## NAME

add - full-screen editing calculator

## USAGE

add [options] [file-specifications]

## SYNOPSIS

Add is a fixed-point calculator that operates as a full-screen editor.

## DESCRIPTION

Add performs fixed-point computation. It is designed for use as a checkbook or expense-account balancing tool.

Add maintains a running result for each operation. You may scroll to any position in the expression list and modify the list. Enter data by typing numbers (with optional decimal point), separated by operators.

An output transcript may be saved and reloaded for further editing. Scripts are loaded from left to right (with the "output" processed first).

## OPTIONS

Command line options of add are:
-h Prints the list of options.
-i interval
Sets compounding interval for interest computation.

- $\mathbf{o}$ script

Specify file in which to save output transcript.
-p num Sets precision (number of digits after the decimal place).

## OPERATIONS

Computations:
The operators are all single-character:
$+\quad$ begins an addition

- begins a subtraction
~ negates the result
* begins a multiplication
/ begins a division
\% begins an interest computation (uses interval): rate=number.
\$ begins a sales-tax computation: rate=number.
( opening parenthesis. This may enclose a unary ' - ', more parentheses, or data (implicit unary ' + ').
) closing parenthesis, expects another operator, not data.
$=\quad$ flushes out the current number, forces re-computation of the running result.
w increases the width used for numbers by one column up to a platform-specific value.
W decreases the width used for numbers by one column, down to a minimum of 6 .
A space flushes out the current number-input, and (by default) sets the next operator to be the same as the current one. You may repeat the last arithmetic operation of any type:
a repeats the last ' + ' (default 0$)$.
s repeats the last ' - ' (default 0 ).
n repeats the last ${ }^{\prime} \cdots$.
m repeats the last ${ }^{\prime}{ }^{\prime}$ ' (default 1 ).
d repeats the last ' $/$ ' (default 1 ).
i repeats the last '\%' (default 4).
t repeats the last '\$' (default 4).
You may toggle the prefix operator of any number by typing a single character:
A toggles the operator to ' + '.
$\mathbf{S}$ toggles the operator to ' - '.
N toggles the operator to ${ }^{, \sim}$.
M toggles the operator to ${ }^{\prime}{ }^{*}$ '.
D toggles the operator to ' $/$ '.
I toggles the operator to ' $\%$ '.
T toggles the operator to '\$'.


## Editing:

As you enter data, you may edit it. A backspace deletes the last digit of the current number (if it is visible). Use the arrow keys or vi-style ' $h$ ' and 'l' to move left and right within the line. Other editing commands include
$\mathbf{u} \quad$ undoes the last $\mathrm{x} / \mathrm{X}$ command (restricted to restoring the current data only).
$\mathbf{x}$ deletes the current data. If the data is null, deletes the following line.
$\mathbf{X}$ deletes the current data. If the data is null, deletes the preceding line and moves up.
o opens a new line after the current line.
O opens a new line before the current line.
\# edit the associated comment.
An "open" permits you to insert a new operator and data into the expression list. You may type an operator character (e.g., ' + '), and continue with the new data, or an operator-repeat (e.g., 'A'). In either case, you may edit the new data, just as you would the old data. A 'u' (or other toggle, such as 'o', 'O', or 'q') typed after an open will undo the open (and close it).

## Scrolling/cursor movement:

H move to the top line on the screen.
M move to the middle line on the screen.
$\mathbf{L} \quad$ move to the last line on the screen
CTL/F scroll forward one screen.
CTL/B scroll backward one screen.
j move forward one line.
k move backward one line.
$\mathbf{z}<\mathbf{C R}>$ move the current line to the top of the screen.
z. move the current line to the middle of the screen.
z- move the current line to the bottom of the screen.
Like vi, add allows you to jump to a particular line with a ":" command
:\$ jumps to the last entry
:1 jumps to the first entry.

## Scripts:

Transcript files are formatted to permit line-oriented entries:

```
<operator><value><blank><ignored><blank># comment
```

The transcripts saved by add contain the running result in the "ignored" part. To exit without saving a transcript, type 'Q'. A normal exit, by typing ' $q$ ', saves the list of operators, data (and running result) in the specified file.
You can read and write scripts without leaving add.
:e file clears the current script and reads a script from the file.
:f shows the current script name.
:r file reads a script at the current entry
:w file writes a script to the specified file.

## ENVIRONMENT

Add runs in a portable UNIX® environment.

## FILES

Add is a single binary module, with a help file add.hlp installed in the same directory.

## FUTURE WORK

It would be nice to be able to change the precision within the program. In particular, the interest and sales tax computations would be more useful if their precision was independent of the running total.

## AUTHOR

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## SEE ALSO

```
wc (1), vi (1)
```

