jBASE Spooler Guide

System Administration Guide
jBASE 4.1
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</table>
**Documentation Conventions**

This manual uses the following conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOLD</strong></td>
<td>In syntax, bold indicates commands, function names, and options. In text, bold indicates keys to press, function names, menu selections, and MS-DOS commands.</td>
</tr>
<tr>
<td><strong>UPPERCASE</strong></td>
<td>In syntax, uppercase indicates JBase commands, keywords, and options; BASIC statements and functions; and SQL statements and keywords. In text, uppercase also indicates JBase identifiers such as filenames, account names, schema names, and Windows NT filenames and pathnames.</td>
</tr>
<tr>
<td><strong>UPPERCASE Italics</strong></td>
<td>In syntax, italic indicates information that you supply. In text, italic also indicates UNIX commands and options, filenames, and pathnames.</td>
</tr>
<tr>
<td><strong>COURIER</strong></td>
<td>Courier indicates examples of source code and system output.</td>
</tr>
<tr>
<td><strong>COURIER BOLD</strong></td>
<td>Courier Bold In examples, courier bold indicates characters that the user types or keys (for example, &lt;Return&gt;).</td>
</tr>
<tr>
<td>[]</td>
<td>Brackets enclose optional items. Do not type the brackets unless indicated.</td>
</tr>
<tr>
<td>{}</td>
<td>Braces enclose nonoptional items from which you must select at least one. Do not type the braces.</td>
</tr>
<tr>
<td>**ITEMA</td>
<td>ITEMB**</td>
</tr>
<tr>
<td>. . .</td>
<td>Three periods indicate that more of the same type of item can optionally follow.</td>
</tr>
<tr>
<td>⇒</td>
<td>A right arrow between menu options indicates you should choose each option in sequence. For example, “Choose File ⇒Exit” means you should choose File from the menu bar, and then choose Exit from the File pull-down menu.</td>
</tr>
</tbody>
</table>
Syntax definitions and examples are indented for ease in reading.
All punctuation marks included in the syntax—for example, commas, parentheses, or quotation marks—are required unless otherwise indicated.
Syntax lines that do not fit on one line in this manual are continued on subsequent lines. The continuation lines are indented. When entering syntax, type the entire syntax entry, including the continuation lines, on the same input line.
jLP Spooler

The jBASE spooler accepts multiple print reports generated by PRINT statements in jBASE programs, or directly from the jBASE command line processors such as jQL or jCL.

The spooler controls the temporary storage of print jobs and arbitrates between multiple users who are creating print jobs, and the multiple devices for which they are intended. This means that several users can share the same system resources without each having to wait for an exclusive connection. Submitted print reports are allocated a print job number and assigned to a formqueue. Each formqueue is associated with a specific device, which will receive the despooled output. Multiple formqueues are supported, providing simultaneous despooling facilities to many different logical device types. The formqueues effectively comprise lists of print jobs waiting to be printed, in order of priority.

As each new print job is generated, it is linked (queued) to the end of a formqueue and given the lowest priority in that queue. Unless you specify otherwise, the job will usually be output as soon as the device becomes available and will then be deleted automatically.

Use the SP-ASSIGN command to assign a formqueue and invoke any required options. You can for example, specify the number of copies you want, whether the initial output of a job is to be suppressed and whether a copy of the print job is to be kept after it is output.

Use the SP-CREATE or SP-DEVICE commands to assign logical devices to formqueues. These commands are also available from the SP-STATUS menu.

A logical device can be any one of the following types:

- **LPTR** - output is directed to a specific UNIX device name.
- **TAPE** - output is directed to a tape device via jBASE tape support.
- **PORT** - output is directed to a port via the PORT-DESPOOL command.
- **PROG** - output is redirected to an external UNIX program.

All print reports generated by jBASE programs or jBASE processors are processed by the jlp command. This command interrogates the spooler tables to ascertain the current spooler options and formqueue assignment. It then assigns a job number to the report and queues the job to the designated formqueue.

The formqueues are despooled according to their logical device types by background daemons. The daemons are activated by the REST-SPOOLER command when starting the system, or individually by the SP-RESUME command or an option on the SP-JOBS menu.
**Print Reports**

PRINT statements executed from a jBASE program combine to create a print report. All print reports are generated on print channel zero unless otherwise specified.

Most jBASE processors such as jQL and jCL will only generate print reports on channel zero, which provides automatic pagination, headings and footings.

Print channels are numbered from 0 to 255.

Print report channels can be assigned to different formqueues by the SP-ASSIGN command.

Multiple print reports can be generated simultaneously by using the PRINT ON statement in a jBASE program. For example:

```plaintext
PRINT ON 1 "Text for print report on print channel 1"
PRINT ON 2 "Text for print report on print channel 2"
```

Will create two separate print reports with separate print job numbers. They can be assigned to the same formqueue or different formqueues, depending on the options specified in the currently active the SP-ASSIGN command(s).

**Formqueues**

There is no limit to the number of formqueues, which can be created for different logical device types. The default formqueue called STANDARD is created by the SP-NEWTAB command. New formqueues can be created by using the SP-CREATE command or from the SP-STATUS menu. The formqueue device assignment can be modified by using the SP-DEVICE command or from the SP-STATUS menu.

The status of the formqueues and print jobs is shown by the SP-STATUS and SP-JOBS menu displays.

**Print Jobs**

A print job number is allocated, and the spooler assignment options, as defined by SP-ASSIGN, are applied when the first data from a print report is submitted to the spooler. The report data, together with the spooler options, print channel and job number then constitute a print job. The print job is queued to an assigned formqueue or STANDARD as default.

You can have unlimited active print jobs in one formqueue. Print job numbers are assigned in sequence starting from one. The overall print job counter is reset to one after midnight so that any sequence gaps left by deleted jobs can be reused.

If the H option is specified when assigning a formqueue via SP-ASSIGN, a copy of the print job will be kept after despooling. This is referred to as a hold file. Additional copies of the print job can then be obtained by entering the SP command while editing the hold file. Use the SP-EDIT command or the equivalent option from the SP-JOBS menu to edit the hold file.

The presence of a hold file is indicated by a status of FINISHED or HOLD in the SP-JOBS menu display.
If the S option is specified when assigning a formqueue via SP-ASSIGN, the subsequent print job output is suppressed. When used in conjunction with the H option this allows jobs to be created as hold files for later despooling. This is useful if you want to postpone large print jobs until a later time, when resource contention is not so high.

**Logical Device Types**

There are four types of logical devices, which can be assigned to a formqueue:

- **LPTR** logical devices for formqueues specifies a direct UNIX device name. A background despooler daemon outputs the print jobs directly to the specified device. For example:

  `{LPTR /dev/lptr}`

  will write data from the print jobs directly to file `/dev/lptr`.

- **PROG** logical devices for formqueues Specifies an external UNIX program. A background despooler daemon pipes data from the print jobs to the command line. For example:

  `{PROG rsh HostId -l spooler lp -d devicename}`

  will pipe the print job data to remote connection HostId for user spooler and output to device devicename

- **PORT** logical devices for formqueues Specifies a port device. For example:

  `{PORT /dev/tty8b}`

  Queues the print jobs for output to port `/dev/tty8b`; Print jobs are despooled locally with the PORT-DESPOOL command.

- **TAPE** logical devices for formqueues Specifies a tape device configured in the jBASE devices file. For example:

  `{TAPE SCT0}`

  Will assign streaming cartridge tape device 0
**Despooling to the UNIX Spooler**

Using a logical device type of PROD and specifying the lp command together with the device name, if required can achieve despooling to the UNIX spooler.

**Despooling to jBASE Logical Devices**

A jBASE background despooler daemon is started for each defined formqueue when the REST-SPOOLER command is executed. Each daemon interrogates the assigned formqueue for the device type specified and either then pipes the print job data to the defined command or outputs the print job data to the defined device file.

The PORT-DESPOOL command starts a foreground process to despool (output) to a port. Despooling continues until the formqueue is empty or the process is terminated.

Direct device types must be disabled from receiving UNIX spooler output otherwise print data corruption may occur.

**Formqueue Creation and Assignment**

Create Formqueues by using the SP-CREATE command (or the create option from the SP-STATUS menu). For example:

**SP-CREATE PAYROLL LPTR /dev/lptr**

Will create the formqueue PAYROLL and assigned it to logical device type LPTR. LPTR is associated with device /dev/lptr which will receive the output print job data.

Formqueue PAYROLL could then be reassigned to any alternative logical device type by using the SP-DEVICE command (or the change device option from the SP-STATUS menu), like this:

**SP-DEVICE PAYROLL PORT /dev/tty8b**

The SP-RESUME command initiates despooling from a formqueue (or from the resume option of the SP-JOBS menu).

**Formqueue De-activation and Re-assignment**

A formqueue can be de-activated and re-assigned to another available logical device without having to be stopped and restarted. After reassignment, the next print job to be despoled will be directed to the new logical device type.
For example, if formqueue REPORTS is despooling to logical device type PROG lp -d lpdr and you issue the command:

```
SP-DEVICE REPORTS PROG lp -d laser
```

The next and subsequent print jobs will be output to the logical device PROG lp -d laser. In other words, the command will redirect REPORTS to the UNIX spooler lp for device name laser.
Spooler Commands

The jBASE spooler provides the following commands; all menu options are also provided as separate executables for command line execution.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>SP-ASSIGN =F0</td>
<td>Assign to formqueue name F0</td>
</tr>
<tr>
<td>SP-ASSIGN F0</td>
<td>Assign to formqueue zero as queuename F0</td>
</tr>
<tr>
<td>SP-ASSIGN Q0</td>
<td>Assign to formqueue zero as queuename Q0</td>
</tr>
<tr>
<td>LISTPTR</td>
<td>Display status of all printer numbers/queues.</td>
</tr>
<tr>
<td>LISTPEQS</td>
<td>Display status of all print jobs</td>
</tr>
<tr>
<td>SP-JOBS</td>
<td>Display status of all print jobs</td>
</tr>
<tr>
<td>SP-EDIT</td>
<td>Edit print job for despooling</td>
</tr>
<tr>
<td>SP-OPEN</td>
<td>Open print job</td>
</tr>
<tr>
<td>SP-CLOSE</td>
<td>Close print job</td>
</tr>
<tr>
<td>SP-PURGE</td>
<td>Clear jobs when all else fails</td>
</tr>
<tr>
<td>SP-STATUS</td>
<td>Display status of all printer queues</td>
</tr>
</tbody>
</table>

A jsprint despoo/e dequeues print jobs from each assigned queuename.
The jBASE command jlp can also be used to print files directly or from stdin. E.g
jlp FileName

echo Output | jlp

Spooler information can also be obtained directly using the following jspstatus functions:

jspstatus 1 Display device information. Option (R displays real user ids)
jspstatus 2 Display print job information
jspstatus 3 Display assignment information
jspstatus 4 Display open job information

**UNIX**

SP-NEWTAB - Clear all spooler entries.
REST-SPOOLER - Restart all spooler queues.

**Windows**

SP-NEWTAB - Clear all spooler entries.
REST-SPOOLER - Restart all spooler queues.

**NOTE**: Win95 command shell will not handle hyphen therefore execute commands from jshell.
SETPTR

Use SETPTR to set the line printer spooler options for a logical print channel. These changes are effective until you use SETPTR again or use LOGOUT or QUIT.

Syntax

SETPTR [ channel , l.len , p.len , top , bottom , mode , options ]

Qualifiers

All arguments are positional parameters. Each parameter is optional, but its position must be held by a comma. If you enter SETPTR with no parameters, the current settings for logical print channel 0 are displayed.

channel identifies the logical print channel assigned to the printer with the ASSIGN command. Enter a number from 0 through 255. The default is 0. If you specify channel with no options, SETPTR displays the current settings for that logical print channel.

l.len sets the line length, that is, the paper width. The default is 132.

p.len sets the number of lines per page. The default is 66.

top sets the top margin in number of lines. The default is 3.

bottom sets the bottom margin in number of lines. The default is 3.

mode a number from 1 through 5 that is used to direct output to one of the following places:

1. Line Printer Spooler Output (default).
2. Assigned Device. To send output to an assigned device, you must first assign the device to a logical print channel, using the ASSIGN command. The ASSIGN command does an automatic SETPTR command using the default parameters, except for mode, which it sets to 2. Use SETPTR only if you have to change the default parameters.
3. Hold File Output. Mode 3 directs all printer output to a file called &HOLD&. If a &HOLD& file does not exist in your account, SETPTR creates the file and its dictionary (D_&HOLD&). You
must execute SETPTR with mode 3 before each report to create unique report names in &HOLD&.

If a report exists with the same name, the new report overwrites it.

4. Synonym for mode 2.
5. Synonym for mode 2.

options can be any of the following:

**AS [ name ]** Same as BANNER.

**AT name** Routes output to system printer name.

**BANNER [ name ]** In mode 1, name appears on the second line of the banner page under the account name, that is, the login name. In mode 3, specifies the record ID of the record in &HOLD& which stores the report. If you do not specify name, the record ID is P#0000. If you specify name, it is the record ID of the output record. In either case, each subsequent print job uses the same record ID and overwrites the previous job.

**BANNER UNIQUE [ name ]**

In mode 3, appends a sequential number to the name under which successive records are created in &HOLD&. If you do not specify name, the record ID is P#0000_nnnnn, where nnnnn is increased by each subsequent SETPTR command. If you specify name, the record ID is name_nnnnn.

**BANNER NEXT [ name ]**

In mode 3, appends a sequential number to the name under which successive reports are created in &HOLD&. If you do not specify name, the record ID is P#0000_nnnnn, where nnnnn is increased for each new print job. If you specify name, the record ID is name_nnnnn.

**BRIEF** suppresses the display of SETPTR settings.

**COPIES n** specifies the number of copies to print (with only one banner page).
**DEFER time** defers printing until time. Specify time in one of the following formats. The formats beginning with a plus sign (+) specify time relative to the current system time. hh:mm dd.hh:mm mm.dd hh:mm yy.mm.dd hh:mm dd mm.dd yy.mm.dd
+mm
+hh:mm
+dd.hh:mm

**HOLD** In mode 1, sends print jobs to the spooler as hold files. The spooler does not print held jobs when they are sent. You can use the PRINT.ADMIN command to print held jobs. After a held job is printed, it is removed from the spool queue.

**LNUM** Prints line numbers.

**NFMT** or **NOFMT** specifies that the application controls pagination and formatting instead of the spooler.

**NOEJECT** Does not eject a page at the end of the print job.

**Examples**

```plaintext
>SETPTR 0,132,66,3,3,1

Unit Number : 0
Page Width : 132
Page Depth : 66
Top Margin : 3
Bottom Margin : 3
Print mode : 1 - Spooled Output
Default spool banner : "jbase"
OK to set parameters as displayed? Y

>SETPTR 1,21,12,3,3,1,BRIEF
```
**SP-NEWTAB**

Creates a new spooler structure

**COMMAND SYNTAX**

SP-NEWTAB (UNIX)

SP-NEWTAB (Windows)

WARNING SP-NEWTAB removes all print jobs and form queues. The STANDARD formqueue is recreated.

**NOTES**

This command can only be executed by root or an administrator

The default directory in which the spooler files are created is called jspooler. However, SP-NEWTAB allows a different directory to be specified. Before a user can access the spooler, its location must be specified using the environment variable JBCSPOOLERDIR. On UNIX platforms, SP-NEWTAB Prompts for the owner and group to be assigned to the spooler files. If not specified the owner is set to root and the group is set to lp.

SP-NEWTAB allows security settings for form queues and print jobs. These can be changed subsequently by using the commands SP-SECURITY, SP-SECURITY-JOBS, SP-SECURITY-OWNER and SP-SECURITY-QUEUE. Please refer to the documentation for a full discussion of the security settings.

The SP-NEWTAB command does not kill despooling daemons.

If a process was assigned to any formqueue other than STANDARD when the SP-NEWTAB command was executed, the process will be assigned to NO QUEUE.

The default formqueue STANDARD is re-initialized with a LPTR logical device type.
LISTPEQS
Displays print job status.

COMMAND SYNTAX

LISTPEQS {options}

SYNTAX ELEMENTS

“accountname” specifies that only the print jobs owned by accountname be to be displayed. Use single or double quotes.
A  displays only those print jobs, which are owned by the currently logged on account. Default action is to display all print jobs.
F  displays print jobs grouped by formqueue/printer. Default action is to display all print jobs in sequential order.
n  display print job number n.
n-m  displays print jobs in number range n to m inclusive
P  sends output to the printer. Default action is to display in paged format to terminal.

EXAMPLE

# STAT LK LN STATUSES CP FO PAGES DATE TIME ACCT
10 xxxx x x HOLD HS 1 2 10 31/01/95 10:42:20 SALS

The STATUS column displays the status as per SP-JOBS and the specified assignment options. The FO column displays the formqueue Number. The PAGES column is equivalent to SP-JOBS SIZE field. JobNumber, Copies, Date, Time, Acct are as per SP-JOBS.
LISTPTR
Displays printer or formqueue status

COMMAND SYNTAX
LISTPTR {options}

SYNTAX ELEMENTS
n Displays the specified Printer/Formqueue
n-m Displays a range of Printer/Formqueue from n to m inclusive

NOTES
LISTPTR has a JCL output interface. The status of the requested printer/formqueues is written into the secondary input buffer, separated by spaces or attribute marks depending on the type of jCL program.

EXAMPLE 1

<table>
<thead>
<tr>
<th>PRINTER</th>
<th>FORMQ</th>
<th>PAGE</th>
<th>STATUS</th>
<th>DEVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TYPE</td>
<td>NUMBER</td>
<td>SKIP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPTR</td>
<td>1</td>
<td>3</td>
<td>KILLED</td>
<td>/dev/lp</td>
</tr>
<tr>
<td>PROG</td>
<td>20</td>
<td>2</td>
<td>PRINTING</td>
<td>rsh HostB -l spooler</td>
</tr>
<tr>
<td>PROG</td>
<td>30</td>
<td>1</td>
<td>NO DEVICE</td>
<td>0</td>
</tr>
</tbody>
</table>

The printer number is a reference to the Formqueue number. This number can be matched to Formqueues created with Formqueue name Fn, where n is the Form queue number. The page skip, status and device fields are as per SP-JOBS.

EXAMPLE 2

1134 1171 11 127 127 3
Shows typical output to the secondary input buffer of a jCL program 1134 is the LISTPTR error message identifier. 1171 means that the printer/formqueue is inactive, the printer number is one, and the formqueue number is 1, 127 is reserved and 3 is the number of page skips.
PORT-DESPOOL

Despools a print job to a printer or terminal attached to your current port.

COMMAND SYNTAX

PORT-DESPOOL {formqueue} {\(X\)}

SYNTAX ELEMENTS

Formqueue is the formqueue assigned to the logical device type PORT where the output is to be despooled. If formqueue is omitted, the print queue is despooled from the first formqueue in the spooler tables that has the same logical device type, (PORT), and port number of the process which executed the PORT-DESPOOL command.

X stops the despooe after output of all queued print jobs. If you omit the X option, pressing ctrl <BREAK> must terminate the port despooeler and then entering quit to the jBASE debugger Prompt.

NOTES

The PORT-DESPOOL command is a synonym for the PORTOUT command.

EXAMPLE

To use the PORT-DESPOOL command:

Create a formqueue with a Device Type of ‘PORT’. For this example, we will assume the name of the form queue is ‘SCREEN’. There are two ways to accomplish this:

From Option 1 on the SP-STATUS menu, when prompted enter SCREEN PORT
Or from the jShell command line type:

SP-CREATE SCREEN PORT

NOTE: In both cases, press <Enter> when you are prompted for ‘Device Name’.
Now assign this queue using the SP-ASSIGN command, e.g.

SP-ASSIGN = SCREEN

You are now ready to create a print job. For this example, simply type LIST .(P
This will send the contents of the current directory to the spooler, specifically to the form queue SCREEN.
Finally you can now despool this job with

PORT-DESPOOL SCREEN (X

**NOTE:** that the spooler assignment (SP-ASSIGN = SCREEN) will remain in effect until you execute another SP-ASSIGN or you terminate the current connection to jBASE.

A common use for this is to send spooled output through the ‘aux’ (serial) port of a local pc to a ‘slave’ printer. The trouble is that ‘slave-on’ and ‘slave-off’ sequences are not generated automatically. Not to worry though, jBASE has a solution. To ‘auto generate’ slave-on/slave-off sequences you need to defined these in a spooler form-type that is assigned to the form queue. Continuing with our example of using the form queue SCREEN:

First, assign a form-type with defines STARTJOB and ENDJOB. STARTJOB will send a ‘slave on’ message at the start of each job and ENDJOB will send a ‘slave off’ message. For these two actions, you need to create two jBASIC programs called ‘slave_on’ and ‘slave_off’ respectively:

```
PROGRAM slave_on
PRINT @(-17):

PROGRAM slave_off
PRINT @(-18):
```

Now compile and catalog these two programs, and ensure they can be seen from the PATH environment variable.

Next, create the new form-type by copying the ‘jspform_deflt’ file to a new name. This file is located in %JBCRELEASEDIR%\config directory. For example, on Windows, at a jShell prompt type:

```
COPY C:\JJBASE30\config jspform_deflt TO: jspform_port
```

This assumes that jBASE was installed in the default location on Windows.

```
TO: jspform_port
```

Edit the new ‘jspform_port’ file, locate the STARTJOB and ENDJOB commands and enter the following two lines:

```
STARTJOB slave_on
ENDJOB slave_off
```
NOTE: Other form-type settings you might want to set at this time are WIDTH and DEPTH so that you do not have to issue these as TERM commands.

Finally, assign the new form-type to the SCREEN form queue by enter the following command at a jShell command Prompt:

```
SP-TYPE SCREEN port
```

We’re now ready to test this with the PORT-DESPOOL command...

```
SP-ASSIGN = SCREEN

LIST . LPTR
```

PORT-DESPOOL (XL

NOTE: When issuing a PORT-DESPOOL command under BASIC control, do NOT ‘capture’ the output as this will not allow the job to be despooled.]
SP-ASSIGN

Defines a formqueue, spooler options and number of copies to be used by subsequent print reports

COMMAND SYNTAX

SP-ASSIGN {[n]=formqueue} {options} {copies}

SYNTAX ELEMENTS

n defines the print report channel to be assigned in the range 0 to 127. The default value for n is zero. If a print report channel is specified a formqueue must also be specified.

Zero is the default print report channel number. jBASE processors such as jQL and jCL produce print reports on print channel zero. The default PRINT statement will also direct output to print report channel zero.

The SP-ASSIGN command can assign print report channels 1-127 for use within jBASE programs to direct output to separate print reports simultaneously by using the PRINT ON statement.

Print report channels 128-254 are reserved.

formqueue defines the name of the formqueue to which print jobs are queued. The default formqueue is STANDARD.

options define the spooler assignment options, which will be assigned to the subsequent print jobs when queued to the formqueue:

? displays current assignment.

A Align. Suspends despooling from the formqueue, so that the print job can be aligned for special forms. For example, printing checks. Each subsequent print job will exhibit the ALIGN status. Use the SP-ALIGN command or the align option on the SP-JOBS menu.

C Choke. For LPTR and TAPE, type formqueues only. Limits the amount of buffered data created before output to the device. The "I" option is automatically invoked.

Fn assigns specific form queue number n, which is only valid if an equals sign (=), is not present in the command line.

H Hold. The H option retains a copy of the spooled print job, which can be re-output later. This option can be used with the S option to produce a report for output when demand for a printing resource is not so high. Use SP-EDIT with the SP or the SPA commands, or the edit option on the SP-JOBS menu to output the hold file.

I Instant. For LPTR and TAPE, type formqueues only. The print job will be despooled without waiting for the print job to be closed first. The SP-SUSPEND command can be used to
suspend despooling of a job which was invoked with the I option but will not be able to recover any previously output data.

M Suppresses the “Entry # message” when a Hold job is generated.

O Open a global print job. Keeps the print job open when exiting to the shell or jCL. This option enables several print reports to be grouped as one print job.

P Protected (default). The P option protects the print job from being moved, edited, deleted or cleared, except by root or a user with the same user id as the user who created the print job. Once assigned this option cannot be changed.

Rn Assigns specific report number n, which is only valid if an equals sign (=) is not present in the command line.

S Suppress. Defeats automatic output when the job is closed. If you only specify the S option, no print job is created.

U Unprotected. Allows print jobs to be moved, edited, deleted or cleared by any user. Once assigned this option cannot be changed.

Copies defines the number of copies of the print report data to be output.

E Displays the entry number for every job created instead of just held entries.

**RESTRICTIONS ON OPTIONS**

The following combinations of spooler options are incompatible.

<table>
<thead>
<tr>
<th>Option</th>
<th>Incompatible with</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>H and S</td>
</tr>
<tr>
<td>F</td>
<td>“=” Modifier</td>
</tr>
<tr>
<td>I</td>
<td>S and copies</td>
</tr>
<tr>
<td>R</td>
<td>“=” Modifier</td>
</tr>
<tr>
<td>S</td>
<td>I and C</td>
</tr>
<tr>
<td>Copies</td>
<td>I</td>
</tr>
</tbody>
</table>

Options “C” or “I” cannot be assigned to logical PROG device type formqueues.

This error message will be displayed if any illegal combinations are attempted:

**INCOMPATIBLE OPTIONS: I S, C NOT I, COPIES I**
NOTES
The default spooler assignment takes effect if the SP-ASSIGN command is executed without parameters. The default assignment is printing report channel zero, formqueue STANDARD, spooler options P and number of copies set to one. This is also the default spooler assignment after log on.
The options assigned using the SP-ASSIGN command remain in effect until the SP-ASSIGN command is re-executed for the same print report channel or the user logs off.
Assignment information about each print report channel is held in the spooler assignment table and can be displayed by using the SP-LOOK command.
SP-ASSIGN will close any previously open global print jobs.
**SP-CLOSE**
Closes a global print job

**COMMAND SYNTAX**

```
SP-CLOSE [options]
```

**SYNTAX ELEMENTS**
Options can be:
- **Rn** limits the global close to report number n only.
- **n** closes the specific print job number n. Use this option with care - it is normally only used to close jobs which have been left open unintentionally.

**NOTES**
SP-CLOSE clears the flag in the assignment environment to indicate that subsequent printer output should be directed to a new print job. The global print job is closed and queued to the despooling process.
**SP-EJECT**

Creates a print job containing a specified number of form feeds (pages to eject) from the printer

**COMMAND SYNTAX**

\[ \text{SP-EJECT} \ [n] \]

**SYNTAX ELEMENTS**

\( n \) is the number of pages to eject. The default is one and the maximum is 10.

**NOTES**

If you specify more than the maximum allowed, only one page will be ejected.
SP-LOOK
Displays your current spooler assignments

COMMAND SYNTAX
SP-LOOK
The SP-LOOK display contains the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORT</td>
<td>The current port that issued the SP-ASSIGN</td>
</tr>
<tr>
<td>REPORT#</td>
<td>The print report channel numbers:</td>
</tr>
<tr>
<td></td>
<td>DEFAULT - Print report channel zero, the default assignment</td>
</tr>
<tr>
<td></td>
<td>1-127 - Print report channels assigned by the SP-ASSIGN command</td>
</tr>
<tr>
<td>QUEUE NAME</td>
<td>The formqueue name assigned by SP-ASSIGN command</td>
</tr>
<tr>
<td>JOB#</td>
<td>Currently open print job numbers</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>The options assigned by the SP-ASSIGN command</td>
</tr>
<tr>
<td>COPIES</td>
<td>The number of copies specified via the SP-ASSIGN command</td>
</tr>
</tbody>
</table>
**SP-OPEN**

Opens a global print job

**COMMAND SYNTAX**

SP-OPEN {Rn}

**SYNTAX ELEMENTS**

Rn optionally limits the global open to specific report number n.

**NOTES**

SP-OPEN sets a flag in the assignment environment to indicate that subsequent printer output should be directed to a global print job. This print job will stay open until closed by an SP-CLOSE command, another SP-OPEN, or an SP-ASSIGN command, which uses the O option.
**SP-SHUTDOWN**

This command shuts down all the jBASE printer daemons. To use this command you have to have Administrator privileges on Windows NT or root privileges on UNIX.

After typing the command you will either get:

```
*****All spooler Daemons are already shut down*****
```

This means that there are no jspprint daemons running to shut down.

Alternatively, you will get a list of queues with their PID numbers shown and you will be asked if you want to shut them down e.g.:

```
295 - NETWORK1
212 - LETTER1
261 - LABEL1
Do you wish to stop the above daemons? (Y/N): _
```

If you hit return or type N you will get the following message and the program will exit:

```
*** Aborted ***
```

If you type Y then the program will try to tidy shut the processes down and then will sleep for 30 seconds to allow the daemons to shut themselves down e.g.:

```
Do you wish to stop the above daemons? (Y/N): Y
Waiting for 30 Seconds to allow Daemons to shut down _
```

If this was successful then you will get the following message and the program will exit:

```
Waiting for 30 Seconds to allow Daemons to shut down
All spooler Daemons have now shut down.
```

If this process was not successful then the remaining daemons will be displayed and you will be asked if you want to kill the daemons e.g.:

```
Waiting for 30 Seconds to allow Daemons to shut down.
261 - LABEL1
22
```
The above daemons have not shut down.
Do you wish to kill them? (Y/N): _
If you hit return or type N then you will get the following message and the program will exit.

*** Aborted ***
If you type Y then the program will try to kill the processes. The program will tell you whether the kill was successful:

The above daemons have not shut down.
Do you wish to kill them? (Y/N): Y
Printers have been successfully shut down

Alternatively, if it is unsuccessful you will then get some type of error message followed by:

Kill was not successful errors occurred during shutdown

When the kill fails the error message, it gives before the above should be reported to your support company so it can be investigated further.
**SP-STATUS Menu**
Enters the SP-STATUS menu

**COMMAND SYNTAX**
SP-STATUS

**NOTES**
Selecting this option invokes the SP-STATUS menu.

**EXAMPLE**

```
12:12:12  12 FEB 2001           QUEUE STATUS                 PAGE 1 OF 1 PAGES

QUEUE NAME  DEVICE                   STATUS             #Q SKIP   XLT    BLKSZ
STANDARD    NT                       KILLED             0     1
cards       PROG lp -df\ROOSTA\'HP ACTIVE              49    1
inv         PORT                     NO DEVICE          163   1

1. CREATE FORMQUEUE  4. CHANGE DEVICE      7. DELETE FORM QUEUE   10. PURGE
2. CHANGE QUEUENAME  5. CHANGE PAGE SKIP   8. CHANGE TRANSLATION  11. SECURITY
3. LIST FORM TYPES   6. LIST PRINT JOBS    9. STOP PORT DESPOOL   99. EXIT

ENTER ACTION CODE / PAGE NUMBER (P#) / QUEUE (QName) ?
```
**SP-CREATE**

Creates and assigns a formqueue to a logical device type.

**PROMPT**

FORM-QUEUE DEVICE-TYPE(LPTR, TAPE, PORT, PROG) DEVICE NAME:

**COMMAND SYNTAX**

```
SP-CREATE formqueue devicetype devicename
```

**SYNTAX ELEMENTS**

- **formqueue** is the formqueue name, which contains up to 20 alphabetic numeric or special characters (excluding asterisks and embedded spaces). The first character of the formqueue name must be alphabetic. Only the first fifteen characters are displayed. The formtype screen can display the complete 20-character name.
- **devicetype** is the logical device type to be assigned:
  - LPTR    directly despooled device
  - TAPE    tape device
  - PORT    terminal device
  - PROG    programmed device
  - 0       no device
- **devicename** is the device name or program command to which output will be despooled.

**NOTES**

Parameters must be entered in the order shown in the syntax description. You will be prompted for any missing parameters. There is no limit to the number of formqueues, which can be created.
**SP-FORM**

Rename an existing formqueue.

**PROMPT**

OLD-NAME NEW-NAME:

**COMMAND SYNTAX**

SP-FORM old-formqueue new-formqueue

**SYNTAX ELEMENTS**

- `old-formqueue` is the existing formqueue name.
- `new-formqueue` is the new name for the formqueue.

**NOTES**

You will be prompted for any missing parameters.

If `old-formqueue` is invalid, the following error message will be displayed:

**FORM-QUEUE CANNOT BE FOUND**

Only the name of the formqueue is changed. Device assignments remain unchanged.
**SP-TYPE**

Assigns or reassigns a formtype to a formqueue.

**PROMPT**

FORM-QUEUE FORMTYPE:

**COMMAND SYNTAX**

SP-TYPE formqueue formtype

**SYNTAX ELEMENTS**

- **formqueue** is the name of the formqueue for form type assignment.
- **formtype** is the name of the formtype to be used for formqueue configuration.

**NOTES**

To revert a formqueue to the default form type use:

```
SP-TYPE formqueue
```

Selecting LIST FORM TYPES from the SP-STATUS menu will display the FORMTYPES menu. The FORMTYPES menu provides a display of the formqueues and their assigned formtypes. Menu options enable formtypes to be assigned to specific formqueues.

The formtype entries specify configuration parameters to be used by the despooler when despooooling print jobs from a formqueue for example, banner information and format.

Formtype entries reside in the $JBCRELEASEDIR/config directory and use the naming convention jspform_formtype for example, entering a value of abcd would expect to find formtype: jspform_abcd

Formqueues that are not associated with a formtype use the definitions in the file jspform_deflt.
**SP-DEVICE**

Reassigns a logical device type to a formqueue

**PROMPT**

FORM-QUEUE DEVICE-TYPE(LPTR,TAPE,PORT,PROG) DEVICE NAME:

**COMMAND SYNTAX**

```
SP-DEVICE formqueue devicetype devicename
```

**SYNTAX ELEMENTS**

- **formqueue** is the name of the existing formqueue to be reassigned.
- **devicetype** is the logical device type to be assigned.
- **devicename** is the device name or program command to output will be despooled.

<table>
<thead>
<tr>
<th>LPTR</th>
<th>directly despooled device</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPE</td>
<td>tape device</td>
</tr>
<tr>
<td>PORT</td>
<td>terminal device</td>
</tr>
<tr>
<td>PROG</td>
<td>programmed device</td>
</tr>
<tr>
<td>0</td>
<td>no device</td>
</tr>
</tbody>
</table>

**NOTES**

Parameters must be entered in the order shown in the syntax description.
You will be prompted for any missing parameters.
The despooler process checks the formqueue assignment at the end of each print job and can therefore be reassigned to alternative device types (depending on availability), without stopping the process.
**SP-SKIP**
Changes the number of blank pages to eject at the end of each print job

**PROMPT**
FORM-QUEUE PAGES:

**COMMAND SYNTAX**

```
SP-SKIP formqueue number-of-pages
```

**SYNTAX ELEMENTS**

- `formqueue` is the formqueue to change
- `number-of-pages` is the number of blank pages (0 to 10) to be ejected after despooling the print job.

**NOTES**
The page-eject value in the SKIP field affects all print jobs despooled from that formqueue.
An alternate command SP-EJECT can be used to set the number of page ejects for a set of print jobs.
SP-JOBS
Manipulates and displays status of print jobs.

COMMAND SYNTAX

SP-JOBS

NOTES
The SP-JOBS screen displays a list of print jobs together with their status and formqueue assignment. Displayed at the jBASE of the screen are 14 action codes each action code, except code 99, corresponds to a jBASE command that performs the same function.
NOTE: The SP-JOBS command displays only the print jobs associated with the jBASE spooler. The command does not display information about the UNIX spooler.

SELECTING A MENU OPTION
To select a menu option enters the appropriate option number at the Prompt.
For example, to move print jobs from one formqueue to another, enter "1" at the Prompt:
Action Code / Options (P#; PT#; A acctname; Q queuename; S status) : 1
The selected option will prompt the necessary parameters to enable command execution. In this case, the Prompt is:
FROM-FORM-QUEUE TO-FORM-QUEUE:
Enter the formqueue to move print jobs from, a space, and the formqueue to move the print jobs. You will be prompted for any missing parameters.

SELECTING A DISPLAY PAGE
The SP-JOBS display may contain more than one page of print job information. The number of pages available and the current page number are displayed in the top right hand corner of the screen. To display the next page enter RETURN. To skip to a specific page, enter P followed by the page number.

DISPLAY PRINT JOBS FOR A SPECIFIC PORT NUMBER
Print jobs can be filtered to display only those jobs generated from a specific port number. At the Action Code / Options Prompt, enter PT followed by a port number. For example,
Action Code / Options (P#; PT#; A acctname; Q queue; S status) : PT 42
will display the first page of print jobs generated from port 42.

**DISPLAY PRINT JOBS FOR A SPECIFIC FORMQUEUE**

Print jobs can be filtered to display only those jobs belonging to a specific form queue. At the Action Code / Options Prompt, enter Q followed by a name of a formqueue. For example,

Action Code / Options (P#; PT#; A acctname; Q queue; S status) : Q INVOICES

will display the first page of print jobs belonging to the INVOICES form queue

**DISPLAY PRINT JOBS FOR A SPECIFIC STATUS**

Print jobs can be filtered to display only those jobs with a specific STATUS. At the Action Code / Options Prompt, enter S followed by a status of QUEUED, PRINT, FINISH, OPEN, HOLD, KILLED or EDIT. For example,

Action Code / Options (P#; PT#; A acctname; Q queue; S status) : S FINISH

Will display the first page of print jobs whose status is FINISH indicating which jobs have been completely despooled

**EXECUTING AN EQUIVALENT jBASE COMMAND**

Equivalent jBASE commands can be executed by entering the command at the shell Prompt. For example, to move print jobs enter:

```
SP-MOVEQ formqueue formqueue
```

You will be prompted for any missing parameters.

**EXITING THE SP-JOBS MENU**

To exit the SP-JOBS menu select option 99.

**SP-JOBS SCREEN DISPLAY**

The screen display contains the following fields:

- **JOB**     Print job number
- **QUEUE**  The formqueue to where the print job is queued
- **LINE**   The jBASE port number of the process which generated the print job
- **ACCOUNT** The jBASE LOGNAME of the process which generated the print job
- **CREATED** The date and time the print job was generated
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATUS</td>
<td>The current status of the print job</td>
</tr>
<tr>
<td>ALIGN</td>
<td>Despooling is waiting for alignment</td>
</tr>
<tr>
<td>EDIT</td>
<td>The print job is being edited by SP-EDIT. N is the editing port</td>
</tr>
<tr>
<td>FINISHED</td>
<td>The print job has been despooled and the H option is assigned</td>
</tr>
<tr>
<td>HOLD</td>
<td>The print job has not been despooled and the H option is assigned</td>
</tr>
<tr>
<td>KILLED</td>
<td>Despooling has been killed</td>
</tr>
<tr>
<td>OPEN</td>
<td>The print job is being created</td>
</tr>
<tr>
<td>PRINT</td>
<td>The print job is being despooled</td>
</tr>
<tr>
<td>QUEUED</td>
<td>The print job is queued waiting to be despooled</td>
</tr>
<tr>
<td>STOPPED</td>
<td>Despooling has been stopped</td>
</tr>
<tr>
<td>SUSPENDED</td>
<td>Despooling has been suspended</td>
</tr>
<tr>
<td>SIZE</td>
<td>The size of the print job expressed in 1k blocks</td>
</tr>
<tr>
<td>PRNTD</td>
<td>The amount of the print job despooled expressed in 1k blocks</td>
</tr>
<tr>
<td>OP</td>
<td>The options assigned to the print job</td>
</tr>
<tr>
<td>CP</td>
<td>The number of copies to be despooled</td>
</tr>
</tbody>
</table>
**SP-FQDELETE**

Deletes a formqueue

**PROMPT**

QUEUE-NAME:

**COMMAND SYNTAX**

SP-FQDELETE formqueue

**SYNTAX ELEMENTS**

formqueue is the name of the formqueue to be deleted.

**NOTES**

A formqueue cannot be deleted if the formqueue is not empty or the formqueue is assigned to logical device type.

The formqueue should be changed to a device type of zero and any print jobs either deleted or reassigned to another formqueue. Any processes currently assigned to the deleted formqueue will change to NO QUEUE and any attempt to spool a job will display an error message.
**SP-TRANSLATE**

Changes the translation table entry for the specified formqueue

**PROMPT**

FORMQUEUE TABLE#:

**COMMAND SYNTAX**

SP-TRANSLATE formqueue table-number

**SYNTAX ELEMENTS**

*formqueue* is the formqueue to use the translation table.

*table-number* is the number of the translation table entry.

**NOTES**

The translation table comprises characters or character strings which are to be translated to alternative characters or character strings. For example, a printing device may not perform an automatic carriage return when a form feed is executed, or it may not be capable of printing lower case characters. In this example, the translation table can be used to map a form feed character to a form feed followed by a carriage return character, and all lower case characters can be mapped to their upper case equivalents. Like this

\f \r map form feed to form feed followed by carriage return (using char definition).

\141 \101 map ASCII lowercase “a” to uppercase “A” (using octal definition).

**RESTRICTIONS**

The translation table entry is only examined when the despooler is initiated. The despooling process must therefore be stopped and restarted to effect any changes made to either the formqueue assignment or the translation table.
SP-PURGEQ

Purges a formqueue of a specific print or all print jobs this command will delete the print job or jobs irrespective of status. If all jobs are requested the jspprint despool will also be stopped.

PROMPT
FORM-QUEUE PRINT JOB LIST (OR * FOR ALL):

COMMAND SYNTAX
SP-PURGEQ

NOTES
This command can only be run by root (UNIX) or an Administrator (NT).
SECURITY

SP-SECURITY

This is a menu driven interface to the previously mentioned SP-SECURITY-xx commands. It is also available from option 11 of SP-STATUS. When run, it presents the user with a screen that looks like this:

17:32:20  12 FEB 1998  SECURITY                   PAGE 1 OF 1 PAGES

<table>
<thead>
<tr>
<th>QUEUE NAME</th>
<th>Queue</th>
<th>Job</th>
<th>Queue Owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td>-none-</td>
<td>-q.owners-</td>
<td>lp greg jBASE ted</td>
</tr>
</tbody>
</table>

1. QUEUE SECURITY   3. QUEUE OWNERS        5. RETURN TO SP-STATUS
2. JOB SECURITY     4. RETURN TO SP-JOBS  99. EXIT

ENTER ACTION CODE / PAGE NUMBER (P#) ?

The screen will show up to 10 form queues at a time. The four fields shown for each form queue are as follows:

<table>
<thead>
<tr>
<th>QUEUE NAME</th>
<th>This is the name of the form queue.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queue</td>
<td>This is the security for the form queue, and can be one of three possibilities:</td>
</tr>
<tr>
<td></td>
<td>-none- There is no security and any user can modify the definition of the form queue.</td>
</tr>
<tr>
<td></td>
<td>-q.owners- The security state is such that all the form queue owners shown in the field “Queue Owners” have permissions to modify the form queue.</td>
</tr>
<tr>
<td></td>
<td>accname This is the account name of the creator of the form queue, and only this user has permission to modify the form queue.</td>
</tr>
<tr>
<td>Job</td>
<td>This is the security for the print jobs, and can be one of three possibilities:</td>
</tr>
<tr>
<td></td>
<td>-none- There is no security and any user can modify or view print jobs placed on this form queue.</td>
</tr>
<tr>
<td></td>
<td>-q.owners- The security state is such that all the form queue owners shown in the field “Queue Owners” have permissions to modify or view any jobs placed on this form queue.</td>
</tr>
<tr>
<td></td>
<td>-j.creator- The security state is such that only the print job creator has permissions to modify or view the print job.</td>
</tr>
</tbody>
</table>
Queue Owners

This is a list of the owners of the form queue. The first name in the list is the creator of the form queue and cannot be modified. The other names in the list are the alternate form queue owners.

Menu Options

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>QUEUE SECURITY</td>
<td>Use this option to modify the security state of the form queue. The syntax of the remainder of the command is similar to the SP-SECURITY-QUEUE command.</td>
</tr>
<tr>
<td>Option 2</td>
<td>JOB SECURITY</td>
<td>Use this option to modify the security state of print jobs placed on the form queue. The syntax of the remainder of the command is similar to the SP-SECURITY-JOBS command.</td>
</tr>
<tr>
<td>Option 3</td>
<td>QUEUE OWNERS</td>
<td>Use this option to modify the list of alternative owners of a form queue. This list of owners is used when the form queue security is set to QUEUE or the print job security is set to QUEUE. The syntax of the remainder of the command is similar to the SP-SECURITY-OWNER command.</td>
</tr>
<tr>
<td>Option 4</td>
<td>RETURN TO SP-JOBS</td>
<td>Returns to the SP-JOBS menu</td>
</tr>
<tr>
<td>Option 5</td>
<td>RETURN TO SP-STATUS</td>
<td>Returns to the SP-STATUS menu.</td>
</tr>
<tr>
<td>Option 99</td>
<td>EXIT</td>
<td>Exits the SP-SECURITY menu back to the shell</td>
</tr>
</tbody>
</table>

SP-SECURITY-QUEUE

This command modifies the security state of a form queue. The syntax of the command is:

```
SP-SECURITY-QUEUE queuename (CREATOR | QUEUE | NONE)
```

For example, to modify the security of form queue “PAYROLL” such that only the user who created that form queue has access to it, you would use the following command:

```
SP-SECURITY-QUEUE PAYROLL CREATOR
```
For example, to modify the security of form queue “MAILSHOT” such that ANY user can modify the form queue, use the following command:

SP-SECURITY-QUEUE MAILSHOT NONE

**SP-SECURITY-JOBS**

This command modifies the security state of print jobs that are placed in a particular form queue. The syntax of the command is:

SP-SECURITY-JOBS queuename (CREATOR | QUEUE | NONE)

For example, to modify the security of print jobs on the form queue “DEVELOPMENT” such that only the form queue owners can modify or view the print job, use the following command:

SP-SECURITY-JOBS DEVELOPMENT QUEUE

In the above example, if we assume that the alternate form queue owners had been set to “personnel” and “footwear”, then the following users would be allowed to modify or view any print jobs:

The user who created the print job

The initial creator of form queue “DEVELOPMENT”

The users personnel and footwear

NOTE: that if you change the security status of print jobs, it only affects new print jobs. Any jobs already sent to the spooler will have their security state unaffected.

**SP-SECURITY-OWNER**

This command allows you to define a list of users who are considered “alternate” owners of the form queue. This list of users is used when the form queue security state is set to “OWNER” or the print job security state is set to “OWNER”. The syntax of the command is:

SP-SECURITY-OWNER queuename {user {user...}}

For example, to make users “personnel” and “footwear” the alternative owners of the form queue “LIBRARY” use the following command:

SP-SECURITY-OWNER LIBRARY personnel footwear
SP-JOBS Menu

SP-MOVEQ
Move all print jobs from one formqueue to another formqueue.

PROMPT
FROM-FORM-QUEUE TO-FORM-QUEUE

COMMAND SYNTAX

SP-MOVEQ from-formqueue to-formqueue

SYNTAX ELEMENTS

from-formqueue is the source formqueue.
to-formqueue is the destination formqueue.

NOTES

Root or the generating user can only move print jobs assigned with the P option. Any user can move print jobs assigned with the U option.
Parameters must be entered in the order shown in the syntax description.
You will be prompted for any missing parameters.
SP-SWITCH

Moves a print job to a specified formqueue

PROMPT

NEW-FORM-QUEUE PRINT JOB LIST

COMMAND SYNTAX

SP-SWITCH new-formqueue print-job-list

SYNTAX ELEMENTS

new-formqueue is the destination formqueue.
print-job-list is the list of print job numbers to be moved, separated by spaces or commas.

NOTES

Any user, except root/Administrators or the generating user, cannot move print jobs assigned with the P option. Any user can move print jobs assigned with the U option.
Parameters must be entered in the order shown in the syntax description.
You will be prompted for any missing parameters.
**SP-OPTS**
Changes the spooler assignment options assigned to a print job.

**PROMPT**
PRINT JOB# OPTIONS:

**COMMAND SYNTAX**

SP-OPTS print-job-num options

**SYNTAX ELEMENTS**

print-job-num is the number of the print job to change.

options are the options to be assigned to the print job. Valid options are listed below. If no parameter is supplied for options then all current options are cancelled, except the P and U options, which cannot be changed.

A – Align

H - Hold

**NOTES**
Options cannot be changed for print jobs once the job is being despooled.
**SP-COPIES**

Changes the number of copies assigned to a print job.

**PROMPT**

PRINT JOB # COPIES:

**COMMAND SYNTAX**

```
SP-COPIES print-job-num copies
```

**SYNTAX ELEMENTS**

- `print-job-num` is the number of the print job to change.
- `copies` are the number of copies (1 to 99) to be despooled.

**NOTES**

The number of copies of a print job already despooled to the UNIX spooler cannot be changed.
Parameters must be entered in the order shown in the syntax description.
You will be prompted for any missing parameters.
SP-DELETE
Deletes a list of print jobs

PROMPT
PRINT JOB LIST:

COMMAND SYNTAX
SP-DELETE print-job-list

SYNTAX ELEMENTS
print-job-list is the list of print jobs to be deleted, separated by spaces or commas.

NOTES
Root or the user that generated the print job can only delete print jobs with the P option assigned. Any user can delete print jobs with the U option.
Print jobs with OPEN or EDIT status cannot be deleted.
Print jobs currently being despooled can be deleted. The job is killed and then deleted.
**SP-STOP**

Stops despooing from a formqueue

**PROMPT**

FORM QUEUE OR PRINT JOB:

**COMMAND SYNTAX**

SP-STOP formqueue

**SYNTAX ELEMENTS**

formqueue is the formqueue from which to stop despooing.

**NOTES**

Despooling will stop after the current print job is despooled.
To resume printing refer to Option 7 - the SP-RESUME command.
**SP-RESUME**

Resumes despooing from a formqueue

**PROMPT**

FORM-QUEUE:

**COMMAND SYNTAX**

SP-RESUME formqueue

**SYNTAX ELEMENTS**

formqueue is the formqueue from which to resume despooing.

**NOTES**

Despooling will be resumed from the point at which the formqueue was either SUSPENDED or STOPPED.
**SP-EDIT**
Edits a list of print jobs

**PROMPT**
PRINT JOB LIST:

**COMMAND SYNTAX**

```
SP-EDIT print-job-list {(options)}
```

**SYNTAX ELEMENTS**

- **print-job-list** is the list of print jobs for editing, separated by spaces or commas. You can specify a range of jobs (n1-n2).
- **options** are the command line options to be applied to the list of print jobs and can be one or more of the following:
<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>number of bytes; maximum size in bytes of a generated file record</td>
</tr>
<tr>
<td>I</td>
<td>Generates a file record. Prompts for filename and record key. By default the &quot;I&quot; option will remove return and pad characters and convert linefeed characters to field mark characters (x&quot;FE&quot;). Each line of print data then becomes a field in the file record.</td>
</tr>
<tr>
<td>A</td>
<td>splits print data greater than 31,767 bytes into suffixed records. e.g. recordkey.001, recordkey.002, etc.</td>
</tr>
<tr>
<td>O</td>
<td>overwrites existing file record</td>
</tr>
<tr>
<td>H</td>
<td>suppresses tape labels when the output designation is tape (see T option)</td>
</tr>
<tr>
<td>P</td>
<td>make characters less than x”20” and greater than x”7F” transparent</td>
</tr>
<tr>
<td>T</td>
<td>outputs the requested print jobs to tape</td>
</tr>
<tr>
<td>U</td>
<td>selects all available hold files if no job numbers are specified on the command line</td>
</tr>
</tbody>
</table>

**NOTES**

Root and the user that generated the job can only edit print jobs created with the P option assigned. Any user can edit print jobs created with the U option assigned. Print jobs, which are still OPEN, cannot be edited.

You will be prompted for a filename and record id for the print job data.

**SP-EDIT EDITOR COMMANDS**

The following commands are available in the spooler editor.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Repeat last locate command</td>
</tr>
<tr>
<td>B</td>
<td>Move to end of print job</td>
</tr>
<tr>
<td>CP</td>
<td>Move to current print position of a suspended print job</td>
</tr>
<tr>
<td>EX</td>
<td>Exit and edit next print job in list</td>
</tr>
<tr>
<td>EXK</td>
<td>Exit and skip editing remaining print jobs in list</td>
</tr>
<tr>
<td>FD</td>
<td>Delete print job if job is a printed hold file</td>
</tr>
<tr>
<td>L{n}</td>
<td>list next n, default one, lines</td>
</tr>
<tr>
<td>L{n}”string”</td>
<td>locate string from current position in next n, default max, lines</td>
</tr>
<tr>
<td>Nn</td>
<td>move forward by n, default one, lines</td>
</tr>
<tr>
<td>NnP</td>
<td>move forward by n, default one, pages</td>
</tr>
<tr>
<td>P</td>
<td>list next page, 22 lines</td>
</tr>
<tr>
<td>SP</td>
<td>despool print job from next line</td>
</tr>
<tr>
<td>SPA</td>
<td>despool print job from next line, but wait for alignment</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>T</td>
<td>move to top of print job</td>
</tr>
<tr>
<td>Un</td>
<td>move back n, default one, lines</td>
</tr>
<tr>
<td>UnP</td>
<td>move back n, default one, pages</td>
</tr>
<tr>
<td>W</td>
<td>list previous page, 22 lines</td>
</tr>
<tr>
<td>return</td>
<td>display next line</td>
</tr>
</tbody>
</table>
SP-SUSPEND
Suspends despooing a print job

PROMPT
FORM-QUEUE:

COMMAND SYNTAX

SP-SUSPEND formqueue

SYNTAX ELEMENTS
formqueue is the formqueue from which the print job is being despooled.

NOTES
To resume despooling use the RESUME PRINTING option or the SP-RESUME command.
SP-PRIORITY
Moves a print job to the head of the formqueue

PROMPT
PRINT JOB #:

COMMAND SYNTAX

SP-PRIORITY print-job-number

SYNTAX ELEMENTS

print-job-number is the number of the print job to move to the head of the formqueue.
**SP-KILL**
Immediately stops despooling the current print job.

**PROMPT**
FORM-QUEUE:

**COMMAND SYNTAX**
SP-KILL formqueue

**SYNTAX ELEMENTS**
formqueue is the formqueue from which the print job is being despooled.

**NOTES**
The print job status is changed from PRINTING to KILLED and the print job is deleted. If the print job was a hold file, the status of the print job changes to FINISHED. The next print job on the formqueue will then be despooled.
**SP-ALIGN**
Allows forms alignment before despooling

**PROMPT**
FORM-QUEUE:

**COMMAND SYNTAX**

```
SP-ALIGN formqueue
```

**SYNTAX ELEMENT**

formqueue is the formqueue on which to allow alignment.

**NOTES**

Print jobs assigned with the align option (A), will display a status of ALIGN while suspended and waiting for alignment, before being despooled. This menu option or command prompts for one of the following options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Align. Despools a character mask of the job to enable forms alignment.</td>
</tr>
<tr>
<td>P</td>
<td>Print. Resumes printing from the formqueue until another print job with align spooler assignment reaches the head of the formqueue.</td>
</tr>
<tr>
<td>Q</td>
<td>Quit. Exits the option or command.</td>
</tr>
</tbody>
</table>

The alignment command is available only for directly driven formqueues.
**SP-CLEAR**
Clears a formqueue of queued print jobs

**PROMPT**
FORM-QUEUE:

**COMMAND SYNTAX**
SP-CLEAR formqueue

**SYNTAX ELEMENTS**
formqueue to be cleared

**NOTES**
Root or the user that generated the print job can only clear print jobs assigned with the P option. Any user can clear print jobs assigned with the U option. Print jobs, which have an OPEN or EDIT status cannot be cleared.

All print jobs queued to the specified formqueue will be deleted. Any print job currently despooling from the specified formqueue will be killed and then deleted.

**SPOOLER ERROR MESSAGES**

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANNOT Align - Printer Busy</td>
<td>Displayed if you attempt to align a formqueue, which is currently being despooled?</td>
</tr>
<tr>
<td>CANNOT Move A Formq To Itself</td>
<td>Displayed if you attempt to move a formqueue to itself.</td>
</tr>
<tr>
<td>CMND?</td>
<td>Displayed if you enter an invalid spooler editor command.</td>
</tr>
<tr>
<td>ILLEGAL ACTION CODE</td>
<td>Displayed if you enter an invalid option.</td>
</tr>
<tr>
<td>JOB #nnn Already Printing</td>
<td>Displayed if you attempt to move a currently despooling print job.</td>
</tr>
<tr>
<td>Job Already Being Edited By Line #nnn</td>
<td>Displayed if you attempt to edit a print job already being edited by another line.</td>
</tr>
<tr>
<td>Job Not Queued For Output</td>
<td>Displayed if you attempt to move a print job with FINISH status to the head of the formqueue.</td>
</tr>
<tr>
<td>Printing Suspended On Job #nnn</td>
<td>Displayed when you edit a print job, which is currently being despooled</td>
</tr>
<tr>
<td>THE FORMQUEUE CANNOT BE FOUND</td>
<td>Displayed if you specify a non-existent formqueue.</td>
</tr>
<tr>
<td>THE QUEUE IS EMPTY</td>
<td>Displayed if you attempt to move a formqueue without</td>
</tr>
</tbody>
</table>
print jobs.

THERE IS NO JOB WAITING FOR Displayed if you attempt to execute the align option or
ALIGNMENT command for a formqueue without a print job waiting for
alignment.
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