
Expired	String	*YES / *NO *YES means: profile locked because period expired	TRANS-ADM EXPIRED	x
ExpDate	String	Expiration date in short format yyyy-mm-dd / *NRES (no expiration date)	EXP-DATE	
Usage	String	*PUBLIC / *PRIVATE / *NSPEC Usage	USAGE	
IgnObs	String	*YES / *NO Ignore / do not ignore predefined value for Outbound Send	IGN-MAX-LEVELS OBS	
IgnObr	String	*YES / *NO Ignore / do not ignore predefined value for Outbound Receive	IGN-MAX-LEVELS OBR	

Column	Type	Values and Meaning	Parameter	Std
IgnIbs	String	*YES / *NO Ignore / do not ignore predefined value for Inbound Send	IGN-MAX-LEVELS IBS	
IgnIbr	String	*YES / *NO Ignore / do not ignore predefined value for Inbound Receive	IGN-MAX-LEVELS IBR	
IgnIbp	String	*YES / *NO Ignore / do not ignore predefined value for Inbound Processing	IGN-MAX-LEVELS IBP	
IgnIbf	String	*YES / *NO Ignore / do not ignore predefined value for Inbound File Management	IGN-MAX-LEVELS IBF	
Initiator	String	*LOC / *REM / *NRES Initiator: only local / only remote / unrestricted	INITIATOR	
TransDir	String	*FROM / *TO / *NRES Permitted transfer direction: from partner / to partner / unrestricted	TRANS-DIR	
MaxPartLev	Number	0... 100 / *NRES Maximum security level / security level unrestricted	MAX-PART-LEV	
Partners	String	One or more FT partners, delimited by commas and enclosed in double quotes / *NRES (no restriction)	PARTNER	
FileName	String	File name or file name prefix enclosed in double quotes / *NRES Restricts access to this file or files with this prefix. *NRES means there is no restriction	FILE-NAME	
Library	String	Library name enclosed in double quotes / *YES / *NO / *NRES Restricts access to this library, *NRES means there is no restriction	LIBRARY	
FileNamePrefix	String	*YES / *NO The file name in FileName is a prefix / is not a prefix	FILE-NAME = (PREFIX=..)	
ElemName	String	Name of the library element enclosed in double quotes / *NONE / *NRES	ELEMENT	
ElemPrefix	String	*YES / *NO The element name in ElemName is a prefix / is not a prefix	ELEMENT	

Column	Type	Values and Meaning	Parameter	Std
ElemVersion	String	Version of the library element enclosed in double quotes / *STD / *NONE / *NRES	ELEMENT	
ElemType	String	Type of the library element enclosed in double quotes / *NONE / *NRES	TYPE	
FilePass	String	*YES / *NRES / *NONE File password	---	
Write	String	*NEW / *EXT / *REPL / *NRES Write rules	WRITE	
UserAdmId	String	User ID enclosed in double quotes	USER-ADM (user-id,...)	x
UserAdmAcc	String	Account number enclosed in double quotes / *FIRST/ *NSPEC / *NRES / *NONE	USER-ADM (..,account,...)	
UserAdmPass	String	*OWN / *YES / *NSPEC / *NONE Password is taken over / was specified / was not specified / is not required	USER-ADM (...,...,password)	
ProcAdmId	String	User ID used for follow-up processing, enclosed in double quotes / *SAME / *NRES	PROC-ADM (user-id,...)	
ProcAdmAcc	String	Account number used for follow-up processing, enclosed in double quotes / *SAME / *NRES / *NONE	PROC-ADM (..,account,...)	
ProcAdmPass	String	*NONE / *YES / *SAME / *NRES Password is taken over / was specified / was not specified /is not required	USER-ADM (...,...,password)	
SuccProc	String	Follow-up processing on success, enclosed in double quotes / *NONE / *NRES / *EXPANSION	SUCC-PROC	
SuccPrefix	String	Follow-up processing prefix on success, enclosed in double quotes / *NONE	SUCC-PREFIX	
SuccSuffix	String	Follow-up processing suffix on success, enclosed in double quotes / *NONE	SUCC-SUFFIX	
FailProc	String	Follow-up processing on error, enclosed in double quotes / *NONE / *NRES / *EXPANSION	FAIL-PROC	
FailPrefix	String	Follow-up processing prefix on error, enclosed in double quotes / *NONE	FAIL-PREFIX	
FailSuffix	String	Follow-up processing suffix on error, enclosed in double quotes / *NONE	FAIL-SUFFIX	

Column	Type	Values and Meaning	Parameter	Std
TransFile	String	*ALLOWED / *NOT-ALLOWED Transfer and delete files permitted / not permitted	FT-FUNCTION = (TRANSFER-FILE)	
ModFileAttr	String	*ALLOWED / *NOT-ALLOWED Modify file attributes permitted / not permitted	FT-FUNCTION = (MODIFY-FILE-ATTRIBUTES)	
ReadDir	String	*ALLOWED / *NOT-ALLOWED View directories permitted / not permitted	FT-FUNCTION = (READ-DIRECTORY)	
FileProc	String	*ALLOWED / *NOT-ALLOWED Preprocessing/postprocessing permitted / not permitted	FT-FUNCTION = (FILE-PROCESSING)	
AccAdm	String	*NOT-ALLOWED	---	
RemAdm	String	*ALLOWED / *NOT-ALLOWED Remote administration via remote administration server permitted / not permitted	FT-FUNCTION = (REMOTE-ADMINISTRATION)	
Text	String	Text enclosed in double quotes / *NONE	TEXT	
DataEnc	String	*YES / *NO / *NRES Data encryption is mandatory / prohibited / neither mandatory nor prohibited	DATA-ENC	
ModDate	Date	Time of last modification	LAST-MODIF	
AdmTrapLog	String	*ALLOWED / *NOT-ALLOWED Reception of ADM traps permitted / not permitted	FT-FUNCTION = (ADM-TRAP-LOG)	

6.9 SHOW-FT-RANGE

The following table indicates the CSV output format of partners.

The **Parameter** column contains the name of the output parameter during normal output, see page 368.

Column	Type	Values and Meaning	Parameter
SecLev	Number	Security level	SECLEV
PartnerName	String	Partner name	PARTNER-NAME

6.10 SHOW-FTAC-ENVIRONMENT

The command SHOW-FTAC-ENVIRONMENT sequentially displays the objects contained in an FTAC export file in a format that corresponds to the output of the SHOW-FT-ADMISSION-SET () and SHOW-FT-PROFILE () commands.

6.11 SHOW-REMOTE-FILE-ATTRIBUTES/ SHOW-FILE-FT-ATTRIBUTES

The following table indicates the CSV output format for file attributes.

The values that are marked by an "x" in the **Std** column are also output if INF=*STD is specified. In the case of INF=*NAMES-ONLY or *NAME-ONLY (SHOW-FILE-ATTRI-BUTES), only the FileName column is output.

The **Parameter** column indicates the name of the output parameter in the case of detailed output, see .

Column	Type	Values and Meaning	Parameter	Std
FileName	String	File name or directory name enclosed in double quotes / *NSPEC	FILENAME	x
StorageAc-count	String	Account number enclosed in double quotes / *NSPEC	STORAGE-ACCOUNT	x
CreIdentity	String	Identity of the last user of the file (creator) enclosed in double quotes / *NSPEC	CRE name	x
CreTime	Date	Time at which the file was created / *NSPEC	CRE DATE	
ModIdentity	String	Identity of the last user of the file (modification of file content) enclosed in double quotes / *NSPEC	MOD name	
ModTime	Date	Time at which the file was last modified / *NSPEC	MOD DATE	x
ReaIdentity	String	Identity of the last user of the file (file read access) enclosed in double quotes / *NSPEC	REA name	
ReaTime	Date	Time at which the file was last read / *NSPEC	REA DATE	
AtmIdentity	String	Identity of the last user of the file (modification of file attributes) enclosed in double quotes / *NSPEC	ATM name	
AtmTime	Date	Time at which the file attributes were last modified / *NSPEC	ATM DATE	
FileType	String	*BIN / *DIR / *TEXT / *NONE / *NSPEC File type	file type	x
CharSet	String	*VISIBLE / *IA5 / *GRAPHIC / *GENERAL / *NONE / *NSPEC Character set for the text file if FileType=*TEXT, in the case of another FileType, this is *NONE or *NSPEC	CHARACTERSET	
RecFormat	String	*VAR / *FIX / *NSIG / *NSPEC Record format	RECORD-FORMAT	
RecSize	Number	1... 65535 / *NSPEC Maximum length of the records	RECORD-SIZE	

Column	Type	Values and Meaning	Parameter	Std
FileAvail	String	*IMMEDIATE / *DEFERRED / *NSPEC File avaliability	FILE-AVAILABILITY	
AccessRights	String	nnnnnnnnnn / *NSPEC Access rights, n = p, x, e, a, c, d, t, v, r, -	ACCESS-RIGHTS	x
FileSize	Number	Current file size in bytes / *NSPEC	FILESIZE	x
MaxFileSize	Number	Maximum file size in bytes / *NSPEC	MAX-FILESIZE	
LegalQualif	String	Legal qualification enclosed in double quotes / *NSPEC	LEGAL-QUALIFICATION	
CcsName	String	Name of the character set / *NSPEC	CCS-NAME	

Example

```
/SHOW-REM-FILE-ATTR BS2MCH01,FILE1,,TRANSADM,INF=*ALL,OUT=*SYSOUT(*CSV)

FileName;StorageAccount;CreIdentity;CreTime;ModIdentity;ModTime;ReaIdentity;
ReaTime;AtmIdentity;AtmTime;FileType;CharSet;RecFormat;RecSize;FileAvail;
AccessRights;FileSize;MaxFileSize;LegalQualif;CcsName
"FILE1";*NSPEC;"MISTERX";*NSPEC;*NSPEC;2017-01-19 12:39:47;*NSPEC;*NSPEC;
*NSPEC;*NSPEC;*NSPEC;*NSPEC;*VAR;*NSPEC;*NSPEC;r-pxeacd---;2048;*NSPEC;
*NSPEC;*NSPEC

/SHOW-REM-FILE-ATTR BS2MCH02,FILE2,,TRANSADM,INF=*STD,OUT=*SYSOUT(*CSV)

FileName;StorageAccount;CreIdentity;ModTime;FileType;AccessRights;FileSize
"FILE2";*NSPEC;"MISTERX";2017-01-19 12:39:47;*NSPEC;r-pxeacd---;2048
```

Index