

NAME

diff – differential file comparator

SYNOPSIS

diff [**-efb**] name1 name2

DESCRIPTION

Diff tells what lines must be changed in two files to bring them into agreement. If *name1* (*name2*) is ‘–’, the standard input is used. If *name1* (*name2*) is a directory, then a file in that directory whose file-name is the same as the file-name of *name2* (*name1*) 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 file *name1* into file *name2*. The numbers after the letters pertain to file *name2*. In fact, by exchanging ‘a’ for ‘d’ and reading backward one may ascertain equally how to convert file *name2* into *name1*. 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 file *name2* from file *name1*. 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.

```
(cat $2 ... $9; echo ‘1,$p’) | ed – $1
```

Except for occasional ‘jackpots’, *diff* finds a smallest sufficient set of file differences.

FILES

/tmp/d????

SEE ALSO

cmp(I), comm(I), ed(I), uniq(I)

DIAGNOSTICS

‘jackpot’ – To speed things up, the program uses hashing. You have stumbled on a case where there is a chance that this has resulted in a difference being called where none actually existed. Sometimes reversing the order of files will make a jackpot go away.

BUGS

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