

Sterling B2B Integrator



Copy To Sysopts Syntax and Parameters

Version 5.2

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Note

Before using this information and the product it supports, read the information in "Notices" on page 35.

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Connect:Direct Sysopts

This section contains Sysopts syntax and parameter information for supported operating systems.

z/OS Sysopts

Sysopts syntax and parameter that you can use on the z/OS operating System.

Syntax

SYSOPTS = "UNIQUE=YES"

"DBCS=(tablename,so,si,PAD|PAD=pc,LOGIC=A|B)"

"CODEPAGE=(from Unicode code set, to code set)"

"DATATYPE=TEXT|BINARY"

"XLATE=NO|YES"

"STRIP.BLANKS=NO|YES"

"PERMISS=nnn"

"SYSOUT=(sysout_keyword1, sysout_keyword2, . .)"

UNIQUE=YES

specifies that the Unique Member Name Allocation Exit (AXUNIQ) will be invoked in order to force the PDS member name to be unique on the z/OS TO node.

Note: The initialization parameters must specify ALLOCATION.EXIT=AXUNIQ in order to use SYSOPTS="UNIQUE=YES".

DBCS=(tablename,so,si,PADIPAD=pc, LOGIC=A|B) is used to invoke the double-byte character set translation facility.

tablename is the name of the requested DBCS translation table. The tablename is required with DBCS. If you only specify tablename, you do not need to enclose the parameters in parentheses. For an updated list of translation tables provided by Sterling Connect:Direct, see Supporting DBCS in IBM Sterling Connect:Direct for z/OS Administration Guide.

so is the SHIFT-OUT character denoting a shift from single-byte character set (SBCS) to double-byte character set (DBCS) mode. The default is the IBM standard x'0E'.

si is the SHIFT-IN character denoting a shift from DBCS to SBCS mode. The default is the IBM standard x'0F'.

Note: NOSO indicates no shift-out or shift-in character and is denoted by the use of x'00' for the SO and SI characters. NOSO is used when the data is not in mixed form and is assumed to contain all DBCS characters.

PADIPAD=pc

specifies that padding characters are in use. When DBCS data is translated from EBCDIC to ASCII, PAD specifies that the SHIFT-OUT and SHIFT-IN characters will be replaced by a pad character. This allows the displacement of fields within a record to remain unchanged during translation.

When DBCS data is translated from ASCII to EBCDIC, PAD specifies that the input ASCII DBCS file is in a padded format. The character immediately preceding a DBCS character or string will be overlaid by the SHIFT-OUT character. The character immediately following a DBCS character or string will be overlaid with the SHIFT-IN character. This allows the displacement of fields within a record to remain unchanged during translation.

pc is the pad character to be used during EBCDIC to ASCII translation. pc is ignored for ASCII to EBCDIC translations. The default value for pc is x'00'.

LOGIC=AIB

tells Sterling Connect:Direct how to process data when it encounters SO (SHIFT-OUT) and SI (SHIFT-IN) characters. Normal mainframe data processing expects a pairing of SO/SI characters, and generates an error and terminates a Process when these SO/SI characters are not equally matched. You specify the DBCS keyword within the SYSOPTS parameter, the parameters that define the translation table and the SO and SI characters, and whether padding characters are in use. For example, the following two examples of a SYSOPTS parameter mean the same thing and tell Sterling Connect:Direct to use this normal method to process DBCS data (LOGIC=A):

```
SYSOPTS="DBCS=(EBCXKSC,0E,0F,PAD=00)"
```

or

```
SYSOPTS="DBCS=(EBCXKSC,0E,0F,PAD=00,LOGIC=A)"
```

The initial state of the data is SBCS. With normal logic translation processing, you are not required to specify the keyword, Logic=A. With normal logic, the mainframe system processes the data as SBCS until it encounters an SO character. After encountering the SO character, the system expects DBCS characters. Sterling Connect:Direct generates an error and terminates the Process if it encounters one of the following conditions:

An SI character before an SO character

A combination of SI and SO characters without data between the SI and SO characters

An alternate processing method exists. When you specify LOGIC=B, special rules apply to the normal DBCS translation. The system tells Sterling Connect:Direct to send the file before generating an error. LOGIC=B tells Sterling Connect:Direct to continue processing and keep the state as SBCS if the system encounters one of the following conditions:

An SI character before a SO character

An invalid combination of SI and SO characters

The system processes the data in the state that was in affect prior to the invalid SI-SO combination and sends the entire file. After sending the file, the system generates an error.

CODEPAGE=(from Unicode set, to code set)

invokes code set conversion utilities supported by the z/OS C/C++ compiler.

from Unicode set is the name of the Unicode set of the encoded data sent to the receiving node. The code set name is required and can be UTF-8 or UCS-2, or their equivalent on other operating systems. For example, 65001 is the UTF-8 equivalent on the Microsoft Windows system.

to code set is the name of the final code set that will be used on the remote node. You can use LOCALE to indicate the default code page set relevant to the receiving node.

DATATYPE = TEXT | BINARY

specifies the type of data in the file. Data can be either text or binary format. Can be a key word. Valid for HFS files only.

XLATE = NO | YES

specifies whether ASCII/EBCDIC character translation occurs. Can be a key word. Valid for HFS files only.

STRIP.BLANKS = NO | YES

specifies whether trailing blanks characters are removed from the text record before writing or transmitting the record. Can be a key word. Valid for HFS files only.

PERMISS = nnn

specifies the HFS file permissions for a file being created. This subparameter is ignored if the file already exists. Can be a key word. Valid for HFS files only.

Note: To honor the permission setting for HFS files using the PERMISS keyword, set the UNIX System Services UMASK to 000, either by default or by using the runtime environment variable, `_EDC_UMASK_DFLT`. To set the environment variable, define the `_EDC_UMASK_DFLT=000` variable in a RECFM=VB type file and allocate the ENVIRON DD in the Sterling Connect:Direct startup JCL. For example:

```
//ENVIRON DD DISP=SHR,DSN=$CD.ENVIRON(TZ)
```

The first digit indicates the owner's file permissions, the second digit indicates the owner's group's file permissions, and the third digit indicates the file permissions for all others.

The following table shows permission values:

Value	Permissions
0	No file access allowed
1	Execute access allowed
2	Write access allowed
3	Write and Execute access allowed
4	Read access allowed
5	Read and Execute access allowed
6	Read and Write access allowed
7	Read, Write, and Execute access allowed

For example, `permis=634` indicates that the file owner has read and write permissions, the owner's group has write and execute permissions, and all others are allowed only read access. `Permis=751` indicates that the file owner has read, write, and execute access, the owner's group has read and execute access, and all others have execute access to the file.

SYSOUT=(sysout_keyword1, sysout_keyword2, . .)

specifies various SYSOUT keywords. See the IBM Sterling Connect:Direct for z/OS Facilities Guide for a list and description of the SYSOUT keywords.

Windows Sysopts Syntax

Systopts syntax and parameter that you can use on a Windows operating System.

Syntax

`sysopts="datatype(text | binary)`

`user_data`

`xlate(no | yes)`

`xlate.tbl(pathname/filename)`

`strip.blanks(yes | no)`

`strip.oneable(yes | no)`

`codepage=(source codepage, destination codepage)`

`acl(operation, rightslist, accountname`

`];operation, rightslist, accountname`

`[operation, rightslist, accountname [;...]]`

`attributes(physattr)"`

datatype(text|binary)

specifies the type of data contained within the file.

- text indicates it is a text file and that trailing blanks will be stripped unless you specify strip.blanks(no). Translation of the data is performed unless you also specify xlate(no). The default is text for all nodes, except Microsoft Windows nodes. The following list shows the default source file attributes assigned for Microsoft Windows text files, which are used if necessary by the remote Sterling Connect:Direct node:
 - dsorg=ps (physical sequential organization)
 - recfm=vb (variable-length records, blocked if the destination operating system supports it)
 - lrecl=23036 (maximum record length of 23036)
 - blksize=23040 (maximum block size of 23040, if the destination operating system supports record blocking)
- binary indicates the file contains binary data. The default is binary for Microsoft Windows nodes. The following shows the default source file attributes assigned for Microsoft Windows binary files, which are used if necessary by the remote Sterling Connect:Direct node:
 - dsorg=ps (physical sequential organization)
 - recfm=u (undefined record format)
 - lrecl=0 (undefined record length)
 - blksize=23040 (maximum block size and record size of 23040)

user_data

specifies any user-defined data to be passed to the open exit dynamic link library (DLL) specified by the user, when the file is opened. The value defined for **user_data** is limited to a maximum of 511 characters and cannot contain a closing parenthesis ')' character.

Note: The file open exit DLL is defined in the Sterling Connect:Direct initialization parameters.

strip.blanks(yes | no)

determines whether trailing blank characters at the end of each record are removed from a line of text before it is written to the Microsoft Windows text file.

Note: The strip.blanks parameter is ignored when datatype(binary) is specified.

- yes removes trailing blank characters. The default is yes for UNIX, Microsoft Windows, z/OS, VM, VSE, and i5/OS nodes.
- no does not remove trailing blank characters. The default is no for all nodes except UNIX, Microsoft Windows, z/OS, VM, VSE, and i5/OS.

strip.oneable(yes | no)

strips ^Z from the end of old DOS files. If this character is not stripped from old DOS files, Sterling Connect:Direct for Microsoft Windows translates ^Z into 3F when files are sent to the snode.

- yes removes ^Z from the end of old DOS files.
- no does not remove ^Z from the end of old DOS files. This is the default value.

Because this parameter applies to text file transfers only, be sure to specify **datatype (text)** and **strip.oneable (yes)** in **sysopts** to strip the character from the end of the DOS file.

xlate(no | yes)

indicates whether character translation should be performed using the default or user-supplied translation table. Typically, this translation is between ASCII and EBCDIC.

- no specifies the translation should not be performed. The default for Microsoft Windows and all other nodes with the exception of z/OS, VM, VSE, and i5/OS is no.
- yes specifies the translation should be performed. The default for z/OS, VM, VSE, and i5/OS nodes is yes.

xlate.tbl(pathname/filename)

specifies that a different translation table from the default table used by Sterling Connect:Direct is used. `pathname/filename` should identify a translation table created using the translation table editor of the Sterling Connect:Direct Requester for Microsoft Windows. The path specification is optional. If the path is not provided, the path specified by the `xlate.dir` initialization parameter is assumed for the filename specified.

codepage=(source codepage, destination codepage)

The `sysopts` subparameters valid only in the `to` clause are:

acl(operation, rightslist, accountname)

[;operation, rightslist, accountname[;operation, rightslist, accountname[;...]]

specifies the users or groups allowed or denied access to a file being created by the copy operation. This subparameter is ignored if specified for a file that already exists.

`operation` specifies whether the rights are allowed or denied. Valid values are:

- allow
- deny

`rightslist` specifies the type of rights allowed or denied. Valid values are:

- read
- write
- execute
- delete
- all

The rights values can be combined by linking them with the `+` sign.

`accountname` specifies the name of the user or group to which access is allowed or denied. Multiple-user rights may be specified with each group enclosed in parentheses and delimited by a comma.

attributes(physattr)

specifies the physical attributes of the file when it is created.

physattr can include the following attributes (case sensitive):

- A (Archive Needed)
- H (Hidden)
- R (Read Only)
- S (System)

UNIX Sysopts Syntax

Sysopts syntax and parameter that you can use on a UNIX operating System.

```
sysopts=":datatype=text | binary:"
```

```
":xlate=no | yes:"
```

```
":xlate.tbl=<pathname/filename>:"
```

```
":strip.blanks=yes | no:"
```

```
":permis=nnn:"
```

```
":pipe=yes | no:"
```

```
":codepage=(source codepage, destination codepage):"
```

```
" :=yes | no:"
```

specifies system-specific parameters on the copy statement. The subparameters are specified in the same format as fields within a Sterling Connect:Direct UNIX configuration file. They are a series of field names and values (fldn=valn), each of which is delimited by a colon. Enclose the string of subparameters in double quotes; for example:

```
":fld1=val1:fld2=val2:...:fldn=valn:"
```

datatype

specifies the type of data contained within the file: text, binary, or **vb**.

text indicates it is a text file. The default is text. The following shows the default source file attributes assigned for UNIX text files, which are to be used if necessary by the remote Sterling Connect:Direct node:

- dsorg=ps
- recfm=vb
- lrecl=23036
- blksize=23040

binary indicates the file contains binary data. The following shows the default source file attributes assigned for UNIX binary files, which are to be used if necessary by the remote Sterling Connect:Direct node:

- dsorg=ps

- recfm=u
- lrecl=0
- blksize=23040

vb indicates the file is in variable block format. Variable block format is structured as follows:

BDW | RDW | Data . . . | BDW | RDW | Data . . .

- BDW=block descriptor word containing 2 bytes for the length of the block (including 4 bytes of the BDW) and 2 bytes of zeros
- RDW=record descriptor word containing 2 bytes for the length of the block (including 4 bytes of the RDW) and 2 bytes of zeros
- Data=record of user data equal in length to the RDW minus the 4 bytes of the RDW (for example, an RDW of 76 bytes is followed by a record of 72 bytes)

Note: The vb feature does not support ASCII/EBCDIC translation. If you specify ":datatype=vb:", specify ":xlate=no:". The copy will fail if you specify ":xlate=yes:".

xlate = no | yes

indicates whether character translation should be performed using the default or user-supplied translation table. Typically, this translation is between ASCII and EBCDIC.

no specifies the translation is not performed. no is the default for binary files.

yes specifies the translation is performed. yes is the default for text files.

xlate.tbl =<pathname/filename>

specifies that a translation table is to be used that is different from the default table used by the Sterling Connect:Direct software.

strip.blanks

determines whether trailing blank characters are removed from a line of text before it is written to the UNIX text file.

yes specifies to remove trailing blank characters. This is the default.

no specifies trailing blank characters are not removed.

permiss=nnn

specifies the UNIX file permissions for a file being created by the copy operation. The permiss subparameter is ignored if it is specified for a file that already exists.

nnn is a 3-digit octal number that defines privileges for users. Each type of user (owner, group, and others, respectively) can be assigned read, write, and execute privileges.

The following table shows valid octal numbers and associated permissions for each n based on the binary numbering system:

Octal	Binary	Permissions
0	000	No permissions
1	001	Execute permission
2	010	Write permission
3	011	Write and execute permissions
4	100	Read permissions
5	101	Read and execute permissions
6	110	Read and write permissions
7	111	Read, write, and execute permissions

For example, `perm=634` indicates that the owner has read and write permissions, the group has write and execute permissions, and others have read permissions.

pipe = yes | no

Specifies whether the pipe I/O function is activated. The pipe I/O function allows commands, programs, or shell scripts including any options and arguments to be copied to the destination file or from the source file

yes specifies the pipe I/O function is activated.

no specifies the pipe I/O function is not activated.

Note: Checkpoint/restart is not supported for the pipe I/O function.

codepage=(source codepage, destination codepage)=yes | no

Specifies whether Sterling Connect:Direct will automatically decompress a file that was ressed with the `cdsacomp` utility. See the IBM Sterling Connect:Direct for UNIX User's Guide for more information on the `cdsacomp` utility.

Yes indicates that the from data set is ressed and tells Sterling Connect:Direct to decompress the file as part of the Process.

No tells Sterling Connect:Direct that the from file is not ressed, or to send the ressed file in compressed format. ressed files copied with this value can be decompressed offline on another Sterling Connect:Direct for UNIX or Sterling Connect:Direct for z/OS system using the `cdsacomp` utility.

If `sysopts` are not coded or if `sysopts=":=no:"`, a ressed file is sent in compressed format and the receiver must run `cdsacomp` with `"-mode decompress"`. If the from file is not ressed, regular or extended compression may be used in the Copy step. Do not use regular or extended compression in the Copy step if the from file is ressed.

i5/OS Spooler File Copy Sysopts

Systopts syntax and parameter that you can use on an i5/OS operating System when copying to a spooler file.

Syntax

(TO) SYSOPTS = "TYPE(SPLF)
EXITCMD(valid i5/OS command)
FAILCMD(valid i5/OS command)
DEV(*JOB | *SYSVAL | device-name)
DEVTYPE(*IPDS | *SCS)
PAGESIZE(page-length page-width,
LPI(3 | 4 | 6 | 7.5 | 8 | 9)
CPI(5 | 10 | 12 | 13.3 | 15 | 16.7 | 18 | 20)
OVRFLW(overflow-line-number)
FOLD(*NO | *YES)
RPLUNPRT(*YES 'replacement-character' | *NO)
ALIGN(*NO | *YES)
CTLCHAR(*NONE | *FCFC)
CHLVAL(*NORMAL |
(channel#1 line#1)
(channel#2 line#2)
(channel#3 line#3)
(channel#4 line#4)
(channel#5 line#5)
(channel#6 line#6)
(channel#7 line#7)
(channel#8 line#8)
(channel#9 line#9)
(channel#10 line#10)
(channel#11 line#11)
(channel#12 line#12))
FORMFEED(*DEV | *CONT | *CUT | *AUTOCUT,

PRTQLTY(*STD | *DRAFT | *DEV D | *NLQ)
DRAWER(1 | 2 | 3 | *E1)
FONT(*CPI | *DEV D | font-identifier)
CHRID(*DEV D | *SYSVAL | graphic-character-set code-page)
PAGR TT(*DEV D | *COR | 0 | 90 | 180 | 270)
PRTT XT('print-text')
JUSTIFY(0 | 50 | 100)
DUPLEX(*NO | *YES | *TUMBLE)
SPOOL(*YES | *NO)
OUTQ(*JOB | *DEV | library-name/output-queue-name)
FORMTYPE(form-type)
COPIES(number-of-copies)
MAXRCDS(maximum-records)
FILESEP(number-of-file-separators)
HOLD(*YES | *NO)
SAVE(*YES | *NO)
OUTPTY(*JOB | output-priority)
USRDTA(user-data)"

specifies system option parameters on the Sterling Connect:Direct i5/OS COPY statement. The name of the Sterling Connect:Direct printer device file is NDMPRINT. This file is created by the installation process. The defaults used by Sterling Connect:Direct for the SYSOPTS subparameters are taken from this file. The SYSOPTS subparameters are used to override the defaults. The maximum number of characters permitted for SYSOPTS is 256.

Enclose the entire SYSOPTS string in double quotation marks. Enclose each subparameter string in parentheses. Separate subparameters by blanks. For example:

```
SYSOPTS="TYPE(SPLF) FORMFEED(*AUTOCUT) JUSTIFY(50)"
```

Note: If you regularly override the printer or spooled file attributes with SYSOPTS, you may want to modify the NDMPRINT printer device file with the i5/OS CL command CHGPRTF (Change Printer File) to use the options.

TYPE(SPLF)

specifies that the data is copied to an i5/OS spooled output file. This parameter is required.

EXITCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is successful. This parameter is only valid when the sender is running Sterling Connect:Direct i5/OS Version 3.3 or later.

FAILCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is not successful. This parameter is only valid when the sender is running Sterling Connect:Direct i5/OS Version 3.3 or later.

DEV(*JOB|*SYSVAL|device-name)

specifies the name of the printer device description.

- *JOB indicates the printer used by the Sterling Connect:Direct job is to be used as the printer device.
- *SYSVAL indicates that the value in the i5/OS system value QPRTDEV is to be used as the printer device.
- device-name identifies the printer device used for nonspoiled output with the printer device to produce the printed output. For spooled output, if OUTQ(*DEVD), the default output queue for the specified printer is used for the spooled output data.

DEVTYPE(*IPDS | *SCS)

specifies the type of data stream created for a printer file from the data received. This parameter indicates whether the resulting data stream is an Intelligent Printer Data Stream (IPDS) or an SNA Character Stream (SCS).

- *IPDS indicates an IPDS is to be created.
- *SCS indicates an SCS is to be created.

PAGESIZE(page-length page-width)

specifies the length and width of the page used by the printer. This parameter overrides the FORMTYPE parameter.

- page-length is in lines per page.
- page-width is in characters per line.

LPI(3 | 4 | 6 | 7.5 | 8 | 9)

specifies the line space setting (lines per inch) on the printer.

CPI(5 | 10 | 12 | 13.3 | 15 | 16.7 | 18 | 20)

specifies the printer character density, in characters per inch, for the printer.

For the printers that support fonts, the value specified for font implies the CPI. If FONT(*CPI) is specified, the font used is based on the CPI value. The following table shows fonts based on CPI value.

CPI	Corresponding Font
5.0	245
10.0	011
12.0	087
13.3	204
15.0	222
16.7	400
18.0	252
20.0	281

OVRFLW(overflow-line-number)

specifies the line number on the page at which overflow to a new page begins. The value specified must not exceed the forms length specified for PAGESIZE.

FOLD(*NO | *YES)

specifies whether entire records are printed when the record length exceeds the form width. If DEVTYPE(*IPDS), then this parameter is ignored and records are truncated.

- *NO indicates that records are truncated if they exceed the form width.
- *YES indicates records wrap to the next line or lines until the entire record is printed.

RPLUNPRT(*YES 'replacement-character' | *NO)

specifies whether unprintable characters are replaced with printable characters when printed. The replacement character is specified as well, separated by the *YES and a single blank. Any printable EBCDIC character can be specified as a replacement character.

ALIGN(*NO | *YES)

specifies whether the page must be aligned in the printer before printing is started.

CTLCHAR(*NONE | *FCFC)

specifies whether the data contains printer control characters.

- *NONE indicates that the data does not contain printer control characters.
- *FCFC indicates that the first character of each record contains an ANSI forms-control character. Any incorrect control characters are ignored, and single spacing is assumed. This subparameter should be used when the source z/OS file is RECFM=xxA, which indicates it contains ANSI carriage control.

**CHLVAL(*NORMAL | (channel#1 line#1) (channel#2 line#2)
(channel#3 line#3) (channel#4 line#4) (channel#5 line#5)
(channel#6 line#6) (channel#7 line#7) (channel#8 line#8)
(channel#9 line#9) (channel#10 line#10) (channel#11 line#11)
(channel#12 line#12))**

specifies the list of channel numbers with their assigned line numbers. CTLCHAR(*FCFC) must be specified as part of the SYSOPTS parameter for this to be valid.

- *NORMAL indicates that channel 1 causes a skip to the next line, and channel 12 causes a skip to the overflow line (OVERFLOW parameter). Channels 2-11 cause a space-one-line operation.
- (channel#1 line#1) ...(channel#12 line#12) Any combination of channel numbers, 1 through 12, may be specified along with a line number to be assigned to that channel number. Valid line numbers range from 1-255. If no line number is assigned to a channel number and that channel number is found in the data, a default of space-one-line before printing is taken. Each channel and line number may be specified once.

FORMFEED(*DEV | *CONT | *CUT | *AUTOCUT)

specifies the form feed attachments used by the printer (4214, 5219, and 5553 printers only).

- *DEV indicates that forms are fed according to the printer device description.
- *CONT indicates that continuous forms are used by the printer.
- *CUT indicates that single-cut sheets are used by the printer.
- *AUTOCUT indicates that single-cut sheets are fed semi-automatically into the printer. The sheet-feed attachment must be on the printer.

PRTQLTY(*STD | *DRAFT | *DEV | *NLQ)

specifies the quality of print produced.

- *STD indicates standard quality.
- *DRAFT indicates draft quality.
- *DEV indicates the print quality is set on the printer by the user, not in the data stream.
- *NLQ indicates near letter quality.

DRAWER(1 | 2 | 3 | *E1)

specifies the source drawer to be used when automatic cut-sheet feed mode is used. FORMFEED(*AUTOCUT) must be specified as part of SYSOPTS for this to be valid.

- 1 | 2 | 3 indicate drawer number 1, 2, or 3 on the sheet-feeder paper handler.
- *E1 indicates that envelopes are to be fed from the envelope drawer on the sheet-feeder paper handler.

FONT(*CPI | *DEV | font-identifier)

specifies the font identifier to be used for the spooled output file.

- *CPI indicates that the value specified in the CPI parameter is to be used to determine the font.

- *DEV D indicates that the font specified in the device description for the printer is to be used.
- font-identifier indicates that a user-specified font identifier has been supplied. Any valid 3- or 4-digit font identifier is allowed.

CHRID(*DEV D | *SYSVAL | graphic-character-set code-page)

specifies the character identifier to use for the spooled output file. This parameter allows you to print data that is in different character identifier coding. The value specified is used to command the printer device to interpret the hexadecimal byte stream by printing the same characters intended when the text was created.

- *DEV D indicates that the CHRID value the device is designed to handle is used.
- *SYSVAL indicates that the CHRID specified for the system on which Sterling Connect:Direct is running is used.
- graphic-character-set code-page indicates that the user is supplying the graphic-character-set and code-page. Any value ranging from 1-32767 may be specified for both.

PAGR TT(*DEV D | *COR | 0 | 90 | 180 | 270)

specifies the degree of rotation (clockwise from the edge of the paper first loaded into the printer) of text on each page printed.

- *DEV D indicates that forms are rotated according to the hardware switches on the printer.
- *COR indicates that computer output reduction is done when the output is printed.
- 0 | 90 | 180 | 270 indicates the specific angle of rotation.

PRTT XT('print-text')

specifies a line of text to be printed at the bottom of each page printed. Up to 30 characters enclosed in single quotation marks may be specified.

JUSTIFY(0 | 50 | 100)

controls the print positions of the characters on the page (in the spooled file) so the right margin is regular.

- 0 indicates that no justification occurs.
- 50 indicates that blanks between words are padded to obtain a more closely aligned right margin (not flush).
- 100 indicates that the text is padded with spaces to obtain an even right margin.

DUPLEX(*NO | *YES | *TUMBLE)

specifies whether the spooled output file is printed on one or both sides of the paper.

- *NO indicates that the file prints on one side of the paper.
- *YES indicates that the file prints on both sides of the paper, with the top of each printed page at the same end of the paper.
- *TUMBLE indicates that the file prints on both sides of the paper, with the top of each page printed at opposite ends of the paper.

SPOOL(*YES | *NO)

specifies whether the data is sent to a spooled file prior to printing.

- *YES indicates the file is sent to a spooled file for processing by a print-writer.
- *NO indicates that the file is not spooled but sent directly to the device specified for print.

OUTQ(*JOB | *DEV|library-name/output-queue-name)

specifies the output queue for the spooled output file created. OUTQ is valid only when SPOOL(*YES).

- *JOB indicates that the output queue specified for Sterling Connect:Direct is to be used.
- *DEV indicates that the output queue associated with the device specified by the DEV parameter is to be used.
- library-name/output-queue-name allows the user to specify a qualified name for the output queue for the spooled output file created.

FORMTYPE(form-type)

specifies the type of form to use in the printer when the spooled file is printed. A form-type identifier is user-defined and is no longer than 10 characters.

If FORMTYPE *STD is specified, the standard form for a particular computer system is used when the spooled output file is printed.

COPIES(number-of-copies)

specifies the number of copies to be printed. Valid values range from 1-255. This parameter is only valid when SPOOL(*YES).

MAXRCDS(maximum-records)

specifies the maximum number of records that can be placed in the output queue. Valid values range from 1-500000. This parameter is only valid when SPOOL(*YES).

If MAXRCDS is not specified, then the number of records that can be placed on the output queue is limited to 100,000.

FILESEP(number-of-file-separators)

specifies the number of blank separator pages to be placed between each copy of the file printed.

HOLD(*YES | *NO)

specifies whether the file is to be held on the output queue until released by the user. This parameter is only valid if SPOOL(*YES).

SAVE(*YES | *NO)

specifies whether the spooled output file is to be saved on the output queue once printed. This parameter is only valid if SPOOL(*YES).

OUTPTY(*JOB | output-priority)

specifies the scheduling priority of the file on the output queue. This parameter is only valid if SPOOL(*YES).

- *JOB indicates that the priority is to be determined by the output priority associated with the Sterling Connect:Direct job.
- output-priority indicates a user-defined priority of 1 (high) to 9 (low).

USRDTA(user-data)

allows up to 10 characters of data to identify the spooled output file. This parameter is only valid if SPOOL(*YES).

i5/OS Sysopts for Object Copy

Sysopts syntax and parameter that you can use on an i5/OS operating System when copying an object.

Syntax

(TO) SYSOPTS ="TYPE(OBJ)

EXITCMD(valid i5/OS command)

FAILCMD(valid i5/OS command)

MAXRCDS(number | *NOMAX),

ASP(auxiliary-storage-pool),

TEXT('text description'),

AUT(*EXCLUDE | *CHANGE | *ALL | *USE)"

specifies system operation parameters on the Sterling Connect:Direct i5/OS COPY statement. The maximum number of characters permitted for SYSOPTS is 256. This parameter is required.

Enclose the entire SYSOPTS string in double quotation marks. Enclose each subparameter string in parentheses. Separate subparameters by blanks. For example:

```
SYSOPTS="TYPE(OBJ) MAXRCDD(*NOMAX) AUT(EXCLUDE)"
```

TYPE(OBJ)

specifies that the object is to be copied to the Sterling Connect:Direct i5/OS node and is assumed to be in save file format. This parameter is required.

EXITCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is successful. This parameter is only valid when the sender is running Sterling Connect:Direct i5/OS Version 3.3 or later.

FAILCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is not successful. This parameter is only valid when the sender is running Sterling Connect:Direct i5/OS Version 3.3 or later.

MAXRCDS(number | *NOMAX)

specifies the maximum number of records the save file, which was created to hold the data received, can reach. If the number of records received exceeds this value, the COPY step ends in error. Valid values for this parameter range from 1-3997574. If MAXRCDS is not specified, the system limits the size of the save file.

Note: Two thousand 512-byte records require approximately 1 megabyte of space. To ensure that the save file will not exceed approximately 20 megabytes, specify 40000 (20x2000) for MAXRCDS.

ASP(auxiliary-storage-pool)

specifies the auxiliary storage pool from which the system allocates storage for the save file. Valid values range from 1-16. The default is 1.

TEXT('text description')

specifies a text description to be associated with this object. This description cannot exceed 50 characters and must be enclosed in single quotation marks.

AUT(*EXCLUDE | *CHANGE | *ALL | *USE)

specifies the authority to be given to a user who does not have specific authority to the object, is not on the authorization list, and whose user group does not have specific authority to the object.

- *EXCLUDE is the default. It prevents a user from accessing the file.
- *CHANGE grants a user object operational and all data authorities.
- *ALL grants a user object operational, object management, and object existence authorities and all data authorities.
- *USE grants a user object operational and read data authority.

For more information on i5/OS security, refer to the IBM i5/OS Data Management Guide and Security Concepts and Planning manuals.

i5/OS Sysopts - Member Copy

Systopts syntax and parameter that you can use on an i5/OS operating System when copying a member.

Syntax

(TO) SYSOPTS = "TYPE(MBR)

DECMPR (*YES | *NO)

EXITCMD(valid i5/OS command)

FAILCMD(valid i5/OS command)

TEXTFILE(*YES | *NO)

RCDLEN(record-length)

FILETYPE(*SRC | *DATA)

TEXT('text-description')

CODEPAGE(from Unicode set, to code set)

EXPDATE(expiration-date)

MAXMBRS(number | *NOMAX)

SIZE(#-of-recs incr-value #-of-incrs | *NOMAX)

AUT(*CHANGE | *ALL | *USE | *EXCLUDE)

IGCDTA(*YES | *NO)"

specifies system operation parameters on the Sterling Connect:Direct for i5/OS COPY statement. The maximum number of characters permitted for SYSOPTS is 256. This parameter is required.

Enclose the entire SYSOPTS string in double quotation marks. Enclose each subparameter string in parentheses. Separate the subparameters by blanks. For example:

```
SYSOPTS="TYPE(MBR) DECMPR(*YES)"
```

TYPE(MBR)

specifies that the data is to be copied to the Sterling Connect:Direct for i5/OS node as a member of a physical database file. This parameter is required.

DECMPR(*YES | *NO)

specifies whether the receiving Sterling Connect:Direct node is to decompress the received file. This parameter is valid only when the receiving system is a Sterling Connect:Direct for i5/OS node.

- *NO instructs the receiving system to place the receiving data in a database file without decompressing it.

EXITCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is successful. This parameter is only valid when the sender is running Sterling Connect:Direct for i5/OS Version 3.3 or later.

FAILCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is not successful. This parameter is only valid when the sender is running Sterling Connect:Direct for i5/OS Version 3.3 or later.

TEXTFILE(*YES | *NO)

specifies that the file being received is a text file. This keyword is for the i5/OS only.

CODEPAGE(from Unicode set, to code set)

invokes code set conversion utilities, for example, from ASCII to EBCDIC would be CODEPAGE(1252,37).

- **from Unicode set** is the name of the Unicode set of the encoded data sent to the receiving node. The code set name is required and can be UTF-8 or UCS-2, or their equivalent on other operating systems. For example, 1208 is the UTF-8 equivalent on the i5/OS system.
- **to code set** is the name of the final code set that will be used on the remote node. You can use LOCALE to indicate the default code page set relevant to the receiving node.

The code set specifications are only validated for basic syntax. An invalid code set specification will produce an error message on the node attempting conversion.

A code set value of LOCALE specifies the default code set for the node performing conversion.

Note: The CODEPAGE parameter is valid when using Sterling Connect:Direct for i5/OS Version 3.5 or later.

RCDLEN(record-length)

specifies the data length for each record in the file. If FILETYPE(*SRC), valid values range from 1-32754; if FILETYPE(*DATA), valid values range from 1-32766. This parameter is used if a physical database file is created to hold the data received. RCDLEN is required for VSAM files.

When transmitting stream data in text mode, always specify this parameter to avoid possible space allocation problems. If this is a new file and RCDLEN has not been specified, the attributes of the source data are used to determine an acceptable record length.

Note: If Sterling Connect:Direct creates a physical source file, it uses a record length 12 bytes longer than the value specified for RCDLEN. For example, a 2,000 byte record creates a physical source file with a 2,012 byte record length. These 12 bytes allow for the 6-byte sequence number field and 6-byte data field that precede the data in each record of the member.

FILETYPE(*SRC | *DATA)

specifies the type of file to be created. This parameter is used whenever a file is created.

- *SRC indicates that a physical source database file is to be created.
- *DATA indicates that a physical database file is to be created.

TEXT('text description')

specifies a text description to be associated with this member (and file, if created). This description cannot exceed 50 characters and must be enclosed in single quotation marks.

EXPDATE(expiration-date)

specifies the date after which the new or replaced member cannot be used. If EXPDATE is not specified, then the file does not have an expiration date. The format you must use is dependent upon the system value QDATFMT. For example, if QDATFMT=MDY, you must input the expiration date in MMDDYY form. To display the system value QDATFMT, type 'DSPSYSVAL QDATFMT' on the i5/OS command line.

MAXMBRS(number | *NOMAX)

specifies the maximum number of members a physical file can contain. This parameter is used when a file is being created with this COPY statement. If *NOMAX is specified, then the system maximum of 32,767 members per file is used. The default is 1.

SIZE(#-of-recs incr-value #-of-incrs | *NOMAX)

is used when a new file is created for the member received.

- #-of-recs indicates the initial number of records for a member. Valid values range from 1-16777215. The default is 10000.
- incr-value indicates the number of records in each increment to be added to a member size if the initial space allocated is depleted. Valid values range from 1-32767, the default is 1000. If 0 is specified, the member is not allowed extensions.
- #-of-incrs indicates the number of times the increment is automatically applied. Valid values range from 0-32767. The default is 10.
- *NOMAX indicates the number of records for a member is limited by the system, not the user.

AUT(*CHANGE | *ALL | *USE | *EXCLUDE)

specifies the authority to be given to a user who does not have specific authority to the file or member, is not on the authorization list, and whose user group does not have specific authority to the file or member.

- *CHANGE is the default. It grants a user object operational and all data authorities.
- *ALL grants a user object operational, object management, and object existence authorities and all data authorities.
- *USE grants a user object operational and read data authority.
- *EXCLUDE prevents any user (other than the owner) from accessing the file.

For more information on i5/OS security, refer to the IBM i5/OS Data Management Guide and Security Concepts and Planning manuals.

IGCDTA(*YES|*NO)

specifies that double-byte character set (DBCS) support is installed on the destination i5/OS system and the file being sent contains DBCS data. This parameter is only valid if the destination i5/OS system is configured for DBCS support. Including this parameter in a Process that sends a file to an i5/OS system without DBCS support will cause an error and terminate the Process.

i5/OS Sysopts Syntax - Copy File

Systopts syntax and parameter that you can use on an i5/OS operating System when copying a file.

(TO) SYSOPTS = "TYPE(FILE)

DECMPR (*YES | *NO)

EXITCMD(valid i5/OS command)

FAILCMD(valid i5/OS command)

TEXTFILE(*YES | *NO)

EORCHAR(xxxx)

CCSID(nnnnn)

CODEPAGE(from Unicode set, to code set)

RCDLEN(record-length)

FILETYPE(*SRC | *DATA)

TEXT('text-description')

EXPDATE(expiration-date)

MAXMBRS(number | *NOMAX)

SIZE(#-of-recs incr-value #-of-incrs | *NOMAX)

AUT(*CHANGE | *ALL | *USE | *EXCLUDE)

IGCDTA(*YES | *NO)"

specifies system operation parameters on the Sterling Connect:Direct for i5/OS COPY statement. The maximum number of characters permitted for SYSOPTS is 256. This parameter is required.

Enclose the entire SYSOPTS string in double quotation marks. Enclose each subparameter string in parentheses. Separate the subparameters by blanks. For example:

```
SYSOPTS="TYPE(FILE) DECMPR(*YES)"
```

TYPE(FILE)

specifies that the data is to be copied to the Sterling Connect:Direct for i5/OS node as a physical database file or an IFS file. This parameter is required.

DECMPR(*YES | *NO)

specifies whether the receiving Sterling Connect:Direct node is to decompress the received file. This parameter is valid only when the receiving system is a Sterling Connect:Direct for i5/OS node.

- *NO instructs the receiving system to place the receiving data in a database file without decompressing it.

EXITCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is successful. This parameter is only valid when the sender is running Sterling Connect:Direct for i5/OS Version 3.3 or later.

FAILCMD(valid i5/OS command)

specifies a command to be executed only if the copy process is not successful.

TEXTFILE(*YES | *NO)

specifies that the file being received is a text file. This keyword is for the i5/OS only.

EORCHAR(xxxx)

is the hex value of the end of record character. Specify this parameter if the EOR is not CRLF, for example, 0D or 0D25

CCSID(nnnnn)

specifies the value for the character code set if the IFS file has a specific CCS that is not the system/job default, for example, CCSID(1252). Must be used for text files.

CODEPAGE(from Unicode set, to code set)

invokes code set conversion utilities, for example, from ASCII to EBCDIC would be CODEPAGE(1252,37).

- from Unicode set is the name of the Unicode set of the encoded data sent to the receiving node. The code set name is required and can be UTF-8 or UCS-2, or their equivalent on other operating systems. For example, 1208 is the UTF-8 equivalent on the i5/OS system.
- to code set is the name of the final code set that will be used on the remote node. You can use LOCALE to indicate the default code page set relevant to the receiving node.

The code set specifications are only validated for basic syntax. An invalid code set specification will produce an error message on the node attempting conversion.

A code set value of LOCALE specifies the default code set for the node performing conversion.

Note: The EORCHAR, CCSID, and CODEPAGE parameters are valid when using Sterling Connect:Direct for i5/OS Version 3.5 or later.

RCDLEN(record-length)

specifies the data length for each record in the file. If FILETYPE(*SRC), valid values range from 1-32754; if FILETYPE(*DATA), valid values range from 1-32766. This parameter is used if a physical database file is created to hold the data received.

When transmitting stream data in text mode, always specify this parameter to avoid possible space allocation problems. If this is a new file and RCDLEN has not been specified, the attributes of the source data are used to determine an acceptable record length.

Note: If the Sterling Connect:Direct system creates a physical source file, it uses a record length 12 bytes longer than the value specified for RCDLEN. These 12 bytes allow for the 6-byte sequence number field and 6-byte data field that precede the data in each record of the member.

FILETYPE(*SRC | *DATA)

specifies the type of file to be created. This parameter is used whenever a file is created.

- *SRC indicates that a physical source database file is to be created.
- *DATA indicates that a physical database file is to be created.

TEXT('text description')

specifies a text description to be associated with this member (and file, if created). This description cannot exceed 50 characters and must be enclosed in single quotation marks.

EXPDATE(expiration-date)

specifies the date after which the new or replaced member cannot be used. If EXPDATE is not specified, then the file does not have an expiration date. The format you must use is dependent upon the system value QDATFMT. For example, if QDATFMT=MDY, you must input the expiration date in MMDDYY form. To display the system value QDATFMT, type 'DSPSYSVAL QDATFMT' on the i5/OS command line.

MAXMBRS(number | *NOMAX)

specifies the maximum number of members a physical file can contain. This parameter is used when a file is being created with this COPY statement. If *NOMAX is specified, then the system maximum of 32,767 members per file is used. The default is *NOMAX.

SIZE(#-of-recs incr-value #-of-incrs | *NOMAX)

is used when a new file is created for the member received.

- #-of-recs indicates the initial number of records for a member. Valid values range from 1-16777215. The default is 10000.
- incr-value indicates the number of records in each increment to be added to a member size if the initial space allocated is depleted. Valid values range from 1-32767, the default is 1000. If 0 is specified, the member is not allowed extensions.
- #-of-incrs indicates the number of times the increment is automatically applied. Valid values range from 0-32767. The default is 10.
- *NOMAX indicates the number of records for a member is limited by the system, not the user.

AUT(*CHANGE | *ALL | *USE | *EXCLUDE)

specifies the authority to be given to a user who does not have specific authority to the file or member, is not on the authorization list, and whose user group does not have specific authority to the file or member.

- *CHANGE is the default. It grants a user object operational and all data authorities.
- *ALL grants a user object operational, object management, and object existence authorities and all data authorities.
- *USE grants a user object operational and read data authority.
- *EXCLUDE prevents any user (other than the owner) from accessing the file.

For more information on i5/OS security, refer to the IBM i5/OS Data Management Guide and Security Concepts and Planning manuals.

IGCDTA(*YES | *NO)

specifies that double-byte character set (DBCS) support is installed on the destination i5/OS system and the file being sent contains DBCS data. This parameter is only valid if the destination i5/OS system is configured for DBCS support. Including this parameter in a Process that sends a file to an i5/OS system without DBCS support will cause an error and terminate the Process.

HPNonStop Sysopts for Spooler Job Copies

Sysopts syntax and parameter that you can use on an HP NonStop operating System when copying spooler jobs.

specifies system operation parameters on spooler job copies. It is an alternative way of specifying file creation attributes.

Syntax

(TO) SYSOPTS = ["SET SPOOLER \$spooler-name"]

SET parameter

commands define HP NonStop file attributes or special processing instructions for Sterling Connect:Direct HP NonStop.

SPOOLER

specifies the spooler supervisor process name used to transfer a file between the spooler and another node. The default is \$SPLS. The symbol \$ must precede specified spooler supervisor names.

If only the spooler supervisor name is specified and multiple instances of a spooler file name are in the spooler, the Sterling Connect:Direct system accesses the job with the highest job number corresponding to the given filename in the READY state.

HPNonStop Sysopts for OSS Disk and Tape File Copies

Syntax

```
(TO) SYSOPTS =[“SET XLATE ON | YES | OFF | NO | table-name”] [“SET DATATYPE ASCII | BINARY”]
```

Description

specifies system operation parameters on OSS disk and tape file copies. It is an alternative way of specifying file creation attributes.

You can use HP NonStop File Utility Program (FUP) syntax to create HP NonStop-specific file options that are available through Sterling Connect:Direct syntax.

SYSOPTS are expressed as HP NonStop SET commands. There are two ways to express multiple SET command parameter:

- SET precedes each parameter. For example:
SYSOPTS=(“SET parameter” “SET parameter” “SET parameter”)
- SET precedes the first parameter, and commas separate subsequent parameters. For example:
SYSOPTS=(“SET parameter, parameter, parameter”)

Enclose each sysopts string in double quotation marks except when copying from Microsoft Windows to HP NonStop. For copies from Microsoft Windows to HP NonStop, enclose each SET parameter in single quotation marks and enclose the entire SYSOPTS string in double quotation marks. For example:

```
SYSOPTS=“SET parameter’ ‘SET parameter’ ‘SET parameter”
```

Do not use continuation marks in the SYSOPTS parameter. Type the text in a continuous string, with blanks separating each subparameter.

For details on listed FUP SET commands, refer to the appropriate HP NonStop manual. The following commands are Sterling Connect:Direct for HP NonStop SET commands and are described only in the documentation set for Sterling Connect:Direct HP NonStop: SET [NO] BLOCKIO, SET [NO] LARGEIO, SET XLATE, SET SPOOLER, SET FAST.LOAD Y, SET FAST.LOAD.PRI, SET FAST.LOAD CPU, SET FAST.LOAD.SORTED Y, and SET SPOOLNUM.

SET parameter

commands define HP NonStop file attributes or special processing instructions for Sterling Connect:Direct HP NonStop. The SET commands follow in alphabetical order.

XLATE

indicates whether the file being transferred will be converted from either ASCII to EBCDIC or EBCDIC to ASCII.

If XLATE ON or XLATE YES is specified or the file being copied is a spooler file or an edit file (unstructured file, code 101), Sterling Connect:Direct HP NonStop will check the XLFILE for a table named DEFAULT. If the DEFAULT table is not in XLFILE, then Sterling Connect:Direct HP NonStop will use the standard English language ASCII/EBCDIC table as defined by HP NonStop.

If the file being copied is a spooler file or an edit file (unstructured file, code 101), XLATE does not need to be specified because these files are automatically translated.

- ON | YES specifies whether text will be converted from either ASCII to EBCDIC or EBCDIC to ASCII, depending upon the copy direction.
- OFF | NO ensures that text conversion does not occur during file transfer.
- table-name is a 1-8 character name of a user-defined translation table. See the IBM Sterling Connect:Direct HP NonStop Administration Guide for further details on user-defined translation tables.

SET DATATYPE

specifies whether the source file being transferred is in ASCII or BINARY format.

To successfully transfer binary files from an OSS files system to either UNIX or Microsoft Windows, specify BINARY as the datatype.

HPNonStop Sysopts for File Copy

Syntax

SYSOPTS =(

["SET TYPE [U | 0] | [R | 1] | [E | 2] | [K | 3]"]

["SET CODE file-code"]

["SET EXT (extent.size) | (pri.ext.size,sec.ext.size)"]

["SET REC record-length"]

["SET BLOCK data-block-length"]

["SET [NO] COMPRESS"]

["SET [NO] DCOMPRESS"]

["SET [NO] ICOMPRESS"]

["SET KEYLEN key-length"]
 ["SET KEYOFF key-offset"]
 ["SET ALTKEY
 △([key-specifier]
 △[FILE key-file-number]
 △[KEYLEN key-length]
 △[KEYOFF key-offset]
 △[[NO] NULL]
 △[[NO] UNIQUE]
 △[[NO] UPDATE]
 △)"]
 ["SET ALTFILE key-file-number , filename"]
 ["SET [NO] ALTCREATE"]
 ["SET PART
 △([sec.partition.num]
 △[\system.name.\$volume]
 △[pri.ext.size]
 △[sec.ext.size]
 △[partial.key.value]
 △)"]
 ["SET [NO] PARTONLY"]
 ["SET ODDUNSTR"]
 ["SET [NO] REFRESH"]
 ["SET [NO] AUDIT"]
 ["SET MAXEXTENTS maximum-extents"]
 ["SET BUFFERSIZE unstructured-buffer-size"]
 ["SET [NO] BUFFERED"]
 ["SET [NO] AUDITCOMPRESS"]

```
["SET [NO] VERIFIEDWRITES"]
["SET [NO] SERIALWRITES"]
["SET [NO] BLOCKIO"]
["SET [NO] LARGEIO"]
["SET FAST.LOAD Y"]
["SET FAST.LOAD.PRI priority"]
["SET FAST.LOAD.CPU cpu-number"]
["SET FAST.LOAD.SORTED Y"]
["SET XLATE ON | YES | OFF | NO | table-name"]
["SET FORMAT 0|1|2"]
```

Description

specifies system operation parameters on the Copy statement. It is an alternative way of specifying file creation attributes. You can use HP NonStop File Utility Program (FUP) syntax to create HP NonStop-specific file options that are available through Sterling Sterling Connect:Direct syntax.

SYSOPTS are expressed as HP NonStop SET commands. There are two ways to express multiple SET command parameter:

- SET precedes each parameter. For example:
SYSOPTS=("SET parameter" "SET parameter" "SET parameter")
- SET precedes the first parameter, and commas separate subsequent parameters. For example:
SYSOPTS=("SET parameter, parameter, parameter")

Enclose each sysopts string in double quotation marks except when copying from Microsoft Windows to HP NonStop. For copies from Microsoft Windows to HP NonStop, enclose each SET parameter in single quotation marks and enclose the entire SYSOPTS string in double quotation marks. For example:

```
SYSOPTS="SET parameter 'SET parameter' 'SET parameter'"
```

Do not use continuation marks in the SYSOPTS parameter. Type the text in a continuous string, with blanks separating each subparameter.

For details on listed FUP SET commands, refer to the appropriate HP NonStop manual. The following commands are Sterling Connect:Direct HP NonStop SET commands and are described only in the documentation set for Sterling Connect:Direct HP NonStop: SET [NO] BLOCKIO, SET [NO] LARGEIO, SET XLATE, SET SPOOLER, SET FAST.LOAD Y, SET FAST.LOAD.PRI, SET FAST.LOAD CPU, SET FAST.LOAD.SORTED Y, and SET SPOOLNUM.

SET parameter

commands define HP NonStop file attributes or special processing instructions for Sterling Connect:Direct HP NonStop. The SET commands follow in alphabetical order.

TYPE

specifies the file type. Values include:

- Use U or 0 for an unstructured file.
- Use R or 1 for a relative record file.
- Use E or 2 for an entry-sequenced file.
- Use K or 3 for a key-sequenced file.

CODE

specifies the file code. Values range from 0-65,535. Codes 100-999 are used exclusively by the system. The default is 0.

EXT

specifies the size of the extents. Valid values are as follows:

- extent.size specifies the extent size. The default is 10.
- pri.ext.size , sec.ext.size specifies the sizes of the primary and secondary extents.
- The default is 10.

REC

specifies the length of the records. For relative and entry-sequenced files, values range from 1-4072. For DP1 key-sequenced files, values range from 1-2035. For DP2 key-sequenced files, values range from 1-4062. The default is 80. REC is not valid if the destination file is unstructured.

BLOCK

specifies the data block length. Values range from 1-4096. The default is 1024.

[NO] COMPRESS

specifies whether keys will be compressed in both index and data blocks. In data blocks, the key offset must be 0, and the maximum record size will be reduced by 1 byte. The default is NO COMPRESS.

[NO] DCOMPRESS

specifies whether keys will be compressed in data blocks. The key offset must be 0, and the maximum record size will be reduced by 1 byte. The default is NO DCOMPRESS.

[NO] ICOMPRESS

specifies whether keys will be compressed in index blocks. The default is NO ICOMPRESS.

KEYLEN

specifies the primary-key length. Values range from 1-255. KEYLEN must be specified to create key-sequenced files.

KEYOFF

specifies the primary-key offset. Values range from 0-2034. The default is 0.

ALTKEY

specifies an alternate key. When using the SET ALTFILE or SET ALTKEY commands, the first key file number must be equal to zero (0). Valid values are as follows:

- key-specifier is a 2-byte value that uniquely identifies the alternate-key field.
- FILE specifies the key file number. Valid entries range from 0-255. The default is 0.
- KEYLEN specifies the length of the key. This parameter is required for creating a key-sequenced file.
- KEYOFF specifies the offset for the key. The default is 0.
- [NO] NULL specifies the null value set for the key. Valid entries are an ASCII character in quotation marks or an integer ranging from 0-255. The default is NO NULL.
- [NO] UNIQUE specifies whether the key is unique. The default is NO UNIQUE.
- [NO] UPDATE specifies whether automatic updating is set for the alternate-key file. The default is UPDATE.

ALTFILE

specifies the file number and file name of an alternate-key file. When using the SET ALTFILE or SET ALTKEY commands, the first key file number must be equal to zero (0).

- key-file-number is an integer from 0-255, inclusive.
- filename is the name of the alternate-key file for the key-file-number.

[NO] ALTCREATE

specifies whether automatic alternate-key files will be created. The default is ALTCREATE.

PART

specifies secondary partition specifications for partitioned files. Valid values are as follows:

- sec.partition.num specifies the name of the volume where this secondary partition will reside. Values range from 1-15.
- \system.name.\$volume specifies the names of the system and volume to contain the partition.
- pri.ext.size specifies the primary extent size. The default is 1.
- sec.ext.size specifies the secondary extent size. The default is 1.
- partial.key.value specifies the lowest key value that can reside in this partition. This value is only for key-sequenced files. Valid entries include a string of

characters enclosed in double quotation marks; a list of single characters, each enclosed in double quotation marks and separated by commas; and integers representing byte values, ranging from 0-255, and separated by commas.

[NO] PARTONLY

specifies whether subsequent file creations will create all partitions of a partitioned file or only a single partition. The default is NO PARTONLY.

ODDUNSTR

specifies that no upward rounding of an odd byte count will occur.

[NO] REFRESH

specifies whether the file label will be automatically copied to disk each time the file control block is marked as dirty. The default is NO REFRESH.

[NO] AUDIT

specifies whether the file will be audited by the Transaction Monitoring Facility (TMF). The default is NO AUDIT.

MAXEXTENTS

specifies the maximum number of extents for the file. Values range from 16-n, where n is the maximum value determined by the amount of free space remaining in the file label.

BUFFERSIZE

specifies the size in bytes of the internal buffer used when accessing an unstructured file. Values range from 1-4096. The default is 4096.

[NO] BUFFERED

specifies the mode of handling write requests. To buffer write requests into the disk-process cache, specify BUFFERED. The default for audited files is BUFFERED. The default for nonaudited files is NO BUFFERED.

[NO] AUDITCOMPRESS

specifies whether auditing mode is to compress or generate entire before/after messages. The default is NO AUDITCOMPRESS.

[NO] VERIFIEDWRITES

specifies whether disk writes will be verified. The default is NO VERIFIEDWRITES.

[NO] SERIALWRITES

specifies whether serial or parallel mirror writes will occur at file open. The default is NO SERIALWRITES, which will result in parallel mirror writes at file open.

[NO] BLOCKIO

specifies that Sterling Connect:Direct will perform its own block I/O for high performance. With BLOCKIO specified, data is transferred in blocks determined by the file block size, with a 4K-maximum block size. Specifying BLOCKIO or NO BLOCKIO in the SYSOPTS parameters overrides the setting in the initialization parameters file.

Improving I/O performance for entry-sequenced and relative files with alternate keys must be handled differently. The alternate key is not updated if BLOCKIO is activated unless a Run Task statement to run the FUP LOADALTFILE utility is added to the Process. FUP is then instructed to update the alternate keys for any alternate key files.

[NO] LARGEIO

specifies the transfer of data in blocks of 28K. Specifying LARGEIO or NO LARGEIO in the SYSOPTS parameters overrides the setting in the initialization parameters file.

Improving I/O performance for entry-sequenced and relative files with alternate keys must be handled differently. The alternate keys are not updated if LARGEIO is activated unless a Run Task statement to run the FUP LOADALTFILE utility is added to the Process. FUP would then be instructed to update the alternate keys for any alternate key files.

The default is 16, and the maximum value allowed is 978. For partitioned files, this value is always 16.

FAST.LOAD Y

indicates that the FASTLOAD facility be used. FASTLOAD is a function that can reduce disk I/O overhead and is used when the HP NonStop node is the destination. With FASTLOAD, the Sterling Connect:Direct HP NonStop system passes data through the SPI interface to FUP to load into a destination data file. The feature is particularly useful for key-sequenced files, although FASTLOAD is also supported for entry-sequenced and relative record files. Because edit files are unstructured, they cannot be loaded with the FASTLOAD feature.

FAST.LOAD.PRI <priority>

sets FASTLOAD and specifies the priority to run FUP. Valid values for priority range from 1-199. The default priority is the priority of the session manager (NDMSMGR). It is recommended to set this priority higher than that for NDMSMGR.

FAST.LOAD.CPU <cpu number>

sets FASTLOAD and specifies the CPU to use to run FUP. Valid values for the CPU number range from 0-15. The default CPU is the CPU of the session manager (NDMSMGR).

FAST.LOAD.SORTED Y

sets FASTLOAD and indicates to FUP that the data is sorted. This option (valid only for key-sequenced files) bypasses invocation of FASTSORT by FUP. The

default is NO; that is, the data is not assumed to be sorted and FASTSORT is called.

XLATE

indicates whether the file being transferred will be converted from either ASCII to EBCDIC or EBCDIC to ASCII.

If XLATE ON or XLATE YES is specified or the file being copied is a spooler file or an edit file (unstructured file, code 101), Sterling Connect:Direct HP NonStop will check the XLFILE for a table named DEFAULT. If the DEFAULT table is not in XLFILE, then Sterling Connect:Direct HP NonStop will use the standard English language ASCII/EBCDIC table as defined by HP NonStop.

For spooler or edit files: If the file being copied is a spooler file or an edit file (unstructured file, code 101), XLATE does not need to be specified because these files are automatically translated.

- ON | YES specifies whether text will be converted from either ASCII to EBCDIC or EBCDIC to ASCII, depending upon the copy direction.
- OFF | NO ensures that text conversion does not occur during file transfer.
- table-name is a 1-8 character name of a user-defined translation table. See the IBM Sterling Connect:Direct HP NonStop Administration Guide for further details on user-defined translation tables.

SET FORMAT

indicates what file format is used when the file is created. The FORMAT parameter applies only to HP NonStop files, when receiving, and the file is being created NEW. It is not used in a non-HP NonStop data set definition, when sending a file from HP NonStop, or when overwriting an existing file on a HP NonStop computer.

- 0 directs the Enscribe File System to set the format based on the space requested when the file is created. This is the default value.
- 1 requests that a Format 1 file be created. If the space requested is greater than the space supported by a Format 1 file, a file creation error occurs.
- 2 requests that a Format 2 file be created.

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