NAME

grep, egrep, fgrep — search a file for a pattern

SYNOPSIS

grep [option] ... expression [file] ...

egrep [option] ... [expression] [file] ...

fgrep [option] ... [strings] [file]

DESCRIPTION

Commands of the *grep* family search the input *files* (standard input default) for lines matching a pattern. Normally, each line found is copied to the standard output. *Grep* patterns are limited regular expressions in the style of *ed*(1); it uses a compact non-deterministic algorithm. *Egrep* patterns are full regular expressions; it uses a fast deterministic algorithm that sometimes needs exponential space. *Fgrep* patterns are fixed strings; it is fast and compact. The following options are recognized:

−v   All lines but those matching are printed.

−x   (Exact) only lines matched in their entirety are printed (*fgrep* only).

−c   Only a count of matching lines is printed.

−l   Only the names of files with matching lines are listed (once), separated by new-lines.

−n   Each line is preceded by its relative line number in the file.

−b   Each line is preceded by the block number on which it was found. This is sometimes useful in locating disk block numbers by context.

−e *expression*

Same as a simple *expression* argument, but useful when the *expression* begins with a −.

−f *file* The regular expression (*egrep*) or string list (*fgrep*) is taken from the *file*.

In all cases, the file name is output if there is more than one input file. Care should be taken when using the characters $, *, [, ^, |, (,), and \ in *expression*, because they are also meaningful to the shell. It is safest to enclose the entire *expression* argument in single quotes ´...´.

Fgrep searches for lines that contain one of the *strings* separated by new-lines.

Egrep accepts regular expressions as in *ed*(1), except for \(and \), with the addition of:

1.   A regular expression followed by + matches one or more occurrences of the regular expression.

2.   A regular expression followed by ? matches 0 or 1 occurrences of the regular expression.

3.   Two regular expressions separated by | or by a new-line match strings that are matched by either.

4.   A regular expression may be enclosed in parentheses () for grouping.

The order of precedence of operators is [ ], then * ? +, then concatenation, then | and new-line.

SEE ALSO

ed(1), sed(1), sh(1).

DIAGNOSTICS

Exit status is 0 if any matches are found, 1 if none, 2 for syntax errors or inaccessible files.

BUGS

Ideally there should be only one *grep*, but we don't know a single algorithm that spans a wide enough range of space-time tradeoffs.

Lines are limited to 256 characters; longer lines are truncated.

Egrep does not recognize ranges, such as [a-z], in character classes.