

Standard Data Format Utilities: Quick Reference



Agilent Technologies



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60TOSDF

Converts data from the HP 3560A source data file and put results in the destination SDF file. The destination SDF filename is chosen based on the register value that was used in the HP 3560A and is of the form
<register number>.DAT (for example 1.DAT).

60TOSDF <sfile> [/U] [/O] [/H] [/A]
[/P:<c,p,d>]

<sfile>	Input HP 3560A data file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.
/H	Print headers to the screen.
/A	Print headers and data to the screen.
/P:<c,p,d>	Set point and direction for a channel

63TCSDF

Converts the data portion of a binary capture/throughput file from the HP 3563A (or HP 3562A) to SDF time capture format (16-bit integer data). The binary capture/throughput file contains digital filter data. The HP 3563A/62A capture files on a LIF file system start with the letters "CS". Throughput files start with "TS".

63TCSDF <sfile> <dfile> [/U] [/O]

<sfile>	Input HP 3563A/62A capture or throughput file name.
<dfile>	Output SDF file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.

63TOSDF

Converts an HP 3563A (or HP 3562A) data file <sfile> to an SDF data file and outputs to <dfile>.

HP 3563A/62A data files on a LIF file system start with the letters "DA."

63TOSDF <sfile> <dfile> [/U] [/O]

<sfile>	Input HP 3563A/62A data file name.
<dfile>	Output SDF file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.

660TOSDF

Extract data from an HP 35660A data file <sfile> and put results in the SDF data file <dfile>.

660TOSDF <sfile> <dfile> [/U] [/O] [/H]
[/A]

<sfile>	Input HP 35660A data file name.
<dfile>	Output SDF file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.
/H	Print headers to the screen.
/A	Print headers and data to the screen.

69TOSDF

Converts data from the HP 3569A source data file and put results in the destination SDF file. If [dfile] is not specified, the destination SDF filename is chosen based on the filename that was used in the HP 3569A and is of the form <filename>.DAT (for example, 1.DAT).

If the input X32 file contains more than one HP 3569A trace file (SAVE/RECALL, XFER ALL TRACES), then each trace will be put in a different file with the same base name as used on the HP 3569A. If [dfile] is specified, only the first trace in the file is used.

69TOSDF <sfile> [dfile] [/U] [/O] [/H]
[/A] [/P:c,p,d] [/M:<value>] [/D:<value>]

<sfile>	Input HP 3569A data file name.
[dfile]	Optional output SDF data file name.
/U	Show help (usage information).
/O	Overwrite [dfile] if it exists.
/H	Print headers to the screen.
/A	Print headers and data to the screen.
/P:c,p,d	Set point and direction for a channel
/M:<value>	Set microphone separation for FFT Intensity data in mm.
/D:<value>	Set density for FFT Intensity data in Kg/m ³

88TOSDF

Converts an HP 3588A data file <sfile> to an SDF data file and outputs to <dfile>. An HP 3588A setup state file <hfile> can be optionally specified which will allow more complete parameter conversion into the SDF data file.

88TOSDF <sfile> <dfile> [/O] [/U]
[/F:<hfile>]

<sfile>	Input HP 3588A data file name.
<dfile>	Output SDF file name.
/O	Overwrite <dfile> if it already exists.
/U	Show help (usage information).
/F	Read HP 3588A setup state file for additional information.
<hfile>	HP 3588A setup state path and file name.

89TOSDF

Converts an HP 3589A data file <sfile> to an SDF data file and outputs to <dfile>.-An HP 3589A setup state file <hfile> can be optionally specified which will allow more complete parameter conversion into the SDF data file.

```
89TOSDF <sfile> <dfile> [/O] [/U]
[/F:<hfile>]
```

<sfile>	Input HP 3589A measurement data path and file name.
<dfile>	Output SDF path and file name.
/O	Overwrite <dfile> if it already exists.
/U	Show help (usage information).
/F	Read HP 3589A setup state file for additional information.
<hfile>	HP 3589A setup state path and file name.

ASCTOSDF

Converts the source file to the destination file and place the result in the destination file. The following options are only valid when used with the /T (template SDF file) option; /D, /R, /C, /S. The options described after the /T option are only used if a template SDF file is not specified.

```
ASCTOSDF <sfile> <dfile> [/U] [/O]
[/D:<data>] [/R:<row>] [/C:<col>[
[/S:<scan>] [/T:<sdf file>] [/H:<type>]
[/B:<blksize>] [/L:<lines>]
[/Z:<ctrFrq>] [/X:<s,d>[,L]]
```

<sfile>	Input ASCII file.
<dfile>	Output SDF file.
/U	Show help (usage information).
/O	Overwrite <dfile> if it already exists.
/D:<data>	Select data for the specified SDF_DATA_HDR. The default is 0.
/R:<row>	Select data for the specified row. The default is 0.
/C:<col>	Select data for the specified column. The default is 0.
/S:<scan>	Select data for the specified scan. The default is 0.
/T:<sdf file>	Template SDF file. If you already have a file (for example, a frequency response file) set up, use this option to copy that file and replace the data with the input ASCII file.
/H:<type>	Create default headers

- `/B:<blksize>` Block size. Use this when the header type is Time. The default is the number of points in the file.
- `/L:<lines>` Frequency lines. Use this when the header type is not Time. The default is the number of lines in the file.
- `/Z:<ctrFrq>` Turn on zoom and set Center Frequency (use when header type is Time)
- `/X:<s, d>[ , L]` Generate X data. Start and Delta values are required. The optional [L] signifies log. Otherwise linear is used.

BINTOX32

Converts data from the HP 3569A source binary file and put the results in the destination Intel Hex-32 data file.

BINTOX32 <sfile> <dfile> [/U] [/O]

<sfile>	Input binary file name.
<dfile>	Output Hex-32 file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.

DFDATA63

Converts the data portion of a binary capture/throughput file (containing digital filter time data) from the HP 3563A (or HP 3562A) to a PC-MATLAB MAT-file, a MATRIXx file, or an ASCII file. Since capture/throughput data can be very long, the /B and /P options can be used to select only a portion of the data in a file. The /C option only needs to be specified for a 2 channel throughput file to select channel 2 as the source of data. HP 3563A/62A capture files on a LIF file system start with the letters "CS"; throughput files start with the letters "TS."

```
DFDATA63 <sfile> <dfile> [/U] [/O] [/L]
[/M] [/R] [/X] [/B:<ofst>] [/P:<len>]
[/C:<chan>]
```

<sfile>	Input HP 3563A/62A capture or throughput file name.
<dfile>	Output file name.
/U	Show help (usage information).
/O	Overwrites <dfile> if it exists.
/L	Create MATLAB file (a binary file).
/M	Create MATRIXx file (an ASCII file).
/R	Output MATLAB or MATRIXx file matrices in a row instead of a column.
/X	Output X-axis data.
/B:<ofst>	Offset from beginning of data (in points) to convert (default 0).

/P:<len> Length of data (in points) to convert (default 20480 points); MATLAB and MATRIXx files can contain up to 32767 points.

/C:<chan> Channel of data to convert (default channel 1 if there are 2 channels of data).

If neither /L nor /M option is specified, then an ASCII file is created.

DFHDR63

Converts the header portion of a binary capture/throughput file <sfile> (containing digital filter data) from the HP 3563A (or HP 3562A) to an ASCII form <dfile>. HP 3563A/62A capture files on a LIF file system start with the letters "CS"; throughput files start with the letters "TS."

DFHDR63 <sfile> [dfile] [/U] [/O]
[/L:<flag>] [/E:<flag>]

<sfile>	Input HP 3563A/62A capture or throughput file name.
[dfile]	Output file name.
/U	Show help (usage information).
/O	Overwrites [dfile] if it exists.
/L:<flag>	If <flag> is non-zero, put labels on each line. The default is on.
/E:<flag>	If <flag> is non-zero, expand enumerated types to ASCII names. The default is on.

DOWNLOAD

Transfer data over the personal computer's RS-232 port and place it in the destination file.

DOWNLOAD <dfile> [/U] [/O] [/B:<baud>]
[/P:<port>]

<dfile>	Output file name.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.
/B:<baud>	Select the baud rate for the communications port. Valid baud rates are 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 19200. The default value is 9600.
/P:<port>	Select the communications port number. Valid port numbers are 1 – 4. The default value is 1.

HEADER63

Converts the data header portion of a binary data file <sfile> from the HP 3563A (or HP 3562A) to an ASCII form [dfile]. HP 3563A and HP 3562A data files on a LIF file system start with the letters "DA."

HEADER63 <sfile> [dfile] [/U] [/O]
[/L:<flag>] [/E:<flag>]

<sfile>	Input HP 3563A/62A data file name.
[dfile]	Optional output SDF file name. If no file name is specified, output to display.
/U	Show help (usage information).
/L:<flag>	If <flag> is non-zero, put labels on each line. The default is on.
/E:<flag>	If <flag> is non-zero, expand enumerated types to ASCII names. The default is on.

HPIB63

Transfer the active trace data from an HP 3562A/63A over the personal computer's HP-IB and place it in the destination file. Use 63TOSDF.EXE to convert the file to SDF. If /A is not specified, then HP-IB will be scanned for the first instrument that is an HP 3562A or HP 3563A.

HPIB63 <dfile> [/U] [/O] [/I]
[/A:<hpibAdr>]

<dfile>	Destination HP 3562A/63A file name
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.
/I	Show information on all instruments connected to HP-IB.
/A:<hpibAdr>	Specify the HP-IB address of the instrument.

LIF

Main program for LIF access. The first parameter specifies operation. Each operation has its own set of files and options. For more help on a particular command, type "lif" followed by the operation name (except for SCAN) and /U. For example, for help on the LIF CP command, type: LIF CP /U

LIF <operation> [files] [options]

Operations:

SCAN	look for LIF disk drives (external or internal)
CHK or CHECK	check disk integrity (read all tracks/heads)
LS or DIR	list files on LIF disk
CP or COPY	copy file(s) between DOS and LIF disks
RM or DEL	remove a LIF file
INIT	initialize (format) a LIF disk

LIFDIAG

Diagnostic functions useful for recovering data from damaged/corrupted disks and to perform fast full LIF to LIF disk backups.

LIFDIAG Menu:

Edit	Edit logical sectors on a LIF disk.
Backup	Full disk backup between specified source and destination disk (can be the same disk). Either the entire disk may be copied, or just the contiguous file area contained by the LIF files.
Help	Display command summary on the display.
Quit	Quit LIFDIAG.

LIF CHK

Verifies that the disk inserted in the specified drive is fully readable by the LIF program. This serves two functions: first, to verify that the disk has no bad sectors (to minimize the possibility of corrupted data), and second, to verify that possible spared tracks on the disk will not interfere with the disk's usage on the PC's internal disk drives.

LIF CHK <d>: [/U] [/T] [/A] [/W]
or

LIF CHECK <d>: [/U] [/T] [/A] [/W]

The default mode (no option) reads one sector on every track and displays the head and track number.

- | | |
|------|---|
| <d>: | The drive specifier, e.g., 702: or 70201: for an external drive; A: or B: for an internal drive. All LIF files require a drive specifier. |
| /U | Show help (usage information). |
| /T | Terse, do not show the Head and Track numbers as each track is read. This can decrease the verify time by up to 50%. |
| /A | Read every sector on each track instead of just one sector on each track. This is useful if you believe that the disk has possible media problems (not useful for additional checking for spared tracks). This can increase the verify time by up to 50%. |
| /W | Wait for keyboard prompt before and after performing operation. This is useful for a PC with only two disk drives; you can swap out the disk with the LIF.EXE program to insert a LIF or DOS disk. |

LIF CP

Copies a LIF file to a DOS file, a DOS file to a LIF file, or a LIF file to another LIF file. <sfile> is the source file name and <dfile> is the destination file name. The full path name must be specified for a LIF file. LIF ASCII and BDAT formats are automatically converted to DOS format. All other files are copied with no conversion. At least one of the files must be in a LIF directory (source or destination file).

```
LIF CP <sfile> <dfile> [/U] [/O] [/B]
[/A] [/R]
[/T:<fileType>] [/I:<implement>] [/N]
[/S:<lineSize>] [/W]
```

or

```
LIF COPY <sfile> <dfile> [/U] [/O] [/B]
[/A] [/R]
[/T:<fileType>] [/I:<implement>] [/N]
[/S:<lineSize>] [/W]
```

<sfile> Source path and file name (must include drive specifier if file is LIF). May contain wild card characters "*" and "?".

<dfile> Destination path and file name (must include drive specifier if file is LIF). May contain wild card characters "*" and "?".

/U Show help (usage information).

/B BDAT file copy (use only for DOS to LIF).

/A ASCII file copy (use for DOS to LIF).

/R Raw file copy (DOS to LIF or LIF to DOS). Do not convert file (copy as is).

- /T:<fileType>** (LIF destination only) Set the file type for the destination file to the specified file type. This may be specified in decimal or hexadecimal (prefix with "0x"). The file type specified will not affect any possible file conversions.
- /I:<implement>** Set the implementation field for the destination LIF file (DOS to LIF or LIF to LIF). This may be specified in decimal or hexadecimal (prefix with "0x").
- /N** Do not translate to valid LIF file name.
- /S:<lineSize>** Maximum line size for DOS to LIF ASCII file transfer (default 256 characters).
- /W** Wait for keyboard prompt before and after performing operation.

LIF INIT

Optionally formats and initializes a new directory on a LIF disk.

```
LIF INIT <d>:[name] [/U] [/F] [/O:<opt>]  
[/I:<intrlv>] [/W]
```

<d>:	Drive specifier (702:, A:).
[name]	Optional new LIF directory name (up to 6 characters).
/U	Show help (usage information).
/F	Format disk before initializing directory.
/O:<opt>	Format option. This integer number specifies the disk sector size and other disk drive dependent information. Refer to your disk drive owner's manual for possible values and their specific meaning. If not specified, then a format option of 0 is used. The format option is only used if format disk (/F) is specified.
/I:<intrlv>	Sector interleave factor. A value of 1 is the default. The interleave factor is only used if format disk (/F) is specified.
/W	Wait for keyboard prompt before and after performing operation.

LIF LS

Lists the contents of the LIF directory contained on a designated drive. All files are listed in the order that they are contained on the disk.

LIF LS <d>: [/U] [/L] [/A] [/W]

or

LIF DIR <d>: [/U] [/L] [/A] [/W]

The default option lists all normal (not PURGED) files.

<d>:	The drive specifier (702:, A:)
/U	Show help (usage information).
/L	List in long format, giving volume name, volume size, directory start (in decimal), directory size, file type, file size, file start (in decimal), "implementation" field (in hex) and date created. (The implementation field indicates if a security code is present. The code is ignored by the LIF program.)
/A	List all entries including purged files (PURGED type). Purged files are not accessible by LIF CP.
/W	Wait for keyboard prompt before and after performing operation.

LIF RM

Removes (deletes) the specified file from the LIF directory.

LIF RM <file> [/U] [/N] [/F] [/W]

or

LIF DEL <file> [/U] [/N] [/F] [/W]

<file>	File name. Must include drive specifier (702:, A:)
/U	Show help (usage information).
/N	Do not translate to valid LIF file name.
/F	Force remove (i.e., external DOS directory).
/W	Wait for keyboard prompt before and after performing operation.

LIF SCAN

Checks the PC for internal floppy drives and for HP-IB interface boards and then looks for disk drives (capable of reading LIF disks) connected to HP-IB.

LIF SCAN [/U]

/U Show help (usage information).

REPEAT

Repeatedly calls the specified program, varying the file name (with wild cards) and the destination file name, or all the results/rows/columns/scans in the specified file(s).

```
REPEAT [/U] [/I] [/E] [/A] [<program>]  
[/D:*] [/R:*] [/C:*] [/S:*] <sfile>  
[(dfile)]
```

<program>	Program to REPEAT.
/U	Show help (usage information).
/I	Ignore errors.
/E	Echo commands before executing program.
/A	Append to destination path.
/D:*	Repeat for all data results.
/R:*	Repeat for all rows in the specified data result(s).
/C:*	Repeat for all columns in the specified data result(s).
/S:*	Repeat for all scans in the specified data result(s).
<sfile>	Source path and file name for SDF file. Repeat for all file(s) by specifying wild card file name.
[(dfile)]	Destination path and file name. It may contain wild card (e.g. *.asc) to match the base name in the <sfile> or pound sign (e.g. #.asc) for sequencing the file name (e.g. 0.asc, 1.asc, etc.) and must have an open/close parentheses. The destination file may be included in an option (e.g. /P: (*.plt) for Viewdata).

SDFEDIT

Edit (change) header fields in an SDF file.

```
SDFEDIT <file> [/U] [/I] [/F] [/M]
[/D:<data>] [/V:<vect>] [/C:<chan>] [/S]
[/T:<comment>] [/B:<bigScan>]
[/N:<scanVar>] [/Q:<unique>]
<field>=<value> ...
```

<file>	SDF file to edit.
/U	Show help (usage information).
/I	Information only on <file> (i.e. measurement results available).
/F	Edit SDF_FILE_HDR.
/M	Edit SDF_MEAS_HDR.
/D:<data>	Edit specified SDF_DATA_HDR.
/V:<vect>	Edit specified SDF_VECTOR_HDR.
/C:<chan>	Edit specified SDF_CHANNEL_HDR.
/S	Edit SDF_SCAN_HDR.
T:<comment>	Edit specified SDF_COMMENT_HDR
B:<bigScan>	Edit specified SDF_SCAN_BIG (default 0)
N:<scanVar>	Edit specified SDF_SCAN_VAR (default 1)
Q:<unique>	Edit specified SDF_HDR (Unique)
<field>=	Field to change with the specified
<value>	value. An Enumerated Integer may be specified by its integer value or name.

<code><field></code>	Display current value of field.
<code><field>=</code>	Display type of field. For an Enumerated Integer, this also shows the names associated with the integer values.

SDFPRINT

Converts the contents of the input SDF file < sfile > to ASCII and prints all or portions of it. Either the SDF record headers (default) and/or the data associated with the SDF_SCAN_HDR, XDATA, YDATA, and comment records may be printed.

```
SDFPRINT <sfile> [dfile] [/U] [/O] [/I]
[/V] [/H] [/T:<type>] [/A]
[N:<#perLine>] [/D:<data>] [/S:<scan>]
[/R:<row>] [/C:<col>] [/P:<flag>]
[/E:<flag>] [/W:<flag>]
```

<sfile>	Input file name for SDF file.
[dfile]	Optional output file name for ASCII information (default is the display).
/U	Show help (usage information).
/O	Overwrites [dfile] if it exists.
/I	Show information only on < sfile > (i.e. measurement results available).
/V	Validate SDF file (does consistency check).
/H	Print just the SDF record headers (default).
/T:<type>	Print data for SDF SCAN (/T:S), X (/T:X), Y (/T:Y) data, unique records (/T:U), or comment records (/T:C). If /T is specified, all data is printed.
/A	Print both headers and data.
/N:<#perLine>	Numbers of data for each printed line. The default is 1.

/D:<data>	Print data only for the specified data result. If not specified, then all results in <sfile> will be selected.
/S:<scan>	Print data only for the specified scan. If not specified, then all scans in <sfile> will be selected.
/R:<row>	Print data only for the specified row. If not specified, then all rows in <sfile> will be selected.
/C:<col>	Print data only for the specified column. If not specified, then all columns in <sfile> will be selected.
/P:<flag>	If <flag> is non-zero, print SDF record titles (default on).
/E:<flag>	If <flag> is non-zero, expand enums to labels (default on).
/W:<flag>	If <flag> is non-zero, scale the data for the window and engineering units. (default on).

SDFTEXT

Modify/print SDF file <sfile> comment text data. If [cfile] is specified then the comment in the SDF file is modified, otherwise the comment is printed. If the /A option is not specified, then the previous comment in the file is replaced with [cfile]. If there is not enough space in the specified comment for the text, then the text will be truncated. If no space was allocated for the comment area by the instrument us SDFTOSDF with the /M option to create a comment area in the SDF file.

```
SDFTEXT <sfile> [cfile] [/U]
[/T:<comment>] [/A]
```

<sfile>	SDF file.
[cfile]	Input ASCII comment file.
[/U]	Show this usage.
[/T:<comment>]	Select specified SDF_COMMENT_HDR (default 0).
[/A]	Append text to end of comment in file.

SDFT058

Converts SDF file <sfile> to the Data Set 58 format. The result is placed in an output file [dfile] if specified; otherwise the result is sent to the screen.

```
SDFT058 <sfile> [dfile] [/U] [/O] [/I]
[/A] [/H] [/D:N1[-N2]] [/R:N1[-N2]]
[/C:N1[-N2]] [/S:N1[-N2]]
```

<sfile>	Input SDF file name.
[dfile]	Optional output file name for ASCII information. If no file name is specified, output to display.
/U	Show help (usage information).
/O	Overwrite [dfile] if it exists.
/I	Show information only on <sfile> (i.e. measurement results available).
/A	Convert all frequency lines
/H	Do not output header records
/D:N1 [-N2]	Convert the data at data number N1 (to data number N2). Range; 0 to n-1.
/R:N1 [-N2]	Convert the data at row N1 (to row N2). Range; 0 to n-1.
/C:N1 [-N2]	Convert the data at column N1 (to column N2). Range; 0 to n-1.
/S:N1 [-N2]	Convert the data at scan N1 (to scan N2). Range; 0 to n-1.

SDFT063

Converts a single measurement result from an SDF data file <sfile> to an HP 3563A (or HP 3562A) data file <dfile>. HP 3563A/62A data files on a LIF system start with the letters "DA."

```
SDFT063 <sfile> <dfile> [/U] [/O] [/I]
[/D:<data>] [/S:<scan>] [/R:<row>]
[/C:<col>]
```

<sfile>	Input SDF file name.
<dfile>	Output file name for HP 3563A/62A data file. The file name must begin with DA, for example DATRACE1, if you plan to use LIF CP on the file.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.
/I	Show information only on <sfile> (i.e. measurement results available).
/D:<data>	Select data result for the specified SDF_DATA_HDR. If not specified, then the first result (result 0) in <sfile> will be selected. Use /I to see a list of the result names and numbers.
/S:<scan>	Select data for the specified scan (map line or waterfall step). If not specified, then the first scan (scan 0) in <sfile> will be selected.
/R:<row>	Select data for the specified row. If not specified, then the first row (row 0) in <sfile> will be selected.
/C:<col>	Select data for the specified column. If not specified, then the first column (column 0) in <sfile> will be selected.

SDFTOASC

Converts an SDF data file to an ASCII data file and place the result in the destination file (if it is entered).

Otherwise view the result on the screen. All header information is lost when you convert to ASCII format.

```
SDFTOASC <sfile> [dfile] [/U] [/O] [/I]
[/A] [/X] [/T:<c1>,<c2>] [/Y:<units>]
[/M:<dBmRef>] [/G:<dBRef>] [/P:<points>]
[/D:<data>] [/R:<row>[-<rowEnd>][,C]]
[/C:<col>] [/S:<scan>[-<scanEnd>][,C]]
[/L] [/F:<format>] [/B:<string>]
```

<sfile>	Input SDF file.
[dfile]	Output ASCII file.
/U	Show help (usage information).
/O	Overwrite [dfile] if it already exists.
/I	Information only on the <sfile>.
/A	All the frequency lines.
/X	Include X data in the file.
/T:<c1>,<c2>	Y coordinates, <c1> or <c2> may be one of the following: B = dBm, D = dB, S = dB signed, M = Mag, R = Real, I = Imag, P = Phase, U = Unwrap phase. Default is R, I for complex data, R for real data.
/Y:<units>	Y units, one or more of the following: L = Linear, P = Power, D = Density, R = RMS, A = Radians
/M:<dBmRef>	dBm impedance reference. Default is use input impedance from data file if < 1 M Ω (else use 50 Ω).
/G:<dBRef>	Magnitude value used as a reference for dB type of coordinates. If /G with no parameter, then default is 20E-6 (dBSPL).

<code>/P:<points></code>	Number of points per line. The default is 1.
<code>/D:<data></code>	Select data for the specified SDF_DATA_HDR. The default is 0.
<code>[/R:<row> [-<rowEnd>] [,C]]</code>	Select data for the specified row range. The default is 0. If "C" is specified, then the row data will be arranged as one row per column.
<code>/C:<col></code>	Select data for the specified column. The default is 0.
<code>/S:<scan> [-<scanEnd>] [,C]</code>	Select data for the specified scan range. The default is 0 (1 scan). If "C" is specified, then the scan data will be arranged as one scan per column.
<code>/L</code>	Orient the output data in lines instead of columns.
<code>/F:<format></code>	C printf format string. The default is "%14.6le." This specifies a double (long float) with a width of 14 columns and a precision of 6 in exponential format. Other formats are: %lf — regular floating point format; %le — exponential floating point format (also %1E); %lg — regular or exponential, whichever is shorter (also %1G).
<code>/B:<string></code>	Field separator string. The default is " " (space.) Viewdata requires commas between real and imaginary data.

SDFTOBIN

Converts the source SDF file to the destination binary file. The binary data has the bytes swapped in the same direction as the rest of the DOS environment.

```
SDFTOBIN <sfile> <dfile> [/U] [/O] [/I]
[/A] [/X] [/T:<c1>,<c2>] [/Y:<units>]
[/M:<dBmRef>] [/G:<dBRef>] [/D:<data>]
[/R:<row>] [/C:<col>]
[/S[:<scan>[-<scanEnd>]]] [/F:<format>]
```

<sfile>	Input SDF file.
<dfile>	Output binary file.
[/U]	Show this usage.
[/O]	Overwrite <dfile> if it exists.
[/I]	Info only on <sfile> (that is, measurement results available).
[/A]	All frequency lines.
[/X]	Include X data in the file.
[/T:<c1>,<c2>]	Y coordinate. <c1> or <c2> may be one of the following: B = dBm, D = dB, S = dB signed, M = Mag, R = Real, I = Imag, P = Phase, U = Unwrap phase. Default is R,I for complex data; R for real data.
[/Y:<units>]	Y units, one or more of the following: L = Linear, P = Power, D = Density, R = RMS, A = Radians
[/M:<dBmRef>]	dBm impedance reference. Default is use input impedance from the data file if 1 MOhm (else use 50 Ohm).

- [/G:<dBRef>] Magnitude value used as a reference for dB type of coordinates. If /G with no parameter, then default is $20E-6$ (dBSPL).
- [/D:<data>] Select data for the specified SDF_DATA_HDR (default is 0).
- [/R:<row>] Select data for the specified row (default is 0).
- [/C:<col>] Select data for the specified column (default is 0).
- [/S[:<scan> [-<scanEnd>]]] Select data for the specified scan range (default is 0).
- [/F:<format>] Binary format, one of the following:
F = 32-bit float, D = 32-bit float

SDFTOML

Converts data from an SDF format file to the format used in the PC-MATLAB program. The created file or files have the suffix ".MAT" if no destination file is specified.

SDFTOML <sfile> [/U] [/O] [/I] [/A] [/R]
[/X] [/Q] [/B] [/D:<data>] [/R:<row>]
[/C:<col>] [/S:<scans>] [/Y:<units>]

<sfile>	Input SDF file name.
/U	Show help (usage information).
/O	Overwrites <PC-MATLAB file> if it exists.
/I	Show information only on <sfile> (i.e. measurement results available).
/A	Convert all frequency lines.
/R	Output the PC-MATLAB file matrices in a row instead of a column.
/X	Output the X-axis data points.
/Q	Query for partial conversion.
/B	Use batch file naming convention.
/D:<data>	Extract data only for the specified data header (default all).
/R:<row>	Extract data only for the specified data row (default all rows).
/C:<col>	Extract data only for the specified data column (default all columns).
/S:<scans>	Extract data only for the specified data scans (default all scans). For example: /S:0 means scan 0 only, /S:0-4 means scans 0 through 4.
/Y:<units>	Y units, one or more of the following: L = Linear, P = Power, D = Density, R = RMS

SDFTOMX

Converts data from the SDF format to the format used in the MATRIXx program. The created file or files have the suffix ".MAT" if no destination file is specified.

```
SDFTOMX <sfile> [dfile] [/U] [/O] [/I]
[/A] [/R] [/X] [/Q] [/B] [/D:<data>]
[/R:<row>] [/C:<col>] [/S:<scans>]
[/Y:<units>]
```

<sfile>	Input SDF file.
[dfile]	Optional output MATRIXx file.
/U	Show help (usage information).
/O	Overwrite <MATRIXx file> if it exists.
/I	Show information only on <sfile> (i.e. measurement results available).
/A	Convert all frequency lines.
/R	Output the MATRIXx file matrices in a row instead of a column.
/X	Output the X-axis data points.
/Q	Query for partial conversion.
/B	Use batch file naming convention.
/D:<data>	Extract data only for the specified data header (default all).
/R:<row>	Extract data only for the specified data row (default all rows).
/C:<col>	Extract data only for the specified data column (default all columns).

SDF Quick Reference

- `/S:<scans>` Extract data only for the specified data scans (default all scans). For example: `/S:0` means scan 0 only, `/S:0-4` means scans 0 through 4.
- `/Y:<units>` Y units, one or more of the following:
L = Linear, P = Power, D = Density,
R = RMS

SDFTOSDF

Extracts a subset of results from an SDF file < sfile > and creates another SDF file < dfile >. The type of spacing and number of points for the results may be modified through resampling using polynomial or spline interpolation.

```
SDFTOSDF <sfile> <dfile> [/U] [/O] [/I]
[/D:<data>] [/S:<scans>] [/R:<row>]
[/C:<col>] [/E:<pts>] [/P:<pts>]
[/L:<pts>] [/T:<type>] [/N:<pts>]
[/X:<first>,<last>]
[/B:<rec>] [/G:<gap>] [/A:<add>]
[/F:<form>,<data>] [/M:[cfile]
[,<comSz>]] [/V] [/Q:[uniq]]
```

<sfile>	Source path and file name for SDF file.
<dfile>	Destination path and file for SDF file.
/U	Show help (usage information).
/O	Overwrites < dfile > if it exists.
/I	Show information only on < sfile > (i.e. measurement results available).
/D:<data>	Extract data only for the specified data result. If not specified, then all results in < sfile > will be selected.
/S:<scans>	Extract data only for the specified scan (or range of scans). If not specified, then all scans in < sfile > will be selected.
/R:<row>	Extract data only for the specified row. If not specified, then all rows in < sfile > will be selected.

/C:<col>	Select column within result. If not specified, then all columns in <sfile> will be selected.
/E:<pts>	Interpolate to the specified number of lin/log evenly spaced points.
/P:<pts>	Interpolate to the specified number of linear spaced points. If not specified, then the original number of points in the data result is maintained.
/L:<pts>	Interpolate to the specified number of log spaced points. If not specified, then the original number of points in the data result is maintained.
/T:<type>	Type of interpolation: S = Spline, P = Polynomial. Default is P.
/N:<pts>	Number of points for polynomial interpolation. Range: 2 - 10. Default is 2. The default spacing is linear (polynomial interpolation and 2 points).
/X:<first>, <last>	First and/or last X value of data (default is all the data).
/B:<rec>	Bar record from being copied: U = Unique
/G:<gap>	Add the specified # of bytes between each SDF record type area
/A:<add>	Add the specified # of bytes to each SDF record

<code>/F:<form>, <data></code>	Convert number format of y data for the specified data header to the format specified: S = SHORT16, L = LONG32, F = FLOAT32, D = DOUBLE64, Data # is optional. If the data number is not specified, then all results are converted.
<code>/M: [cfile] [,<comSz>]</code>	Add a comment record and/or reserve comSz bytes for a comment record (default is 1024)
<code>/V</code>	Add scan var duplicate of scan structure
<code>/Q: [uniq]</code>	Add the specified unique record: M = Modulation

SDFYDATA

Modify/print SDF file <sfile> Y data. If [afile] or /Y option is specified then the Y data in the SDF file is modified, otherwise the data is printed.

```
SDFYDATA <sfile> [afile] [/U] [/I]
[/D:<data>] [/S[:<scan>] [/R:<row>]
[/C:<col>] [/O:<ofst>[,<unit>]]
[/L:<len>[,<unit>]] [/Y:<real>[,<imag>]]
```

<sfile>	SDF file.
[afile]	Input ASCII file with numbers.
[/U]	Show this usage.
[/I]	Info only on <sfile> (that is, measurement results available).
[/D:<data>]	Select data only for the specified SDF_DATA_HDR (default is 0).
[/S[:<scan>]	Select data only for the specified scan (default is 0).
[/R:<row>]	Select data only for the specified row (default is 0).
[/C:<col>]	Select data only for the specified column (default is 0).
[/O:<ofst> [,<unit>]]	Offset into the data by <ofst> . <unit> may be R (records), P (points) or S (seconds); default is P.
[/L:<len> [,<unit>]]	Length of data to change, default is one point. Only used if [afile] is not specified.
[/Y:<real> [,<imag>]]	Value to change SDF file with. Only used if [afile] is not specified.

SETUP63

Converts a binary setup state file from the HP 3563A (or HP 3562A) to an ASCII form (written to destination file). HP 3563A/62A setup state files on a LIF file system start with the letters "SE."

```
SETUP63 <sfile> [dfile] [/U] [/O]  
[/L:<flag>] [/E:<flag>]
```

<sfile>	Input HP 3563A/62A setup state file name.
[dfile]	Optional output ASCII file name. If no file specified, output to display.
/U	Show help (usage information).
/O	Overwrite [dfile] if it exists.
/L:<flag>	If <flag> is non-zero, put labels on each line. The name of each field will be the first 25 characters of each line. The default is on.
/E:<flag>	If <flag> is non-zero, expand enumerated types to ASCII names. The default is on.

SETUP88

Converts a binary setup state file from the HP 3588A to an ASCII form written to a destination file.

```
SETUP88 <sfile> [dfile] [/O] [/U]  
[/M <mfile>] [/L:<flag>] [/E:<flag>]
```

<sfile>	Input HP 3588A setup state path and file name.
[dfile]	Optional destination path and file name. If no file is specified, it outputs to the display.
/O	Overwrite [dfile] if it already exists.
/U	Show help (usage information).
/M	Read HP 3588A math file for additional information.
<mfile>	HP 3588A math path and file name.
/L:<flag>	If <flag> is non-zero, put labels on each line. The name of each field will be the first 25 characters of each line. The default is on.
/E:<flag>	If <flag> is non-zero, expand enumerated types to ASCII names. The default is on.

SETUP89

Converts a binary setup state file from the HP 3589A to an ASCII form written to a destination file.

```
SETUP89 <sfile> [dfile] [/O] [/U]  
[/M <mfile>] [/L:<flag>] [/E:<flag>]
```

<sfile>	Input HP 3589A setup state path and file name.
[dfile]	Optional destination path and file name. If no file is specified, it outputs to the display.
/O	Overwrite [dfile] if it already exists.
/U	Show help (usage information).
/M	Read HP 3589A math file for additional information.
<mfile>	HP 3589A math path and file name.
/L:<flag>	If <flag> is non-zero, put labels on each line. The name of each field will be the first 25 characters of each line. The default is on.
/E:<flag>	If <flag> is non-zero, expand enumerated types to ASCII names. The default is on.

SOFTCOPY

Transfers data from the HP-IB (IEEE-488 bus) to a file. Allows your PC to emulate a hardcopy device such as a plotter or printer, so screen dumps from various instruments can be captured. Hardcopy from HP-IB Instrument can be routed to an RS-232 printer or plotter by specifying PRN for the output file. Requires an HP 82335A interface card, or National Instrument GPIB-PC interface card.

SOFTCOPY [dfile] [/U] [/O] [/L]
[/A:<addr>]

[dfile]	Output file.
/U	Show help (usage information).
/O	Overwrite [dfile] if it exists
/L	Longer end-of-data timeout (30 sec). Default is 3 sec.
/A:<addr>	Set primary IEEE 488 bus address. Default is 5, use 31 to emulate a listen-only plotter or printer.

SYNTH63

Converts a binary synthesis file from the HP 3563A or HP 3562A to an ASCII file, a PC-MATLAB file, or a MATRIXx file. HP 3563A/62A synthesis files on a LIF file system start with the letters "ST" (Z-domain "ZT"); curve fit files start with the letters "CV" (Z-domain "ZF").

SYNTH63 <sfile> <dfile> [/U] [/O] [/L]
[/M] [/R]

<sfile>	Input HP 3563A/62A synthesis file name.
<dfile>	Output file name.
/U	Show help (usage information).
/O	Overwrites < dfile > if it exists.
/L	Create MATLAB File (a binary file).
/M	Create MATRIXx File (an ASCII file).
/R	Output MATLAB or MATRIXx file matrices in a row instead of a column.

If neither /L nor /M option is specified, then an ASCII file is created.

VIEWDATA

The Viewdata utility allows you to display data graphically on your PC. You can display up to three traces of data from the same or different analyzers. For example, you can display a frequency response from an HP 3563A on trace A, a frequency response from an HP 35665A on trace B, and an FRF from an HP 3566A/3567A on trace C. You can also display a waterfall (or map) of results from an HP 35665A or HP 3566A/3567A.

```
VIEWDATA [/D:<data>] [/S:<scans>]
[/R:<row>] [<fileA>] [<fileB>] [<fileC>]
[/U] [/T:<title>] [/K:<keyFile>]
[/E:<echoFile>] [/P] [/P:<plotfile>]
[/I:<iniFile>]
[/A:<ascFile>] [/O:<ovlFile>]
[/W:<wideCnt>] [/H:<highCnt>]
[/N:<pltNum>] [/M:<time>]
```

/D:<data>	Specify data result in file (default is result 0 if /P)
/R:<row>	Specify row in file (default is row 0 if /P)
/S:<scans>	Specify scan in file (default is scan 0 if /P). Can specify a range separated by "-" (for example, /S:0-5).
<fileA>	Data file to read into Trace A.
<fileB>	Data file to read into Trace B.
<fileC>	Data file to read into Trace C.
/U	Show help (usage information).

/T:<title>	Set the trace title (up to 30 characters) to be displayed on the X-axis of the data. If the title is empty, the measurement title from the data file is used. If you want to use a space in the trace title, surround the title with quotes (for example, "Trace Title").
/K:<keyFile>	Specify file from which to read key presses (redirect input).
/E:<echoFile>	Specify file to echo (record) key presses (useful for playing back keys using the /K option).
/P	Plot/print data and then exit program.
/P:<plotFile>	Plot/print data to specified file and then exit program.
/A:<ascFile>	Dump ASCII data to specified file and then exit program.
/I:<iniFile>	Specify configuration file to read instead of VIEWDATA.INI.
/O:<ovlFile>	Specify file which contains HP-GL text/graphics to overlay upon the trace.
/W:<wideCnt>	The number of plots per page wide.
/H:<highCnt>	The number of plots per page high.
/N:<pltNum>	Which plot this is (relative to /W and /H). If not set when /W or /H used, then the plot number is automatically incremented & stored in 'VIEWDATA.INX' for the next plot.
/M:<time>	Display trace, wait <time> seconds, and exit program.

X32TOBIN

Converts data from Intel Hex-32 source data file and put the results in the destination binary file.

X32TOBIN <sfile> <dfile> [/U] [/O]

<sfile>	Input Hex-32 data file.
<dfile>	Output binary file.
/U	Show help (usage information).
/O	Overwrite <dfile> if it exists.