TCP/IP EURO Support
APARs PQ17871 PQ19405 PQ19407 PQ19409 PQ19040

VM TCP/IP Version 2 Release 4

and

VM TCP/IP Function Level 310 (VM/ESA V2R3)

December 7, 1998

VM TCP/IP Development

VM/ESA and Related Products
Endicott, New York

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About this Document

The documentation that is presented here reflects the changes to the publications for the both the VM/ESA TCP/IP Version 2 Release 4 product and the VM/ESA TCP/IP Function Level 310 feature of VM/ESA Version 2 Release 3.

Only the specific changes pertinent to the EURO support are presented. These changes encompass *User Commands, Configuration Statements* and *Messages*. References to related books and chapters in the VM/ESA TCP/IP library are provided for all changes.

Note: There are no publication changes for SMTP server support.

File Transfer Protocol (FTP)

FTP Subcommand Changes

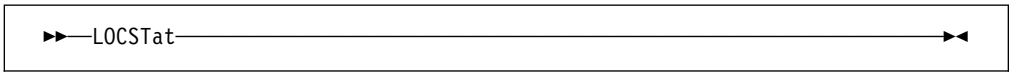
Affected Publication:

- *VM/ESA TCP/IP User's Guide (Chapter 2)*

LOCSTAT

Purpose

Use the LOCSTAT subcommand to display local status information.



Parameters

The LOCSTAT subcommand has no parameters.

Results

The following status information is displayed:

- Value of the TRACE flag (set using the FTP command or the DEBUG subcommand)
- SENDPORT setting (true or false)
- SENDSITE setting (true or false)
- Name, port number, and logon status of the foreign host
- Port number of the local host
- FTP data type (ASCII, EBCDIC, or Image) and transfer mode (block or stream)
- Record format (fixed or variable) and record length (for fixed record format)
- Translate table used by the client

Examples

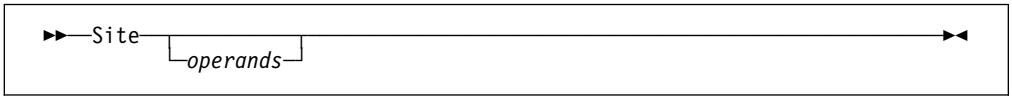
- Information displayed after invoking the LOCSTAT subcommand:

```
Trace:FALSE Send Port:  TRUE
Send Site with Put command:  TRUE
Connected to:YKTVMX, Port:  FTP control (21), logged in
Local Port:  3452
Data type:  a, Transfer mode:  s
Record format:  V
Translate Table: STANDARD
User Specified Translate Table: POSIX
Command:
```

SITE

Purpose

Use the SITE subcommand to send information for use by the foreign host to provide services specific to that system.



Note: If any other information is passed, it is ignored. See -- Heading 'SENDSIT' unknown -- for more information.

Parameters

SITE TRANSLATE *filename*
SITE XLATE *filename*
Specifies the name of the translation table to use. The translate table specified takes precedence over default translate tables and becomes the specified translate table until you specify another one. To cancel specification, issue "SITE XLATE *" command or "SITE XLATE" with no parameters.

The *parameters* are dependent on the foreign host. To see these site-specific parameters and their syntax, issue the HELP SERVER SITE command.

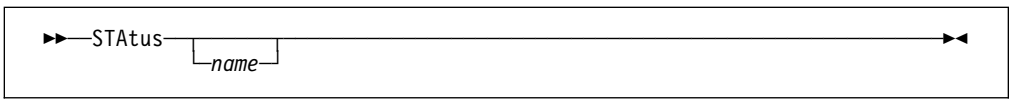
The SITE subcommand is used by the PUT and MPUT subcommands to show the format and length of the records. By default, the PUT and MPUT subcommands send a SITE subcommand automatically.

If files are sent from a VM host, use the SENDSITE subcommand to automatically invoke the SITE subcommand. The VM FTP server supports the following SITE subcommand parameters.

STATUS

Purpose

Use the STATUS subcommand to retrieve status information from the foreign host.



Parameters

name
Specifies the file or foreign directory for which status information is requested. The *name* parameter is not supported by the VM FTP server.

Usage

- The retrieved status information can be a directory, a file, or general status information, such as a summary of activity. If *name* is omitted, general status information is retrieved.

Examples

- Information displayed after invoking the STATUS subcommand:

```
211 - Server FTP talking to host 129.34.128.246, port 3452
211 - User:  KRASIK1   Working directory:  KRASIK1 0191
211 - The control connection has transferred 399 bytes.
211 - There is no current data connection.
211 - The next data connection will be actively opened
211 - to host 129.34.128.246, port 3452, using
211 - mode Stream, structure File, type ASCII Nonprint,  byte-size 8.
211 -  record format is V, record length 65535
211 - FTPSERVE Translate Table: STANDARD
211   User Specified Translate Table: POSIX
Command:
```

FTP Message Changes

Affected Publication:

- *VM/ESA FL310 TCP/IP Messages and Codes (Chapter 3)*
- *VM/ESA V2R4 TCP/IP Messages and Codes (Chapter 2)*

New FTP Messages

---

550 - Translate file '*filename* **TCPXLBIN' not found.**

Severity: Error.

Explanation: The server was unable to locate the translate table specified.

User Response: Ensure you have specified the filename correctly and reenter the command.

System Action: None.

Module: FTPRVPA, FTSVMSUB

Destination: Initialize, DoSite2

---

550 - Error *rsc* **reading** *filename* **TCPXLBIN from disk or directory.**

Severity: Error.

Explanation: The server was unable to read the translate table. The reason code contains the return code from the failing FSOPEN or FSREAD macro.

User Response: Try to determine why the specified translate table could not be read and correct the problem.

System Action: None.

Module: FTSRVPA, FTSVMSUB

Destination: Initialize, DoSite2

---

550 - Translate file *filename* **TCPXLBIN is in an invalid format.**

Severity: Error.

Explanation: The translate table was found, but could not be loaded because it is not a valid TCP/IP translate file.

User Response: Try to determine why the specified translate table could not be read and correct the problem.

System Action: None.

Module: FTSRVPA, FTSVMSUB

Destination: Initialize, DoSite2

---

550 - Invalid filename specified in Site command. Use 'SITE XLATE filename'.

Severity: Error.

Explanation: The SITE XLATE or SITE TRANSLATE command syntax was incorrect.

User Response: Correct the syntax and reenter the command.

System Action: None.

Module: FTSVMSUB

Destination: DoSite2

Remote Printing

Remote Printing Command Changes

Affected Publication:

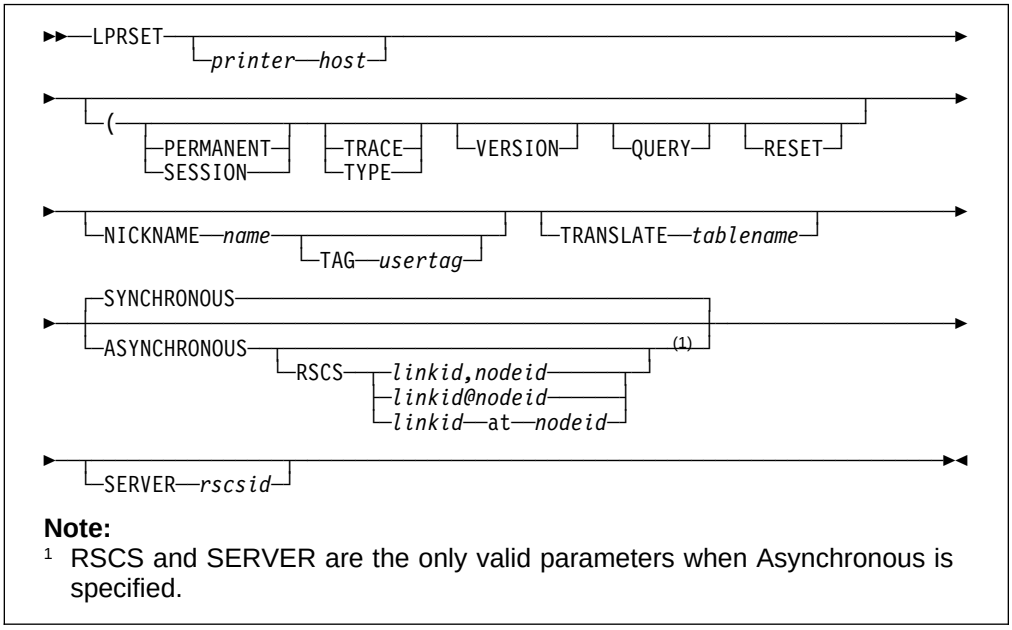
- *VM/ESA TCP/IP User's Guide (Chapter 10)*

LPRSET Command

Purpose

Use the LPRSET command to specify the default printer and host that are used by the line printer commands (LPR, LPQ, and LPRM).

Note: Use this command only when the printer or host name is not included with the line printer commands.



Note:
[1] RSCS and SERVER are the only valid parameters when Asynchronous is specified.

Note: You can use the shortest unique sequence as the minimum abbreviation for an LPRSET parameter.

Parameters

TRANSLATE *tablename*
Identifies the file name of a translation table to be used for EBCDIC to ASCII data translation. See *TCP/IP Planning and Customization* for more information about using and creating translation tables.

Examples

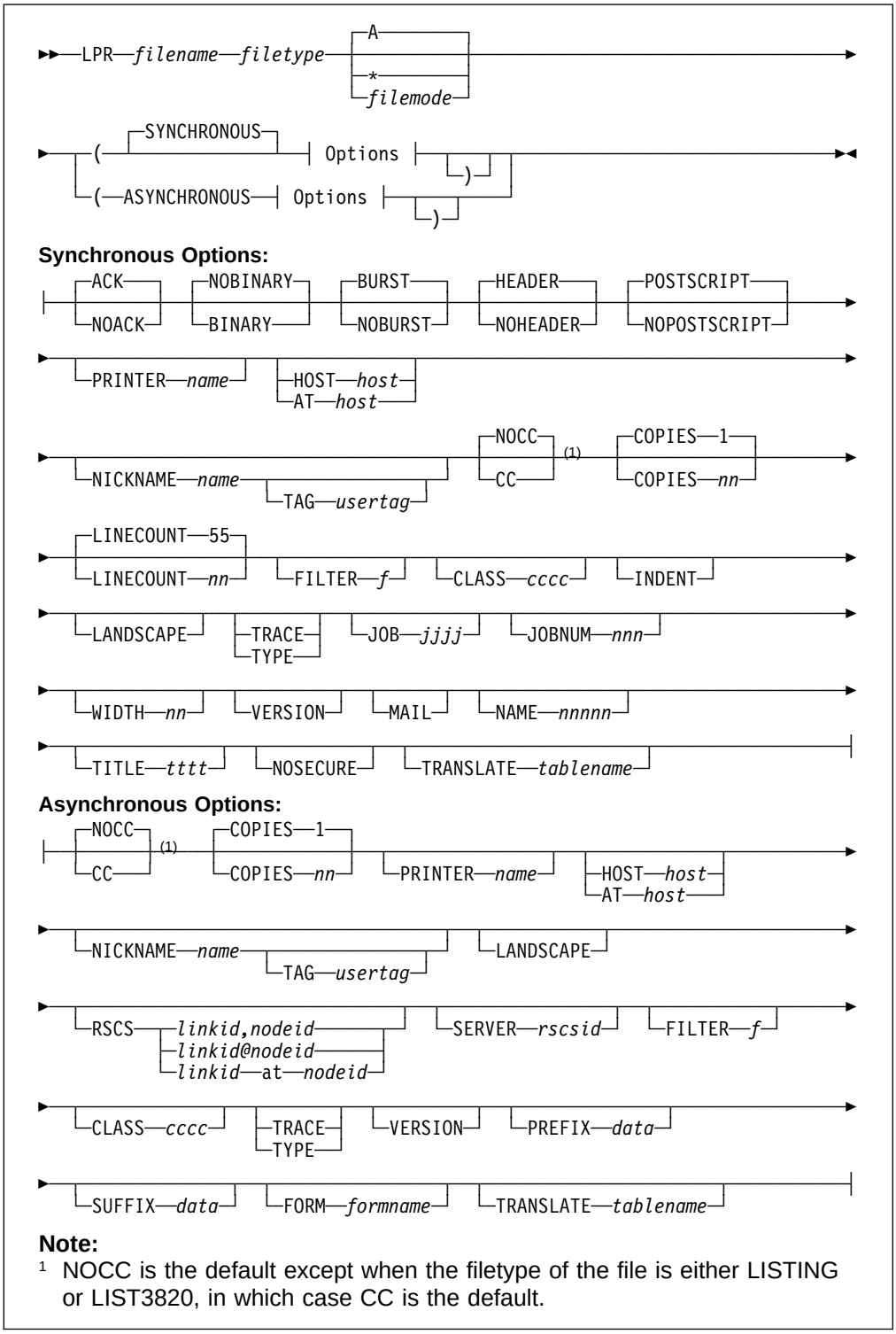
- To establish the default translation table name as MYXLATBL, enter the following command:

  ```
  LPRSET (translate myxlatbl
  ```

LPR Command

Purpose

Use the LPR command to print on remote printers.



Note:

[1] NOCC is the default except when the filetype of the file is either LISTING or LIST3820, in which case CC is the default.

Note: You can use the shortest unique sequence as the minimum abbreviation for an LPR parameter.

Parameters

TRANSLATE *tablename*

Identifies the file name of a translation table file to be used for EBCDIC to ASCII data translation; the file type for this file must be TCPXLBIN. The first *tablename* TCPXLBIN file found in the CMS search order is used. If this parameter is not specified, a default translation table is used (if one exists), which is defined by either a CMS NAMES file nickname entry or a CMS global variable; if neither exist, data translation is then performed as follows:

- For synchronous processing, LPR searches for and uses the LPR TCPXLBIN file first, and then the STANDARD TCPXLBIN file. If neither is found, an internal translation table is used.
- For asynchronous processing, default data translation processing is performed by the RSCS server to which files are directed, based on the configuration of that server.

See *TCP/IP Planning and Customization* for more information about using and creating translation tables, if your use of LPR requires specific translations to be performed.

Examples

- To print a file and have data translation performed based on the translation table named MYXLATBL, enter the following command:

  ```
  lpr trantest datafile (printer LPTQ1 host prtsrv translate myxlatbl
  ```

  In the above example, file TRANTEST DATAFILE is sent to the printer `LPTQ1` defined for the host `prtsrv`; the MYXLATBL TCPXLBIN table file is used to perform data translation.

The examples that follow illustrate some typical NAMES file entries that might be constructed for use with the LPRSET or LPR commands. Such entries are processed to provide printer and host information required by either the &tcp. or RSCS server, and may include additional tags to provide information that will be passed to only an RSCS server.

Note: For nicknames used with LPR commands, the values associated with the corresponding :USERID and :NODE tags will be used. In the context of using &tcp. remote printing commands, these tags provide printer and host names, respectively, instead of conventional user ID and node ID information.

- This last example illustrates the various tags that can be defined for use with remote printing commands and which tags are used for Synchronous and Asynchronous printing.

  ```
  :nick.CMPLXPRT
    :tstprint.lpt0@rocketman.endicott.ibm.com
    :tcpaddr.PRTQ1@monolith.endicott.ibm.com
    :server.rscstst
    :linkid.lprtst
    :nodeid.GDLVME
    :prefix.12121212
    :suffix.34343434
    :translate.MYXLATBL
  ```

If the nickname CMPLXPRT is specified in conjunction with the Synchronous option on an LPR command, values defined by only the following tags will be used:

- :TSTPRINT is used if TAG TSTPRINT is specified.
- :TCPADDR is used if TAG is not specified.
- :TRANSLATE is used if the TRANSLATE option is not specified.

If this same nickname is specified in conjunction with the Asynchronous option, values defined by only these tags will be used:

- :TSTPRINT is used if TAG TSTPRINT is specified
- :TCPADDR is used if TAG is not specified
- :SERVER is used if the SERVER option is not specified
- :LINKID is used if the RSCS option is not specified
- :NODEID is used if the RSCS option is not specified
- :PREFIX is used if the PREFIX option is not specified
- :SUFFIX is used if the SUFFIX option is not specified
- :TRANSLATE is used if the TRANSLATE option is not specified.

For example, if the following command is issued:

```
lpr weather report (asynch nick cmplxprt tag tstprint
```

The WEATHER REPORT file would first be passed to the `RSCSTST` RSCS server which then sends it to the RSCS node GDLVME. From GDLVME it is printed on printer `lpt0` on host `rocketman.endicott.ibm.com`, using the RSCS link `LPRTST`.

Because the :PREFIX and :SUFFIX tags define values, this data will also be passed to the RSCSTST server. Also, since the TRANSLATE option was not specified, data translation will be performed using the translation table named MYXLATBL, as defined by the :TRANSLATE tag.

If the `TAG tstprint` option were omitted in the above command, the destination printer and host would instead be `PRTQ1` and `monolith.endicott.ibm.com`.

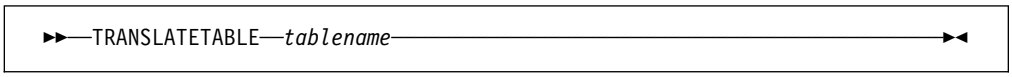
Configuration Changes for LPSERVE Virtual Machine

Affected Publication:

- *VM/ESA TCP/IP Planning and Customization (Chapter 11)*

TRANSLATETABLE Statement

Specifies a translation table to be used for this print service. XLATETABLE is accepted as a synonym for this statement.



Parameter	Description
tablename	Identifies the file name of a translation table file to be used for EBCDIC to ASCII data translations; the file type for this file must be TCPXLBIN. The first *tablename* TCPXLBIN file found in the CMS search order is used. If this parameter is not specified, an attempt will be made to use the default translation table.

Sample LPD CONFIG File

A sample config file is shipped as LPD SCONFIG on the TCPMAINT 591 disk. It should be copied to the TCPMAINT 198 disk, customized, and renamed to whatever name is going to be used on the LPD command (LPD CONFIG is the default).

The following is a sample of the LPD CONFIG file.

```
; This file describes the printers and punches (which are both called
; SERVICE) which are usable from LPR client programs for this host.
;
; Each SERVICE must be described as LOCAL, RSCS, or REMOTE.  Data for
; LOCAL services are managed directly by CP.  Data for RSCS services
; are managed by RSCS.  Remote services' data are forwarded to another
; LPR server.
;
; You may control which types of printing or punching can be done
; through a particular SERVICE with FILTERS.  The three currently
; available ones are:
;
;        f    which paginates the file at the size of the page given.
;             It also truncates lines if they exceed a maximum length.
;        l    which does not insert pagination but will truncate lines
;             as the "f" filter does.
;        p    which paginates files, adding titles, the date, and page
;             numbers as well as providing line truncation.
;        r    prints the file, interpreting the first character of
;             each line as FORTRAN (ASA) carriage control.
;
; Most printer SERVICE's should allow all three but you probably only
; want to specify "l" for punches.
;
```

```
; The LINESIZE option can be used to limit the length of lines written
; by the filters.
;
; The PAGESIZE option can be used for filters which do pagination to
; specify how many lines should appear on a page.
;
; The RACF option will cause the server to verify that a user knowns
; the account password for a userid on this host.  (This should only
; be used from non-VM hosts.
;
; These statements define a SERVICE called LOCAL, which is a conventional
; printer which will use the CP printing facilities.
;
SERVICE LOCAL PRINTER
   LOCAL
   FILTERS f l p r
   LINESIZE 132
   PAGESIZE 66
;
; These statements define a service called POSIXPRT which is a
; conventional printer. This service will use CP printing facilities,
; and defines a specific translation table to use for files processed
; using this print service.
;
SERVICE POSIXPRT PRINTER
   LOCAL
   SPOOL= TO POSIXPRT
   FAILEDJOB MAIL
   FILTERS f l p r
   TRANSLATETABLE POSIX
   LINESIZE 132
   PAGESIZE 66
; These statements define a SERVICE called RSCS, which provides access
; to the RSCS service on this system.
;
SERVICE RSCS PRINTER
   RSCS
   FILTERS f l p r
   LINESIZE 132
   PAGESIZE 66
;
; These statements define a SERVICE called REMOTE, which provides access
; to the printing queues on another system.
SERVICE REMOTE PRINTER
;  REMOTE LP0@WORKSTATION.HOST.EDU
;
; These statements define a SERVICE called PUNCH, which provides access
; to the CP controlled PUNCH
;
SERVICE PUNCH PUNCH
   LOCAL
   FILTERS l
   LINESIZE 80
```

Remote Printing Message Changes

Affected Publication:

- *VM/ESA FL310 TCP/IP Messages and Codes (Chapter 8)*
- *VM/ESA V2R4 TCP/IP Messages and Codes (Chapter 6)*

New LPD Messages

Error *reasoncode* **reading** *tablename* **TCPXLBIN {for service** *servicename***}.**

Severity: Error.

Explanation: An I/O error occurred during an attempt to read the named translation table from an accessed disk or directory. The file for which this error occurred is either a default translation table or, if a service name is listed, the table defined for that service in the LPD configuration file.

User Response: The listed reason code corresponds to an FSOPEN or FSREAD return code. Consult the *VM/ESA CMS Application Development Reference - Assembler* for information about this error code and correct any problems. Then, reinitialize the LPD server.

System Action: LPD server processing terminates.

Module: LPD PASCAL

Destination: ProcessOptions, PreparePrinters

Invalid DtcXlate parm address or value passed, parm = *reasoncode***.**

Severity: Error.

Explanation: The DTCXLATE routine used to read TCP/IP translation tables failed with the indicated reason code. This condition indicates an internal error has occurred; the listed reason code corresponds to the positional parameter that caused this error.

User Response: Inform the system administrator of this problem.

System Programmer Response: Inform the IBM support center of this problem.

System Action: LPD server processing terminates.

Module: LPD PASCAL

Destination: ProcessOptions, PreparePrinters

Translation file *tablename* **TCPXLBIN {for service** *servicename***} is in an invalid format.**

Severity: Error.

Explanation: The content of the file listed in the message was not as expected; thus, no data translation can be performed using this file. If a service name is listed, this condition was detected for the table defined for that service in the LPD configuration file; otherwise, this error is associated with a default translation table. The file in question may not have been properly created or may have been altered or corrupted through some means.

User Response: Verify the correct translate table file name has been specified. If this is the case, see *TCP/IP Planning and Customization* for information about using and creating translation tables, to determine why this file cannot be used. Correct any problems, then reinitialize the LPD server.

System Action: LPD server processing terminates.

Module: LPD PASCAL

Destination: ProcessOptions, PreparePrinters

Translation file *tablename* **TCPXLBIN {for service** *servicename***} could not be found.**

Severity: Error.

Explanation: The named translation table was not located on any currently accessed minidisk. If a service name is listed, this condition was detected for the table defined for that service in the LPD configuration file; otherwise, the listed file is a default translation table.

User Response: Verify the correct translate table file name has been specified, and that this file is present in the LPD server machine CMS search order. Correct any problems, then reinitialize the LPD server.

System Action: LPD server processing terminates.

Module: LPD PASCAL

Destination: ProcessOptions, PreparePrinters

New LPR Messages

Translate file *tablename* **is in an invalid format.**

Severity: Error.

Explanation: The content of the file listed in the message was not as expected; thus, no data translation can be performed using this file. The file in question may not have been properly created or may have been altered or corrupted through some means.

User Response: Verify the correct translate table file name has been specified. If this is the case, see *TCP/IP Planning and Customization* for information about using and creating translation tables, to determine why this file cannot be used. Correct any problems, then retry the command.

System Action: Command execution stops.

Module: LPRP PASCAL

Destination: GetTranslateTables

Translate file *tablename* **TCPXLBIN not found.**

Severity: Error.

Explanation: The named translation table was not located on any currently accessed minidisk.

User Response: Verify the correct translate table file name has been specified, and that this file is present in the CMS search order. Correct any problems, then retry the command.

System Action: Command execution stops.

Module: LPRP PASCAL

Destination: GetTranslateTables

Translate table file, *tablename* **TCPXLBIN, was not found on any accessed disk. Processing has stopped. Return code =** *rc***.**

Severity: Error.

Explanation: The named translation table was not located on any currently accessed minidisk.

User Response: Verify the correct translate table file name has been specified, and that this file is present in the CMS search order. Correct any problems, then retry the command.

Module: LPR EXEC

Destination: OptionCheck

Error *reasoncode* **reading** *tablename* **TCPXLBIN from disk or directory.**

Severity: Error.

Explanation: An I/O error occurred during an attempt to read the named translation table from an accessed disk or directory.

User Response: The listed reason code corresponds to an FSOPEN or FSREAD return code. Consult the *VM/ESA CMS Application Development Reference - Assembler* for information about this error code and correct any problems. Then, retry the command.

System Action: Command execution stops.

Module: LPRP PASCAL

Destination: GetTranslateTables

Invalid parameter address or value passed to DtcXlate, parm = *reasoncode***.**

Severity: Error.

Explanation: The DTCXLATE routine used to read TCP/IP translation tables failed with the indicated reason code. This condition indicates an internal error has occurred; the listed reason code corresponds to the positional parameter that caused this error.

User Response: Inform the system administrator of this problem.

System Programmer Response: Inform the IBM support center of this problem.

System Action: Command execution stops.

Module: LPRP PASCAL

Destination: GetTranslateTables

Network File System (NFS)

Configuration Changes for Network File System

Affected Publication:

- *VM/ESA TCP/IP FL310 Planning and Customization (Chapter 19)*

Configuring the VMNFS Virtual Machine

Security

A simple way of ensuring that file handles have a limited life span is by erasing VMNFS HISTORY at regular intervals. After the VMNFS server is started, users will have to reenter MOUNT and MOUNTPW commands to receive new, valid file handles. Erasing the VMNFS HISTORY file also causes the VMNFS TRANSLAT file to be refreshed.

Changing Translation Tables

Many different translation tables can be made available to VMNFS clients. Clients specify the ASCII/EBCDIC translation desired using the **Xlate=***tablename* parameter on a MOUNT request. If a file called *tablename* **TCPXLBIN** is available in the search order for the VMNFS server, that translation table can be used.

A maximum of 255 translation tables can be used by the server. If the maximum is exceeded, a message is written to the NFS server console, and clients who specify additional translation table names will receive an I/O error. You can 'refresh' the translation table mapping by stopping the VMNFS server machine, erasing the **VMNFS TRANSLAT** file on the server's 191 disk, and restarting the server. *Please note that this also results in a refresh of the* **VMNFS HISTORY** *file. This invalidates all file handles and returns 'stale handle' to any clients who attempt to use previously mounted file systems, requiring them to re-mount.* Do *not* attempt to modify the contents of the **VMNFS TRANSLAT** file.

NFS Command Changes

Affected Publication:

- *VM/ESA TCP/IP FL310 User's Guide (Chapter 8)*

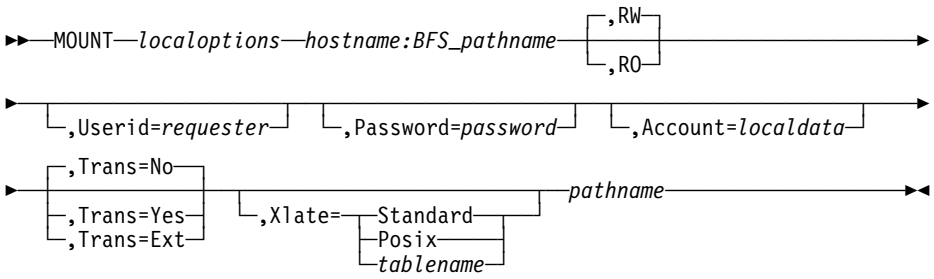
MOUNT Command

Purpose

To access a CMS file system, issue the MOUNT command on the NFS client machine in the following format.

BFS MOUNT Command Syntax

BFS file system protocols are similar to those of NFS.



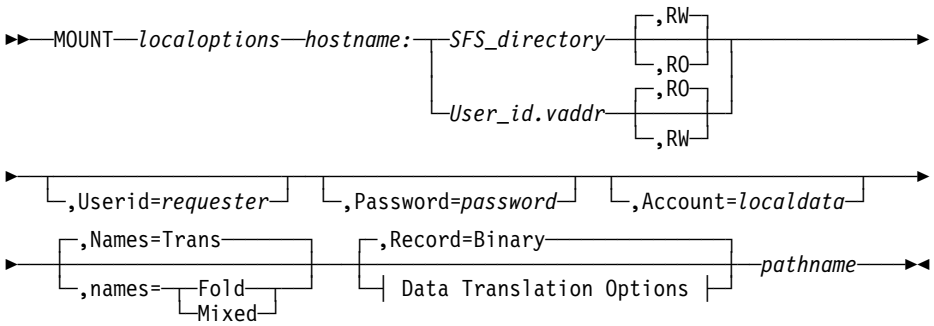
Note:

[1] *names=*, *nlvalue=* and *record=* are not used if specified when mounting a BFS directory.

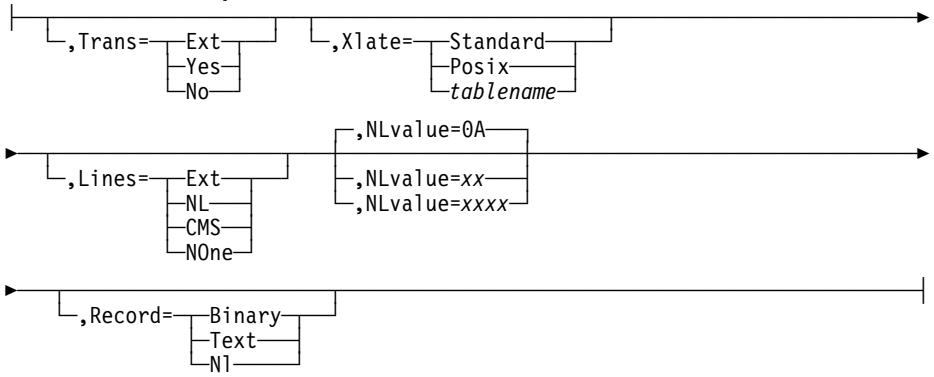
Keyword options and values that are uppercased in the syntax diagram are the minimum abbreviation for such keyword options or values.

SFS and Minidisk MOUNT Command Syntax

SFS and minidisk file system protocols are very different from those of NFS in both structure and naming convention. SFS and minidisks files have records; the **lines** and **nlvalue** options allow you to tell NFS how to map records into a data stream. The **names** option tells NFS how to map a CMS file identifier (FILENAME FILETYPE) into the NFS file naming convention.



Data Translation Options:



Note:

[1] The use of *trans=* and *lines=* together with *record=* may result in overriding options.

Keyword options and values that are uppercased in the syntax diagram are the minimum abbreviation for such keyword options or values.

Parameters

Xlate

Defines which translation table is to be used for file data translation.

Standard TCP/IP's standard translation table is to be used.

Posix This table translates ASCII (ISO 8859-1) to and from EBCDIC (IBM-1047). The UNIX line terminator (lf - X'0A') is translated to the OpenEdition VM line-end character (nl - X'15').

tablename The name of the translate table to be used. Some examples of *tablename* include "Xlate=UK," "Xlate=French," or "Xlate=10471252."

If **xlate** is not specified, a system-defined translation table is used.

tablename may not be abbreviated.

Your TCP/IP administrator may change the list of tables provided, or customize the translation tables in the list. Contact your TCP/IP administrator for information about data translation.

Network File System (NFS) Message Changes

Affected Publication:

- *VM/ESA TCP/IP FL310 Messages and Codes (Chapter 6)*

New/Changed NFS Messages

DTCNFS1519W File *filename* not found; initialization continuing.

Explanation: The identified file, used by VMNFS server initialization, was not found.

User Response: None.

System Action:

- VMNFS initialization continues. For VMNFS CONFIG, MOUNTs specifying lines=ext or trans=ext will not work as described in the "NFS File Extension Defaults" section of the *TCP/IP Users Guide*. Instead, all file names will default to lines=CMS and trans=no, which is equivalent to the record=binary default.
- If *filename* is VMNFS HISTORY or VMNFS TRANSLAT, the VMNFS HISTORY and VMNFS TRANSLAT files are recreated. This causes all current mounts to be invalidated. Clients who have previously mounted a file system will receive an error indicating that the file handle is STALE. The file system must be remounted.

Module: INIT C

Destination: init_config

DTCNFS1523I File *filename* TCPXLBIN used for default translation table.

Severity: I

Explanation: The translation table in the identified file will be used for ASCII/EBCDIC translation when no **XLATE** value is specified on client mount requests.

User Response: None.

System Action: VMNFS server initialization continues.

Module: NFSXLAT C

Destination: init_xlat

DTCNFS1524W Error reading file *filename filetype fm*; initialization continues.

Severity: W

Explanation: The identified file, used by VMNFS server initialization, was not found on any of the accessed disks, or an error occurred while reading the file.

User Response: None.

System Action: VMNFS server initialization continues. If *filetype* is TCPXLBIN, any NFS clients who have previously mounted file systems using **XLATE=filename** will receive an error indicating that the file handle is STALE. The file system must be remounted.

Module: NFSXLAT C

Destination: init_xlat

DTCNFS1525E No space remaining in VMNFS TRANSLAT file. Unable to add *tablename*.

Severity: E

Explanation: An NFS client attempted to mount a file system using **XLATE=**, specifying a translation table that is not active. There is no room to add a new active translation table.

User Response: The TCP/IP administrator can 'refresh' the translation table mapping by stopping the VMNFS server machine, erasing the **VMNFS TRANSLAT** file on the server's 191 disk, and restarting the server. *Note that this also results in a refresh of the VMNFS HISTORY file. This invalidates all file handles. Clients who have previously mounted a file system will receive an error indicating that the file handle is STALE. The file system must be remounted.*

System Action: Error status NFS_IO is sent to the NFS client.

Module: NFSXLAT C

Destination: name_xlat_locate

DTCNFS1526W VMNFS HISTORY and VMNFS TRANSLAT do not match.

Severity: W

Explanation: The two files, which are used by VMNFS server initialization, exist but the timestamps indicate that they are not in synchronization.

User Response: None

System Action: The files are erased and recreated, and VMNFS server initialization continues. Any NFS clients who have previously mounted a file system will receive an error indicating that the file handle is STALE. The file system must be remounted.

Module: INIT C

Destination: init_xlat

DTCNFS1527E Error reading file *file name*; **initialization terminated.**

Severity: E

Explanation: An invalid SMSG QUERY request was sent to the VMNFS server. The valid arguments are listed in the message.

User Response: Correct the QUERY command and reissue.

System Action: VMNFS Server processing continues.

Module: REQSMSG C

Destination: smquery

SIGERROR called: rtnname: Error reading VMNFS TRANSLAT.

Severity: E

Explanation: The VMNFS server was unable to read the VMNFS TRANSLAT file.

User Response: Try to determine the initial failing case, and report it to the IBM Support Center.

System Action: None.

Module: NFSXLAT C

Destination: name_xlat_locate

SIGERROR called: rtnname: Error using translation table.

Severity: E

Explanation: An error was received on a call to perform ASCII/EBCDIC translation; the default translation table could not be found.

User Response: Try to determine the initial failing case, and report it to the IBM Support Center.

System Action: None.

Module: NFSSYMLK C, NFSXDRI C, PCAUTH C, REQSTART C.

Destination: Multiple routines.

SIGERROR called: rtnname: translation table error.

Severity: E

Explanation: There was an error in attempting to initialize the default translation table for the VMNFS server.

User Response: Make sure that the VMNFS TCPXLBIN or STANDARD TCPXLBIN file is in the correct format, and available on a disk accessed in the VMNFS server machine's search order.

System Action: VMNFS server initialization is terminated.

Module: NFSXLAT C

Destination: init_xlat

SIGERROR called: rtnname: VMNFS HISTORY/TRANSLAT file error.

Severity: E

Explanation: An attempt to verify and initialize the VMNFS HISTORY and VMNFS TRANSLAT file has failed.

User Response: Examine the server console for additional error messages.

System Action: None.

Module: INIT C

Destination: recreate_history_files, init_history.

Using Translation Tables

Affected Publication:

- *VM/ESA TCP/IP FL310 Planning and Customization (Chapter 29)*
- *VM/ESA TCP/IP V2R4 Planning and Customization (Chapter 24)*

SBCS Translation Table Hierarchy

Different protocols use special translation tables. SMTP, for example, provides a table with the code, SMTP TCPXLBIN, to use for translation purposes. If a customized compiled-in table, one that you can build yourself is found, it is used instead of the provided table. If SMTP fails to find a customized table, STANDARD TCPXLBIN is used.

The FTP server functions in a similar fashion. It first looks to see if you have built your own customized FTP TCPXLBIN table, and if found, uses it. If the server does not find the customized table, it uses the STANDARD TCPXLBIN table provided.

FTP, TFTP, TELNET, LPR, LPD and VMNFS all search for and use *filename* TCPXLBIN before STANDARD TCPXLBIN.

Notes:

1. TELNET TCPXLBIN is included, because STANDARD TCPXLBIN is not satisfactory for use with TELNET.
2. You cannot use the Telnet translate table to change the line feed `X'0A'` character.

In addition, LPR, FTP, TFTP, TELNET and the CMS SENDFILE command accept a command line parameter that allows you to specify an alternative translate table name. The file type for all such translate tables must be TCPXLBIN.

Table 1 (Page 1 of 2). SBCS Translate Table Hierarchy

Program	Option	Customized Translation Table	Default Translation Table
SMTP		SMTP TCPXLBIN	STANDARD TCPXLBIN
FTP Server		SRVRFTP TCPXLBIN	STANDARD TCPXLBIN
FTP Client		FTP TCPXLBIN	STANDARD TCPXLBIN
FTP Client	TRANSLATE	*CustomName* TCPXLBIN	None. Program Halts
Sendfile UFTSYNC Client	TRANSLATE	*CustomName* TCPXLBIN	Internal (Same as STANDARD TCPXLBIN)
LPR Client		LPR TCPXLBIN(1)	STANDARD TCPXLBIN(1)
LPR Client	TRANSLATE	*CustomName* TCPXLBIN	None. Program Halts
LPD Server		LPD TCPXLBIN	STANDARD TCPXLBIN

Table 1 (Page 2 of 2). SBCS Translate Table Hierarchy

Program	Option	Customized Translation Table	Default Translation Table
LPD Server	TRANSLATETABLE	*CustomName* TCPXLBIN	None. Program Halts

Note:

(1)For LPR synchronous processing only. For asynchronous processing, data translation is managed by RSCS.

Explanatory Note

CustomName The file name of a customized translation table. Except for the LPD command, *CustomName* can be specified with the TRANSLATE option for all commands listed in Table 1 on page 20. For LPD, *CustomName* is defined by the TRANSLATETABLE configuration file statement.

See the *TCP/IP Users Guide* for information on specifying the TRANSLATE option for FTP and LPR, *TCP/IP Planning and Customization* for LPD, and the *VM/ESA: CMS Command Reference* for SENDFILE.

For line-mode sessions through the Telnet server, ASCII-EBCDIC translation is performed within CP. However, the Telnet server performs translation between bit-reversed ASCII and regular ASCII. By modifying the bit-reverse translate table, STLINMOD TCPXLATE, you can effect some changes in translation. For example, if you want to translate X'13' characters in output to blanks, reverse the bits of X'13' to get X'C8'. Then reverse the bits of X'93' (X'13' with parity on) to get X'C9'. The lower half of STLINMOD TCPXLATE is the output table. Use X'C8' and X'C9' to index into the table, and you find X‘13’ and X'93'. Change X'13' and X'93' to the ASCII code for space, X'20'. Note that parity is ignored in the output table, and output is always sent with the parity bit off.

Printed in U.S.A.