

NAME

diff — differential file comparator

SYNOPSIS

diff [-efbh] file1 file2

DESCRIPTION

Diff tells what lines must be changed in two files to bring them into agreement. If *file1* (*file2*) is *-*, the standard input is used. If *file1* (*file2*) is a directory, then a file in that directory whose file-name is the same as the file-name of *file2* (*file1*) is used. The normal output contains lines of these forms:

```
n1 a n3, n4
n1, n2 d n3
n1, n2 c n3, n4
```

These lines resemble *ed* commands to convert *file1* into *file2*. The numbers after the letters pertain to *file2*. In fact, by exchanging 'a' for 'd' and reading backward one may ascertain equally how to convert *file2* into *file1*. As in *ed*, identical pairs where $n1 = n2$ or $n3 = n4$ are abbreviated as a single number.

Following each of these lines come all the lines that are affected in the first file flagged by *<*, then all the lines that are affected in the second file flagged by *>*.

The *-b* option causes trailing blanks (spaces and tabs) to be ignored and other strings of blanks to compare equal.

The *-e* option produces a script of *a*, *c* and *d* commands for the editor *ed*, which will recreate *file2* from *file1*. The *-f* option produces a similar script, not useful with *ed*, in the opposite order. In connection with *-e*, the following shell program may help maintain multiple versions of a file. Only an ancestral file (\$1) and a chain of version-to-version *ed* scripts (\$2,\$3,...) made by *diff* need be on hand. A 'latest version' appears on the standard output.

```
(shift; cat $*; echo '1,$p') | ed - $1
```

Except in rare circumstances, *diff* finds a smallest sufficient set of file differences.

Option *-h* does a fast, half-hearted job. It works only when changed stretches are short and well separated, but does work on files of unlimited length. Options *-e* and *-f* are unavailable with *-h*.

FILES

```
/tmp/d????
/usr/lib/diffh for -h
```

SEE ALSO

cmp(1), comm(1), ed(1), bdiff(1), diff3(1)

DIAGNOSTICS

Exit status is 0 for no differences, 1 for some, 2 for trouble.

BUGS

Editing scripts produced under the *-e* or *-f* option are naive about creating lines consisting of a single . .