XEROX

Xerox 4050/4090/4450/4650
Laser Printing System
Command Reference

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Introduction

The *Xerox 4050/4090/4450/4650 Laser Printing Systems Command Reference* provides a description of the available commands, including the logon levels, syntax, parameters, examples, and restrictions, if any.

Refer to the *Xerox Dynamic Document Interface Option Operator Guide* for commands specific to the shared disk option of your laser printing system.

This reference is intended for users who have some experience using Xerox laser printing systems.

Conventions

This reference uses the following conventions:

UPPERCASE BOLD BLUE	Uppercase bold blue text indicates required characters or command keywords.
UPPERCASE BLUE ITALICS	Uppercase blue italics indicate optional parameter keywords, characters, or values.
Lowercase black italics	Lowercase black italics indicate variable parameter options, (word, character, phrase, or value).
...	Ellipses indicate that you can repeat a parameter option, or list a series of parameter options.
<>	Angle brackets indicate keys on the system controller keyboard.
	The carat character represents a required space.
TERMINAL FONT	Terminal or monospace fonts are used to represent LPS screen responses.
UPPERCASE	Uppercase letters indicate command names and parameter keywords.
CAUTION:	Cautions appear immediately before any action or omission that may result in damage to your equipment, software, or data.
WARNING:	Warnings are associated with the safety of people, hardware or software.

Related publications

You can find additional information related to the Xerox 4050/4090/4450/4650 LPS in the following publications.

Publication	Number
Xerox 4050/4090/4450/4650 LPS Master Index	720P93070
Xerox 4050/4090/4450/4650 LPS Bypass Transport Instructions, V3.5/3.8	720P22320
Xerox 4050/4090/4450/4650 LPS Bypass Transport Operator Training Guide Flipcharts Supplement	720P22340
Xerox 4050/4090/4450/4650 LPS Bypass Transport Operator Training Guide Supplement	720P22330
Xerox 4050/4090/4450/4650 LPS Forms Creation Guide	720P93990
Xerox 4050/4090/4450/4650 LPS Forms Creation Quick Reference Card	720P93100
Xerox 4050/4090/4450/4650 LPS Installation Planning	720P92990
Xerox 4050/4090/4450/4650 LPS Message Guide	720P93980
Xerox 4050/4090/4450/4650 LPS Operator Guide	720P94000
Xerox 4050/4090/4450/4650 LPS Operator Instructor Training Flipcharts	720P22080
Xerox 4050/4090/4450/4650 LPS Operator Instructor Training Guide	720P22070
Xerox 4050/4090/4450/4650 LPS Operator Command Summary	720P93050
Xerox 4050/4090/4450/4650 LPS Product Reference	720P94060
Xerox 4050/4090/4450/4650 LPS Print Description Language (PDL) Quick Ref. Card	720P93090
Xerox 4050/4090/4450/4650 LPS Print Description Language (PDL) Reference	720P94090
Xerox 4050/4090/4450/4650 LPS System Administration Guide	720P94010
Xerox 4050/4090/4450/4650 LPS System Administration Quick Reference Card	720P93090
Xerox Standard Font Library Font User Guide	600P86174
Xerox Tape Formats Manual	600P86175
Helpful Facts About Paper	610P50497
Xerox Dynamic Document Interface Command Summary	720P13680
Xerox Dynamic Document Interface Operator Guide	720P13670

Printing color jobs

If your 4050/4090/4450/4650 LPS runs software version V3.8 or XDDI (monochrome version of a highlight color software), the print jobs you create with color commands print in black and shades of gray. Remember the following when printing color jobs on your LPS:

- You must recompile forms that use color commands on your highlight color printer.
- You must print the job you created with color commands to verify that the colors meet your requirements. Applications build color sets differently, resulting in color variation on the LPS. If the print job does not meet your color specifications, adjust your color command selection and retry the print job.
- If your color print job calls for a solid color to print on a black background, the LPS could print the image as solid black.

1. System commands

This section describes the system commands available for the Xerox 4050/4090/4450/4650 Laser Printing Systems (LPS). System commands control the following functions:

- Loading the operating system
- Switching between online and offline processing modes
- Initiating jobs
- Building forms
- Modifying source files
- Requesting sample prints of data, forms, fonts, and logos
- Obtaining accounting summaries and other system output.

While print jobs are running, messages display concerning the status of the jobs and the occurrence of unexpected conditions, if any.

Entering commands

You can enter all system commands and options from the keyboard. Function keys, buttons, and the screen display may simplify some operations.

The system accepts commands whenever the following prompt displays:

```
READY FOR COMMANDS
```

Follow these steps to enter a command:

1. Enter the command in the format specified.
2. Press <ENTER>.

The <ENTER> and the <RETURN> references are interchangeable.

The command syntax is made up of two elements: the keyword and the parameters. All commands begin with a keyword, for example, SAMPLE (some commands have more than one keyword, for example, SUBSTITUTE INK). You may abbreviate the keyword using three or more characters, for example, SAM, SAMP or SAMPL for the SAMPLE command, or SUB INK, SUBS INK, etc., for the SUBSTITUTE INK command.

Parameters follow the keyword. Parameters are either required or optional. Follow these guidelines when entering parameters:

- Separate parameters by commas.
- Do not use spaces around the commas.
- Enter the parameters in the order specified.
- If you want to omit an optional parameter, you must enter a comma in its place in the command string.

If you encounter an error message after entering a command, verify the syntax or refer to the *Xerox 4850/4890 HighIight Color LPS Message Guide*.

Command summary

Table 1-1 provides a summary of the system commands. It includes printer status requirements and the lowest logon level (by system default) from which a command is functional.

An asterisk after the command means that it is not functional when the Host Interface Processor (HIP) is running.

NR in the "Logon level" column means you cannot restrict the command.

Table 1-1. **System commands**

Command	Function	Printer		Logon level
		Offline	Online	
ABORT	Aborts current job, report activity, queue entries, or processes.	X	X	NR
ACCOUNT	Creates and updates the accounting file.	Idle		1
ALIGN	Aligns laser image with paper.	X	X	1
BC, BT, BX, BD, and BF	Boots the SAFES system.			
CANCEL	Same as the ABORT command.	X	X	1/NR
CANCEL ENTRY	Same as the ABORT ENTRY command.	X	X	1/NR
CLEAR QUEUE	Erases all entries in the print queue database.	X	X	2
CLP	Assigns preferred trays to a cluster.	X	X	1
CLUSTER	Assigns current trays to a cluster.	X	X	1
COMPRESS*	Compresses file directories and disk files.	Idle		2
CONTINUE	Resumes input/output activities.	X	X	NR
COPY	Copies files from disk/disk to disk/tape or cartridge.	Idle		1
DCU	Controls and processes logging activity.	X	X	1
DELETE	Deletes files from system disk.	Idle		2
DRAIN	Prints all completed online pages.		X	1
DSR*	Saves/restores disks.	Idle		2
EDIT	Begins an editing session.		X	1
ENDJOB	Prints all unimaged online pages.		X	1
FCG	Loads a third party communications profile.			1
FCHECK	Displays data about disk file allocations.	Idle		3
FCU	Converts files to monochrome color format.	X	X	1
FEDIT	Invokes the font editor.			1
FEED	Selects the active paper tray.	X	X	1
FEX	Generates a test case using Xerox and third party devices.			1
FID	Creates a prototype command file.	Idle		1
FILE	Lists file directories on the LPS display.	Idle		1
FIX	Modifies fonts and logos.	Idle		1
FLF	Invokes non-specified floppy commands.	Idle		1
FLOPPY	Invokes floppy commands at the system or editor level.	Idle		1
FONTS	Sets the maximum number of active fonts.	Idle		1
FORMS	Sets the maximum number of active forms.	Idle		1
GRAPHIC	Sets the maximum number of active graphics.	Idle		1
HARDCOPY	Prints a hardcopy of identified graphics.	Idle		1
HIP	Initiates Host Interface Processor commands.	X	X	4
HOSTCOPY	Accepts/stores files transmitted from the host computer.		X	1
IFU	Invokes the Interpress Font Utility commands.			1

Table 1-1. **System commands** (continued)

Command	Function	Printer		Logon level
		Offline	Online	
IMAGE	Displays, fixes, or prints the contents of IMG files.	Idle		1
INITIALIZE QUEUE	Initializes and sets up a new print queue database.	Idle		2
JOBS	Displays job status information.	Idle		1/NR
LIST	Lists a hardcopy of file directories.	Idle		1
LOGON	Determines access privileges.	X	X	NR
MOVE	Positions tape by blocks or files.	X		1
MOVE #	Reorders documents for printing.			1
OCS	Displays key version numbers.	X	X	1
OFFLINE	Sets the LPS to offline.	NR	X	1
ONLINE	Sets the LPS to online.	X		1
PROBLEM	Logs problem information for the service technician.			1
PSC	Downloads the PSC microcode to the printer.	Idle		2
PSTATUS	Displays the status of the printer.			1
PURGE	Clears data in unused disk sectors of the print file.	Idle		2
RCU	Restricts command usage.	Idle		NR
REALLOCATE	Sets the size of the print file on the system disk.	Idle		5
REPORT	Reports system activity and accounting.	Idle		1
RESET	Forces all system activities to cease.	X	X	1
REVIEW	Reviews file directories with optional delete.	Idle		1
REWIND	Rewinds the tape.	X		1
RNAME	Renames a file from one file name to another.	Idle		1
SAMPLE	Prints samples and test patterns.	X	X	1
SCALE	Converts files from 300 spi to 600 spi.			1
SCHEDULE	Checks or switches the QM modes.			1
SECURE	Secures a file against unauthorized access.	Idle		5
SELECT	Selects the active output tray.	X	X	1
SEPARATE	Sends an output report to the other output bin.			1
SET QUEUE DISPLAY	Sets the information in the print queue display.	X	X	1
SETTIME	Sets the current date and time.	X		2
@SETTMO	Changes the maximum period the system waits before sending the DEVICE END status to the host.	X		2
SFC	Converts the QUE.SYS data file to STAFIL.SYS.	X		1
SFS	Controls print queue database activities.	Idle		1
SFT	Transfers a single file from a DSR tape to a disk drive.			4
SHOW QUEUE STATUS	Displays the status of the queue.	X	X	1

Table 1-1. **System commands** (continued)

Command	Function	Printer		Logon level
		Offline	Online	
SPACE	Positions the tape by logical reports or pages.	X		1
SST	Creates a system software tape or cartridge.			4
START	Initiates a print job or prints a tape dump.	X	X	x
STITCH	Staples a printed document.			1
STOP	Suspends input and output activities.	X	X	NR
SUBSTITUTE	Identifies the tape or cartridge drive.	X	X	1
TAPE or CARTRIDGE	Manipulates the LPS-labeled tape or cartridge.	Idle		1
TIME	Displays the current time and status.	X	X	1
TYPE	Displays a source file.			1

Commands

The following system commands are available for the Xerox 4050/4090/4450/4650 LPS.

ABORT

Removes jobs from the system, aborts reports, or discontinues certain system processing: input, output, or both.

Ensure correct job status tracking for subsequent jobs by issuing the RESET command after aborting a job being printed (processed by output).

The system handles job aborts in the following way:

- Job being received and queued for report preparation is stopped after the next data read and is removed from the queue, but data written to disk from previously processed jobs is printed.
- Offline job in the print queue is deleted. An online job in the print queue has been partially prepared for printing, and every page prepared for printing is printed.
- Job being printed is truncated, but remaining jobs in the queue are printed.
- Job is not deleted if it has one report in the input queue and other reports in the output queue: only the report in the input queue is deleted when the next print job starts.

Syntax

ABORT *job-id*
or **ABORT** *value*

Parameter options

job-id
Aborts processing of the job specified by the job identification that is assigned to the job by the system.

value

I
Aborts input print processing.

O
Aborts the report currently being printed. Data processed by output is deleted; data processed only by input is not affected. When output processing resumes, it begins with the next complete report.

Considerations

If you abort a tape or cartridge job, the system does not rewind the tape or cartridge. You must enter the REWIND command before entering the next START command, since a label error can occur if the tape is not at the expected position.

When input processing resumes, it begins with the next complete report.

ABORT stops other types of processes when no print processes are running. If you do not enter a parameter, this command aborts any currently active nonprint task, except the File Conversion Utility (FCU).

To abort SAMPLE printing of files specified by a mask, enter ABORT *job-id* to abort the job completely.

If two jobs have been started, one immediately after the other, and you want to stop the first while it is being prepared for printing, enter ABORT I rather than ABORT *job-id*. Then enter ABO *job-id* after the message `OS1020 Job JID has completed input phase` is displayed for the first job. Or you can enter ABO I, and allow output processing to finish processing what it received of the first job before input processing aborted. Processing of the second job continues as expected.

If you enter ABO *job-id* while the first job is being processed by input, the second job is lost and a missing job number is noticeable after you start a third job. If the first two jobs are Xerox Network Systems (XNS) jobs, the Host Interface Processor (HIP) job queue shows the first as aborted and the second as queued, but the queued job cannot be accessed. To process it, enter HIP RESET and then resubmit the job.

Note: ABORT ENTRY is still a valid, supported command.

Examples

```
ABORT 5
0S0900 JOB 5 ABORTED
ABORT
OSO950 TASK ABORTED
```

The system accounting file is updated for the aborted job. User accounting pages print if output has been initiated for the job. They are delivered for each report that input has read. If output has not been initiated, an accounting page is not delivered.

ACCOUNT

Creates and updates the list of user names for which accounting information is maintained, along with the PDL ACCOUNT statement. Refer to your *Xerox 4050/4090/4450/4650 LPS Print Description Language (PDL) Reference* for information on the PDL ACCOUNT statement.

Syntax

ACCOUNT *function$_1$,department*
or **ACCOUNT** *WRITE,data format,density,CLEAR*
or **ACCOUNT** *LIST*

Parameter options

function$_1$

ADD
: Adds a department name to the list of departments under which accounting information is maintained.

DELETE
: Removes a department name from the list of department names.

department
: Represents 1 to 31 alphanumeric characters (A through Z, 0 through 9, ":"), specifying the department. Must be the name specified in the DEPT command of the PDL ACCT statement.

function$_2$

LIST
: Displays all the current departments. This has no meaning for *data format*, *density*, or *CLEAR*.

WRITE
Copies the user and system activity data printed by the REPORT command to an unlabeled tape. The 80-byte, unblocked record file starts at BOT and is terminated by two EOFs.

data format
EBCDIC
Specifies the data format as EBCDIC.

ASCII
Specifies the data format as ASCII.

density
1600
Specifies the tape recording density as 1600 in bits per inch (bpi).

6250
Specifies the tape recording density as 6250 in bits per inch (bpi).

CLEAR
Erases the accounting data after copying it to tape.

Default If not specified, the defaults are EBCDIC and 1600 bpi.

Considerations A department name cannot be deleted if data associated with the department exists in the SFS file.

ACCOUNT data can only be copied to an unlabeled tape.

Tape format of data written by ACCOUNT

The system usage accounting data copied to unlabeled tape consists of 80-byte records. Each record is identified in its first two bytes by a value indicating the information contained in that record. These two-byte identifiers are 10, 11, 12, 13, 16, 17, and 18. Records with identifier 14 are written to tape but do not contain currently useful information. The first four records are record types 10, 11, 12, and 13, which have the format structure shown in tables 1-2 through 1-5.

Table 1-2. **First ACCOUNT record**

Bytes	Record contents
0-1	Identifier (10)
2-10	Date in DD-MM-YY format
13-20	Time in HH:MM:SS format
21-79	Unused

Table 1-3. **Second ACCOUNT record**

Bytes	Record contents
0-1	Identifier (11)
2-39	Unused
40-49	Pages
50-59	Reports
60-69	Files
70-79	Jobs

Table 1-4. **Third ACCOUNT record**

Bytes	Record contents
0-1	Identifier (12)
2-6	Hours (input)
7-11	Minutes (input)
12-21	Unused
22-26	Hours (output)
27-31	Minutes (output)
32-43	Unused
44-49	Mounts
50-59	Blocks read
60-69	Blocks skipped
70-79	Paper path holes

Table 1-5. **Fourth ACCOUNT record**

Bytes	Record contents
0-1	Identifier (13)
2-26	Unused
27-31	Number of blocks with CRC error
32-41	Blocks received
42-79	Unused

You can print the information in the first through fourth records using the REPORT ACTIVITY command.

Table 1-6. **Fifth ACCOUNT record**

Bytes	Record contents
0-1	Identifier (14)
2-79	Unused

The remaining records on the tape are sets of type 16, 17, and 18 records. Each set records the data for a department name and Job Descriptor Library (JDL) entry in the accounting log. You can print information in the sixth through eighth records using the REPORT USER command. These records have the format structure shown in tables 1-7 through 1-9.

Table 1-7. **Sixth ACCOUNT record**

Bytes	Record contents
0-1	Identifier (16)
2-32	Department name
33-34	Unused
35-39	Pages to tray
40-79	Same as in second record

Table 1-8. **Seventh ACCOUNT record**

Bytes	Record contents
0-1	Identifier (17)
2-69	Same as in third record
70-79	Lines

Table 1-9. **Eighth ACCOUNT record**

Bytes	Record contents
0-1	Identifier (18)
2-79	Same as in second record

ALIGN

Aligns the laser image with the paper. The alignment values for each printer must be set at least once, but they remain relatively constant. The alignment values you enter are retained by the system until you change them.

Syntax **ALIGN** *scans*,*dots*,*TEST*

Parameter options

scans
Specifies the number of scan lines (across a portrait page or down a landscape page) in dots. The range is 1 to 296, inclusive.

dots
Specifies the number of dots along each scan line (up a portrait page or across a landscape page) in dots. The range is 0 to 11992, inclusive.

TEST
Prints a TEST form.

Default The default alignment is 36 scans and 0 dots.

Examples

```
OS1000 READY FOR COMMANDS
ALIGN 80,24,TEST

ALIGNMENT IS 80 SCAN LINES AND 24 DOTS

ALIGN
ALIGNMENT IS 80 SCAN LINES AND 24 DOTS

ALIGN,16
ALIGNMENT IS 80 SCAN LINES AND 16 DOTS
```

Considerations

Do not use the TEST parameter when the system is online. The system responds with the message `OS7400 INVALID JDE/JDL FOR ONLINE PROCESSING.`

Do not request an alignment sample when a print job is in progress since the system resets the alignment without printing the test form.

Although any scan line increment can be used, the dots increment can only be in steps of 8 dots.

BC, BT, and BX

Boots your system from a tape or cartridge after powering on or pressing the Boot button. These commands also allow you to back up and restore files from a DSR or SST tape or cartridge. There is no provision for the B command. Although any scan line increment can be used, the dot increment can only be in steps of eight dots.

Syntax **BC** or **BT** or **BX**

BC
: Boots system software from a 1/4 inch tape cartridge.

BT
: Boots system software from a 9-track or 18-track magnetic tape.

BX
: Boots system software from a 1/2 inch 3480-compatible tape cartridge. (This command is only valid for V3.5.)

Parameter options None.

Logon level The logon level is 1.

Considerations The system delays about 80 seconds before the `$READY` prompt appears. When the system completes the booting process, it is automatically at logon level 1.

BD

Boots the SAFES system from the disk after powering on or pressing the Boot button.

Syntax **BD**

Parameter options None.

Logon level The logon level is 1.

Considerations After powering on, the system delays up to 80 seconds before the `READY$` prompt appears. When the system completes the booting process, it is automatically at logon level 1.

BF

Boots the SAFES system from a floppy disk after you power on or press the Boot button.

Syntax **BF**

Parameter options None.

Logon level The logon level is 1.

Considerations After you power on, the system delays up to 80 seconds before the READY$ prompt appears. When the system completes the booting process, it is automatically at logon level 1.

CANCEL

Removes a job from the system, cancels a report, or discontinues certain system processing (input, output, or both).

Ensure correct job status tracking for subsequent jobs by issuing the RESET command after canceling a job that is being printed.

Logon level The logon levels are 1 through 5.

Syntax **CANCEL** [job-id|I|O]

Parameters

job-id
Stops processing of the job identified by the job identification number.

I
Cancels input print processing.

O
Cancels the report currently being printed. Data processed by output is deleted; data processed only by input or QM is not affected. When output processing resumes, it begins with the next complete report.

This command is the same as the ABORT command. Refer to the "ABORT" section earlier in this chapter for more information.

CANCEL ENTRY

Cancels entries in the queue. This command is the same as the ABORT ENTRY command.

Syntax **CANCEL** ENTRY [ALL|*resource attributes*|*#entry-string*]

Parameters

ALL
Cancels all entries in the queue.

resource attributes
PRIMARY COLOR
Cancels reports that require the specified primary color.

STITCH
Cancels reports that require stitching.

You can combine attributes using and (&) and/or (!) operators in the command. Refer to the examples below.

#entry-string
Cancels the entries in the queue which are specified by the #*n*, #*n*-*m*, or #(*n*-*m*,*o*,*p*-*r*) format.

#n
Single entry (integer between 1 and 65535).

#n-m
One set of multiple entries (integers between 1 and 65535), *n* to *m*, inclusive.

#(n-m,o,p-r)
Multiple sets of entries (integers between 1 and 65535), *n* to *m*, inclusive, *o*, and *p* to *r*, inclusive.

Example: CANCEL ENTRY #65,#78,#81

CANCEL ENTRY #(65-71)

CANCEL ENTRY MAGENTA
All entries requiring magenta dry ink.

CANCEL ENTRY BLUE&-STITCH
All entries requiring blue dry ink and not requiring stitching.

CANCEL ENTRY BLUE!STITCH
All entries requiring blue dry ink or stitching.

CANCEL ENTRY (GREEN&BLUE)!-RED
All entries requiring green and blue dry ink or not requiring red.

CLEAR QUEUE

Erases all entries in the print queue database and resets warning and frequency flags by reinitializing the database. Warning flags indicate that the beginning of the file is about to be overwritten. Frequency flags determine how often warning messages display.

Syntax **CLEAR** QUEUE [*NOF*|*OWF*|*DWF*|*NWF*:*n.m*]

Parameters

NOF
Deactivates the warning and frequency flags.

OWF
Activates previous warning and frequency flags.

DWF
Activates default warning and frequency flags. The default values are: warning flags, 40, frequency flags, 3.

NWF:*n.m*
Sets and activates new warning and frequency flags. The *n* value indicates the threshold at which warnings begin. The *m* value indicates the frequency of warning message display.

Logon level The logon levels are 2 through 5.

Restriction CLEAR QUEUE executes only when the system is not active.

Example If *n*=25 and *m*=3, warnings are displayed when 25, 22, 19, 16, etc. entries can be made before the end of the print queue database is reached.

CLP and CLUSTER

CLP defines or deletes preferred trays for a cluster, or displays all clusters with all their associated information.

CLUSTER establishes or deletes current trays for a cluster, or displays all information for all clusters with current trays.

A cluster exists permanently in the database if it has at least one preferred tray. If you delete the preferred trays of an active cluster by assigning them to another cluster with the CLP command, you can use the cluster until you delete its current trays by assigning them to another cluster with the CLU command.

Syntax

COMMAND clustername autosize flag factor $n_{1...}n_n$ *SET ALL /NR*

Parameter options

COMMAND

CLUSTER
: Creates, modifies, or displays information for current clusters.

CLP
: Creates, modifies, or displays information for preferred clusters.

clustername
: Specifies a cluster by name rather than by tray number. The name must be 1 to 6 alphanumeric characters beginning with a letter.

autosize flag

/A
: Sets the autosize flag to true. Available only with the CLP command.

/-A
: Sets the autosize flag to false.

factor

\+
: Adds trays as specified by the other parameter options.

—
: Deletes trays as specified by the other parameter options.

$n_{1...}n_n$
: Denotes a feeder tray on the printer by a number within the range 1 to 2 or 1 to 4.

SET
: Assigns preferred tray status to all the preferred trays in the cluster.

ALL
: Specifies the total number of trays on the printer. This is not a valid option when using the SET syntax.

/NR
: Specifies that the assigned current trays are not removed from other clusters.

Cluster information

CLUSTER
: Displays all tray information for all clusters with current trays.

CLP
Displays all tray information for all clusters.

CLUSTER *cl-name*
Displays all tray information for the specified cluster.

CLUSTER *n*
Displays all tray information for all clusters which have the specified tray as a current tray.

CLP *n*
Displays all tray information for all clusters which have the specified tray as a preferred tray.

CLUSTER *cl-name* n_1,...n_n/NR, CLUSTER *cl-name* ALL /NR
Assigns current trays to the specified cluster. ALL specifies all the trays on the printer. NR (not remove) specifies that the assigned current trays are not deleted from other active clusters. SET assigns preferred tray status to all the current trays in the specified cluster:

- CLUSTER *cl-name* SET/NR
- CLUSTER SET ALL /NR.

CLP *cl-name* /-An_1,...n_n, CLP *cl-name* /-A ALL
Replaces the preferred trays of the specified cluster with the specified trays.

CLUSTER *cl-name* + n_1,...n_n /NR
Adds the specified trays as current trays to the specified cluster. NR specifies that the assigned current trays are not deleted from other active clusters.

CLP *cl-name* /-A + n_1,...n_n
Assigns the specified trays as preferred trays to the specified cluster.

CLUSTER *cl-name* -n_1,...n_n, CLUSTER *cl-name* -ALL
Removes the specified current trays from the specified cluster.

CLP *cl-name* /A -n_1,...n_n, CLP *cl-name* /-A -ALL
Removes the specified preferred trays from the specified cluster.

COMPRESS

Identifies corrupted files and compresses files and directories. It is more efficient to identify corrupted files with the verification option of COMPRESS, delete the corrupted files, and then compress files.

A file may be corrupted when the sectors allocated to it have been allocated to another file or are also “bad block” areas. The V option of COMPRESS generates the CPR000.TMP file to identify the first multiallocated sectors found.

If the multiallocated sectors are associated with bad block areas and a file, delete the file. If the sectors are associated with two files, use SAMPLE to print them to determine which file has been corrupted.

During the verification process to ensure that no sectors have been allocated to multiple files or to a file and a “bad block” area, the message `VERIFYING SYSTEM FILES` displays.

Syntax **COMPRESS**,*disk-id*,*disk-id*,...,*V*

Parameter options *disk-id*

Specifies the disks (DP0:, DP1:, DP2:, or DP3:) to check for corrupted files, or specifies the disks on which files and directories are to be compressed.

V

Verifies the existence of unusable areas on the specified disk without compressing files.

Default The default is disk DP0.

Considerations COMPRESS displays the entered command syntax while it is running.

COMPRESS without the V option copies each file into one contiguous area, leaving one large free area. The following message is displayed during processing:

```
COMPRESSING FILES **CRITICAL OPERATIONS IN PROGRESS.  DO
NOT DISTURB** **DISK WILL BE UNUSABLE IF PROCESS
INTERRUPTED**
```

After files in a directory are compressed, the directory is compressed, if possible. During this process phase the system displays the `COMPRESSING DIRECTORY SECTORS` message.

The system must be idle and the Host Interface Processor (HIP) must be unloaded; HIP EXIT or HIP UNLOAD is required.

Do not abort COMPRESS.

If the system was not rebooted after turning Data Capture on after the last system generation, the system may hang during COMPRESS and require a reboot. Prevent this situation by rebooting the system immediately after turning Data Capture on, or by turning Data Capture off before running COMPRESS and turning Data Capture back on when COMPRESS has completed. Figure 1-1 illustrates a disk error report.

Figure 1-1. **Disk compress error report**

```
DISK COMPRESS ERROR REPORT          12 JUL 89         10:35:14      000010
                                                                    000020
FILE IN ERROR            UNIT       START LBN         SIZE          000030
                                                                    000040
FDL.TSK                  0          2032              178           000050
BAD BLOCK GROUP          0          2189              1388          000060
```

CONTINUE

Resumes input or output processing suspended by the STOP command or by the system report of an error condition. Since the system controls input and output activities separately, continuing input allows input data to process and spool to disk even if output is stopped. Continuing output alone prints or images existing pages even if input is stopped.

Default If you do not enter a parameter, this command resumes input and output processing.

Syntax **CONTINUE** *value*

Parameter options *value*

I
: Resumes input processing.

O
: Resumes output processing.

Q
: Restarts QM scheduling.

COPY

Copies files from:

- System disk to system disk, floppy disk, cartridge, or tape
- Floppy disk, cartridge, or tape to system disk.

The Xerox 4050/4090/4450/4650 LPS may use a 9-track magnetic tape or 18-track cartridge.

When using the *input-file-id* and *output-file-id* to rename a labeled file, only the RAD50 portion of the tape label changes; the American Standard Code for Information Interchange (ASCII) portion of the label does not change.

The *file-id* is recorded in ASCII in the 128-byte LPS label. The 6-character ASCII file name begins in byte position 18. The 3-character ASCII file type begins in byte position 27.

Although Operating System Software (OSS) supports multiple volume writes, the editor and Interpress Font Utility (IFU) tasks do not support them. Do not issue a multiple volume write from EDI or from IFU. It may fail and corrupt the volume by jeopardizing the volume file integrity, and the Interpress file and font integrity. Avoid this problem by writing files to a single volume and selectively including files or font families.

COPY — disk to disk

Copies a disk file on the system disk.

Syntax **COPY** *disk-id input-file-id disk-id output-file-id*

Parameter options *disk-id*

Specifies the disk (DP0:, DP1:, DP2:, or DP3:) which contains the file to be copied (input), and the disk that the file is copied to (output).

file-id

Specifies the input or output file identified by *file-name.file-type*. If the file type is omitted, the file type defaults to the file type of the input file. (Masking cannot be used.)

Considerations The output file name must be different from the input file name. If the output file name is the name of an existing file, then the contents of the existing file are replaced by the contents of the input file.

Example

```
EDIT> COPY FORMA.FSL FORMX
>CREATING FILE FORMX.FSL
```

COPY — disk to labeled tape or cartridge

Adds the existing files on a tape. If there are no other files, the new files are written starting at BOT. The *file-id* is recorded in ASCII in the 128-byte LPS label. The six-character ASCII file name begins in byte position 18. The three-character ASCII file type begins in byte position 27.

Syntax

COPY *medium* **WRITE***/BF: n* **LABEL** *input file-id output file-id*
or **COPY** *medium* **WRITE** *n* **LABEL** *file*

Parameter options

medium

TAPE
: Specifies that the file must be written to the labeled tape assigned to the TAPE keyword using the SUB DEV command.

CARTRIDGE
: Specifies that the file must be written to the cartridge assigned to the CAR keyword using the SUB DEV command.

n
: Groups disk blocks into one tape block. *n* can have a value of 1 to 16, and the size of the tape block, in bytes, resides in the tape label. The default blocking factor is 1, and the label indicates the blocking factor.

input or *output file-id*
: Specifies the name of an input disk file and the name to be given the output tape file, in the form *file-name.file-type*. (Masking cannot be used.) If no output *file-id* is specified, the disk *file-name* is used for the tape file. (Masking can be used.)

file

file-id
: Specifies the disk file to be copied to tape. (Masking cannot be used.)

file-type
: Specifies the directory (CMD, CME, FNT, FRM, FSL, ICT, IDR, ISL, IMG, JDL, JSL, LGO, MSC, PDE, TMP, TST, XCS, IPM, LIB, STK, TSK, SYS, PCH, LOG, SAF, OSD, DAT, TPF, IPF, and FIS) whose files are copied to tape.

ALL
: Specifies that all user files with the file extensions CMD, CME, FNT, FRM, FR6, FN6, FSL, ICT, IDR, ISL, JDL, JSL, LGO, LG6, PDE, TMP, TST, IPM, MSC, IMG, LIB, STK, and 1M6 are copied to tape.

Default

TAPE is the default *medium*.

Considerations

Do not use COPY, TAPE, WRITE, LABEL, or ALL to copy user file versions between printers running different operating system software. This may result in incompatible user file types on the system disk.

When using the *input-file-id* and *output-file-id* to rename a labeled file, only the RAD50 portion of the tape label changes; the ASCII portion of the label does not change.

Do not issue a multiple volume write from EDI or from IFU. It may fail and corrupt the volume by jeopardizing the volume file integrity, and the Interpress file and font integrity. Instead write files to a single volume and selectively include files or font families.

COPY — disk to unlabeled tape or cartridge

Copies source files such as .FSL or .JSL files to tape. Tape initialization (TAPE VOLINIT) is not necessary for an unlabeled tape. The tape write always starts at the current tape position and is terminated by writing two end of files (EOFs), backspacing over one of them when another file is written. This results in one EOF between each file, with a double EOF at the end of all the files.

Syntax **COPY** *medium* **WRITE** *data format file-id*

Parameter options

medium

TAPE
: Specifies that the file must be written to the labeled tape assigned to the TAPE keyword using the SUB DEV command.

CARTRIDGE
: Specifies that the file must be written to the cartridge assigned to the CAR keyword using the SUB DEV command.

data format

EBCDIC or ASCII
: Specifies the format of the tape to be written.

file-id
: Specifies the disk file to be copied to tape. (Masking cannot be used.)

Default The data format default is EBCDIC.

Examples COPY TAPE WRITE file.tmp, CARTRIDGE WRITE LABELfile.tmp

Specifies that the file must be written to the unlabeled tape or cartridge assigned to the TAPE or CAR keyword using the SUB DEV command.

Considerations When you copy files to an unlabeled tape, the system does not check the tape position. The tape write always starts at the current tape position and is terminated by writing two EOFs, backspacing over one of them when another file is written. This results in one EOF between each file, with a double EOF at the end of all the files.

COPY — labeled tape or cartridge to disk

Restores tape files to disk.

Syntax **COPY** *medium READ* **LABEL** *REVIEW disk id file*

Parameter options

medium

TAPE
: Specifies that the input files or files come from the labeled tape file assigned to the TAPE keyword using the SUB DEV command.

CARTRIDGE
Specifies that the file must be written to the cartridge assigned to the CAR keyword using the SUB DEV command.

REVIEW
Prompts you when the file on the tape would replace an existing file of the same name on the disk and requests whether to replace the file. If you respond with Y, the file on tape replaces the disk file. If you respond with N, the tape skips to the next file. Entering X aborts the entire copy process.

disk id
Specifies the disk file to be copied from tape or cartridge.

file

NEXT
Specifies that the next file on the tape will be copied to disk.

ALL
Specifies copying all the files on the tape or cartridge to disk, including the following files: CMD, CME, FNT, FN6, FRM, FR6, FSL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PDE, TMP, TST, ICT, IDL, ISL, IPF, IPM, LIB, STK, TSK, SYS, PCH, FIS, LOG, SAF, OSD, DAT, TPF, XCS, and 1M6.

file-type
Specifies the file name in a tape directory to be written to disk, including the following files: CMD, CME, FNT, FN6, FRM, FR6, FSL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PDE, TMP, TST, ICT, IDL, ISL, IPF, IPM, LIB, STK, TSK, SYS, PCH, FIS, LOG, SAF, OSD, DAT, TPF, XCS, and 1M6.

Examples

```
>COPY TAPE READ LABEL OCRA.FNT
SEARCHING FOR FILE OCRA.FNT
CREATING FILE OCRA.FNT
```
(if the file is a new file and does not exist on the disk)

```
REPLACING FILE OCRA.FNT
```
(if the file already exists on disk and is overwritten)

The above command finds and copies the file OCRA FNT from the tape to disk.

If another file exists on this tape (after the one just copied), use the command COPY TAPE READ LABEL NEXT to copy the next file from tape and store it in a *file-name.file-type*, as specified in the tape label information.

The command COPY TAPE [LABEL] ALL copies all the files from the Xerox-labeled tape, stores them with the same file name as on tape and catalogs them by file type. After copying the files from an LPS-labeled file tape to disk, use the TAPE REWIND or TAPE UNLOAD command to rewind the tape.

COPY — unlabeled tape or cartridge to disk

Copies an unlabeled, unblocked, EBCDIC or ASCII, 9-track, and 1600 (or 6250 bpi) tape. The maximum record length is 150 characters, although only the first 72 characters of each record are entered into the disk file. A sequence number generates in bytes 75 to 80 of the disk file record. Records shorter than 72 bytes are blank filled to 72 bytes. The largest file that can be created is 5000 records.

Syntax **COPY** *medium data format file-id*

Parameter options

medium

TAPE
: Specifies that the file must be written to the labeled tape assigned to the TAPE keyword using the SUB DEV command.

CARTRIDGE
: Specifies that the file must be written to the cartridge assigned to the CAR keyword using the SUB DEV command.

data format

EBCDIC ASCII
: Specifies the recording format of the input tape. EBCDIC is the default.

file-id
: Specifies the new file name as *file-name.file-type.* (Masking cannot be used.)

Example COPY TAPE UNSYS.JSL copies a file from an unblocked, unlabeled tape to disk. The disk file is named UNSYS and is cataloged in the JSL file directory.

Considerations The maximum record length is 150 characters.

The copy operation truncates each record to its first 72 characters.

Files with more than 5000 records are truncated to the first 5000 records.

DCU

Starts or stops logging all LPS console entries and system console messages. This command also creates the log file which automatically records all LPS console entries and system console messages for the specified number of days. You can specify that a message displays at the selected interval to indicate that console entries are being logged. The log file created can be displayed, printed, or backed up to offline media.

DCU CAPTURE — (V3.8 and XDDI)

Syntax **DCU CAPTURE** CONSOLE $state_1$ FOR *n* DAYS REMINDER $state_2$ *m*

Parameter options

CONSOLE
: Records all console activity.

state$_1$

ON

Logs the console data.

OFF

Ends console data logging. Does not delete the captured data or unload DCU as an active task on the printer.

n

Specifies the number of days to save console data. *n* must be an integer between 0 and 40. If DCU was previously turned off using RESET and then turned on again without specifying a value, the default would be 14 days. If DCU was previously turned off using either DCU EXIT or DCU CAP OFF, then turned on again without specifying a value, DCU would be the last specified value.

state$_2$

ON

Activates the reminder message.

OFF

Deactivates the reminder message.

m

Specifies the length of the interval in minutes between each reminder message. Must be an integer between 1 and 254 (4 hours). The default is 60 minutes.

Default The default is ON.

DCU DELETE — (V3.8 and XDDI)

Deletes all of the data logged in the file, or deletes all data up to the specified date.

Syntax **DCU DELETE** *value*

Parameter options *value*

ALL

Deletes all data recorded in the log file.

ending date

Specifies the ending date in one of the following formats: mm/dd/yy, mmm-dd-yy, or dd-mmm-yy.

mm

Specifies the month with a number between 1 and 12.

mmm

Specifies the month with a three-character abbreviation: JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC.

/

Date delimiter: a slash (/) or hyphen (-) is required with *mm,dd,yy* variables.

dd

Specifies the day of the month with a one- or two-digit number.

yy

Specifies the last two digits of the year. If you do not specify a number, the default is the current year.

Logon level The logon levels are 1 through 5.

Default ALL

DCU EXIT — (V3.8 and XDDI)

Stops DCU and unloads the processing task from the system. This frees up the memory used by DCU. To begin logging console data again, you must recreate the log file using the DCU CAPTURE CONSOLE command.

Syntax **DCU EXIT**

Logon level The logon levels are 1 through 5.

DCU FORMAT CONSOLE DISPLAY — (V3.8 and XDDI)

Displays the data logged in the file.

Syntax **DCU FORMAT CONSOLE DISPLAY** *starting date time ending date time*
or **DCU FORMAT CONSOLE DISPLAY** *LAST n*

Parameter options

starting date, *ending date*
Specifies the starting and ending dates in one of the following formats: mm/dd/yy, mmm-dd-yy, or dd-mmm-yy.

mm
Specifies the month with a number between 1 and 12.

mmm
Specifies the month with a three character abbreviation: JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC.

/
Date delimiter: a slash (/) or hyphen (-) which is required with *mm,dd,yy* variables.

dd
Specifies the day of the month with a one- or two-digit number.

yy
Specifies the last two digits of the year. If you do not specify a number, the default is the current year.

time
Specifies the hours, minutes, and seconds in the format *hh/mm/ss*.

n
Specifies the last *n* minutes of captured data to be displayed. You can specify up to 32767 minutes.

Logon level The logon levels are 1 through 5.

Default The default is 15 minutes.

DCU FORMAT CONSOLE PRINT — (V3.8 and XDDI)

Prints the data logged in the file.

Syntax **DCU FORMAT CONSOLE PRINT** *value starting date time ending date time*
or **DCU FORMAT CONSOLE PRINT** *LAST n*

Parameter options *value*

SIMPLE
Prints the log data in the abbreviated format.

COMPLEX
Prints the log data in the complete format.

starting date, *ending date*
Specifies the starting and ending dates in one of the following formats: mm/dd/yy, mmm-dd-yy, or dd-mmm-yy.

mm
Specifies the month with a number between 1 and 12.

mmm
Specifies the month with a three-character abbreviation: JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC.

/
Date delimiter: a slash (*/*) or hyphen (-) is required with *mm,dd,yy* variables.

dd
Specifies the day of the month with a one- or two-digit number.

yy
Specifies the last two digits of the year. If you do not specify a number, the default is the current year.

time
Specifies the hours, minutes, and seconds in the format *hh/mm/dd*.

n
Specifies the last *n* minutes of captured data to be printed. You can specify up to 32,767 minutes.

Logon level The logon levels are 1 through 5.

Default The default is 15 minutes.

DCU HELP — (V3.8 and XDDI)

Checks the DCU syntax for the action you want to execute, and displays a list of all DCU commands and parameter options.

Syntax **DCU HELP**

Parameter options None

DCU REMINDER — (V3.8 and XDDI)

Displays a reminder message on the system that indicates that data is being captured from the console in specified intervals.

Syntax **DCU REM** *value state n*

Parameter options *value*

ALL

CONSOLE

state

ON
Activates the reminder message.

OFF
Deactivates the reminder message.

n
Specifies the length of the interval in minutes between each reminder message. You can specify from 1 to 254 minutes (4 hours and 14 minutes). If you do not specify a number, a reminder message will appear every 60 minutes.

Default The default is ON.

DCU RESET — (V3.8 and XDDI)

Deletes all the data logged in the file and stops DCU logging.

Syntax **DCU RESET**

Parameter options None.

Logon level The logon levels are 1 through 5.

DCU SHOW — (V3.8 and XDDI)

Verifies that LPS console entries and system console messages are being logged.

Syntax **DCU SHOW** *variable*

Parameter *variable*

STATUS
Summarizes the status of the capturing device, the reminder interval, and the retention period.

DATES
Displays the time period (to and from) of the captured data.

LOGS
Displays the first data file for every day that is captured.

VERSION
Displays console log version information.

Logon level The logon levels are 1 through 5.

Default STATUS

DELETE

Deletes files from the system disk.

Syntax **DELETE** *disk-id file-id*,*file-id*,...,*file-id*

Parameter options *disk-id*
Specifies the system disk (DP0:, DP1:, DP2:, or DP3:) which contains the file to be deleted.

file-id
Specifies the file as *filename.filetype*.

Example

```
>DELETE UNIVAC.JSL, FORMX.FSL
> UNIVAC.JSL.  DELETED
> FORMX.FSL DELETED
```

Considerations Never delete system (.SYS) files, in particular PRFIL1.SYS.

This command can be restricted to any logon level with the RCU command.

DRAIN

Prints all completed pages without ending the job in progress.

This command has an automatic drain feature that initiates the drain process after 5 minutes of inactivity on the online channel. To change the time interval, use the @DRAIN command.

Syntax **DRAIN**

Parameter options None.

Considerations If the print file has 5 or fewer pages, the pages may not print.

When entering this command, you may receive a message indicating that there are no pages waiting to be drained. This indicates that all the data received by the system has been formatted for output. Any pages formatted previous to the DRAIN command are printed. This message may appear without entering the command if the autodrain feature is enabled.

There are situations where you may look at the system and see that there are pages in the output queue, but the system indicates that there are no pages waiting to be drained. The DRAIN processing logic is performed from the input point of view. The job has completed the input phase, but the output queue may not yet have registered that there is data still available. AUTODRAIN will "wake up" and drain the system after a specific interval.

@DRAIN is the filename for a command file. Use this command file to change the timeout interval for the Automatic Drain feature for online printing. If you need to change the timeout interval, contact your site representative.

Once the command file is started, you are prompted for the new time, in minutes (between 1 and 255). After you have entered the new time, the system will apply the time and redisplay the `READY FOR COMMANDS` message.

DSR

Backs up the entire system onto tape or cartridge after a sysgen or a software update. The Disk Save and Restore (DSR) utility operates on the entire system in two steps: it creates a tape backup of all system files, and it restores those files to disk, erasing all previous disk contents.

Use the DSR tape or cartridge you create to boot the system (BT, BC, or BX) after a system crash or after the loss of system files to restore the entire system. Although you can use DSR to correct disk fragmentation because the DSR restore copies all files to a contiguous area on the restored system disk, it is more efficient to use COMPRESS instead.

The disk or disks whose files are copied to tape or cartridge are the source disks. The disk or disks to which the files are restored are the object disks.

Syntax **DSR***medium 1600*,*disk-id*,*disk-id*...,*L*

Parameter options

medium

CARTRIDGE
Specifies the device assigned to the CAR keyword using the SUB DEV command.

TAPE
Specifies the device assigned to the TAPE keyword using the SUB DEV command.

1600
Specifies a tape recording density of 1600 bpi.

disk-id
Indicates the disk (DP0:, DP1:, DP2:, or DP3:) whose contents are written to tape. If a DP*n*: is omitted, all disks are backed up.

L
Lists file information on the display as the system files are copied to tape. When several disks are backed up, this list can be extensive. No list is the default.

Logon level The logon level is 2.

Default The default is always 6250 bpi, even though the tape has been initialized at 1600 with the TAPE VOLINIT command.

Considerations This command is restricted to logon level 2.

You can run DSR only when there are no print jobs being processed.

A sysgen is required following a DSR restore if the configuration of the machine has changed since the save was performed or if the object system is different than the source system. Frequently, a mini-sysgen is sufficient to correct the configuration, but a sysgen ensures that all the correct files are loaded on the system for the new configuration.

All the disk files are saved or all the tape or cartridge files are restored; DSR does not process individual files.

DSR preserves the machine-specific file (MCHID$.SYS) to prevent billing problems when you move files between systems.

If HIP is not active and jobs are pending in the queue, DSR runs, but it loses the HIP queue because HIP uses addresses that are unavailable during compression.

EDIT

Creates a source file, accesses a source file, or executes a file. When you invoke the editor, it prompts you by displaying EDIT>. If you do not enter a parameter, this command creates an empty source file ready for input.

Syntax **EDIT** [*disk-id*][*filename.file-type* | @*filename[file-type*]]

Logon level The logon levels are 1 through 5.

Parameters

disk-id
Refers to the system disk (DP0:, DP1:, DP2:, or DP3:) on which the file resides.

filename
Identifies a one- to six-character disk file.

file-type
Specifies the file directory under which the filename is cataloged.

@filename
Specifies that the editor is to retrieve commands from an editor command file. If no file type is entered, the system defaults to CMD.

You specify the filename (without the @) if the file is put into working storage.

Example

```
OS1000 READY FOR COMMANDS (TIME) HH:MM:
```

Operator keys in:

```
EDIT SYSPDL.JSL
```

System prompt:

```
EDIT>
```

ENDJOB

Allows the system to begin a START command. ENDJOB marks the current LPS job as terminated and prints all the remaining pages in the print file. The ENDJOB command allows you to:

- Print a trailer banner to mark the end of a report
- Print a second trailer banner when the first is incompletely sent
- Work around multicopy disk saturation
- Respond to a MOUNT FORM message from an IBM host terminal
- Print the job accounting sheet.

Syntax **ENDJOB**

Parameter options None.

FCG

Loads the personality profile (text file FCG.LIB) into printer memory that the LPS must use to communicate with the third party finishing device that is being configured into the printer memory. The personality profile is a text file called “FCG.LIB.” Once this file is created, it is preserved across sysgens.

Syntax
FCG
or
FCG *profile-label*
or
FCG *SHOW*

Parameter options

profile-label
Specifies the entry in the FCG.LIB file to be recorded in the printer NVM (nonvolatile memory).

SHOW
Displays the current device settings (derived from the values currently in IOT NVM).

Logon level The logon levels are 1 through 5.

Considerations

If no parameter is entered, the profile labels in FCG.LIB are displayed.

Each of the parameter values coded in the FCG.LIB file must be within the range 0 to 255, inclusive.

FCHECK

Displays or prints file fragmentation data on a disk. It also lists unusable sectors identified by the sector check process during a full system generation. When bad sectors and fragmented files accumulate, you should purge and then compress the disk.

FCHECK also displays the MBAIS data indicating the areas that you should not use. If these are unused areas of the disk, FCHECK displays "---" in the LBN column.

Syntax

FCHECK /*PR disk-id*

Parameter options

/PR
Prints the information.

disk-id
Specifies the individual disk drive (DP0:, DP1:, DP2:, or DP3:).

Logon level

The logon level is restricted to level 2.

Default

DP0: is the default.

FCU

Converts forms, logos, and images (.FRM, .LGO, and .IMG) that are not in a color format to color format for monochrome printers.

When FCU converts files, the ink catalog and palette default to XEROX.SIMPLE.

Syntax

FCU *file-id.file-type,'ink-name',NOSUBSTITUTION*

Parameter options

file-id
Specifies the file to be converted.

file-type
Specifies the file type of the file to be converted. Must be .FRM, .LGO, or .IMG.

'ink-name'
Specifies the defined ink to be used to print the form, logo, or image. Must be specified within single quotes. May consist of the ink catalog name, palette name, and ink name. The default ink catalog and palette are XEROX.SIMPLE.

NOSUBSTITUTION
Specifies that FSL, JSL, DJDE, and SAMPLE ink overrides are ignored. The file can be printed only with the specified defined ink as rendered in a monochrome printer.

Considerations

You cannot abort FCU. FCU terminates only when it finishes converting the specified files. If you need to keep image and logo files in the original no-color format for printing them on other Xerox LPS printers, back them up before converting them to color format.

FCU is unable to convert forms created under some older versions (pre-V10, specifically) of the LPS operating system software. If FCU returns an error message, you may need to recompile the form prior to converting it.

XEROX.SIMPLE is required for .IMG files and recommended for .LGO and .FRM files.

You can use the asterisk wildcard character (*) only in the *file-id and* only without other characters. For example, FCU KOALA*.IMG,'RED' is invalid, causing the system to display the message `FC6050 TASK ABORTED, FILE NOT FOUND`. The wildcard indicates that all files of the specified *file-type* are converted to color format using the specified *ink-name*. You cannot abort the wildcard option using the ABORT command.

XDDI—An FCU should be performed on all logo and image files when XDDI is installed. All FSLs and JSLs should be recompiled after the FCU is performed.

Converting all the form files, image files, or logo files can be time consuming if many files are converted.

FCU printing results

The form or logo does not print in the defined ink. It prints in monochrome using the color that is used in the highest percentage to create the defined ink.

The image or logo files in a job print in their own internally defined color (rather than in the form color), unless the forms source library (FSL), jobs source library (JSL), or dynamic job descriptor entry (DJDE) statement invoking the image or logo file includes an ink override, and the defined inks are specified in the .IMG or .LGO file without the NOSUBSTITUTION parameter.

The SAMPLE command with the INK parameter does not print an .FRM or .LGO file in the specified ink unless the file is already in color format. (The SAMPLE command with the INK parameter always prints an .IMG file in color, regardless of whether it is in color format.)

If the .FSL file codes ink overrides for the .LGO or .IMG files it calls, then the SAMPLE command also overrides the internally specified inks for the logos and images in the form, provided that the defined inks are specified without the NOSUBSTITUTION parameter.

Conversely, if the .FSL file does not code ink overrides for the .LGO or .IMG files it calls, then the SAMPLE command does not override the internally specified inks for the logos and images in the form.

Table 1-10 lists the hierarchy of ink overrides.

Table 1-10. **Ink override hierarchy for color format files**.

NOSUBSTITUTE command specified	**Result**
DJDE IDFAULT	Overrides all else
IDFAULT of PDL OUTPUT	Overridden by DJDE
DJDE ILIST (first ink)	Overridden by IDFAULTs
PDL IDR (first ink in ILIST)	Overridden by DJDE ILIST
.JSL files	Overridden by DJDEs
.FSL files, .IMG files	Overridden by DJDEs
.LGO files called by an .FSL file	Overridden by .FSL file
.IMG files called by an .FSL file	Overridden by .FSL file
NOSUBSTITUTE command specified	**Result**
No overrides of .LGO files	Prints as specified internally or aborts job
No overrides of .IMG files	Prints as specified internally or aborts job
No overrides of .FRM files	Prints as specified internally or aborts job

FEDIT

Invokes the font editor. For information about the available font editor commands, refer to the “Font editor commands” chapter.

Syntax **FEDIT**

Logon level The logon levels are 1 through 5.

FEED

Selects the input paper trays or makes the selection automatic. The command options specify how the four input paper trays will feed stock to the job. FEED controls the primary source of paper.

If you do not select parameters, this command has no effect unless the current mode is FEED MAIN or FEED AUX. If the current mode is set to one of these, it switches to the other mode (FEED MAIN becomes FEED AUX, and FEED AUX becomes FEED MAIN).

Syntax **FEED** *keyword*

Parameter options *keyword*

MAIN

Assigns control over the source of the paper to the input data. Ensures that all sheets designated with a stock name will be fed from the cluster associated with the page.

AUX
: Feeds all the following sheets from the AUX cluster. This command overrides any job-specified feed source.

AUTO
: The AUTO cluster is predefined to be all trays physically present in the printer. You can redefine AUTO as any tray on the printer.

tray-number
: Feeds all the following sheets from the specified tray, regardless of the stock specifications in the FEED= JDL/DJDE options. This command overrides any job-specified feed source.

cluster-name
: Feeds all the sheets from the specified cluster, regardless of the stock specifications in the FEED= JDL/DJDE options. This command overrides any job-specified feed source.

Override sequence

FEED commands override each other as shown below:

FEED MAIN
: Gives the application control and feeds from the MAIN cluster unless the application overrides this command. The FEED= option of the OUTPUT statement, the FEED= DJDE, covers, and RAUX pages feed from the clusters specified by the application. This is the normal operating mode.

FEED 1
: Overrides all application FEED instructions.

FEED 1
: All sheets feed from tray 1.

FEED AUX
: Overrides all application FEED instructions. All sheets feed from the trays in the AUX cluster. (If the AUX cluster definition is not modified, this command is equivalent to FEED 2.)

FEED 2
: Overrides all application FEED instructions. All sheets feed from tray 2.

FEED *n*
: Overrides all application FEED instructions. (This is the generic for FEED 1 and FEED 2.)

FEED *cl-name*
: Overrides all the application FEED instructions except the pages to be fed from the AUX cluster. These pages are fed from the AUX cluster specified by the application.

FEED AUTO
: Same as FEED *cl-name*. AUTO is a predefined cluster.

Considerations

The MAIN cluster is predefined as tray 1 and the AUX cluster is predefined as tray 2. Either or both of these clusters may be redefined.

FEED 1 and FEED MAIN are not the same, even if the MAIN cluster consists of only tray 1. FEED 2 and FEED AUX are synonymous if the AUX cluster consists of only tray 2.

Under certain circumstances, the automatic switching between two current FEED CLUSTER trays (for example, FEED MAIN, where MAIN=1,2) may not take place. Specifically, if one tray feeds empty and lowers at the same time as the other is being readied to feed, the printer may cycle down and display the following message:

> OS2050 ALL APPROPRIATE TRAYS ARE EMPTY. Load one of the trays to correct this condition.

If your system does not use English, you must rename the MAIN, AUX, and AUTO clusters.

The cluster options now available change the execution of the local language commands for FEED MAIN, FEED AUX, and FEED AUTO.

FEED AUX or FEED *cluster-name* affects paper feeding in jobs. Only the English command FEED MAIN is overridden by the job .JSL file or DJDE records.

You may set up clusters using the local language keywords for MAIN, AUX, and AUTO so that the system processes print jobs with the same results as produced by OSS version 2 and earlier versions.

FEX

Generates multiple data set test cases through a third party finishing device that is connected to the printer.

Syntax **FEX** *profile-label*

Parameter *profile-label*

Specifies the entry in the FEX.LIB file to be recorded in the printer NVM.

Logon level The logon levels are 1 through 5.

Each of the PARM values coded in the FEX.LIB file must be within the range 0 to 255, inclusive.

Never enter the RESET command while FEX is executing. Otherwise, the test case profile on the printer NVM is not replaced by the profile of your device.

FID

Generates a file consisting of a list of all disk files with the specified file type. You can use this file as a prototype command file because it contains one record for each file of the specified file type.

Syntax **FID** *disk-id file-id file-type*

Parameter options *disk-id*

Refers to the system disk (DP0:, DP1:, DP2:, or DP3:) on which the file resides.

file-id

Names the file to be created. If both the file name and file type are specified, the created file contains only the name of the specified file.

file-type

Specifies the file directory.

Each record of the command file consists of a semicolon, a file name, a file type, and an asterisk (for example, ;GBAR.FSL*). You can edit these records to produce a command file which manipulates a subset of a file type (for example, deleting a subset of the current fonts in the FNT directory).

Default The default extension is .CMD.

FILE

Displays the file names in the specified disk file directory. You can display specific *file-ids* within the catalog or the entire catalog.

Syntax **FILE** */EX disk-id file-id*,*file-id*,... *disk-id file-id*
or **FILE** */EX* **/SORT**,*filename*.*file-type disk-id file-id /filename*.*file-type*,*leading string*,*trailing string*

Parameter options

/EX
Displays all the file characteristics of a given *file-id*. The display format includes a title line identifying the information in each column. The leading and trailing strings do not display. If you do not enter the /EX option, only the *file-ids* display.

disk-id
Identifies which system disk (DP0:, DP1:, DP2:, or DP3:) contains the *file-id(s)* to be printed.

file-id
Specifies the file as *file-name.file-type*. If omitted, the default is all the files in the directory. (Masking can be used.)

/SORT
Alphabetically sorts a list of files by type to be printed or displayed. Up to 3600 file names can be sorted. When this limit is reached, the message `FILE/LIST TOO LONG, ONLY FIRST 3600 FILENAMES WILL BE SORTED.` is displayed. On large disk and tape volumes, sort files by their file type.

leading string
A character string (except commas) that is added before each file name in the list that is created.

trailing string
A character string (except commas) that is appended to each file name in the list that is created. No more than 50 leading and trailing characters can be appended.

/file-name.file-type
Specifies a disk file which contains a record for each file listed in the following order: Lead str *file-id* Trailstr.

file-name.file-type
Specifies a disk file which contains the alphabetically sorted list of tape files.

Logon level The logon levels are 1 through 5.

Default The default *file-type* is .TMP.

Example 1 Figure 1-2 shows a sample screen display when you enter the /EX parameter.

Figure 1-2. **/EX parameter sample display**

```
FILE NAME      UNIT   FSIZE   RSIZE   FFBY    EOF    DISK ADDR
    XRX.IMG       2       6     512    512      6       472522
    KI1.IMG       2       8     512      0      8       472530
    KI2.IMG       2      21     512      0     21       472540
```

The parameter options shown in figure 1-2 are listed and described in table 1-11.

Table 1-11. **/EX parameter options**

/EX parameter	Description
FILE NAME	One- to ten-character entry specifying the file name and type.
UNIT	System disk unit number (DP0:, DP1:, DP2:, DP3:) on which the file resides.
FSIZE	One- to ten-character decimal entry indicating the number of blocks allocated to the file.
RSIZE	One- to six-character decimal entry indicating the number of bytes in a record.
FFBY	One- to six-character decimal entry indicating the first free byte in the last block of the file.
EOF	One- to six-character decimal entry indicating the end of file block number.
DISK ADDR	One- to ten-character octal entry indicating the starting address of the file on the disk.

The total number of files displayed, as well as the total number of disk sectors used by these files, is accumulated and displayed by file type.

The following message displays as each parameter on the file command is processed:

```
TOTAL OF n SECTORS IN m FILES.
```

n
The sum of the FSIZE field for all the files of a *file-type* requested by a parameter on the FILE command.

m
A decimal number that represents the number of files for the given *file-type*.

The following message displays when all the parameters on the FILE command are satisfied:

```
GRAND TOTAL OF n SECTORS IN m FILES
```

n
The sum total of the FSIZE field for all the files requested by the parameter string of the FILE command.

m
Decimal number that represents the total number of files requested by the parameter string of the FILE command.

During the search of the system file directories, if file catalogs are found to contain no files, this information is saved until all the parameter options of the FILE command have been completed. The message `NO FILES IN TYPE file-type` displays.

Example 2 FILE DP0: *.SYS/SORT, SYSFIL.LST

This command creates a file called "SYSFIL.LST" which files on the DP0: disk. The file names in SYSFIL.LST are sorted in alphabetical order, and SYSFIL.LST is displayed on the screen. If the screen display of the sorted records is interrupted, then the created file "SYSFIL.LST" lists only the displayed file names.

Considerations You cannot display /EX file information for licensed fonts, logos, or secured files.

FIX

Modifies licensed and standard fonts and logos, and formats the font or logo matrix so it can be printed by your printer's IG version.

Syntax **FIX** [*file-type*|*file-id*[,*file-id*,...]]

Logon level The logon levels are 1 through 5.

Parameters *file-type*
Specifies the file directory. Must be .FNT or .LGO.

file-id
Specifies particular files as *filename.file-type*. Must include the file type, which must be .FNT or .LGO.

Restriction Do not fix two color logo files because they cannot be printed correctly if processed by FIX.

FLF

Performs floppy disk related functions at non-print time. You can perform these functions at either high density (1.2 MB) or low density (720 KB).

Printers without the SCSI disk subsystem support floppy disks formatted to LOW density only. When compatibility with non-SCSI disk controllers is important, the default LOW density format option must be used. The 4850 only supports the LOW density. The 4890 is the only current system with the new SCSI disk subsystem.

You can invoke the FLF task by entering FLF. The system then displays the FLF> prompt. Once you are in the FLF task, you can enter multiple commands at the FLF> prompt. When you have finished entering FLF commands in the FLF task, you must enter FLF END to return to the system prompt:

```
OS1000 READY FOR COMMANDS
```

If you are entering FLF commands from within the FLF task, do not precede the keyword with FLF. For example:

```
FLF>CLEAR
```

You can also enter a single FLF command at the system prompt. If you enter an FLF command at the system prompt, FLF must precede the command, for example:

FLF CLEAR

FLF CLEAR or ERASE

Erases all files on a floppy disk (except Y files). You can also change the floppy disk label.

Syntax **FLF** CLEAR|ERASE

FLF CREATE

Creates a bootable floppy. This command formats and initializes (if necessary) and copies the mini-loader and .SAF files to one floppy disk. If the floppy disk was previously unformatted or formatted at the incorrect density, the DENSITY and SECTORCHECK switches are applied using the same definition as in the FORMAT command.

If the floppy disk is formatted and contains data, a warning message displays.

Syntax **FLF CREATE** [[*DENSITY=LOW|HIGH*] [, *SECTORCHECK=YES|NO*]]

Parameters

DENSITY
Specifies the density of the diskette being formatted.

LOW
Double density, double-sided. Formats a 5.25-inch floppy disk to 720 KB. This is the default.

HIGH
High density. Formats a 5.25-inch, high density floppy disk to 1.2 MB.

SECTORCHECK
Select the option to check the floppy disk for integrity. Floppy disks formatted using this option may be more reliable, but the process requires more time. Yes is the default.

Logon level The logon levels are 3, 4, and 7.

FLF DUPLICATE or FLD

Duplicates a bootable or non-bootable floppy disk. This command automatically formats and initializes the target floppy disk to the same density as the source floppy disk (if required).

Syntax **FLF** *DUPLICATE|FLD*

FLF END

Terminates an FLF session.

Syntax **FLF END**

FLF FLB or SSF

Builds a System Software Floppy set from a System Software Tape.

Syntax **FLF** {**FLB**|**SSF**} [[*DENSITY=LOW*|*HIGH*][,*PRINT*|*NOPRINT*][,*UNLOAD*]]

Parameters

LOW
Specifies double density, double-sided. Formats a 5-1/4 inch floppy disk to 720 KB. This is the default.

HIGH
Specifies high density. Formats a 5.25-inch high density floppy disk to 1.2 MB.

PRINT
Spools a listing of each floppy disk to the printer. This is the default.

NO PRINT
Does not spool a listing of each floppy disk to the printer.

UNLOAD
Dismounts the SST when the task is complete.

Logon level The logon levels are 1 through 5.

FLF FORMAT

Formats and initializes a floppy disk for your LPS. You must format and initialize a floppy disk the first time you use it.

CAUTION: You must specify the correct density for your floppy disk; otherwise, you may cause unrecoverable bad block errors resulting in an unusable floppy disk.

Table 1-11 shows the correct floppy disk configuration.

Table 1-11. **Floppy disk configuration**

Components	Low density	High density
Sectors per track	9	15
Tracks per cylinder	2	2
Cylinders per floppy	78	78
Sectors per floppy (One sector = 512 bytes)	1,404	2,340

Syntax **FLF FORMAT** [[*DENSITY=LOW*|*HIGH*][,*SECTORCHECK=YES*|*NO*]]

Logon level The logon levels are 1 through 5.

Parameters

DENSITY
Specifies the density of the diskette being formatted.

LOW
Double density, double-sided. Formats a 5.25-inch floppy disk to 720 KB. This is the default.

HIGH
High density. Formats a 5.25-inch, high density floppy disk to 1.2 MB.

SECTORCHECK
Select the option to check the diskette for integrity. Floppy diskettes formatted using this option may be more reliable, but the process requires more time. YES is the default.

FLF HELP or FLF ?

Displays a summary of the console commands.

Syntax **FLF HELP**

Example The FLF HELP display is shown in figure 1-3.

Figure 1-3. **FLF HELP display**

```
FLF: Floppy Utility Help
Available Commands:
CREATE [DENSITY=LOW|HIGH][,SECTORCHECK=YES|NO]
   Create a bootable floppy
DUPLICATE or FLD
   Duplicate a floppy
END
   Exit to operating system
ERASE or CLEAR
   Clear all user files from a floppy
FLB or SSF [DENSITY=LOW|HIGH][,PRINT|NOPRINT][,UNLOAD]
   Build a System Software Floppy set from a System Software
    Tape
FORMAT [DENSITY=LOW|HIGH][,SECTORCHECK=YES|NO]
   Format and initialize a floppy
HELP or ?
   This screen
LABEL [“NEW LABEL”]
   Label or relabel a floppy
```

FLF LABEL

Changes the volume label on a floppy disk.

Syntax **FLF LABEL** [“*label name*”]

Parameter *label name*
Specifies the name of the floppy disk. The system truncates the name if there are more than 30 characters.

FLOPPY

Copies files to the floppy disk from any of the following directories on the system disks, unless noted otherwise: CMD, CME, FNT, FN6, FRM, FR6, FSL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PCH, PDE, TMP, TST, XCS, LOG, ICT, IDR, IPF, IPM, ISL, FIS, TPF, DAT, OSD, SAF, LIB, STK, SYS, and TSK. You can initiate FLOPPY commands at the system level or from the editor.

The floppy disk drives can format, read, and write to low density floppy disks (720 KB: double-sided, 80 tracks, 9 sectors per track) and high-density floppy disks (1.2 MB: double-sided, 80 tracks, 15 sectors per track).

The system default is set to low density but changes to high density when the system:

- Formats a floppy disk at high density.
- Reads a file from, or copies a file to, a loaded high density floppy disk.

FLOPPY CLEAR

Deletes all files (except .Y files) from the floppy disk.

Syntax **FLOPPY CLEAR**

Considerations FLOPPY CLEAR functions correctly only if the system has initialized the floppy disk.

FLOPPY DELETE

Erases a file on the floppy disk.

Syntax **FLOPPY DELETE** *file-id*

Parameter options *file-id*
Specifies the file to be erased. Masking is permitted.

Logon level The logon levels are 1 through 5.

FLOPPY FCHECK

Determines how many breaks the floppy disk files have and how many unusable sectors the floppy disk has. You can also check the following:

- Number of sectors available for each group of contiguous, available sectors.
- Total number of available sectors that occur in groups of three or fewer sectors.
- Total number of available sectors that occur in groups of five or fewer sectors (includes the count of groups of three sectors or fewer).
- Number of available sectors on the floppy disk. This is the total amount of floppy disk space that is available for files.
- Largest available space on the floppy disk. This is the size of the largest file that can currently be copied to the floppy.
- List of the sectors that were logged as bad by the sector check process during initialization of the floppy disk.

Syntax **FLOPPY FCHECK**

Logon level The logon level is restricted to logon level 3.

FLOPPY FILE

Displays a list of the files on the floppy disk, and checks how many files are on the floppy disk and how many files of each file type are on the floppy disk.

Syntax **FLOPPY FILE** *file-type*

Parameter options *file-type*
Checks whether any of the specified files are on the floppy disk.

Considerations The names of all the files in each directory are listed if no parameter is given. (Masking can be used.)

FLOPPY FORMAT

Formats and initializes a floppy disk for your LPS. The floppy disk has 1404 available sectors for low density (2340 for high density) 18 sectors/track low density (30 sectors/track high density) when formatted. The sector configuration is 78 cylinders, 2 tracks per cylinder, 18 sectors per cylinder, and 512 bytes per sector. The format mode is double-sided, dual-density.

Syntax **FLOPPY FORMAT**

Considerations You must format and initialize a floppy disk the first time it is used.

FLOPPY LIST

Prints a list of the files in each directory. It also provides file-related information. If you do not enter a parameter, this command lists all the files in each directory. You can use masking for this application.

Syntax **FLOPPY LIST** *file-id*

Parameter options *file-id*
Specifies the file as *file-name.file-type*.

Considerations The total number of files listed as well as the total number of disk sectors used by these files are accumulated and listed by file type.

As each parameter on the file command is processed, the following message appears:

```
TOTAL of n SECTORS IN m FILES
```

n Represents the sum of the FSIZE field for all the files of a file type requested by a parameter on the FILE command.

m Represents a decimal number that represents the number of files for the given file type.

The `GRAND TOTAL n SECTORS IN m FILES` message appears when all of the parameter options of the FILE command are satisfied.

n Represents the sum total of the FSIZE field for all the files requested by the parameter string of the FILE command.

m Represents a decimal number that represents the total number of files requested by the parameter string of the FILE command.

During the search of the system file directories, if file catalogs are found to contain no files, this information is saved until all of the parameter options of the FILE command have been completed. The `NO FILES IN TYPE file-types` message is printed on the output page.

FLOPPY RESTORE

Copies files from the floppy disk to the system disk.

Syntax **FLOPPY RESTORE** *REVIEW disk-id* file

Parameter options

REVIEW
Prompts you to confirm or stop restoration of a tape file which will overwrite a disk file.

disk-id
Identifies to which system disk (DP0:, DP1:, DP2:, or DP3:) the file is copied.

file
file-id, *input-file-id*, *output-file-id*
Copies the specified file. File name and extension can be specified. (Masking can be used when the output file name will be the same as the input file name.)

file-type
Copies all files with the specified file extension.

ALL
Copies to the system disk all files with the following file extensions: CMD, CME, FNT, FN6, FRM, FR6, FSL, ICT, IDR, ISL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PCH, PDE, TMP, TST, XCS, SYS, TSK, LOG, IPM, FIS, IPF, TPF, DAT, OSD, SAF, LIB, STK, and 1M6.

FLOPPY SAVE

Copies one or more files from system disk to the floppy disk.

Syntax **FLOPPY SAVE** *REVIEW disk-id* file

Parameter options

REVIEW
Prompts you to confirm overwriting a floppy file by a system file. Disk is overwritten. If you enter N, the specified process skips to the next file on the system disk.

disk-id
Identifies which system disk (DP0:, DP1:, DP2:, or DP3:) contains the files to save. If you do not specify a disk id, all disks are searched.

file
file-id or *input-file-id* or *output-file-id*
Specifies the file as *file-name.file-type*. You can use masking if different file ids are not specified for input and output.

filetype
Specifies one of the following: CMD, CME, FNT, FN6, FRM, FR6, FSL, ICT, IDR, ISL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PDE, TMP, XCS, SYS, TSK, LOG, IPM, FIS, IPF, TPF, DAT, OSD, SAF, LIB, STK, PCH, or TST.

ALL
Saves all files on the floppy disk: CMD, CME, FNT, FN6, FRM, FR6, FSL, ICT, IDR, ISL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PDE, TMP, TST, LIB, STK, and 1M6.

Logon level The logon levels are 1 through 5.

Considerations Backing up files may exceed the storage capacity of a single floppy disk.

FONTS

Optimizes the reallocation of task memory by specifying the maximum number of fonts that the system attempts to keep resident in memory during a print job. This value can have a significant impact on system performance for some jobs. The FONTS value remains in effect until you reissue the command or regenerate a new operating system.

Syntax **FONTS** *n*

Parameter options *n*
Number between 1 and 128, inclusive, which sets the maximum number of active fonts per print job. Must include all fonts, logos, and inks used on the forms and variable data.

Default The default is 32.

Recommendation Specify more fonts than will be used on a single page to allow font changes on a page-to-page basis without throughput degradation if all the fonts can be loaded into memory.

Considerations A print job may actually use more than the specified number of fonts as long as no more than this number of fonts is called for on a single page.

If the current FONTS value is exceeded while processing a page, the system aborts that job and displays the following message:

```
OS2885 MAX NUMBER OF FONTS EXCEEDED.  ENTER NEW VALUE.
RESTART JOB.
```

The value currently in effect displays if no parameter is given.

FORMS

Optimizes the allocation of task memory by specifying the maximum number of forms that the system attempts to keep resident in memory during a print job. This value can have a significant impact on system performance for some jobs. The FORMS value remains in effect until you reissue the command or a new operating system is generated.

Syntax **FORMS** *n*

Parameter options *n*
Sets the maximum number of active forms per print job. Must be a number between 1 and 64, inclusive.

Default The default is 12.

Recommendations Specify more forms than will be used on a single page to allow form changes on a page-to-page basis without throughput degradation if all the forms can be loaded into memory.

If a form uses many inks, decrease the number of specified FORMS to increase the memory available for processing.

Considerations The value currently in effect displays if no parameter is given.

GRAPHIC

Optimizes the allocation of task memory by specifying the maximum number of graphics that the system attempts to keep resident in memory during a print job. This value can have a significant impact on system performance for some jobs. The GRAPHIC value remains in effect until you reissue the command or a new operating system is generated.

Syntax **GRAPHIC** *n*

Parameter options *n*

Specifies the maximum number of active graphics per print job. Must be an integer between 32 and 128.

Considerations No single page printed can invoke more than 32 graphics. You must include all graphics used on a form for this page if a form is used.

A print job can use more than the specified number of graphics as long as no more than 32 are called for on a single page.

The value currently in effect displays if no parameter is given.

HARDCOPY

This command is used to sample graphic image files.

This command differs from SAMPLE only in the content and format of the descriptor page. The hardcopy descriptor page reports all the information in a graphic file header block. The information on a sample descriptor page is a subset of the information on a hardcopy descriptor page. Descriptor pages are numbered evenly, and any errors entered on the Interpress exception page are referenced to the page number on the descriptor page.

Syntax **HARDCOPY** *file-name*.IMG,*D*,*copies*,*vpos*[*in*/*cm*/*dots*],*n*[*/d*],*hpos*[*in*/*cm*/*dots*],*orientation*

Parameter options *file-name*

Identifies the graphic to hard copy. If you omit the *file-name*, all image files are hard copy.

If you specify any other file type, the command is executed as if it were a SAMPLE command with a corresponding descriptor page, and the graphic is positioned by using default rather than specified positioning parameters.

D

Prints the graphic statistical information (the descriptive data page) on the back of the sheet and the graphic image on the front. The default is simplex.

copies

Specifies the number of copies. The default is one copy.

vpos

Specifies the vertical position of the top edge of the graphic, relative to the physical page origin in *dots*, centimeters (*cm*), or inches (*in*), specified as a decimal number with up to three digits to the right of the decimal point. If you do not specify units, inches are assumed. The default is two-thirds up the page and centered in the given orientation.

hpos

Specifies the horizontal position of the left edge of the graphic relative to the physical page origin. The form of this specification (*cm*, *in*, *dots*) is the same as for *vpos*. The default is two-thirds up the page and centered in the given orientation.

orientation

L or P

Specifies a reference orientation (landscape or portrait) for positioning the graphic. The default orientation may be specified in the image file image header.

n[/*d*]

Specifies the reference scale factor. Each parameter, *n* and *d*, must be an integer between 1 and 8 inclusive, resulting in a reference scale factor between 1/8 and 8 inclusive. The reference allowing a reference scale factor is multiplied with that specified at the time the graphic was digitized, and the product is rounded to the nearest integer in the range 1 to 8. That integer becomes the effective scale factor with which the graphic is imaged. If the reference scale factor specified in the HARDCOPY command is too large (so that the graphic exceeds the page size), the specified reference scale factor is flagged with an asterisk on the descriptor page and a reference scale factor of 1 is used. Not supported for RES files.

Default If you do not specify an orientation, the default is P (portrait).

Hardcopy print is not allowed if the image is protected by a security command in the ABNORMAL statement (such as ABNORMAL SECURITY=YES).

Do not use HARDCOPY *.IMG.

HIP

Starts the HIP task with the default specified host as defined in HIP.LIB. This is the abbreviated way of entering HIP ONLINE and HIP START.

When entering HIP commands, multiple parameter options in a command string must be separated by semicolons. This does not apply to the keywords in a command. For example, in the HIP OFFLINE command, both words are keywords, so they are separated by a space.

HIP ABORT

Removes all jobs or the specified jobs from the host interface processor (HIP) internal queue.

Syntax **HIP ABORT** *SEND keyword*

Parameter options

SEND
Aborts a HIP-to-host file transmission.

keyword
ALL
Aborts all host-to-HIP file transmissions.

jid
Specifies the name of the file to abort.

Considerations

You cannot abort queued and active jobs. You can only abort jobs being received or pending.

If listed jid is not eligible, it will be listed in an error message.

HIP CHANGE

Stores an HIP-spooled data file as a standard printer file on disk to print later. A successful CHANGE will show a status of STORED in the HIP JOBS display, and the LPS will not print the job using HIP.

Syntax **HIP CHANGE** *jid* **TO** *file-name.file-type*

Parameter options

jid
Specifies the name of the file to store on the disk.

file-name
Renames the file you are storing on the disk.

file-type
Specifies one of the following: CMD, CME, FNT, FN6, FRM, FR6, FSL, ICT, IDR, ISL, IMG, IM6, JDL, JSL, LGO, LG6, MSC, PDE, TMP, XCS, SYS, TSK, LOG, IPM, FIS, IPF, TPF, DAT, OSD, SAF, LIB, STK, PCH, or TST.

Considerations

You can process only one HIP CHANGE command at a time.

The *file-type* XCS must be coded in the ACCEPT command in the HIP.LIB file to be a valid *file-type*. Only *file-types* listed in the ACCEPT command defined in HIP.LIB can be made standard disk files.

If you use a *file-name*, you must specify the complete syntax, with or without the *file-type*.

The input HIP data file must be received completely and in the PENDING state, with HIP in the STOP state.

The output file name must be unique on the disk.

Before issuing HIP CHANGE, you must issue HIP STOP.

Only a file in PENDING state may be stored for printing later.

HIP DIAG

Runs three HIP interface tests with the 871 communication module (871-CM). These tests run automatically in sequence.

The first test verifies the functionality of the ONLINE, ATTENTION, and HOSTCLR control lines. Any problem is reported by a system message. If a problem exists, tests 2 and 3 are not executed.

The second test checks control and data lines to verify that the 871-CM can send commands to the system and receive status data from the system. If a control line problem exists, this test is not executed. If a data line problem exists, the third test is executed.

The third test verifies whether the eight parallel data lines are functioning. Any reported problem provides a message and terminates testing. If no problems are found, testing repeats the specified number of times or is terminated by an HIP command.

Syntax **HIP DIAG** *value*

Parameter options

value

n
Specifies how many iterations the test executes.

LOOP
Specifies an infinite number of test iterations.

Default The default is 1.

Considerations HIP must be offline. Print processing must be stopped.

The 871-CM must be in diagnostic mode when you enter the HIP DIAG command.

HIP END or HIP EXIT

Terminates HIP processing properly. You can use HIP EXIT and HIP END interchangeably. It executes a HIP STOP followed by OFFLINE. When the current files being received or transmitted and printed (if any) are completed, the internal job queue is saved on the system disk for later restart.

Syntax **HIP END**
or **HIP EXIT**

HIP HOST

Selects an HIP communication mode when your LPS configuration has more than one host. On systems with only one host, HIP automatically selects the host each time HIP is loaded if the HOST default in HIP.LIB is the configured host.

Syntax **HIP HOST** *mode*

Parameter options

mode

871
Enables communication between a host and the LPS in an SNA/SDLC or BSC environment.

XNS
Enables communication between devices (such as workstations and graphic stations) on a shared or unshared, but accessible, network and the LPS. Ethernet is the physical connection for the network. Interpress is the page description language used to package files for transmission over the network to the LPS.

DMR
: Receives input directly from a VAX/VMS system. This permits data transmission to the LPS in a digital data communication message protocol (DDCMP) environment. All UNIBUS-, VAX-B1-, or Q-BUS-based digital processors are supported.

XPF
: Enables communication between a host and the LPS in an IBM MVS/XA environment.

Considerations

HIP must be offline and idle to switch from one host to another.

You can run online jobs from an IBM 3211 channel when the 871-CM or XNS host has been selected, but not if the XPAF host has been selected.

If the host you specify does not exist on the system, this command is ignored.

If the system is not offline or idle, the command is rejected and one or more of the following messages displays:

```
HP1265 ONLINE INTERFACE ALREADY IN USE.

HP2020 SELECTED HOST NOT PRESENT ON SYSTEM.

HP2400 HIP INTERFACE MUST BE OFFLINE.  ENTER 'HIP
OFFLINE'.

HP7100 CANNOT CHANGE HOSTS WHILE JOBS ARE PENDING OR
ACTIVE.
```

HIP JOBS

This command is identical to the HIP SHOW JOBS command. You can use HIP JOBS and HIP SHOW JOBS interchangeably to check the status of jobs in the queue.

HIP LOG

HIP LOG checks the XNS log filing.

Syntax **HIP LOG** *function*

Parameter options *function*

RESET
: Resets the log file to zero. The following message displays:

```
HP0130 LOG FILE RESET
```

START
: Initiates the logging of remote procedure calls. The following message displays:

```
HP0030 LOGGING ENABLED
```

STOP
: Prevents logging of remote procedure calls. The following message displays:

```
HP0031 LOGGING DISABLED
```

Consideration If you do not specify a parameter, one of the following messages is displayed:

```
HP0030 LOGGING ENABLED
HP0031 LOGGING DISABLED
```

HIP OFFLINE

Enables the system to go offline from a host and stop accepting jobs. The system completes the transmission of any jobs that are in the process of being sent before executing this command.

Syntax **HIP OFFLINE** *IMMEDIATE*

Parameter options

IMMEDIATE
: Enables the system to go offline without waiting for the end of transmission from the host. This option should be used only when the host has crashed during the transmission of a job and no other means can be used to reestablish or terminate communications.

Consideration This option is valid only when online to an XPAF or XPSM host.

HIP ONLINE

Use this command to start the HIP task with the default specified host as defined in HIP.LIB. During HIP processing, the ONLINE command is not available. Enter HIP alone to invoke both the HIP ONLINE and the HIP START commands.

Syntax **HIP ONLINE** [*ALL*]

ALL
: Specifies that both print and nonprint files are accepted.

Logon level The logon levels are 1 through 5.

HIP RESET

Clears the HIP queue.

Syntax **HIP RESET**

Considerations The system does not execute the command unless the HIP queue has no jobs in the PENDING, QUEUED, ACTIVE, OQUEUED, or PRINTING states. If you enter the command with jobs in the queue in any of these states, the system displays a message indicating that the queue cannot be cleared.

In the normal mode, the system accepts this command only when HIP is offline.

HIP SEND

Sends files to the host through the host interface.

Syntax **HIP SEND** *filename.type*

Parameter options

filename.type
: Specifies the name and extension of the file to send. You may use the masking specification (* or ?) to send multiple files of a specific type.

Considerations

The ability to send files to the host depends on the host:

- 871-CM does not support this capability.
- You may initiate file transfers to a DMR host either at the host or at the LPS. Both the host and the LPS must be online and in an idle state (no files being transferred).
- You must initiate file transfers to an XNS, XPAF, or XPSM host from the host.

HIP SHOW BUFFER

Displays a message on the system controller display showing the current status of the HIP spooling buffer.

Syntax **HIP SHOW BUFFER**

HIP SHOW ECHO SERVERS

Use this command to display a list of the echo servers that are available to run an XNS echo test. The listing shows the user-defined name and the Ethernet address of each echo server. This information is defined in the HIP.LIB configuration file.

Syntax **HIP SHOW ECHOSERVERS**

Logon level The logon levels are 1 through 5.

HIP SHOW HOSTS

Displays a message on the system controller display that lists the available hosts. The message also indicates the currently selected host using an arrow, as shown in the following example:

```
HP 1340 Known and current HOSTs are:
871   DMR   XNS   XPF   XPS   NONE <--
```

The system displays NONE only if there are multiple hosts available and no host has been selected, or if a system error has occurred, causing the system to deselect all hosts.

Syntax **HIP SHOW HOSTS**

HIP SHOW JOBS or HIP JOBS

Displays the current state of the HIP task and a selected list of jobs in the internal queues. You can use HIP JOBS and HIP SHOW JOBS interchangeably. The operator control console has about 20 lines available for displaying job status information on the screen. There are three formats for display information: page format, complete format, and summary format, as described in table 1-12.

Table 1-12. **Display information**

Format	Description
Page display	The page display format displays up to 6 pages. Each page contains up to 20 jobs ordered from the oldest completed job to the newest job received. PAGE 1 contains jobs 1 through 20; PAGE 2 contains jobs 21 through 40, and so forth. If there are fewer than 20 jobs in the HIP queue, the entire queue displays. If there are fewer than 20 jobs in the page requested, jobs display from the previous page for a full screen of 20 jobs. If there are fewer than 19 jobs after the completed job, additional completed jobs appear in the display.
Complete display	The complete display format displays up to 20 lines of jobs status information and a message to indicate the end of the display. If there are fewer than 20 jobs in the selected state, all of them display. If there are more than 20 jobs in the selected state, use the HIP SHOW JOBS CONTINUE command to continue the display.
Summary display	The summary display format displays up to 20 lines of job status information and a message to indicate the end of the display. If there are fewer than 20 jobs to display, a normal job queue display is given. If there are more than 20 jobs in the queues, the number of additional jobs is specified.

Syntax

HIP SHOW JOBS *type*
or **HIP JOBS** *type*

Parameter options

type

ABORTED
: Specifies all jobs aborted with the HIP ABORT command.

ACTIVE
: Specifies jobs in the active state: QUEUED, ACTIVE, OQUEUED, and PRINTING.

ALL
: Specifies all jobs in the queues.

CANCELED
: Specifies all jobs canceled by a host restart.

COMPLETED
: Specifies jobs in the completed state: PRINTED, STORED, SENT, ABORTED, and REJECTED.

CONTINUE
: Continues a previously requested display if all jobs in the queue were not displayed.

PAGE *n*
Specifies a full screen of job information. *n* is a number from 1 to 6 specifying the number of pages. If you do not specify *n* or if *n*=0, the default is the 20 jobs starting with the last COMPLETED job.

PENDING
Specifies all jobs waiting to be sent from the host (PENDING and RECEIVING).

PRINTED
Specifies all jobs in the printed state (PRINTED and TRUNCATED).

SUMMARY
Specifies the summary display format.

Default SUMMARY is the default.

Example1 Figure 1-3 shows a sample of the complete display format.

Figure 1-3. **HIP SHOW JOBS complete display**

```
HOST:hst:linemode    HIP:runmode    FILEMODE:filemode
JID# HOSTNAME        RECEIVED       STATUS    JOB#  TIME
nnnn hostname        hh:mm:ss       status    0000  hh:mm:ss

HP1110 END OF JOB DISPLAY
```

Example 2 Figure 1-4 shows a sample of the summary display format.

Figure 1-4. **Summary display**

```
HOST:hst:linemode        HIP:runmode      FILEMODE:       filemode

JID# HOST NAME           RECEIVED         STATUS          JOB#       TIME
nnnn<host name>          hh:mm:ss         COMPLETED       0000       hh:mm:ss
.     .                  .                COMPLETED       .          .
.     .                  .                COMPLETED       .          .
.     .                  .                COMPLETED       .          .
.     .                  .                STORED          .          .
...                      and n more COMPLETED jobs.       .          .
.     .                  .                PRINTING        .          .
.     .                  .                QUEUED          .          .
.     .                  .                QUEUED          .          .
.     .                  .                QUEUED          .          .
.     .                  .                QUEUED          .          .

.     .                  .                QUEUED          .          .

...                      and n more OQUEUED jobs.         .          .
.     .                  .                ACTIVE          .          .

.     .                  .                PENDING         .          .
.     .                  .                PENDING         .          .
.     .                  .                PENDING         .          .
.     .                  .                PENDING         .          .
.     .                  .                PENDING         .          .
...                      and n more PENDING jobs.         .          .
.     .                  .                RECEIVE         .          .
HP1110 END OF JOB DISPLAY
```

The parameter options shown in figure 1-4 are listed and described in table 1-13.

Table 1-13. **Summary display format parameter options**

Parameter	Description
hst	Specifies one of the possible hosts (871, XNS, DEC, or XPF).
linemode	Specifies the status of the host interface (OFFLINE, ONLINE, PEND, READY, RECEIVING, SENDING, or SUSPENDED).
runmode	Specifies the run mode of the job (STARTED, STOPPED, or DUMP).
filemode	Specifies the acceptable file types (ALL JOBS or PRINT JOBS).
nnnn	Specifies the internal job identification number (JID) for HIP.
hostname	Indicates the host name on the file label. An asterisk (*) following this name indicates that the job is an 871 job received from the punch port. Refer to the *Xerox 871 Communication Module System Guide* for a description of the punch port.
0000	Specifies the job number (JN) assigned by OCS when the job is submitted for printing. It is 0000 for non-print and pending jobs.
hh:mm:ss	Specifies the time a job was received and when its status was last changed.

A maximum of five lines list jobs in the COMPLETED state, eight lines list jobs in the ACTIVE state, and seven lines list the jobs in PENDING state.

Considerations

Depending on the state of the HIP XNS services and job queue, HIP may defer the processing of OFFLINE and END commands.

If HIP is communicating with a networked workstation when HIP OFFLINE is entered, processing is deferred until the workstation session terminates, either through initiation by the workstation or through timeout. If deferred, HIP displays the message `HP1200 OFFLINE PENDING END OF CURRENT ACTIVE XNS SESSION`. When the session concludes and the Ethernet is brought offline, HIP displays the message `HP1230 HOST OFFLINE`.

The HIP END command effects an automatic STOP and OFFLINE prior to the task exit. STOP is honored immediately; OFFLINE may be deferred, as described above. Ending of HIP is deferred until the OFFLINE command is processed and, if any jobs are active on the HIP print queue, the END command is further deferred until all active jobs are completed.

HIP honors an END command with jobs on the receive queue in a pending state. When HIP is reloaded, those pending jobs remain in the HIP job queue.

HIP SHOW LOG

Displays the current state of the HIP task and a list of all the log entries. If you do not specify a parameter, the contents of the entire log file displays.

Syntax **HIP SHOW LOG** *type*

Parameter *type*

CONTINUE
Continues a previously requested display if all log entries in the log file were not displayed.

DELETED
Displays all files that have been deleted.

LGF
Displays logged off users of XNS service.

LGN
Displays logged on users of XNS service.

LIST
Displays all folders/files that have been listed.

PAGE *n*
Displays page *n* of the log display. If *n*=0 or is not entered, page 1 is displayed. A page consists of up to 16 log entries.

PRINTED
Displays all jobs in the printed state.

PRN
Prints the contents of the log file.

RETRIEVED
Displays all files that have been retrieved.

STORED
Displays all files that have been stored.

HIP SHOW LOG information is shown in figure 1-5.

Figure 1-5. **HIP SHOW LOG display information**

```
host logging    log status  XNSLOG      optype
USER ID         FILE        BEGIN       END     OPERATION
hst id          filename    date/time   time    opertn
```

The parameter options shown in figure 1-5 are listed and described in table 1-14.

Table 1-14. **Hip show log display parameter options**

Parameter	Description
host	Identifies the current host interface: 871, DMR, XNS, or XPAF.
linemode	Specifies the status of the host interface: OFFLINE, ONLINE, PEND, READY, RECEIVING, SENDING, or SUSPENDED.
optypes	Specifies the operations configured for logging, including: • CLOSE—Closes the file. • CONT—Prevents the file service connection from terminating due to inactivity. • DELE—Deletes the specified file. • LIST—Listed files in the specified directory. • LOGF—Logs off from the filing service. • LOGN—Logs on to the filing service. • OPEN—Opens the file. • PRIN—Prints a job. • RETR—Retrieves the file. • STOR—Stores the file.
hst	Specifies the host interface.
id	Specifies the user name in 1 to 15 characters. A user ID over 15 characters is truncated.
filename	Specifies the file name as *file-name*[.*file-type*].
date/time	Specifies the date and time the operation call is received. The date format is MM/DD/YY. The time format is HH:MM:SS.
time	Specifies the time the operation was completed. The time format is HH:MM:SS.
opertn	Specifies the operation performed on the file: ALL, CLOSE, CONTINUE, DELETE, LIST, LOGOFF, LOGON, OPEN, PRINT, RETRIEVE, or STORE.

HIP SHOW VERSION

Checks the HIP processing version.

Syntax **HIP SHOW VERSION**

HIP SJC

Abbreviates the HIP SHOW JOBS CONTINUE command which continues the HIP job status display.

Syntax **HIP SJC**

HIP SLC

Abbreviates the HIP SHOW LOG CONTINUE command which continues the XNS log display.

Syntax **HIP SLC**

HIP START or HIP ONLINE

Starts or restarts processing of jobs in the HIP queue. The XPAF host may submit jobs in a pass through mode, where the job passes directly to the LPS processing. Although HIP is not involved in receiving the job, you must start HIP in order for pass through jobs to be processed. If a message appears indicating that a pass through job is pending, enter the HIP START command. While the pass through job is processing, HIP is in a suspended state. After the pass through job has finished, HIP returns to the start state.

Syntax **HIP START** *DUMP job-id,...*

Parameter options

DUMP
: If you specify this parameter, the system processes the next job in the queue (or the job specified in the command string if you have specified one) using the START command parameters defined in the DUMPJOB= field of the HIP.LIB file. Only one job is submitted (either the first job in the queue or the first job id specified in the command string). After the specified job is processed, HIP issues a STOP command.

job-id
: Use this parameter to start only specified jobs within the HIP queue. After HIP has submitted the last job in the job-id list, HIP issues a STOP command.

Logon level The logon levels are 1 through 5.

Considerations When you enter the HIP START command with no parameters, HIP submits all jobs in the queue in the order received (or the order set in any previous HIP START commands).

HIP STOP

Stops submitting HIP jobs to print processing. Jobs already being prepared for printing or being printed complete processing.

If the operator enters the OSS RESET command, the system automatically executes HIP STOP and also aborts all HIP jobs (jobs being transmitted and all QUEUED, ACTIVE, OQUEUED, and PRINTING jobs).

Syntax **HIP STOP**

Considerations If the LPS is online, HIP continues to receive jobs until the storage space for the LPS HIP queue is filled.

HOSTCOPY

Accepts files transmitted from the host computer and stores them on the LPS disk on online systems. Files in two different formats may be transmitted: user-created card-image files, and LPS-labeled files (such as font, logo, and patch tapes). Files loaded onto the system using the HOSTCOPY command must be retrieved by the editor MERGE command prior to editing to insert valid sequence numbers.

Certain destination file types are not accepted for either LPS-labeled or card-image files. These are file types OSD, SAF, SYS, Y, and TSK. In addition, card-image format files are restricted to destination file types CMD, FSL, JSL, MSC, PCH, TMP, and TPF.

Syntax **HOSTCOPY**

Card-image format files. Files may be transmitted to the LPS in 80-character EBCDIC records. A group of records stored as a data file is called a *packet*. Each packet must be preceded by a control record which specifies the name of the file. This control record has the following format, starting in column 1:

$$$START *file-name.file-type*

where *file-name* is a 2 to 6 character name and *file-type* is one of the valid file type designations listed previously. Either a period or a comma is acceptable as the separator between the file name and the file type.

One or more EBCDIC packets may be transmitted at one time. Each packet should be preceded by the $$$START record. After the last packet, the transmission must be ended by another control record. The format for this record, starting in column 1 is:

$$$END

Each packet transmitted may not exceed 3072 records. Exceeding this limit truncates the file to 3072 records.

If any of the above errors are encountered, the file is not created on the disk, and you are given the opportunity to continue or abort HOSTCOPY. Any file names greater than six characters are truncated to six characters. If a $$$START record is immediately followed by a $$$END record, the following message is displayed:

```
FILE SIZE EQUALS ZERO
```

The file is not created on the disk, and you are given the opportunity to continue or abort HOSTCOPY.

If any problem is found with the $$$START record, one of the messages shown in figure 1-6 is displayed with the $$$START record displayed on the next line.

Figure 1-6. **Invalid file type messages**

```
INVALID FILE TYPE
INVALID CHARACTER IN FILE NAME OR FILE TYPE
MISSING "." OR "," IN $$$START RECORD
```

Font and logo tape file format. Font and logo tapes are LPS-labeled tapes issued by Xerox. They have been structured for use with online and offline systems. The last physical file on these tapes is a concatenation of all previous files on the tape. This last file is in a format that can be transmitted across the host I/O channel to the printing system. A host utility must be used to advance the tape to the beginning of the last file. Font and logo files have 128-byte blocks, followed by blocks of multiples of 512 bytes, from 512 bytes to 8192 bytes. The files must be deblocked to 128-byte records before transmission to the LPS.

Some operating systems may require that an FCB and UCSB be transmitted with the job. These are accepted, but they are ignored by HOSTCOPY.

The program (for example, IEBGENER) that transmits files to the LPS must not add page numbers or reformat the data. In particular, no additional records may be added between the files.

Logon level The logon level is 1.

Example Figure 1-7 is a sample JCL using the IEBGENER host utility to send a concatenated file to the LPS. In the example, 01E is the device address of the printing system. For illustration purposes, the tape to be transmitted contains 246 individual system files. Appended to these 246 files are a dummy ENDFIL file and a concatenated file containing the preceding 247 files. Thus, the first parameter after the LABEL= is the file number of the file to be transmitted (in this case, file number 248).

Figure 1-7. **Sample JCL**

```
//LOADXERX      EXEC   PGM=IEBGENER,REGION=80K
//SYSPRINT      DD     SYSOUT=A
//SYSIN         DD     DUMMY
//SYSUT2        DD     UNIT=01E,DCB=(RECFM=FB,LRECL=128,BLKSIZE=128)
//SYSUT1        DD     UNIT=TAPE,DCB=(RECFM=FB,LRECL=128,BLKSIZE=8192),DSN=XEROX,
//                     DISP=OLD,LABEL=(248,NL,EXPDT=98000),VOL=SER=XEROXO
```

If EBCDIC files are transmitted, the final `CREATING FILE xxxxxx.yyy` message is displayed after response to the message `END OF TAPE FOUND. IS ANOTHER TAPE TO BE SENT? Y or N.`

IFU

Invokes the IFU. This allows you to create fonts from a Font Interchange Standard (FIS) Interpress master suitable for print jobs in an Interpress or data center environment.

You communicate with the IFU using the keyboard or display. You can key in one or more IFU commands in the command line and then enter IFU to execute them all; or you can invoke IFU first, then enter each IFU command.

The FIS defines a digital representation for the interchange of fonts and character metrics between you and the LPS. FIS uses Interpress to describe fonts independently of any particular printing or imaging system.

The LPS supports fonts encoded in FIS on a Xerox-labeled 1600 or 6250 bpi magnetic tape or other delivery media. An FIS master is an Interpress master defined and encoded according to the Font Interchange Standard provided on tape. FIS allows you to generate an entire series of Interpress fonts suitable for reference in an Interpress master, or to generate standard data center fonts.

You can invoke IFU when the LPS is idle and is a co-process with the Interpress decomposer (IPD) for processing FIS Interpress font masters. You have the ability to generate and manage fonts which correspond to the Interpress font names with various point sizes and orientations containing selected characters from an FIS Interpress font master. IFU provides the following functional features:

- Reads FIS font master from an FIS delivery medium (magnetic tape, etc.) for the creation of LPS font files, or, at your discretion, Xerox LPS font files for the data center environment.
- Performs traditional file management functions on Interpress font files resident on the system, including addition, duplication (from disk to or from tape and disk to or from floppy), deletion, and listing by Interpress font name.s
- Changes the substitution priority for a particular Interpress font.
- Compiles old IPFNTS.JSL source mapping files to new LPS Interpress linked structures.
- Compresses LPS Interpress mapping to enhance font management performance and delete unreferenced Interpress font files.
- Prints a sample statistics page of a generated font.
- Compiles font profile by section.
- Produces rendered or composite character bitmaps from an FIS font master in support of data center applications, which require accented characters and improved performance for Interpress fonts.

You can invoke IFU in single command mode only. IFU accepts any single command, executes it, and returns to the system prompt: `OS1000 READY FOR COMMANDS.` Then you can enter another single command.

You can specify an Interpress font by its font family or its font name characteristics:

- An Interpress font family name is a three-part name composed of a naming authority, character code, and typeface name.
- An Interpress font name is a six-part name composed of a naming authority, character code, typeface name, point size, orientation, and resolution.

If you specify only the Interpress font family name, all the font families (such as orientations, point sizes, and resolutions) are processed as if they were wild carded. You can insert a wild card (*) in place of any family name component, except in DEFAULT and SUBSTITUTION commands which require a single Interpress font family name.

Variable information in the IFU command information below is shown in italics, for example, *name*. The correct syntax for entering an Interpress font is:

'*XEROX','XC82-0-0','HELVETICA'* or
'*XEROX XC82-0-0 HELVETICA 12 P 300'*

Font name length will make some IFU commands longer than 78 characters. Enter these commands using the IFU mode. For each long command, enter IFU and press <ENTER>, then enter the IFU command.

IFU COMPRESS

Removes unused space from the mapping tables in IPFNTS.SYS, deletes unreferenced font files, and consolidates fragmented .IPM files.

Syntax **IFU COMPRESS**

Logon level The logon levels are 1 through 5.

IFU COPY

Copies printer font files and their associated mappings from the LPS internal disk storage to and from external media. This allows easy backup and transport of Interpress fonts.

Syntax **IFU COPY** *medium keyword Interpress font name*

Parameter options

medium

TAPE
: Specifies the device assigned to the TAPE keyword using SUB DEV. TAPE is the default keyword.

FLOPPY
: Specifies the device as floppy.

CARTRIDGE
: Specifies the device assigned to the CAR keyword using the SUB DEV command.

keyword

READ
: Searches for the Interpress font name matching the specified Interpress font mask. If a match is found, copies the font files and their mappings from the file on the tape or cartridge and replaces or creates the font files in the FNT directory.

WRITE
: Copies .FNT font files and the associated Interpress font mappings to the external medium as a single virtual file. Supports multiple volume tapes and cartridges. When the virtual file being written reaches end of volume, you are prompted for the next volume. Always appends to the end of the logical volume.

Interpress font name
Specifies the font files to be copied.

Default READ is the default keyword.

Considerations Although OSS supports multiple volume writes, the editor and IFU tasks do not support them. Do not issue a multiple volume write from EDI or from IFU. It may fail and corrupt the volume by jeopardizing the volume file integrity, and the Interpress file and font integrity. Avoid this problem by writing files to a single volume and selectively including files or font families.

If an Interpress font family is copied to tape, floppy, or cartridge, and then read back, the corresponding LPS font files are assigned new names. Since the comparable Interpress font names map to the same LPS font files, do not copy one Interpress font family without its comparable names. If you do so, and then copy it back to the same LPS, the LPS creates duplicate fonts on the system. The duplicate fonts do not affect the Interpress mapping structure, but they do increase the amount of disk storage space used.

For the IFU COPY FLOPPY WRITE command, only one write may be performed per floppy. Appending writes on floppy disks is not allowed.

IFU DEFAULT

Establishes the Interpress master font family default used to print an Interpress master which does not specify a font name. This name can also be set when the IPFNTS command is used to compile the Interpress fonts .JSL file.

Syntax **IFU DEFAULT** *Interpress font family name*

Parameter options *Interpress font family name*
Specifies the font files to be used as the default.

Considerations IFU does not check the validity of the default font name. An unrecognized font name generates the Interpress error message:

```
Master Error (page n): Font problem; font "<font name>"
unknown.
```

If the font name is too long, the printed message is truncated.

IFU DELETE

Deletes the LPS files associated with an Interpress font, or with a family of Interpress fonts.

Syntax **IFU DELETE** *Interpress font name*

Parameter *Interpress font name*
Specifies the font file or files to be deleted. If you use masking, you are prompted for confirmation.

Default The default response is N.

Considerations The system font files associated with deleted fonts are not deleted, since they can be referenced by other mappings. You must use the COMPRESS command to delete font files which are no longer referenced by any Interpress font file.

IFU FDR

Recreates the font directory file after upgrading the operating system, if the font directory is corrupted. This process can take up to 30 minutes.

Syntax **IFU FDR**

IFU FILE

Reviews on screen the names and characteristics of the Interpress fonts that have been written to the medium.

Syntax **IFU** *medium* **FILE**
or **IFU** *disk* **FILE**/*EX Interpress font name*

Parameter options

medium

FLOPPY
: Specifies the device as floppy.

CARTRIDGE
: Specifies the device assigned to the CAR keyword using the SUB DEV command.

TAPE
: Specifies the device assigned to the TAPE keyword using the SUB DEV command.

disk
: Specifies the disk as DP0:, DP1:, DP2: or DP3:.

Interpress font name
: Specifies the font file or files to display. (If you use masking, you are prompted for confirmation. The default response is N.)

Default The default is TAPE.

IFU IPFNTS

Compiles the mapping information in the Interpress fonts JSL file into the Interpress font environment. The Interpress font environment is not replaced completely by this command; information in the input file is merely added to the Interpress font environment.

Syntax **IFU IPFNTS** *keyword* **.JSL**

Parameter options

keyword
: *Interpress font name* or IPFNTS.

Default If you do not specify a name, IPFNTS.JSL is the input file.

Considerations Compiling Interpress fonts .JSL files with large FONTS statements might exceed the IFU IPFNTS limit.

IFU LIST

Prints 1 to 674 duplex pages reporting the names and characteristics of Interpress fonts that have been written to the tape, cartridge, or floppy disk.

Syntax **IFU** *medium* **LIST**
or **IFU** *disk* **LIST**/*EX Interpress font name*

Parameter options

medium

TAPE
Specifies the device assigned to the TAPE keyword using the SUB DEV command. TAPE is the default keyword.

FLOPPY
Specifies the device as floppy disk.

CARTRIDGE
Specifies the device assigned to the CAR keyword using the SUB DEV command.

disk
Specifies the disk as DP0:, DP1:, DP2: or DP3:.

Interpress font name
Specifies the font file or files to be deleted. (If you use masking, you are prompted for confirmation. The default response is N.)

Considerations

If more than 674 pages will be generated, the system displays a warning message before executing the command. You must then enter multiple IFU LIST commands to generate a complete list.

IFU MOVE

Positions a tape or cartridge a specified number of files forward or backward before issuing an IFU COPY READ, LIST, or FILE command.

Syntax **IFU** *medium* **MOVE** *n* **FILES**

Parameter options

medium

TAPE
Specifies the device assigned to the TAPE keyword using the SUB DEV command. Tape is the default.

CARTRIDGE
Specifies the device assigned to the CAR keyword using the SUB DEV command.

n
Specifies a decimal value within -32768 and 32767, inclusive. If *n* is positive, the tape or cartridge advances forward. If *n* is negative, the tape or cartridge rewinds.

Logon level The logon levels are 1 through 5.

Default The default value is 1.

IFU PRINTER

Establishes the name of the LPS printer in the IPFNTS.SYS file.

Syntax **IFU PRINTER** *printer-name*

Logon level The logon levels are 1 through 5.

IFU SUBSTITUTION

Changes the substitution criteria for a single font family.

Substitution criteria are used when an Interpress master calls for a font which is not available on the printer. The criteria are used by the imaging software to determine which font to substitute for the desired font.

Syntax **IFU SUBSTITUTION** *interpress font name,substitution-priority*

Parameter options

interpress font name
Specifies the Interpress font name.

substitution priority
Must be NORMAL or NOPOINTSIZE.

Logon level The logon levels are 1 through 5.

Default The default is NORMAL.

IFU REWIND

Rewinds the tape or cartridge to the beginning.

Syntax **IFU** *medium* **REWIND**

Parameter options

medium

TAPE
Specifies the device assigned to the TAPE keyword using SUB DEV. TAPE is the default keyword.

CARTRIDGE
Specifies the device assigned to the CAR keyword using SUB.

Logon level The logon levels are 1 through 5.

Default TAPE

IFU UNLOAD

Unloads the tape or cartridge from the drive.

Syntax **IFU** *medium* **UNLOAD**

Parameter options

medium

TAPE
Specifies the device assigned to the TAPE keyword using SUB DEV. TAPE is the default keyword.

CARTRIDGE
Specifies the device assigned to the CAR keyword using SUB DEV.

Default The default is TAPE.

IFU VOLINIT

Initializes the tape or cartridge in preparation for an IFU COPY WRITE command.

Syntax **IFU** *medium* **VOLINIT** *value*

Parameter options

medium

TAPE
Specifies the device assigned to the TAPE keyword.

CARTRIDGE
Specifies the device assigned to the CAR keyword using SUB DEV.

value

1600
1600 bpi
6250

Default The *medium* default is TAPE.

Logon level The logon levels are 1 through 5.

IFU SAMPLE

Prints sample pages for a single Interpress font.

Syntax **IFU SAMPLE** *Interpress font name*

Parameter options

Interpress font name
Specifies the font name to be sampled.

Considerations Do not use the IFU SAMPLE command within a system or editor command file.

IMAGE

Displays, fixes, or prints the content of .IMG files in compressed and decompressed format. You can fix the format of known bad .IMG files which may cause the following types of problems:

- Vertically or horizontally truncated images
- Trailing vertical or horizontal image strips from previous image print.

If you cannot print the image using the SAMPLE command, you may not be able to fix it. After you fix an image file, this command updates the following information:

- Compressed vector length in header and trailer
- *x* pixel value
- Total number of scan lines in the image
- Converts Interpress 1.0 to Interpress 2.0 format.

This command supports Interpress 1.0 and 2.0 formats, and RES format image files.

Syntax **IMAGE** {*DUMP*|*PRINT*|*FIX*} *filename*.*file-type* [/*EXPAND*|/*VERBOSE*|/*STATISTICS*|/*ALL* [(*scanline start*, *scanline end*)]]

Logon level The logon levels are 1 through 5.

Parameters

DUMP
Displays the content of the .IMG files you specify.

PRINT
Prints the content of the .IMG files you specify.

FIX
Fixes the damaged .IMG files that you specify.

filename
Specifies one or more files. You can enter up to six characters. The filename can include wildcards (* and ?).

file-type
Specifies the file type as .IMG.

/EXPAND
Displays or prints a compressed scan line followed by a decompressed scan line. This parameter is used only for PRINT and DUMP.

/VERBOSE
Displays or prints a detailed diagnostic message before and after the compressed image data. The information in the image header and trailer displays in decimal value. A diagnostic message does not display for RES format files.

/STATISTICS
Displays or prints the following statistics:
- Scan line length
- Total number of scan lines in the image file
- Total number of ENC, HTN, LIN, and RAW scan lines
- Total number of EOI encountered
- Total number of bad nibbles
- Total number of bad scan lines
- *x* pixel value
- *y* pixel value
- Image file size (in bytes)
- Actual compressed vector length
- Compressed vector length in header and trailer.

/ALL
Fixes Interpress 1.0 and 2.0 image files, but skips RES image files. If you do not specify this parameter, the command fixes only Interpress 1.0 image files and skips all other .IMG files. This parameter is used only for FIX.

scanline start, *scanline end*
Specifies a range to display or print the image data. You must separate *scanline start* and *scanline end* with a comma (,) and enclose them inside parenthesis, as shown in the syntax. This parameter is used only for PRINT and DUMP.

INITIALIZE QUEUE

Erases the existing print queue database, creates a new print queue database, sets its size and its warning and frequency flags, and initializes it.

Warning flags indicate that the beginning of the file is about to be overwritten. Frequency flags determine how often warning messages are displayed.

Syntax **INITIALIZE QUEUE** [*nnnn*] [*NOF*|*OWF*|*DWF*|*NWF*:*n.m*]

Logon level The logon levels are 2 through 5.

Parameters *nnnn*
Specifies the number of entries in the queue. You can specify a value in the range of 200 to 2000. If the queue file does not exist and you do not specify a value, a report queue of 400 entries is created.

NOF
: Deactivates the warning and frequency flags. No warnings are displayed.

OWF
: Activates previous (old) warning and frequency flags and preserves previous flag settings.

DWF
: Activates the default warning flag (40) and frequency flag (3).

NWF:*n.m*
: Sets and activates new warning and frequency flags. The *n* value indicates the threshold at which warnings begin. The *m* value indicates the frequency at which warning messages display to the operator.

Example If *n*=25 and *m*=3, warnings are displayed when 25, 22, 19, 16, etc., entries can be made before the end of the print queue database is reached.

Recommendation Back up the existing print queue database before issuing INITIALIZE QUEUE.

Restriction INITIALIZE QUEUE executes only when the queue is empty.

JOBS

Use this command or press <JOBS STATUS> to display the status of the system and the documents in the print queue. There will be a delay for a few seconds to process the information. The last item printed appears first in the display.

The JOBS command allows you to temporarily change the format of the information that displays. The SET QUEUE DISPLAY command controls the default display format and allows you to set the format permanently.

Logon level The logon levels are 1 through 5.

Syntax **JOBS** [*ALL*|*QUEUE*|*#entry-string*|*n*|*report-attribute*] [*CLASSIC*|*BRIEF*|*FULL*]

Parameters

ALL
: Displays information on all documents in the queue with Queued, Input, IAbort, OAbort, UAbort, Held, Active, In/prntg, or Printing status. Also displays status of the last 100 documents printed.

QUEUE
: Displays information on all documents (entries) in the queue with Held, Queued, Active, or Printing status, and the status of the last 100 documents printed. May be abbreviated as JOBS Q.

#entry-string
: Displays information on specified entries in the queue. You specify these using the #*n*, #*n-m*, or #(*n-m,o,p-r*) format.

  #n
  : Specifies a single entry. *n* must be an integer between 1 and 65535.

  #n-m
  : Specifies one set of multiple entries. *n* and *m* must be integers between 1 and 65535. All entries between *n* and *m*, inclusive, are passed to output.

#(n-m,o,p-r)
Specifies multiple sets of entries. Values must be integers between 1 and 65535. All entries *n* through *m* inclusive, o, and *p* through *r*, inclusive, are passed to output. Parenthesis are required around the string. Commas without spaces are required between string elements.

n
Displays status information for all reports queued for output, plus the status of up to *n* completed reports, where *n* is 100 or less.

report-attribute
Displays entries which use the following specified resources:

PRIMARY COLOR
Displays information for all entries that require the specified primary color.

STITCH
Displays information for all entries that require stapling.

ACTIVE
Displays information for all entries that are in the active queue.

HELD
Displays information for all entries that are in a held queue.

QUEUED
Displays information for all queued entries. Do not confuse this parameter with JOBS QUEUE or JOBS Q.

CLUSTERS=xxx
Displays information for all entries that require the specified cluster.

You can specify up to three resources as follows:

AND | &
Displays entries that use all the resources specified, for example:

- RED & GREEN & BLUE
- GREEN AND BLUE AND HELD

OR | !
Displays entries that use only one of the resources specified, for example:

- RED ! GREEN
- GREEN OR ACTIVE

NOT | -
Displays entries that do not use the resource that follows, for example:

- NOT RED
- - STITCH

You can use parentheses to indicate the resources that have the highest priority, otherwise, the order of priority is from left to right.

CLASSIC
Displays information in the CLASSIC format. Refer to the "Examples" section for a sample of the CLASSIC format.

BRIEF
: Displays information in the BRIEF format. Refer to the "Examples" section for a sample of the BRIEF format. This is the default.

FULL
: Displays information in the FULL format. Refer to the "Examples" section for a sample of the FULL format.

Examples Figures 1-8 through 1-11 are examples of the job status display.

Figure 1-8. **System and print queue status display**

```
Queue status  mm/dd/yy  hh:mm:ss
Queue Manager is stopped                schedule mode is resource
Queue Manager is stopped                schedule mode is received
Queue Manager is active                 schedule mode is resource
Queue Manager is active                 schedule mode is received
System is idle
System is ON-LINE
System is OFF-LINE
Input is stopped
Output is stopped -- printer fault
Output is stopped -- otext wait
Stitch off active
Stitch on active
Job queue is empty
Jobs held in queue
JOB ID xxxx JDE xxxxxx queued for INPUT
Approximately xxxx unused entries in the queue
```

If you select the CLASSIC format, the following information displays after the system and print queue status information.

Figure 1-9. **CLASSIC format status display**

```
Job    Cust    Rpt        Report                      Copy   Total    Pages        Status
 #     Job #    #          Name          JDE/JDL      Count  Pages    Prntd      Msg      Msg#
xxxx  xxxxxx   xxxx  xxxxxxxxxxxxxxxx  xxxxxx/xxxxxx   xxxx  xxxxxx   xxxxxx  xxxxxxxx   xxxx
```

If you select the BRIEF format, the following information displays after the system and print queue status information.

Figure 1-10. **BRIEF format status display**

```
Entry   Cust        Report      Job    Copy    Total    Pages
  #      ID          Name        #     Count   Pages    Printd   Color     JDE/JDL      Status
xxxxx   xxxxxx  xxxxxxxxxxxxxx  xxxxx  xxxxxx  xxxxxxx  xxxxxx   xxxx  xxxxxx/xxxxxx  xxxxxxxx
```

If you select the FULL format, the following information displays after the system and print queue status information.

Figure 1-11. **FULL format status display**

```
Entry    Cust       Report      Job    Rpt    Copy    Total     Pages
  #       ID         Name        #      #     Count   Pages     Printd      JDE/JDL      Status
xxxx    xxxxxx   xxxxxxxxxxxx  xxxxx  xxxx   xxxxxx  xxxxxxx   xxxxxx   xxxxxx/xxxxxx  xxxxxxxx
            Colors           Sti                Clusters                                  SMsg#
     xxx,xxx,xxx,xxx,xxx      x     xxxxxx,xxxxxx,xxxxxx,xxxxxx,xxxxxx                    xxxx
```

Display descriptions

*****
An asterisk preceding a report attribute indicates that this attribute is causing the report to be held in the queue.

\+
A plus symbol in the Color or Colors column indicates that the report uses multiple colors.

\-
A hyphen symbol indicates the absence of color, clusters, or a status message.

Job #
The job identification number supplied by the system.

Entry #
The entry assigned by the Queue Manager that identifies an entry in the report queue. Queue Manager commands with the *entry string* parameter use this number when applicable.

Cust Job# or Cust ID
Specifies one of the following:

- Host job number, as defined by the user with the HJOBNO command of the BANNER statement in an online job
- FILE ID (same as on the accounting page) if in an offline job
- User ID for Ethernet from the PRINT request
- Blank, if the information is not available.

Rpt #
The report number, as currently defined on the accounting page. The position within the job. A report number of zero indicates that the job containing the report was terminated before the first report was processed.

Report Name
The report name as defined by the online user with the BANNER statement command, HRPTNA; or by the offline user with the RSTACK statement command, HRPTNA; or with the DISC keyword in the START command. The BRIEF and FULL formats display the first 12 characters of the report name; CLASSIC displays the first 16 characters.

JDE/JDL
The JDE/JDL name keyed in to start the report, or the DJDE JDE/JDL encountered.

Copy Count
The maximum number of copies if the report is in input, queued for output, or completed. If the report is in output, COPY COUNT is the number of copies remaining to print. COPY COUNT can differ from the copy count in the JSL due to the application of a DJDE.

Total Pages
The current number of pages written to disk if the report is in input. If the report is printing or queued for output, TOTAL PAGES is the total number of pages in the report.

Pages Prntd
The number of pages completed if printing. Otherwise, this value is zero.

Note: Even though the TOTAL PAGES and PAGES PRNTD fields display only a six-digit number on the screen, the status file maintains the correct page values.

Color or Colors
: Displays the first three characters of the first color used in the report. Black is an assumed primary and never displays.

Status
: Displays the state of the report as one of the following:

  IAbort
  : INPUT aborted the report or job.

  OAbort
  : OUTPUT aborted the report.

  UAbort
  : User aborted the report or job.

  Active
  : OUTPUT received the report but print has not been issued. When the printer stops, all active entries display a stopped status until printing resumes.

  Stopped
  : The user stopped the report by pressing <STOP> or by entering the STOP command, or an internal problem occurred.

  Done
  : Printing is complete.

  Input
  : The report is being prepared for printing and has not begun to print.

  Queued
  : The report has been prepared for printing and is waiting to print.

  Held
  : The entry cannot be sent to OUTPUT for printing. An asterisk (*) indicates the resource preventing it from printing.

  In/prntg
  : The report is being prepared for printing and part of it is printing.

  Printing
  : The report has been prepared for printing and is printing.

  Reset
  : The report was aborted by the RESET command.

  Rcvyn/s
  : The operator did not request recovery on rollover.

Sti
: Indicates if the report requires stitching.

Clusters
: Indicates the required clusters, if any.

SMsg#
: Displays one of the following:

  - The completion code on the accounting page (blank if completion is normal)

- The error message number if the report aborted
- CS displays while the report is processing if the report is copy-sensitive.

LIST

Prints the list of all files on the disk. You can list specific file ids within the catalog or the entire catalog and deliver them to the sample tray. The output page of the LIST command has a header line at the top of each page containing the page number, date, time, and disk id.

In LPS-labeled tapes issued by Xerox and user-created concatenated files, a physical file containing multiple concatenated logical files is identified by the name of the first logical file.

Syntax

LIST*/EX disk-id*,*file-id*,...
or
LIST*/EX disk-id*,*file-id*,**/SORT**,*file-name*.*file-type*
or
LIST*/EX disk-id*,*file-id*,/**FILE-NAME**.*file-type*,*leading string*,*trailing string*

Parameter options

/EX
Prints all the file characteristics of a given file id. If you specify /EX, you cannot specify the leading and trailing strings. If you do not specify /EX, only the file ids print.

disk-id
Identifies which system disk (DP0:, DP1:, DP2:, or DP3:) contains the file ids to be printed.

file-id
Specifies the file as *file-name.file-type*. If omitted, the default prints the names of all the .TMP files in each directory. (Masking can be used.)

/SORT
Alphabetically sorts a list of up to 3600 file names by type. When this limit is reached, the message `FILE/LIST TOO LONG, ONLY FIRST 3600 FILENAMES WILL BE SORTED.` is displayed. Sorting should be done by file types for large disk or tape volumes.

leading string
A character string without commas that is appended prior to each file name in the list that is created.

trailing string
A character string without commas appended to each file name in the list that is created. No more than 50 leading and trailing characters may be appended.

/file-name.file-type
Specifies a disk file which contains a record for each file listed in the following order: Lead str *file-id* Trail str.

file-name.file-type
Specifies a disk file which contains the alphabetically sorted list of tape files.

Logon level

The logon levels are 1 through 5.

Default

The default *.file-type* is .TMP.

LIST/EX file information

FILE NAME
A one- to ten-character field indicating the file name file type.

UNIT
The system disk unit number (DP0:, DP1:, DP2:, DP3:) on which the file resides.

FSIZE
A one- to ten-character decimal field indicating the number of blocks allocated to the file.

RSIZE
A one- to six-character decimal field indicating the number of bytes in a record.

FFBY
A one- to six-character decimal field indicating the first free byte in the last block of the file.

EOF
A one- to ten-character decimal field indicating the end-of-file block number.

DISK ADDR
A one- to ten-character octal field indicating the starting address of the file on the disk.

LOGON

Logs onto the system at levels 1, 2, 3, 4, or 5, and to change the logon passwords. You can also restrict access to all files with a specified extension for a particular action (editing records, deleting files, or copying files).

Refer to RCU for default access to files and command usage for each logon level.

Syntax

LOGON *value*
or
LOGON *value,password*

Parameter options

value
Specifies logon level 1, 2, 3, 4, or 5.

password
A one- to fifteen-character string which consists of any characters (including leading, nested, or trailing blanks) on the keyboard. You can change the default passwords.

Password case

The default passwords are uppercase. The passwords you create may be uppercase, lowercase, or mixed case. All passwords are case-sensitive: the system recognizes a password only if it is entered correctly in content and case.

Default passwords

Table 1-15 shows the default password for each logon level.

Table 1–15. **Logon levels and default passwords**

Logon level	Default password
1	(None)
2	(None)
3	(Reserved for Xerox analysts)
4	(Reserved for Xerox service technician)
5	SECURITY

The password is not displayed on the screen when you enter it. The screen remains blank and does not indicate the length of the password.

When you log onto the system using the single-line command format of the LOGON command, be aware that the password is captured in the Data Capture Utility (DCU) log if it is turned on.

For greater security when logging onto the system, enter LOGON *security-level*, then wait for the system to prompt you for the password. In this case, the password is not captured on the DCU log.

Changes

You must always use a password to access a logon level higher than the current level.

You may not need a password to move from a higher level to a lower level. For example, you can move from level 5 to level 2 without a password.

Since your service representatives can access both logon levels 3 and 4, the service technician can move from level 4 to 3 without entering a password.

You must use a password to move from level 5 to level 3 or 4.

Change passwords

If you change a password during a print job, the change takes effect with the next print job.

MOVE

Physically positions a magnetic tape or cartridge by a specified number of files or blocks either forward or backward. You can use MOVE during job processing, but you must stop input first with STOP I due to an error stop. If no job is active, you can enter the command directly.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command.

Syntax

MOVE *n keyword*

Parameter options

n

A decimal integer in the range -32768 to +32767. A positive number indicates forward movement, and a negative number indicates backward movement.

keyword

FILES

Indicates positioning by files. A positive number moves the tape forward over the same number of tape marks, unless end-of-volume (EOV) terminates the tape movement. A negative number moves the tape backward over the same number of tape marks, unless BOT terminates the tape movement. File positioning is the default.

BLOCKS

Indicates positioning by blocks. A positive number moves the tape forward over the same number of interblock tape gaps, unless EOT or a tape mark terminates tape movement. A negative number moves the tape backward over the same number of blocks, unless BOT or a tape mark terminates tape movement.

Default The default is FILES.

Considerations If a job is in process when you invoke MOVE, the system requests a CONTINUE I to resume.

Whenever a tape move is halted by reaching a tape mark, the tape is always positioned at the block one greater than the absolute block number of the tape mark. This is done regardless of the direction of the move.

MOVE BLOCKS is not allowed if ABNORMAL SECURITY=YES is coded in the job descriptor library of the report being processed.

MOVE

Reorders entries in the queue. This command processes entries from left to right. You can reorder entries that have a queued or held status. Active entries have already been passed to output and you cannot reorder them.

Syntax **MOVE #** *entry-string location*$_1$ **#** *entry-string*
or
MOVE # *entry-string location*$_2$

Parameters *entry-string*

n

Specifies a single entry. Must be an integer between 1 and 65,535.

n-m

Specifies one set of multiple entries. *n* and *m* must be integers between 1 and 65,535. All entries between *n* and *m*, inclusive, are passed to output.

(n-m,o,p-r)

Specifies multiple sets of entries. Values must be integers between 1 and 65,535. All entries *n* to *m*, inclusive, *o*, and *p* to *r*, inclusive, are passed to output. Parenthesis are required around the string. Commas without spaces are required between string elements.

location$_1$

BEFORE

Places the first *entry-string* before the second *entry-string*.

AFTER
Places the first *entry-string entries* after the second *entry-string*.

location$_2$
TOP
Places the *entry-string* at the beginning (top) of the active queue.

BOTTOM
Places the *entry-string* at the end (bottom) of the active queue.

Restrictions To successfully move an entry in the queue, it must have a status of either queued or held. If you specify multiple entries to be moved, they must all have the same status. For example, all entries must be queued or all held; you cannot intermix them.

Moving an entry in the report queue may not necessarily imply the order that it is scheduled because of its position in the queue. For example:

- If the schedule mode is by resource, moving one or more entries to the TOP of the report queue only ensures that they are scheduled next within the context of their attribute type, such as the primary.
- If the schedule mode is by order received, entries are scheduled based on their position in the queue.

OCS

Verifies the Operating System Software (OSS) version information. The system displays the information shown in figure 1-12.

Figure 1-12. **System version display**

```
System version PV4 2.1;
OCS version VAP4;
Command table version xxxx;
System class 4;
Disk ID xxxxxxxxxxxxxxx
```

Syntax **OCS**

Logon level The logon level is 1.

OFFLINE

Moves the system from the online to offline status. After you enter this command, online input data may not be transmitted to the LPS.

Syntax **OFFLINE**

Logon level The logon levels are 1 through 5.

ONLINE

Moves the system from offline to online status. The system displays NOT READY (such as until a START command is entered, data input is stopped and the host does not transmit).

Syntax **ONLINE**

Logon level The logon levels are 1 through 5.

PROBLEM

Logs system problems and generates the six-digit dispatch code requested by the Xerox service representative. Respond to the prompts that display.

Syntax **PROBLEM**

Logon level The logon levels are 1 through 5.

PSC

The system automatically executes the Printer Subsystem Controller (PSC) each time you boot the LPS. PSC initializes the printed wire boards (PWBAs) and loads the software they execute during printing operations. In general, the automatic PSC at system startup is the only PSC needed. If a board error is displayed by the LPS, you can reinitialize any PWBA except the Small Computer Serial Interface (SCSI) PWBA after booting the system.

If you do not enter parameters, this command prepares all configured PWBA boards except the SCSI board for LPS operations.

Syntax **PSC** *keyword*

Parameter options *keyword*

CSI
: Prepares the CSI board for LPS operations.

RIP 0 1 2 3
: Prepares the specified RIP boards for LPS operations.

CRIB
: Prepares the CRIB board for LPS operations.

SCSI
: Displays the current status and firmware level of the SCSI board.

If the download succeeds, no more messages display. If an error occurs, refer to the *Xerox 4050/4090/4450/4650 LPS Message Guide*.

Logon level The logon levels are 2 through 5.

PSTATUS

Verifies the status of the printer.

Syntax **PSTATUS**

Logon level The logon levels are 1 through 5.

Considerations

Expect a delay of a few seconds when you request the status during printing because displaying status information is a lower priority than printing operations. Specifically, responses are delayed until end-of-report processing is reported.

If you invoke this command when the printer is not cycling, tray status displays according to the current feed command. The next page to print is not considered. For example, if the current feed command is a cluster command with mixed tray (paper) sizes, the cluster tray that displays may not be the cluster tray with the correct paper for the currently active job. Tables 1-16 through 1-18 give the status of the paper trays, output trays, and the stitcher. Figure 1-13 shows an example of the printer status display.

Figure 1-13. **Example of a printer status display**

```
Paper trays:                              Output trays:
       Feed Tray 1                           Select: Tray 2
       Tray 1   8.5x11  IN USE               Tray 1  READY
       Tray 2   8.5x11  READY                Tray 2  IN USE
Xerographic Mode:  BLACK                  Dry Ink Color: BLACK

Attention Light:    ENABLED, NOT ILLUMINATED
Blade:   ENABLED
Darkness:         (Lightest = 1, Darkest = 7)
         Black   5
```

Table 1-16. **Paper trays**

Status display	Meaning	LPS status
Ready	Tray is in a ready state.	Ready
In Use	Tray is currently being used.	Selected
Not Ready	Tray is in an unusable state.	Busy Jammed Broken Empty
Size display	Any size valid for LPS.	n/a
Mode display	Any mode valid for LPS.	n/a
MAIN	The tray designated MAIN is the feed tray.	n/a
AUTO	Automatic switching between feed trays.	
AUX	The auxiliary tray is the feed tray.	n/a
tray number	The specified tray is the feed tray.	n/a
cluster name	The trays assigned to the cluster are the feed trays.	n/a

Table 1-17. **Output trays**

Status display	Meaning	LPS status
AUTO	Automatic selection of output tray.	n/a
tray number	Tray for output specified by operator.	n/a
Ready	Output tray can receive sheets. If the printer is in SEL AUTO mode, this tray is selected when the other tray becomes full.	Ready Empty Ready
Empty Me	The printing system is in SEL AUTO mode, and the output tray can receive sheets. However, it is not completely empty and is not selected automatically.	Ready
Not Ready	Output tray is not ready.	Broken Offset Failure
Full	Output tray is completely full. If the tray is selected using SEL *n* and CONTINUE is pressed, up to 11 sheets are delivered to the tray before the tray full condition causes the LPS to cycle down.	Full
In Use	Sheets are currently being delivered to this tray.	Selected
Jammed	Output tray is jammed.	Jammed

Table 1-18. **Stitcher**

Status display	Meaning	LPS status
Ready	Stitcher is ready to stitch.	Able To Stitch
Out of Wire	Stitcher is ready to stitch but is out of wire.	Out Of Wire
Fault	Stitcher is not ready to stitch.	Unable To Stitch
Low Wire	Stitcher is ready to stitch but wire supply is low.	Able To Stitch

PURGE

Overwrites a system disk with a meaningless pattern of files. Any deleted file (including sensitive files) may still be accessed by a system-knowledgeable user until the files are overwritten. PURGE also erases the contents of the print file.

Syntax **PURGE** *value*

Parameter options *value*

D

Purges the entire disk including the print file. This is the default.

P

Purges only the print file.

F
Purges the entire disk, excluding the print file.

Logon level The logon levels are 1 through 5, and may be restricted with RCU.

Default The default is D.

Considerations If the system was not rebooted after turning data capture on following the last system generation, the system may hang during PURGE and require a reboot. Prevent this situation by rebooting the system immediately after turning Data Capture on, or by turning Data Capture off before running PURGE and turning Data Capture back on when PURGE has completed.

RCU

Restricts the use of system commands and tasks (such as PDL, FDL, OSDS) to the specified logon class. The system commands and task names are restricted by relating them to the classes previously defined in the LOGON command. To use a specific system command, you must be logged on to a class level equal to or greater than the user-defined (or default) restriction level.

Syntax **RCU** *command,class*

Parameter options

command
Specifies the command to be authorized or restricted. Some commands cannot be restricted.

class
Specifies the lowest logon class allowed to use the command. If omitted, the current class level for that command displays.

Logon level The logon levels are 2 through 5. They may be restricted to higher logon classes with RCU.

Considerations You cannot restrict the use of a command to a level higher than the current logon class.

You cannot change the class level of a command unless you are authorized to use that command.

Table 1-19 shows the classes of file access available.

Table 1–19. **File access classes**

Function type	Record editing					File delete					File copy to disk					File secure	User file
	Logon level					Logon level					Logon level					Logon level	
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	5	
CMD		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CME							X	X	X	X	X	X	X	X	X	X	X
DAT			X	X				X	X				X	X			
FIS							X	X	X	X	X	X	X	X	X		
FNT							X	X	X	X	X	X	X	X	X	X	X
FRM							X	X	X	X	X	X	X	X	X	X	X
FSL		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
IDR							X	X	X	X	X	X	X	X	X	X	X
IMG							X	X	X	X	X	X	X	X	X	X	X
IPF							X	X	X	X	X	X	X	X	X		
IPM								X	X				X	X			
JDL							X	X	X	X	X	X	X	X	X	X	X
JSL		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
LGO							X	X	X	X	X	X	X	X	X	X	X
LIB*		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
LOG								X	X			X	X	X	X		
MSC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
OSD									X				X	X			
PCH		X	X	X	X		X	X	X	X	X	X	X	X	X		
PDE							X	X	X	X	X	X	X	X	X	X	X
SAF													X	X			
STK							X	X	X	X	X	X	X	X	X	X	X
SYS			X	X				X	X				X	X			
Y																	
TMP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
TPF								X	X				X	X			
TSK													X	X			
TST			X	X				X	X		X	X	X	X	X	X	X
XCS							X	X	X	X	X	X	X	X	X		X

*Some .LIB files may be edited; others may not be edited.

The following terms are used in table 1-19:

Function type
: Specifies the file directory where files are cataloged. Each file directory contains a specific type of file (for example, JCL contains job source language files).

Record editing
: If you cannot edit records in a file, you cannot use GET or any record editing command.

File secure
: Specifies whether you can limit file access to a logon level 5 user only.

User file
: Specifies whether you can back up a file using COPY TAPE WRITE LABEL ALL and FLOPPY SAVE ALL.

REALLOCATE

Sets the size of the print file on the system disk. The print file size should be at least 400 cylinders. The print file is assigned 400 cylinders during system generation, but you may need to increase its size in order to meet your installation requirements. You can increase or decrease the print file size any time the system is idle.

If you enter a parameter, you do not receive system prompts during the reallocation process. The warning messages which inform you not to disturb the process still display. The size of the current print file is not displayed. The system informs you of the number of cylinders allocated and the number of cylinders actually usable by input and output. The system maintains and updates a permanent record of all unusable cylinders. These unusable cylinders are unavailable until the disk is reformatted during a full system generation. If the print file size is less than 400 cylinders or is too small for the job, the engine cycles up and down. This is not desirable. Refer to the *Xerox Operating System Software Program Description* for more information on the print file size.

Syntax for print file

REALLOCATE *cylinder size*,*file size*

Print file parameter options

cylinder size
: Specifies the cylinder size for the new print file. If the *cylinder size* is larger than the largest print file that REA can make, it makes the largest size print file it can. Must be equal to or greater than the minimum configuration for your system. Must be at least 400.

?
: Creates up to the default size for the print file if one does not exist. If a print file already exists, a print file of the same size is created.

!
: Creates a default size print file even if one already exists.

file size
: Creates a file size subject to a minimum or maximum value.

Logon level

The logon level is 2.

Default

The default (and minimum) size of the raster disk file is the cylinder value, which equals 32,768 sectors.

Example

REALLOCATE ?,0

Considerations

The REALLOCATE interactive dialogue does not allow you to change the size of the raster file.

Do not interrupt the reallocation process: interruption can make sections of the disk unusable until the next completed reallocation.

The *cylinder size* value must be at least 400. A high *cylinder size* value helps prevent disk saturation.

The *cylinder size* value must also leave at least 50 cylinders of free space on the disk.

Reallocation may terminate with the message `PRINT FILE TOO SMALL`. The message indicates that the print file has not been created because there is not enough available space. Correct this problem by compressing the disk (COMPRESS DP1:) and reallocating (REA) again. If these steps do not make REA successful, you must review files on the disk and back them up, delete them from the disk, use PURGE, and rerun COMPRESS and REA.

If *n* is 0, the current raster file size is deleted, but no new file is created. A value less than the minimum size results in an error message and reallocation does not occur.

Recommendations

Manage cylinders so that the required minimum print file sizes are maintained to assure printing without input or output processing lock-up. REALLOCATE processing enforces the minimum print file sizes shown in table 1-20.

Table 1-20. **Minimum print file sizes**

Graphic configuration	10MHz-182MB cylinders	10MHz-380MB cylinders	SCSI All
No graphics	65	65	65
GVG or GVG-2	425	275	275

REPORT

Generates customer billing reports, system activity reports, and user accounting reports. All reports include the information shown in table 1-21.

Table 1-21. **Report information**

Report information	Description
Report header	Includes the system type, time, date, customer ID (disk ID), and the system ID.
Report activity	Provides system activity information for all user accounts. The system activity report summarizes system activity by retrieving information from the system activity log file.
Report user	Provides user and system activity information for the specified user account. The customer billing report summarizes billing information by retrieving billing meter information from the printer non-volatile memory (NVM).
Report activity	Provides system activity information for all user accounts. The system activity report summarizes system activity by retrieving information from the system activity log file.
Report billing	Provides page count information on the following: • Total print job output • Subtotal output produced by the black and highlight xerographic modes • Total output produced by the diagnostic mode. The user accounting report summarizes the user accounting information by retrieving information from the user accounting log file.

The customer billing, user accounting, and system activity reports print in the system portrait font P0612$.FNT by default. You can specify another font by creating a DFLT.SYS file. The font specified must be fixed pitch, portrait, and 12-point or smaller, and consist of any or all of these records:

- BLRPTF = *font-id* (specifies customer billing font)
- ACRPTF = *font-id* (specifies activity report font)
- SARPTF = *font-id* (specifies system activity font).

Completed reports can be:

- Shown on the keyboard or display
- Printed
- Shown on the keyboard or display and printed
- Printed and cleared from the information log files (system activity and user accounting reports only)
- Displayed, printed, and cleared from the log file (system activity and user accounting reports only).

Successful delivery includes any user-specified point of delivery and dynamically diverted sheets (sheets diverted to the sample tray because of an output jam, and transparencies diverted to the sample tray). Sheets purged after restart are not counted.

Syntax **REPORT** *keyword action*

Parameter options

keyword

BILLING, ACTIVITY, or USER

Required parameter that specifies the report type.

action

DISPLAY or PRINT

Displays or prints the report.

CLEAR
Resets system values to zero after printing or displaying the report.

Default The default is DISPLAY.

System serial number

The first time you enter the REPORT command after you run a full sysgen or reformat the system disks, you are prompted to enter the nine-character system serial number located on a silver metal plate inside the front right-hand door of the printer. If your entry is valid, the information is saved in the MCHID$.SYS file. You are prompted only once for the serial number. If the MCHID$.SYS file is not on the system, you are prompted for the serial number each time you run the REPORT utility.

Syntax *AAAnnnnnn*

Parameter options

A
Specifies the product code, and can be any uppercase alphanumeric character.

n
Specifies a unique serial number for your system, and can be any numeric character.

RESET

Stops all system processing activity, removes all print jobs from the job queue, and cycles any pages in the printer paper path to the print tray. When you display the queue, all of these reports show a status of RESET. The system remains in an idle state until you enter the next command.

If the input device is tape, the tape remains positioned as it was when the RESET command executed.

The command should be restricted with RCU to levels 2 through 5.

To terminate a job before it completes, enter the ABORT command rather than the RESET command.

Syntax **RESET**

Considerations If RESET executes during job processing, accounting data is recorded in the system accounting file only for reports that are completely processed and printed.

For systems configured with a stitcher/stacker, if RESET executes while a job is in process, the system holds a few sheets in the stitching tray. These sheets are released at the start of the next job.

REVIEW

Reviews each file in a directory with the option to delete it. The file names display one at a time. You can delete a file by entering D, or exit the display process by entering the X command.

Syntax **REVIEW** *disk-id file-id*,*file-id*,...

Parameter options

disk-id
Specifies the system disk (DP0:, DP1:, DP2:, DP3:) that contains the specified directory.

file-id
Specifies the file as *file-name.file-type*. (Masking can be used.)

Logon level The logon levels are 1 through 5.

Considerations To delete a file from the system, you must have the required logon level.

You cannot delete any file name containing a period or dollar sign. The following message displays: `*PROTECTED*`

Any other response (for example, pressing the space bar) saves the file and the next file name being displayed.

REWIND

Rewinds the tape or cartridge either by entering this command or by taking the drive offline and performing a manual rewind when a tape or cartridge job completes (including jobs with the single report option).

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command.

Use REWIND rather than TAPE REWIND after issuing the MOVE command. (The MOVE command followed by the TAPE REWIND command can result in the misleading message `Tape went offline during operation`. In this case, you should ignore the message.)

Syntax **REWIND**

RNAME

Changes the name of a file.

Syntax **RNAME** *old-file-id new-file-id*

If you specify only the file name, the file type remains the same. Rename files one at a time.

Parameter options

old-file-id
Specifies the current file name.

new-file-id
Specifies the *file-name.file-type* to replace the *old-file-id*.

Logon level The logon levels are 1 through 5.

SAMPLE

Request a sample print while a job is printing or to print a form, logo, image file, or font set when the system is idle. Each sample print that includes graphics provides a descriptor page with metric data identifying the color format. When a job is printing, the next page to be printed is printed twice. One copy is delivered to an output tray, the other is delivered to the sample print tray. Use samples to check the print quality and

alignment of a job. If the system is idle, you must identify the file that you want to sample.

Logon levels The logon levels are 1 through 5.

Considerations All sample jobs, except form samples, are formatted for printing using the default paper size specified at system generation. (Form samples are formatted using the paper size specified by the form if one is specified, or the default paper size specified at system generation.)

You can sample an image only if the default paper size is larger than the graphic image.

When sampling multiple forms or color palettes using a wildcard specification, make sure that the FONTS command setting is 67 or higher, and that the FORMS command is set to 2. This prevents errors resulting from insufficient memory.

A sample font prints only in black and white. Do not add color parameters to a sample command that specifies a font file.

SAMPLE with parameters is not available during HIP printing.

You cannot print a sample if the document has fewer than three pages or if ABNORMAL SECURITY=YES is coded in the job descriptor library of the report being processed.

If you sample multiple font, form, or logo files without specifying an override ink list, numerous mismatch conditions may occur.

Your system must be equipped with the GVG2 processor hardware option in order to sample image files.

The system breaks large sample jobs (more than approximately 1,000 sampled files) into multiple print jobs.

Do not delete SAMCM1.CME. It is required for sampling files.

When Tape or Disk jobs are running, the SAMPLE command with parameters is not allowed.

For non-English sysgens, use of the translated SAMPLE command with optional position information does not work., for example, SAM XVGHO.IMG,,,(.5in, .5in). Use the English command.

SAMPLE — print a font, form, or logo

Requests a sample print of a font, form, or logo. Samples are automatically sent to the output stacker tray. If you do not enter parameters, this command prints a second copy of the next page of the file being printed.

Syntax **SAMPLE** *keyword*$_1$.*file-type*$_1$,*sides,n*

Parameter options

keyword$_1$*file-name*$_1$
Specifies the name of the file you want to sample.

mask
A generic file name which may select multiple files for printing. Within the mask, one or more question marks (?) or asterisks (*) are substituted for valid characters. Each file name is compared to the mask and a sample is printed for each equal comparison. An asterisk or question mark equals any character. If the last character of the mask is an asterisk, characters in subsequent positions equal the asterisk. If the last character of the

mask is a question mark, files with names longer than the mask are not sampled.

file-type$_1$
Must be FRM, FNT or LGO.

sides
D or S
Specifies duplex (D) or simplex (S) prints. Duplex prints the file on both sides of the page. The default is simplex.

n
Specifies the number of copies to print. The default is one.

When you use SAMPLE*.FRM to print all forms, the form name prints on the edge of each form. Regardless of the form orientation, the name prints portrait.

The override ink list is specified for multiple font, form, or logo file samples to prevent primary color mismatch conditions.

Considerations

When you print multiple files, they all print simplex even though you specify duplex.

SAMPLE with parameter options is not available during HIP printing.

SAMPLE — print multiple copies of a form

Prints up to 32,767 copies of a form.

Syntax

SAMPLE *file-name*$_1$**.TST,***sides*

Parameter options

file-name$_1$
The name of the form file in the FRM library.

.TST
Specifies multiple copies of the form file.

sides
D or S
Specifies duplex (D) or simplex (S) prints. Duplex prints the file on both sides of the page.

Considerations

SAMPLE with parameter options is not available during HIP printing.

The specified form prints repeatedly until you issue the STOP or ABORT command.

If you entered SELECT *n*, SAMPLE, the copies are delivered to an output stacker tray. Otherwise, the copies go to the sample tray.

SAMPLE — print a graphic

Samples print .IMG files. The extended options describe the horizontal or vertical positioning, orientation, and scaling of the image to print. For each graphic you specify, the SAMPLE command prints two pages: the first page is an image, the second is a descriptor page containing metric data.

Syntax

SAMPLE *keyword*$_1$**.IMG**,*sides*,*n*,*vpos*,*hpos*,*orientation,n/d*,*INKS=keyword*$_2$

Parameter options

keyword$_1$

file-name

Identifies the graphic to be sampled.

mask

A generic *file-name* which selects multiple graphic files. Within the mask, one or more question marks (?) and/or asterisks (*) are substituted for legal alphanumeric characters. The name of each .IMG file on the disk is compared to the mask, and a sample of the graphic is printed for each equal comparison. In *file-name* comparison, an asterisk or question mark equals any character. If the last character of the mask is an asterisk, characters in subsequent positions equal the asterisk. If the last character of the mask is a question mark, any subsequent positions must be blank (such as files with names longer than the mask are not sampled). Samples are sent automatically to the output stacker tray.

sides

D or S

Specifies duplex (D) or simplex (S) prints. Duplex prints the file on both sides of the page. The default is simplex.

n

Specifies the number of copies to print. The default is one copy.

vpos

Specifies the vertical position of the top edge of the graphic, relative to the physical page origin in dots, centimeters (cm), or inches (in), specified as a decimal number with up to three digits to the right of the decimal point. If you do not specify units, inches are assumed. The default is top left.

hpos

Specifies the horizontal position of the left edge of the graphic relative to the physical page origin. The form of this specification (cm, in, or dots) is the same as for *vpos*. The default is top left.

orientation

L or P

Specifies a position reference orientation (landscape or portrait) for the graphic. The file header may specify the default orientation; otherwise the default is portrait.

n/d

Specifies the reference scale factor. Each parameter, *n* and *d* must be an integer between 1 and 8, inclusive, resulting in a reference scale factor between 1/8 to 8, inclusive. The reference allowing a reference scale factor is multiplied with that specified at the time the graphic was digitized, and the product is rounded to the nearest integer in the range 1 to 8. That integer becomes the effective scale factor with which the graphic is imaged. If the reference scale factor specified in the SAMPLE command is too large (so that the graphic exceeds the page size), the specified reference scale factor is flagged with an asterisk (*) on the descriptor page and a reference scale factor of one is used.

Considerations

SAMPLE is not available during HIP printing.

SCALE

Converts files from 300 spi to 600 spi.

Syntax **SCALE** *input-file-name.file-type$_1$ output-file-name.file-type$_2$*/[/a|/b|/o|/5]*b*

Parameter options

input-file-name
Specifies the font (.FNT), form (.FRM), or logo (.LGO) file to be converted to 600 spi.

file-type$_1$
Specifies the file type as .FNT, .FRM, or .LGO.

output-filename
Specifies the name for the new 600 spi file.

file-type$_2$
Specifies the file type as .FNT or .FN6, .FRM or .FR6, .LGO or .LG6, .MSC or .TMP; usually "6" is substituted for the last character of the original file type.

/a
Assigns a character width of 255, if there is an overflow in the byte escapement.

/b
Bit doubles the font or logo bitmaps instead of using the interpolation formula to scale the input file.

/o
Forces overwrite of the output file, if it already exists.

/5
Forces the creation of a five-word FSTS.

Logon level The logon levels are 1 through 5.

SCHEDULE

Selects the scheduling mode (single, multiple, or received). The scheduling mode affects the order in which reports print.

You can enter *#entry-string* with this command to submit documents immediately to output for printing once the current documents in output are completed.

The SCHEDULE *#entry-string* command schedules reports for printing even if the resources required to print it are not available on the system. If you schedule a report and it requires resources that are not available (color, stitching, and so on), the system stops printing and waits for operator intervention: change the ink, substitute inks, enable stitching, and so on.

Syntax **SCHEDULE** [*SINGLE*|*MULTIPLE*|*RECEIVED*|*#entry-string*]

Logon level Levels 1 through 5.

Parameters

No parameters entered
Displays the current scheduling mode and state.

SINGLE
Places all documents which use the loaded color ink (or current ink substitutions), or wire if stitching is on, in the active state. Holds all documents which do not.

MULTIPLE
Places all documents that use multiple color inks in the active state.

RECEIVED
Places documents in the active state in the order in which they are prepared by input processing.

#entry-string
Specifies an entry in the *#n*, *#n-m*, or *#(n-m,o,p-r)* format.

#n
Specifies a single entry; *n* must be an integer between 1 and 65535.

#n-m
Specifies one set of multiple entries; *n* and *m* must be integers between 1 and 65535. All entries between *n* and *m*, inclusive, are passed to output.

#(n-m,o,p-r)
Specifies multiple sets of entries; *n*, *m*, *o*, *p*, and *r* must be integers between 1 and 65535. All entries between *n* and *m*, inclusive, and *p* and *r*, inclusive, are passed to output. You must use parenthesis around the string and commas without spaces between string elements.

SECURE

Prevents access to the specified files from logon levels 1 through 4.

The editor supports the security feature by maintaining the security characteristics of the files that it manipulates (such as a renamed secured file retains its security characteristics). An unsecured file that replaces a secured file makes the file unsecured. However, if a secured font is referenced in a forms source library (.FSL) file compiled at logon level 5, the .FSL file and resulting .FRM file are not automatically secured. It is your responsibility to secure the .FSL and .FRM files. Likewise, if you copy a secured file to a new file or over an existing unsecured file, the resulting file is unsecured.

Syntax **SECURE** *file-name.file-type*

Parameter options

file-name
A six-character name of a disk file.

file-type
One of the following extensions: CMD, CME, FNT, FRM, FSL, IMG, JDL, JSL, LGO, PDE, TST, STK, and LIB.

The following editor commands are affected by the secured file feature: COPY, DELETE, FID, FILE, FIX, FLOPPY, GET, LIST, MERGE, REVIEW, RNAME, and SAVE.

Logon level The logon levels are 2 through 5.

Considerations A secured file cannot be copied to tape. While printing a job, unauthorized file access attempts abort the print job, and the message `SECURITY VIOLATION` displays after the message `PROBLEM WITH FILE. . . .`

Exceptions If a font or logo file has been secured to a particular logon level, the file cannot be copied or modified from lower logon classes.

It can, however, be made usable for printing with the FIX command from any logon class.

The contents of a secured file are left in the working storage area when it is manipulated by the editor. Issue a CLEAR command when terminating an edit session to prevent unauthorized access. This type of unauthorized access is not detected or reported.

SELECT

Specifies the active output tray or allows the system to select it automatically. Manual bin selection allows you to fill the selected bin. When full, the operating system stops the printer. Automatic bin selection allows you to fill the active bin. When full, the operating system automatically changes to the alternate tray, thus allowing printing to continue and providing for improved throughput due to the overlapped operation. For both selection modes, approximately 14 pages are delivered to the previously active bin after a new bin selection is made. Thereafter, pages are delivered to the new bin if it is ready.

Syntax

SELECT *keyword$_1$*,*SAMPLE*
or
SELECT *keyword$_2$*

Parameter options

keyword$_1$

1 or 2 or E

Selects a specific tray by the bin number or by entering "E" for the Bypass Transport (BT) output device. If the bin you select is not ready, the printer cycles down and issues an appropriate message. Whenever the bin you select is full, the printer cycles down. Select tray 1 for the stitcher. With the stitcher/stacker, entering "E" for the Bypass Transport output device is an option for XDDI only.

SAMPLE

Selects the specified bin as the active bin to fill, and assigns the remaining bin as a logical sample bin. If the bin you select is not ready, the printer cycles down and issues an appropriate message. If you enter a SELECT command with only a bin number (1 or 2), it cancels the SAMPLE option.

keyword$_2$

AUTO

Selects the alternate bin automatically when the active bin becomes full. Selects active bin if ready, or automatically changes role of bins at initiation of printing.

TRAY

Directs printed output to the top sample tray until you enter another SELECT command.

Logon level

The logon levels are 1 through 5.

Considerations

You must direct transparencies to the sample tray.

If you enter SELECT without an operand, the alternate bin is selected but the mode does not change (for example, if in AUTO, it remains in AUTO; if specific, it remains so). The SAMPLE option is not canceled if the SAMPLE option was previously invoked to specify a bin as the logical sample tray. When you enter SELECT without an operand, the alternate bin is selected and the remaining bin becomes the sample tray. In other words, the active bin and the sample tray change roles.

Any attempt to designate the stitcher/stacker as an alternate sample destination (such as SELECT 1, SAMPLE, or SELECT 2, SAMPLE) is unacceptable by output.

For XDDI only, if SELECT AUTO is entered when a Bypass Transport output device is attached to the printer, the following message is displayed:

```
OS1295 Destination trays not configured for this command
```

SEPARATE

Sends the next output report processed to the other output tray.

Syntax **SEPARATE** *OFF*

Parameter options

(no parameter)
Enables SEPARATE processing.

OFF
Disables SEPARATE processing.

Considerations

A bin change occurs only if the new bin is ready (it is not full or jammed). SEPARATE is disabled by one of the following:

- End of report
- SEPARATE OFF
- Current bin fills before the end of the report
- SELECT command
- SEPARATE remains in effect for the duration of the current report. At end of report, the bin change occurs, and SEPARATE is disabled until you request it again.

SET QUEUE DISPLAY

Use this command to specify the type of information to display in the print queue. The option you specify remains in effect until you change it again.

Logon level The logon levels are 1 through 5.

Syntax **SET QUEUE DISPLAY** [*BRIEF*|*FULL*|*CLASSIC*]

Parameters

BRIEF
Displays information in the BRIEF format. This is the default.

CLASSIC
Displays information in the CLASSIC format.

FULL
Displays information in the FULL format.

Refer to the "JOBS" section, earlier in this chapter, for examples of each queue display format.

SETTIME

Sets the system time and date.

Syntax **SETTIME** *value*

Parameter options

value
mm
Specifies the month with a number between 1 and 12.

mmm
Specifies the month with a three-character abbreviation: JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC.

/
Date delimiter: a slash (/) or hyphen (-), which is required with *mm,dd,yy* variables.

dd
Specifies the day of the month with a one- or two-digit number.

yy
Specifies the last two digits of the year.

hh
Specifies the hour, using a 24-hour clock (military time). The system does not accept a zero (0) as the first digit of this parameter.

:
The time-field delimiter: a colon (:) or space.

mm
Specifies the minute of the hour.

ss
Specifies the seconds field, which is optional.

Logon level The logon levels are 2 through 5.

Considerations You can enter this command only when the system is idle (such as offline with no background tasks running and not printing).

@SETTMO

Changes the maximum period the system waits before sending the DEVICE END status to the host. Increase the maximum period if you receive INTERVENTION REQUIRED errors at the host computer. Decrease the maximum period if you are experiencing printer errors at the host.

After entry of this command, follow the prompts to change the timeout intervals.

Logon level The logon levels are 1 through 5.

Syntax **@SETTMO**

SFC

The following are Status File Converter (SFC) commands.

SFC

Converts the QUE.SYS file to STAFIL.SYS.

Syntax **SFC**

SFC SAVE

Gains access to the QUE.SYS data file and copies it to a temporary file for storage or archival.

Syntax **SFC SAVE** [[*filename*][.*file-type*]]

Parameter *filename*
One to six alphanumeric characters specifying a temporary file for storage of the QUE.SYS data file. The default is QUE if you do not specify one.

file-type
Lets you specify .MSC as the temporary file. The default is .TMP if you do not specify .MSC.

Logon level The logon levels are 1 through 5.

Restriction SFC SAVE cannot be performed when there are unprinted entries in the queue. It is solely to preserve the information of a job after it printed.

SFC SFS DISPLAY

Converts the QUE.SYS file to STAFIL.SYS and displays the status file entries.

Syntax **SFC SFS DISPLAY** [,*SHORT*|*COMPLETE*][,*num*]

Parameters SHORT
Displays the print queue database summary in the short format, which lists the processed jobs. The short summary format contains the following fields: BLOCK NO., JOB NO., REPORT NO., and ENTRY STATUS.

COMPLETE
Displays all information in the print queue database summary, one entry at a time. This is the default.

num
Number of entries to display, where *n* and *m* are integers equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

n
First *n* entries.

m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive. If *n=m*, only one entry displays.

n_1;n_2;...n_{10}
Up to ten discrete entries, where *n* is the *n*th file entry or a range of entries in the form *n-m*. You must specify entries in ascending order.

Logon level The logon levels are 1 through 5.

SFC SFS *filename*

Converts the QUE.SYS file to STAFIL.SYS and prints a status report.

Logon level The logon levels are 1 through 5.

Syntax **SFC SFS** *filename* [,[*SIMPLEX*|*DUPLEX*|*TEST*][,[*c*][,*num*]]]

Parameters No parameters entered
With no parameters entered, prints all entries.

filename
Specifies a user-created form file on disk, which has the format and content of a status report. The file name may be one to six characters (A through Z, 0 through 9). The file extension is .MSC and should not be specified. For more information about this file, refer to the *Xerox 4850/4890 HighLight Color LPS System Programming and Administration Guide*.

SIMPLEX
Prints the report on one side of the paper. This is the default.

DUPLEX
Prints the report on both sides of the paper.

TEST
Prints only the report and column header information and delivers it to the sample tray.

c
Number of copies to print. The default value is 1.

num
Number of entries printed as follows (must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database):

n
First *n* entries.

-m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
Up to ten discrete entries, where *n* is the *n*th file entry, or a range of entries *n-m*.

Restrictions You must specify the entries in ascending order.

Avoid specifying an entry number [num] that does not exist in the SFS command.

SFC SFS HARDCOPY

Converts the QUE.SYS file to STAFIL.SYS and prints the status report.

Logon level The logon levels are 1 through 5.

Syntax **SFC SFS HARDCOPY** [,[*SHORT*|*COMPLETE*] [,[*SIMPLEX*|*DUPLEX*] [,*copies*][,*num*]]

Parameters

SHORT
Prints the status report in the short format which specifies the block number, the job number, the entry number, and the entry status.

COMPLETE
Prints the status report in the long format. This is the default.

SIMPLEX
Prints the status report on one side of the paper. This is the default.

DUPLEX
Prints the status report on both sides of the paper.

TEST
Prints only the report and column header information and delivers it to the sample tray.

copies
Number of copies requested.

num
Number of entries displayed, as follows:

n
First *n* entries.

-m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
Up to ten entries, where *n* is the *n*th file entry, or a range of entries *n-m*.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

Restrictions

You must specify entries in ascending order.

If requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFC SFS HOST

Converts the QUE.SYS file to STAFIL.SYS and formats the status file to transmit to a remote host. This command does not actually transmit the file.

Logon level

The logon levels are 1 through 5.

Syntax

SFC SFS HOST [,[*fmt*][,*num*]]

Parameters

No parameters entered
Formats all entries for transmission.

fmt
Specified data format of EBCDIC or ASCII. The default is ASCII.

num
Number of entries displayed, as follows:

n
First *n* entries.

-m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
Up to ten discrete entries, where *n* is the *n*th file entry or a range of entries *n-m*.

Restrictions You must specify entries in ascending order.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

If requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFC SFS TAPE

Use this command to convert the QUE.SYS file to SYSFIL.SYS and save the status file on a tape.

Syntax **SFC SFS TAPE** [,[*fmt*][,[*blk*][,[*den*][,*num*]]]]

Parameters No parameters entered
Saves all entries.

fmt
Specifies data format: EBCDIC or ASCII. The default is ASCII.

blk
Specifies the block length in bytes: 80, 256, or 512. The default is 256.

den
Specifies the tape density: 1600 or 6250. The default is 1600.

num
Number of entries saved, as follows:

n
First *n* entries.

-m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

Logon level The logon levels are 1 through 5.

Restrictions The SFS tape is created for processing on your host computer; it cannot be used by the LPS.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

If requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFS DISPLAY

Displays print queue database entries. You receive a prompt that allows you to continue or stop the display.

Syntax **SFS DISPLAY**,*type,num*

Parameter options

type

SHORT
Displays the print queue database summary in the short format which lists the processed jobs. The short summary format contains the following fields: BLOCK NO., JOB NO., REPORT NO., and ENTRY STATUS.

COMPLETE
Displays all information in the print queue database summary, one entry at a time.

num

Specifies the number of entries to display, where *n* and *m* are integers. The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

n
Specifies the first *n* entries.

-m
Specifies the last *m* entries.

n-m
Specifies all entries between *n* and *m*, inclusive. If *n*=*m*, only one entry displays.

n_1;n_2;...n_{10}
Specifies 1 to 10 discrete entries, where *n* is the *n*th file entry or a range of entries in the form *n-m*. You must specify entries in ascending order.

Default The default displays all entries.

SFS *file-name*

Prints the contents of the print queue database in simplex or duplex, and selects the tray from which to print.

Syntax **SFS** *file-name*,*sides*,*c*,*num*

Parameter options

file-name

Specifies a one- to six-character name of an .FRM file designed to print the queue database contents. Its file type must be .MSC and should not be specified.

sides

SIMPLEX
Prints the report on one side of the paper.

DUPLEX
Prints the report on both sides of the paper.

TEST
Prints only the report and column header information and delivers it to the sample tray.

c

Specifies the number of copies to print.

num

Specifies the number of entries printed as follows:

n
The first *n* entries.

-m
The last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
1 to 10 discrete entries, where *n* is the *n*th file entry, or a range of entries *n-m*.

The specified value(s) must be equal to or greater than one and equal to or less than the maximum number of entries in the print queue database.

Default The default value is 1.

Considerations You must specify the entries in ascending order.

Avoid specifying an entry number [*num*] that does not exist in the SFS command.

SFS HARDCOPY

Prints a report of the print queue database contents and delivers the report to the selected print tray.

Syntax **SFS HARDCOPY**,*length*,*sides*,,*num*

Parameter options *length*

SHORT
Prints the status report in the short format which specifies the block number, the job number, the entry number, and the entry status.

COMPLETE
Prints the status report in the long format.

sides

SIMPLEX
Prints the status report on one side of the paper.

DUPLEX
Prints the status report on both sides of the paper.

num

Specifies the number of entries displayed specified as follows:

n
The first *n* entries.

-m
The last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
1 to 10 entries, where *n* is the *n*th file entry, or a range of entries *n-m*.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

Default The default prints all entries.

Considerations You must specify entries in ascending order.

If the requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFS HOST

Formats the print queue database for transmission to a remote host and saves this host-format file to the LPS disk, using the file name SFASEB.MSC. The LPS-to-host file transfer interface can then be used to transfer the file. (The SFS HOST command does not send the print queue database file to the host.)

Syntax **SFS HOST**,*fmt*,*num*

Parameter options

fmt
Specifies the data format: EBCDIC or ASCII.

num
Specifies the number of entries displayed as follows:

n
The first *n* entries.

-m
The last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

$n_1;n_2;...n_{10}$
1 to 10 discrete entries, where *n* is the *n*th file entry or a range of entries *n-m*.

Default The default format is ASCII.

Considerations You must specify entries in ascending order.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

If the requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFS TAPE

Copies the print queue database to an LPS-labeled tape.

Syntax **SFS TAPE**,*fmt,blk,den,num*

Parameter options

fmt
Specifies the data format: EBCDIC or ASCII.

blk
Specifies the block length in bytes: 80, 256, or 512.

den
Specifies the tape density: 1600 or 6250.

num
Specifies the number of entries saved as follows:

n
First *n* entries.

-m
Last *m* entries.

n-m
All entries between *n* and *m*, inclusive.

Default The default for *fmt* is ASCII. The default for *blk* is 256 and the default for *den* is 1600.

Considerations SFS tape is created for processing on your host computer; it cannot be used by the LPS.

The values you specify must be equal to or greater than one, and equal to or less than the maximum number of entries in the print queue database.

If the requested entries have not been used (filled in), an error displays (coded as SF9500).

You cannot specify discrete sets of entries with this command.

SFS!

Abbreviates the SFS TAPE,EBCDIC,80,1600 command.

Syntax **SFS !**

Logon level The logon levels are 1 through 5.

SFT

Transfers single files from a DSR tape to a system disk drive. The system determines which disk the file is copied to.

Syntax **SFT**

Logon levels The logon levels are 2 through 5.

Considerations SFT restores files only from tapes created with DSR.

You can copy only one file at a time from tape to disk.

When writing a file to disk, SFT deletes the file on the disk (if it already exists) and writes the file from the DSR tape to the first location on the disk which can accommodate the file size.

Specify the full file name; SFT does not support wildcards.

Do not copy .Y, .SAF, .SYS, .TSK, or .LOG files.

If two files have the same name on the DSR tape, SFT writes only the first file to disk.

If a system disk is full, SFT writes the specified file to the next disk.

The system disks must be structurally intact and consistent.

SHOW QUEUE STATUS

Displays the following print queue information:

- Queue display mode
- Queue Manager status
- Schedule mode
- Status of STITCH
- Jobs in the input job queue
- Documents queued for output processing.

Syntax **SHOW QUEUE STATUS**

Logon level The logon levels are 1 through 5.

Example An example of the SHOW QUEUE STATUS display is shown in figure 1-14.

Figure 1-14. **Example display**

```
Queue status mm/dd/yy hh:mm:ss
Queue manager is xxxxxx   schedule mode is xxxx
System is OFF-LINE
Stitch off active
Job queue is xxxxxx
n reports queued requiring CYAN primary
n reports queued requiring MAGENTA primary
n reports queued requiring GREEN primary
n reports queued requiring BLUE primary
n reports queued requiring RED primary
n reports queued requiring multiple primary
n reports queued requiring stitching
OS1000 READY FOR COMMANDS hh:mm;ss
```

SPACE *n* REPORTS

Positions a tape or cartridge by logical reports within the limits of the start-of-job tape position and the end-of-data, along with the REPORTS option. Enter the START command first to initiate a job before you enter the SPACE command.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command.

Syntax **SPACE *n* REPORTS**

Parameter options *n*

Specifies a decimal integer in the range -32768 to +32767. A positive number indicates forward report spacing, and a negative number indicates backward spacing. The tape cannot be positioned before the start-of-job tape position or after end-of-data. If the start-of-tape position is on another tape, the tape cannot be positioned to it.

Considerations

You can enter a SPACE command any time after initiating a job only if the following conditions are met:

- Input is stopped. Use the STOP INPUT command; it is confirmed by the message `INPUT STOPPED`, or when the system is suspended.
- START command did not specify the REPORTS option.

SPACE *n* PAGES

Positions pages forward and backward within the current report during report printing. During forward page spacing, if output catches up with input, output displays a message indicating that this has occurred and resumes spacing when the catchup condition no longer exists. While output is being caught up, output accepts and processes other commands with the exception of the SAMPLE command.

An accounting page is produced at the end of the report, indicating that the page spacing was performed.

Syntax

SPACE *n* **PAGES**

Parameter options

n

Specifies a decimal integer in the range -32768 to +32767. A positive number spaces forward over *N* pages unless end-of-report is encountered first. If encountered, no further forward spacing is allowed until printing is resumed. A negative value spaces backwards over *N* pages unless the beginning is encountered. If encountered, no further backward spacing is allowed until printing is resumed.

Logon level

The logon levels are 1 through 5.

Considerations

A sample cannot be obtained during spacing.

Once you begin page spacing, you cannot stop it before the specified number of pages have been spaced without aborting the report.

Prior to selecting the PAGE SPACE command, stop output via the STOP or STOP O command. After the PAGE SPACE command, resume printing using the CONTINUE or CONTINUE O command.

n must include all pages, including the system-generated pages.

Page spacing is not executed when:

- ABNORMAL SECURITY=YES is coded in the JDE/JDL in effect. The `OS1420 SPACING NOT ALLOWED BY JDE` message displays.
- The current report is *n*-1. The `OS1421 SPACING NOT ALLOWED FOR N-1 REPORTS` message displays.
- Output is not stopped. The `OS2840 OUTPUT MUST BE STOPPED BEFORE PAGE SPACING CAN BE DONE` message displays.
- Output is not currently working on a job. The `OS2715 COMMAND IGNORED...RETRY LATER` message displays.

Backward spacing is not allowed if the system is printing the last (or only) copy of a collated report.

For duplex printing, page spacing prints on the front and back of each sheet. Therefore, if you enter an odd page count in a space command, the total number of pages actually spaced is 1 greater. Page spacing logic counts physical sides of sheets; both

sides in duplex, and only one side in simplex. No consideration is given to logical pages on any physical side.

Example For example, a report requires 5 sheets in duplex, 10 sheets in simplex, and each side consists of four logical pages (4-up) for a total of 40 logical pages, and you issue a space command of 3 pages. In simplex, the system delivers 3 sheets, for a total of 12 logical pages. In duplex, the system increments the odd space count to 4, such that 2 sheets will be delivered (16 logical pages).

SST

Creates a system software tape. You can also perform the following tasks:

- Create backups of Xerox labeled tapes, primarily of SST. (These are referred to as "offline" SST in the system prompts.)
- Create backups of SST tapes which can be read from your host and downloaded to the LPS. (These are referred to as "online" SST tapes in the system prompts.)
- Modify an SST tape by deleting or replacing files on it.
- Restore a file from the SST tape to the LPS.
- Copy the restored files to another SST tape.
- Delete the restored files from the LPS disk.

The SST tape you create with SST is used to run a full offline or online system generation.

Once you enter the command, the system prompts you with menu choices.

Syntax **SST**

Parameter options None to create backups, restore files to the LPS, copy restored files to another tape, or delete the restored files. ADD, DELETE, and MOVE allow you to modify files on the SST tape or cartridge.

Add syntax **ADD** */BF*:*n file-name*$_1$ *file-name*$_2$

Add parameter options

ADD
Adds a file which resides on the disk to the list.

/BF:*n*
Assigns a blocking factor from 1 to 16 to the added file.

file-name$_1$
Specifies the file in the list after which *file-name*$_2$ is to be added. *file-name*$_1$ may be the word BEGIN which adds *file-name*$_2$ to the beginning of a list.

file-name$_2$
The file residing on the disk that is to be added to the list.

Add Considerations The ADD command does not include a date in the tape header.

Delete Syntax **DELETE** *file-name*

Delete parameter options

DELETE
Deletes the file from the list.

file-name
Specifies the file name to be deleted from the list.

Move Syntax **MOVE** *keyword,file-name*$_2$

Move parameter options

MOVE
Moves a file from one position on the list to another.

keyword
BEGIN
Moves *file-name*$_2$ to the beginning of the list.

file-name$_1$
Moves *file-name*$_2$ after the specified file name.

file-name$_2$
Specifies the list of files to be moved.

Logon level The logon level is 4 or 5.

Considerations You can copy 1 to 1350 files with SST or system software cartridge (SSC).

The tape used to duplicate the original SST should be the same density.

START

Initiates a print job or prints a tape dump.

START — submit a print job

Submits a print job and uses the various options depending upon the input source and the output destination. The print data will be read from the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command.

You can enter another START or a SAMPLE command while the previous START command is executing.

Syntax **START** *jde,jdl,value,copies,***REPORTS**:*r*$_1$,*r*$_2$,...

Interpress syntax **START** *jde,jdl*,,*copies*,DISC:*document-name*

Parameter options

jde
A one- to six-character identifier for the job descriptor entry to be used in processing the job. If you omit this entry, the user-specified default (DFLT) of the job descriptor library is used.

jdl
A one- to six-character identifier of the job descriptor library for the print job. It must be listed in the jdl file directory. If you omit this entry, the default jdl with the identifier DFAULT in the PDL SYSTEM command is used.

value
S or M
Specifies single report (S) or multiple report (M). The default is multiple report. Single report halts the system after processing each report to allow you to select the job setup parameters for the next report by entering a new START command. The accounting sheet will call the report "REPORT 1." If REPORTS is invoked with the S mode, the REPORT overrides the S option.

If multiple reports are listed in the REPORTS option, all the reports are processed in multiple report mode, except the last report, which is processed in single report mode. Multiple report mode allows all reports in all files to be processed continuously. Processing automatically moves from report to report, file to file, and volume to volume.

copies
Prints a specified number of copies of a report. Overrides the value specified in the job descriptor entry and any DJDE commands.

r_1,r_2...
Specifies the sequence of 1 to 14 reports to be processed. Only reports specified are printed. r_1 and r_2 are numeric values or ranges of values representing the print order of reports. A range is specified as *n-m*, where *n* and *m* are the first and last reports in the range, respectively. For example, entering REPORTS: 6,1-3,5,4 causes the sixth report to print first, followed by the first through third, followed by the fifth and then the fourth. If the job contains more than 6 reports, they would not be processed. The REPORTS option is also useful for printing one report of a multiple report tape. This saves the step of spacing over reports not needed. Refer to the SPACE command for more information.

document-name
Specifies the name of the file created by the HIP CHANGE command.

Examples

START J12,H2SYS
This command starts a print job using the H2SYS job descriptor library and the job descriptor entry J12. It runs in multiple report mode (by default) and prints the number of copies as specified in the J12 job descriptor entry. The job descriptor library, H2SYS, must reside in the JDL directory.

START J12,H2SYS,,5
This command is the same as in example 1 with the exception that five copies are requested. The value of 5 entered for copies overrides the value specified in the J12 job descriptor entry. Note that a comma replaces the unspecified mode option; therefore, the default mode, multiple report, takes effect.

START
No options are specified, so the START command defaults take effect. The default for the job descriptor library is DFAULT, which must exist in the JDL directory. The job descriptor entry used is DFLT, which must exist in the DFAULT JDL. The command START,DFAULT has the same effect.

START J12,H2SYS,,2,REPORTS:3-4
This command reprints two copies of the third and fourth reports on the data tape.

START, ONLINE,,,FORM=GBAR
This command processes online data according to the DFLT JDE in the online .JDL file, using the GBAR form.

Considerations

The REPORTS option is available only for offline jobs. If you are running an online job, you must enter a comma (,) as a place holder for the S or M in the START command.

START parameter options are positional and must be separated by commas. You must enter a comma to replace a parameter that is not specified.

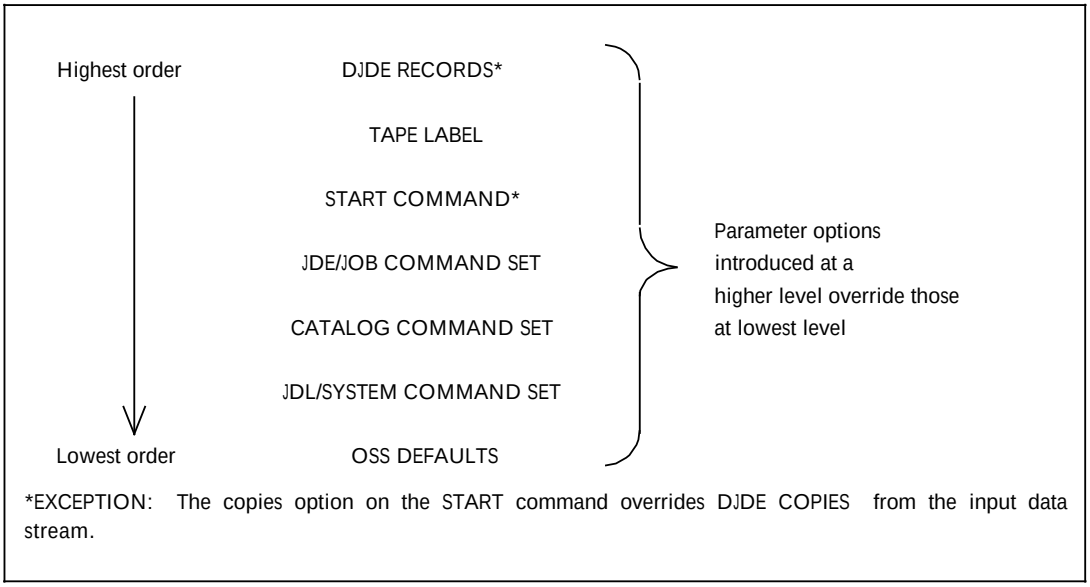
The START options override those specified in the job descriptor library. Figure 1-15 lists details on override parameter options.

If a specified font or form file fails a validity check during input, the system aborts the job and displays the following messages:

```
OS8852 INVALID FONT FILE HEADER
```
or
```
OS8855 INVALID FORM FILE HEADER.
```

When HIP submitted jobs are running, the START command is not allowed. When tape or disk jobs are running, the START command is allowed.

Figure 1-15. **Hierarchy of replacement**



START — print a tape dump

Prints a dump of the tape. You can also use this command to print a file created by the COMPRESS command.

Syntax **START***n*,**DUMP**

Parameter options

n=1
Indicates a H6000 BCD tape (OCTAL dump).

n=2
Indicates an EBCDIC tape (HEX dump).

n=3
Indicates an ASCII tape (HEX dump).

n=4
Indicates an H2000 BCD tape (OCTAL dump).

n=5
Indicates an IBM BCD tape (OCTAL dump).

n=6
Indicates a UNIVAC tape (OCTAL dump).

STITCH

Automatically staples a document with 2 to 50 pages. The printer staples portrait sheets in the upper left corner. The printer staples landscape sheets in the upper right corner.

Syntax **STITCH** *state*

Parameter *state*

ON
: Enables stapling.

OFF
: Overrides the job and turns off the stapling until the end of job or until a STITCH ON command.

Logon levels The logon levels are 1 through 5.

STOP

Suspends input and/or output processing. The system can process input for one job and output for another job since input and output are controlled separately. Stopping input suspends the processing of input data, but allows output to continue. Stopping output suspends printing after cycling out the paper path, but allows processing of input data to continue.

Syntax **STOP** *value*

Parameter options no parameter
: Stops input and output processing and the QM scheduling activity until you enter CONTINUE.

value

I
: Suspends input activities until you restart them with CONTINUE I.

O
: Suspends output activities until you restart them with CONTINUE O.

Q
: Suspends the QM. The QM does not reschedule reports until you restart it with CONTINUE Q.

Considerations If you enter STOP without an operand, the QM input and output activities are suspended.

SUBSTITUTE

Identifies the tape or cartridge drive and assigns it to the TAPE or CARTRIDGE keyword.

The following system commands automatically work with the drives currently associated with the TAPE keyword: DSR, IFU TAPE, MOVE, REWIND, SFS, SPACE, SST, TAPE (editor command), and COPY (editor command).

The following system commands accept the CAR keyword in the command line to specify the tape or cartridge device assigned to the CAR keyword: DSR, IFU TAPE, TAPE (editor command), and COPY (editor command).

SUBSTITUTE DEVICE

Identifies the tape or cartridge drive which is currently associated with the TAPE and CARTRIDGE keywords.

Syntax **SUBSTITUTE** *device*

Logon levels The logon levels are 1 through 5.

SUBSTITUTE DEVICE DEFAULT

Assigns the TAPE or CAR keyword to the default physical tape device (CTS for CARTRIDGE and REEL for TAPE).

Syntax **SUBSTITUTE DEVICE DEFAULT**

Logon levels The logon levels are 1 through 5.

SUBSTITUTE DEVICE *physical-device*

Displays information about a specific device.

Syntax **SUBSTITUTE DEVICE** *physical device*

Logon level The logon levels are 1 through 5.

Parameters *physical device*

Displays information about the physical device you specify. You can specify one of the following:

SREEL
: 9 track, open-reel tape drive (SCSI) mounted in the peripheral cabinet.

MREEL
: 9 track, open-reel tape drive (MTA) mounted in the cabinet that is usually placed on top of the system controller cabinet.

REEL
: This parameter allows the system to pick whichever open-reel tape drive is installed on your system.

SCTS
: 1/4 inch cartridge tape drive (SCSI).

SFCTS
: 1/2 inch, 3480-compatible, cartridge tape drive (SCSI).

MFCTS
: For the 4850 only, the 1/2 inch, 3480-compatible, cartridge tape drive mounted in the 180-CTS Cartridge Tape System (MTA).

CTS
: This parameter allows the system to pick whichever cartridge tape drive is installed on your system.

Due to the long power-up/initialization period of the 3480 cartridge tape drive, this device is always considered present, regardless of the true system configuration. Thus, any SUBSTITUTE DEVICE assignment involving the SFCTS physical name will be accepted, even if this tape drive is not physically present.

An example of such a tape command is SUB DEV SFCTS FOR CAR. If you attempt to access and use this drive (such as with the command COP CAR REA LAB XYS.FNT), you are informed that the device is offline. In this situation, this offline message indicates that the device does not exist.

SUBSTITUTE DEVICE *physical-device* FOR *keyword*

Assigns a specific physical device to the TAPE or CARTRIDGE keyword.

System boots, updates, or mini-sysgens do not reset TAPE and CARTRIDGE physical device assignments. A full sysgen with disk format resets SUBSTITUTE DEVICE assignments to their defaults.

Syntax **SUBSTITUTE DEVICE** [*physical-device*] **FOR** [*keyword*]

Parameters

physical-device
Associates the keyword with the physical device you specify. Refer to the preceding section for a description of the physical devices available.

keyword
The following keywords are available:

TAPE
Specifies the device assigned to the TAPE keyword.

CARTRIDGE
Specifies the device assigned to the CAR keyword.

Logon level The logon levels are 1 through 5.

Example

SUB DEV REEL FOR TAPE
Assigns the physical device for REEL to the keyword TAPE.

Restriction You can change device assignments only when the LPS is idle.

Device names

If the LPS has only one 9-track tape, one cartridge tape, or one of each, use the general names in table 1-22.

Table 1-22. **General physical device names**

General names	Devices
CTS	Any cartridge tape 18-track 3480 cartridge, if only one is installed on the system.
REEL	Any single 9-track tape, if only one is installed on the system.

If the LPS has two or more 9-track tapes or two or more cartridge tapes, use the specific names in table 1-23.

Table 1-23. **Specific physical device names**

Specific names	Devices
MREEL	Upright 9-track tape (MTA interface)
SREEL	Front load, reel-to-reel (P-CAB)
FCTS	18-track cartridge (if only one 18-track on LPS)
MFCTS	Upright 18-track cartridge (180 CTS or MTA interface)
SFCTS	3480 cartridge (P-CAB)

Table 1-24 lists the device keywords used with this command.

Table 1-24. **Device keywords**

Specific names	Devices
TAPE	Default keyword used by LPS applications (for example, Editor, DSR, IFU, offline print jobs) when the keyword is omitted.
CARTRIDGE	Keyword used by LPS applications (for example, Editor, DSR, IFU, offline print jobs) when CAR is specified in the command line.

Examples When you issue the following SUBSTITUTE DEVICE commands, the subsequent commands function as described:

SUB DEV REEL for TAPE
: Assigns the physical device for REEL to the keyword TAPE.

SUB DEV
: Displays the current SUB DEV assignments for the keywords TAPE and CARTRIDGE.

DSR or DSR TAPE
: Saves disk files to the physical device assigned to the keyword TAPE.

COP CAR WRI LAB TMP
: Writes files to the physical device assigned to the keyword CARTRIDGE.

STA 2UP,RSX
: Prints using the physical device assigned to the keyword TAPE.

Considerations You can change device assignments only when the LPS is idle.

TAPE or CARTRIDGE FIND

Positions the tape or cartridge preceding the label record of the file. You can then issue commands to manipulate this file.

Syntax *medium* **FIND**,*file-id*

Parameter options

medium

TAPE or CARTRIDGE

Specifies the device assigned to the TAPE or CARTRIDGE keyword using the SUB DEV command.

file-id

Positions an LPS-labeled tape or cartridge at the specified file.

Logon levels The logon levels are 1 through 5.

Default TAPE is the *medium* default.

TAPE or CARTRIDGE LIST

Creates a disk file of *file-names* and sorts them alphabetically. You can also add leading or trailing strings to facilitate future command file manipulation of that tape or cartridge.

Syntax *medium* **LIST**,*PRINT/SORT,keyword,leading string,trailing string*

Parameter options

medium

TAPE or CARTRIDGE

Specifies the device assigned to the TAPE or CAR keyword using the SUB DEV command.

PRINT

Lists the *file-ids of* the labeled tape, beginning at the current tape position. If you omit this parameter, the tape directory displays.

/SORT

Alphabetically sorts a list of file names of the files on tape. Up to 3,600 file names can be sorted. When this limit is reached, the message `FILE/LIST TOO LONG, ONLY FIRST 3600 FILE NAMES WILL BE SORTED.` is displayed. Sort by file types for large disk or tape volumes.

keyword

/file-name.file-type

Specifies the file, created on disk, which contains a record for each file listed in the following order: Lead str *file-id* Trailstr. The default *file-type* is .TMP.

filename.filetype

Specifies the file created on disk that contains the alphabetically sorted list of tape files.

leading string

Character string (except commas) that is added before each *file-name* in the list that is created.

trailing string

Character string (except commas) appended to each *file-name* in the list that is created. The total number of leading and trailing characters cannot be greater than 50.

Logon levels The logon levels are 1 through 5.

Default The default file-type is .TMP and the default *medium* is TAPE.

Example TAPE LIST,PRINT /SORT, *.FRM FRMFIL.LST

This command creates a file called "FRMFIL.LST" which lists all the .FRM files on the mounted tape. The file names in FRMFIL.LST are sorted in alphabetical order, and FRMFIL.LST is printed. If the screen display of the sorted records is interrupted during a pause by the X command, then the created file "FRMFIL.LST" lists only the displayed file names.

Listing begins at the current tape position and continues to the end of the tape. (The listing may be stopped by entering the X command when the pause occurs on the display.) If the PRINT option is specified, the operator is asked to enter a tape volume ID. The ID can be 0 to 30 characters. If more than 30 characters are entered, only the first 30 characters are used. The following title line appears on each page of the printed listing:

```
TAPE DIRECTORY date time TAPE ID: id string
```

The following header line precedes the tape file information on both the screen and printed listings:

```
FILE NO.  FILE NAME FILE SIZE - BF - DATE
```

FILE NO.
: Decimal number that indicates the numerical position of the file on the tape.

FILE NAME
: The *file-id*.

FILE SIZE
: Number of 512-byte disk sectors.

- BF -
: Number of 512-byte disk sectors in 1 tape block.

DATE
: Date the file was written to tape.

If a valid tape label cannot be found, a number appears in the FILE NO. field, but the other fields are blank. This is the case when listing a system software tape (SST). The first two files of the SST do not have labels. A string of asterisks appearing in the date field means that no date was specified in the label or that it could not be converted properly.

To print the file, exit from the editor (using the END command). You may spool editor print files. The current working storage file is intact if you reenter the editor after the file is printed. The listing is in portrait mode.

TAPE or CARTRIDGE NEXT

Identifies the next file on the tape or cartridge, and positions the tape or cartridge for manipulating that file.

Syntax *medium* **NEXT**

Parameter options

medium
: TAPE or CARTRIDGE
: Specifies the device assigned to the TAPE or CAR keyword using the SUB DEV command.

Default TAPE

Logon level The logon levels are 1 through 5.

Considerations The system ignores another NEXT command until it executes another TAPE command.

TAPE or CARTRIDGE REWIND

Rewinds a tape or cartridge to the beginning.

Syntax *medium* **REWIND**

Parameter options *medium*
TAPE or CARTRIDGE
Specifies the labeled tape or cartridge assigned to the TAPE or CAR keyword using the SUB DEV command.

Default TAPE

Logon level The logon levels are 1 through 5.

Considerations Use REWIND rather than TAPE or CARTRIDGE REWIND after issuing a MOVE command. Using the TAPE or CARTRIDGE REWIND command after MOVE can result in the erroneous and misleading message `Tape went offline during operation`.

TAPE or CARTRIDGE SKIP

Positions the tape or cartridge after the specified number of files.

Syntax *medium* **SKIP***n*

Parameter options *medium*
TAPE or CARTRIDGE
Specifies the device assigned to the TAPE or CAR keyword using the SUB DEV command.

n
A positive integer which specifies the number of tape marks the tape or cartridge is past.

Logon level The logon levels are 1 through 5.

Default TAPE

TAPE or CARTRIDGE UNLOAD

Unloads the tape or cartridge after rewinding it.

Syntax *medium* **UNLOAD**

Parameter options *medium*
TAPE or CARTRIDGE
Specifies the labeled tape or cartridge assigned to the TAPE or CAR keyword using the SUB DEV command.

Logon level The logon levels are 1 trough 5.

Default TAPE

TAPE or CARTRIDGE VOLINIT

Initializes a tape or cartridge in the Xerox labeled format and specifies the data recording density.

Syntax *medium* **VOLINIT**,*value*

Parameter options *medium*

TAPE or CARTRIDGE

Specifies the device assigned to the TAPE or CAR keyword using the SUB DEV command.

value

Initializes the tape or cartridge at 1600 or 6250 bpi.

Logon level The logon levels are 1 through 5.

Default TAPE

TIME

Verifies the time and date maintained by the system, or turns the display on and off. (Some nonprint tasks turn this display off during processing, but turn it back on when completed.) If you do specify a parameter, the current date, time, and system status display continually in the upper right corner of the system controller display.

Syntax **TIME** *state*

Parameter options *state*

ON

Turns the display on and keeps it updated.

OFF

Turns the display off.

Logon level The logon levels are 1 through 5.

Default Time is ON when the system is first powered on or rebooted.

Example The time and status display has one to five lines of information, each consisting of two spaces and eight characters of status information. Figure 1-16 shows the display format.

Figure 1-16. **Time and status display**

```
..hh:mm:ss
..IiiiOooo
..HostStat
```

The first line is always the current time of day. The second line reflects the status of input and output processing if they are processing; otherwise, this line is blank. The third line reflects the status of the remote input source if the system has one and it is active; otherwise, this line is blank. The second and third line(s) are displayed only if necessary. Table 1-25 lists the various statuses for input, output, and remote input.

Table 1-25. **Status display information**

Iiii	**Input status**
WAIT	Waiting for a job.
TAPE	Processing a tape job.
DISK	Processing a disk job.
HOST	Processing an online job.
HIP	Processing a HIP job.
Oooo	**Output status**
WAIT	Waiting for a job.
JAM	Printer jammed and must be cleared.
PRsd	Actively printing: source and destination are indicated by "sd."
IDLE	Neither input nor output processing is active.
Host	**Remote source**
HOST	IBM online host
XNS	Ethernet host
871	871-CM host
DMR	DMR-11 host
XPAF	XPAF host
Stat	**Remote source status**
OFFL	No communication between host and LPS.
NRDY	Communication established but LPS not ready to receive data or commands from host.
WAIT	LPS ready and waiting for data or commands from host.
RECV	LPS actively receiving data or commands from host.
SEND	Host actively sending data or commands to LPS.
SPND	LPS has suspended communication with the host.
ONLP	LPS pending receipt from host.
SESN	Active XNS session.

If the remote source is a host computer and the printer needs your intervention, the host is notified, and the third line is replaced by the message:

```
A T T N.
```

If your LPS uses the HIP and the IBM 3211 online channel interface concurrently, the time and status display in the upper right corner of the screen may not always be correct. The third line of this display indicates the selected remote interface and its current status. When both interfaces are active, they are both updating the same status fields, and only the most recent update will be seen. As a result, the displayed current host may be, and may remain, incorrect. The current status will continue to display the most recent status change of whichever interfaces are active.

TYPE

Displays a source file without editing the file.

Syntax **TYPE** *disk-id file-id*

Parameter options

disk-id
Identifies the system disk (DP0:, DP1:, DP2:, or DP3:) which contains the FILE-ID to be displayed.

file-id
Specifies the file name *file-name.file-type.*

To view a file in the system, you must have an appropriate level of access.

Logon level The logon levels are 1 through 5.

2. Editor commands

This section describes the text file editing conventions and commands available for the Xerox 4050/4090/4450/4650 Laser Printing Systems.

LPS editor

The Laser Printing System (LPS) editor is a utility which provides file editing facilities as part of normal operator communication and control. These facilities are available for the creation, modification, and maintenance of files when the system is idle. The editor has commands for creating and modifying source files (JSL, FSL) as well as commands for the maintenance of any type of system disk file.

Starting an editing session

You enter **EDIT** to invoke the editor and begin an editing session. The system displays the EDIT> prompt when you are working in the editor.

Line numbers in source files

Each source file has line numbers associated with its data records. These numbers allow you to access and perform editing operations on each line of the source file. If you are downloading source files from a host computer through HOSTCOPY, you must use the MERGE command described in this chapter to add line numbers. The editor automatically adds line numbers to all other types of source files.

Editing operations you can perform

You enter single string commands to do the following:

- Create a sequenced source file
- Insert, reorder, and replace lines of text
- Selectively print and display files
- Reorder and renumber records within a file
- Merge part of one file into another
- Match, move, and substitute character strings within a specified range of text lines
- Copy, rename, and delete files.

Edit changes made to .TMP files

When you modify a file, you make changes to a temporary file in working storage, not to the permanent file on a system disk. When a request is made to edit an existing file, the specified file is copied into working storage. The system saves these working files from one editor session to another, but any intervening use of the editor is likely to destroy file contents. If you want to save a working file permanently, you must use the SAVE command.

Storing source files

The system has two to four system disks: DP0: and DP1:, and optionally DP2: and DP3:. To optimize file access, files of a given type are stored on a preferred drive; this is known as *file biasing*. The actual biasing scheme varies depending on the number of drives available. For example, source files tend to be stored on DP3: in a three- or four-disk system. You may, however, store all source files on any system disk by specifying a *disk-id*. To access a specific system disk when you store files, you specify the disk-id in the command (for example, DP0:, DP1:, DP2:, or DP3:). If you do not enter a disk-id, the system transfers the files to or from the appropriate disk.

Source file type directories

You can edit source files found in the directories listed in table 2-1.

Table 2–1. **Source file type directories**

File type	Contents
CMD	Command file source files
DAT	Data files
FSL	Form source language files
LIB	Utility files
JSL	Job source language file
MSC	Temporary user files
PCH	Patch files
TMP	Temporary user files

Non-source file type directories

You cannot edit files found in the directories listed in table 2-2, although you can perform the operations associated with the following commands: LIST, FILE, DELETE, COPY, and RNAME.

Table 2–2. **Non-source file type directories**

File type	Contents
CME	Copy modification entry object files
FIS	Font interchange standard files
FNT	Font data files
FRM	Form object files
ICT	Ink catalog (defined ink data) files
IDR	Ink description data files
IMG	Digitized graphic image files
IPF	Interpress fragment files
IPM	Interpress font mapping files
JDL	Job descriptor library object files
LGO	Logo data files
LOG	System integrity log files
OSD	OSDS diagnostic files
STK	Stockset files
SYS	System data files
Y	System files
TPF	Temporary patch files
TSK	System task image files
TST	RTEXT object files
XCS	Interpress document files

Sample editor sessions

Figures 2-1 through 2-4 illustrate the use of some editor commands. Underlined text represents operator input.

Figure 2–1. **Create and save a Job Source Library file (JSL)**

```
0S1000 READY FOR COMMANDS  08:35:00
EDIT
EDIT>INS 10,10
000010  SYSPDL:SYSTEM;
000020  VOLUME HOST=POWERVS,PLABEL=YES;
000030  BLOCK LENGTH=2048;
000040  ACCT USER=(BIN,TRAY);
000050  21:JOB;
0000060  END;
0000070  <ENTER>
EDIT>SAVE SYSPDL.JSL
EDIT>CLEAR
Work file cleared
EDIT>END
OS1000 READY FOR COMMANDS 8:37:30
```

Figure 2–2. **Modify and save a JSL file**

```
EDIT
EDIT>GET SYSPDL.JSL
EDIT>INS 11
000011  /*SYS JDL*/
000012  <ENTER>
EDIT>FIND 10-60/JOB/
000050 21:JOB;
EDIT>S/JOB/JDE
000050 21:JDE;
EDIT>DIS 40
ACCT USER=(BIN,TRAY);...000040
EDIT>REMOVE 40
1 Records deleted
EDIT>SAVE
EDIT>DISPLAY
<displays working file>
EDIT>CLEAR
Work file cleared
EDIT>END
```

Figure 2–3. **Print a JSL file**

```
OS1000 READY FOR COMMANDS  08:35:00
Edit
Editor version I04
Edit>GET TSTSYS.JSL
Edit>PRINT
Print Job queued, must exit to print
Edit>CE
Work file cleared
0S1010 Starting job 00003
OS1000 READY FOR COMMANDS  08:36:00
OS1020 Job 00003 has completed input phase
OS0020 Resuming OUTPUT
OS1030 Job 00003 has completed printing
OS1000 READY FOR COMMANDS 8:36:30
```

Figure 2–4. **Copy, list, and delete JSL files**

```
OS1000 READY FOR COMMANDS  08:35:00
EDIT
Editor version I04
EDIT>COPY SYSPDL.JSL TSTSYS.JSL
Creating file TSTSYS.JSL
EDIT>FILE JSL
<THE SYSTEM LISTS ALL THE FILES IN THE JSL DIRECTORY>
EDIT>
EDIT>DELETE SYSPDL.JSL
SYSPDL.JSL Deleted
EDIT>END
```

Conventions

The following conventions apply to the editor commands:

Commands

With the exception of composite commands such as SCE, you can enter all commands in full or with the first three characters only. For example, you can enter RENUMBER or REN.

Always enter composite commands in full.

Press <ENTER> to submit each command for execution.

Source file names should contain only uppercase letters A through Z, and numbers 0 through 9.

Character strings

Split character strings longer than 80 characters as follows:

- Use the ampersand character (&) to indicate the character string continues in the next record.
- Use the syntax of the character string to indicate that it continues in the next record.

Examples

'XEROX.PICTORIAL.RED' 00010

Ink name within one record:

'XEROX.PICTORIAL. 00010
RED' 00020

Ink name within two records using string syntax (a period) to continue the string.

'XEROX.PICTORIAL.& 00010
RED' 00020 or

'XEROX'PICTORIAL.& 00010
RED' 00020 or

'XEROX.PICTOR& 00010
IAL.RED' 00020

Ink name within two records using an ampersand to continue the string.

Masking

When you specify the file id in file maintenance commands, you can use the masking feature unless otherwise noted. With masking, you use an asterisk (*) or question mark (?) as a wildcard or string lookup for the file name. The asterisk makes single and multiple alphanumeric characters, even a blank, a match. The question mark makes only single alphanumeric characters, including a blank, a match.

File id

The file id refers to the name of a file and the file directory in which it is cataloged. Thus, when specifying a file id, you must key in *file-name.file-type*. *File-name* is a one- to six-character file name. *File-type* is one of the file directories under which the file name is cataloged. For example, SIGMA.JSL would be the file id of the file named SIGMA, which is cataloged in the JSL file directory.

Disk id

The disk id refers to one of two to four system disks, which are defined as DP0:, DP1:, DP2:, or DP3:. File manipulation editor commands which do not specify a disk number transfer the files to or from appropriate disk according to file type. You can direct access to or from a specific disk.

Syntax variations

When *n-m* is used in the command syntax, the following usage is implied:

n-m
Specifies starting and ending line numbers.

n
Specifies one line number.

n-
Specifies line number to the end of the file.

-m
Specifies beginning of the file to the identified line number. The highest valid line number is 32,765. The maximum number of file records (lines) is 5000.

Command summary

Table 2-3 gives a complete listing of the text file editing conventions for the Xerox 4050/4090/4450/4650 LPS.

Table 2-3. **Editor commands**

Command	Function
C	Changes the specified character string into another string.
CE	Combines the commands CLEAR, END. CE is a composite command and cannot be abbreviated.
CLEAR	Clears the contents of the working file.
CONVERT	Enables the use of the pound sign (#) to alter capitalization.
COPY	Copies files from disk/disk to disk/tape or cartridge.
D	Deletes a string.
DELETE	Deletes files from system disk.
DISPLAY	Displays source lines in the text work area on the LPS console monitor.
DUPLICATE	Duplicates lines from a file into another area of the file.
EDIT	Begins an editing session.
END	Ends an editing session.
F	Inserts a new string following a specified string.
FID	Creates a prototype command file.
FILE	Lists file directories on the LPS display.
FIND	Finds and displays lines containing a specified text string.
FLOPPY	Initiates floppy disk utility commands.
GET	Copies an existing file into the text work area.
GPCE	Combines the commands GET, PRINT, CLEAR, and END. GPCE is a composite command and cannot be abbreviated.
INSERT	Inserts lines using a specified line number.
KEYS	Displays beginning and ending line numbers of the file in the text work area.
LIST	Lists a hardcopy of file directories.
MERGE	Appends an existing file to the current contents of the text work area.
MODIFY	Specifies a range of lines for intrarecord commands.
MOVE	Moves lines from one place to another.
NOCONVERT	Disables the use of the pound sign (#) to alter capitalization.
O	Overlays an existing string by specified string.
P	Inserts a new string prior to specified string.
PCE	Abbreviates the commands PRINT, CLEAR, and END.
PRINT	Prints all or specified lines of the working file to the sample or output tray.
REMOVE	Deletes a specified group of lines.
RENUMBER	Renumbers the lines in the working file.
REPLACE	Substitutes the specified existing lines with specified new lines.
REVIEW	Reviews file directories with optional delete.
RNAME	Renames a file from one file name to another.

Table 2-3. **Editor commands** (continued)

Command	Function
S	Substitutes an existing string with a specified string.
SAVE	Saves the contents of working storage as a disk file.
SCE	Combines the commands SAVE, CLEAR, and END. SCE is a composite command and cannot be abbreviated.
SORT	Alphabetizes the records in the current file already created by the FID command.
STEP	Displays the next record in the file and specifies that it will be modified.
TAPE or CARTRIDGE EOF or NOEOF or ENDFILE	Controls the writing of tape marks between files for LPS labeled and unlabeled tapes and cartridges.
TAPE or CARTRIDGE FIND	Positions the tape or cartridge preceding the label record of the file.
TAPE or CARTRIDGE LIST	Creates a file of file names on a tape or cartridge and sorts the names alphabetically.
TAPE or CARTRIDGE NEXT	Identifies the next file on the tape or cartridge and positions the tape or cartridge for manipulating that file.
TAPE or CARTRIDGE REWIND	Rewinds a tape or cartridge to the beginning.
TAPE or CARTRIDGE SKIP	Positions the tape or cartridge after the specified number of files.
TAPE or CARTRIDGE UNLOAD	Unloads the tape or cartridge after rewinding it.
TAPE or CARTRIDGE VOLINIT	Initializes a tape or cartridge in the Xerox labeled format and specifies the data recording density.
TYPE	Displays a source file.

Commands

You must invoke the editor to access the editor commands. Refer to the EDIT command for more information. The editor commands appear in alphabetical order.

C

Changes the specified character string into another string.

Syntax **C** *n*/*string*$_1$/*string*$_2$/

Parameter options

n
Indicates that the *n*th occurrence of the character string in each line is to be affected. (*n*=0 indicates that all occurrences of the specified character string are to be affected.) When you specify *n*, you must precede it with one blank character. You can also use a dollar sign ($), period (.), or a single quote (‘) instead of the slash (/).

string$_1$
Indicates the string you want to change.

string$_2$
Indicates the new string that replaces *string*$_1$.

Default The default for *n* is the first occurrence of the specified character string. This command is used with the MODIFY command.

CE

Removes all data lines from the working file and terminates the editing session. Refer to the CLEAR and END commands for further information.

Syntax **CE**

Logon level The logon levels are 1 through 5.

CLEAR

Erases all records.

Syntax **CLEAR**

Logon level The logon levels are 1 through 5.

Examples

EDIT>CLEAR
Clear working storage.

EDIT>INSERT 10,10
Issue next command.

CONVERT

Prepares to edit files transferred from other Xerox laser printing systems with uppercase-only keyboards. You can edit files containing lowercase characters using the uppercase keyboard. To insert or reference lowercase characters in a file, precede and follow the lowercase characters with the pound sign (#). The pound sign indicates the start and the end of conversion to lowercase characters. Use the NOCONVERT command to make the pound sign a character again instead of a toggle.

Syntax **CONVERT**

Logon level The logon levels are 1 through 5.

Example The CONVERT command alters capitalization in the text line:

```
This is the end.

EDIT>CONVERT
EDIT>MOD 10
THIS IS THE END
EDIT>S/T#HIS/T#HAT/
THAT IS THE END
EDIT>NOCONVERT
```

COPY

Copies files from:

- System disk to system disk
- System disk to floppy disk, cartridge, or tape
- Floppy disk, cartridge, or tape to system disk.

You can initiate a copy operation either from the editor or at the system level. For complete information on COPY, refer to the COPY command in the “System commands” chapter.

Syntax Refer to the COPY command in the “System commands” section.

Logon level The logon levels are 1 through 5.

Example The following example illustrates a copy operation from disk to disk:

```
EDIT> COPY FORMA.FSL FORMX
>Creating file FORMX.FSL
```

The following example illustrates a copy operation from an unlabeled tape to disk:

```
EDIT> COPY TAPE UNSYS.JSL
```

The following example illustrates a copy operation from a labeled tape to disk:

```
EDIT> COPY TAPE LABEL OCRA.FNT
```

The following example illustrates a copy operation from disk to an unlabeled tape:

```
EDIT> COPY TAPE WRITE EBCDIC FORMX.FSL
```

Considerations Masking cannot be used with this operation.

D

Deletes a string from one or more records in the working storage file.

Syntax **D** *n*/*string*/

Parameter options

n
Where *n* indicates that the *n*th occurrence of the string in each line is to be affected (*n* =0 indicates that all occurrences of the specified string are to be affected). When *n* is specified, it must be preceded by one blank character. A string is deleted from lines specified in the MODIFY command. In addition to the slash (/), a dollar sign ($), a period (.), or single quote (') may be used as an intrarecord command delimiter.

string
Indicates the string you want to change.

Logon level The logon levels are 1 through 5.

Default The default value is 1.

Examples

```
EDIT>MODIFY 5
EDIT>D/SYSTEM/
```
Displays the line you want to modify and specifies deleting the first occurrence of SYSTEM from line 5.

```
EDIT>MOD 5-70
EDIT>D 0/JDE/
```
Specifies deleting all occurrences (such as *n=0*) of JDE from each line, starting with line 5 and proceeding through line 70. If *n* were set to 2 (instead of 0), the second occurrence of JDE in each line (if any) would be deleted.

DELETE

Deletes a file from a system disk. You can initiate DELETE either from the editor or at the system level.

Syntax **DELETE** *disk-idfile-id*,*file-id,...,file-id*

Parameter options

disk-id
Specifies the system disk (DP0:, DP1:, DP2:, or DP3:) which contains the file to be deleted.

file-id
Specifies the file as *filename.filetype*.

file-id,...,file-id
Specifies multiple files.

Logon level The logon levels are 1 through 5.

Example

```
EDIT> DELETE UNIVAC.JSL, FORMX.FSL
UNIVAC.JSL. DELETED
FORMX.FSL DELETED
EDIT>
```

Considerations Never delete system (.SYS) files, in particular PRFIL1SYS.

Masking cannot be used with this operation.

This command can be restricted to any logon level with the RCU command.

DISPLAY

Displays a listing of all lines or selected lines of the current working storage file.

Syntax **DISPLAY** *n-m*

Parameter *n-m*
Specifies starting and ending line numbers.

Logon level The logon levels are 1 through 5.

Examples The following examples show how to use the DISPLAY command:

EDIT>DISPLAY
Displays all lines.

EDIT>DISPLAY 10-20
Displays lines 10 through 20.

EDIT>DIS 5-
Displays line 5.

EDIT>DIS -100
Display lines from the beginning of the file through line 100.

EDIT>DIS - 100 - 125
Displays lines from the beginning of the file through 100. Ignores the '-125'.

EDIT>DISPLAY 50-
Displays lines 50 through the end of the file.

Considerations Masking does not apply to this operation.

DUPLICATE

Copies a line or group of lines to another point in the file and is similar to the MOVE command, except that original lines are not deleted from the file.

Syntax **DUPLICATE** *n-m,p,s*

Logon level The logon levels are 1 through 5.

Parameter options *n*
Specifies one line number.

-m
Specifies beginning of the file to the identified line number. The highest valid line number is 32,765. The maximum number of file records (lines) is 5000.

p
Moves specified lines to a new location, starting with line number *p*.

s
Specifies new line numbers in increments of *s*.

Default The default value for *s* is 1.

Considerations Masking does not apply to this operation.

Example EDIT>DUP 10-30,1000,3

Duplicates lines 10 through 30 to 1000, 1003, 1006.

EDIT

Creates a source file, accesses a source file, or executes a file. When you invoke the editor, it prompts you by displaying EDIT>. If you do not enter a parameter, this command creates an empty source file ready for input.

Syntax **EDIT** *disk-id file-name.file-type*
or *@file-name.file-type*

Parameter options

disk-id
Refers to the system disk (DP0:, DP1:, DP2:, or DP3:) on which the file resides.

file-name
Identifies a one- to six-character disk file.

file-type
Specifies the file directory under which the file name is cataloged.

@file-name
Specifies that the editor is to retrieve commands from an editor command file. If no file type is entered, the system defaults to CMD.

You specify the file (without the @) if the file is put into working storage.

Logon level The logon levels are 1 through 5.

Example

```
OS1000 READY FOR COMMANDS (TIME) HH:MM:SS
```

EDIT SYSPDL.JSL
(Operator keys in)

```
EDIT>
```

(System prompt)

END

Terminates the editing session. Control is returned to the system, and no more editor commands are accepted until the editor is requested again. The message OS1000 READY FOR COMMANDS is displayed after the END command takes effect.

Syntax **END**

Logon level The logon levels are 1 through 5.

F

Inserts a character string following another character string.

Syntax **F** *n***/**string$_1$***/string$_2$****/**

Parameter options

n
Where *n* indicates that the *n*th occurrence of the string in each line is to be affected (*n* =0 indicates that all occurrences of the specified string are to be affected). When *n* is specified, it must be preceded by one blank character. String is inserted from lines specified in the MODIFY command. In addition to the slash (/), a dollar sign ($), a period (.), or single quote (') may be used as an intrarecord command delimiter.

string$_1$
Indicates the string you want to change.

string$_2$
Insert following string$_1$ for lines specified in the MODIFY command.

Logon level The logon levels are 1 through 5.

Default The default value is 1.

FID

Generates a file consisting of a list of all disk files with the specified file type. You can use this file as a prototype command file because it contains one record for each file of the specified file type.

You can initiate an FID operation either from the editor or at the system level.

Syntax **FID** *disk-id file-id file-type*

Parameter options *disk-id*
Refers to the system disk (DP0:, DP1:, DP2:, or DP3:) on which the file resides.

file-id
Names the file to be created. If both the file name and file type are specified, the created file contains only the name of the specified file.

Default The default extension is .CMD.

file-type
Specifies the file directory.

Each record of the command file consists of a semicolon, a file name, a file type, and an asterisk (for example, ;GBAR.FSL*). You can edit these records to produce a command file which manipulates a subset of a file type (for example, deleting a subset of the current fonts in the FNT directory).

Example EDIT>FID JSLIST.TMP JSL

Generates JSLIST.TMP which contains the name of the JSL FILES directory.

FILE

Displays the file names in the specified disk file directory. You can display specific *file-ids* within the catalog or the entire catalog.

You can initiate a FILE operation either from the editor or at the system level. For complete information, refer to the FILE command in the "System commands" chapter.

Syntax **FILE** */EXdisk-id file-id*,*file-id*,... *disk-id file-id /SORT, file-name.file-type disk-id file-id*/*file-name.file-type*,*leading string*,*trailing string*

Logon level The logon levels are 1 through 5.

Example EDIT>FILE DP0: *.SYS/SORT, SYSFIL.LST

This command creates a file called "SYSFIL.LST" which files on the DP0: disk. The filenames in SYSFIL.LST are sorted in alphabetical order, and SYSFIL.LST is displayed on the screen. If the screen display of the sorted records is interrupted, then the created file "SYSFIL.LST" lists only the displayed filenames.

FIND

Displays all lines in the specified range which contain the specified string.

Syntax **FIND** *n-m/string/*

Logon level The logon levels are 1 through 5.

Examples The following examples show how to use the FIND command:

EDIT>FIND /JDE/
Displays each line that contains the characters JDE.

EDIT>FIN 5-100/JOB/
Displays lines 5 through 100 that have the characters JOB.

EDIT>FIN 5/SYSTEM/
Displays line 5 if it contains the word SYSTEM.

EDIT>FIN 5-/SYSTEM/
Displays lines 5 through end-of-file that contain the word SYSTEM.

EDIT>FIN -100/JOB/
Displays lines 1 through 100 that have the characters JOB.

Considerations Masking does not apply to this operation.

FLOPPY

Initiated from the editor or at the system level. Refer to the FLOPPY command in the "System commands" chapter for information about the following commands:

- FLOPPY CLEAR
- FLOPPY DELETE
- FLOPPY FCHECK
- FLOPPY FILE
- FLOPPY FORMAT
- FLOPPY LIST
- FLOPPY RESTORE
- FLOPPY SAVE.

GET

Brings an existing file into the work area. The previous contents of the work area are erased, and the file name is automatically associated with the contents of the work area.

If you enter the SAVE command without a file name, the contents of the work area overwrite the existing file.

Syntax **GET** *disk-id file-id*

Parameter options

disk-id
Specifies the system disk that contains the file as DP0:, DP1:, DP2:, or DP3:.

file-id
Specifies the file (by *filename.file-type*) to move into the work area.

Logon level The logon levels are 1 through 5.

Example

```
OS1000 READY FOR COMMANDS (TIME) HH:MM:SS
EDIT
EDIT>GET SYS2.JSL
```

Consideration If the file you want to edit is larger than the editor work area, the system does not copy the file.

The GET command clears the work area before moving a file into it.

GPCE

Brings the specified file into working storage to format it for printing all or selected lines of the file, to remove all data lines from the working file, to terminate the editing session, and to deliver a printed report to the sample tray or to a print tray.

Refer to the GET, PRINT, CLEAR, and END commands for further information.

Syntax **GPCE** *disk-id file-id n-m*

Parameter options

disk-id
Specifies the system disk that contains the file as DP0:, DP1:, DP2:, or DP3:.

file-id
Specifies the file (by *filename.file-type*) to move into the work area.

n-m
Specifies starting and ending line numbers.

Logon level The logon levels are 1 through 5.

Restriction You cannot abbreviate this command to the first three characters.

INSERT

Adds a line or group of lines into the file.

Syntax **INSERT** *n s|n text*

Lines are inserted starting at *n* and incremented by *s*. Line *n* must not already exist. The system prompts you with the next sequence number. Terminate input with a null line by pressing <ENTER> or encountering an existing record.

Logon level The logon levels are 1 through 5.

Default The default value for *s* is 1.

Examples

EDIT>INSERT 10,10
Insert lines starting at 10 and increment by 10 for next line.

EDIT>INS 15
Insert lines starting at 15 and increment by 1.

```
EDIT>55 ACCT USER=(BIN,TRAY);
```

Insert text at line 55. The text you enter replaces the existing line contents.

KEYS

Verifies the beginning and ending line numbers of the working file.

Syntax **KEYS**

Logon level The logon levels are 1 through 5.

Example

```
EDIT>GET SYS2.JSL
EDIT>KEYS
BEGINNING LINE NUMBER 000010
ENDING LINE NUMBER 000050
```

LIST

You can initiate the LIST command from the editor or at the system level. Refer to the "System command" chapter for more information on the LIST command.

MERGE

Inserts a file into working storage where specified, or adds line numbers to source files created on the host computer and downloaded to the printer. An editor message `CANNOT GET, FILE IMPROPERLY SEQUENCED` appears if a file must be merged. The current records in working storage are not destroyed when the records of the new file are brought in.

Syntax **MERGE** *disk-id file-id,n,s*

Parameter options

disk-id

Specifies the system disk (DP0:, DP1:, DP2:, DP3:) that contains the file to be moved into working storage.

n

Specifies the sequence number assigned to the first record of the file being merged with the contents of working storage. The default is the last line number in the working file +10.

s

The sequence increment. The default is 10.

Logon level The logon levels are 1 through 5.

MODIFY

Specifies a range of lines that can be affected by subsequent string modification commands. These lines are displayed after the MODIFY command has been issued. The default for the modify range is the entire file. If you specify a modify range, all records in that range are displayed. The string modification commands are: C, D, F, O, P, and S.

Syntax **MODIFY** *n-m*

Logon level The logon levels are 1 through 5.

Examples

```
EDIT>MODIFY 5-100
```
Prepare to modify lines 5 through 100.

```
EDIT>S/JDE/JOB
```
Substitute occurrences of JDE with JOB in lines 5 through 100.

```
EDIT>MOD 5
```
Prepare to modify line 5.

```
EDIT> D/HOST=OSWTR/
```
Delete text HOST=OSWTR from line 5.

If no match is found in the modify range, the `NO MATCH FOUND` message is displayed.

Considerations Masking does not apply to this operation.

MOVE

Relocates a line or group of lines to new line positions.

Syntax **MOVE** *n-m*,*p*,*s*

The specified lines (*n-m*) are moved to a new location starting with line number *p*. The new line numbers are incremented by *s*. Lines *n-m* are deleted from the file.

Logon level The logon levels are 1 through 5.

Default The default value for *s* is 1.

Considerations Masking does not apply to this operation.

NOCONVERT

Toggles off the CONVERT command so that the pound sign (#) does not convert uppercase characters to lowercase characters.

Syntax **NOCONVERT**

Logon level The logon levels are 1 through 5.

O

Erases a character string by overlaying it with a second character string.

Syntax **O** *n***/**string$_1$**/***string$_2$***/**

Parameter options

n

Indicates that the *n*th occurrence of the string in each line is to be affected. *n* =0 indicates that all occurrences of the specified string are to be affected. When you specify *n*, it must be preceded by one blank character.

string$_1$*/string$_2$*

The *n*th occurrence of *string$_1$* is overlaid by *string$_2$* for lines specified in the MODIFY command. It is useful for replacing characters that are unknown or that you cannot create from the keyboard.

Logon level The logon levels are 1 through 5.

Examples

```
ABCDEFGHxJKLM
```
Initial string contains a lowercase *x* which cannot be input through the keyboard.

```
EDIT> O/GH/GHI/
```
Command.

```
ABCDEFGHIJKLM
```
Final string.

P

Inserts one character string *prior* to another character string.

Syntax **P** *n*/*string*$_1$/*string*$_2$

Parameter options

n
Indicates that the *n*th occurrence of the string in each line is to be affected. *n* =0 indicates that all occurrences of the specified string are to be affected. When you specify *n*, it must be preceded by one blank character.

string$_2$
Inserts just prior to string$_1$ for lines specified in the MODIFY command.

Logon level The logon levels are 1 through 5.

PCE

Use this command to format for printing all or selected lines of the working file, to remove all data lines from the working file, to terminate the editing session, and to deliver a printed report to the sample tray or to a print tray.

Refer to the PRINT, CLEAR, and END commands for further information.

Logon level The logon levels are 1 through 5.

Syntax **PCE** [*n*-*m*]

Restriction This command is an abbreviated method of entering three commands: PRINT, CLEAR and END. If either one of the first two commands fails to execute because of an error condition, the system may ignore subsequent commands.

PRINT

Prints all or selected lines of the current working storage file.

Syntax **PRINT** *n*-*m*
To print the file, exit from the editor using the END command. You can then spool editor print files. The current working storage file is intact if you enter the editor after the file is printed. The listing is in portrait mode.

Logon level The logon levels are 1 through 5.

Three title lines precede the data requested for printing and appear on each logical page. They are illustrated in figure 2-5.

Figure 2-5. **Sample title lines**

```
FILE NAME:  file-id PRINTED ON: date time
DISK ID:                        disk id

1.......10........20........30........40.........50........6
```

The *file-id* is the file name and file type associated with the current working storage file. If *file-id* is `** NONE **`, a hardcopy of the data was requested before the data in the working storage file was given a file name. This is possible if the data is a result of a MERGE command used to obtain the data of a file rather than using the GET command, the data is in a new file that has not been saved on the disk using the SAVE command, or the working storage file is restored upon entering the editor from the system prompt .

Considerations Masking does not apply to this operation.

REMOVE

Deletes a line or group of lines from the working storage file.

Syntax **REMOVE** *n-m*

Parameter *n-m*

n is always required. If there is a range, *m* is also required (such as a hyphen cannot be used to imply the first or last line).

Logon level The logon levels are 1 through 5.

Examples

```
EDIT> REMOVE 5-25
```
Remove lines 5 through 25.

```
EDIT>REM 15
```
Remove line 15.

You can also erase a line from the working storage file by entering the line number. To delete a group of lines, enter the beginning and ending line numbers separated by a hyphen.

```
EDIT>55
```
Delete line 55.

```
1 RECORDS DELETED

EDIT> 10-40
```
Delete lines 10 through 40.

```
4 RECORDS DELETED
```
Assuming that line numbers are incremented by 10.

Considerations Masking does not apply to this operation.

RENUMBER

Renumbers the lines of the working storage file. Renumbering begins with line number *n* and successive data lines are assigned numbers in increments of *s*.

Syntax **RENUMBER** *n*,*s*

Logon level The logon levels are 1 through 5.

Default The default value for *n* and *s* is 10.

Considerations Masking does not apply to this operation.

REPLACE

Replaces a line or group of lines by the specified lines.

Syntax

REPLACE *n*[*-m*][,*s*]
or

n text

Parameters

n-m

n is always required and is the first line to be replaced. If there is a range, *m* is also required (a hyphen cannot be used to imply the first or last line).

s

Sequence increment. The default is 1.

text

Text you want to enter on the *n*th line.

For the REPLACE *n*[*-m*][,*s*] command, you can replace the designated line or lines and are allowed to enter data into line *n* through the next existing line, incremented by *s*.

For the *n text* command, you can enter text for the *n* line, and you will be prompted for the next sequential command line.

Examples

For a command file with 10 lines sequenced by 10, replace some lines will be replaced with these two commands:

```
10  aaaaaaa
20  bbbbbb
30  ccccccc
40  dddddd
50  eeeeee
60  ffffff
70  gggggg
80  hhhhhh
90  iiiiii
100 jjjjjj
```

Example 1

```
EDIT>REPLACE 20
```

With this command, you delete the contents of line 20 and are allowed to replace it with new data you would then enter. You would start with line 20 and, at increments of 1, enter data from line 20 through line 29. You are stopped at 29 because 30 would be the next sequential existing line not to be replaced.

Example 2

```
EDIT>REPLACE 30-40
```

This time you replace lines 30 and 40 with lines 30 through 49 at increments of 1.

Of course, you do not have to use all of the numbers, just the ones you need.

Example 3

```
EDIT>REPLACE 50-80,5
```

With this command, you delete the contents of lines 50 through 80 and are allowed to replace them with new data you would then enter. You would start with line 50 and, at increments of 5, enter data commands from line 50 through line 85. You are stopped at 85 because 90 would be the next sequential existing line not to be replaced.

Example 4 `EDIT>100` *kkkkkk*

With this type of command you are only allowed to replace one line, the one you designated. 100 in this case. It is replaced with the text you entered as *kkkkkk*. You will then be prompted for command line 101.

REVIEW

Reviews each file in a directory with the option to delete it. The file names display one at a time. You can delete a file by entering D, or exit the display process by entering the X command.

You can initiate a REVIEW operation from either the editor or at the system level.

Syntax **REVIEW** *disk-idfile-id*,*file-id*,...

Parameter options

disk-id
Specifies the system disk (DP0:, DP1:, DP2:, DP3:) that contains the specified directory.

file-id
Specifies the file as *file-name.file-type*. (Masking can be used.)

Logon level The logon levels are 1 through 5.

Considerations To delete a file from the system, you must have the logon level required.

You cannot delete any file name containing a period or dollar sign. The following message displays: `*PROTECTED*`

Any other response (for example, pressing the space bar) saves the file and the next file name being displayed.

RNAME

Changes the name of a file. You can initiate an RNAME operation from either the editor or the system disk.

Syntax **RNAME** *old-file-id new-file-id*

If you specify only the *file-name*, the file type remains the same. Rename files one at a time.

Parameter options

old-file-id
Specifies the current *file-name*.

new-file-id
Specifies the *file-name.file-type* to replace the *old-file-id*.

Logon level The logon levels are 1 through 5.

Considerations Masking does not apply to this command.

S

Substitutes one character string for another.

Syntax **S** *n* **/***string*$_1$**/***string*$_2$**/**

Parameter options

n
Indicates that the *n*th occurrence of the string in each line is to be affected. *n*=0 indicates that all occurrences of the specified string are to be affected. When you specify *n*, it must be preceded by one blank character.

string$_1$
Indicates the string you want to change.

string$_2$
Substitutes for string$_1$ for lines specified in the MODIFY command

Logon level The logon levels are 1 through 5.

Example

```
ABCDEFGHXJKLM
EDIT>S/GHX/GHI/
ABCDEFGHIJKLM
```

Initial string, command, and final string.

SAVE

Saves the contents of the working storage file (or a subset of it) in permanent file storage.

Syntax **SAVE** *file-id n m*

Parameter options

file-id
If no *file-id* is specified, the contents of the working storage file are saved under the name currently associated with it (as set by a previous GET command or as set when the editor is called). If no *file-id* is currently associated with the working storage file, the operator is prompted for a *file-id* under which to save its contents.

n,m
Saves a set of lines by specifying the starting line number *n* and the ending line number *m*. The default for *n* is the first line number. The default for *m* is the last line number.

If a *file-id* is given, and a file already exists with that *file-id*, the `THE FILE ALREADY EXISTS, DO YOU WANT TO OVERWRITE IT (YES/NO)?` message displays.

If you enter YES, the file is overwritten and its original contents are lost. If you enter NO, the SAVE command is ignored. A message displays if there is insufficient disk space to save a file.

Logon level The logon levels are 1 through 5.

SCE

SCE (SAVE CLEAR END) saves the contents of the working file (or a subset of it) into permanent file storage, removes all data lines from the working file, and terminates the editing session.

Refer to the SAVE, CLEAR, and END commands for more information.

Syntax **SCE** *disk-id file-id n m*

Logon level The logon levels are 1 through 5.

SORT

Used after you invoke FID from within the editor. FID generates a list of all files of the file type you specified on the system and creates a .CMD file which consists of one record for each file. Each record is a semicolon followed by the one- to six-character file name, a period, and the file type. (ex: ~7:) You must use GET to put this .CMD file in the editor work area before you issue the SORT command, since SORT has no optional parameters and operates only on the file in the editor work area. SORT copies the .CMD file records to a .TMP file, putting them in alphabetical sequence by the sort order of the characters in positions 2 through 7.

As file names typically consist of uppercase letters and numbers, the sort priority used by the SORT command is:

?, A,B,C...Z,0,1,2,...9

where ? is any character which is not an uppercase letter or a number. A lowercase letter or special character is ignored (as are any following characters), and the record is written to the beginning of the file.

If the editor work file is empty when you issue the SORT command, the system displays the message `NOTHING TO SORT.`

Syntax **SORT**

Logon level The logon levels are 1 through 5.

Example In the following example, FID creates a file named "FSLFIL.CMD," listing all the .FSL files on the LPS disks. Next, GET is used to put the FSLFIL.CMD file in the editor working area. Then FSLFIL.CMD is sorted, creating the FSLFIL.TMP file which is printed or displayed.

```
EDIT>FID FSLFIL.CMD FSL
EDIT>GET FSLFIL.CMD
EDIT>SORT
EDIT>PRINT (or DISPLAY)
```

Considerations Masking does not apply to this operation.

STEP

Displays each record of a file, one at a time, starting with the next record as specified in the MODIFY command.

Syntax **STEP**
or <ENTER>

Logon level The logon levels are 1 through 5.

Examples

```
EDIT>MODIFY 10
```
Sets the modify range.

```
...line 10 displays...

EDIT>STEP

...text of next line after line 10 displays...

EDIT>S/MOST/HOST
```
Changes the text in the next line after line 10.

```
...1 strings changed
```

```
EDIT>STEP

...next line displays

EDIT>...
```

You can enter a record command (such as C, O, S, F, P, or D) or another STEP.

Pressing the <ENTER> key is an implied STEP command. If there is an active working file, the modify range is stepped as if a STEP command had been issued. When an attempt is made to step past the last record of the file, the messages `INVALID SEQUENCE NUMBER` and `NO MORE RECORDS` are displayed.

Considerations Masking does not apply to this operation.

TAPE or CARTRIDGE EOF or NOEOF or ENDFILE

Controls tape mark writing between files for LPS labeled and unlabeled tapes.

Syntax *KEYWORD option*

Parameter options

KEYWORD

TAPE or CARTRIDGE

Specifies the tape or cartridge device assigned to the TAPE or CAR keyword using the SUB DEV command. If you do not specify CAR, the TAPE keyword is used.

option

NOEOF

Disables the writing of tape marks between files. This command must precede the list of file names to be written to tape.

EOF

Enables the writing of tape marks. This command writes two tape marks and then backs up over one of the tape marks.

ENDFILE

Enables the writing of tape marks. Writes the file ENDFIL.END and ends the tape with three tape marks. It then backs up over two of the tape marks.

Also concatenates files without tape marks between logical files. For example, you may create a backup tape with all files concatenated into one file (multiple logical files in one physical file), thereby eliminating the need for multiple job steps when executing HOSTCOPY to download these files.

Logon level The logon levels are 1 through 5. Available only from the editor.

Restrictions All files may be copied with TAPE.

If tape mark writing is disabled using NOEOF and you must enable it again using EOF or ENDFILE, the tape will not contain any tape marks to signify the end of the tape. A tape must normally end with two tape marks.

If NOEOF is selected and the end of tape is reached while writing a file, the LPS marks the tape two times in that area, and the last file will be corrupted.

If tape mark writing is disabled using NOEOF and you must enable it again using EOF or ENDFILE, the tape will not contain any tape marks to signify the end of the tape. A tape must normally end with two tape marks.

Examples

In the following example of NOEOF and ENDFILE, three .IMG files are copied to cartridge with no tape marks written between the .IMG files. TAPE ENDFILE enables the writing of tape marks, writes the ENDFIL.END file to tape, writes three tape marks, and backs up over two of them:

```
EDIT>TAPE NOEOF
EDIT>COPY CAR WRITE LABEL ABC.IMG
EDIT>COPY CAR WRITE LABEL ABD.IMG
EDIT>CAR TAPE WRITE LABEL BCD.IMG
EDIT>CAR ENDFILE
```

In the following example of NOEOF and EOF, three .IMG files are copied to tape with no tape marks written between the .IMG files. TAPE EOF writes three tape marks and backs up over two of them:

```
EDIT>TAPE NOEOF
EDIT>COPY TAPE WRITE LABEL ABC.IMG
EDIT>COPY TAPE WRITE LABEL ABD.IMG
EDIT>COPY TAPE WRITE LABEL BCD.IMG
EDIT>TAPE EOF
```

Recommendation

Use the ENDFILE option to prepare a tape to be used by the HOSTCOPY command.

For example, you can create a backup tape with all files concatenated into one file (multiple logical files in one physical file), thereby eliminating the need for multiple job steps when executing HOSTCOPY to download these files.

This command is provided for compatibility with the HOSTCOPY procedure, which requires that the end of the last physical file on the tape be identified with a logical file called ENDFIL.END. This file results in the message `END OF TAPE FOUND. IS ANOTHER FILE TO BE SENT` to be displayed during HOSTCOPY.

TAPE or CARTRIDGE FIND

Positions the tape or cartridge preceding the label record of the file. You can then issue commands to manipulate this file.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

You can initiate a FIND operation from either the editor or the system disk.

Syntax

KEYWORD **FIND** file-id

Parameter options

KEYWORD

TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

file-id

Specifies the file name (one to six characters) and file directory in which it resides.

Logon level The logon levels are 1 through 5.

Example `EDIT>`CARTRIDGE FIND FSLFIL.CMD

TAPE or CARTRIDGE LIST

Creates a file listing file names on a tape or cartridge, and sorting the names alphabetically.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

You can initiate a LIST operation either from the editor or at the system level. For complete information on this command, see TAPE or CARTRIDGE LIST in the "System commands" chapter.

Syntax *KEYWORD* **LIST PRINT**

Logon level The logon levels 1 through 5.

TAPE or CARTRIDGE NEXT

Identifies the next file on the tape or cartridge and positions the tape or cartridge for manipulating that file. You can initiate a NEXT operation either from the editor or at the system level.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

Syntax *KEYWORD* **NEXT**

Parameter options *KEYWORD*
TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

Logon level The logon levels are 1 through 5.

TAPE or CARTRIDGE REWIND

When a tape or cartridge job completes (including jobs with a single report option), you can use this command to rewind the tape or cartridge instead of taking the drive offline and performing a manual rewind.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

You can initiate a REWIND operation from either the editor or the system disk.

Syntax *KEYWORD* **REWIND**

Parameter options *KEYWORD*
TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

Logon level The logon levels are 1 through 5.

TAPE or CARTRIDGE SKIP

Positions the tape or cartridge after the specified number of files. You can initiate a SKIP operation either from the editor or at the system level.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

Syntax *KEYWORD* **SKIP** *n*

Parameter options

KEYWORD
TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

n
The number of files to be skipped.

Logon level The logon levels are 1 through 5.

TAPE or CARTRIDGE UNLOAD

Unloads a tape or cartridge from the tape drive rather than taking the drive offline and performing the operation manually. You can initiate an UNLOAD operation either from the editor or at the system level.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

Syntax *KEYWORD* **UNLOAD**

Parameter options

KEYWORD
TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

Logon level The logon levels are 1 through 5.

TAPE or CARTRIDGE VOLINIT

Initializes a tape or cartridge in the Xerox labeled format and specifies the data recording density. You can initiate a VOLINIT operation either from the editor or at the system level.

This command operates on the tape or cartridge device that has been assigned to the TAPE keyword using the SUB DEV command. Refer to the SUBSTITUTE DEVICE command in the "System commands" chapter for more information.

Syntax *KEYWORD* **VOLINIT** *Density*

Parameter options

KEYWORD
TAPE identifies a 9-track magnetic tape.

CARTRIDGE identifies an 18-track cartridge tape.

Density
1600 initializes the tape or cartridge at 1600 bpi. This is the default.

6250 initializes the tape or cartridge at 6250 bpi.

Logon level The logon levels are 1 through 5.

Example

```
EDIT>TAPE VOLINIT 1600
```

TYPE

Displays a source file without editing the file. You can initiate a TYPE operation either from the editor or at the system level.

Syntax **TYPE** *disk-id FILE-ID*

Parameter options

disk-id
Identifies the system disk (DP0:, DP1:, DP2:, or DP3:) which contains the *FILE-ID* to be displayed.

FILE-ID
Specifies the file name *file-name.file-type.*

To view a file in the system, you must have an appropriate level of access to the file itself.

Logon level The logon levels are 1 through 5.

3. Font editor commands

This section describes the font editor commands available for the 4050/4090/4450/4650 LPS. Font editor commands allow you to create and edit font files. You can also modify font and logo files to allow printing.

Font editor

The font editor utility enables a font-knowledgeable user, with logon class 2 or higher access privileges, to create font files from existing non licensed and licensed source font files. The user must determine what existing source font files need accessing, when they need accessing, and which characters need copying.

Where to find font information

Refer to the *LPS Font User Guide* for functional and descriptive font information. Use the SAMPLE command described in the "System commands" chapter if you want font information for a font which currently resides on the system disk.

Selecting source font files

Evaluate the general and specific characteristics of the standard, licensed, and user-created font files on your system to select the file which most closely matches the requirements of the new font file. The new font files are either an abridged, enhanced, or hybrid version of one or more source font files.

Font files not on the system disk

You can load any standard font library font file which is not residing on the system disk from the Standard Font Library magnetic tape, floppy diskette, or cartridge tape. You can also download font files from a channel-attached host. Additional font-related information and assistance are available from the Xerox Font Center. Refer to the "Downloading host files" chapter in the *Xerox 4050/4090/4450/4650 LPS System Administration Guide* for instructions on how to download files from a host computer.

Primary and secondary source font files

Use existing font files as one of the following:

- Primary source font file, which provides general overall font characteristics, plus specified characters
- Secondary source font file, which provides only specified characters added to the primary source font file.

What is general font file information?

General font file information applies to the entire font (for example, matrix length, file name in ASCII, program version, pitch, header-character width tables, and so forth). This information comes from the first selected licensed source font file. If a secondary source font file is the first licensed font file selected, general font file information from this file will overwrite

general font file information from an unlicensed primary source font file. (If none of the source files you select are licensed, the system takes general font characteristics from the primary source font file.)

Specific character information

The font file you create should differ from its primary source font file primarily in the composition of its character set. You can copy characters from either primary or secondary source font files, change the character selection mode for specific characters, and make new character code assignments.

Security information

The general characteristics of the new font file are augmented with security information from the first selected licensed source font file, whether or not it is the primary source font file.

Maximum font file size

Both the source and output font files can be up to 1 MB in size.

Kanji fonts

The font editor cannot edit a kanji font.

Font file editing sessions

You can create new font files either in an interactive mode or automatically through use of a command file.

Using command files to create font files

You can create command files which you use to generate new font files automatically. When you create a font command file, you include all necessary font information in the command file itself. Refer to the "Command file commands" chapter for more information about command files.

To designate a command file for a preprogrammed editing session, enter FEDIT followed by the command file id, in the following format:

FEDIT *@filename.file type*

In most instances, file type is .CMD.

If you do not include an END command in the command file, you remain in the font editor at the end of the session. Enter END to exit the font editor.

Creating font files in interactive mode

Follow the process outlined in table 3-1 to complete an interactive font editing session.

Note: This table provides an overview of the basic font editor commands and the sequence in which you might use them. You might use other commands in a font editing session, such as SUBSTITUTE or REORDER. Refer to table 3-3 for a complete list of font editor commands.

Table 3-1. **Creating a new font file**

Step	Action
1	Invoke the font editor and specify the font file to use as a primary source font file. You can perform this step in two ways: 1. Use the FEDIT command to invoke the font editor. When the FEDIT> prompt displays, use the INPUT command to specify the primary source font file. or 2. Enter FEDIT *file-name.file-type* to invoke the font editor and select the primary source font file at the same time. When the FEDIT> prompt displays, the font editor is ready to accept the next keyword command.
2	Use the CHARACTER, HEXADECIMAL, or OCTAL command to set the character selection mode. **Note:** This mode is in effect until you specify another character selection mode. If you do not enter a value, the system default for the initial character selection mode is HEXADECIMAL.
3	Use the INCLUDE or RECODE command to copy characters from the source font file to the new font file. **Note:** INCLUDE specifies which characters in the new font file have the same character code assignments as characters in the source file. RECODE specifies which characters have different character code assignments.
4	Use the OPEN command to specify the next font file, if you want a secondary source font file.
5	Use the CHARACTER, HEXADECIMAL, or OCTAL command to set the character selection mode. **Note:** You can express characters such as blanks, which do not exist on the keyboard and cannot be expressed as character literals, by their hexadecimal or octal code assignments.
6	Use the INCLUDE or RECODE command to copy characters from the secondary source font file to the new font file.
7	Use the CLOSE command to close the secondary source font file when you have finished copying characters.
8	Use the OUTPUT command to save and name the new font file.
9	Use the END command to terminate the font editing session.

Sample font editing session

In the sample font editing session shown in table 3-2, an existing font file designated as L05TAB is selected as the primary source font file, and an existing font file designated as L05TBC is selected as the secondary source font file. The newly created font file is assigned a unique font file name (UNEEK) which does not conflict with any file names currently in use.

For a complete listing of hexadecimal and octal character codes, refer to the “Character code assignment tables” appendix of the *4050/4090/4450/4650 LPS Print Description Language (PDL) Reference*.

Table 3-2. **Sample font editing session**

Step	Keyword command	Function
1	FEDIT	Invokes the font editor.
2	INPUT L05TAB.FNT	Selects the primary source font file.
3	HEXADECIMAL	Specifies the character selection mode.
4	INCLUDE 20	Specifies the character to be copied.
5	RECODE 3A=41-46	Specifies the contiguous characters that the system copies and recodes.
6	OCTAL	Changes the character selection mode.
7	RECODE 177=44	Specifies the character to be copied.
8	CHARACTER	Changes the character selection mode.
9	INCLUDE 0-9,a-z,A-Z	Specifies the characters to be copied.
10	OPEN L05TBC.FNT	Opens the secondary source font file.
11	HEXADECIMAL	Changes the character selection mode.
12	INCLUDE 10-11	Specifies the characters to be copied.
13	RECODE 12=3D	Specifies the characters that the system copies and recodes.
14	RECODE 13=95	Same as above.
15	RECODE 13=3C	Same as above.
16	RECODE 13=3E	Same as above.
17	CLOSE	Closes the secondary source font file.
18	OUTPUT UNEEK.FNT	Saves and names the new font files.
19	END	Terminates the font editing session.
20	SAMPLE UNEEK.FNT	Obtains a copy of the new font file.

Step 3 can be omitted since the initial character selection mode is HEXADECIMAL by default. However, it is necessary to respecify HEXADECIMAL in step 11 because character selection mode was set to CHARACTER in step 8.

Step 4 copies a blank character, which has a hexadecimal code assignment of 20 in the standard ASCII character set. Since the INCLUDE command is used, the character code assignment does not change for the new font file. This step, as well as step 12, illustrates how you can specify characters as hexadecimal or octal values when the characters do not exist on the keyboard and thus cannot be expressed as literals.

Step 5 copies uppercase characters A through F (hexadecimal character codes 41 through 46 in the standard ASCII character set) and recodes them with contiguous character code assignments 3A through 3F in the new font file.

Step 7 copies the dollar sign ($), which is octal character code 44 in the UNIVAC ASCII character set, and recodes it to octal 177.

Step 9 copies 62 characters expressed as literals from the primary source font file (the digits 0 through 9, the lowercase alphabet, and the uppercase alphabet). Because the INCLUDE command is used, character code assignments do not change for the new

font file. For an input device limited to uppercase characters, this step codes as INCLUDE 0-9, A-Z.

Steps 13 through 16 illustrate how you must use separate RECODE commands for noncontiguous characters.

Step 17 closes L05TBC, the secondary source font file. The primary source font file resumes a foreground status. This step is optional since the secondary source font file closes implicitly when you enter the END command.

Step 18 saves the temporary font file as a permanent font file with the file name UNEEK.

Command summary

Table 3-3 provides a summary of the font editor commands.

Table 3-3. **Font editor commands**

Keyword	Function
CHARACTER	Specifies one of three keywords that set the selection mode (refer to HEXADECIMAL, OCTAL, and CHARACTER). CHARACTER signifies that subsequent characters included in the new font file will be expressed as character literals.
CLOSE	Terminates access to the current secondary source font file.
END	Terminates the font editing session.
FEDIT	Invokes the font editor.
FIX	Modifies fonts and logos to the LPS configuration.
HEXADECIMAL	Specifies one of three keywords that set the selection mode (refer to CHARACTER and OCTAL). HEXADECIMAL signifies that subsequent characters included in the new font file will be expressed as hexadecimal values.
INCLUDE	Precedes the list of characters to be copied from the currently accessible source font file to the new font file without character code reassignments (refer to RECODE).
INPUT	Specifies the primary source font file.
OCTAL	Specifies one of three keywords that set the selection mode (refer to HEXADECIMAL and CHARACTER). OCTAL signifies that subsequent characters included in the new font file will be expressed as octal values.
OPEN	Specifies the secondary source font file.
OUTPUT	Stores the current contents of the working storage as a new and permanent font file.
RECODE	Specifies the list of characters which are copied from the source font file to the new font file with new character code assignments (refer to INCLUDE).
REORDER	Changes the access sequence of characters within a specified font file as required to achieve compatibility with Interpress standards.
SUBSTITUTE	Replaces a blank character with a new character from the font INPUT file.

Commands

You must invoke the font editor to access the font editor commands. Refer to the FEDIT command in this chapter for more information. The font editor commands appear in alphabetical order.

CHARACTER

Specifies that the subsequent font characters are expressed by their character literals rather than by their hexadecimal or octal codes.

Syntax **CHARACTER**

Logon level The logon levels are 1 through 5.

Default The default for specifying a character is hexadecimal code.

Example Refer to table 3-2 in this chapter.

Consideration You cannot specify some characters by character literals, for example, nonprintable characters and delimiters such as blank, comma, and hyphen. You must specify their hexadecimal or octal codes.

CLOSE

Closes the secondary source font file.

Syntax **CLOSE**

You can also close a secondary source font file implicitly by issuing one of the following commands:

- OPEN—Selects another existing font file as a secondary source font file.
- INPUT—Initiates a font editing session for another new font file.
- END—Terminates all font editing operations.
- OUTPUT—Saves the font file which has been modified or created.

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

END

Exits the font editor. If all new information for the last font file created or modified has not been saved with OUTPUT, the system prompts you to confirm saving the file or losing the file before executing END.

Syntax **END**

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

FEDIT

Invokes the font editor and accesses the commands available. If you do not enter a parameter, this command begins a font editing session.

Syntax **FEDIT** *file-name* **.FNT**
or
FEDIT @ *file-name***.CMD**

Parameter options *file-name*
Begins a font editing session and specifies the font file to be copied to the work area to be modified or used to create a new font file.

@file-name
Begins a font editing session and specifies the command file with font editor commands to be executed to create or modify a font file.

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

HEXADECIMAL

Specifies that the subsequent font characters are expressed by their hexadecimal codes rather than their octal codes or character literals.

Syntax **HEXADECIMAL**

Logon level The logon levels are 1 through 5.

Default The default is to specify a character by its hexadecimal code.

Example Refer to table 3-2 in this chapter.

INCLUDE

Assigns the same character codes as in the last font file copied by the INPUT command to the specified characters in the new font file. You can specify these characters as hexadecimal or octal codes, or as character literals. (The bitmaps of the specified characters are copied from the INPUT font file to the font file being created.) You can use this command multiple times to copy characters from the INPUT font file.

Syntax **INCLUDE** *value*

Parameter options *value*

A-Z
Specifies uppercase characters with contiguous character code assignments, starting with A and ending with Z.

a-z
Specifies lowercase characters with contiguous character code assignments, starting with a and ending with z.

Logon level The logon levels are 1 through 5.

Example In the following example, the FEDIT command invokes the font editor, and the INPUT command selects a designated font file as the primary source font file for the font editing session. The CHARACTER command then specifies the use of character literals by the following INCLUDE command.

```
FEDIT>FEDIT
FEDIT>INPUT L05TBC.FNT
FEDIT>CHARACTER
FEDIT>INCLUDE A-Z, #a-z
```

INPUT

Specifies the font file to use as the primary source file for the new font file you are creating. General font characteristics information is copied to the new file.

Syntax **INPUT** *file-name* **.FNT**

Parameter options *file-name*
Specifies the font file to be used as the source file.

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

Considerations INPUT will erase a font file just created or modified unless it has been saved with OUTPUT.

OCTAL

Specifies that subsequent font characters are expressed by their octal codes rather than their hexadecimal codes or character literals.

Syntax **OCTAL**

Parameter options None.

Logon level The logon levels are 1 through 5.

Default The default to specify characters is by hexadecimal codes.

Example Refer to table 3-2 in this chapter.

OPEN

Specifies the next font file to use as a secondary source. You can copy characters from the secondary file to the new font file. You can also select multiple secondary source font files.

Syntax **OPEN** *file-name .FNT*

Parameter options *file-name*
The *file-id* or name of a font file which is opened and accessed as a secondary source font file. The file type .FNT is assumed if omitted.

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

Considerations You cannot copy characters from the primary source (INPUT) font file until you close the secondary source font file with "CLOSE."

The available commands are HEXADECIMAL, OCTAL, CHARACTER, INCLUDE, and RECODE.

A secondary source font file may be incompatible with the font character of the primary source (INPUT) font file. The system will display a warning message if this occurs.

OUTPUT

Saves the font file you create or modify.

Syntax **OUTPUT** *file-name.FNT*

Parameter options

file-name
Names the font file. The file type .FNT is assumed if omitted.

Logon level The logon levels are 1 through 5.

Example Refer to table 3-2 in this chapter.

Considerations OUTPUT executes only if you have copied characters from a source font file with INCLUDE or RECODE.

If an existing font file has the same name as that specified in an OUTPUT command, the system issues a message requesting confirmation that the existing font file should be overwritten.

If you enter Y, OUTPUT executes. This occurs when you are working on a long font editing session and want to save the intermediate results. The latest intermediate results supersede the preceding intermediate results.

If you enter N, OUTPUT does not execute. This response helps to prevent the inadvertent loss of an existing font file. The current newly created font file may be saved by issuing another OUTPUT command and using a unique file name.

The contents of working storage are not affected by the OUTPUT command. Thus, a series of new font files where the first file is a subset of a latter file may be created. This is done by issuing an OUTPUT command at intermediate points within a font editing session using the same primary source font file and any number of secondary source font files.

RECODE

Copies characters and assigns hexadecimal or octal codes in the new font file which are different from their codes in the source font file.

Syntax **RECODE** *value*

Parameter options

value

n=m
Copies the character represented by *m* (a hexadecimal or octal code, or the character literal) to the character in the new font file which is represented by *n*.

n-m=x-y
Copies the characters represented by the hexadecimal or octal codes (or character literals) in the range *x-y* to characters in the new font file which are represented by the range *n-m*.

n=x-y
Copies the characters represented by the hexadecimal or octal codes (or literal characters) in the range *x-y* from the source file to characters in the new font file that are represented by the hexadecimal or octal codes (or character literals) beginning with *x*.

Logon level The logon levels are 1 through 5.

Considerations When you copy characters with noncontiguous character code assignments, you must enter a separate RECODE command for each character copied and recoded. When you copy characters with contiguous character code assignments, you can abbreviate the list by showing the initial character within the new font file equated to a range of characters within the source font file. (Specify the range by including the initial character within the source font file, followed by a hyphen, followed by the terminal character within the source font file.)

Example

```
FEDIT>OCTAL
FEDIT>RECODE 44= 232
FEDIT>HEXADECIMAL
FEDIT>RECODE 3A=41-46
```

In the preceding example, the OCTAL keyword command specifies that the character selection mode is octal. Therefore, characters specified by subsequent RECODE command must be expressed as octal values representing character code assignments. As shown, a character within the source font file with character code assignment octal 232 is copied into the new font file and assigned character code of octal 44. Then the HEXADECIMAL keyword command sets the character selection mode to hexadecimal. Finally, a string of contiguous characters with character code assignments hexadecimal 41 through 46 in the source file are copied as contiguous characters into the new font and assigned character codes hexadecimal 3A through 3F.

REORDER

Reorders bitmaps into ascending sequence for compatibility with Interpress standards.

Syntax **REORDER** *file-name* **.FNT**

Parameter options *file-name*
Specifies the font file whose bitmaps are to be resequenced.

Logon level The logon levels are 1 through 5.

Example

```
FEDIT>REORDER L05TBC.FNT
```

Considerations Use the REORDER command before you begin to create a new font file. After you finish the reordering process for a specified font file, the font editor remains invoked and is available to perform another REORDER command or to select a primary source font file. Do not issue REORDER during a font editing session once a primary source font file has been specified.

SUBSTITUTE

Replaces a blank character within the new font with another character from the INPUT font file.

Syntax **SUBSTITUTE** *value*

Parameter options *value*

m

Copies the character represented by *m* (a hexadecimal or octal code, or a character literal) from the INPUT font file.

n

Becomes the character represented by *m* (a hexadecimal or octal code, or a character literal) in the new or modified font file.

Logon level The logon levels are 1 through 5.

Example

```
FEDIT>SUBSTITUTE 176 177
```

4. Command file commands

This chapter describes the command file commands available for the Xerox 4050/4090/4450/4650 Laser Printing Systems. These commands allow you to create and edit command files.

Command file overview

A command file is a set of frequently used commands which you create using the editor and store as an executable file. It can be a system command file (consisting of OSS commands), an editor command file (consisting of editor commands), or a font editor command file (consisting of font editor commands).

How you use command files

Because command files preserve and execute any set of commands, you tailor command files to streamline your site's activities. For example, system command files can be useful for system startup and disk initialization, testing, and shift or day initialization. Font editor command files can be useful for creating new font files automatically. You use editor command files to perform any set of editor operations on other files.

Note: Many command files must be executed by a specific processor. If a command file is written for the font editor, it will not function under the text editor. You use the .BCP command, described in this chapter, to ensure that the command file branches to the correct processor.

Command files have .CMD extension

Command files are usually given a .CMD file extension. If you save a command file with a file extension which is not .CMD, you must specify both the file name and the file extension to execute the file. For example, a command file called TEST.CMD can be executed with @TEST or @TEST.CMD. A command file called TEST.TMP, however, can be executed only with @TEST.TMP.

Executing command files

You may execute all command files at the system prompt. Additionally, you may execute editor command files from the editor and font editor command files from the font editor. Some editor command files and font editor command files may not run properly when executed at the system level, or may run very slowly due to repeated loading of the editor or font editor.

Table 4-1 shows the entries you make to execute each type of command file at the system prompt.

Table 4-1. **Invoking command files at system level**

Type of command file	At the system prompt, enter
System command file	*@file name.file type*
Editor command file	EDIT>*@file name.file type*
Font editor command file	FEDIT>*@file name.file type*

File name is a one- to six-character file name that exists on the disk. File type is optional if the command file has a .CMD extension. Otherwise, enter the extension.

At editor or font editor command level

To execute editor command files at the editor level, enter the EDIT command to invoke the editor. Then enter the file id. Similarly, you can execute font editor command files by invoking the font editor first with the FEDIT command, then entering the command file id.

Operator interaction

Some utilities, such as REALLOCATE, require operator input in response to questions asked by the processor. The operator must enter these responses, which cannot be coded into the command file. This chapter describes certain command file commands which provide for interaction with the operator during the file's execution. The system acts upon operator entries between the commands contained in the command file. Operator entries take effect when the <ENTER> key is pressed.

Processing print jobs in a command file

You must include a .WAIT command after each print job when you process print jobs in a command file. Refer to the .WAIT command in this chapter for more information.

Logical command file commands

Command file logical commands, which are identified in table 4-2, cause conditional execution of a command. These commands set symbols to a true or false state, substitute a string of characters for a variable name, and assign an integer value to symbols. The system does not display logical commands unless you enter the .SHOW command, described in this chapter. To turn off the display, use the .NOSHOW command.

Conventions

The following conventions apply to command file commands:

- The at sign (@) must precede the command file id.
- You cannot abbreviate commands within command files. You must spell out each command.
- Use an asterisk (*) as the first character on a line to indicate that any text which follows is a comment. The comments consist of all characters between the asterisk and the end of the line. A comment line is used to convey information and is ignored by the system.

- Use a semicolon (:) to display messages for the operator. Messages may be strictly informational, or they may alert the operator when operator input is required at specific points in the command file execution.

  For example, you might insert a message to prompt the operator to mount a tape or to warn the operator that certain files have been deleted.

Command summary

A complete listing of the command file commands is shown in table 4-2.

Table 4-2. **Command file commands**

Command	Function	Logical command
.ASK	Alters symbol settings.	X
.ASKS	Substitutes a character string for the variable name.	X
.ASKV	Assigns symbol integer values.	X
.BCP	Branches if the correct processor.	
.BEZ	Branches if the symbol is zero.	X
.BF	Branches if false.	X
.BNZ	Branches if the symbol is not zero.	X
.BR	Branches unconditionally.	X
.BT	Branches if true.	X
.BX	Branches to the label selected by the operator.	X
.CHAIN	Chains editor command files.	
.DEC	Decrements a symbol.	X
.DELAY	Delays for a specified time.	
.EXIT	Terminates a command file.	
.HOME	Clears the LPS display.	
.INC	Increments a symbol.	X
.NOSHOW	Discontinues displaying logical commands.	
.PAUSE	Suspends execution of the command file.	
.QWAIT	Queues jobs submitted by the command file.	
.SETC	Sets the symbol to the current logon class.	X
.SETD	Sets variables for date components.	X
.SETF	Sets the symbol to false.	X
.SETT	Sets the symbol to true.	X
.SETV	Sets the symbol to a value.	X
.SHOW	Displays logical commands.	
.WAIT	Suspends command file processing until the print job completes.	

Commands

The following command file commands are available for the Xerox 4050/4090/4450/4650 LPS.

*

Use an asterisk (*) as the first character on a line to indicate that any text which follows the * is a comment. The comment consists of all characters between the * and the end of the line. A comment line is ignored by the LPS and is used to convey information.

Logon level The logon levels are 1 through 5.

Syntax * (as first character on line.)

;

Use a semicolon (;) to display messages for the LPS operator. Messages are used to prompt the operator about entries the command file cannot provide.

Logon level The logon levels are 1 through 5.

Syntax ; (in 1st position of the record.)

@command-file.CMD

Use editor command files to preserve and execute frequently used sets of OSS, editor, and font editor commands. An OSS command file contains OSS and command file commands. An editor command file contains editor and command file commands, and may also invoke ACCOUNT commands.

Logon level The logon levels are 1 through 5.

OSS syntax OSS READY>@*file-name***.CMD**

Editor syntax EDIT>@*file-name***.CMD**

Font editor syntax FEDIT>@*file-name***.CMD**

Parameter options

@
Specifies that a command file is identified.

file-name
Specifies the command file to execute.

.CMD
Specifies the *file-type* (optional).

.ASK

Sets the symbol to true if the operator enters Y, and false if the operator enters N or presses ENTER.

Syntax **.ASK***x* '*question text*'

Parameter options

x
Letter between A and H, inclusive. The operator response sets it to true or to false.

'*question text*'
Prompts the operator for a Y or N response. Single quotes are required. System appends "? (Y/N)" to text.

Logon level The logon levels are 1 through 5.

Example

```
DELETE GBAR.FRM, ABC.JSL, PCHA.TMP
.ASK A  'DO YOU WANT TO DELETE THE TEST FILES FROM DISK'
```

This command file entry displays the following message when the command file is executed:

```
DO YOU WANT TO DELETE THE TEST FILES FROM DISK?  (Y/N)
```

.ASKS

Substitutes a character string entered by the operator for a symbol.

Syntax **.ASKS** *character* '*message text*'

Parameter options

character
I or J or K
String entered by operator in response to the '*message text*' prompt. This is substituted for a symbol, and is a required parameter.

'*message text*'
Prompts the operator for string to substitute the I, J, or K value.

Logon level The logon levels are 1 through 5.

Example

```
.ASKS I 'ENTER FILE NAME TO DELETE'
DELETE % I
```

This command file entry displays the following message when the command file is executed:

```
ENTER FILE NAME TO DELETE
```

In response, the operator enters a character string which is substituted for the `% I` in the DELETE command. The system then deletes the specified file.

.ASKV

Sets the symbol X to a value between 0 and 255, inclusive. The value is the operator's response to the '*question text*,' prompt. The .ASKV command always precedes the .BX command, which then tests the value of X against certain labels for the purpose of branching.

Syntax **.ASKV** *x* '*question text*'

Parameter options

x
A letter between A and H, inclusive. The operator response to the question text sets it to an integer value between 0 and 255, inclusive.

'*question text*'
Prompts the operator for an integer entry between 0 and 255, inclusive. Single quotes are required.

Logon level The logon levels are 1 through 5.

Example See the .BX command in this chapter for an example that includes the .ASKV command.

.BCP

Ensures proper operation by branching to the specified label if the command file is invoked by the correct processor.

Syntax **.BCP** *keyword n*

Parameter options

keyword
EDITOR, SYSTEM, or FEDIT
Specifies the command file type (required).

n
A label having a value of 1 to 32767.

Logon level The logon levels are 1 through 5.

Example In the following example, the .BCP command prevents the editor and font editor from trying to execute the system command file.

```
* THIS COMMAND FILE MUST BE RUN AT THE SYSTEM LEVEL
.BCP EDITOR, SYSTEM 20
; THIS COMMAND FILE MUST BE RUN AT THE SYSTEM LEVEL
; PLEASE RESTART IT
.EXIT
.20
    .
    .                  body of system level command file
    .
.EXIT
```

.BEZ

Branches to the specified label if the value of the symbol equals zero.

Syntax **.BEZ** *x n*

Parameter options

x
Letter between A and H, inclusive, that represents an integer between 0 and 255 inclusive.

n
Label consisting of a period followed by an integer between 0 and 255, inclusive.

Logon level The logon levels are 1 through 5.

.BF

Branches to the specified label if the value of the symbol is false.

Syntax **.BF** *x n*

Parameter options

x
Letter between A and H, inclusive, that represents the value true or false.

n
Label consisting of a period followed by an integer between 0 and 255 inclusive.

Logon level The logon levels are 1 through 5.

Example

```
.ASKS I 'ENTER NAME OF FILE TO DELETE
.BF I 80
DELETE % I
.80
```

This command file entry displays the following message when the command file is executed:

```
ENTER FILE NAME TO DELETE
```

In response to this, the operator enters a character string (the file name) which is substituted for the `% I` in the DELETE command. However, the command `.BF I 80` branches around the DELETE command if the operator presses the <ENTER> key without entering a character string.

.BNZ

Branches to the specified level if the value of the symbol is not equal to zero.

Syntax **.BNZ** *x n*

Parameter options

x
Letter between A and H, inclusive, that represents an integer between 0 and 255, inclusive.

n
Label consisting of a period followed by an integer between 0 and 255, inclusive.

Logon level The logon levels are 1 through 5.

.BR

Branches unconditionally to the specified label.

Syntax **.BR** *n*

Parameter options

n
Label consisting of a period followed by an integer between 0 and 255, inclusive.

Logon level The logon levels are 1 through 5.

Example

```
DELETE GBAR.FRM, ABC.JSL, PCHA.TMP

;**FILES HAVE BEEN DELETED**
.70
.ASKS I 'ENTER NAME OF ANOTHER FILE TO DELETE'
.BF I 80
DELETE % I
.BR 70
.80
END
```

The `.BR 70` entry in this command file branches to label `.70` when the operator enters a file name in response to the message `ENTER NAME OF ANOTHER FILE TO DELETE`. When you have entered the file names of every file you want to delete, press the <ENTER> key, and the `.BF I 80` entry branches around the DELETE command to label `.80`.

.BT

Branches to the specified label if the value of the symbol is true.

Syntax **.BT** *x n*

Parameter options

x
Letter between A and H, inclusive, that represents the value true or false.

n
Label consisting of a period followed by an integer between 0 and 255, inclusive.

Logon level The logon levels are 1 through 5.

.BX

Branches to the specified label you selected.

Syntax **.BX** *x .n*$_0$ *.n*$_1$,... *n*$_n$

Parameter options

x
A letter between A and H, inclusive, that represents an integer between 0 and 255, inclusive. Each possible value corresponds to an option given to the operator.

n$_0$
Multiple labels consisting of a period followed by an integer value between 0 and 255.

n$_1$...
Number of labels used in this command equals the number of options given the operator. The operator enters a number representing the position of the option selected (1 for first option), and the program branches to the corresponding label.

Logon level The logon levels are 1 through 5.

Example

```
.ASKV B 'ENTER NUMBER OF TEST FILES TO BE COPIED (0 - 3).
.BX B 60, 56, 54, 52
.52
COPY TAPE LABEL GBAR.FRM
.54
COPY TAPE LABEL ABC.JSL
.56
COPY TAPE LABEL PCHA.TMP
.60
.ASK A 'DO YOU WANT TO DELETE THE TEST FILES FROM DISK'
```

This command file entry displays the following message when the command file is executed:

```
ENTER NUMBER OF TEST FILES TO BE COPIED (0 - 3)
```

The operator assigns one of four values (0 to 3) to the symbol B, which must correspond to the number of labels that the command .BX tests B against. If the operator enters 0, the .BX command branches to label .60, no files are copied, and the system displays the message DO YOU WANT TO DELETE THE TEST FILES FROM DISK? (Y/N) If the operator enters 1, the .BX command branches to label .56, and the PCHA.TMP file is copied. If the operator enters 2, the .BX command branches to label .54, and the ABC.JSL file is copied; and so forth.

.CHAIN

Closes the current command file and begins to process the file specified. This command clears all values and strings.

Syntax **.CHAIN** *file-name.file-type*

Parameter options

file-name
Specifies the file name required.

file-type
Specifies the file type.

Logon level The logon levels are 1 through 5.

Default The default is .CMD.

.DEC

Decreases the value of *x* by 1.

Syntax **.DEC** *x*

Parameter options

x
Letter between A and H, inclusive, that represents an integer value between 0 and 255, inclusive. If its value is 0, subtracting 1 assigns it a value of 255.

Logon level The logon levels are 1 through 5.

.DELAY

Suspends the command file process for the specified period of time.

Syntax **.DELAY** *n*

Parameter options

n
Specifies the delay in seconds before processing continues. Must be within the range 0 to 300 seconds (0 seconds to 5 minutes).

Logon level The logon levels are 1 through 5.

.EXIT

Ends the command file process. Ending the command file also discontinues command file processing.

Syntax **.EXIT**

Logon level The logon levels are 1 through 5.

Example

```
.WAIT
;COMMAND FILE COMPLETED
.EXIT
```

.HOME

Clears the LPS display. The cursor is set to the upper left corner of the display.

Syntax **.HOME**

Logon level The logon levels are 1 through 5.

Example

```
*SAMPLE SYSTEM LEVEL COMMAND FILE
*TEST NEW FLS'S AND JSL FOR PRODUCTION
;COMMAND FILE TO PERFORM FDL, PDL AND START TEST JOB
.HOME
```

.INC

Increases the value of *x* by 1.

Syntax **.INC***x*

Parameter options

x

Letter between A and H inclusive that represents an integer value between 0 and 255 inclusive. If its value is 255, adding 1 assigns it a value of 0.

Logon level The logon levels are 1 through 5.

.NOSHOW

Ends the screen display of logical commands during the command file process.

Syntax **.NOSHOW**

Logon level The logon levels are 1 through 5.

Example

```
.SHOW
ASKV B 'ENTER NUMBER OF TEST FILES TO BE COPIED (0 -3)'
BX B 60, 56, 54, 52
.52
COPY TAPE LABEL GBAR.FRM
.54
COPY TAPE LABEL ABC.JSL
.56
COPY TAPE LABEL PCHA.TMP
.60
.NOSHOW
```

.PAUSE

Temporarily suspends the execution of a command file.

Syntax **.PAUSE**

Parameter options None.

The message `OS1275 COMMAND FILE SUSPENDED` displays and processing stops until you press <ENTER> or enter the @RESUME command. If you enter @ABORT at this point, command file processing stops.

Logon level The logon levels are 1 through 5.

Example

```
*SAMPLE SYSTEM LEVEL COMMAND FILE
*TEST NEW FSL'S AND JSL FOR PRODUCTION
;COMMAND FILE TO PERFORM FDL, PDL AND START TEST JOB
.HOME
;MOUNT TAPE CONTAINING TEST FSL FILES
;AFTER TAPE IS MOUNTED TYPE ENTER
.PAUSE
```

.QWAIT

Queues the print job just submitted by the command file. The .QWAIT command can replace the .WAIT command in command files written for previous OSS versions.

Syntax **.QWAIT**

The .QWAIT command delays command file execution until the job completes input processing. Using .QWAIT allows the command file to run faster because input processing of a job can occur simultaneously with output processing of the previous job. Figure 4-1 illustrates the use of QWAIT in a command file.

Logon level The logon levels are 1 through 5.

Figure 4-1. **.QWAIT sample code in a command file**

```
START <job A>          /*   Job A starts.                                  */

START <job B>          /*   Job B is queued to start input processing when
                            job A finishes input processing and begins
                            printing.                                      */
.QWAIT                /*   The command file waits for job A to complete
                            printing before executing the next step.       */
START <job C>          /*   Job C is processed by input when job B begins
                            output processing.                             */
.QWAIT                /*   The command file waits for job B to complete
                            printing before executing the next step.       */
START <job D>          /*   Job D is processed by input when job B begins
                            output processing.                             */
```

.SETC

Assigns the value of the current logon class to the symbol *x*.

Syntax **.SETC** *x*

Parameter options *x*

Letter between A and H inclusive that represents an integer value between 1 and 5 inclusive.

Logon level The logon levels are 1 through 5.

.SETD

Sets up variables for the following date components: year, month, day of the month, hour, minute, second, day of the week.

Syntax **.SETD** *value*

Parameter options *value*

m
Variable between A and H, inclusive, that sets the year.

n
Variable between A and H, inclusive, that sets the month.

o
Variable between A and H, inclusive, that sets the day of the month.

p
Variable between A and H, inclusive, that sets the hour.

q
Variable between A and H, inclusive, that sets the minute.

r
Variable between A and H, inclusive, that sets the second.

s
Variable between A and H, inclusive, that sets the day of the week.

Logon level The logon levels are 1 through 5.

Restriction The variables are positional. Variables may be omitted, but each omitted variable must be replaced by a comma.

Examples .SETD ,,,,,,A
Sets A to the day of the week.

.SETD C B A
Sets C to the year, B to the month, and A to the day of the month.

.SETD A B C
Invalid. Commas are required.

.SETF

Sets the symbol value to false.

Syntax **.SETF** *x*

Parameter options *x*
Letter between A and H, inclusive.

Logon level The logon levels are 1 through 5.

.SETT

Sets the symbol value to true.

Syntax **.SETT** *x*

Parameter options *x*
Letter between A and H, inclusive.

Logon level The logon levels are 1 through 5.

.SETV

Sets the symbol value to the value of *v*.

Syntax **.SETV** *x*=*v*

Parameter options

x
Letter between A and H, inclusive.

v
Integer value between 0 and 255, inclusive.

Logon level The logon levels are 1 through 5.

.SHOW

Begins screen displays of logical commands during the command file process.

Syntax **.SHOW**

Logon level The logon levels are 1 through 5.

Example

```
.SHOW
ASKV B 'ENTER NUMBER OF TEST FILES TO BE COPIED (0 -3)'
BX B 60, 56, 54, 52
.52
COPY TAPE LABEL GBAR.FRM
.54
COPY TAPE LABEL ABC.JSL
.56
COPY TAPE LABEL PCHA.TMP
.60
.NOSHOW
```

.WAIT

Delays the command file process until the submitted print job completes processing.

Syntax **.WAIT**

A system command file must include a .WAIT command after each print job (whether a START, SAMPLE, or disk print job, such as an FDL or PDL compilation with printing specified). Otherwise, the commands following the print job request are refused because the system is printing. When the .WAIT command executes, the message `OS1275 COMMAND FILE SUSPENDED` displays.

Any operator entry made during this waiting period functions normally. An @ABORT entry discontinues command file processing.

Logon level The logon levels are 1 through 5.

Figure 4-2 illustrates the use of WAIT in a command file.

Figure 4-2. **.WAIT sample code in a command file**

```
START <job A>          /*   Job A is started.                              */
START <job B>          /*   Job B is queued to start input processing
                            when job A finishes input processing and
                            begins printing.                               */
.WAIT                 /*   The command file waits for jobs A and B to
                            complete printing before executing the next
                             step.                                         */
START <job C>          /*   Job C starts after job B completes output
                            processing.                                    */
.WAIT                 /*   The command file waits for job C to complete
                            printing before executing the next step.       */
START <job D>          /*   Job D starts after job C completes output
                            processing.                                    */
```

Glossary

A3 International paper size measuring 297 by 420 mm or 11.69 by 16.54 inches.

A4 International paper size measuring 210 by 297 mm or 8.27 by 11.69 inches.

B4 International paper size measuring 250 by 353 mm or 9.84 by 13.9 inches.

batch processing Process that allows for repetitive operations to be performed sequentially on batched data without much involvement from the computer operator.

BCD Binary coded decimal.

bitmap Visual representation of graphic images in which a bit defines a picture element (pixel) and a matrix of bits defines an image. For example, if a bit is 1, the corresponding pixel is printed.

blocking Process of combining two or more records into a single block of data which can moved, operated upon, stored, and so on, as a single unit by the computer.

block length Number of characters or bytes contained in a block of data (the block is treated as a unit within the computer). Block length is usually invariable within a system and may be specified in units such as records, words, computer words, or characters.

BOF Bottom of form.

BOT Beginning of tape.

bpi Bits per inch.

CCID Character Code Identifier. Code associated with the universal identifier "Xerox" to indicate the version of the Xerox character code standard used to code Interpress strings.

character set Set of all characters defined in a font, including alphabet, numeric, and special characters such as symbols.

cluster Group of related feeder trays, usually containing the same size and type of paper (stock). Each cluster has a name, consisting of one to six alphanumeric characters.

CME Entry modifying the output printing characteristics of a report on a copy-to-copy basis.

compiler Software that translates instructions written in high-level language into machine language for execution by a system.

Copy Modification Entry See *CME*.

copy-sensitive Job in which multiple copies of a report contain different data, such as paychecks and banking statements.

cpi Characters per inch.

default Value assigned to a field by the system if no input is received from the operator. You can change the default value of a field.

DJDE Dynamic Job Descriptor Entry. Command within an input data stream used to modify the printing environment dynamically.

dot Picture element (pixel) imaged by a printer. The number of dots imaged per inch measures printer resolution, for example, 300 dots per mich (dpi). See also *spot*.

dpi Dots per inch. Indicates the number of dots per inch displayed on a terminal screen or printed to form a character or graphic.

dry ink Minute particles of resin and carbon black that can accept an electrical charge and create images. Resin and carbon black or color pigment toner are combined with developer to form the dry ink.

duplex 1. Ability of a data communications system to send and receive information simultaneously. 2. In printing, duplex means printing on both sides of the paper.

Dynamic Job Descriptor Entry See *DJDE.*

edgemarking Use of graphic objects (usually lines or boxes) that bleed off the edge of the physical page. See also *physical page*.

embedded blanks Blank spaces within a command line.

ENET Ethernet network.

EOT End of tape.

Ethernet Xerox local area network (LAN) that allows transmission of data by cable from one device to another.

FCB Forms Control Buffer. Controls the vertical format of printed output.

FCP File Control Parameter.

FCU File Conversion Utility.

FDL Forms Description language. LPS-resident source language used to design electronic forms. See also *FSL* and *form.*

FDR File directory.

FIS Font Interchange Standard. Defines the digital representation of fonts and character metrics for the generation of an entire series of Interpress fonts.

floating accent Nonspacing accent characters that can be combined with characters and printed as a composite.

font Complete set of characters of a particular font family having the same point size, weight, stress, and orientation.

Font Interchange Standard See *FIS.*

form 1. Compiled .FSL file. 2. Specific arrangement of lines, text, and graphics stored in an electronic version. Forms can be printed without variable data or merged with variable data during the printing process. See also *FDL* and *FSL*.

Forms Control Buffer See *FCB.*

Forms Description Language See *FDL.*

Forms Source Library See *FSL.*

FSL Forms Source Library. Uncompiled collection of user-created files containing FDL commands. See also *FDL* and *form*.

hexadecimal Numbering system with a base of 16. The numbers 10 through 15 are represented by A through F.

highlight color Printing with black plus another color. A range of colors, tints, and shades is printed by varying the percentage of black dots, colored dots, and the white space between the dots.

HIP Host Interface Processor.

image area Area on a physical page that may contain text or graphics.

initialize 1. To prepare a blank diskette so it can accept data. This is usually accomplished when a program is booted. 2. To set all information in a computer system to its starting values.

Interpress Industry-standard page description language developed by Xerox. Interpress documents can be printed on any sufficiently powerful printer equipped with Interpress print software.

JCB Job Control Block.

JCL Job Control Language.

JDE Job Descriptor Entry. Collection of job descriptions.

JDL Job Description Library. Collection of compiled job descriptions. See also *JSL*.

JID Job Identifier.

job Synonymous with a START command, a job is a group of print data sets called reports. A job may contain one or multiple reports.

job control Program called into storage to prepare each job or job step to be run.

Job Descriptor Entry See *JDE.*

Job Descriptor Library See *JDL.*

job management Collective functions of job scheduling and command processing.

Job Source Library See *JSL.*

JSL Job Source Library. Collection of uncompiled job descriptions. See also *JDE* and *JDL*.

keyword Required part of a command.

label Reference to a file saved on tape or disk, a record indicating the file name or date created, or other control information.

landscape Orientation in which text and images are positioned parallel to the long edge of the paper.

legal size Paper size measuring 8.5 by 14 inches or 216 by 356 mm.

letter size Paper size measuring 8.5 by 11 inches or 216 by 279 mm.

line feed Control character that (unless set to be interpreted as a line end) causes the printing system to begin printing in the current character position of the next line.

literal Alphanumeric character beginning with a letter, including an asterisk, period, colon, or slash, and not enclosed in single quotes.

logical page In Xerox printing systems, a logical page is a formatted page that is smaller than the physical page. A logical page is defined by an origin, thus allowing more than one logical page to be placed on a physical page.

lpi Lines per inch.

LPS Laser printing system.

mask Selection of bits from a storage unit by use of an instruction that eliminates the other bits in the unit. In accessing files, a file name mask is used to reference one or more files with similar file-id (identifier) syntax. In Interpress, a mask serves as a template, indicating the shape and position of an object on a page.

metacode Method of controlling the image generator. The character dispatcher uses these codes to generate scan line information. This information is sent in the form of character specifications to the image generator, which uses it to compose the bit stream that modulates the laser. Also called native mode.

monochrome Printing in one color only.

nesting Subroutine or set of data, such as a comment, contained sequentially within another set of data.

object file Source file converted into machine language (binary code).

octal System of representing numbers based on 8.

offset To place printed output sets in slightly different positions from each other in an output bin for easy separation of collated sets.

operand That which is acted upon, for example, data, in an operation or process.

operating system Software that controls the low-level tasks in a computer system, such as input or output and memory management. The operating system is always running when the computer is active.

orientation In reference to image area, describes whether the printed lines are parallel to the long edge of the paper (landscape) or the short edge of the paper (portrait).

origin In reference to image area, the upper left corner of a sheet.

overprint ratio Maximum number of variable data and form characters that can be intersected by a single scan line.

packet A group of DJDE records terminated by an END command.

page end Command character (form feed) to terminate the current page.

palette Predefined set of colors or inks. Different versions are provided with the printer and with host- or PC-based application software.

parameter Part of a command, other than the keyword. See *keyword*.

parse To read or interpret a command; to build up a parameter list from information within a command.

PCC Printer Carriage Control.

PDE Page Description Entry.

PDL Print Description Language. Language used to describe printing jobs to a laser printing system. PDL describes the input (type, format, characteristics), performs the processing functions (logical processing), and describes the output (type, format, font selection, accounting options).

PE Phase encoded.

physical page Actual page size your printer uses to print a form.

pitch Width of a fixed-pitch font expressed in characters per horizontal inch.

pixel Acronym for picture element. Smallest addressable point of a bitmapped screen that can be independently assigned color and intensity.

point In Xerox laser printing systems, a unit of measurement equal to 0.0139 inch. Points are always used to express type, size, and leading. There are 12 points to a pica and about 72 points to an inch.

portrait Orientation in which text and images are positioned parallel to the short edge of the paper.

ppm Pages per minute.

Print Description Language See *PDL.*

print file Portion of the system disk memory (up to 4 MB) reserved for temporary storage of formatted pages for printing. Pages are retained until they are delivered to the output tray.

PSC Printer Subsystem Controller.

query Request for data or other information, entered by an operator while the system is processing.

record A line of data as defined in the RECORD command.

report A single output data set, delimited by an RSTACK command or as a file. In setting a separation boundary, reports are subsets of a job.

resolution Number of dots per inch (dpi) or spots per inch (spi). The greater the number of dots, the higher the resolution and the clearer the image. The terms dots, spots, and pixels are synonymous.

scale To adjust font or image size according to given proportions.

sequential 1. In numeric sequence, usually in ascending order. 2. A file structure in which records are written one after another and cannot be randomly accessed.

set Multiple copies of the same report.

simplex printing Printing on one side of the page.

spi Spots per inch. See *resolution*.

spot A picture element imaged by the printer. Synonymous with *dot* and *pixel*.

statement Detailed instructions in a program step, written according to specific rules called syntax.

stock User-defined name in the JSL that specifies a certain type of paper for printing a job.

stockset Collection of stocks to be used on a print job. See also *stock*.

string Connected sequence of alphanumeric characters treated as one unit of data by a program.

syntax Rules governing the structure of expressions in a programming language.

system page Maximum area in which text and graphics can be imaged on a printing system.

tape density Expression of the format of a magnetic tape measured in number of bytes that can be stored per inch of tape.

TOF Top of form.

two-up Printing two logical pages on one side of a physical page.

UCSB Universal Character Set Buffer.

UCS Universal Character Set.

variable data Changeable information which is merged with a standard document to create specialized or personalized versions of that document. Variable data is not a part of a form design, but varies from page to page.

virtual page Page area selected by a forms designer for printing.

vpos Vertical positioning.

wildcard Character (usually an asterisk *) which can be inserted into a command string to indicate that it may represent one or more characters in that position.

XDDI Xerox Dynamic Document Interface.

xdot Unit of measurement representing a fraction of an inch. May also be referred to as a picture element (pixel) or spot; for example, 1/600 spots per inch (spi).

xerographic mode Either of two possible printer configurations: 1. Black mode which allows printing with black dry ink only. 2. Highlight mode which enables both highlight color and black printing.

XNS Xerox Network Systems.

XPAF, XPF Xerox Printer Access Facility.

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