

**HP Search/XL User's Guide**  
**HP 3000 MPE/iX Computer Systems**  
**Edition 1**



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# 1 HP Search Quick Reference

## HP Search Quick Reference Page

**Command Syntax.** RUN HPSEARCH.PUB.SYS

[;INFO="*files* ] [FOR *patterns* ] [WITH *options* ]"

If you do not specify *files* or *patterns*, HP Search prompts for them.

**File Names.** Specify file names with the same characters as the MPE LISTF command:

@	Any alphanumeric characters.
?	Any single alphanumeric character.
#	Any single digit.

You can specify an **indirect file** containing the names of the files to search: *^filename*

**Patterns.** You can specify up to 16 patterns. Patterns match themselves, except for the following characters:

[ ]	Brackets enclose a set of characters; matches any one in the set.
-	Used in a range, as [a-z]; must be in brackets.
( )	Parentheses enclose a group.
	Used to choose between two patterns, as (A B); matches either pattern. Must be in parentheses.
+	Matches one or more of the previous pattern.
*	Matches zero or more of the previous pattern.
\	Matches the following character literally.
@	Matches any number of characters.
?	Matches any one character.
#	Matches any one digit.
%x or %X	Matches an exclamation point (!).
%s or %S	Matches a single quote (').
%d or %D	Matches a double quote (").
%nn	Matches ASCII character with octal value nn. (For example, %7 is bell.)

You can use an **indirect file** to specify the patterns to search: *^filename*

## Options.

LIST filename [REPLACE]	Writes output to filename. If REPLACE, overwrites an existing file without prompting. Default temporary file name is SRCHLIST.
SEARCHLOG filename [REPLACE]	Writes list of all files searched to filename. If REPLACE, overwrites an existing file without prompting. Default temporary file name is SRCHLLOG.
MATCHLOG filename [REPLACE]	Writes list of files with matches to filename. If REPLACE, overwrites an existing file without prompting. Default temporary file name is SRCHMTCH.
PATTERNLOG filename [REPLACE]	Writes all patterns used to filename. If REPLACE, overwrites an existing file without prompting. Default temporary file name is SRCHPAT.
USECASE	Search is case sensitive.
IGNORECASE	Search is not case sensitive. (Default)
QUIET	Output is not written to \$STDLIST.
NOQUIET	Output is written to \$STDLIST. (Default)
COUNT	Displays only the number of matching lines.
NOCOUNT	Displays every line that matches. (Default)
NUM	Displays line numbers. (Default)
UNN	Line numbers are not displayed.
DOTS	Displays a dot for each file searched.
NODOTS	Dots are not displayed. (Default)
INDEX	Streams a job to update the indexing file, only if the file has never been indexed before or has changed.
NOINDEX	Indexing file is not updated. (Default)

**Online Help.** To get online help, type HELP at any HP Search prompt. Or at the MPE prompt, type: HPSEARCH HELP

## 2 Introducing HP Search

HP Search is a general-purpose search utility that enables you to look for words or patterns in individual files or in sets of files.

With HP Search you can:

- Search for your patterns in the following types of files:
  - COBOL-numbered.
  - Standard-numbered ASCII.
  - Unnumbered ASCII.
  - Commercial SPOOL files.
  - KSAM ASCII.
- Look for up to 16 patterns in up to 65,536 different files during a single search.
- Specify the file and pattern parameters for your search on the HP Search command line, be prompted for them, or specify them by a combination of both methods.
- Use indirect files to specify frequently used sets of files and patterns.
- Use MPE LISTF wildcards to specify multiple files be searched.
- Redirect components of the HP Search output to permanent files.
- Get quick, complete, online help.

### The HP Search Command Interface

HP Search provides two ways for you to specify the file names and patterns of a particular search. You can supply the entire set of search parameters on the HP Search command line or enter them one at a time at the prompts. The syntax for the command line search specification is shown below.

```
HPSEARCH "[filenames] [FOR patterns] [WITH options]"
```

An example of an HP Search command is shown below.

```
:HPSEARCH "@.SOURCE FOR FREADDIR FWRITEDIR WITH USECASE"
```

If you type HPSEARCH at the MPE prompt but do not give specifications for file names or patterns, HP Search will prompt you for them. However, if you do not specify which search options you want to use, you are *not* prompted for them; the default options are used. You can only specify search options on the HP Search command line following the WITH keyword.

If you specify a file on the command line, HP Search does not prompt you for additional files to search. Likewise, if you specify a pattern on the command line following the FOR keyword, HP Search does not prompt you for additional patterns. Two examples of HP Search prompting are discussed below.

### Prompting for Files

To respond to an HP Search prompt for files, enter a file name and press Return. When you have finished specifying files, press only Return. For help specifying files to search, enter "help" or "?" at the prompt and HP Search displays help screens explaining how to specify files.

In the following example, an indirect pattern file (PATFILE) is specified on the command line. HP Search prompts for files to search, but not for patterns or options.

```
:hpsearch "for ^patfile"
```

```
HPSEARCH HP36383A.00.00 (c) COPYRIGHT Hewlett-Packard Co. 1989
```

```
TUE, NOV 28, 1989, 11:00 AM
```

```
(For Help, Specify INFO="HELP")
```

```
Enter the files to be searched, one per line. You may use LISTF
```

```
wildcards.
```

```
Press [RETURN] to end list or ? for help on files.
```

```
File> filea
```

```
File> ^indirect
```

```
File>
```

```
5 files searched 0 matching lines found
```

## Prompting for Patterns

In cases where no patterns have been specified on the command line, HP Search prompts for search patterns. At each pattern prompt, enter one pattern specifier and press Return. When you are finished specifying patterns, press Return. If you enter "help" or "?", HP Search displays context-specific help about the syntax of specifying patterns.

In this next example, a single file (FILEA) is specified on the command line to be searched with the option USECASE. (By default, HP Search does not pay attention to whether a character is uppercase or lowercase. The USECASE option makes HP Search sensitive to the case of the pattern it is searching for.)

```
:HPSEARCH "FILEA WITH USECASE"
```

```
HPSEARCH HP36383A.00.00 (c) COPYRIGHT Hewlett-Packard Co. 1989
```

```
TUE, NOV 28, 1989, 11:05 AM
```

```
(For Help, Specify INFO="HELP")
```

```
Enter the patterns to search for, one per line.
```

```
Press [RETURN] to end list or ? for help on patterns.
```

```
Pattern> firstpattern
```

```
Pattern> secondpattern
```

```
Pattern>
```

```
FILE FILEA.USER.ACCOUNT
```

```
:
```

```
1 file searched 22 matching lines found
```

## Where to Go from Here

If you want to start using HP Search right away, go to Chapter 2, "Using HP Search". Chapter 2 shows you

how to complete many of the tasks that are possible with HP Search.

To see all the HP Search parameters you can specify, look in Chapter 3, "Specifying Parameters". Chapter 3 describes all the functionality available in HP Search and the parameters that you need to specify to execute these functions.

Chapter 4, "Advanced Features", provides more detailed information about some HP Search features.



## 3 Using HP Search

This chapter presents many of the tasks you can do with HP Search. It shows you exactly the steps to take to accomplish these tasks.

In the following descriptions, underlined text represents what you type.

### Starting HP Search

At the MPE prompt, run HP Search by using the RUN command:

```
:RUN HPSEARCH.PUB.SYS
```

or the implied RUN command:

```
:HPSEARCH
```

HP Search prompts you for files to search and then for patterns to search for. Specify only one file or pattern per line and then press Return. You can only specify 16 patterns per search. For both files and patterns, you are prompted for more parameters until you press Return by itself:

```
File> filename
```

```
File> filename
```

```
:
```

```
File> Return
```

```
Pattern> pattern
```

```
:
```

```
Pattern> Return
```

```
<Search Begins>
```

Another way to specify your search is to include the file and pattern parameters as part of the INFO string on the HP Search command line. These parameters must be delimited by either a comma or a space. On the command line, every parameter between HPSEARCH and FOR is treated as a filename specifier. Every parameter after FOR is treated as a pattern specifier (unless you specify HP Search options on the command line. See "Specifying Options" in this chapter, or "Option Parameters" in Chapter

The following shows an example using the implied RUN command:

```
:HPSEARCH "file1 file2 FOR pattern1 pattern2"
```

```
<Search Begins>
```

**Getting Help** HP Search provides a comprehensive online help system that offers useful information about search specifications and functionality. To access the online help facility, do one of the following: :HPSEARCH ? or :HPSEARCH HELP You can also access context-specific help at any file or pattern specifier prompt. For specific help on specifying files, at the File> prompt type: File> ? or File> HELP To access specific help on specifying patterns, at the Pattern> prompt type: Pattern> ? or Pattern> HELP

### Specifying Options

You can specify many different options with HP Search that affect the way files are searched for patterns

and the way search output is displayed and saved. These options are described in detail in the "Option Parameters" section of the Specifying Parameters chapter.

Options can only be specified on the HP Search command line. Any parameters listed in the command line after WITH are treated as option specifiers. The examples below show how you can specify options on the command line.

To specify options for HP Search, use one of these formats:

:HPSEARCH "WITH option1 option2..."

<HP Search prompts for file parameters>

<HP Search prompts for pattern parameters>

<Search Begins>

or

:HPSEARCH "filename filename...WITH option..."

<HP Search prompts for pattern parameters>

<Search Begins>

or

:HPSEARCH "FOR pattern...WITH option..."

<HP Search prompts for file parameters>

<Search Begins>

or

:HPSEARCH "filename...FOR pattern...WITH option..."

<Search Begins>

## Example Search Tasks

This section provides specific examples of HP Search tasks and shows how to accomplish them.

### Searching One File for One Pattern

The following example searches a single file, named SALARY.SOURCE, for a single pattern, EMPLOYEE-SSNO:

:HPSEARCH "SALARY.SOURCE FOR EMPLOYEE-SSNO"

### Searching Several Files for One Pattern

HP Search allows you to use the same characters the MPE LISTF command allows to specify file names. The following example searches all the files that begin with D in the group SOURCE for the pattern EMP-HIRE-DATE:

:HPSEARCH "D@.SOURCE FOR EMP-HIRE-DATE"

### Searching One File for Several Patterns

The following example searches a single file, named PARSC, for the four patterns READ, WRITE, OPEN, and CLOSE:

```
:HPSEARCH "PARSC FOR READ WRITE OPEN CLOSE"
```

Every line of PARSC that contains one or more of these patterns is displayed.

## Redoing a Search

Whenever you search files with HP Search, the names of all files searched are written to a file. All the patterns searched for are also written to a file. By default, the files searched are written to the temporary file SRCHLOG, and the patterns are written to the temporary file SRCHPAT. You can use these files to search the same set of files for a different pattern, or to search a different file for the same patterns. (See also the SEARCHLOG and PATTERNLOG options in Chapter 3.)

The following two commands search the same set of files: all the files in the groups SOURCE and PUB. The first command searches for the pattern READ, and the second command searches for the pattern WRITE. The second command uses the temporary file SRCHLOG to specify the files to search:

```
:HPSEARCH "@.SOURCE @.PUB FOR READ"
```

```
:HPSEARCH "^SRCHLOG FOR WRITE"
```

The following two commands search two different files, named INPUT1 and INPUT2, for the same patterns: AFTER, BEFORE, and ADVANCING. The second command uses the temporary file SRCHPAT to specify the pattern:

```
:HPSEARCH "INPUT1 FOR AFTER BEFORE ADVANCING"
```

```
:HPSEARCH "INPUT2 FOR ^SRCHPAT"
```

## Making the Pattern More Specific or Less Specific

The following command searches the file named SALARY for the pattern "Nov 1987". The single quotes are required to inform HP Search that "Nov 1987" is one pattern, rather than two separate patterns:

```
:HPSEARCH "SALARY FOR 'Nov 1987'"
```

The following command makes the search less specific. HP Search searches for the pattern "1987":

```
:HPSEARCH "SALARY FOR 1987"
```

The following command makes the search more specific. HP Search searches for the pattern "(1[6-9]|20) Nov 1987". This represents the dates 16 November 1987 through 20 November 1987:

```
:HPSEARCH "SALARY FOR '(1[6-9]|20) Nov 1987'"
```

## Sending Output to a File

You can send the output from HP Search to a file by using the LIST option. The following example searches the file DATA for the pattern HOUR and writes the output to *both* \$STDLIST and the file DATALIST. (Use the QUIET option to stop output to \$STDLIST.) If the file DATALIST already exists, HP Search prompts you before overwriting it.

```
:HPSEARCH "DATA FOR HOUR WITH LIST DATALIST"
```

If the file DATALIST already exists, the REPLACE argument of the LIST option suppresses the prompt. The following command repeats the previous search and overwrites DATALIST without prompting you for permission.

```
:HPSEARCH "DATA FOR HOUR WITH LIST DATALIST REPLACE"
```

## Using Indirect Files

An indirect file is a file that contains a list of files to search, or a list of patterns to search for. When using an indirect file, precede its name with a caret (^). Each file or pattern name must be on a separate line. In the following example, the file FILELIST contains the names of the files to search. The pattern HP Search looks for is COUNT.

```
:HPSEARCH "^FILELIST FOR COUNT"
```

The following example searches the file OUTPUT1 for the patterns listed in the indirect file PATFILE.

```
:HPSEARCH "OUTPUT1 FOR ^PATFILE"
```

## Using a Command File

You can use a command file on MPE XL to run HP Search. The following is a sample command file:

```
PARAM A=" " B=" " C=" " D=" " E=" " F=" " G=" " H=" "  
RUN HPSEARCH.PUB.SYS;&  
INFO="!A" "!B" "!C" "!D" "!E" "!F" "!G" "!H"
```

If the command file is named S, the following command searches all the files in the SOURCE group for FREADDIR:

```
:S @.SOURCE FOR FREADDIR
```

## Changing the HP Search Default Options

You can use a command file to set your own default HP Search options. The following command file uses the INDEX option:

```
PARAM A=" " B=" " C=" " D=" " E=" " F=" " G=" " H=" "  
RUN HPSEARCH.PUB.SYS;&  
INFO="!A" "!B" "!C" "!D" "!E" "!F" "!G" "!H" WITH INDEX'
```

If the command file is named SI, the following command searches all the files in the PUB group for EXIT, and streams a job to update the index file for all the files in the PUB group:

```
:SI @.PUB FOR EXIT
```

If you give HP Search conflicting options, the first option specified is used. The following command searches the file OUTFILE for ERROR and does *not* update the index file for OUTFILE:

```
:SI OUTFILE FOR ERROR WITH NOINDEX
```

Note that HP Search simply ignores the second occurrence of WITH.

## Making Searches Faster for a Set of Files

The INDEX option can make HP Search significantly faster for 1 or more files. See chapter 3 for a description of the INDEX option. This example shows how you can use a job to run HP Search and index a set of files. The same job can be used to re-index all the files in the set that have changed. The following example indexes all the files in ACCOUNT. A nonsense pattern is used to reduce the amount of work done by HP Search:

```
!JOB INDEX, USER.ACCOUNT;OUTCLASS=LP,1  
!RUN HPSEARCH.PUB.SYS;INFO="@.@ FOR XZQXZQ WITH INDEX"
```

!EOJ



# 4 Specifying Parameters

This chapter describes the specifiers for file names, search patterns, and options in HP Search.

## File Name Parameters

HP Search treats every parameter on the command line before the keyword FOR as a file name specifier. You can specify multiple file names in the command line by delimiting each file name with commas or spaces.

A specified file must meet three criteria before it is searched:

- 1 The file must be in ASCII format.
- 2 The file must have record lengths measured in bytes.
- 3 You must have read access to the file.

An indirect file, that is, a file containing file names, may be specified by typing *^filename* (where *filename* is the name of a file containing one file specifier per line). Any file name specifier valid in the command line is also valid in an indirect file, including a reference to another indirect file. However, indirect files may only be nested eleven deep.

A set of files may be specified together using the MPE LISTF wildcard characters: "@", "#", and "?". These LISTF file-matching wildcards are given in Table 3-1 below.

Table 1: LISTF Wildcard Characters

Wildcard	Matches
@	Any number of alphanumeric characters
#	A single digit.
?	A single alphanumeric character

To specify a file named "FOR", "WITH" or "HELP" in the INFO string, precede the file name with a backslash ("\").

If a file exists in both the permanent and temporary file domains, HP Search only looks for files in the permanent domain.

## Pattern Parameters

A **pattern** is a string of text that HP Search attempts to locate in the various files you specify. Any parameters listed in the HP Search command line after FOR but before WITH are treated as patterns. On the command line, you may specify that multiple patterns be searched by delimiting each pattern with blank spaces or commas. On the command line, if you want to specify a space in your pattern, your pattern must be enclosed in single quotation marks. If you want to specify multiple patterns at the pattern prompt, you must enter them one pattern per line.

Another way to have HP Search look for multiple patterns is to specify one file containing many patterns. You can specify such a file in HP Search just like you would a single pattern: simply type *^filename* where *filename* is the name of a file containing one pattern per line. If you want one or more blanks to precede a

pattern in an indirect file, enclose the pattern in single quotation marks.

On the HP Search command line, you can specify both parameters that refer to only one pattern and parameters that refer to a whole file of patterns. You may specify up to 16 patterns every time you use the HPSEARCH command and each pattern may be up to 80 characters long.

## Special Pattern-Matching Characters

HP Search has a pattern-matching facility that enables you to use wildcard and other special characters in order to conduct more sophisticated pattern searches of your files. You can use any of the pattern-matching characters whenever you specify a pattern.

Character	HP Search Functionality
()	Groups portions of a pattern. The main use of parentheses is with the vertical bar character.
	Matches either the pattern on one side of the bar <b>or</b> the other. The bar character has special meaning only when used inside parentheses, otherwise it is treated literally. That is, the   character outside of parentheses matches only  .
[]	Indicates a set of characters. HP Search attempts to match any <i>one</i> of the characters in the set. You must always specify at least one character between left and right brackets; otherwise, HP Search issues an error message.
-	Signifies a range of alphanumeric characters starting with the character preceding the hyphen and ending with the character following the hyphen. The hyphen character has special meaning only when used inside brackets. However, HP Search treats a hyphen literally inside brackets if it is the first or last character inside the brackets.
+	Matches one or more occurrences of the previous character. It also matches one or more occurrences of the previous pattern if the pattern is in parentheses or brackets.
*	Matches zero or more occurrences of the previous character. It also matches zero or more occurrences of the previous pattern if the pattern is in parentheses or brackets.
?	Matches exactly one of any character.
#	Matches exactly one of any digit.
@	Matches any number of unspecified characters. (Equivalent to ?*).
\	Causes any subsequent character to be interpreted literally.

If you want to search your files for occurrences of the pattern "BUF", regardless of surrounding characters, you can simply specify the following on the HP Search command line.

```
HPSEARCH "filenames FOR BUF"
```

The pattern "BUF" contains no wildcard or pattern-matching characters. It specifies only the pattern "BUF". However, using pattern-matching characters, you can create many other search strings. Some examples are shown below. These examples assume that the USECASE option has been specified to make the searches case-sensitive.

### Syntax                      Pattern Specified

(a [c-z] [1-4])	A single character chosen from the following group: "a", the range "c" to "z", or the range 1 to 4.
-----------------	---

[A-Z]BUF	Any one capital letter followed by "BUF".
[A-Z]\(@\);	Any string starting with an uppercase alphabetic character followed by an open parenthesis, any number of characters, and a close parenthesis. The entire string must be terminated with a semicolon.
BUF+	Any string that begins with "BU", followed by one or more occurrences of "F".
BUF*	The character string "BU" followed by zero or more occurrences of "F".
??_BUF#	Any three characters followed by the string "_BUF" followed by any one digit.
\@?\@	The string "@?@".
'pic x\ (15\ )'	The character string pic followed by a single blank, the character x, a left parenthesis, the number 15, then a right parenthesis. Literally, the string pic x(15). The single quotes around the pattern are required because of the embedded blank. They are only needed when entering the pattern in the INFO string.

## Characters with Special Meaning in MPE XL

When specifying patterns on the command line, there are three characters that you cannot use: exclamation point (!), single quotation mark ('), and double quotation mark ("). Because these characters have special meaning in the MPE XL operating system, you must use the sequences shown in Table 3-2 if you want to include them in a pattern specification.

**Table 2: Characters with Special MPE XL Meaning**

Desired Character	Sequence Needed to Specify Character in the HP Search Command Line
Exclamation Point, !	%x or %X
Single Quotation Mark, '	%s or %S
Double Quotation Mark, "	%d or %D

You should note that you only have to use the above sequences when specifying these characters on the HP Search command lines; use the sequence or the character itself in an indirect pattern file or at the pattern prompt.

## Specifying Unprintable Characters in a Pattern

On occasion, you may want to search for a pattern that contains an unprintable character. For example, you could use HP Search to find a pattern containing the Escape character, ESC. To match an unprintable character, type a percent sign (%) followed by the octal ASCII value of the character you want in your pattern. Valid ranges for a character are the octal values 1 through 377. For instance, %33 should be used to specify the escape character. To specify an unprintable character followed by a digit, type a backslash before the digit. For example, to specify the pattern "ESC6" type %33\6 in the pattern parameter.

## Option Parameters

You may specify options on the command line which affect the way HP Search looks for patterns, the format of its output, and the destination of this output. Any parameters listed in the HP Search command line after WITH are treated as option specifiers.

Option parameters may be specified in any order but must be delimited with blank spaces or commas.

Also, some options accept arguments which must be placed immediately following their options. If an option is specified more than once, or if contradictory options are specified, HP Search recognizes only the first option.

### What the HP Search Options Specify

You can specify up to ten different options each time HP Search is executed. These options are shown below in Table 3-3. For each option this table shows syntax, indicates whether it has or is a default value, and describes what HP Search does when you specify it.

**Table 3: HP Search Option Parameters**

<b>Option Syntax</b>	<b>Default?</b>	<b>Description</b>
LIST filename [REPLACE]	SRCHLIST	Indicates that HP Search output should go to the file filename.
MATCHLOG filename [REPLACE]	SRCHMTCH	Indicates that a list of the files containing search matches should go to the file filename.
PATTERNLOG filename [REPLACE]	SRCHPAT	Indicates that a list of the patterns specified should be output to the file filename.
SEARCHLOG filename [REPLACE]	SRCHLOG	Indicates that the list of files searched should be output to file-name.
COUNT		Print only the names of the files containing a match and how many matches were found in each.
NOCOUNT	x	Print all lines containing matches.
DOTS		Indicate progress by printing a period (dot) for every file searched.
NODOTS	x	Do not print dots.
INDEX		Update and use the block indexing file SRCHnnn.PUB to increase the speed of searches.
NOINDEX	x	Do not update the block indexing file.
NUM	x	Print line numbers to the left of the matching lines.
UNN		Do not print lines numbers.
QUIET		Prevent search output from going to \$STDLIST. (This is usually the terminal.)
NOQUIET	x	Send search output to \$STDLIST.
USECASE		Search the specified patterns with case-sensitivity.
IGNORECASE	x	Search the specified patterns without regard to the case of the characters.

## Output File Options

By default, HP Search automatically creates four temporary files every time you run it. These files contain information specific to the last search executed and are overwritten each new execution of HP Search. Four options are available to redirect this information to permanent files instead (see Table 3-4 below).

**Table 4: Temporary Files Automatically Created by HP Search**

File Name	File Contents	Option to Use to Change File Name
SRCHLIST	Contains all output from the search.	LIST
SRCHPAT	Contains a list of all the patterns used in the search.	PATTERNLOG
SRCHLOG	Contains a list of all files searched.	SEARCHLOG
SRCHMTCH	Contains a list of all files that had a match.	MATCHLOG

If you do not specify the optional "REPLACE" argument for these options, HP Search prompts you before it overwrites an existing permanent file. If you do specify the "REPLACE" argument, HP Search does not prompt you before overwriting an existing permanent file. File equations are used if they exist for the specified file name.

When using any of these options, the file is replaced before the search begins. You cannot use any of the files specified in these options as an indirect file also, because the file would be replaced before it was processed.

**LIST <filename> [REPLACE].** Use this option to direct terminal screen output to the file specified by the *filename* argument. If you do not specify the LIST option, this output goes to the temporary file "SRCHLIST". Specifying this option does not suppress output to your terminal; use the QUIET option for that.

**MATCHLOG <filename> [REPLACE].** Use this option to save the list of files containing matches to a permanent file rather than the temporary file "SRCHMTCH". In this output file as in SRCHMTCH, the file names are listed fully-qualified, one file per line.

**PATTERNLOG <filename> [REPLACE].** Use this option to save the list of patterns specified to a permanent file rather than the temporary file "SRCHPAT". The patterns contained in your permanent file are listed one per line with each line starting in column one.

**SEARCHLOG <filename> [REPLACE].** Use this option to save the list of files searched to a permanent file rather than the temporary file "SRCHLOG". The file names are listed fully-qualified, one per line.

## Other Options

The remaining options can be divided into two groups: those that change the search process and those that change the format of the screen output. When you specify any of these options, you make a yes/no decision about a particular HP Search feature.

**COUNT/NOCOUNT.** Use COUNT to have HP Search print only the names of the files containing matches and how many matches were found in each. Otherwise, the default value NOCOUNT is assumed and all lines containing a match are printed.

**DOTS/NODOTS.** Specify the DOTS option if you want HP Search to show its search progress by printing a period as it searches each file. NODOTS is the default value.

**INDEX/NOINDEX.** Use the INDEX option to have HP Search update the block indexing file if necessary

and to use it to shorten the search time of later searches. The first search on a file with the INDEX option does not run any faster (or slower) than without this indexing, however HP Search starts a batch job to update the indexing file. After indexing, a file can be searched noticeably faster for most patterns as long as the file does not change. Modified files are reindexed along with newly-created files. The default value is NOINDEX.

**NUM/UNN.** Use the NUM option to have HP Search display line numbers to the left of matching lines. The default value is NUM.

Use the UNN option to specify that no line numbers should be displayed to the left of matching lines. This means that the matching text will be output in the same column positions it occupies in the files you searched. For COBOL-numbered files, HP Search prints sequence numbers unformatted in the first six columns if you specify UNN. Matching lines from standard numbered files will have their sequence numbers printed at the end of the line.

**QUIET/NOQUIET.** Use the QUIET option to specify that no output goes to \$STDLIST (this is usually your terminal). Even when you specify QUIET on the HP Search command line, output still goes to the file SRCHLIST in the temporary file domain or a permanent output file specified in the LIST option.

The default value is NOQUIET. Use this option to direct HP Search output to \$STDLIST.

**USECASE/IGNORECASE.** Specify the USECASE option to have HP Search look for your patterns with case-sensitivity. That is, HP Search considers the uppercase and lowercase of a letter as different characters. The default value is IGNORECASE. Specifying this indicates that you want HP Search to match corresponding uppercase and lowercase letters.

# 5 **Advanced Features**

This chapter presents the advanced features available to you in HP Search. The first section describes the format of HP Search output and how you can change this format by specifying certain options on the command line. The second section explains how you can increase the speed of many searches by specifying the INDEX option.

## Output Format

If no output-related options are specified on the command line, HP Search sends output to your terminal and to the temporary file SRCHLIST. Output from your last execution of HPSEARCH will overwrite any previous contents of SRCHLIST. However, by specifying the options discussed in this section, you can choose the way you want HP Search to display its output.

If you specify the QUIET option, only prompts and error messages are displayed on your terminal during a search. All other output goes only to SRCHLIST (or the file you specified with the LIST option).

If you specify the LIST option without the QUIET option, output goes to the terminal *and* to the file indicated in the LIST argument. HP Search will not send output to SRCHLIST if you specify a different output file with the LIST option. Similarly, output generated by the MATCHLOG and SEARCHLOG options goes to the files specified after these options.

## Matching Lines

Probably the most important information derived from running HP Search is the location of the lines in your files that match the patterns you have specified. A discussion of the various formats of this output information is given below.

**The Default Format.** Before listing the first matching line in a file, HP Search prints a blank line and a line containing the file name. On the line following the file name line, HP Search prints the first matching line. Additional matching lines are printed one per line. Any line that cannot be printed on one screen line is truncated, and a \$ character is printed in the first or last column to indicate that HP Search has truncated the line. At the end of every search, HP Search prints the number of files searched and the number of matching lines found. An example is shown below:

```
FILE COBFILE.MYGROUP.ACCOUNT
  124.01 $ This item must be the last item in the record.
  6200.1 $      This should only be a last-resort action.
FILE MYFILE.MYGROUP.ACCOUNT
  141   The last option requested was an option that required an $
  2 files searched   3 matching lines found
```

**Format Using the COUNT Option.** If you specify the COUNT option, HP Search prints the number of matches and the file name for each matching file. The output of the matching lines is suppressed. The output format is shown below:

```
Matches  Filename
-----  -
  14  MYFILE .MYGROUP .ACCOUNT
   2  YOURFILE.MYGROUP .ACCOUNT
```

**Line and Record Numbers.** All text lines are printed with the first ten columns reserved for numbering unless you specify the UNN option. If this option is used, the text is printed starting in column 1. For unnumbered files, the first five columns contain a right-justified record number and the next five columns are blank, as shown below:

```
FILE UNNUMBER.MYGROUP.ACCOUNT
   95   This matching line is the 95th record in the file.
```

10000 This matching line is the 10,000th record in the file.

325089 HP Search overrides right justification if necessary.

For standard numbered and COBOL-numbered files, the first five columns contain the implied whole part of the number (that is, the first five digits for standard numbered files and the first three digits for COBOL-numbered files). If the last three digits are other than "000", a decimal point is placed in column 6 and the implied decimal portion is placed in the next three columns; otherwise, columns 6 through 9 are blank. For example:

FILE STDNUM.MYGROUP.ACCOUNT

0.001 This is the smallest valid standard number.

10 This line in STDNUM contains "00010000" in the last 8 columns.

10.1 This line in STDNUM contains "00010100" in the last 8 columns.

FILE COBOLNUM.MYGROUP.ACCOUNT

0.001 This is the smallest valid COBOL number.

10 This line contains "010000" in columns 1 through 6.

999.999 This is the largest COBOL line number allowed.

KSAM files that have a record length of 86 bytes and contain numbers in columns 81 through 86 are considered to be COBOL copy library files. The numbers in columns 81 through 86 are treated as line numbers within the member. HP Search prints the member name, found in columns 73 through 80, after the line number. An example is shown below.

FILE COBLBNUM.MYGROUP.ACCOUNT

1 MODNAME1 This is the smallest valid coblib number.

10000 MODNAME2 This line contains "010000" in the last six columns.

999998 MODNAME3 This line contains "999998" in the last six columns.

**NOTE** HP Search reads the first 10 lines of each file to determine its numbering type. If HP Search finds a record after the first 10 that is not the same numbering type as the first 10, that record and all records after it are treated as if they are unnumbered.

## File Name Listings

If you specify the SEARCHLOG option, HP Search prints the fully qualified file names of the files searched, one per line, to the output file given as the SEARCHLOG argument. If you specify \$STDLIST as the output file argument, HP Search displays the names of the files searched *and* saves them in the temporary output file SRCHLOG. When displaying the SEARCHLOG information on your terminal screen, HP Search also prints the line "Files searched:" before printing the file names. The example below shows output to the terminal screen.

Files searched:

FILE1.MYGROUP.ACCOUNT

FILE2.MYGROUP.ACCOUNT

MYFILE1.MYGROUP.ACCOUNT

MYFILE2.MYGROUP.ACCOUNT

If you specify the MATCHLOG option, HP Search prints the fully qualified file names of the files

containing lines that match the given patterns. These file names are printed in the same format found in SEARCHLOG output files. If you specify \$STDLIST as the output file argument for MATCHLOG, HP Search displays the names of the files with matching lines *and* saves these names in the temporary output file SRCHMTCH. When displaying the MATCHLOG information on your terminal screen, HP Search prints the line "Files with matches:" before printing the file names.

## Output from Subsystem Breaks

To interrupt a search in progress, press "Control-y". When you do this, HP Search will print one of the following three message types:

- 1 Beginning search on first file.
- 2 Beginning search in file MYFILE.MYGROUP.ACCOUNT
- 3 Currently searching file MYFILE.MYGROUP.ACCOUNT, line nnn

This message will be followed with the prompt:

Press [RETURN] to continue or type "n" to exit.

If you stop a search with Control-y and do not resume searching to conclusion, HP Search creates the SRCHPAT, SRCHLOG, and SRCHMTCH files with all of the information processed at the time of the Control-y. HP Search redirects the output to those files specified in the PATTERNLOG, SEARCHLOG, or MATCHLOG options.

## The Indexing File

HP Search has an optional feature that streams a batch job to update the HP Search indexing file. The indexing file is SRCH*nnn*.PUB (where "*nnn*" is the system language number). It contains information that allows HP Search to avoid searching the areas in a file where a specified pattern cannot possibly reside. This information improves search performance by reducing the number of disc sectors that HP Search needs to look at, thus reducing the time needed to complete the search. Indexing information for all files specified is kept in one file. Information generated in later searches is added to this file.

## Advantage of Using Indexing

After placing information about your files in the indexing file, HP Search can look for patterns much faster than it could without the indexing file. For any search you specify, HP Search uses existing indexing information even if the INDEX option is not specified.

## How Indexing Works

Specifying the INDEX option on the command line applies to all files searched. The first time a file is searched, HP Search does not have indexes for the file, so it must look in every line for the patterns you have specified. After the search has been completed, HP Search determines which files need indexing and streams a batch job that updates the indexing file. HP Search updates the indexing file for the following types of files:

- Files that have never been indexed.
- Files that have been indexed but have since been modified.

You will be prompted for passwords before HP Search starts the batch job:

Streaming job to update indexes in SRCH*nnn*.PUB.

Enter account password:

If necessary, HP Search also prompts you for your user and account passwords before streaming the job. After the job has been submitted successfully, HP Search displays the job number on your terminal screen.

After HP Search updates the indexing file, future searches on the files indexed run about twice as fast as when they were initially searched. However, once these files are modified, they must be re-indexed before they will be searched this fast again. (This is because HP Search ignores the information in the indexing file for a specific file if that file has been modified since the indexing file was last updated.)

### **When to Use Indexing**

Because the job stream to update the indexes for a set of files takes twice as much CPU time as simply searching the files, many times you should not specify the INDEX option. *For the most efficient search performance, specify the INDEX option whenever you expect to search a file at least three times before modifying it.*



## 6 Error Messages and Their Causes

This section lists error messages that you may encounter while using HP Search, along with the most likely reason that the message will be issued.

NLS is not installed. (SRCHERR 10)

**CAUSE:** You specified a pattern that has "special" characters, and NLS must be configured on your system to process them.

**ACTION:** Either configure NLS on your system or don't include the following characters in your patterns: () [] | - + \* # @ ? or \.

Specified language is not configured. (SRCHERR 20)

**CAUSE:** The language HP Search is using to process your pattern has not been configured on your system.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required. Until this is resolved, do not include the following characters in your patterns:

() [] | - + \* # @ ? or \.

Indirect file FILENAME does not exist. (SRCHERR 30)

**CAUSE:** The indirect file "FILENAME" which was specified as "^FILENAME" does not exist in either the temporary or permanent file domains.

**ACTION:** Check your file directory for the correct name of the desired file.

Missing ) or ] operator in pattern "PATTERN." (SRCHERR 40)

**CAUSE:** The pattern you specified is invalid. It contains either a ( or [ without the corresponding matching delimiter.

**ACTION:** If you do not want the ( or [ to have special meaning, precede them with a backslash. If you do want the special meaning, the pattern must have a closing delimiter.

Expected alphabetic characters in pattern "PATTERN." (SRCHERR 50)

**CAUSE:** The pattern you specified does not have an alphabetic character where one is expected.

**ACTION:** Inspect your pattern to make sure it is correct. If it is, please contact HP support; investigation is required.

Pattern specified is incomplete, "PATTERN." (SRCHERR 60)

**CAUSE:** Usually this is caused by the "\*" or "+" characters in your pattern not being preceded by a valid repeatable character. For example, "a\*" is invalid.

**ACTION:** Inspect your pattern to make sure it is correct. If it is, please contact HP support; investigation is required.

Invalid range operation specified in pattern "PATTERN." (SRCHERR 70)

**CAUSE:** The range you have specified with the hyphen (-) is not between a valid pair. The first character must be lower than the second. For example, "a-z" is valid but "z-a" is not.

**ACTION:** In most cases, simply reverse the characters on either side of the hyphen.

Could not open indirect file FILENAME. (SRCHERR 80, FSERR nnn)

**CAUSE:** The indirect pattern file "FILENAME", specified as "^FILENAME" exists, but could not be opened. The attempt to open the file resulted in file system error number *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Help command missing or misspelled. (SRCHERR 90)

**CAUSE:** This is an internal HP Search error.

**ACTION:** Please contact HP support; investigation is required.

Nested indirect file FILENAME not used. (SRCHERR 100)

**CAUSE:** A pattern in an indirect pattern file pointed to another indirect file. Only 1 level of indirect files is allowed for patterns. The search continues without using any patterns contained in "FILENAME".

**ACTION:** If you want the patterns in "FILENAME" to be searched for, specify "FILENAME" on the HP Search command line or at a pattern prompt.

Pattern exceeds 80 characters. Not used. (SRCHERR 110)

**CAUSE:** You specified a pattern that has more than 80 characters, which is the maximum number allowed.

**ACTION:** Modify the pattern to contain 80 characters or fewer.

Too many patterns. Only first 16 used. (SRCHERR 120)

**CAUSE:** You specified too many patterns for your search. The search will continue using only the first 16 valid patterns specified.

**ACTION:** Specify another search exclusively for the patterns not included in the first search.

Octal value out of valid character range in pattern "PATTERN." (SRCHERR 130)

**CAUSE:** One of your patterns contained a percent sign followed by one or more octal digits. These octal digits were outside the allowable range.

**ACTION:** Check the octal digit you specified against the one corresponding to the desired ASCII character. A valid range for characters is an octal value between 1 and 377. Also valid after the percent sign are the characters "x", "s", and "d".

Unrecognized character follows percent sign in pattern "PATTERN." (SRCHERR 140)

**CAUSE:** One of your patterns contained a percent sign followed by an unrecognized character. The pattern with a caret (^) pointing to the unrecognized character is displayed following the error message.

**ACTION:** Check the character after the percent sign and specify a valid one. A valid range for characters is an octal value between 1 and 377. Also valid after the percent sign are the characters "x", "s", and "d".

Pattern is too long for the NLMATCHINIT intrinsic, "PATTERN." (SRCHERR 160)

**CAUSE:** HP Search uses an intrinsic called NLMATCHINIT to preprocess the patterns you specify. One of the patterns you have entered is too long for this intrinsic.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required. A work-around is to shorten the specified pattern.

File FILENAME does not exist. (SRCHERR 180)

**CAUSE:** The file named "FILENAME" does not exist in either the temporary or permanent file domains and therefore cannot be searched.

**ACTION:** Check your file directory for the correct name of the desired file.

Could not open file FILENAME. (SRCHERR 190, FSERR nnn)

**CAUSE:** The file named "FILENAME" exists, but could not be opened. The attempt to open the file resulted in file system error number *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Lockword violation on file FILENAME. (SRCHERR 200)

**CAUSE:** The file named "FILENAME" could not be opened due to a missing or incorrect lockword.

**ACTION:** Provide the correct lockword.

Binary file FILENAME not processed. (SRCHERR 210)

**CAUSE:** The file named "FILENAME" is a binary file, and HP Search does not search binary files.

**ACTION:** Don't search binary files with HP Search.

Maximum indirect levels exceeded by file FILENAME. (SRCHERR 220)

**CAUSE:** Your search specification exceeded the eleven indirect levels allowed for file names. "FILENAME" is the indirect file that is beyond the exceeded limit. HP Search continued searching, without regard to "FILENAME".

**ACTION:** Specify another search exclusively for the files in "FILENAME".

Could not purge file FILENAME. (SRCHERR 230, FSERR nnn)

**CAUSE:** You specified the file "FILENAME" using the LIST, SEARCHLOG, MATCHLOG, or PATTERNLOG option and indicated that any existing file of that name should be overwritten. The overwrite was unsuccessful, and the file system error was *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Option specified requires filename argument. (SRCHERR 250)

**CAUSE:** You specified an option that requires an associated file name, and none was found.

**ACTION:** Provide a file name when you specify this option.

Error reading block ### of index file. (SRCHERR 260, FSERR nnn)

**CAUSE:** A call to the FREADDIR intrinsic failed.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Error writing block ### of index file. (SRCHERR 270, FSERR nnn)

**CAUSE:** A call to the FWRITEDIR intrinsic failed.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Could not open file used for indexing. (SRCHERR 280, FSERR nnn)

**CAUSE:** HP Search found files whose indexes were out-of-date and attempted to open a file to contain the names of these files. However, this file could not be opened due to file system error *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Could not stream indexing job. (SRCHERR 290, CIERR nnn)

**CAUSE:** After finding files whose indexes were out-of-date, HP Search built a job stream to re-index them. However, the job stream could not be started due to the command interpreter error *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Could not stream indexing job. (SRCHERR 300, FSERR nnn)

**CAUSE:** HP Search found files whose indexes were out-of-date and built a job stream to re-index them. However, the job stream could not be started due to the file system error *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Invalid indexing method ### found in FILENAME. (SRCHERR 310)

**CAUSE:** HP Search opened the HP Search index file "FILENAME" and found that it used an unsupported indexing method. The search will continue as if an index file did not exist and an index file update job will *not* be streamed.

**ACTION:** Be sure that you do not have an MPE file equation for SRCHnnn.PUB (nnn refers to the text language number) that pointed to an incorrect file. If "FILENAME" is an HP Search index file, it can be purged (subsequent searches will build a new file).

Could not open indexing job file FILENAME. (SRCHERR 320)

**CAUSE:** Job stream file "FILENAME" to update the HP Search index file could not be opened. This is probably due to a lack of available disk space.

**ACTION:** Purge unused files and retry the command. If this error still occurs, stop using the INDEX option until disk space is made available.

Could not open file for wildcard expansion. (SRCHERR 330, FSERR nnn)

**CAUSE:** HP Search expands wildcard file name specifiers by doing a LISTF to a temporary file. HP Search received the file system error *nnn* when attempting to open this file after executing the LISTF command on the file.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

LISTF error expanding fileset FILESET. (SRCHERR 340, CIERR nnn)

**CAUSE:** HP Search expands wildcard file name specifiers by doing a LISTF to a temporary file. HP Search received the command interpreter error *nnn* when attempting to execute the LISTF command on fileset FILESET.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

No files found in fileset FILESET. (SRCHERR 350)

**CAUSE:** LISTF showed no files in fileset FILESET.

**ACTION:** Check to make sure you correctly specified the desired fileset. Too many files in fileset FILESET. (SRCHERR 360)

**CAUSE:** HP Search expands wildcard file name specifiers by executing the LISTF command to a temporary file. The FILESET contained too many files. HP Search allocates space for 65,536 file names from LISTF.

**ACTION:** Specify another search exclusively for the files not output in this search.

LISTF file system error on fileset FILESET. (SRCHERR 370, FSERR nnn)

**CAUSE:** HP Search expands wildcard file name specifiers by executing the LISTF command to a temporary file. HP Search received the file system error *nnn* when attempting to execute LISTF.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

File equation error for LISTF output. (SRCHERR 380, CIERR nnn)

**CAUSE:** HP Search equates a file for the temporary file used by LISTF. HP Search received the command interpreter error *nnn* when attempting to equate files.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Unrecognized option: OPTION. (SRCHERR 390)

**CAUSE:** HP Search found the parameter "OPTION" in the option specification portion of the command line (after the WITH keyword) that is not a valid option.

**ACTION:** Use the MPE system command REDO to see if you properly delimited the options on the HP Search command line. Specify only HP Search options, which are listed in Chapter 3 of this guide.

Filename FILENAME is too long. (SRCHERR 400)

**CAUSE:** Requested file name "FILENAME" contains too many characters. The maximum allowed is eight characters.

**ACTION:** Specify a file name of eight characters or fewer.

No filenames and/or patterns were requested. (SRCHERR 410)

**CAUSE:** For a search operation at least one file name and one pattern must be requested. For an index update operation at least one file name must be requested.

**ACTION:** Specify at least one file name and one pattern to begin a search. Specify at least one file name to update the index block file.

File FILENAME already exists. Could not save. (SRCHERR 420)

**CAUSE:** The LIST, SEARCHLOG, MATCHLOG, or PATTERNLOG option output file already exists, and the REPLACE argument was not specified. This error only occurs when HP Search is run in batch mode, and a prompt to replace the file is not appropriate.

**ACTION:** If you want to overwrite this file, specify the REPLACE argument in the option that you specified "FILENAME".

Read error on file FILENAME. (SRCHERR 430, FSERR nnn)

**CAUSE:** A read error was detected on the file "FILENAME". HP Search received the file system

error number *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Write error on file FILENAME. (SRCHERR 440, FSERR *nnn*)

**CAUSE:** A write error was detected on file "FILENAME". HP Search received the file system error number *nnn*.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

File FILENAME is full. (SRCHERR 450)

**CAUSE:** The file "FILENAME" is full. Processing continues but the file will not have any more records written to it.

**ACTION:** Specify a file equation for the file so it is built larger, then re-execute the command.

File holding requested filenames is full. (SRCHERR 460)

**CAUSE:** HP Search stores the file names to be searched in a temporary file as they are input to the program. The file has been filled to capacity (approximately 2,250 file names). The search continued using the names that were output to the file. Note: File name @.@.@ is only one file name in this file.

**ACTION:** If possible, use LISTF wildcards to get more file names into the temporary HP Search file.

Could not open file to store requested filenames. (SRCHERR 470, FSERR *nnn*)

**CAUSE:** HP Search stores the file names to be searched in a temporary file. File system error number *nnn* was received when attempting to open the file.

**ACTION:** Refer to MPE system documentation to determine the nature of error number *nnn*.

Could not get attribute table. (SRCHERR 480)

**CAUSE:** HP Search failed its attempt to retrieve the NLS attribute table.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.

Could not get upshift table. (SRCHERR 490)

**CAUSE:** HP Search failed its attempt to retrieve the NLS upshift table.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.

Could not get downshift table. (SRCHERR 500)

**CAUSE:** HP Search failed its attempt to retrieve the NLS downshift table.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.

Unable to get data language. (SRCHERR 510)

**CAUSE:** HP Search failed its attempt to retrieve the NLS system data language.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.  
Unable to construct help catalog filename. (SRCHERR 520)

**CAUSE:** The native language intrinsic NLAPPEND failed.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.  
Internal NLS error, match failed. (SRCHERR 530)

**CAUSE:** This is an internal HP Search error. Please contact HP support; investigation is required.  
Unable to initial the input pattern, match failed. (SRCHERR 540)

**CAUSE:** The call to NLMATCHINIT failed.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.  
Unable to read catalog message nnn:nnn. (SRCHERR 550, nnn)

**CAUSE:** HP Search is trying to read a message from SHCAT000.PUB.SYS and it can not be found.

**ACTION:** This is usually caused by an incompatible program file and catalog. Make sure you are running the same versions. Submit an SR if the release had the incorrect catalog.  
Unable to get the user interface language; default used. (SRCHERR 560, nnn)

**CAUSE:** The system you are running on does not have NLS configured.

**ACTION:** No action necessary. HP Search defaults to Native-3000 (English).  
Unable to get the default language; NATIVE-3000 used. (SRCHERR 570, nnn)

**CAUSE:** The system you are running on does not have NLS configured.

**ACTION:** No action necessary. HP Search defaults to Native-3000 (English).  
Unable to construct the message catalog filename. (SRCHERR 580, nnn)

**CAUSE:** An error was returned from the NLAPPEND intrinsic.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.  
Unable to open message catalog: FILENAME. (SRCHERR 590, nnn)

**CAUSE:** The message catalog is either missing or unaccessable to HP Search.

**ACTION:** Make sure the file exists, make sure you have access to it, and make sure no file equations point you elsewhere.  
Message catalog is out-of-date. (SRCHERR 600)

**CAUSE:** The program file (HPSEARCH) is newer than the message catalog file (SHCAT000).

**ACTION:** Use the latest message catalog or an older version of the program file.  
Using the native-3000 catalog. (SRCHERR 610)

**CAUSE:** The message catalog for your system-configured language cannot be found.  
SCHAT000.PUB.SYS exists, and HP Search is using it.

**ACTION:** You need a catalog that matches the language configured for your system. For example, SHCAT001.PUB.SYS is the message catalog if your system language is 001 (American).

The record length is too long for file FILENAME. Only searching first ### characters. (SRCHERR 620)

**CAUSE:** The file's record length is longer than HP Search can process. If you are using a file with variable-length records, this message is displayed if the physical record length is too long, even if no logical record is too long. No truncation occurs if this is the case.

**ACTION:** If searching the first ### characters of each record is not acceptable, then reduce the size of the record length.

Invalid pattern or pattern too long to be processed, "PATTERN." (SRCHERR 630)

**CAUSE:** The pattern specified is invalid. The pattern may contain a ( or [ without the matching right ) or ]. Or, a \* or + character in your pattern may be preceded by an invalid repeatable character. For example, a\*\* is invalid.

**ACTION:** Check your pattern to make sure it is valid.

Could not create the help catalog FILENAME. (SRCHERR 640)

**CAUSE:** When HP Search was creating the help catalog filename using the NLAPPEND intrinsic, the intrinsic failed.

**ACTION:** This is an internal HP Search error. Please contact HP support; investigation is required.

%1, %2, %3, and %4 are currently not supported in pattern "PATTERN." (SRCHERR 650)

**CAUSE:** HP Search cannot process these binary values.

**ACTION:** Remove the binary value from your pattern.